



## Rating Methodology for Securitizations of Promissory Notes and Accounts Receivable

( This report is an English translation of the original report in Japanese. )

Rating and Investment Information, Inc. (R&I) has revised its approach regarding the rating methodology for securitizations of promissory notes and accounts receivable. The rating methodology and main points of consideration are described below.

### 1. Securitizations of promissory notes and accounts receivable

In most cases, promissory notes and accounts receivable have a term of approximately three months. Consequently, securities such as trust beneficial interests, ABCP and ABL issued by using promissory notes and accounts receivable as the underlying assets usually mature in around three months. R&I typically assigns such securities a short-term rating symbol of a-1+, a-1, etc.

R&I calculates a credit enhancement level that is sufficient to ensure the certainty of redemption corresponding to the target rating. The credit enhancement level will vary depending upon factors such as (1) the extent of defaults expected to occur in the entrusted claims pool, (2) the characteristics of the entrusted claims pool and (3) the length of the term.

### 2. Methodology for setting the credit enhancement level

When deciding the level of credit enhancement corresponding to the default risk inherent in the backing assets for a promissory notes or accounts receivable securitization scheme, R&I normally calculates two amounts for (1) subordination corresponding to large-lot obligors and (2) subordination corresponding to a large number of obligors. R&I adds the two amounts together and uses the total as the credit enhancement level (Note 1). The details of (1) and (2) are described below in 2.1. and 2.2., respectively.

Commingling risk and the risk of dilution of the claims are normally a concern when accounts receivable are securitized. R&I will set separate measures for the credit enhancement corresponding to these risks. This is discussed more specifically in "3.2. Main points of consideration for accounts receivable."

#### 2.1. Calculation of credit enhancement amount corresponding to large-lot obligors

Very often an originator's promissory notes or accounts receivable will include a comparatively large weighting of large-lot obligors. Because the highest ranking firms in the entrusted claims pool are not limited to firms with the highest creditworthiness, there is no guarantee that defaults during the securitization period would occur only among small-lot obligors.

Because of the large effect on collected funds when an obligor in the highest rank of the pool (high-ranking obligor) defaults on its claims, it is necessary to consider the risk of default by a high-ranking obligor. For this purpose R&I totals the amount of the entrusted claims for a number of the highest-ranking firms in the entrusted claims pool, and uses this as the credit enhancement amount for the large-lot obligors. R&I varies the number of firms corresponding to large-lot obligors according to (1) the term of the entrusted claims pool, (2) the level of the default rate expected to occur from the pool and (3) the target rating. While the result will differ depending on the level of the default rate or other factors, when assigning an a-1+ rating to the senior portion, for example, R&I decides the credit enhancement amount for large-lot obligors so that no problems will ensue even if large-lot obligor defaults occur at a rate of one company every month.

Furthermore, at the beginning of the term, when the highest-ranking obligors include obligors with a rating that is equivalent to or higher than the target rating for the senior portion, R&I basically considers the creditworthiness of these obligors to be identical to the senior portion, and does not include them in its calculation of subordination corresponding to large-lot obligors.

When performing its analysis, R&I also takes into consideration factors such as group concentration risk.

## 2.2. Calculation of credit enhancement amount corresponding to a large number of obligors

Using the portion of obligors other than the obligors used to calculate the subordination corresponding to large-lot obligors, R&I calculates the subordination for a large number of obligors using the large pool characteristics. Specifically, R&I calculates the credit enhancement amount by taking into consideration the standard default ratio, stress multiple and term.

The following section describes R&I's calculation methodology for the credit enhancement level for a large number of obligors "when there is historical data" and "when there is no historical data," using securitization of promissory notes as an example.

### 2.2.1. When there is historical data

#### (1) Calculation of the standard default ratio

When calculating the subordination for a large number of obligors, the first important value to calculate is the standard default ratio. R&I basically uses several years of past historical data for promissory notes obtained from the originator to calculate the default ratios by dividing monthly bad debt amounts by the monthly promissory notes settlement amounts, then takes the mean value as the standard default ratio.

R&I includes non-payments and jumps as defaults. A "jump" refers to the maker of a promissory note receiving an extension of the maturity date from the note bearer. Although this is not considered a non-payment, R&I treats such changes as a default because there is a possibility the funds will not be collected by the maturity date prescribed by the securitization (Note 3).

