Exhibit 2
Procedures and methodologies used in determining credit ratings

Exhibit 2-1 Credit Rating Process

JCR's Credit Rating Process

A brief summary of the credit rating process for all classes except Asset Backed Securities from a request to publication and credit rating review is presented below. When a credit rating is obtained for the first time, the credit rating process will normally take approximately two months to complete.

1. Request for Credit Rating

The credit rating process typically begins with a request by an issuer (obligor) of a bond that will be assigned a credit rating (or a third party who has obtained the consent of the issuer (obligor)).

2. Selection of Responsible Rating Analysts

Following the receipt of the request for a credit rating, analysts are selected, taking into account the industry and the type of the debt to be rated, among other factors. More than two analysts (basically two) are chosen to maintain the objectivity of the analysis undertaken for a credit rating as a Responsible Rating Analyst.

3. Determining whether to initiate a credit rating

When receiving the request for or inquiries about credit ratings, the Responsible General Manager of the Rating Department shall determine whether the cases associated with the relevant requests or inquiries can proceed or not from the perspective of, among other things, assuring appropriate quality in assigning credit ratings, compliance with laws and regulations and protection of investor benefits. JCR has a review function that includes general managers and chief analysts with appropriate experience to review the feasibility of providing a credit rating. The Responsible General Manager of the rating department shall ask for the decision of this review function whether to proceed the case or not, if necessary.

4. Request for the Submission of Data

Responsible Rating Analysts ask the issuer to be rated to submit data necessary for the analysis, including nonpublic information. Although the types of data requested differ depending on the industry and the particular features of the company, they are typically wide-ranging, including a corporate profile, management organization, production, sales, financial statements, business plans, information on subsidiaries and affiliates, and important information such as legal actions, and bond issues. Although JCR already has and keeps public information such as industrial data, industry reference materials, and information on individual companies, JCR is able to determine an even more appropriate credit rating by requesting this type of diverse information from the entity to be rated.

* JCR does not register the class of asset backed securities as NRSRO ratings.

5. Sources of information used in determining credit ratings

JCR has policies and procedures to ensure the quality of information used in determining credit ratings. Responsible Rating Analysts use only the information which met the requirements of the quality standard prescribed in this policy. If Responsible Rating Analysts judge that the information used for determining credit ratings do not satisfy the quality standard, they shall suspend the credit rating activities.

Besides published information, the sources of information include non-public information provided by issuers or their agents. With regard to unsolicited credit ratings, JCR shall assign credit ratings even if part of or all of non-public information cannot be obtained, but if the information used in determining credit ratings satisfies the quality standard.

Information sources used for the corporate credit ratings includes, in general, financial statements and business records provided by issuers, documents and explanations regarding the management policy, documents for products to be rated provided by issuers and statistics and reports about economic and industrial trends published by a neutral institution. JCR may use data, reports and other information or information processing services provided by a third party such as reliable information vendors, etc.

Information herein has been obtained by JCR from the issuers and other sources believed to be accurate and reliable. However, because of the possibility of human or mechanical error as well as other factors, JCR makes no representation or warranty, express or implied, as to accuracy, results, adequacy, timeliness, completeness or merchantability, or fitness for any particular purpose, with respect to any such information.

6. Analysis of Data, etc. and Transmission of Questionnaires

Responsible Rating Analysts perform both quantitative and qualitative analyses of the credit strength of the issuer based on the data submitted by the issuer, as well as financial data, industry data and other relevant information. Based on the results of the analysis, the Responsible Rating Analysts hold discussions to identify questions and issues, and compile these questions and issues into a questionnaire that is sent to the issuer to be rated or is inquired during the interviews.

7. Interviews and interacting with the management of the issuers

There are two kinds of interviews in the interviews with executives and employees of the obligor (issuer) where Responsible Rating Analysts receive an explanation for assigning a credit rating by face-to-face meeting. One is staff interview and another is management interview.

While both interviews are conducted in case where Responsible Rating Analysts consider it necessary, JCR, in principle, conducts interviews when assigning an initial credit rating to an obligor (issuer). Also in principle, a staff interview is conducted when reviewing the credit ratings periodically. In addition, in a periodical credit rating review after the issuer's top management has been replaced considerably, JCR conducts a management interview in many cases where Responsible Rating Analysts consider it necessary to have an interview.

For the interview, Responsible Rating Analysts visit the issuer being rated. They are given the response to the questionnaire that has been sent to the issuer in advance and explanations on the data submitted. They undertake physical inspections, such as visiting a factory, if necessary. The purpose of the interviews and the inspections of plants and other facilities is to obtain information specific to the issuer being rated by confirming and viewing first-hand information

* JCR does not register the class of asset backed securities as NRSRO ratings.

that support the financial analysis. In particular, interviews with senior management is a critical source of information in better understanding of the future prospects of the issuer being rated, because they provide opportunities to hear an accurate vision of the entity being rated and confirm first hand management's policies, strategies, and other important activities.

8. Rating Committee

Based on the analysis of the data submitted and the interviews, the Responsible Rating Analysts discuss the credit strength of the issuer being rated and the details of the debt being rated, and then prepare materials for convening a Rating Committee. When the materials are ready, the Rating Committee is held, where the analysts propose a credit rating and give an explanation of the rationale.

In general, the Rating Committee consists of at least five Rating Committee members, and the primary purpose of Rating Committee is to discuss whether the recommended credit rating arrived at through the various methods of analyses is consistent with the credit rating structure of JCR and whether it is accurate and valid, before a final credit rating decision is made. As a result of the discussion, Responsible Rating Analysts may modify the proposal during the Committee. In such cases, Rating Committee Members discuss about the modified proposal to determine the final credit ratings. If the analyses presented by the Responsible Rating Analysts are considered inadequate or if the analysts' recommendations are considered inappropriate, the Responsible Rating Analysts may be required to undertake a reexamination and reconvene the Rating Committee later.

Each Rating Committee Member who attends the Rating Committee has a voting right. If the Responsible Rating Analyst is one of the Rating Committee Members, he / she also has a voting right. Resolutions at the Committee shall be made by agreement of all attending Rating Committee Members in principle. If the agreement is not reached, items on the agenda shall be discussed in a collegial body consisting of senior Rating Committee Members. Resolutions at such collegial body shall be decided by majority in principle.

9. Informing issuers of rated securities about credit ratings decisions and for appeals of credit rating decisions

After a credit rating has been determined, the issuer or its agents being rated is promptly notified before the publication of the credit rating. This provides the entity being rated with an opportunity to raise an objection against factual errors, etc., so that a more accurate credit rating can be assigned.

Once credit ratings are determined, Responsible Rating Analysts shall promptly explain to the issuers or their agents the determinants of the credit ratings; such as primary information or major topics discussed, by issuing documents, such as draft press releases and other draft public notices associated with giving the credit ratings in question, so that the issuers or their agents could confirm whether there is any misrepresentation of the facts in information used for determining credit ratings or not. Responsible Rating Analysts shall also explain that the issuers or their agents have a right to notice any misrepresentation found by the deadline set out by JCR.

Responsible Rating Analysts may take necessary procedures to publicize the credit ratings timely without extending the deadline, even if the issuers or their agents cannot be likely to finish the confirmation of whether there is any misrepresentation of the facts or not by the deadline set out by JCR, when the reason of such delay is not justifiable nor reasonable.

* JCR does not register the class of asset backed securities as NRSRO ratings.

In cases when the issuers point out misrepresentation of the facts or other considered as justifying examination of the accuracy of credit ratings, other rating analysts shall be appointed to reinvestigate and the Rating Committee to reexamine the credit ratings in question shall be convened only when judged as necessary. In this case, information and data that support the objection will be requested anew from the entity being rated. In cases when the issuers simply express their oppositional views against the ratings results, no reinvestigation or reexamination shall be conducted.

10. Publication

A credit rating that has been decided will be made public without any delay. For the results of a review of a credit rating that has already been made public, there may be instances where, for unavoidable reasons, they are made public without first obtaining the consent of the rated entity. However, the results of the review and the reasons thereof are, in all cases, explained to the rated entity.

In addition, if any material change is to be made in the rating criteria, etc., the fact that the change will be made and an outline will be announced before it is applied to individual credit ratings. In unavoidable instances, however, JCR may announce the cause, the fact that the change has been made, and an outline at the time the publication of an individual credit rating is made.

The publication will be made through one or more ways, including a news release through the press club at the Tokyo Stock Exchange, distribution to electric media such as Bloomberg and Reuters, and posting on JCR's website.

11. Review of the Credit Rating

As long as there is rated debt outstanding, the performance of the issuer and the events and developments of the industry are monitored, and when there is a need to review the credit rating, a review will be made. If it is deemed necessary to change the credit rating, the credit rating will be changed and the result will be made public. JCR undertakes a regular review of credit rating. If an unexpected or drastic change occurs in the performance of the rated entity or in the business environment that may have a material impact on the creditworthiness of the rated entity, such as a merger or an acquisition, the credit rating will also be reviewed. In principle, JCR interviews the issuers with relevant data and information provided by them when conducting periodical reviews.

JCR conducts a regular review of credit ratings about once a year, but the actual review interval may exceed a year, depending on necessity for additional information collection or adjustment of schedules and other reasons. JCR periodically identifies credit ratings for which more than a year and a month passed from the most recent assignment and examines the background of the passage of the period, etc. and then urges the Responsible Rating Analysts to promptly review the credit ratings, if necessary.

When conducting the review of the credit ratings, JCR basically refers to the same rating policies and methodologies used for assigning an initial credit rating. When revising or establishing credit rating policies and methodologies for assigning an initial credit rating, they shall be applied not only to credit ratings assigned for the first time thereafter but also to credit ratings to be reviewed. When credit rating policies and methodologies used for the review is revised or established, JCR shall apply the revised policies and methodologies when assigning an initial credit rating if necessary.

* JCR does not register the class of asset backed securities as NRSRO ratings.

In case that the establishment or the revisions of the rating policies and methodologies is material, JCR shall publicize the scope of individual credit ratings on which reviews are needed according to the establishment or revisions and a timeframe for such reviews without delay after the publication of the establishment or the revisions.

While there is a likelihood of a change in the credit rating as a result of the review, and when JCR deems it necessary to obtain additional information or make an additional analysis with respect to the event described above for determination of the credit rating, the credit rating will be placed under Credit Monitor and JCR will publish an announcement to that effect to call the attention of investors. After it is placed under Credit Monitor, the credit rating may be changed.

12. Suspension and Withdrawal

JCR may suspend a credit rating if JCR deems that it is temporarily difficult or impossible to review the credit rating when a significant change occurs to the objective circumstances, such as a situation where it becomes difficult or impossible to obtain the necessary information for reviewing the credit rating. Suspension is a temporary measure, and if the event that caused Suspension is unlikely to be resolved, the credit rating will be Withdrawal. The credit rating will be withdrawn if JCR deems that it will be impossible to conduct the rating review into the future, because a significant change has occurred to the objective circumstances such as a lack of issuer cooperation with regard to the provision of information. Such suspension or Withdrawal shall be determined by the Rating Committee.

A credit rating may be withdrawn if JCR deems that it is no longer necessary to sustain the credit rating due to bankruptcy procedures involving the issuer or other circumstances, in the event that the need arises in order to comply with laws and ordinances, or in the event that unavoidable circumstances occur in order to conduct business. A credit rating will also be withdrawn when JCR receives a request from a person who has solicited the rating to withdraw the rating and then accepts the request. Withdrawal at the request of the issuer or the aforementioned reasons shall be implemented by approval of the senior executives of the responsible department.

JCR promptly publicizes Suspension or Withdrawal of credit rating except for the extinction of rated securities or entities. When withdrawing a credit rating after JCR receives a request from a person who has solicited the rating to withdraw it due to the downgrade of its rating and JCR accepts the request, JCR will publicize the fact that it has downgraded the credit rating when announcing the Withdrawal.

13. Unsolicited Credit Ratings

If a publication of a credit rating on an issuer is perceived to contribute to the enhancement of credit rating accuracy because the issuer's market share, for example, is high, JCR shall assign and, if assigned, publicize the unsolicited credit rating without delay with the consent of the issuer. In this case, JCR shall disclose the credit rating not assigned at the request of the issuer by indicating affix, "p", to the rating symbol to identify it as such.

Even in the cases when credit ratings are not solicited by the Stakeholders, JCR shall assign credit ratings based on the same credit rating process, methodologies and information as for a solicited credit rating. Even in the cases when an interview with Stakeholders can be conducted only partially or no such interview can be conducted or when only partial non-public information can be obtained or no such information can be obtained, JCR may assign credit ratings not

* JCR does not register the class of asset backed securities as NRSRO ratings.

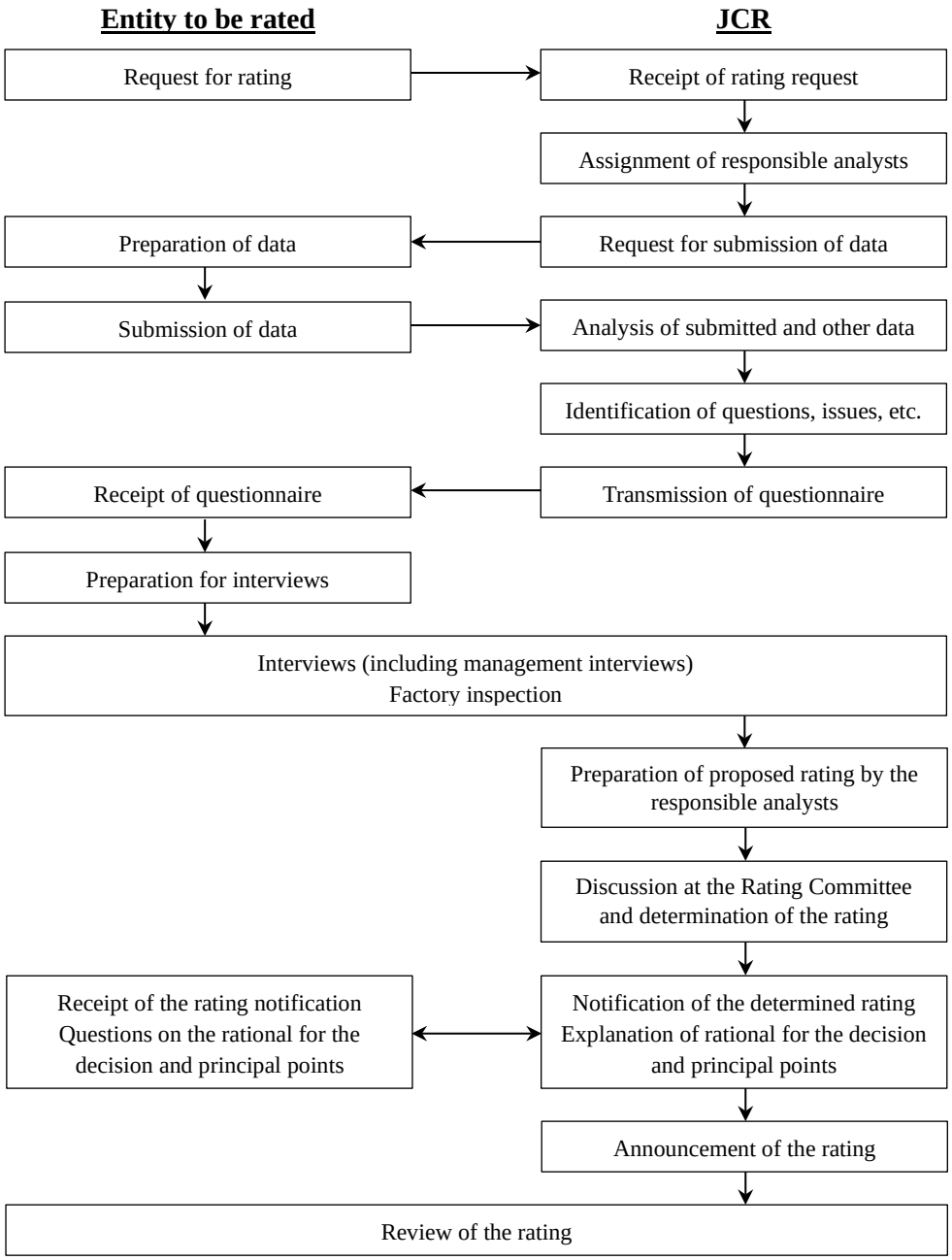
solicited by the Stakeholders, if it can ensure the quality of information used for such unsolicited credit ratings.

For a credit rating for a sovereign, in some cases, JCR assigns a rating without consent of the applicable nation. In the case of sovereign credit ratings, when assigning and publishing unsolicited credit ratings, the affix, “p”, shall not be indicated. In this case, however, JCR shall publish unsolicited credit ratings by publicly stating that such ratings are unsolicited credit ratings.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Appendix I

Process of Corporate Credit Rating



(Note) If an objection against the decision is made by the entity being rated, the details of the objection will be examined, and if deemed necessary, the rating will be reexamined by other analysts and discussed again at the Rating Committee.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-2 Types of Credit Ratings and Definitions of Rating Symbols

Types of Credit Ratings and Definitions of Rating Symbols

1. Credit Rating Categories and Details

Credit Rating Categories	
Corporations, etc.	Creditworthiness of corporations or similar entities as given below, and creditworthiness of financial instruments such as securities (excluding asset securitization products and other structured financial instruments) that are issued by the relevant corporations or similar entities: (i) (Industrial) Corporations, etc. (ii) Financial Institutions, etc. (including insurance companies) (iii) Public Sector Entities (iv) Medical Institutions, Educational Institutions, etc. (v) Sovereign and Overseas Public Sector Entities, etc.
Structured Finance Products, etc.	Creditworthiness of those as given below: (i) Asset Securitization Products (ii) Other Structured Finance Products as given below: • Securities issued by investment companies or the relevant companies, or loans to the relevant companies • ABCP program (limited to types with the bank's full support) • Repackaged products (limited to single-credit financial products with the credit situation of their underlying assets being deemed effectively the same as the credit situation of the relevant financial products) • Securities issued by companies associated with project finance or the relevant companies, or loans to the relevant companies • Securities issued by companies associated with shipping finance or the relevant companies, or loans to the relevant companies • Other products similar to the above

2. Types of Credit Ratings and Definitions of Rating Symbols for Corporations, etc.

(1) Definition of Default

"Default" means a state in which principal and/or interest payments of financial obligations cannot be made as initially agreed. This includes the state where JCR judges it is impossible that principal and interest payments of the financial obligations can be made as agreed due to filing of a petition for legal proceedings such as Bankruptcy, Corporate Reorganization, Civil Rehabilitation, or Special Liquidation proceedings.

* JCR does not register the class of asset backed securities as NRSRO ratings.

(2) Long-term Issuer Rating Scale

AAA	The highest level of certainty of an obligor to honor its financial obligations
AA	A very high level of certainty to honor the financial obligations
A	A high level of certainty to honor the financial obligations
BBB	An adequate level of certainty to honor the financial obligations. However, this certainty is more likely to diminish in the future than with the higher rating categories.
BB	Although the level of certainty to honor the financial obligations is not currently considered problematic, this certainty may not persist in the future.
B	A low level of certainty to honor the financial obligations, giving cause for concern
CCC	There are factors of uncertainty that the financial obligations will be honored, and there is a possibility of default.
CC	A high default risk
C	A very high default risk
LD	JCR judges that while an obligor does not honor part of the agreed to financial obligations, but it honors all its other agreed to financial obligations.
D	JCR judges that all the financial obligations are, in effect, in default.

A plus (+) or minus (-) sign may be affixed to the rating symbols from AA to B to indicate relative standing within each of those rating scales.

(a) A Long-term Issuer Rating Scale enables comparison of the overall capacity of an obligor (issuer) to honor its entire financial obligations with such overall capacity of others.

(b) The same Definitions of Rating Symbols and Scales shall be applied to the Ability to Pay Insurance Claims Rating.

(3) Long-term Issue Rating Scale

AAA	The highest level of certainty of an obligor to honor its financial obligations
AA	A very high level of certainty to honor the financial obligations
A	A high level of certainty to honor the financial obligations
BBB	An adequate level of certainty to honor the financial obligations. However, this certainty is more likely to diminish in the future than with the higher rating categories.
BB	Although the level of certainty to honor the financial obligations is not currently considered problematic, this certainty may not persist in the future.
B	A low level of certainty to honor the financial obligations, giving cause for concern
CCC	There are factors of uncertainty that the financial obligations will be honored, and there is a possibility of default.
CC	A high default risk
C	A very high default risk
D	JCR judges that the obligation is in default.

A plus (+) or minus (-) sign may be affixed to the rating symbols from AA to B to indicate relative standing within each of those rating scales.

(a) A Long-term Issue Rating Scale enables comparison of certainty that the obligations of more than a year will be honored.

(b) In light of attempting to call investors' attention to this matter, JCR may make notch differences between a Long-term Issue Rating and Long-term Issuer Rating when it considers there is a difference in terms of probability of

* JCR does not register the class of asset backed securities as NRSRO ratings.

recovery between the two as a result of assessing the degree of certainty that the obligation will be honored as agreed.

(c) A Long-term Issue Rating includes an issuer's specific obligations it owes such as bonds and issue programs (e.g., medium-term note program).

(d) The same Definitions of Rating Symbols and Scales shall be applied to ratings for hybrid securities such as preferred stock.

(4) Short-term Issuer Rating Scale

J-1	The highest level of certainty of an obligor to honor its short-term financial obligations. Within this rating category, obligations for which the certainty is particularly high are indicated by the symbol J-1+.
J-2	A high level of certainty to honor the short-term financial obligations, but slightly less than J-1
J-3	An adequate level of certainty of an obligor to honor its short-term financial obligations, but susceptible to adverse changes in circumstances
NJ	The certainty of an obligor to honor its short-term financial obligations is less than in the upper-ranking categories.
LD	JCR judges that while an obligor does not honor part of the agreed to financial obligations, but it honors all its other agreed to financial obligations.
D	JCR judges that all the financial obligations are, in effect, in default.

(a) An Issuer Rating Scale enables comparison of the overall capacity of an obligor (issuer) to honor its entire financial obligations with such overall capacity of others. A Short-term Issuer Rating reflects an issuer's overall capacity to honor its entire financial obligations within a year.

(5) Short-term Issue Rating Scale

J-1	The highest level of certainty of an obligor to honor its short-term financial obligations. Within this rating category, obligations for which the certainty is particularly high are indicated by the symbol J-1+.
J-2	A high level of certainty to honor the short-term financial obligations, but slightly less than J-1
J-3	An adequate level of certainty of an obligor to honor its short-term financial obligations, but susceptible to adverse changes in circumstances
NJ	The certainty of an obligor to honor its short-term financial obligations is less than in the upper-ranking categories.
D	JCR judges that the obligation is in default.

(a) A Short-term Issue Rating Scale enables comparison of degrees of certainty that the obligations of within a year will be honored.

(b) A Short-term Issue Rating includes an issuer's specific obligations it owes such as commercial paper programs (including electronic commercial paper).

3. Types of Credit Ratings and Definitions of Rating Symbols for Structured Finance Products, etc.

All the aforementioned Types of Credit Ratings and Definitions of Rating Symbols shall be applied to ratings for Structured Finance Products, etc. For ratings on Investment Corporations, etc., both Issuer Rating and Issue Rating shall be applied.

4. Preliminary Rating

A preliminary rating is a credit rating assigned as a preliminary evaluation while material terms for

* JCR does not register the class of asset backed securities as NRSRO ratings.

issue to be rated are not yet finalized. When the issuing terms are finalized, JCR will confirm them and will assign a credit rating anew. The credit rating determined in this way is sometimes called a final rating. The rating level of the final rating may be different from that of the preliminary rating, depending on the final content of the terms, etc.

5. Unsolicited Credit Rating ("p" Rating)

An unsolicited credit rating is a credit rating assigned without solicitation by an obligor (issuer). JCR will assign an unsolicited credit rating with the consent of an issuer and, when assigned, JCR shall publicize the unsolicited credit rating without delay. In this case, JCR shall make it clear by affixing "p" to the rating symbol that the relevant credit rating is assigned without the solicitation by the issuer. Even for an unsolicited credit rating, JCR will assign the credit rating based on the same credit rating process, information and methodologies as those for a solicited credit rating, in principle. Even in cases where it is impossible to conduct an interview with the issuer or where only partial undisclosed information will be available or none of such information will be obtainable, JCR may assign an unsolicited credit rating when JCR can ensure the quality of the information used for the unsolicited credit rating. For a credit rating for a sovereign, in some cases, JCR may assign a rating without the consent of the applicable nation. Further, JCR will publicize a sovereign credit rating without affixing "p" to the rating symbol even if it is an unsolicited sovereign credit rating, however, JCR shall indicate in its press release that the relevant credit rating is the unsolicited credit rating.

6. Rating Outlook

A Rating Outlook is JCR's opinion regarding the likely direction of an issuer rating or an ability to pay insurance claims rating in one or two years after determination of the rating. A Rating Outlook falls into the following five categories: Positive, Stable, Negative, Developing, or Multiple.

Positive means that a rating may be raised, while Negative means it may be lowered. Stable means that a rating is not likely to change in the foreseeable future.

In a few instances, Developing or Multiple Outlook is assigned. Developing means that a credit rating may be upgraded or downgraded. Multiple means that an issuer has multiple outlooks for its ratings when it is highly likely that a credit rating on individual bonds, bank loans, an issuer rating, etc. will be revised with different directions of rating.

Even in cases where a rating outlook is Positive, Negative, Developing, or Multiple for a credit rating, it does not mean that the credit rating will necessarily be changed and, in the same way, even in cases where a rating outlook is Stable, the credit rating may be changed without changing the outlook in advance.

7. Credit Monitor

While there is a likelihood of a change in the credit rating, because a serious event occurs or is likely to occur such as a serious accident, proposed merger, lawsuit, administrative action, substantial change in business performance or capital enhancement, and when JCR deems it necessary to obtain additional information or make an additional analysis with respect to the event for determination of the credit rating, JCR will at any time place the credit rating under Credit Monitor, initiate a review procedure for the rating and will make an public announcement to that effect. A credit rating under Credit Monitor is identified by prefixing "#" to the rating symbol until its removal.

JCR designates directions to the Credit Monitor placed on all credit ratings, which indicates its opinion regarding the likely direction of the rating. A direction falls under three categories: Positive, Negative, or Developing. Positive means that a rating may be upgraded, while Negative means it may be downgraded.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Developing means that a rating may be upgraded or downgraded.

Credit Monitor will be removed usually when JCR obtains the necessary information and completes the analysis about the event. The time to be spent before removing Credit Monitor is usually relatively short. However, in cases where JCR deems it important to confirm that certain conditions must be satisfied such as the case of approval for a merger by shareholders or the regulatory authority, then the time to the removal of Credit Monitor may become prolonged.

A credit rating under Credit Monitor does not mean that the credit rating will necessarily be changed in the future. In the same way, a credit rating may be changed without being placed under Credit Monitor in advance.

8. Suspension and Withdrawal of Credit Rating

JCR may suspend a credit rating if JCR deems that it is temporarily difficult or impossible to review the credit rating when a significant change occurs to the objective circumstances such as a situation where it becomes difficult or impossible to obtain the necessary information to review the credit rating. Suspension is a temporary measure, and if the event that caused Suspension is unlikely to be resolved, the credit rating will be withdrawn.

A credit rating will be withdrawn if JCR deems that it will be impossible to conduct a rating review into the future, because a significant change occurs to the objective circumstances such as lack of obligor (issuer) cooperation for provision of information. A credit rating may also be withdrawn if JCR deems that it is no longer necessary to sustain the credit rating due to bankruptcy procedures involving the issuer or other circumstances, or in the event that the need arises in order to comply with laws and ordinances, or in the event that unavoidable circumstances occur in order to conduct business. A credit rating will be withdrawn when JCR receives a request from the person who solicited the rating to withdraw the rating and accepts the request.

When any securities or money market instruments to be rated extinct due to reasons such as redemption at maturity, early redemption, withdrawal of shelf registration, or change from preliminary rating to final rating, such ratings shall cease to exist without the need to be withdrawn.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-3 Rating Criteria

I. Rating Framework

1. Creditworthiness

(1) Creditworthiness and Likelihood of Recovery

A credit rating is an assessment of one's financial strength, specifically as it relates to one's ability to meet debt obligations (corporate bonds, CP, loans, and other obligations), and pay principal and interest in accordance with financial agreements. Each individual obligation has its own contract, so the likelihood of recovery for each individual obligation, should the issuer go bankrupt, varies according to each contract. A rating is therefore required to determine the likelihood (credit strength) that the obligor will go bankrupt and default on its obligation (be unable to pay) and the likelihood of recovery of the obligation should the obligor go bankrupt.

As such, a rating represents a comprehensive decision on an assessment of an obligor's credit strength and the likelihood of recovery should the obligor bankrupt. But it is ultimately at base only an assessment of an obligor's credit strength as a going concern. The likelihood of the principal and interest being paid on time as specified in the contract is largely dependent on the obligor remaining financially stable and able to generate the required cash flow regularly. In contrast, if the obligor goes into bankruptcy there would be a significant delay in the recovery of the principal and interest. In most cases, even when the probability of recovery seems high, it is extremely difficult to recover 100 percent of the principal and interest, so it is not considered appropriate to use the likelihood of recovery as the core consideration in the assessment of how certain the obligation is likely to be performed.

At JCR, we refer to a rating that provides insight into an obligors' ability as a going concern to perform its obligations as a Long-term Issuer Rating. In determining a Long-term Issuer Rating, specific contractual details, preferred status among obligations, and the degree of recoverability are not taken into consideration, because the purpose of this rating is to get a comprehensive grasp of all of the obligor's obligations. Those individual factors are reflected in the assessment of individual obligations. Therefore, individual obligation ratings of an obligor may diverge upwards or downwards relative to the Long-term Issuer Rating of the same obligor.

(2) Assessment of Creditworthiness

Payments of obligations are taken from the cash flow generated from the obligor's daily operating activities. When assessing credit strength, it is therefore important to determine whether the volume (profitability) and stability of this cash flow matches that of the obligation to be repaid. It is extremely important to analyze the relative relationships between cash flow and obligations, because no matter how large the cash flow is, if the obligation is heavy, the obligation to repay it will be a heavy burden. The obligor must be able to support this obligation. At the same time, however, if the cash flow and the obligation are small, the repayment burden will be light.

When assessing credit strength, focus is placed on two main issues. The first is the business foundation—whether the obligor will be able to maintain and eventually expand its business foundations over time and generate the required cash flow. The second is the financial foundation—whether the obligor's financial situation will adversely affect the ability to repay

* JCR does not register the class of asset backed securities as NRSRO ratings.

obligations.

Payment of obligations is made by refinancing of obligations for financial institutions in many cases, and cash flows are not usually expected to be used as funds for repayment. In rating analysis on financial institutions, therefore, cash flow analysis is not conducted usually. Decisions on whether or not a financial institution can refinance its debt smoothly are made in light of business foundation, financial foundation (earnings power, capital adequacy degree, liquidity, asset quality, risk management, etc.) conditions, etc.

There are cases, however, when the obligor's credit strength is not dependent only on specific factors, such as business and financial foundations, but is sustained by credit support from external parties. JCR recognizes financial support given by parent companies to subsidiaries—the government's financial support to banks based on safety nets such as the Deposit Insurance System—and will consider them when assessing an obligor's credit strength.

(3) Corporate Default Rate Estimation Model (for large enterprises)

JCR has developed a model referred to as Individual Corporate Default Rate Estimation Model for domestic industrial corporations, which is used to estimate default probability of a corporation from financial information on the corporation in order to determine a rating for it that corresponds to such default probability. In the rating process, while the quantitative and qualitative analysis of industries and individual obligors is the core of the research, other results, such as those from the above estimation model, are used as reference data in the process of assessing credit strength as a means to enhance the objectivity of the rating.

(4) Guarantees and Keep-Well Agreements

With obligations supported by a guarantee or keep-well agreement, both the principal obligor and the guarantor (or the provider of the keep-well agreement) are rated individually on their ability to pay principal and interest on the obligation. The higher rating of the two is assigned as the official credit rating for the obligation, but in cases where the rating of the keep-well agreement provider is not significantly higher than that of the principal obligor, a downward rating adjustment by one or more notches may be made on the keep-well agreement provider's rating.

2. Likelihood of Recovery

(1) How Likelihood of Recovery Is Determined

As mentioned above, the core foundation for a rating is the obligor's credit strength (its likelihood of default). The JCR rating codes indicate the degree of likelihood of this kind of default occurring. For the creditor, the likelihood of recovery, should the obligor go into bankruptcy, is also a matter of significant interest. When there is a discrepancy in the likelihood of recovery among individual obligations, to the point of soliciting caution among the investors, there may be cases where JCR assigns a notch differential (either above or below one or two notches, sometimes more) from the Long-term Issuer Rating.

(2) Assessment of Likelihood of Recovery

(a) Creditworthiness of Obligor (Long-term Issuer Rating)

When an obligor's creditworthiness is high, the likelihood of default is low; therefore, assessing the chances of default in such a case may seem somewhat low. If the Long-term

* JCR does not register the class of asset backed securities as NRSRO ratings.

Issuer Rating falls to BB or lower, JCR may reflect the likelihood of recovery as a notch differential. In the case of subordinated bonds, however, where the likelihood of recovery is clearly below that of other obligations, JCR reflects it as a notch differential even if the Long-term Issuer Rating is BBB or above.

(b) Financial Structure of Obligor

In general, the larger the debt is (in relation to readily convertible assets such as cash, deposits, and securities), the lower the chances are of recovery. In turn, the more secured liabilities the obligor owns, the lower the chances are of recovery on unsecured bonds. Thus, the financial structure of the obligor has a material impact on the likelihood of recovery. JCR uses the ratio of cash and deposits, securities and tangible fixed assets as reference data in assigning notch differentials. In the case of a holding company that relies on external funding to finance its shares, when ranking the recovery of claims, creditors of the parent holding company will rank subordinate to the creditors of the subsidiaries. As structural subordination occurs—taking the ratio of shares held to equity (double leverage rate) into consideration—a notch differential may be assigned between a holding company and a core subsidiary.

(c) Relative Contractual Position of Obligations Being Rated

When assessing the contractual position of the obligation being rated, it's extremely important to examine (a) the contract details of the obligation and (b) the obligor's financial structure. Subordination provisions, financial covenants and security are among the contractual items that relate to the obligation.

Subordination Provision

When an obligation is subject to a subordination provision, the agreement expressly states that the priority of repayment is subordinate to the unsecured senior obligations and, in the case of bankruptcy; the likelihood of recovery becomes extremely low. Therefore, regardless of the rating assigned to the Long-term Issuer Rating, it will be subject to a notch differentiation. Subordinated bonds (loans) with defined maturity and perpetual subordinated bonds (loans) with deferral of interest clause are assigned one or more notches and two or more notches downward, respectively, relative to the Long-term Issuer Rating.

Financial Covenants

Financial covenants can be divided roughly into negative pledge covenants and other provisions (security switching provisions, profit maintenance provisions, net worth maintenance provisions, dividend restriction provisions), but when comparing the degree of impact of the financial covenants with the rating, negative pledge provisions are the most basic and the most important covenants. When security is provided for other obligations that are included within the scope of the negative pledge, the negative pledge requires that the obligor provide the equivalent ranked security to the unsecured obligation. The scope provided for is extremely variable, ranging from a broad definition of "other obligations," which includes bank borrowings and foreign bonds, to narrow definitions such as "other domestic unsecured corporate bonds (excluding bonds with security-switching provisions)." In terms of the recovery of claims, the narrower the scope is, the

* JCR does not register the class of asset backed securities as NRSRO ratings.

higher the likelihood is that the creditor will be placed in a subordinate position. Therefore, when the Long-term Issuer Rating is low and there is no negative pledge or a severely limited scope on a negative pledge, the rating may be affected. The effects of financial covenants other than negative pledges on ratings are somewhat indirect, as acceleration only comes into play when the provision has been breached.

Secured Obligations

Secured obligations are repaid ahead of unsecured obligations at the time of collateral disposal and have a higher level of safety compared with unsecured obligations. For obligors whose creditworthiness is quite low, it is quite possible they will have to repay obligations by disposing of their assets, and the existence or lack of security affects the degree of safety represented by such obligors. In such cases, unsecured obligations may be rated lower than secured obligations. On one hand, when the obligor's creditworthiness is relatively high, there may be cases where unsecured obligations are rated lower than secured credits. On the other hand, when the creditworthiness of the obligor is relatively high, the impact on the degree of safety due to the existence or lack of a security is minimal. Thus, no distinction is given to the rating.

(3) Thinking Behind Notching-up

In assigning a rating on individual obligations that is higher than the Long-term Issuer Rating (a notching-up), taking into account the likelihood of recovery, JCR considers three points of importance: (a) that there is not only a partial coverage of the principal and interest paid on the obligation, but also an ability to cover larger amounts than that of the total; (b) that obligations can be performed before too long before repayments are made after defaulting; and (c) that the likelihood of recovery is not influenced by the post-default credit conditions of the obligor. Collateral on securities that have both creditworthiness and liquidity (such as government bonds) and collateral on deposits (the risk of loss of value due to an offset needs to be low) may be considered as satisfying such conditions. However, in a case where, although secured, there are other obligors with higher seniority and the likelihood of recovery is low, they would not be eligible for notching-up. In addition, under corporate rehabilitation proceedings, special care must be taken when dealing with the possibility of limitations being imposed on exercising security rights. At any rate, the above factors are taken into account for each individual case to determine the eligibility for notching-up.

3. About Outlook on the Future

A credit rating assesses an obligor's ability to perform its obligations over time. Thus, estimating the ability to generate income in the future and predicting future financial conditions is important. In analyzing the obligor, therefore, JCR makes assessments after taking into account the obligor's future plans for capital investments and financing. In other words, based on today's financial statements and management plans, and taking into consideration the examination of industry trends and business foundations, a view is formed based on estimations of future balance sheets and profits and losses, the future trend of management indicators are forecast. In such cases, JCR also analyzes the obligation's sensitivity to changes in economic conditions and considers all "worse case scenarios." The indicators used in analysis differ depending on countries or regions in which a corporation is located, laws and regulations, accounting system, industrial line, business

* JCR does not register the class of asset backed securities as NRSRO ratings.

category, etc.

In assessing ratings, JCR makes its determination based on an outlook of the conditions and business environment of obligors over a span of three years. However, if it can be foreseen that the obligor will face a large redemption of bonds five years from now, for example, such risks that are substantially longer than a span of three years will be taken into account when assigning ratings.

4. Short-term Rating

(1) Relationship Between Long-term and Short-term Ratings

JCR divides the ratings into long-term ratings used for obligations over one year and short-term ratings used for obligations within one year, and uses different rating symbols for each rating.

While the long-term ratings indicate the certainty of performance of medium- to long-term obligations, short-term ratings indicate the certainty of performance of short-term obligations, normally within one year. However, since short-term funds flow and others are also taken into account in the certainty of performance of medium- to long-term obligations, the medium- to long-term creditworthiness and the short-term creditworthiness cannot be considered separately. JCR determines the short-term rating based on the long-term rating that evaluates the medium- to long-term creditworthiness, and there is some correspondence relationship between short-term ratings and long-term ratings as shown in the table below.

However, the correspondence shown in the table is only a guide, and assigned ratings may result in different ratings in individual cases. In other words, there may be cases where short-term ratings differ even for issuers with the same long-term rating. This is because the liquidity conditions (the ratio of liquid assets and liquidity at hand to assets and liabilities, funds flow patterns, and the like), which are the subject of the analysis, differ widely across industries, business and individual companies.

(Cover) Correspondence Relationship between Long-term Rating and Short-term Rating

Long-term Rating	Short-term Rating
AAA	J-1+
AA+	J-1+
AA	J-1+
AA-	J-1+
A+	J-1+ J-1
A	J-1
A-	J-1 J-2
BBB+	J-2
BBB	J-2
BBB-	J-2 J-3
BB+	J-3
BB	J-3 NJ
BB-	NJ
B+	NJ
B	NJ
B-	NJ
CCC	NJ
CC	NJ
C	NJ
LD	LD
D	D

(Note) The above correspondence relationship is only a guide and may result in different ratings in individual cases.

* JCR does not register the class of asset backed securities as NRSRO ratings.

(2) Focus on Liquidity Analysis

The basic thinking behind the analysis of short-term ratings does not differ significantly from that of long-term ratings. In short-term ratings, more emphasis is placed on the near future and liquidity is analyzed. In the liquidity analysis, the following components are examined: (a) contents and level of liquidity; (b) funds flow conditions; (c) ability to raise funds; (d) CP issuance limits and uses of funds.

(a) Content and Level of Liquidity

Liquidity is the primary source for short-term fund settlements and consists of cash and deposits, to which securities are added. An assessment is made, however, by calculating the real liquidity by deducting from it the funds that are already earmarked for such uses as temporary employment of funds for capital investments, and discounting the value of securities and other similar instruments according to the degree of liquidity.

(b) Funds Flow Conditions

In order to assess the certainty of the funds settlement, the stability of funds flow on a monthly and weekly basis is assessed. Using a funds flow table, timing and quantitative and qualitative matching are confirmed. Attention is placed on the following funds flow patterns: funds flow pattern of adjusting imbalances in ordinary revenues and expenditures using short-term funds; financing capital investments using fixed liabilities and retained earnings; and financing closings and seasonal needs with short-term funds.

(c) Ability to Raise Funds

The extent to which the company has financing ability is also evaluated. Specifically, quantitative margins are confirmed based on unrealized gains on assets and collateral capacity. Qualitatively, JCR evaluates whether the company can secure funds in an emergency by confirming the relationship between the company and the main bank and other financial institutions, including the amount of borrowings and share of its borrowings, as well as the status of directors' acceptance and shareholdings.

(d) CP Issuance Limits and Use of Funds

In the case of CP ratings, the issuance limit and use of funds are also determining factors. Specifically, the following factors are considered: (a) comparison with size of the company (Is the issuance limit too large compared to the size of the company's business?); (b) comparison with real liquidity on hand (Is there sufficient cash, deposits, bank credit lines, or other real liquidity on hand to cover the issuance limit in case of market disruption?); (c) in the case of refinancing, comparison with outstanding balance of existing debt (Is the ratio of CP to total debt too large?); and (d) in the case of working capital, comparison with funds flow pattern (Is the issuance limit appropriate for the amount needed for working capital?). By comparing these factors, JCR determines whether there will be any significant changes in the balance sheet or funds flows after the issuance of CP.

* JCR does not register the class of asset backed securities as NRSRO ratings.

II. Credit Rating Methodology by Class

a. Corporate

The evaluation of a company's creditworthiness is based on an analysis of its business and financial foundations, as well as a comprehensive assessment of these factors. The credit rating of a company derived from the evaluation of creditworthiness is subject to the sovereign rating of the country in which the company is located, but in exceptional cases, it may exceed the sovereign rating. Exceptions to the above criteria include: (i) strong support from a parent company or other entity located outside of the country; (ii) a strong and stable earnings base outside of the country; ability to raise funds from international financial markets; and in addition to this, it has financial soundness. However, in the case of (ii), the upper limit of the rating is the country ceiling, which is based on an evaluation of the probability of foreign currency transaction restrictions by the authorities.

Below is an overview of the credit evaluation process for ordinary industrial corporations and financial corporations.

1. Business Foundation

(1) Basic Approach

Business foundation can be viewed as a source of cash flow. JCR evaluates a company's business foundation and then projects future cash flows. The future is always accompanied by uncertainty (risk), which may have a negative or positive effect on the subject company. In evaluating the business foundation, JCR basically divides risks into two categories: risks that are difficult for the subject company to control and risks that are easy for the subject company to control. The former are external environmental risks and risks of the industry to which the company belongs, while the latter are company-specific risks. After recognizing external environmental risks and industry risks, JCR combine them with company-specific risks to predict changes in the subject company's business foundation and assumes the cash flows to be generated in the future.

(2) Identification of External Environmental Risks

External environment risk is positioned as a precondition for making future projections in assessing the creditworthiness of the subject company. The external environment includes political factors such as laws and regulations, economic factors such as business fluctuations, and social factors such as demographic trends. Technological innovation is also an important factor. Since these factors are constantly changing, JCR believes it is important to assume the current situation and future changes in each of them.

(3) Understanding Industry Risk

Generally, a company engaged in a certain business forms an industry with many other companies engaged in the same type of business. Since these industries have similar structures and characteristics, JCR believes that they will be affected in a common way to some extent by changes in external environmental risks, although there may be some differences in the degree to which each company is exposed to the risks. For the purpose of creditworthiness evaluation, JCR considers this industry-specific risk (industry risk) is basically a risk that is difficult for the subject company to control. In cases where a company has a large presence in an industry, such as securing an

* JCR does not register the class of asset backed securities as NRSRO ratings.

overwhelmingly high market share, or where the number of companies in an industry is small, JCR believes that such companies may have an impact on the industry structure and, in some cases, on the external environment. Understanding industry risk plays a very important role in assessing the creditworthiness of an individual company, and JCR uses angles such as demand and supply, transaction stability and volatility, investment and cost structure, and protection and regulation when assessing industry risk. The presence or absence and degree of impact of these industry risks vary from industry to industry. The timing of the expected impact may not be the same for all industries. It is possible that the degree and timing of the impact may change with changes in the external environment, or that the impact of industry risks that was previously considered to have little impact may become stronger. Based on these judgments, the level of impact of industry risks and whether or not the risks are expected to change in the future will be determined for each of the industries classified by JCR. Then, for each of the subject company's main businesses, JCR will comprehensively assess the size of the impact of the risks and changes in the risks expected in the future, and reflect them in the assessment of the business foundation.

(4) Approach to Business Foundation Evaluation When a Subject Company Operates Multiple Businesses

If the company is engaged in multiple businesses, industry risk is assessed for each business. However, if the company has a wide range of businesses, JCR selects businesses that are considered necessary based on their contribution to profit and cash flow, as well as their importance within the corporate group, and recognizes the industry risk associated with each of these businesses.

(5) Identification of Company-Specific Risks

Each company in the same industry has different internal factors such as management resources and management style, and therefore, JCR considers that each company has company-specific risks. JCR considers mainly consider the following items.

(i) Market Position and Competitiveness

JCR determines the position and characteristics of the subject company within its industry. In other words, JCR confirms the static status of the subject company's position in the industry (ranking, market share, etc.), and also confirms the fluctuation of the subject company's market share, as well as its characteristics, strengths, weaknesses, etc. in the industry.

(ii) History

History is the history of a company's formation, and it plays a major role in shaping the company's basic character and corporate culture. It is meaningful to evaluate the history by linking it to judgments about the current and future business foundation, rather than simply following the history.

(iii) Corporate Group

For the core companies that form the corporate group, JCR checks the major shareholders, the number of shares they hold, and their shareholding ratios. First, for corporate shareholders, stable shareholders, capital relationships, etc. are considered. Then, for changes in major shareholders, JCR also considers their history and impact on management policy. In order to determine the group's overall ability to repay its debts, JCR collects and analyze a wide range of data on individual group companies based on consolidated financial statements. JCR also considers the structure of the group, such as the holding company structure, and reflects this in the rating. On

* JCR does not register the class of asset backed securities as NRSRO ratings.

the other hand, if a company can be judged to belong to a corporate group from various perspectives, including capital, personnel, and business relationships, as well as subsidiaries, affiliates, etc., the company is considered a group company of the corporate group. In such cases, JCR not only evaluates the business and financial foundations of the group company itself, but also makes a comprehensive judgment based on an evaluation of the probability of support from the perspectives of the degree of control and involvement of the core company of the corporate group or the corporate group as a whole, and the degree of the group company's managerial importance.

(iv) Employees

JCR compares with other companies in the same industry in terms of the number of employees, age structure, average years of service, salary level, and relationship with labor unions to understand the characteristics of the company. In addition, JCR considers that efforts to improve the employment environment for employees, develop and promote human resources, and recruit employees not only shape the corporate culture in terms of employee morale and corporate atmosphere, but also affect the sustainability of the organization in terms of securing excellent human resources and revitalizing the corporate organization.

(v) Development

JCR believes that technological and R&D capabilities are a source of competitive advantage and one of the factors that ensure stable cash flow and profitability that exceeds that of competitors. In an industry where the speed of technological innovation is rapid, understanding the status of R&D is extremely important for forecasting future cash flows.

(vi) Procurement, Manufacturing, and Logistics

In procurement, understanding the status of raw material procurement for manufacturing industries, merchandise purchasing for non-manufacturing industries, and financing for financial industries is important to confirm the stability of the cost structure. JCR believes that establishing long-term stable business relationships with raw material suppliers, merchandise suppliers, and financing sources is an important factor in maintaining stable cash flow.

In manufacturing, some products are more susceptible to changes in the external environment than others due to their characteristics. Particularly for the former, JCR believes that the flexibility of the production system in response to changes in the external environment has a greater impact on cash flow volatility. Not only the competitiveness of individual production sites, but also their locations and degree of diversification are factors that affect cash flow stability.

In the area of logistics, whether the logistics process from factory shipment to storage and transportation and delivery to customers in the manufacturing industry and from purchase to storage and shipment to stores and customers in the non-manufacturing industry is efficiently executed greatly affects profitability. Checking the status of inventory management is also important to determine the stability of cash flow.

(vii) Sales and After-sales service

In sales, JCR evaluates sales results by segment by linking them to changes in the external environment and associated changes in industry risk. JCR believes it is important to break down and analyze the results into quantity and unit cost factors as much as possible, regardless of

* JCR does not register the class of asset backed securities as NRSRO ratings.

whether the company is in the manufacturing, non-manufacturing, or financial industries. JCR highlights the characteristics of the subject company and evaluates them in relation to management policies and other factors. In order to confirm the stability of the customer base, it is also important to understand the status of the customers over time, etc.

After-sales service is an important factor in maintaining competitive advantage in manufacturing, non-manufacturing, and financial industries. This is because improving after-sales service is thought to increase customer satisfaction and contribute to strengthening the stability of business relationships.

(viii) Governance

Governance is a decision-making mechanism and process that enables an organization or a corporate group to appropriately recognize risks that exist both internally and externally and to enhance its own sustainability. JCR regards it as an important factor in assessing a debtor's comprehensive ability to fulfill its obligations based on the premise of a going concern.

<Status of Fulfillment of Elements Related to Outward Form>

JCR first looks elements related to outward form, such as shareholder composition, board of directors' structure, compliance system, information disclosure status, and quantitative targets for financial management. JCR also makes efforts to understand the top management's management capabilities and attitude. It is useful in understanding the direction of management to confirm what management policies have been formulated in response to changes in the environment, and how decisions are being made to achieve management targets.

<Management Plan and Results>

The management plan shows how the company intends to change its business foundation to ensure sustainability in response to the current business environment and expected changes, as well as the impact on its financial foundation.

Since it is directly related to the outlook for future cash flow and debt trends, evaluation of this plan is highly significant as it consolidates various perspectives, including evaluation of the company's financial foundation as well as its business foundation, and is therefore important in determining the rating. It is also important to confirm the company's management philosophy, its assumptions underlying its medium- to long-term plans, and its efforts to address immediate issues. JCR then analyzes the management plan of the company to be rated and makes a comprehensive judgment on its appropriateness and potential for achievement. In addition, JCR also confirms whether the company's organizational structure and personnel allocation are appropriate to meet the management plan.

Verification of management performance is an important perspective for ex-post evaluation of the effectiveness of governance fulfilling elements related to outward form. This is because without good governance, it will be difficult to formulate future visions and strategies through appropriate decision-making, and the feasibility of management plans and the effectiveness of investments such as capital investments and M&A will not be enhanced. Specifically, through analysis of the causes of cases in which the management plan is not progressing smoothly or negative risks such as scandals that are difficult to expect in advance from the outside are revealed, the degree of effectiveness of governance is determined and used as an element in estimating the feasibility of the next management plan.

(6) Relationship between Creditworthiness Assessment and ESG Factors

* JCR does not register the class of asset backed securities as NRSRO ratings.

JCR positions ESG (E: Environment, S: Society, G: Governance) factors as a selection of factors from various external environmental factors that are necessary for a company to maintain and enhance its sustainability.

JCR believes that a company's skillful or poor response to ESG factors can either enhance or diminish its creditworthiness. However, not all ESG factors have an impact on the creditworthiness assessment of the subject company, but those that can have a direct and noticeable impact on its business and financial foundations are evaluated in relation to the creditworthiness assessment. Specifically, E factors include climate change, hazardous substance management and circular economy, natural environment and biodiversity, and natural disasters, while S factors include human resource management, customer relations, supply chain management, and social issues. In addition, there are some ESG factors that are not inside the time axis of the creditworthiness assessment, but may have a significant impact in the future and should be taken into account from the present time.

While taking into account the impact of ESG factors on the rating in the future, JCR basically evaluates mainly those factors that are currently having an impact on the rating. However, as the time axis shifts over time, JCR reevaluates whether ESG factors that were previously positioned as future factors should now be taken into account.

In addition, while most of the E and S factors of ESG factors are taken into account when assessing industry risks, some are taken into account when assessing company-specific risks. For G factors, JCR positions them as a factor to be considered exclusively when assessing company-specific risks. JCR assesses industrial and company-specific risks by checking the impact of each of these factors individually.

2. Financial Foundation

(1) Basic Approach

For the financial foundation, JCR evaluates how the earnings and financial conditions of the company affect its ability to repay debt. In evaluating the financial foundation, JCR analyzes financial statements and financial indicators based on the financial management policy and other factors to understand the company's actual earnings and financial conditions.

Credit ratings evaluate a company's ability to repay debt in the future. It is important to go beyond the current situation and estimate how earnings and financial conditions will change in the future, based on the evaluation of business foundation. It should be noted that even if the current earnings and financial conditions are at the same level, the size of future financial burden may differ depending on the magnitude of industry risk and company-specific risk, as well as the timing of the risk materialization.

(2) Key Evaluation Items

In the case of business corporations, JCR focuses on cash flow generation capacity, earning power, safety, and liquidity. For financial corporations, the main focus is on earning power, capital adequacy, liquidity, and asset quality.

Analysis of financial statements and financial indicators is conducted with attention to the country and region where the company is located, laws and regulations, accounting systems, and characteristics of the industry and business type.

(i) Cash Flow Generation Capacity and Profitability

The ability to generate stable cash flow is necessary for a company to continue its business. The

* JCR does not register the class of asset backed securities as NRSRO ratings.

ability to generate sufficient cash flow as a result of investments such as capital investments and M&A is considered important in determining whether a company has the necessary funds to repay interest-bearing debt and reinvest, which is prerequisites for the continuation of its business.

In addition to the size of cash flow and profit and their stability, JCR analyzes the level of profitability relative to sales and assets.

Key financial indicators

(a) Scale

■ EBITDA, Sales, Operating income

(b) Profitability

■ EBITDA margin, Operating income margin, ROA

(ii) Safety and Capital Adequacy

Equity capital provides a risk buffer to absorb profit deterioration and impairment losses. Refinancing risk is more likely to materialize if equity capital is insufficient in relation to interest-bearing debt or risks held, or if interest-bearing debt is too large in relation to cash flow.

In the evaluation, JCR checks the size of equity capital and interest-bearing debt, capital structure, balance between interest-bearing debt/interest expense and cash flow/profit, and capital adequacy relative to risk.

Hybrid securities that have the characteristics of both equity and debt are also considered in the analysis of financial statements and financial indicators.

Key financial indicators

(a) Scale

■ Equity capital, Interest-bearing debt

(b) Profitability

■ Equity ratio, (Net) debt-to-equity ratio

(c) Balance between interest-bearing debt/interest expense and cash flow/profit

■ (Net) debt to EBITDA ratio, interest coverage ratio

(d) Capital adequacy relative to risk

■ Regulatory capital ratio, adjusted capital ratio

(iii) Liquidity

Securing liquidity is important to provide for working capital and other needs. When cash flow from operations alone is not sufficient to repay debt, the company needs to secure repayment resources by decreasing liquidity on hand, selling assets, or raising funds from external sources such as financial institutions and capital markets. Refinancing risk is more likely to become apparent when the company is highly dependent on short-term financing or when large debt repayments are concentrated in a particular period of time. Since a lack of liquidity is a direct cause of default, the lower the rating, the more important it is to ensure liquidity.

In the evaluation, JCR also looks at the collateral margin and external financing capacity, such as commitment lines, in addition to the liquidity on hand, and confirms the size of the debt repayment source. Furthermore, JCR analyzes the stability of financing structure based on status of transactions with financial institutions, financing from the capital markets, balance between investments and financing, and dispersion of debt repayment dates.

Key financial indicators

(a) Scale

* JCR does not register the class of asset backed securities as NRSRO ratings.

■ Liquidity on hand, Commitment lines

(b) Financing structure

■ Current ratio, Fixed ratio, Long-term/short-term financing ratio

(iv) Asset Quality

For a financial corporation that earns earnings primarily by taking credit risk and market risk (interest rate risk, price volatility risk, etc.), it is important to maintain sound asset quality while taking into account the balance between risk and return. Excessive risk-taking can result in large credit costs and losses on sales and valuation losses, which can decrease profit and eventually impair capital.

In the evaluation, JCR understands the characteristics of asset portfolio, such as composition and diversification of asset classes, regions, industries, and borrowers, and then checks the status of non-performing loans and forecast of credit costs for loans and other operating assets, as well as trends in realized and unrealized gains/losses on securities.

Key financial indicators

(a) Credit Risk

■ Non-performing loan ratio, credit cost ratio

* JCR does not register the class of asset backed securities as NRSRO ratings.

b. Financial Institutions (Banks)

The following applies to banks, financial institutions other than banks that take deposits such as cooperative financial institutions, and other financial institutions in Japan. JCR applies this rating methodology with the necessary changes in the indicators for analysis and safety net to overseas banks and other financial institutions, based on laws, accounting system, financial administration in which these entities are located.

JCR determines the ratings of banks based on an evaluation of the credibility of individual banks by focusing on their business and financial bases, while taking into account the safety net.

1. Business base

(1) Characteristics of the industry

The deposit and loan business is the main income source for ordinary banks. A feature of this business is that it always enjoys a certain level of demand, and the business is carried out based on relationships with customers. In addition, because it is a stock business, the stability of the business base is relatively high, once it is established. However, demand from companies for financing through loans, which has been the backbone of the deposit and loan business, has been contracting with the transfer of domestic manufacturing bases to overseas locations, the shift to the use of direct financing, and other structural factors. Given the fact that there are a large number of players in a contracting market, and given that achieving differentiation is difficult because copying products and services is easy, competition to offer better interest rates is intensifying. These factors explain the recent sluggish earnings from this business. To maintain the business bases while offering customers an appropriate level of interest rates that enables banks to absorb expenses for bad loans and other costs, it is essential for banks to have strong ties with customers and superior brand power, and the ability to judge investment risk and returns.

To bolster their financial strength, some banks focus on consumer financing, nonrecourse real estate financing, overseas credits, and investments in new financial instruments. These initiatives have, however, caused problems for some banks. In the consumer financing business, some banks are facing declining demand, a result of the revision of the Money Lending Business Act, as well as the issue of returning excessive interest payments. In addition, a number of banks were forced to record significant expenses for credits related to real estate and overseas businesses. In some cases, banks recorded heavy losses from investments in securitization products. For these reasons, in assigning a rating to banks, it is important to assess how appropriately they are incorporating new risks that may take place when they develop financing business, other than their traditional deposit and loan business.

To bolster earnings, in addition to income from the deposit and loan business, banks are focusing on non-financing business. Here, however, income from the settlement business and the asset management business is steady, but demand in the investment trust sales business and the investment banking business—for many banks, areas of focus—tends to be highly susceptible to the market situation. As a result, it is particularly important to incorporate the magnitude of volatility into the assessment of the business base.

When internet banking and other similar services are provided by banks, because customers do not value their relationships with the banks, and because the costs of changing services are low, customers frequently change providers. As a result, it is essential for banks to strengthen

* JCR does not register the class of asset backed securities as NRSRO ratings.

brand value, differentiate products and service channels, and take steps to optimize investment, funding, and costs, to ensure that they can offer attractive interest rates.

(2) Key factors in market position and competitiveness

JCR evaluates the characteristics of the business base, which is the source of competitiveness, by referring to the scale of items such as the amount of funds, the outstanding balance of loans, the turnover of services, and market share. It also focuses on the strength of relationships with customers and the brand name. The closely of relationships with specific regions is particularly important for regional financial institutions. If a regional financial institution has a certain presence in a specific region, it has a chance to become a price leader in interest rates and other areas. In contrast, the higher the number of financial institutions competing within the same operating region, the more severe the competition for interest rates and other matters. This is very likely to have a negative impact on profitability.

With respect to the business base, JCR evaluates stability and growth potential. First, it evaluates the trends and volatility of demand and the competitive environment surrounding the individual main businesses of banks, by referring to the number of customers, turnover, income, and rates in the past. To evaluate the stability of the business base, JCR also conducts qualitative examinations of each business. In evaluating these businesses, it is important to evaluate the superiority of services and the strength of channels. In addition to business categories, JCR focuses on customer attributes and product characteristics. It evaluates deposits by analyzing their makeup by depositors, types, and terms, and it evaluates loans by analyzing their makeup by borrowers, industries, and the company size.

The business base of banks is affected noticeably by the macroeconomic environment. For this reason, the operating regions in which banks are based and the diversification of their operating areas are critical. If a bank operates only in specific regions, JCR examines the management environment of the main operating region, including the economic scale, industrial structure, growth potential, and competitive landscape. Based on this examination, JCR focuses on the position and roles of the bank in those regions.

In accordance with laws and regulations, operations of “shinkin” banks and credit associations are limited to certain areas. As a result, their operating areas are generally smaller than those of regional banks. Banks whose operations are closely based in the limited areas enjoy advantages in the form of strong ties with customers. On the other hand, their operating results tend to be affected by local economic trends. Attention needs to be paid to these features.

When evaluating the stability of the business foundation, JCR also focuses on the diversity of the businesses. When the businesses of a banking group are diversified to encompass businesses other than banking, for instance because of conglomeration, the bank can enjoy diversified earnings sources, but it may also face a higher number of risks. Therefore, JCR confirms whether or not trends in the group’s specific businesses excessively affect the results of the overall performance of the group.

(3) Stability of the financial system

Banks form a financial system by connecting with each other through the granting credits and settling of payments. If the financial system is shaken, usually by worsening business conditions or a series of bank failures, then even though an individual bank might have a sound financial condition, it may lose the trust of the market, and find it difficult to raise funds through

* JCR does not register the class of asset backed securities as NRSRO ratings.

deposits and market financing. A series of bankruptcies may also raise the risk of losses on assets. For these reasons, if the financial system is unstable, even relatively sound banks may have restrictions in their ratings.

(4) Management team and strategies

JCR judges management strategies and stances in the future by interviewing senior officers, analyzing management performance in the past (including comparisons of plans and results), and examining medium-term management plans, and management policies. When it comes to management policies, JCR focuses in particular on the fact of whether or not a bank pays attention to the balance between the strengthening of profitability and risk management. Whether or not a bank has in every organization a corporate culture of valuing risk management is also critical. It is noteworthy that, generally speaking, in the case of "shinkin" banks and credit associations, the personal quality and leadership of the manager tends to influence the management of the institutions more than that of banks. JCR focuses on whether or not strong leadership is effectively conducted for the improvement of not only earnings capabilities, but also risk management and compliance.

2. Financial base

(1) Earnings strength

Because banks take on risks when they grant credit, invest in assets, and engage in other activities in their main business, it is inevitable that they will incur credit costs and losses from investments in the market. When assigning a credit rating to banks, JCR first evaluates the level and stability of the banks' basic earnings capabilities, which reflects their ability to absorb credit costs and other costs incurred from asset management.

To measure basic earnings capabilities, JCR primarily examines core gross profit and core net business profit. It also analyzes management efficiency, mainly through overhead ratio. JCR judges the medium-term trends of core net business profit by taking into account factors that produce temporary fluctuations in income, such as interest and dividend income from securities and income from the cancellation of investment trusts. To evaluate stability, JCR refers to past performance, and focuses on the diversification of earnings and earnings sources, as well as the nature of each type of earnings. Generally speaking, the stability of earnings from loans, compensation for the administration of pension, and other stock earnings, including the holding, receiving, and entrusting of assets, is high. In contrast, earnings based on flows, such as income from relatively short-term project financing, sales fees for financial products, and fees for investment banking operations, are susceptible to market shifts. Therefore, JCR focuses on whether or not the banks are excessively dependent on these earnings.

If high earning capabilities are supported by unduly aggressive risk taking, net income, which is the bottom line, often becomes unstable, because of credit costs and other expenses. In particular, credit costs often become a factor that depresses income. Therefore, after examining basic earnings capabilities, JCR also examines earnings capabilities after deducting credit costs. Even among banks that have the same level of earnings after the deduction of credit costs, certain banks have strong earnings capabilities combined with aggressive risk taking and large credit costs, while other banks do not aggressively take risks and have low basic earnings capabilities but also low credit costs. This is caused by the difference in the business model adopted by each bank. JCR notes that the volatility of the credit costs of aggressive risk takers is generally large,

* JCR does not register the class of asset backed securities as NRSRO ratings.

and their earnings after the deduction of credit costs are often distressed at the time of adverse market conditions.

Key financial indicators:
- Core gross profit
- Core net business profit
- Loan and deposit rate margin (including expenses), overall interest rate spread
- Net fees and commissions / Core gross profit
- ROA (core net business profit basis)
- Overhead ratio (core gross profit basis)

(2) Loan assets

With respect to credit risks associated with loans and bonds, JCR judges the possibility of the incurrence of credit costs based on information about the situation of the concentration of credits on the groups of certain industries or borrowers, the scale of nonperforming loans, the structure of credit examinations and management, standards and results of self-assessment (including borrowers' categories and collateral evaluation), the status of write-off and allowances, and actual credit costs in the past. JCR compares a possibility of occurrence of credit costs with earnings or capital to assess risk tolerance.

The concentration of credits on specific industries or borrowers quite often results in deterioration of the management of banks. Therefore, JCR checks the business performance and the coverage of borrowers of large-scale loans. When analyzing information, JCR pays attention to differences among banks in the level of the application of examination standards and the judgment on borrowers' categories. These differences arise because each bank adopts its own standards and application methods. In addition, JCR focuses on banks' conservativeness about write-off and allowances.

Key financial indicators:
- Non-performing loan ratio (Non-performing loans based on the Financial Reconstruction Law, etc.)
- Non-performing loan ratio (after the deduction of an allowance for credit losses and before partial direct write-offs)
- Classified loan ratio
- Coverage ratio ((Collateral and guarantees + allowances) / Total bad loans)
- Ratio of the allowance for credit losses
- Credit cost ratio (Credit costs / Total loans)
- Credit costs / Core net business profit
- Large-scale loans / Total credits
- Non-coverage portion of large-scale bad loans / Core net business profit

(3) Securities and other assets managed in the market

Securities, derivatives transactions, and other assets that are managed in the market are subject to interest rate risks, foreign exchange risks, credit risks, and stock price volatility risks. JCR judges the level of these risks based on the outstanding balance of stocks, fund investments, structured bonds, securitization products, and other high risk products. In determination of interest rate risk, JCR uses duration, outlier ratio, etc. in addition to basis point value of the securities as a reference. In determination of price fluctuation risk, JCR uses ratio of balance of equity securities to Tier1 capital and ratio of balance of other securities to Tier1 capital as a reference. When analyzing the gain / loss on valuation of securities, JCR pays attention to holding categories and the difference in methods of calculating fair value. When examining small regional financial institutions that often have restrictions in securing adequate human resources, JCR checks whether or not they have organizations and human resources that ensure they

* JCR does not register the class of asset backed securities as NRSRO ratings.

appropriately analyze risks and flexibly respond to changes in the market.

When banks handle products such as structured bonds and securitization products, it is easy for the banks to increase the outstanding balance of these products, but because of the nature of the complexity of the products, the banks often adopt lax investment judgments or product management. If investments in these products are large compared with the capital of the relevant banks, JCR closely examines whether banks have made an appropriate investment judgment and adopted appropriate product management.

Shinkin banks and credit associations view the difference between deposits and loans as spare funds. These funds, excluding securities, are deposited in central financial institutions and other institutions. The yields on such deposits are usually only slightly better than interest rates in the market, and so the deposits cannot be considered an effective investment in terms of income. However, JCR positively evaluates such deposits because they help to reduce credit risks to a certain extent and supplement the liquidity of funds.

Key financial indicators:

■ Basis point value of the securities
■ Outstanding balance of stocks / Tier1 capital

(4) Risk management structure

JCR examines whether or not banks manage the range of risks that they face from a comprehensive perspective. It also examines methods and preconditions of such risk management. With respect to comprehensive risk management, because the level of risks that are recognized varies depending on methods and preconditions (holding periods, the confidence level, and analysis periods in the case of VaR), it is difficult to make simple comparisons among banks. Consequently, JCR evaluates banks' risk management mainly by focusing on how the management of the banks understands its risk taking, and how it uses that understanding when it develops management plans and capital policies. A key point in risk management is whether or not mutual checking among organizations or staff in charge is effective. In particular, JCR pays attention to the point that mutual checking is more likely to be ineffective at shinkin banks and other small-scale institutions. No matter how well risk management is executed, this factor is not often regarded as positive for the evaluation of credibility, but if risk management is believed to be insufficient, this can become a negative factor.

In addition, JCR examines the size of operational risks and other risks that the banks have when they carry out operations, and the relevant risk management structure. In particular, if internet banks and asset management banks face these risks, the impact on their business foundations can be very significant. Therefore, JCR carefully monitors the responses of such banks. For system risks, JCR examines whether or not steps (such as the setting up of backup systems) are taken to ensure the continuity of operations from the perspective of the Business Continuity Plan (BCP).

(5) Liquidity of funds

JCR evaluates liquidity mainly by analyzing the basic structure of the balance (matching) of the period of investments and funding, and the ratio of stable deposits to overall funding. A low proportion of funding in the market and from corporations with a high proportion of individual deposits is generally evaluated positively from the perspective of stable liquidity. However, if the proportion of term deposits with high interest rates is high as a percentage of

* JCR does not register the class of asset backed securities as NRSRO ratings.

overall individual deposits, these funds are likely to swiftly outflow when the management of banks faces a strenuous situation. When appropriate, JCR checks loan to deposit ratio, securities to deposit ratio, ratio of liquid deposit to total deposit amount, ratio of individual deposit to total deposit amount, etc.

In addition, to evaluate the structure to manage liquidity risks, JCR examines the balance of funding mainly by referring to assets and deposits that can be promptly cashed. JCR also confirms that funds are managed in accordance with the prevailing situation, such as normal times, problematic times, and crisis times, and it confirms the contingency plan for times when funding is difficult. The fact that funding stability is supplemented by parent banks and other organizations is evaluated positively.

(6) Capital adequacy

JCR examines the capital of banks as the ultimate buffer that absorbs the various risks the banks have by analyzing both the regulatory capital adequacy and the actual capital adequacy. JCR undertakes these analyses by taking into account the balance with credit risks, market risks, and other risks. In principle, JCR values capital on a consolidated basis more than that on a non-consolidated basis. When banks, such as mega banks and certain regional banks, have developed a banking group, JCR focuses more on capital on a group consolidated basis.

Monitoring the regulatory capital adequacy ratio becomes particularly important when banks have difficulty achieving the ratio. This is because whether or not the capital level required under the rules can be comfortably achieved will significantly impact on relations with authorities and the winning of the confidence of creditors and the financial market, which are essential factors for the ongoing management of banking operations.

While JCR evaluates the actual capital adequacy with a view to full implementation of Basel III, JCR recognizes equity content of parts of items that are subject to the transitional arrangements. When evaluating the actual capital adequacy, JCR adjusts Tier1 capital for international standard banks and core capital for domestic standard banks.

JCR does not recognize equity content of Tier2 capital eligible under domestic standard Basel II and allowance for bad loan in principle. For items, for which fluctuations are considered large such as unrealized gains (losses) on investment securities, JCR factors in them in a conservative fashion. JCR values equity content of injected public funds in the form of stock by comprehensively considering whether they are with or without a simultaneous conversion clause to common stock (mandatory conversion), which can be pressure on the repayment, background of the injection and others. However, products, for which it is judged that they will continue to be kept unpaid over long term, will be basically valued that they have a high equity content. Since many of public funds may not be refinanced, JCR gradually devalue the equity content as the substantial repayment period comes closer. As long as it is not judged that the funds are repaid, the gradual devaluation of equity content will not be carried out.

Among hybrid products, which are not public funds including preferred stock or preferred equity securities, JCR recognizes equity content of these products that are calculated into Tier1 capital or core capital. Note that JCR may devalue equity content of instruments that are highly likely to be redeemed or repaid by considering the mandatory conversion clause to common stock and others.

When measuring the capital adequacy, risks are examined based on regulatory risk assets. In addition to this, JCR compares risks that are not used for the calculation of the capital

* JCR does not register the class of asset backed securities as NRSRO ratings.

adequacy ratio, including the price volatility risk of shares, the interest rate risk, and the risk of credit concentration. It also examines if the leverage against total assets is not excessively high.

In evaluating capital, JCR also examines whether or not a bank has a range of funding methods. Unlike shares, investments in shinkin banks and credit associations are not traded in the market. For this reason, funding of shinkin banks and credit associations is believed to be less flexible than that of banks.

Key financial indicators:

(Uniform International Standards)
■ Total capital ratio
■ Tier1 ratio
■ Common equity Tier1 ratio
■ Adjusted Tier1 ratio
(Domestic Standards)
■ Core capital ratio
■ Adjusted core capital ratio

3. Safety net

The financial system has adopted a number of measures (the prudence policy) to ensure that it functions steadily and effectively. These measures comprise ex-ante measures, including capital adequacy ratio rules, early correction measures and other rules related to balance sheets, and ex-post measures (the safety net), including a deposit guarantee system.

The possibility and extent of the protection offered by the safety net varies depending on laws and regulations at the relevant time, the state of the financial system, the stance of financial authorities, and the role played by individual financial institutions in the financial system. Moreover, the need to protect each different product, even provided by the same bank, varies from the perspective of the stability of the financial system. The safety net is reflected in accordance with the position and the prevailing status of banks and individual products.

From the perspective of the national and regional financial systems, particularly strong protection is expected to be provided to major banks or other financial institutions that are believed to play a key role in the regions. For this reason, the long-term issuer rating of such financial institutions is, in principle, BBB- or higher. JCR believes that the protection provided by the safety net is not a factor that can raise the rating level, but offers the floor (the lowest level) of ratings.

Shinkin banks and credit associations can receive capital support, management recommendations, and other support from the central financial institutions in the industry, in addition to the safety net provided by the government. This can be evaluated as a function that supplements their credibility to a certain extent. However, there may be times when priority is placed on the soundness of the central financial institutions themselves. In this case, the extent, scale, and timing of support given to shinkin banks and credit associations may become inadequate. JCR determines ratings with this factor, among others, taken into account.

In terms of support, regional banks affiliated with Japanese mega bank groups also receive support from their parent banks or groups (hereinafter, “Parent Banks etc.”); however, JCR shall not determine the rating on these banks based on the creditworthiness of Parent Banks etc. solely on the ground that they are under the umbrella of mega bank groups. In case where their strategic importance to Parent Banks etc. is unclear and, historically speaking, the affiliation was the result of capital support made at the time of disposal of non-performing loans in a financial crisis,

* JCR does not register the class of asset backed securities as NRSRO ratings.

rather than due to strategic importance, it is difficult to strongly reflect support from Parent Banks etc. into the rating. However, even when regional banks were in fact affiliated with the groups in such a way, if it is judged that Parent Banks etc. will take reasonable responsibility for their business management, JCR shall take into account possible additional support from Parent Banks etc. in its rating decision. In so doing, JCR shall refer to whether or not the regional banks are consolidated with Parent Banks etc., degree of Parent Banks etc.'s involvement in ordinary business management, and use of Parent Banks etc.'s brands by the regional banks in their operations, while giving due consideration to actual support.

* JCR does not register the class of asset backed securities as NRSRO ratings.

c. Broker-Dealer (Securities companies)

This rating methodology mainly applies to securities companies in Japan. JCR applies this rating methodology with the necessary adjustments such as those to the indicators for analysis for overseas securities companies, based on the laws, accounting systems, regulations, and financial administrations in which those entities are located.

1. Business base

(1) Industry Characteristics

(i) Market size and growth potential

Securities companies' business is diverse, and includes brokerage services such as buying and selling stocks and bonds for clients, investment banking services such as M&A advisory, fundraising support, and IPO underwriting, and asset management services such as management and administration of client assets.

In the case of brokerage and investment banking services, earnings fluctuate greatly depending on the economic environment and conditions in financial markets, etc. In contrast, earnings from asset management services are relatively stable. Looking at the securities industry as a whole, while the balance of assets under management is on an upward trend, the earnings scale has not shown growth over the long-term due to decline in commission rates accompanying intensifying competition. However, rates for stock and investment trust trading commissions, trust fees, etc. have already reached a fairly low level, and there is little room for further reductions. The government is encouraging individuals to grow their assets through NISA and iDeCo. When judging market growth potential, JCR also looks at the trend of "from savings to investment."

(ii) Competition

Main securities companies are broadly divided into the following categories according to their business areas: large securities companies, semi-large securities companies, and online securities companies. Large securities companies operate globally and have strengths in their large customer bases, which are backed by the large balance of assets under management in both retail and wholesale businesses, with face-to-face sales as the mainstay. Semi-large securities companies operate mainly in the domestic retail sector with face-to-face sales as the mainstay, and have strengths in their unique business foundations rooted in the local community. Online securities companies are popular for their low commission rates and simple transaction procedures via Internet, and they have a strong presence in retail sector, particularly in stock trading and margin transactions.

Securities industry is a registered system, and there are relatively high barriers to entry. However, with pervasion of asset formation support systems such as NISA and iDeCo, spread of online services, and lower commission rates and commission–free trading, competition among securities companies is intensifying, particularly in the retail sector. While online securities companies are working to increase the number of customers and trading volume by offering commission-free stock and investment trust trading, large and semi-large securities companies are strengthening their business for high net worth and semi-high net worth individuals by focusing on face-to-face consulting. In wholesale sector, presence of large securities companies is high, with the entry of semi-large securities and online securities companies being limited. However, this is also a sector that foreign securities companies are actively promoting, and competition can be seen among certain players.

In addition, as business environment surrounding the securities industry undergoes major changes, there is a growing trend towards alliances as a means of increasing competitiveness. In addition to the strengthening of integration of banking and securities services within megabank groups, there is a trend towards

* JCR does not register the class of asset backed securities as NRSRO ratings.

strengthening the alliances between large securities companies and online securities companies, and they each are working to expand their business bases in the retail sector, with large securities companies utilizing the non-face-to-face channels of online securities companies, and online securities companies utilizing the face-to-face channels of large securities companies. Furthermore, there are also alliances being formed across industry boundaries, such as between online securities companies and mobile phone carriers.

(iii) Transaction stability

Stability of transactions at large and semi-large securities companies is relatively high. In the retail sector, there are many high net worth and semi-high net worth individuals who want long-term and stable relationships through face-to-face consultations on asset management. In the wholesale sector, customers often select a specific securities company as the lead manager on a continuous basis for bond and stock issuance. On the other hand, stability of trading at online securities companies is somewhat low. Since switching costs are not high, customers are likely to switch to other companies in the same industry depending on trends in commission rates and other factors. In addition, there are many customers who use multiple securities companies depending on the products or services.

(iv) Protection and regulation

Securities companies are subject to supervision by Financial Services Agency, and are required to calculate their capital adequacy ratio, which indicates whether they have sufficient capital to cover risks, and to maintain a ratio above a certain level. If the capital adequacy ratio falls below 120%, the company is subject to measures such as changes to its business methods, and if it falls below 100%, it is subject to measures such as suspension of business. The stock exchange also has rules for measures based on capital adequacy ratio. Some large securities companies are subject to Basel Standards.

From the perspective of protecting customers in the event of bankruptcy, the Financial Instruments and Exchange Act requires securities companies to manage customer assets separately from their own assets and other invested assets. In addition, under the Deposit Insurance Act's resolution regime, they are subject to “Measures for Orderly Resolution of Assets and Liabilities of Financial Institutions for Ensuring Financial System Stability.”

(2) Market Position and Competitiveness

When evaluating the market position of securities companies, JCR places importance on the customer base. The customer base is an important factor that will secure future earnings, and it is a support for whether or not earnings can be secured to cover expenses during times of sluggish market. For the customer base, JCR uses indicators such as the number of accounts, balance of assets under management, trend in stock trading value, and the results of various league tables for stocks, bonds, and M&A in chronological order, and JCR confirms the status of transactions with issuers and investors in Japan and overseas, as well as the degree of deepening of those relationships. As these indicators are affected by market conditions, JCR focuses on medium- to long-term trends and changes in market share, rather than temporary fluctuations, and checks movements of individual companies compared to overall industry trends and whether there are any structural changes.

JCR looks at not only a simple increase or decrease in the number of accounts or assets under management, but also at the activity status of the accounts, status of attracting high net worth individuals and customers who trade frequently, changes in the product mix of assets under management, and status of net asset inflow. In addition, JCR also checks trends in share of stock trading value, and if there are significant changes in the share, JCR analyzes the factors behind this and the impact on the profits (losses) of individual companies. JCR places importance on various league tables and the number of lead managers when evaluating the customer

* JCR does not register the class of asset backed securities as NRSRO ratings.

base in the wholesale sector. JCR pays attention not only to temporary performance, but also to whether or not the company is able to secure ongoing and multifaceted transactions with their main customers.

In terms of competitiveness, it is important whether the company can provide products and services with higher added value, responding to the diversifying needs of customers. There is not much difference between the products handled by securities companies, so it is difficult to establish a competitive advantage in terms of products. In differentiating the company from other companies, advanced know-how, securing of capable human resources, and appropriate personnel allocation are necessary. Large and semi-large securities companies are strengthening their wealth management businesses, which comprehensively manage the assets held by customers. JCR confirms whether sufficient resources can be allocated to face-to-face services centered on asset management consulting. On the other hand, online securities companies tend to be prone to price competition. JCR focuses on superiority or inferiority compared to other companies concerning commission rates, product lineups, convenience of tools and UIs, as well as status of inducing customers to buy products using economic sphere such as groups and alliances, and degree of diversification of businesses such as margin transactions, US stocks, and FX.

(3) Management Strategy and Governance

Management strategy and governance are factors that affect the direction of business base and also their financial base. With regard to management strategy, JCR evaluates whether the company is able to formulate and execute a management strategy by accurately understanding the impact of factors such as economic and financial conditions, market trends, as well as changes in competitive environment and regulations. JCR also pays attention to the direction of risk appetite. Starting new businesses or making acquisitions can be effective growth and differentiation strategies, but there is also a possibility that they will not produce the expected results and will put pressure on profits and finances. Taking these possibilities into account, JCR checks whether the risk taking is appropriate in light of the scales of business and capital of the individual companies.

As a direct finance provider, the importance of governance is particularly high in the securities industry. JCR checks whether the company has appropriate systems in place for corporate governance, such as a board of directors, and for business administration, and whether it has appropriate risk management and compliance systems in place and is operating them properly. Since securities companies handle much insider information, they are prone to scandals, such as violating laws that regulate insider trading. If a scandal or other incident occurs, it could have a negative impact on the company's performance, such as through suspension of business or exclusion from lead manager of underwriting operations, and it could also damage the company's customer base through a decline in its reputation. JCR checks whether the company has established a system to prevent scandals from occurring, and whether it can make progress in establishing a system to prevent similar incidents from occurring in the future when scandals occurred.

2. Financial base

(1) Earnings Power

Securities companies are characterized by the fact that their earnings and values of their assets and liabilities are generally more likely to fluctuate due to changes in the economic environment and other factors. When rating securities companies, it is more important than in other industries to analyze factors causing changes in detail, rather than focusing on temporary level of profits and finances, and JCR makes its decisions on the assumption that this is an industry with high earnings volatility as a business characteristic. In assessing earnings power, JCR places importance on ordinary income, net operating revenue, and earnings/ RWA ratio, and focuses on their medium- to long-term levels and their stability. While it is difficult to evaluate performance against plans due to the high volatility of earnings caused by market conditions, it is useful to

* JCR does not register the class of asset backed securities as NRSRO ratings.

compare performance across companies, and when JCR sees movements that differ from other companies, JCR analyzes the factors behind this and considers the impact on future earnings and finances.

Diversification of customer base and revenue sources is important for gauging future earnings power and revenue stability, and JCR focuses on whether revenue sources have well diversified from the perspectives of segments, products, regions, customer segments, etc. based on the composition of net operating revenue. In addition, it is important to minimize a decline in profits during periods of market slump, so JCR checks the weight of stable revenue such as trust fees and fund wrap related fees and how much fixed costs are covered by this revenue. With regard to expenses, it is important to keep the break-even point at a low point by conducting business with an awareness of turning fixed costs into variable costs, and JCR pays particular attention to the trends in personnel and system costs.

Key financial indicators:

- Net operating revenue and its composition
- Ordinary income
- Earnings/ RWA ratio (ordinary income/ risk-weighted assets)
- Fixed cost coverage ratio (stable revenue/ fixed expenses)
- SG&A expenses and their composition
- SG&A ratio (SG&A expenses/ net operating revenue)

(2) Asset Quality & Risk Management System

Securities companies may suffer significant losses due to changes in external environment in businesses that use their own balance sheets. Trading and underwriting operations are mainly transactions based on customer flows, but there are cases where positions temporarily expand or inventories remain for long periods of time. On the other hand, in proprietary trading and financing operations, there are cases where assets with high price fluctuation risk or low liquidity are held. Therefore, JCR focuses on whether a system is in place to respond appropriately to sudden changes or unexpected movements in the market, and whether quick and flexible management decisions can be made. In the wholesale sector, products and transactions are becoming increasingly complex due to diversification of customer needs, and it is expected that they will take excessive risks in the pursuit of profits in the midst of market cycles. In particular, in overseas business, more careful management is required due partly to the fact that large securities companies have suffered large losses in the past. In the retail sector, risks are relatively low, and although losses may occur in margin transactions, forwards, futures and options trading, etc., a possibility of large losses is low.

From a quantitative perspective, JCR checks the company's policies on acquiring and holding assets, trend in balance of assets, trends in various risk amounts, and the balances with capital. Regarding risk amounts, JCR focuses on average values, maximum and minimum amounts, etc. over a certain period of time, rather than these figures on a single point in time. In integrated risk management, risk amount recognized differs depending on the methods and assumptions (e.g., holding period, confidence level, observation period, etc. for VaR), so simple comparisons among companies are difficult. JCR makes an evaluation, focusing mainly on how management perceives its own risk-taking situation and how this can be linked to formulation of management plans and capital policies. In terms of operations, key point is whether there is an effectively working system of checks in place among organizations and staff members. Even if risk management is excellent, it is unlikely to be a positive factor for evaluation of creditworthiness, while if risk management is seen as being lax, it can be a negative factor.

(3) Capital Adequacy

Capital adequacy affects capabilities of securities companies to carry out trading, proprietary trading,

* JCR does not register the class of asset backed securities as NRSRO ratings.

underwriting and other operations, and has an impact on competitiveness. In situations where a periodic income has long been in the red, size of capital is the last resort, so the thickness of capital is important. JCR looks at whether the company maintains a sufficient capital level in relation to risks, and also refers to the risks, on which a certain amount of stress is placed under a stress test. JCR also checks whether the company is able to respond flexibly and appropriately while keeping an eye on changes in capital regulations and other developments.

In assessing capital adequacy, JCR focuses on levels of shareholders' equity and owners' equity, regulatory capital adequacy ratio, and adjusted leverage ratio. In terms of regulatory capital adequacy ratio, for large securities companies subject to Basel Standards, JCR places importance on total capital ratio, Tier 1 capital ratio, and common equity Tier 1 capital ratio, and focuses more on indicators with higher equity content. When evaluating, JCR takes full implementation of Basel III into account. On the other hand, for other securities companies, JCR focuses on capital adequacy ratio.

In general, securities companies have large fluctuations in their positions and risk amounts, so JCR does not judge their adequacy of capital or soundness of their finances based on their capital adequacy ratio or adjusted leverage ratio at a single point in time. If there are significant changes in these ratios, it is important to consider whether factors behind those changes are temporary or part of a medium- to long-term trend.

Key financial indicators:

- Shareholders' equity, owners' equity
- Total capital ratio
- Tier 1 capital ratio
- Common equity Tier 1 capital ratio
- Capital adequacy ratio
- Adjusted leverage ratio ((total assets less assets related to transactions with repurchase/resale agreements and repo transactions)/ net assets)

(4) Liquidity

JCR focuses on whether securities companies can raise stable and low-cost funds in order to respond flexibly to expansion of trading assets and margin transactions. JCR checks stability of short-term financing, medium- to long-term fundraising policies, balance between long- and short-term financing, debt repayment and redemption schedules and preparations for them, status of diversification of financing sources, securing of assets to secure a switch to secured debt financing, and relationships with financial institutions through a line of credit and other means. In addition, JCR checks the company's plans for contingencies such as a sudden market fluctuation, status of liquidity on hand and highly liquid assets to cover short-term financing, and implementation status of stress tests and monitoring.

Large securities companies that operate globally are strongly required to manage liquidity across the entire group and to improve the management system, and to secure financing sources in major financial markets. In addition, JCR also pay attention to whether they cover low-liquidity assets by capital and long-term loans, and whether they conduct appropriate fund management among group companies.

* JCR does not register the class of asset backed securities as NRSRO ratings.

d. Insurance (Life Insurance)

This rating methodology mainly applies to life insurance companies and life insurance groups in Japan. It also applies to mutual aid corporations that handle life mutual aid. For overseas life insurance companies and others, JCR applies this rating methodology after making necessary adjustments to the analytical indicators based on the laws, accounting systems, regulations, and financial administration, etc. in the country or region where those companies are located.

1. Business Foundation

(1) Industry Characteristics

(i) Market size and growth potential

The life insurance business handles insurance products for the survival or death of a person (so-called first sector) and bodily injury or illness (so-called third sector) in accordance with the Insurance Business Act.

The life insurance market is large and expanding moderately. Life insurance is based on the principle of mutual assistance and has a social mission to provide security throughout one's life. Japan's population is on a declining trend, and demographic changes due to the falling birthrate and aging population, as well as the diversification of lifestyles, such as the increase in nuclear families and single-person households, are expected to further develop. While needs for death benefits are declining, there is room for growth in third-sector products such as medical insurance that address the risk of longevity, and annuity insurance products to secure funds for retirement and to support retirement living. Although it is difficult to expect high growth in the life insurance market, JCR believes that the market is unlikely to shrink rapidly.

(ii) Competition

The life insurance business is licensed, and there are relatively high barriers to entry. On the other hand, the life insurance household participation rate is very high, and in addition to traditional domestic life insurance companies, there are many foreign and non-life insurance companies competing in this mature market. As for sales channels, the sales staff channel held by traditional life insurance companies continues to have a large presence, but they are diversifying and becoming more specialized, such as joint agencies (insurance shops), bancassurance, and direct (Internet) channels. Life insurers have little room for differentiation in their products, so it is not easy for them to secure a competitive advantage. