

Establishment of Rating Methodology for Future Flow Securitization

Japan Credit Rating Agency, Ltd. (JCR) announces that it has determined rating methodology for future flow securitization.

JCR announced "For Public Comments on Planned Methodology for Future Flow Securitization" in its press release dated June 6, 2016. JCR determined the rating methodology as shown in the attached document, based on the subsequent considerations. While JCR has partially changed the terminologies and notations from the original draft, such changes are made to increase the accuracy and there are no changes to the JCR's rating point of view itself. There are no changes in the individual ratings.

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Future Flow Securitization

1. Future Flow Securitization

In a future flow securitization, a company issues a debt instrument¹ whose repayment of principal and interest is secured by payments on future flow receivables. To issue the debt instruments SPV or trust is used as conduit. Such future receivables are expected to be generated in years to come and through its normal course of operations. At the start of the securitization (day1), there is little receivables which has been originated already in general. The likelihood of repayments of the debt is affected by the generation of future receivables and their collections. The company (originator) must deliver service(or produce goods) before the creation of the actual receivables and they must continue to generate receivables. In this context, it is dependent on the originator's ability to operate and credit conditions. The future flow securitization has similarities with project finance or whole business securitization in terms of cash flow based nature, strong covenants, segregation of cash flow mechanisms. On the other hand, in the future flow securitization transaction, material collateral other than cash reserve account nor step-in right of the creditor are not assumed to constitute the security package². The future flow securitization has long history and cases in abroad, such as corporations in Latin America and in Asia. In Japan, we see some cases in revenue trust backed by future receivables generated by waste disposal business, whole business securitization of mobile phone.

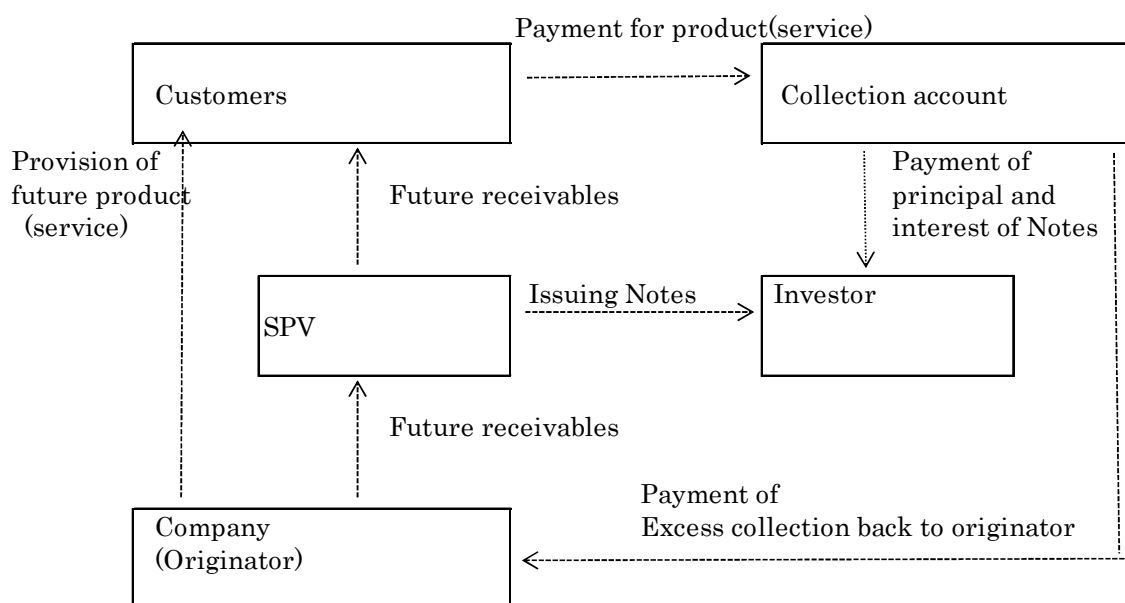
2. Basic scheme and analytical points

(1) Basic scheme (Description of future cash flow in general)

- An originator transfers future receivables as true sale to SPV.
- SPV issues bonds to investors which is backed by the right to get future receivable.
- An originator continues its operation (providing services or products to customers) and also acts as a servicer.
- In some cases like pre-export finance, offshore account is set up for collection under trustee's control.
- Receivables are collected from customers and cash is distributed in accordance with pre-determined water-fall. Excess collection after fees, scheduled payments of debt is transferred to the originator.