#### (2) Historical data

The historical data described above in (1) shows the past trends for promissory notes of the originator, such as changes in the outstanding balance and settlement amount of the promissory notes, and the occurrences of default.

When determining the standard default ratio from historical data, it is necessary to note whether the attributes of the promissory notes pool from the obligor have changed. Efforts to reorganize businesses through management integration, mergers and corporate separation have grown more vigorous in recent years, and the attributes of promissory notes from the same firm might differ from those of notes issued earlier.

Another rating factor that must be confirmed is the change in highest-ranking obligors. The attributes of each originator's promissory notes exhibit various characteristics such as the industry. In the manufacturing and wholesale sectors, companies are engaged continuously in transactions with numerous customers, therefore, cases of large-scale replacement of the highest-ranking obligors on a monthly or annual basis are limited, although there may be some. In industries such as construction, on the other hand, there sometimes is a substantial change in obligors each time a large-scale project is completed because the promissory notes received originate in the work ordered.

When attributes of the promissory notes held such as industry or customers have changed, there is a possibility the historical data will not be consistent. When determining the standard default ratio, R&I must check the extent to which the consistency of historical data has been maintained, after closely examining the reasons why the highest-ranking obligors changed, while reviewing the mother claims pool and the entrusted claims pool carefully and confirming the characteristics of the customers, such as their industries.

Moreover, in some cases the historical data from the mother claims pool must be corrected into a form that matches the entrusted claims pool. This would be the case for an originator with active promissory note transactions with group companies, for example. Because claims against group businesses normally are excluded from an entrusted claims pool, there is a possibility the standard default ratio estimated using the entrusted claims pool will be inappropriate if the mother claims pool also is not revised into historical data that excludes the group companies.

#### (3) Stress multiple

R&I applies a stress multiple to increase the certainty of redemption to a level corresponding to the rating of the securitized product, even if a large level of defaults that would be expected to occur infrequently based on historical data should occur during the securitization period. R&I will use a different stress multiple depending on the target rating (for a target rating of a-1, for example, 3x when there is no additional stress). In situations where risk diversification is ineffective, such as when the obligors are concentrated in a specific industry, R&I will multiply a stress multiple that is

higher than normal, because of the greater risk of defaults being concentrated in a single sector or compressed timeframe through a chain of bankruptcies or similar occurrence.

#### 2.2.2. When no historical data is available

When no historical data is available, for the instances where there is no data on actual defaults for originator, R&I calculates the standard default ratio of a pool using data for actual defaults by credit score, provided from a credit research company such as Teikoku Databank, Ltd. When using such credit data to calculate the standard default ratio of a pool, R&I seeks to understand the data characteristics of the credit information by conducting due diligence meetings (interviews) at the credit research company.

##### (1) Definition of default

As previously stated, R&I also includes jump results in defaults when analyzing the default data for promissory notes securitization schemes. R&I must adjust the credit data, however, for differences in approach to the definition of default, including the thinking that jumps should not be included in defaults.

As a rule, R&I conducts a direct interview with the originator. Even when past data is unavailable, R&I will conduct an interview concerning the occurrence of defaults and jumps. When there are multiple originators, or when the originators are replaced as each project is executed and confirming the data is difficult, R&I will respond by estimating the standard default ratio it will actually apply to be more conservative than the numerical value obtained from the credit data. In addition, when using the credit data it is necessary to confirm the date of the last data review. This is because the maker's creditworthiness might have declined when there has been a long interval since the last review date. There are instances when R&I will look at the credit data conservatively based on such uncertainty factors.

##### (2) Scheme maturity

The default ratio for the credit data frequently is expressed as an annual rate, and must be adjusted for the maturity of the scheme (typically three months). At first pass the default rate for three months might be thought merely to be one-quarter of the annual rate. Because the influence from default can be substantial when the number of obligors in the entrusted claims pool is small and a large obligor defaults, however, or when, depending on the pool, occurrences of default are concentrated in certain months, such as when there is bias toward a certain industry, simply using one-quarter of the annual rate will often result in underestimation. R&I therefore makes conservative adjustments based on the characteristics of the entrusted claims pool.

