

## Notes and Accounts Receivables

### 1. Outlines of Assets for the Securitization

Enterprises are able to receive the benefits of off-balancing or diversification of fundraising methods by securitizing notes receivable or trade receivables they hold. In case of securitizing trade receivable, however, it is hard to eliminate fraud risks or commingling risks due to their natures and there are many cases where special non-assign ability clauses are attached to them. Therefore it is rather difficult for enterprises to securitize trade receivable on their own and so, they normally use ABCP or ABL programs sponsored by financial institutions they are dealing with.

On the other hand, the above mentioned risks that are hard to be eliminated in case of securitization of trade receivable, can be blocked off in case of notes receivables because the cutoff of defense can be achieved by transferring notes held by originators to SPV, etc., in the form of no-warranty endorsement. For these reasons, securitized notes receivable attached with credit ratings constitute greater portion of securitized accounts receivable.

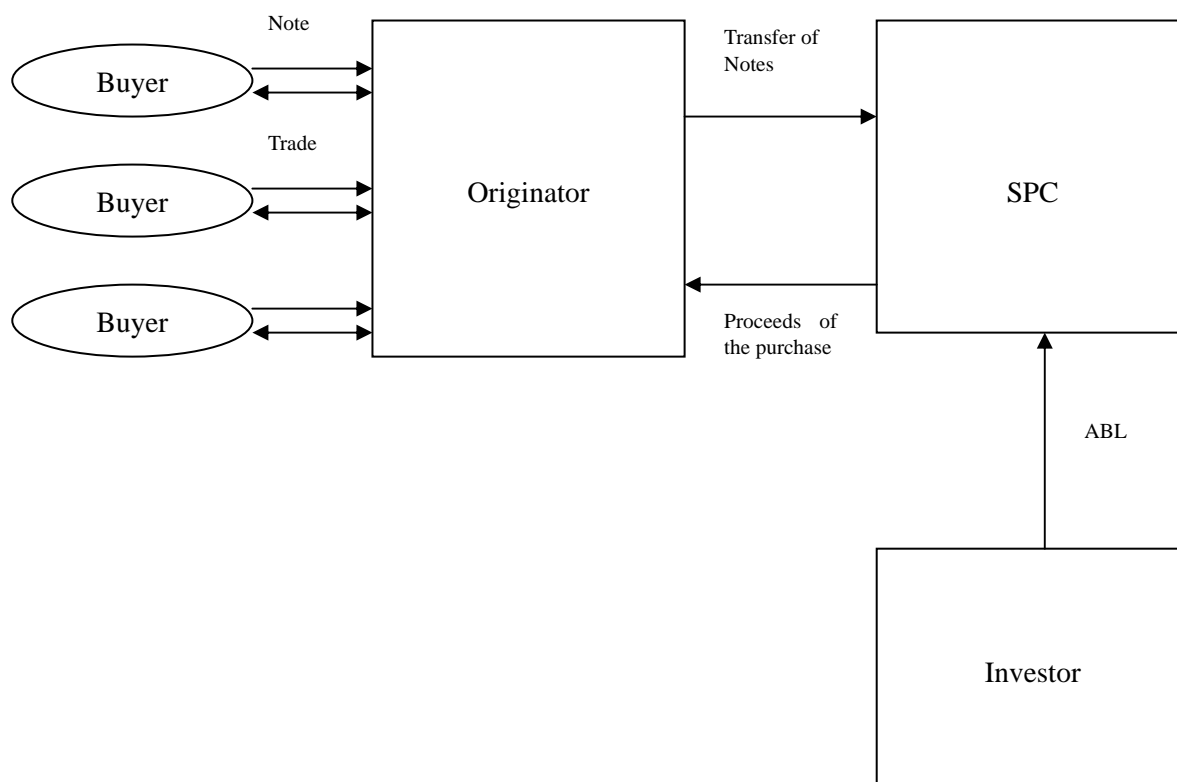
General characteristics and rating methods for securitized notes receivable are described below. Points at issues in securitizing trade receivable are stated in the ending of this report.

### 2. General Scheme

Being assumed here is a scheme whereby a SPC becomes a transferee of notes receivable and gets a loan backed by a pool of such notes receivable from an investor.

- (i) An originator transfers its notes receivable to a SPC. Such originator delivers the subject notes with no-warranty endorsement.
- (ii) The SPC raises funds through assets-backed loans (ABL) from investors in getting transfer of such notes.
- (iii) The SPC pays to the originator the fund it raises through ABL as the proceeds for such notes it purchases.
- (iv) The SPC entrusts clerical works related to the collection of notes to a bank, etc., and such bank collects the notes. Credit rating is assigned for the assuredness regarding such ABL of whether (a) prescribed interest is paid at the due date and (b) principal is repaid in full by the final due date.

[Scheme Chart]



### 3. Key points (elements) for the Credit Rating

#### (1) Credit risks of notes receivable

There are risks of dishonor or jump (extension of maturity) of notes receivable held by an originator that could delay the scheduled collection of notes thereby diluting the worth of notes receivable. These risks shall be analyzed based on the past occurrence status of default and credit capabilities of underlying obligors of the transferred notes, and a reserve shall be established for the necessary amount equivalent to a subordinated portion of notes computed by a subordination rate derived from such analysis results.

#### (2) Commingling risks

If proceeds of notes were paid directly to an originator from underlying obligors and such originator was driven into default before the proceeds were delivered to a SPC, proprietary assets of the originator and the proceeds of notes could be commingled and it is possible that the collected proceeds could not be repaid to the trust as scheduled (commingling risks).

If there is a scheme by which the underlying notes receivable are transferred to the SPC and the proceeds are directly credited to the SPC by a bank that collects the notes as a collecting agent, no risk of commingling proceeds of notes with originator's assets could arise<sup>1</sup>.

<sup>1</sup> Even in the case of securitizing notes receivable, it is necessary to additionally establish a reserve for a subordinated portion of commingling risks, if the collected proceeds of notes go through originator's account.

(3) Requirement setting up against third parties

The transfer of notes receivable is set up against any third parties by endorsement thereon as provided in Article 13 of the Law on Bills (Form of Endorsement).

(4) Registration based on Money-lending Business Law is needed or not for a SPC

A SPC purchases notes receivable from an originator in exchange for ABL. SPCs are not registered as money lenders under Article 3 of the Money-lending Business Law, and therefore the act of purchasing notes could conflict with the Law. This risk is being protected by receiving a legal opinion from an arranger and confirming its details.

(5) Bank account for collected fund

Relationship between credit rating assigned to securitized notes receivable and credit rating granted to a bank with which a deposit account is opened to receive collected funds is shown as follows.

Rating for securitizes instruments	J-1+ ~ J-1	J-2
Qualified account for collected funds	J-1 or above	J-2 or above

If a bank with which a deposit account is opened to receive collected funds does not meet the above rating qualification, it is requested that the bank will be changed to one which meets the qualification.

#### 4. Computation Method of Subordination Rate

A large-number pool approach or CDO approach is applied to calculate a subordination rate for a pool of notes receivable. In general, a large-number pool approach is adopted in case where the number of underlying obligors composed of a pool of notes receivable is 300 or more, and the ratio of each amount of note receivable to total amount of notes receivable (obligor concentration) is below a certain level, and a CDO approach is applied to cases other than the foregoing.

(1) Large-number pool approach

(i) Analysis method summary

A large-number pool approach will be adopted in case where the number of underlying obligors is about 300 or more<sup>2</sup>.

In this approach, a large number of obligors with a small amount of debts composing of a pool of notes receivable are all assumed to have the same attributes. Under this assumption, attributes of a pool of notes receivable are presumed based on historical data and a securitization period, thereby a necessary subordination rate is calculated deeming the pool as one mass. This approach is a method

<sup>2</sup> Even if the number of obligors is about 300 or more, there are some cases where the use of large-number pool approach is judged improper, (i) in case the number of obligors drastically decrease at the initial stage of a securitization period and (ii) in case the degree of concentration of superior obligors is extremely high.

generally used for a pool composing of many and diversified obligors, but it could be exceptionally adopted even in case where concentration of certain superior obligors is seen. In such case, it is necessary to adjust the subordination ratio, judging credibility of such superior obligors individually.

(ii) Historical data analysis/base case determination

Under the large-number pool approach, the default rate (base case) assumed for obligors of a pool of notes receivable is determined referring to historical data.

Such historical data indicates histories related to credit troubles including dishonor and jump of notes receivable held by the originator. In determining a base case, an appropriate level is adopted after confirming difference between the definitions of credit troubles provided in historical data received and those in securitized items, difference between the based default ratio in terms of the amount and that in terms of the number of items, and similarity of a mother pool used to calculate historical data and a securitized pool of receivables. In general, the average value of default ratio for securitized items is adopted in many cases. However, in cases where the number and the amount of defaults is judged to be trending upward most lately, or noteworthy events are observed such as the occurrence of a large-lot obligor's default, another appropriate level is to be separately adopted taking into consideration future trends of default occurring to notes receivable held by the originator and characteristics of a securitized pool of notes.

(iii) Stress multiplying factors

Under the large-number pool approach, an assumed default ratio, which is used for the simulation is determined by applying stress multiplying factor corresponding to each base case item.

A stress multiplying factor corresponding to a credit rating, which is targeted to be obtained for such item is primarily loaded. There are multiple numbers of factors that can be adopted in such case, including factors obtained by multiplying a base case with fixed numbers or those using standard deviation values of historical data. A factor appropriate to an individual item is adopted.

Other than the foregoing, to be reviewed are qualitative factors including a risk of concentration of locations of obligors of a pool of notes receivable (regional concentration risk), or a risk of concentration of obligors' business types (business type concentration risk), and they are to be added to stress multiplying factors corresponding to the above credit rating as needed.

(iv) The number of assumed default cases and Monte Carlo Simulation

The number of defaults which are assumed to occur during a securitization period for a pool of notes receivable is to be calculated based on the assumed default ratio obtained based on the above (iii).

In addition, a risk curve related to loss amount is to be drawn performing Monte Carlo Simulation for a certain number of times assuming that the foregoing number of defaults could occur randomly to the pool of notes receivable.

A level of amount calculated based on a credit rating targeting for such risk curve and a cut point calculated from a securitization period is defined as a necessary subordination amount for the

pool of receivables.

If concentration of superior obligors is observed in a pool of notes receivable to be rated, a final necessary subordination amount is to be determined also taking into consideration a case where such superior obligors intensively default.

## (2) CDO approach

### (i) Outlines of analysis method

A CDO approach is adopted in case where the number of underlying obligors of a pool of notes receivable to be securitized is small, and the level of amount concentration is high.

Under a CDO approach, differently from a large-number pool approach, a subordination level is calculated by performing Monte Carlo Simulation which individually allocates a default ratio to each underlying obligor and assumes that such underlying obligors may randomly fall into default based on such probability. Meanwhile, as concentration of superior obligors is often observed in case of a pool to which a CDO approach is adopted, the final necessary subordination amount is to be determined taking into consideration also the impact of a case where such superior obligors intensively default.

If regional concentration or business type concentration is seen, the subordination ratio will be separately adjusted.

### (ii) Allocation of a default ratio to an individual obligor

For an assumed default ratio to be allocated to an underlying obligor, a JCR's short-term rating, in case of an obligor to whom rating is assigned by JCR and a rating generated by a default ratio calculation model of JCR (JCR's "Default Ratio Assumption Model for Individual Enterprise" for big firms, and "JCREST" for small and mid-sized enterprises), in case of an obligor to whom no rating is assigned by JCR, is to be used and corresponding default ratio is to be referred to. In addition, if there are internal ratings of financial institutions or grade information of external credit agencies, there are some cases where default ratios corresponding to such information are assumed using a mapping method.

As maturity dates of notes receivable in the same pool are mostly different from each other, the default ratio corresponding to a term of each note receivable is to be allocated.

### (iii) Stress loaded on risks inherent to a pool of notes receivable

Under a CDO approach, because there are not so many obligors in a pool of notes receivable, risk judgment is made for each obligor and a default ratio corresponding to each of them is determined. Further, stress is loaded additionally on the risk as needed confirming qualitative factors such as capital ties and client relationships centering on superior obligors in particular.

Concerning capital ties, companies considered to be consolidated with a certain obligor and companies deemed quite identical such as group companies are analyzed as companies belonging to the same obligor group.

In addition, if there are trade relationships between underlying obligors and the relationship is deemed quite close, a simulation is likely to be conducted assuming that default of one obligor could lead to chain bankruptcies of others.

If locations or types of businesses of underlying obligors of a pool of notes receivable are concentrated, additional stress will be loaded on risks assuming cases where negative events could intensively occur in such region or business type.

(iv) Determination of subordination level by Monte Carlo Simulation

Under the foregoing premises, a risk curve related to loss amount of a pool of notes receivable is to be drawn performing Monte Carlo Simulation for a certain number of times after individually allocating a default ratio.

A level of amount calculated based on a credit rating targeting for such risk curve and a cut point calculated from a securitization period is to be made a necessary subordination amount for the pool of receivables.

Similarly with a large-number approach, if concentration of superior obligors is observed in a pool of notes receivable to be rated, a final necessary subordination amount is to be determined also taking into consideration a case where such superior obligors intensively default.

## **For your reference: Issues to be addressed in performing securitization of trade receivable**

### (1) Fraud Risks

Fraud risk means the risk that no receivable itself exists or that it has been already transferred to the third persons even if it exists. In case of notes receivable, fraud risks are unlikely to arise as notes themselves are transferred to SPV, etc. with unsecured endorsement. In case of trade receivable, however, it is generally hard for third persons to confirm the existence of receivable in a securitization scheme, due to which it is considered to be hard to eliminate such fraud risks.

### (2) Dilution Risks

Dilution risk means the risk that could reduce the initial amount of receivable due to return or discount of merchandizes. The securitization of notes receivable will not entail dilution risk because the right of defense is cutoff. In case of trade receivable, however, collected funds for a securitized pool of receivables could decrease. To avoid such risk, it is necessary to discuss in advance processes generating such dilution or response measures after the dilution, and to establish a scheme that would prevent such dilution risks from rising up to the surface.

### (3) Requirement Setting up Against Third Parties

If requirement is not set up against third parties for securitized trade receivable, there is a risk to dilute cash flow because a transferee is unable to defend against obligors if an originator falls in default. The acquisition of requirement setting up against third parties is imaged to be foreign to the securitizations of trade receivable because there are many cases where they are assumed to be implemented without giving notices to any obligors, and it is expensive to acquire such requirement. This becomes one of the significant obstacles in implementing the securitization.

### (4) Commingling risks

In securitizing trade receivable, commingling risk should be taken into consideration if funds collected from receivables go through the account of the originator. It is a general rule to consider that the largest amount likely remaining in the originator's account during a securitization period entails the commingling risk and the ratio of the amount to receivables to be securitized tends to become bigger. Accordingly, to be considered are counter measures to establish a scheme avoiding the occurrence of such commingling risk by shortening a period during which the fund remains in an originator's account or changing the account of collected funds receiving from obligors.