

Introduction to Moody's Analysis of Securitization Transactions and Structures

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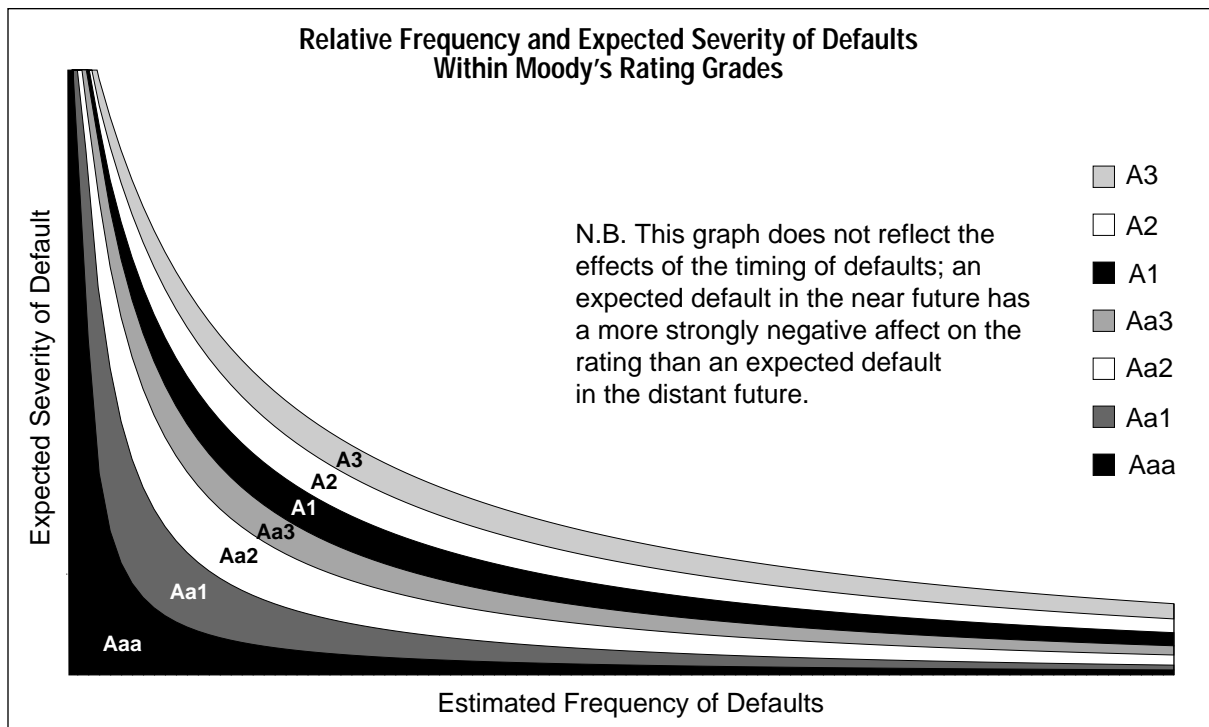
I. THE MEANING OF A MOODY'S RATING: BOTH FREQUENCY AND SEVERITY

Taken from a speech by Mark H. Adelson, Senior Analyst, to the Canadian Institute Conference on Recent Developments in Asset Securitization, April 2, 1993.

A Moody's rating is an expression of Moody's opinion about the likelihood of full and timely payment on a rated security. The rating is not an expression with regard to the total risk associated with a security. A Moody's rating does not address, for example, market value risks arising from interest rate fluctuations or prepayments. A Moody's rating is also not an expression of the investment merit of a particular security; depending on the prices at which different securities are available, a lower rated security may have greater investment merit than a more highly rated one.

A Moody's rating on a long-term security reflects Moody's opinion about the joint effect of the *frequency* and the *severity* of expected future defaults on that security. In this regard, Moody's ratings differ from the ratings of certain other rating agencies which consider only the frequency of expected defaults. Within any Moody's rating category, there is a significant degree of possible trade-off between frequency and severity. Even a security with a high expected frequency of default but a low expected severity of default can theoretically receive a high-investment-grade rating. For example, if a given security with a maturity of five years has an expected frequency of default of 50% (i.e., the odds are 50:50 that the security will default) and an expected severity of default of 0.001% on the final payment (i.e., an expected loss of one dollar on each \$100,000 of par amount), the security may be eligible for a rating of **Aaa**. In the example, the small expected severity of default significantly outweighs the high expected frequency of default. The following graph illustrates the relative trade-off between frequency and severity at different rating grades:



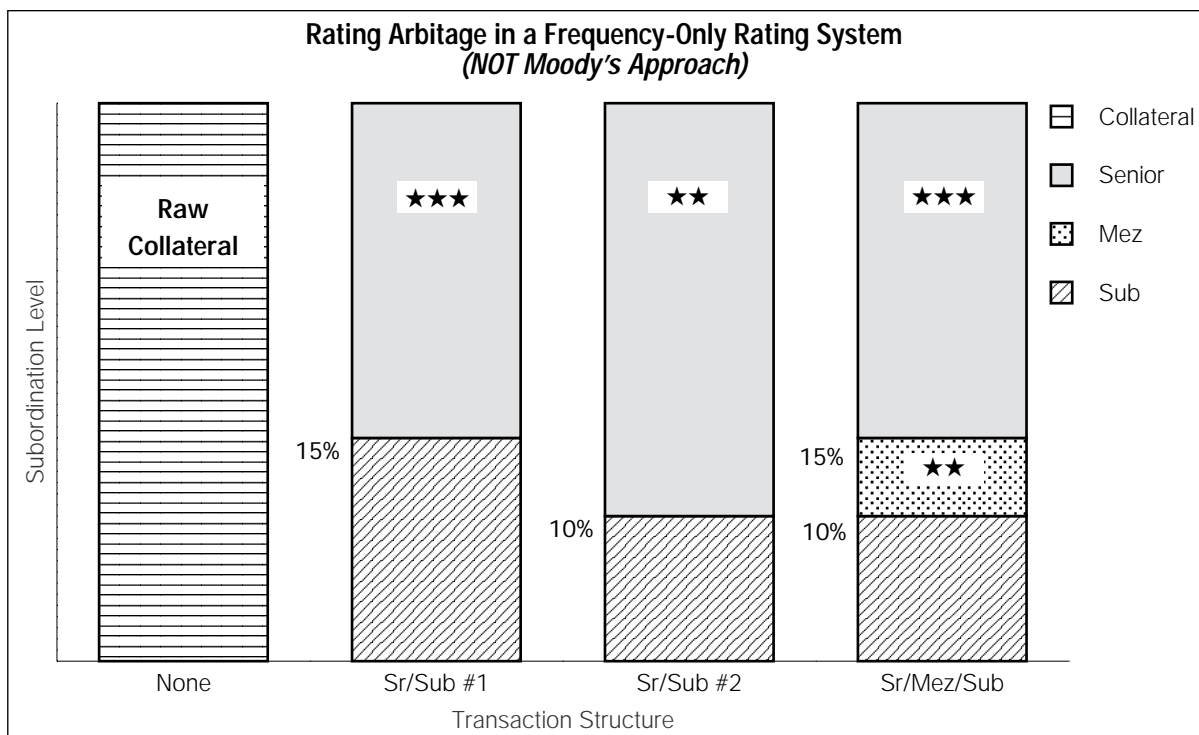


In the most technical sense, a Moody's rating expresses Moody's opinion of the amount by which the internal rate of return (IRR) on a diversified portfolio of similarly rated securities would be reduced as a result of defaults on the securities, assuming that all the securities are held to maturity regardless of any changes in the ratings. For example, a diversified portfolio of securities rated **Aaa** at the time of purchase and held to maturity regardless of any changes in the ratings is expected to suffer a reduction in realized yield of 0.0006 percentage points (i.e., six one hundredths of a basis point) as a result of defaults.

Moody's expects that two diversified portfolios of structured finance securities with the same rating should have roughly the same expected change in IRR caused by credit losses. In addition, those changes in IRR from credit losses should be roughly comparable to the changes in IRR from defaults on portfolios of traditional corporate bonds. (In general, structured finance securities are viewed as having a higher frequency of default and a lower expected severity of default than similarly rated traditional securities.) The higher the rating, the smaller the expected reduction in yield resulting from credit losses. The estimation of the expected change in IRR caused by credit losses is based on the frequency, severity, and expected timing of credit losses.

Because a Moody's rating addresses both frequency and severity while certain other rating agencies' ratings cover only frequency, the ratings do not represent two opinions about the same thing but rather two opinions about two different things.

The difference between Moody's frequency-and-severity approach and certain other rating agencies' frequency-only approach accounts for the lower ratings that Moody's occasionally assigns to certain mezzanine classes of securities. Although the frequency of defaults in a mezzanine class may be sufficiently small that it is consistent with a high-investment-grade rating from another rating agency, the increased expected severity of loss in the mezzanine class may require Moody's to assign a relatively lower rating to that class.



Consider the following example: Suppose a hypothetical rating agency, called Acme, uses a frequency-only rating approach and uses the symbols **★★★★** and **★★** to identify, respectively, its highest and second highest rating categories. Assume that Acme evaluates a pool of collateral for purposes of a proposed securitization using a basic senior-subordinated structure. Acme determines that a certain subordination level (e.g., 15%) will produce a **★★★★** rating on the senior tranche while a lower subordination level (e.g., 10%) would produce only a **★★** rating on the senior tranche.

In response to Acme's determination of the **★★★★** and **★★** subordination levels, the sponsor of the transaction proposes to employ a senior-mezzanine-subordinated structure with the subordinated tranche sized at the 10% level and a mezzanine tranche equal to the difference between the 15% and the 10% subordination levels. The following chart illustrates the various permutations:

Based on Acme's frequency-only rating approach, the mezzanine tranche should receive the same **★★** rating as the senior tranche in the second senior-subordinated structure with a subordination level of 10%.

Next, assume that the 15% subordination level is exactly sufficient to permit Moody's to assign a **Aaa** rating to the senior class in a basic senior-subordinated transaction and that the 10% subordination level is exactly sufficient to permit Moody's to assign a **Aa2** rating to the senior class in the same type of transaction. If the sponsor of the transaction elected to use a senior-mezzanine-subordinated structure based on the 15% and the 10% subordination levels, Moody's might not assign a **Aa2** rating to the mezzanine class. Under Moody's frequency-and-severity approach, the concentrated severity of losses in the mezzanine class, if the level of losses exceeded the size of the subordinated class, might be inconsistent with a **Aa2** rating. Moody's might assign a rating one or two notches lower to the mezzanine class (i.e., a rating of **Aa3** or **A1**).

Another important distinguishing feature of Moody's frequency-and-severity approach is that it does not permit arbitrage of the ratings. In the preceding example of a frequency-only rating approach, if an investor purchased the senior class in the second senior-subordinated structure, the rating on that investment would be simply ★★. However, if the investor purchased both the senior class and the mezzanine class in the senior-mezzanine-subordinated structure, the weighted average rating on the aggregate investment would be between ★★ and ★★★ (e.g., an \$85 investment in a ★★★ rated security and a \$5 investment in a ★★ rated security). Under Moody's frequency-and-severity approach, assuming that the rating assigned to the senior class in the first senior-subordinated structure would be **Aa2**, the weighted average rating of the aggregate investment in the senior class and the mezzanine class of the senior-mezzanine-subordinated structure would also have to be **Aa2**. Illusory credit strength cannot be created out of thin air under Moody's frequency-and-severity approach.