##### (3) Investigation of originators

When assigning ratings to such schemes, R&I reviews a summary of the originator company and its management, and conducts interviews regarding aspects of its business including credit policies, selection procedures for notes to be securitized and collection procedures, through a due diligence meeting with the originator. This is because the originator's stance toward its credits will affect the occurrence of defaults under the securitization scheme. Through these hearings R&I also confirms whether an originator engages in so-called cherry picking, or acting intentionally to select only claims with low creditworthiness for securitization.

When there are multiple originators, or when a rating is for a program that involves new originators being added for each securitization, it might be difficult for R&I to perform due diligence for all of the originators. In such cases, R&I relies on parties related to the scheme (trust bank, collection bank, financial institution handling the factoring, SPC management representative, etc.) to confirm a summary of the originators and the points described above, which R&I studies carefully and verifies through interviews.

### 3. Main points of consideration by entrusted claims

In "2. Methodology for setting the credit enhancement level," we described R&I's computational method for the portion corresponding to entrusted claims default risk for securitizations of promissory notes and accounts receivable. In the following section, let's look at the main points of consideration by entrusted claims.

### 3.1. Main points of consideration for promissory notes

#### (1) Commingling risk

The key point R&I considers when rating a securitization of promissory notes is commingling risk. Under a promissory notes securitization scheme, collection typically is consigned to the trust bank or another bank after the notes have been entrusted to an entity such as the trust bank and SPC. The note collection funds normally are accumulated at the collection bank for about two business days. In the event of the collection bank's bankruptcy, there is a possibility the collected funds could be commingled with the collection bank's other obligations.

Under Japan's Deposit Insurance System, settlement-type deposits are eligible for full protection. Depending on the system of deposit protection, however, there is a concern the delivery of collected funds will be temporarily delayed. Therefore to ensure redemption of the securitized product principal at maturity and the timely payment of interest, R&I believes the financial institution administering the collected funds account and the collection bank must be highly creditworthy institutions that present minimal concern of failure and that will maintain a rating above a certain rating level.

When assigning an a-1+ rating to a securitization scheme, for example, R&I will set a condition in the rating agreement and other documentation that as a rule the financial institution administering the collected funds account and the collection bank will maintain their creditworthiness at the a-1 or higher Short-term Rating level, and establishes a trigger provision to the effect that if the rating falls below this level, collection will be entrusted promptly to another financial institution with a Short-term Rating of a-1 or higher (Note 4).

### 3.2. Main points of consideration for accounts receivable

The main points R&I will examine regarding accounts receivable are touched on below. Ultimately, R&I assigns a rating after confirming considerations such as feasibility from a practical perspective, including the collection organization (Note 5).

#### (1) Commingling risk

In most cases, the business of collection under a securitization scheme for accounts receivable after the claims have been assigned usually is consigned to the originator, and the originator performs the servicing. In this case, there is a possibility the collected funds will be commingled with the general assets of the originator should the originator fail (commingling risk). R&I determines the commingling risk amount by considering factors such as the accounts receivable maturity dates and the schedule for transfer of funds from the originator. When a measure such as direct deposit of payments by obligors to the assignee is not taken to address commingling risk, the risk is attributed to the creditworthiness of the originator (See Figure 1).

#### (2) Dilution risk

One characteristic of accounts receivable claims is that while they can be perfected as against a third party by registration under the Perfection Law, they are difficult to perfect as against the obligors. As a result, there exists a possibility that accounts receivable claims will be diluted by offsetting, return of goods, discounting or other actions. If there is a mechanism by which the originator pays the dilution amount when dilution of claims has occurred, this risk will not be actualized as long as the originator does not experience an event of default. Therefore this risk basically is attributed to the originator. If a mechanism to prevent the risk from being attributed to the originator is considered, it is necessary to perfect the claims as against the creditors or take some means to measure dilution risk and establish credit enhancement corresponding to the risk.