¹ Debt instruments includes notes, loans, trust certificates.

² In the case of whole business securitization, business itself is often curved out using company split. In traditional securitization, whole business securitization, higher rating can be achieved through the isolation of quality asset, business from the originator. In future flow securitization, the rating is linked to the credit quality of the originator.



Expected businesses areas for future flow securitization

- Public utilities (water, electricity, gas, waste disposal, etc.)
- Toll roads
- Railway, airline business
- Communication infrastructure such as radio wave tower, etc.
- Commodity export (highly marketable commodity)

(2) Major expected risk factors

- Deterioration of originator's credit, bankruptcy
- Changes in the industry conditions (sales decline, product obsolescence, changes in consumer preference, changes in technology, reduction in barriers to entry)
- Fluctuation of sales due to various factors: seasonality, business cycles, foreign exchange rate movements, competitions with new entry
- Revision, amendments or establishment of regulations
- Sharp drop of sales due to epidemic, pandemic, an act of terrorism, deterioration of international relations or increased tensions among nations
- Transfer and convertibility risk in a cross-border transaction
- Withholding taxes due to tax policy change in a cross-border transaction

(3) Analytical points

JCR's analysis is composed of four points of view: originator's credit assessment, business continuity evaluation, collection & recovery mechanism evaluation and sovereign risk evaluation.

① Originator's credit evaluation, liquidity evaluation

② Business continuity evaluation

- Originator's standing in the nation, in the region
- Competitive environment
- Competitive advantage against peers, substitutes
- Correlation to cyclical, Resilience in downturn
- Collection channel

③ Collection and Recovery mechanism

- Bankruptcy remoteness of SPV
- True sales of future receivables
- Perfection of receivables
- Cash flow coverage and thresholds
- Debt structure of the originator, priority ranking among creditors
- Liquidity support(if any)
- Credit support(if any)
- Cushions and measures against foreign exchange movements

④ Others

- Sovereign risk
- Transfer and convertibility risk

3. Rating methodology and key rating drivers

JCR considers that future flow securitization credit worthiness depends on future receivables generation and collection mechanism. JCR starts analysis from an obligor's creditworthiness and performance risk evaluation. After considering business continuity of the obligor, collection process and recovery prospects, JCR will decide the range of notching up from the obligor's unsecured long term credit worthiness. The change of the originator's credit standing may cause rating review and possible rating revision.

(1) Characteristics of receivables

The following characteristic(s) of receivables are suited for future flow securitization:

- Social & economic significance of the business itself
- Stable demand for products (services) evidenced by demographics, population, etc.
- Foreseeability of future demand, operating rate
- In case of one or few customers, long term off-take agreement with good credit standing counterparty(ies)
- Public utility services inevitable to modern life such as water, electricity, gas, etc.

(2) Characteristics of the originator

JCR thinks a suitable originator for this kind of securitization has those characteristic(s) described below:

- The originator plays a very important role for society and economy
- In case of bankruptcy process, it is desirable that the major expected scenario for the originator would be corporate reorganization or civil rehabilitation, but not liquidation.

It is also important to check whether the court would likely to accept the validity of future flow receivable sale in the process of DIP (Debtor In Possession). The possibility of business continuity under some scenarios is vital. Such scenarios are financial restructuring, turn-around process, sponsorship change and so on. In many cases of corporate turnaround, it is also very important whether they could get supports from other creditors and /or government affiliated financial institutions. These factors would affect the access to working capital liquidity, recovery prospects among creditors.

(3) Business continuity

JCR considers whether the originator is likely to have an ability and inclination to generate the required volume of receivables. JCR reflects the factors, such as size of the operation, economic viability and quantitative data into its analysis. For example, if the project is operated around break-even point (small margin), the originator might reduce or stop its operation in the down side scenarios. In case of certain regions in the world, stagnant commodity price might trigger economic crisis, political instability that might cause disruptions in operation (for example, production, transportation, custom procedure) under stress scenario.

«Characteristics of the resilient business»

- Strong and sustainable demand
- High market share, leadership position in the market
- High operation rate, large margin to break-even point
- Little substitutes
- Resilience to weaker market with such backgrounds; patent, licenses, government permit, products differentiation
- High prospect of sales recovery after temporary demand decline, consistent demands
- Political and economic stability in the originator's country
- Recognized as an important source of foreign currency in the originator's country, for example, major exporting sectors which could acquire hard currencies

(4) Debt structure of the originator

JCR also assesses the credit quality of the future flow securitization debt relative to the other

obligations of the originator. In a typical future flow securitization transaction, accelerated amortization mechanism, debt service reserve account together with thresholds and triggers are set up. JCR consider the proportions of the different classes of debt in order to determine the recovery priority rank estimates among debts. In order to make these mechanism work, following factors are pre-requisites.

- The originator has access to liquidity.
- The ratio of structured debt among total debt is small.
- There should be certain length of time of operation to generate cash flow to make such mechanism economically meaningful.³

(5) Stress test

The volume of future receivables fluctuates month by month, quarter by quarter, year by year due to seasonality, business cycles, etc. Seasonal cash flow fluctuation should be coped with reserve accounts in general cases. JCR will make various scenarios which reflect past track record, trend shift, event risks and so on in order to simulate cash flow movements and debt redemption until debt maturity.

« Examples of stress »

- Event risk such as natural disaster, pandemic, terrorism, war, severe accident, consumer boycott, political instability
- Changes in competition, new entrants, substitute, technological obsolescence
- Demand decrease caused by economic downturn, currency depreciation in consumer country, consumer preference change

(6) Notching up

After evaluating originator's credit, business continuity, collection & recovery mechanism, and sovereign risk (in case of cross border transaction), JCR will determine the range of notching up and rating itself. JCR assumes that in an ordinary future flow receivable securitization case the notch-up is 3~4 notches⁴ at maximum because there is no material collateral except for cash reserve accounts nor strong protection like EETC⁵ in its mechanism. The chart underneath shows a table of rough guidelines for the credit rating decision on future flow securitization from the

³ Window-dressing accounting, dishonest transactions could cause sudden credit & liquidity profile change like a cliff. These points should be examined and checked at the beginning of the structuring process to eliminate an improper originator.

⁴ In exceptional case with multiple profiles of extremely strong standing, the notching could be raised up to 5 ~ 6 notches.

⁵ EETC (Enhanced Equipment Trust Certificate) is developed in the US as one of the funding method for airplanes.

originator's corporate rating (unsecured). In case of cross border transaction, JCR considers Transfer & Convertibility risk and local currency long term issuer rating evaluation.

Notching Up guideline

DSCR	Business continuity		
	Very high	High~average	Low
4x <	3~4	1~2	0~1
3x~4x	1~2	0~1	0
2x~3x	0~1	0	0
< 2x	0	0	0

This table assumes notching up can be achieved through effective covenants & triggers, resilience under stressed scenarios along with high business continuity evaluation.

JCR will use its own estimate of future cash flow forecast to calculate DSCR.

4. Monitoring (Points at surveillance)

JCR will examine the afore-mentioned 4 points⁶ to monitor the rating. Rating could be reviewed and changed under such situations.

- Changes of the originator credit standing
- Future flow receivable volume shift (up/down) above JCR expectation with sustainable expectation
- Changes in sovereign rating, T&C risk evaluation in case of cross border transaction
- Materialization of changes in legal system, tax regime, regulatory affair
- Significant changes in credit standing of related parties in the transaction such as swap provider, liquidity provider, trustee and so on.

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⁶ Originator's credit evaluation, Business continuity evaluation, Collection & Recovery mechanism and Sovereign risk evaluation