II. APPROACHES FOR DETERMINING THE LEVEL OF CREDIT ENHANCEMENT FOR ACHIEVING A PARTICULAR RATING

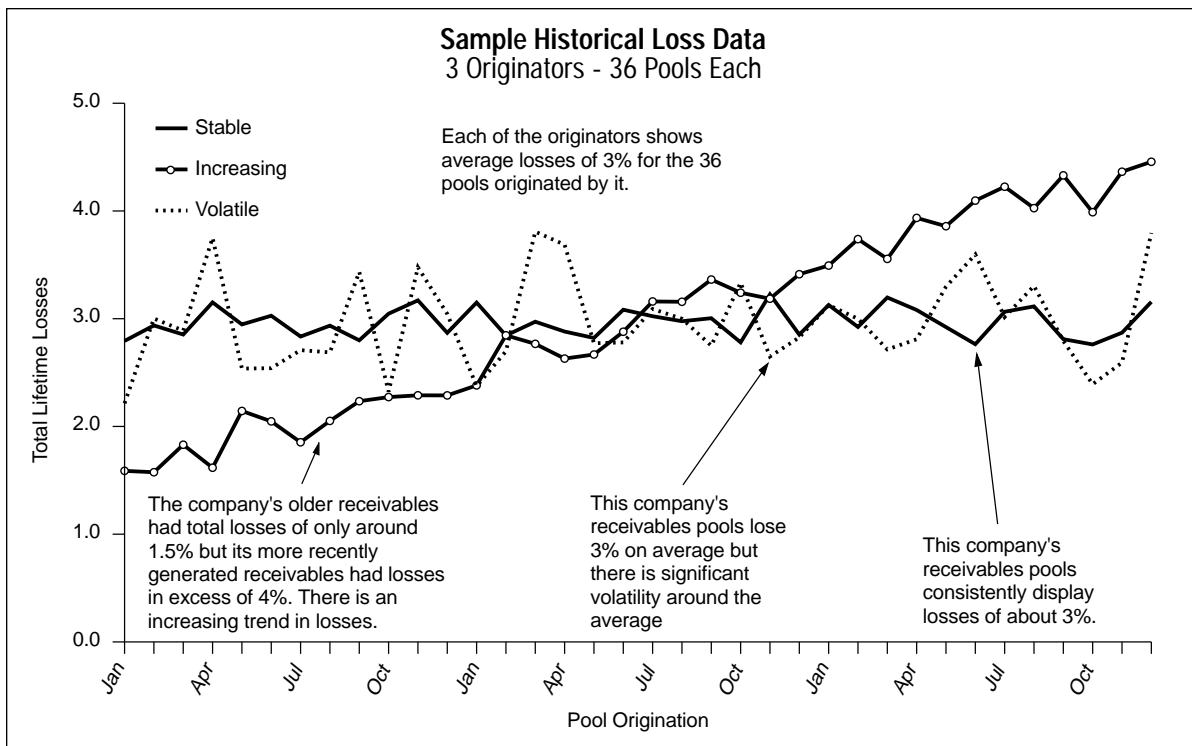
The determination of how much credit enhancement is necessary to achieve a specified rating for a proposed securitization transaction is based on the estimation of the frequency, severity, and timing of future losses on the underlying receivables.¹ In general, Moody's uses two approaches for estimating the frequency and severity of future losses. The first approach is based on the analysis of historical data about the underlying receivables; the second is based on the credit strength of the obligors on the underlying receivables.

A. Use of Historical Data for Estimating Future Losses

Under the first approach, Moody's examines and analyzes historical data about the performance of the specific receivables to be securitized or similar receivables that reasonably serve as a proxy for the specific receivables to be securitized. Under ideal conditions, the sponsor of a proposed securitization transaction would furnish Moody's with abundant historical data about the performance of (1) the specific receivables to be securitized, (2) similar receivables originated by the same originator and serviced by the same servicer, and (3) all similar receivables on an industry-wide basis.² However, except for the securitization of seasoned residential mortgage loans, the ideal case does not exist. Most of the time, the only data available relates to the historical performance of similar receivables previously generated by the same originator.

1 Examples of receivables used in securitization transactions include mortgage loans, automobile loans, revolving credit card accounts, equipment lease receivables, small business loans, and short-term trade receivables.

2 With respect to residential mortgage loans in the U.S., the U.S. Federal Housing Administration has accumulated vast quantities of performance data spanning many decades. Mortgage securitization benefits greatly from the existence of that performance data because it provides a valuable background against which a particular originator's performance data can be critically evaluated. The securitization of other assets is more challenging because there generally is not similar industry-wide data spanning many decades and economic cycles. The absence of industry-wide data with respect to most types of non-mortgage assets makes it more difficult to draw as precise inferences from the data provided by a single originator.

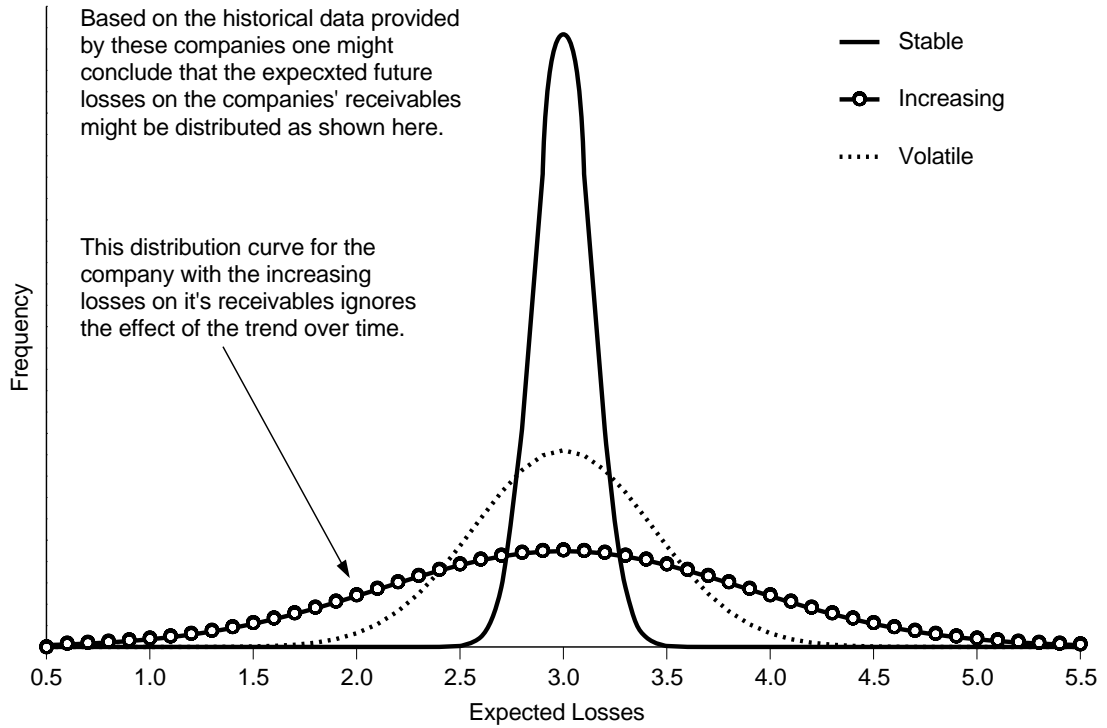


In analyzing most non-mortgage securitizations, Moody's first step is to calculate sample statistics with respect to losses. In the simplest case, the sample mean of cumulative lifetime losses³ can serve as a meaningful measure of the central tendency of historical losses. Similarly, the sample standard deviation of cumulative lifetime losses can serve as a starting point for understanding the volatility of historical losses.

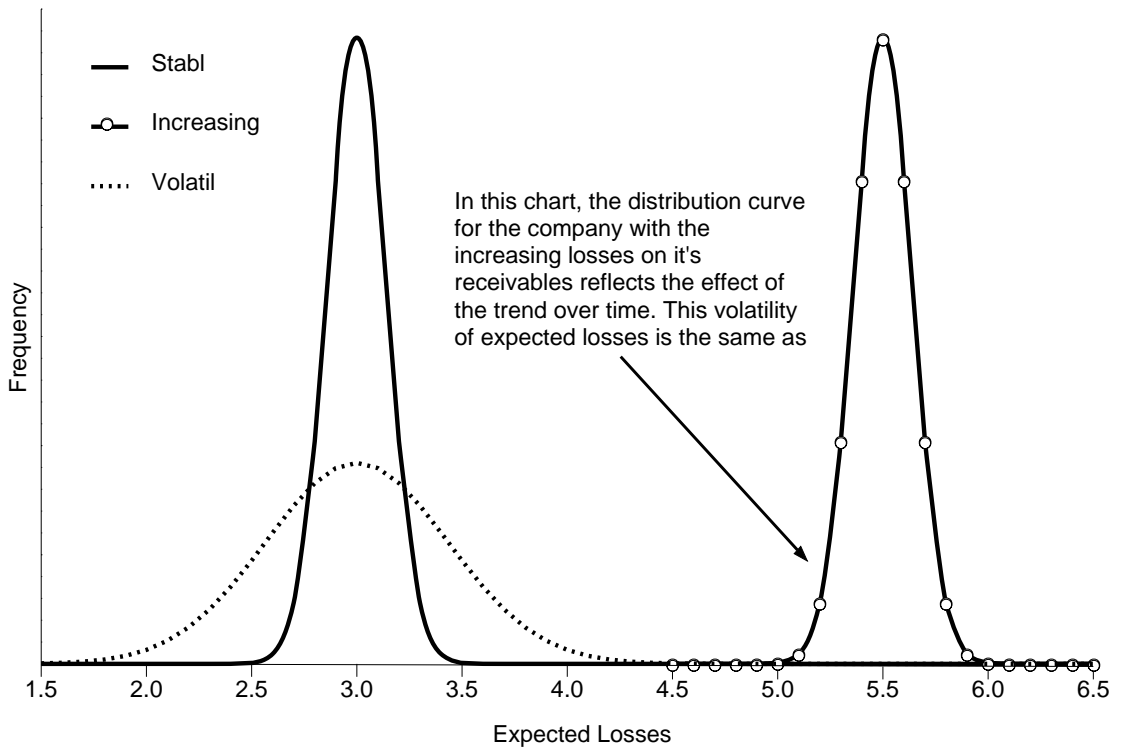
However, the sample mean of historical losses might not necessarily serve as the best estimator of future losses. For example, if historical losses display an improving or worsening trend, it may be appropriate to make an adjustment to reflect the direction of the trend. Similarly, if the manner in which historical losses are reported creates a bias or distortion, another adjustment may be appropriate.

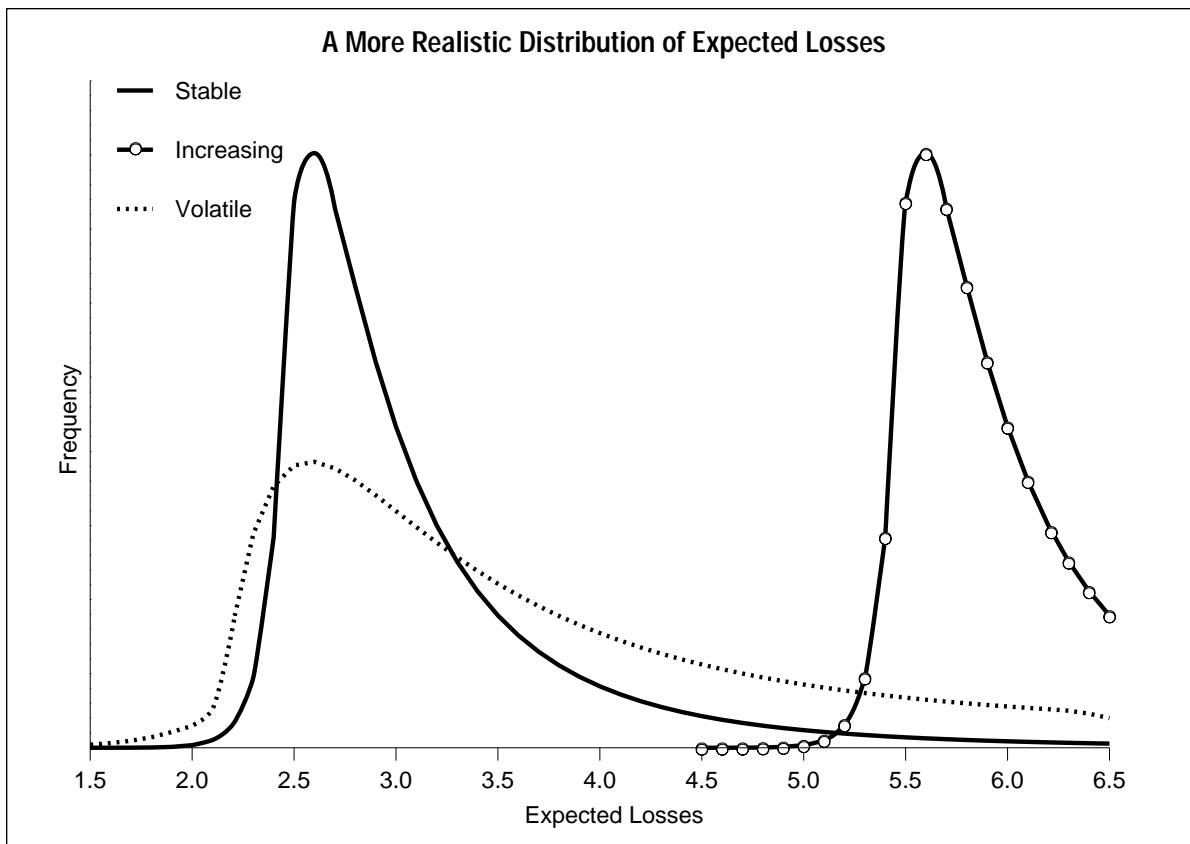
³ Cumulative lifetime losses on the receivables often are reported as a percentage of the original principal balance of the receivables. In calculating the sample mean of cumulative lifetime losses, it is desirable to have a data sample including multiple pools of receivables generated over an extended period of time.

A Possible Distribution of Expected Losses



A Better Distribution of Expected Losses





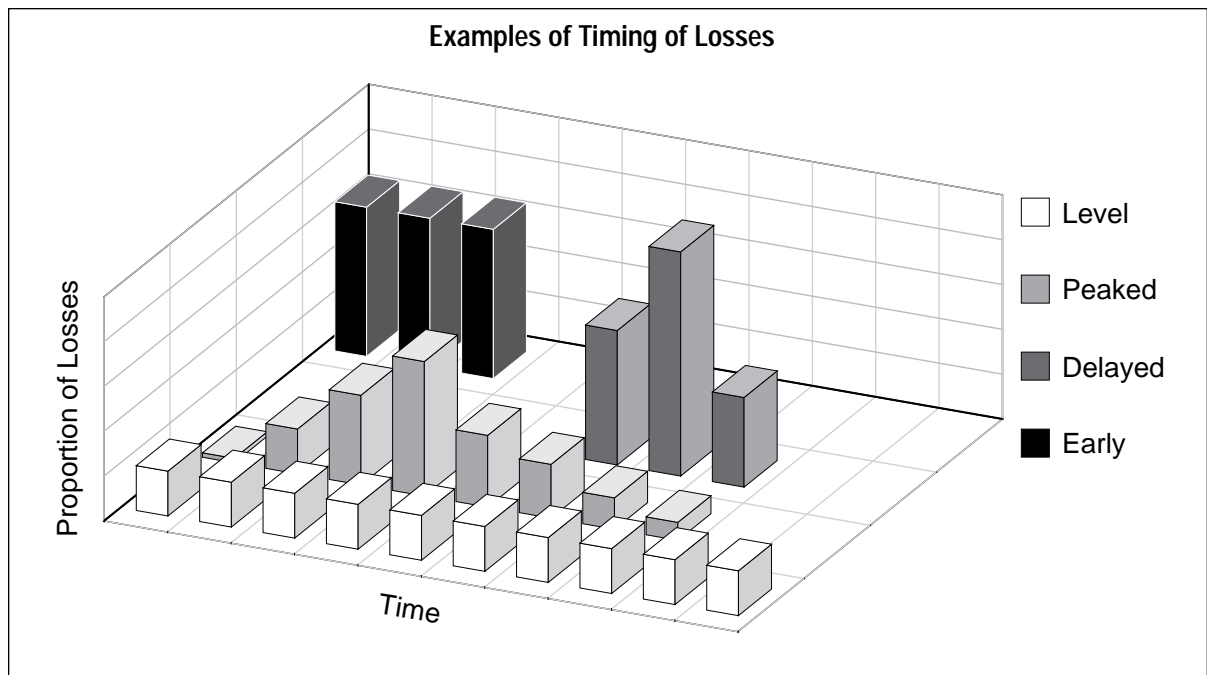
The adjustments to the sample mean of historical losses can result in a useful point estimator of future losses, but a point estimator is not solely sufficient for purposes of Moody's analysis. Moody's focuses also on the potential volatility of future losses.⁴ The sample standard deviation of historical losses is a convenient point estimator of the variability of future losses and can be used to generate a traditional confidence interval for future losses.

However, the inherent weakness of that approach for assessing the volatility of future losses is that losses are not a physical phenomenon and are not necessarily normally distributed. Accordingly, inferences or confidence intervals based on the characteristics of the probability density function of the normal distribution might be incorrect or misleading.

On the other hand, the ratings process is not purely mathematical and scientifically rigorous. Therefore, Moody's generally uses the sample standard deviation of historical losses as a starting point for assessing the potential volatility of future losses despite the possible non-normality of losses. However, when estimating confidence intervals of future losses, Moody's may adjust the value of the standard deviation to reflect special circumstances such as known problems with the historical data or expected fundamental changes or possible disruptions in the originator's or servicer's business.

In essence, the goal of Moody's analysis of historical data is to infer a probability density function for future losses – that is, Moody's tries to estimate the frequency (probability) with which future losses will occur at different levels of severity. Moody's considers the possible correlation between the performance of receivables and the solvency or insolvency of the originator or servicer.

⁴ Moody's does not determine necessary levels of credit enhancement through the use of multiples of expected future losses. In Moody's view, that approach can result in too much credit enhancement when the point estimator of future losses is large and the expected variability of future losses is very small. Similarly, that approach can result in too little credit enhancement when the point estimator of future losses is small and the expected variability of future losses is large.



A further step in Moody's analysis of historical data relates to the timing of the realization of losses during the life of a pool of receivables. For purposes of determining the impact of a loss, it may be significant whether the loss occurs very early in the life of the receivables pool or at its scheduled maturity. Moody's tries to infer a "loss curve" for the subject receivables. The loss curve reflects what proportion of all losses are realized at different stages over the life of the receivables pool.

By weighting separate scenarios based on the loss curve, Moody's can combine the loss curve with the estimates of the frequency and severity of future losses on the receivables. The end result is an overall estimate of the total expected negative effect on IRR at different levels of credit enhancement.

This approach for determining levels of credit enhancement works best when the receivables are highly diversified and there is a substantial amount of historical data. Because the approach is essentially statistical, its use is limited to circumstances in which inferences about the future can appropriately be drawn through statistics based on the past. For example, if an originator of receivables has recently made material changes in its credit underwriting guidelines, it may be more difficult to draw meaningful inferences about the future performance of recently generated receivables based on the historical performance of receivables generated under the original guidelines. Similarly, if the fundamental nature of an originator's business has changed, or if the originator has expanded or shifted its operations into new regions or markets, the utility of statistics derived from historical performance data diminishes.

When the reliability or quality of estimates of future losses is suspect, it still may be possible to use those estimates, but it may also be appropriate to add a conservative bias to the credit enhancement level. If losses were perfectly predictable, the process of setting credit enhancement would be an exact science. Because losses have inherent volatility and are not perfectly predictable from historical data, it is necessary for credit enhancement to address that volatility to a degree consistent with the desired rating.

B. Determining Overall Credit Risk Based on the Credit Strength of Individual Underlying Obligor

The second approach for estimating the frequency and severity of future losses (and determining the level of credit enhancement necessary to achieve a desired rating level) is based on the credit strength of the individual underlying obligors on the specific receivables to be securitized. In general, this approach is most appropriate in the analysis of proposals for pooling corporate bonds, corporate loans, or other receivables payable by corporations. In the simplest case, all the receivables are payable by obligors that have been rated by Moody's. In that case, the Moody's ratings are used as direct measures of each obligor's credit strength. If an obligor has not been rated by Moody's, Moody's makes a conservative assumption about that obligor's credit strength and generally treats such an obligor as if it had a weak, speculative-grade rating.

This approach assumes that defaults generally are not correlated across obligors in different industries, but that defaults may be correlated across obligors in the same industry.

In applying this approach, Moody's uses its published guidelines to determine the weighted average rating of the receivables and to assign a "diversity score" based on the dispersion of obligors across different industries.⁵ It is then possible to use Moody's published tables to determine the level of credit enhancement necessary to achieve any specified rating level.

If the circumstances of a certain transaction do not permit the convenient usage of Moody's published guidelines and tables, Moody's uses a computer simulation to estimate the frequency and severity of future losses on the pool of receivables. In the simulation, each obligor's rating is converted into a default probability for that obligor. Moody's uses a uniform and conservative assumption about the severity of default for all full-recourse, senior, unsecured corporate debt obligations. In the case of other classes or types of obligations, an adjusted severity assumption may be used.

Each iteration of the simulation process starts by generating a random number in each period for each obligor. Each random number determines whether the corresponding obligor is deemed to have defaulted on its receivables. If an obligor is deemed not to have defaulted, there is no loss. If an obligor is deemed to have defaulted, the amount of the loss is determined by the applicable severity assumption.

Each iteration of the simulation then accumulates losses for all obligors for all periods and determines the reduction in IRR, if any, that would result from the simulated losses at various levels of credit enhancement. After many iterations of the simulation are performed, a frequency distribution is obtained. From that frequency distribution, it can be determined how much credit enhancement is necessary to achieve different rating levels.

This approach for determining the level of credit enhancement necessary to achieve a desired rating for a transaction has the advantage of not relying on historical data provided by the sponsor of the proposed transaction or by the originator of the receivables. Accordingly, even a company that does not have historical data might securitize assets under this approach.

⁵ For a more technical discussion of Moody's approach for evaluating pooled corporate obligations see Lucas, Kirnon and Moses, *Rating Cash Flow Transactions Backed by Corporate Debt*, a Moody's Structured Finance Research & Commentary (March 1991).

C. Types of Data Used in the Analysis of Historical Losses

In general, Moody's receives data concerning historical losses in two forms. The first reports the performance and losses experienced by *static pools* of receivables. A static pool is generally defined as all the receivables originated in the same month (or other suitable period). If the originator has 36 months of data, the static pool report would show the monthly cash flow and realized losses each month for each of the 36 static pools generated over the past 36 months. If the stated term of the receivables is only 24 months, 12 of the pools will have fully liquidated before the preparation of the static pool report and cumulative lifetime losses on those pools should be determinable.

Static pool data is the best data for evaluating the performance of most types of receivables. However, sometimes static pool data is not available. For example, with respect to ordinary trade receivables or other receivables with a high turnover rate, an originator may not create or preserve static pool data from its invoices. Instead, the originator's billing department may monitor the aging of receivables and the ratio of losses to liquidations or the ratio of losses to sales. Moody's can use historical data on receivables aging and the ratio of losses to liquidations to determine levels of credit enhancement. However, because that type of data inherently contains less *information* than static pool data, inferences drawn from aging data may not be of the same quality as inferences drawn from static pool data. Therefore, necessary levels of credit enhancement may be somewhat higher when only receivables aging data is available.

Abundant static pool data permits the best analysis and the lowest levels of credit enhancement. However, the relative advantage of static pool data is least in the case of revolving pools of receivables with a high turnover rate. For those receivables, the use of aging data in lieu of static pool data has only a minimal effect on the necessary levels of credit enhancement. However, it generally is extremely beneficial for an originator to be able to furnish static pool data regarding longer-term receivables.

In some securitization transactions, (e.g., certain asset-backed commercial paper programs) the treatment of losses attributable to obligor credit defaults may be different from the treatment of losses attributable to "dilution" resulting from returns of sold goods, disputes, offsets, credits, rebates, and warranty claims. In such transactions, it may be beneficial for the historical data to differentiate occurrences of obligor credit defaults from occurrences of dilution. Otherwise, it might have to be assumed that all, or substantially all, losses fall into the more burdensome category (typically obligor credit defaults).

III. BASIC RISKS

Depending on the type of assets and the type of proposed securitization transaction, Moody's may consider several distinct types of risks. The first of these, naturally, is the *credit risk* of the underlying assets. The credit risk of the underlying assets relates to the risk that the underlying obligors will be unable to pay; that they will default because of credit quality deterioration.

A related aspect of risk is *dilution risk*. As noted above, dilution results from an obligor's unwillingness to pay because of returns of sold goods, disputes, offsets, credits, rebates or warranty claims. Even an obligor that is rated **Aaa** might refuse to pay a receivable because of a dilution-related cause. Often, it is not possible to differentiate dilution risk from regular credit risk.

The third aspect of risk is *liquidity risk* – the risk that collections on the receivables will not be received quickly enough to provide funds for the payment of maturing asset-backed securities. In "pass-through" securitization arrangements, liquidity risk may not be a relevant consideration. In other types of securitization arrangements, especially asset-backed commercial paper programs and their companion medium-term note programs, liquidity risk can be a major consideration. Indeed, whenever the maturities of the securities issued are not matched to the

maturities of the underlying receivables, liquidity risk may become an issue. This is most often the case when there is a revolving pool of underlying receivables and the securities are issued on a continual basis.

As discussed above, Moody's uses a variety of techniques to assess the impact on an asset-backed security of expected losses on the underlying receivables. Those techniques are primarily directed at addressing the credit risk of the underlying receivables. Depending on the circumstances of a particular transaction, dilution risk and liquidity risk may be addressed together with ordinary credit risk, or they may be treated separately. The approach depends on whether the transaction provides for separate means of addressing the different elements of risk.

IV. LEGAL AND STRUCTURAL RISKS

The legal and structural risks of an asset securitization relate principally to the risk that either the issuer of an asset-backed security or the receivables underlying the security might become entangled in a bankruptcy or similar proceeding involving the originator of the receivables. In U.S. securitization transactions, two of the focal points of the bankruptcy analysis are the *true sale* and *substantive consolidation* issues.

In the U.S., the early mortgage pass-through securitization transactions addressed structural risk by effecting a true sale of an interest in the underlying assets to investors.⁶ Because the interest in the underlying receivables had been truly sold by the originator to investors through the securitization arrangement, that interest would not constitute a portion of the originator's bankruptcy estate in the event that the originator were to become the subject of a bankruptcy proceeding.

In contrast, an early securitization transaction involving the creation of debt securities arguably could not be viewed as a true sale in its entirety. In those transactions, investors purchased debt securities secured by the underlying receivables (e.g., CMOs), as opposed to securities representing ownership interests in the underlying receivables. Therefore, it was difficult to conclude that the arrangement, taken as a whole, constituted a sale of an interest in the receivables to investors. Accordingly, those transactions often sought to remove the receivables from the origi-

6 The issue of whether a particular transaction constitutes a sale or a financing is often referred to as the true sale issue. The issue arises in a bankruptcy proceeding in which any party asserts that a purported sale of an asset by the debtor should be recharacterized as a financing. The result of a successful attack against a purported sale is that the subject asset becomes property of the debtor's bankruptcy estate and that the entity which had "purchased" the asset in the recharacterized sale suddenly finds itself a secured creditor.

In general, the types of factors courts have considered relevant to an analysis of whether a sale should be recognized as such in an insolvency or bankruptcy proceeding are (1) the objective indications of the intent of the parties, (2) the legal characteristics of the sale, and (3) the economic substance of the transaction.

Objective Indications of Intent: Courts attach significance to both the form of the documentation used by the parties to characterize a transaction and the actions of the parties subsequent to the transaction. However, simply labeling a transfer as a sale ordinarily will not control the legal effect. With regard to the types of conduct considered relevant, permitting a seller to commingle the sold property with its own or to use the property for the seller's own purposes has influenced some courts to characterize a sale as a loan for purposes of an insolvency or bankruptcy proceeding. The commingling of funds has been cited by courts as a significant factor in determining whether a transfer is a sale or a loan. In cases in which a court concluded that commingling was inconsistent with a sale, however, that commingling frequently had been coupled with the essentially unrestricted right of the seller to use the funds for its own purposes.

Legal Characteristics: Apart from the objective indications of the intent of the parties, many courts independently assess the legal characteristics of the transaction. Factors that have been cited by some courts as leading to the conclusion that a sale should be characterized as a loan for purposes of an insolvency or bankruptcy proceeding include (1) the ability of the seller to substitute new property for the property transferred, (2) the obligation of the seller to transfer additional property to the buyer without any additional payment from the buyer, and (3) a structure providing for level payments by the seller to the buyer regardless of amounts collected on the transferred property.

Economic Substance: Many courts have held that an analysis of the economic substance of the transaction is an essential element in the characterization process. The major factor cited by courts in their analyses of the economic substance of transactions labeled as sales is the extent to which risks and benefits associated with ownership of the property have been transferred to the purchaser. The risks of ownership are essentially that the property transferred either will decline in value or will experience payment defaults. When the buyer has recourse to the seller to compensate it for all losses so occasioned, courts have concluded that the seller has retained the related risk and that the economic substance of the transaction is that of a secured loan by the buyer to the seller. In addition, rights to repurchase the subject assets, to substitute assets, and to retain any surplus remaining after obligations to pay amounts to the buyer are satisfied, may indicate a debtor-creditor relationship.

nator's bankruptcy estate by having the originator transfer the receivables to a special purpose vehicle (an "SPV"). The SPV would then be the issuer of the debt securities and would pledge the receivables as collateral for the securities.

The SPV could be a corporation, partnership, or trust and usually would be wholly owned by the originator. The transfer of the receivables from the originator to the SPV was intended to constitute a true sale, so that if the originator were to become the subject of a bankruptcy proceeding, the receivables would not be deemed to be part of the originator's bankruptcy estate. Although the originator indirectly might retain all the real economic risk of the performance of the receivables through its ownership of the SPV, that retention of risk appears generally to be viewed (at least by many U.S. law firms) as not undercutting the true sale character of the transfer of the receivables by the originator to the SPV.

In the typical case, where the SPV was wholly owned by the originator, that relationship gave rise to the further issue of whether the separate legal identities of the originator and the SPV would be respected in the event of the originator's bankruptcy. In other words, it was necessary to consider whether the SPV would be *substantively consolidated* with the originator in the originator's bankruptcy proceeding.⁷ In a transaction involving an SPV, Moody's customarily receives a legal opinion to the effect that the separate legal identity of the SPV would be respected in the event of the bankruptcy of the originator.

When securitization advanced to assets other than mortgage loans, the levels of subordination or recourse in pass-through transactions were sufficiently high that doubts arose regarding true sale character of those transactions. Therefore, such transactions were structured more along the lines of pay-through mortgage-backed transactions (i.e., mortgage-backed bonds issued by an SPV) than as mortgage pass-through transactions. In a typical non-mortgage pass-through transaction, the originator transfers the underlying receivables to an SPV which simultaneously issues pass-through certificates to investors. The transfer from the originator to the SPV is intended to be a true sale, and it is intended further that the SPV and the originator would not be consolidated in the event of the originator's bankruptcy.

The efficacy of those devices is reflected in the legal opinions furnished in connection with the transactions. Those devices should protect the investors from the bankruptcy of the originator even if the level of subordination in the pass-through certificate structure (i.e., recourse to the SPV) is too high to permit lawyers to conclude with the requisite degree of certainty that the sale of pass-through certificates by the SPV to investors constitutes a true sale of interests in the underlying receivables.

⁷ The power of a U.S. Bankruptcy Court to order the substantive consolidation of two or more entities emanates from the court's equitable powers under Section 105 of the U.S. Bankruptcy Code. The legal opinions that Moody's has received addressing the issue of substantive consolidation generally indicate that substantive consolidation is an extreme remedy that should only be provided in limited circumstances and for limited purposes such as the prevention of fraud or the enforcement of a paramount equity. In particular, circumstances that may increase the likelihood of the substantive consolidation of separate entities include the following: (1) creditors having dealt with the separate entities as a single economic unit, in extending credit, (2) fraudulent transfers of assets among the separate entities, (3) extreme entanglement of the affairs of the separate entities, and (4) disregard of the distinct legal identities of the separate entities. See generally Collier on Bankruptcy ¶ 1100.06; *In re Augie/Restivo Baking Co.*, 860 F.2d 515 (2d Cir. 1988); *Fish v. East*, 114 F.2d 177 (10th Cir. 1940); *In re Vecco Construction Industries*, 4 B.R. 407 (Bankr. E.D.Va. 1980). In addition, from a practical perspective, the issue of substantive consolidation also may arise under the other legal rubrics including instrumentality, alter ego, piercing the corporate veil, reverse piercing of the corporate veil, and integrated enterprise.

Even though Moody's generally receives legal opinions on the true sale and substantive consolidation issues, the degree of reliance placed on those opinions is limited. In virtually all types of securitization transactions there is a *backup security interest* that provides another level of protection. Even if the true sale or the substantive consolidation issue were to be decided adversely in the originator's bankruptcy proceeding, so long as there is a perfected, first priority security interest in the receivables, the severity of losses to which investors are exposed is significantly limited. Investors' primary exposure in that case is lost yield resulting from the automatic stay under the U.S. Bankruptcy Code and delays that could occur in the administration of a bankruptcy proceeding (there is also secondary exposure relating to substitutions of collateral and cram-downs of excess collateral).

Lease securitization transactions in the U.S. present the additional risk of rejection of the leases by the trustee in bankruptcy of the originator-lessor. If either the true sale or nonconsolidation analysis is successfully contested, the leases may be deemed to be property of the estate of the originator-lessor and, possibly, may be rejected by the originator-lessor's trustee in bankruptcy. In that case, protections from a backup security interest may be illusory, because the main collateral itself (the underlying leases) may have become worthless. Therefore, in U.S. lease securitization transactions, it is especially important to make sure that the true sale and substantive consolidation issues have been thoroughly analyzed and that legal conclusions have been reached with the highest possible degree of certainty. Legal opinions in such transactions should be at least as strong as in nonlease-related transactions; stronger opinions are desirable.

Another aspect of structural risk that presents itself in only a small variety of transactions is the risk that an SPV could itself become the subject of a bankruptcy proceeding. This should not be a material issue in most securitization arrangements, because the only assets and liabilities of the SPV relate directly to the receivables or the securities issued. However, in certain arrangements, various contingent liabilities may be imposed on an SPV, and the risk of the SPV's bankruptcy resulting from those liabilities must be considered. In that regard, it is necessary to consider not only the risk of an involuntary bankruptcy proceeding against the SPV, but also the risk that the SPV itself might commence a voluntary bankruptcy proceeding under certain circumstances. For example, if unforeseen liabilities were to make the SPV insolvent and generally unable to pay its maturing obligations, it might be reasonable for the board of directors of a corporate SPV (including any independent members of the board) to pass a resolution that the SPV should put itself into bankruptcy.

V. OPERATIONAL AND ADMINISTRATIVE RISKS

The operational risks of an asset securitization transaction relate principally to the handling of collections on the receivables. In most transactions, to protect against the possible bankruptcy of the servicer, the servicer is required to segregate collections on the receivables as quickly as possible and to periodically remit those collections to a separate trust account. That procedure may not be required if the servicer has a rating as high (or nearly as high) as the securities.

The servicer should be able to rapidly identify collections allocable to securitized receivables and to apply those collections in accordance with the requirements of the applicable agreements. In the case of a major financial institution or other well-established company, there may be no real questions as to the entity's practical ability to comply with the terms of a securitization arrangement. However, in the case of a newly formed originator-servicer with little or no prior securitization experience, the entity's ability to perform its servicing and reporting duties may be suspect. In that case it may be appropriate to have a standby or master servicer as well.

The role of the servicer in monitoring the performance of the receivables and in furnishing performance reports to investors and to the rating agencies is essential. If reports are not properly prepared, it is impossible for investors and the rating agencies to monitor the transaction on an ongoing basis.

Apart from servicing, most securitization transactions have no operations or administration. The exceptions, however, are arrangements such as asset-backed commercial paper programs and similar vehicles that continually acquire receivables from various originators and that continually issue securities backed by those receivables. Apart from servicing the receivables (which generally is left to the originators), the administration of the other aspects of the program can be a highly complex affair. The administrator may be responsible for assessing the quality of receivables and for selecting receivables for acquisition by the program. In addition, the administrator may be responsible for controlling the usage of external credit enhancement and liquidity facilities which might be needed to pay off maturing securities. Those functions may be extremely time-sensitive and ordinarily cannot be performed by any type of entity other than a major financial institution. Only such institutions have the extensive experience and large staffs that assure their ability to act within the extremely tight time constraints of such programs.

The integrity of all participants in a securitization transaction should be above question. If the integrity of a given participant is suspect, it generally is best for the transaction to be terminated or to proceed with a replacement for that participant.

To date, the specter of fraud has only rarely cast its shadow over securitization transactions. Moody's is not well situated to detect or deter fraud, and Moody's ratings do not address the risk of all conceivable types of fraud. On the other hand, Moody's is sensitive to circumstances that potentially invite fraud and takes the presence or absence of such circumstances into account in formulating its rating opinions. On certain occasions, Moody's has elected not to rate specific transactions (after having been requested to render a rating by the sponsor) because of a perceived fraud risk or questions about the integrity of a proposed participant in the transaction. However, Moody's election not to rate such a transaction may not prevent the transaction from ultimately being consummated. Accordingly, investors and intermediaries should remain vigilant against the risks of fraud and support measures that will deter fraud in securitization transactions.

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