

Real Estates

1. Introduction

The securitization of real estates has developed on the back of the diversification of fund raising methods and mounting needs for improvement in financial standing in Japan and is broadening its base in recent years helped by frequent use of the scheme by real estate funds, etc for their investment fund raising purposes.

In assigning credit ratings to real estate securitization products, it is imperative to adopt the assessment methods that take into consideration the customs and systems of real-estate transactions based on the attributes of properties to be securitized. This report describes points for the assessment, ways of thinking, and things to keep in mind for scheme formation, etc. for Japan Credit Rating Agency, Ltd. (JCR) to assign credit ratings to real-estate securitization instruments. JCR will arbitrarily readjust its rating methods in response to changes in the environment surrounding the securitization of real estates, including economic trends, real-estate market conditions and legal and tax systems.

2. Assessment of Real Estate Prices

The point to be considered to begin with in formulating a real estate securitization scheme is how to assess the values (the present values and future values) of real estates to be securitized. Points and ways of thinking adopted by JCR when it assesses the real estates to be securitized are described here first. This report consistently lays out JCR's view points, as a credit rating company, in assessing the values of real estates to be securitized, and does not describe methods of general real estate appraisal.

(1) Points for the assessment

(i) Analysis of the market

The analysis of the subject real estates and the real estate market in their neighborhood is the most important point for assuming cash flows of a securitization scheme and assessing its asset values. JCR tries its best to analyze and assume market conditions at the time of securitization and market trends up to the time of corporate bond redemption as accurately as possible by checking the items as follows.

- (a) Conditions of location (roads, transportation access, etc.)
- (b) Conditions of locations and properties to compete with (ones existing or under planning)
- (c) Conditions of lot utilization in the neighborhood, tenant occupancy conditions
- (d) Supply/demand conditions of tenants (lease conditions, level of vacancy rate), sales information
- (e) Various economic indexes for the market trend, information of indexes, etc.
- (f) Historical data (changes of rents/vacancy rates, lease periods, statuses of inquiry by tenants, etc.)

(ii) Qualities of the subject real estates

Profitability and grades of the subject real estates are very important for making judgment of their qualities and competitiveness. The necessity of maintenance, management and renewals, etc. of buildings, actual plans for them and accruing expenses are also the factors to be judged in predicting future cash flows as well as asset values of the properties. JCR makes it a rule to examine the following items, but JCR practically requests the engineering reports, which were prepared mainly by construction companies or design companies to be submitted, and does the research about their contents and confirm them after conducting the field examination. *¹

*¹ If there are many items to be researched, it could end up with spot investigation of samples.

- (a) Environment (including disaster risks such as earthquakes, conditions of contamination, etc.)
- (b) Shape and dimension of lands (lots)
- (c) Contractor and maintenance provider of buildings (construction, facilities)
- (d) Grades of buildings, maintenance system of electricity, gas, water supply and drainage, and air conditioning
- (e) Economic life and age of building
 - Economic life of building shall be economically usable remaining number of years assessed by an appraisal or engineering report
- (f) Maintenance cost
- (g) Necessity of big scale renovation (capital expenditure) and future plan
 - Whether cash flows are sufficiently secured or not is to be verified for the future plan based on historical data and engineering report

(iii) Qualities of asset management and property management

In cases of offices and commercial facilities, asset management for the securitization scheme shall be performed by real estate companies, trust and banking corporations, affiliated companies of originators, etc. The assessment of whether each company (including companies performing businesses such as property management (commissioned companies)) has ability to respond to roles they are supposed to play for each assignment is very important, and JCR checks the following matters.

- (a) The past results, performances (the number of properties managed, the number of personnel in charge, and their experiences, ability to deal with tenants, building maintenance ability, planning ability for big scale renovation, market research ability)
 - Hardware side renovation is considered to be basically performed according to a plan in an engineering report, but software aspect of operating real estate business (abilities to prevent the decline of property value and to formulate a plan to scheme the maintenance and

enhancement of competitiveness) is considered to become an important factor in determining selling price in the future.