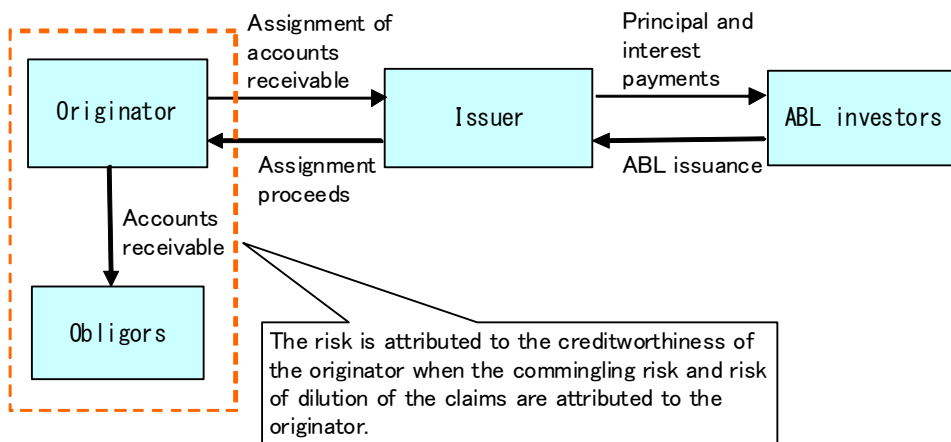
#### (3) Liquidity

Securitizations of promissory notes and accounts receivable are short-term. Typically the scheme will involve measures to ensure risks such as interest payments from the backing assets before maturity are not actualized, by collecting the discount fee in batch at the beginning of the scheme. If interest payments are made during the term of the scheme, however, a measure to address this is necessary.

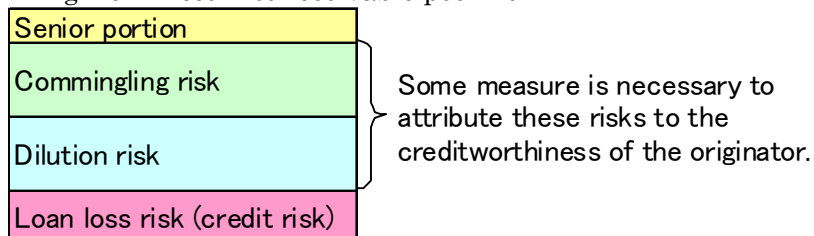
Furthermore, when the business of collection is outsourced to the originator, there is a possibility the funds for redemption of the securitized product will temporarily be insufficient in some situations, such as when (1) the business of collection by the originator is delayed by some event, (2) the

originator cannot promptly provide the amount for dilution and (3) the collected funds are commingled. To provide against such liquidity risk, some measure such as creating room in the securitized product redemption period is necessary.

■ Figure 1: Accounts receivable securitization scheme (example)



■ Figure 2: Accounts receivable pool risk



- (Note 1) There are cases, however, such as when the number of obligors is comparatively small, for which R&I will use the credit enhancement level determined by using R&I Tranche Pad, after ascertaining the characteristics of the pool. Furthermore, in some cases R&I will use the estimated PD (Probability of Default) for individual obligors directly, rather than the rating, when inputting data to the model.
- (Note 2) Please refer to the "Tranche Pad Version 1.0 Technical Document" dated April 27, 2007.
- (Note 3) R&I believes it is necessary to receive data sufficient to understand the amount that will become the source of funds for redemption of the rated securitized product.
- (Note 4) Can alternatively be read from the Issuer Rating when there is no Short-term Rating. Alternately, a financial institution that R&I recognizes as eligible if the financial institution does not have an R&I rating. For details, please see the press release "Eligible Deposit Accounts and Eligible Investment Instruments" dated December 22, 2008.
- (Note 5) In addition to the main points of consideration for accounts receivable described in Section 3.2., other risks that must be scrutinized include the risk of claims being assigned twice or the risk that claims with a prohibition of assignment clause will become entrusted claims.

Note: R&I also uses this rating methodology for credit ratings of purchase claims (Note 1).

- (Note 1) Refers generically to purchased retail exposure (Note 2) and purchased corporate and other exposure (Note 3).
- (Note 2) Means retail exposure that a bank which has adopted an internal rating methodology under Basel II, or that a consolidated subsidiary or other affiliate of a bank (meaning a subsidiary of a bank or other entity that is included in the scope of consolidation) which has adopted said internal rating methodology, has received by assignment from a third party.
- (Note 3) Means corporate and other exposure that a bank which has adopted an internal rating methodology under Basel II, or that a consolidated subsidiary of a bank which has adopted said internal rating methodology, has received by assignment from a third party.

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