- (b) Stability of financial conditions
 - (c) Capital ties, etc. with parties related to the scheme
- (iv) Tenant statuses (in cases of office buildings and commercial facilities)

One of the most important points to be noted in assigning credit ratings is to make sure to keep the quality of tenants high for preventing the sharp rise in vacancy ratio and significant decline in rent level. Although it is desirable that the diversification of tenants is assured (industry types, scales, and others) for measures against vacancy in the future, it is also important to adequately control the balance between such diversification and qualities of properties as a whole. From these view points, JCR conducts investigations of the following items and makes assumption of variability rates and trends of rental income based on their results. In case of existing properties, however, basically the submission of historical data since the time of completion is requested (data for 5 ~ 10 years in case of old properties).

- (a) The number of tenants (dispersion) and their quality
 - It is desirable for tenants to be dispersed so that rental income from one tenant is 5% or less.
 - Credit capability of each tenant is basically one of criteria for assessing risks of nonpayment or delay in payment of rents, but properties with high versatility are considered not to be influenced so much by vacancy risks (excluding particularly subleased properties or commercial facilities with a single tenant with low substitutability).
- (b) Rent level, rent revision status
 - If the level of rent is found deviated from prevailing market rents by the result of research on them, assessment values could be calculated after readjustment of rent is considered.
 - With regard to the future scenario including revised prediction of rental income, the assessment is made reflecting the future outlooks after the consistency with market rent trends are checked and details of lease contracts are confirmed.
- (c) Lease period, the next review
- (d) Conditions regarding burden of expenses, etc. specified in a lease contract
- (e) Conditions to lease review and terminate a contract (the existence of options)
- (f) Descriptions of businesses, financial conditions and management policies of tenants
- (g) Tenants' purposes of utilization and how tenants regard the properties (whether they are likely to move out)

(2) Real estate appraisal report

- (i) Preparation of real estate appraisal report

JCR receives an appraisal report submitted for real estates to be securitized and checks its

contents. It is desirable that there are detailed descriptions of appraisal methods and contents from the initial stage of preparing such appraisal report by a real estate appraiser in charge or the opportunities for discussion regarding the above matters with an appraiser are provided.

- Discussion is to be conducted for the future vacancy rate and tenant supply/demand trends based on historical data and market analysis results

(ii) Check points

- (a) Whether rental income is set up for each property assignment with prevailing market conditions or results being taken into consideration (rent, vacancy rate) is to be checked.
 - Concerning the prevailing market conditions, as it is not easy to obtain appropriate data for every case, they are limited to the extent predictable from real estate appraisal reports or other information sources.
- (b) Whether repair costs (including big scale renovation) are set up based on engineering reports prepared by third-party specialists (general contractors, designing companies, etc.) is to be checked. ^{*2}
- (c) Whether management expenses (management fees, maintenance fees, etc.) are set up based on the past performances in principle is to be checked.
- (d) Whether taxes and public dues are set up based on revised trends for assessed values of fixed assets is to be checked.
- (e) Whether casualty insurance premiums are set up based on the amount estimated by insurance companies is to be checked.
- (f) Whether the ratio of expense to income is on the appropriate level comparing with that of general case is to be checked.
- (g) Whether the future cash flows of the subject real estates are set up on the appropriated level based on the above (a) through (f) is to be checked.
- (h) Whether a discount rate or the terminal cap rate (capitalization rate) is set up on the level sufficiently reflecting various risks for the subject real estates is to be checked.
- (i) Whether appraisal prices are set up in an appropriate level by proper methods using “values of reversion” (future property values) and discount rate calculated based on the above (g) and (h) is to be checked.

^{*2} Scenarios are generally set up based on the configuration made by engineering reports, etc., so that cash flows are leveling during a lease contract period, but if in case they are not, reasons for that are to be scrutinized. Although it is regarded as natural, the same is true for the case where there are any doubts about the configuration level itself.

(3) Assessment by JCR

(i) Cash flow analysis

JCR conducts cash flow analysis based on a real estate appraisal report prepared by a real estate appraiser. In analyzing cash flows, risk analysis is also conducted adding factors of the individual subject property including general factors of real estate markets (natural factors, social factors, economic factors and administrative factors). In another word, it is necessary to conduct the analysis getting understanding of volatilities of cash flows of the subject real estates taking both macro and micro approaches.

Examples of main risk factors for this cash flow analysis are as follows.

- Risks for rents deviating from assumed rents
 - Due to a decrease in marketability, excessive supply and the deterioration of economic environment
- Vacancy rate rising risks
 - Due to obsolescence of function, emergence of competitive properties
- Cost rising risks
 - Due to temporary repair, rising outsourcing expenses, rising interest rate
- Business interrupts risk due to disasters, etc.
- Risks for selling price falling below assumed price
- Marketability declining risk due to the revision of laws

(ii) Determination of assessed price

Real estate prices are assessed based on cash flows obtained by the above works mainly using income capitalization approach, also taking into cost approach price, etc.

JCR takes a stance to basically concurrently use direct capitalization and DCF method for earning properties. In determining final assessed price, which one of the prices calculated by the above mentioned methods is to be adopted will be determined taking attributes of each property (rent, vacancy rate, trend of NCF, etc.) into consideration.

(iii) Reflection on rating

Judgment on rating of the subject obligation is made after the loan to value ratio (LTV: described in details in Section 4), etc. is calculated based on the assessed price.

In case of an external credit enhancing type scheme, credit rating is assigned based on obligation performing ability of a party enhancing credit (option-writer, guaranty companies, etc.) after due diligence of the performance of such credit enhancing agreement is conducted.

(iv) Follow-up of asset value trends

JCR requires that fluctuation of the subject property's price be reviewed once every year in

principle and data and materials for such review be submitted and reported to JCR. If redemption risk is deemed increasing for the subject obligations due to material changes in conditions of the subject property (withdrawal of main tenants, sharp decline in land prices in the neighborhood, etc.), JCR will arbitrarily request that related data and materials be submitted and reported, and provide investors with information including designation of a credit monitor and revise of credit ratings, and promptly disclose its result as well.

3. Redemption Risk for Obligations and Credit Enhancing Measures, etc.

In a securitization scheme, credit enhancing measures, etc. are incorporated to avoid risks of fluctuation (decrease) of capacity utilization profit (net profit during a period based on rent income), or sales proceeds (or refinance proceeds) which is a source of fund to redeem obligations. In assessing credit rating, to what extent the risks concerning repayment of principal and interest for obligations are mitigated by such credit enhancing measures established for the scheme will be judged.

(1) Assumed risks

The following risks are assumed against capacity utilization profit and sales prices.

- (i) Risks related to capacity utilization profit
 - (a) Risks of delinquency in rent payment and nonpayment
 - (b) Risk of rent reduction
 - (c) Vacancy risk
 - It is impossible to completely avoid the risks of the above (b) and (c) under the current Land and House Lease Law. In case of properties with high substitutability in that substitute tenants can be acquired any time, however, it is possible to reduce such risk to some extent.
 - (d) Risk of increasing business management cost (cost for renovation, taxes and public dues, insurance premium, administration cost, etc.)
 - (e) Risk that makes continuation of business impossible (loss or damage of buildings due to earthquake)
- (ii) Risks related to sales price
 - (a) Risk that is making the selling impossible with scheduled price within sales period
 - (b) Risk that is making the selling impossible (loss or damage of buildings due to earthquake)

(2) Design in structuring, credit enhancing measures, etc.

Internal credit enhancing measures ((a) ~ (c) below), external credit enhancing measures ((d) below) and design in structuring ((e) and (f) below) can be thought of as means to avoid risks mentioned in the above (1). What types of and to what extent such credit enhancing measures are needed is to be investigated corresponding to target rating of the subject obligation or credit capability of parties related to the securitization scheme.

- (a) Setup of LTV (details are described in the Section 4)
- (b) Setup of cash reserve (reserve at initial stage or during a period)
- (c) Setup of trigger clauses (furnishing of additional collateral, additional capital contribution, redemption before maturity, etc.)
- (d) Guaranties by persons related to the scheme or third persons (external credit enhancement measures), etc.
- (e) Design of lease contract (prohibition of cancellation before maturity, special agreement prohibiting request for rent reduction, tenant obligation to bear operation costs, etc.)
- (f) Exit strategy (strategies related to selling or refinance, assurance to have enough time before the implementation of sales or refinance)

4. Setup of Loan to Value (LTV)

(1) LTV Concept

- (i) LTV is a rate of “loan principal amount (limiting to the obligations with rank the same as or prior to the subject obligation)” to “asset value” of the subject real estate at the time of receiving a loan. In the real estate securitization scheme, it’s possible to make a judgment to an extent in the future price fluctuation if risk is covered, by making the setup of a cushion related to the subject obligation using LTV the credit enhancing measure against asset value fluctuation risk. Therefore, LTV becomes a significantly important index in assigning credit rating corresponding to the assuredness of the payment of principal and interest amounts of obligations.
- (ii) It is considered normally difficult to borrow money for a period exceeding 10 years in the current real estate securitization market, and it is not so practical to assume a loan (borrowing) considering the profit generated during a period of real estate business (capacity utilization profit) alone as the redemption source of funds. Accordingly, in calculating LTV, it is necessary to predict cash flows including both (a) “capacity utilization profit” and (b) “amount of sales (or fund raised by refinancing to redeem obligations) necessary to be secured by the time of redemption”.
- (iii) LTV is setup with various risks assumed to arise for the subject real estate (fall of land price, decline in rent income, deterioration of buildings, etc.) being taken into consideration, and with the possibility that the above mentioned “capacity utilization profit” and “future sales profit” will fluctuate (decrease) before the redemption being made is reflected.
- (iv) The level of LTV is arbitrarily reviewed depending upon changes in (a) domestic economic trends (related to financial environment in particular), (b) nation-wide land price trends, and (c) laws and regulations, etc.

(2) Method of LTV calculation

- (i) Setup of “Standard Value” for LTV

JCR sets up the “standard value” (Figure 1) of LTV for each target rating under the following

premises.

- (a) “Standard value” indicates an upper limit (boundary) for each rating category. As ratings for the subject obligations, however, such values are classified by a symbol of “+” and “-” which shows relative location in the same category.
- (b) JCR makes it a rule for the time being to setup the standard value for LTV only for the rating of “BBB” or higher, and in case where borrowings rated “BB” or lower is implemented, rating standards will be judged for such individual case.
- (c) Schemes and asset types are setup according to the followings.
 - (01) Internal credit enhancing type
 - (02) Single class
 - (03) Plural number of properties
 - (04) Plural number of tenants
 - (05) Use purpose: Office
- (d) In case of a scheme for which assuredness of principal and interest payment of issued bond depends on liability performing ability of external credit enhancing entity (option writer, insurer, etc.), rating of such credit enhancing entity is made a cap for a rating of the bond.

(Figure 1) LTV criteria for each rating

Rating categories	AAA	AA	A	BBB
LTV	~ 30%	~ 45%	~ 55%	~ 70%

* For LTV application statuses for the current assignment.

(ii) LTV setup for each rating

JCR sets up LTV criteria for each rating based on the Figure1 after making the following adjustments.

- (a) JCR classifies attributes of assets in (i) use purpose (office, residence, commercial facilities, etc.), (ii) the number of properties, and (iii) locations, and it sets up correction factor for each category corresponding to risk caused by the conversion of real estates to money. If a positive factor is found in case of comparing attribute of the subject real estate with condition mentioned in the above (i) (c), numerical value of LTV will be bigger. On the contrary if minus factor is found the numerical value of LTV will become smaller [the first stage].
- (b) JCR further adjusts LTV taking into consideration factors exerting influence on the sales of the subject real estate (degree of dispersion of properties’ locations, degree of dispersion of tenants, supply/demand trend for substituting tenants, possibility of use change, statuses of competitive properties, etc.) [The second stage].

(3) Concept in case where multi-class type borrowing of obligation is made

In case of multi-class type borrowings for which plural number of borrowings of obligations with different ratings are made, obligations of a class (excluding equity portion) playing a credit enhancing role are supposed to cover principal redemption risk of senior class obligations. As risk of the class playing credit enhancing role increases (due to concentration of risk) comparing with a single-type issuing obligations only with the same rating level, there are many cases where it is necessary to make adjustments for the entire amount borrowed or rating levels of junior classes.

5. Setup of Sales Period (Refinance Concept)

- (1) In case of assuming the sale of the subject real estates, the setup of appropriate period for sales becomes very important. Because, the possibility of redemption of obligations will likely be influenced depending on how the period is set up.
- (2) If a period for sales is set up short, a buyer is likely to have advantages at the stage of price negotiation (“haggling” risk due to hasty selling), which may cause a decrease in amount received by a seller side. On the contrary, if the period is carelessly set up long, caution should be paid to risk of even missing selling opportunity.
- (3) Appropriate target period for sales itself may change depending on the market environment, but it should be normally from one year to two years. Such sales period will be adjusted and reexamined corresponding to attributes (use, districts, scales, etc.), qualities (potential for diversion, statuses of legal regulations, ranges of buyers, etc.), and the selling methods of properties.

6. Casualty Insurance

- (1) Included in types of insurance related to operation of real estate businesses are (i) fire insurance, (ii) machinery insurance, (iii) general liability insurance, and in addition to them there are also (iv) earthquake insurance and (v) profit insurance.
- (2) For the real estate securitization scheme, it is desirable to purchase earthquake insurance to cover risk of decline in property value due to seismic damages (particularly for buildings designed on old quake-resistance standards). In setting up premiums for earthquake insurance, JCR will confirm detailed computation of probable maximum loss of buildings due to earthquakes, etc. made by professional companies. The probability of occurrence of secondary disaster is needed to be examined as well.
- (3) Profit insurance could be set up depending on the details of a scheme and level of target rating, but it should consistently be considered as one of additional credit enhancing measures.

- (4) Insurance company underwriting the insurance should be vested with insurance amount paying ability rating of (i) “rating of level three notches below of the rating of the subject obligation or higher” and of (ii) “BBB” or higher. Such measure is to be taken so that the provision requiring to change insurance company if its rating declines is to be specified in advance.

7. Legal Points at Issue and Rating Assessment Concept

In formulating a real estate securitization scheme, it is necessary to pay sufficient caution to real estate transaction practices and systems, etc., inherent to Japan. Described hereinafter are several points at issue and concepts in assessing ratings.

(1) Points at issue for the Land and House Lease Law

It is impossible to completely avoid the risks against request for rent deduction or offer for canceling lease contract by tenants under the current Land and House Lease Law. Therefore, in analyzing cash flows, fixed rent income cannot be relied upon (certain degree of risk is to be examined and it should be factored in standard scenario).

(2) Treatment of security deposit

Many of security monies deposited by tenants are supposed to be reserved for events such as bankruptcies of tenants and they can not necessarily be secured by a lessor side. Therefore such security deposit cannot be counted as cash reserves for enhancing credit or liquidity. In case where such security deposit is not reserved and released to a purchaser, etc., that amount is deducted in assessing the net asset value of property. With regard to monies deposited in accordance with a contract positioned as loan agreement in which a loan provides to a buyer from a tenant in nominal term of construction cooperation fund, etc., its position of a lease after the securitization shall be investigated separately.

(3) Points at issue for lease contract

Attention is to be paid to see whether any factors destabilizing a securitization scheme in the future are existing due to right/obligation relationship between parties concerned (e.g., case where an existing lease contract is used as is in securitizing existing properties, or where there are any differences for a sub-lease assignment between agreements between lessor and lessee and those between sub-lessor and sub-lessee).

(4) Interests among investors

If there are senior and junior relationships among investors exemplified by a case where multi-class obligations are existing, conflict of interest among investors could arise in relation to the sales of properties made at the time when future asset values decline. To avoid such troubles, detailed rules and agreements among lenders concerning selling price or period of selling are necessary to be

established in advance.

(5) Bankruptcy remoteness of SPC

From a view point of securing bankruptcy remoteness of a Special Purpose Company (SPC) (severance of influence from bankruptcy of parties involved with the scheme), it is desirable that directors are elected from among third persons other than parties related to the scheme and capital ties are severed as well. But even if there are capital ties between directors and parties involved with the scheme, these problems may be cleared by establishing operational standards that require certain measures be taken to virtually assure the bankruptcy remoteness of a SPC (e.g., certain numbers of directors are to be elected from among third parties and articles of incorporation require resolution of board of directors be adopted unanimously). *³

*³ It is considered necessary to formulate measures so that a SPC will not suffer any economic losses due to the occurrence of actual functional incompetence and losses of investors caused by emphasis added to formal bankruptcy remoteness. In this case, there could be some cases where a scheme relying upon business performing abilities of parties concerned should be considered.

8. Tax Risk Concept

The tax system for real estates in Japan has been revised in a comparatively short cycle, and such revisions sometimes caused the incurrence of significant losses to tax payers, and therefore, tax system change risk (methods to respond) is necessary to be taken into consideration as one of the risks materially influencing the future cash flows.

9. Rating Systems

Ratings of real estate securitization products are indicated by a rating symbol based on JCR's general rating system. To products with maturity of longer than one year, long-term ratings (AAA ~ D) and to those with maturity of one year or shorter, short-term ratings (J-1+ ~ NJ) are assigned. There are classifications indicated by symbols of plus (+) and minus (-) in rating symbols of "AA" through "B" to indicate comparative positions in the same category.

[Necessary materials]

1. Information materials in general

- (1) Schedule table
- (2) Term sheet (briefing documents)

2. Legal materials

- (1) Agreements related to the scheme (real estate sales agreement, real estate management consignment agreement, real estate lease contract (including land, buildings, parking spaces, and other ancillary facilities), agreements related to a SPC (domestic, Cayman))
- (2) Real estate securitization plan
- (3) Legal opinion regarding the securitization (arbitrarily)

3. Materials Related to Land and Buildings

- (1) Materials related to titles of land and houses (register held by legal affairs bureau, recorded map, acreage survey map, drawing of building, ground plan for each floor)
- (2) Time of and price for land acquisition
- (3) Materials related to building permits (notification of building certification and certificate of inspection)
- (4) Land map and materials related to dimension (measured drawing, or boundary fixation map)
- (5) Drawing and specifications of building (completion drawing and construction schedule for building and facilities)
- (6) Pamphlets of building (which indicate interior facilities: OA floor, individual ventilation, twenty-four hour basis)

4. Materials Related to due Diligence of Building

- (1) Engineering report (building deterioration diagnosis, renovation cost, long-term renovation cost (capital expenditure), reacquisition cost, compliance diagnosis, etc.)
- (2) Quake-resistance diagnosis report (Is value, PML, possibility of ground liquefaction, etc.)
- (3) Environment diagnosis report (dangerous articles and waste materials such as asbestos or PCB, land contamination, etc.)
- (4) Others (contractor and construction cost, construction period, renovating company, renovation cost, renovation period, contractor for periodic renovation, the present building management company (including outsource company), history of suffering natural disasters and history of accompanying renovation)

5. Real Estate Appraisal Report

6. Materials related to Estimated Profit on Real Estate

- (1) Business income and expense plan
- (2) Earning results of the subject real estate (annual historical data for the last five years or so, at least for three years)
- (3) Market report (condition of location, competitive location, supply/demand trend, competitiveness in areas where the subject building is located, contract completion conditions for similar buildings, assumed contract completion conditions for the subject building)
- (4) Rent-roll (the past and present tenant lists, contracted rent, statuses of revising rent, etc.)
- (5) Materials related to tenants (lines of businesses, financial conditions, use purpose, position for such company (possibility to move), credit research report, etc.)
- (6) Vacating and moving-in trends of tenants in the future (existence and non-existence of vacating pre-notice, tenants likely to vacate, or inquiries for vacancies)
- (7) Tax notice for fixed asset tax and city planning tax for land, buildings and depreciable properties (which describes assessed values, standard taxable values, amount of tax payment of past five years, at least three years)

7. Materials Related to Property Manager

- (1) Company Profile
- (2) Past performance (number of buildings managed, leasing ability, maintenance ability, etc.)
- (3) Financial conditions

8. Casualty insurance

- (1) Types of insurance presently covered and insurance company
- (2) Insured subjects and details of insurance (for each type)
- (3) Insured amount (for each type)
- (4) Annual insurance premium (for each type)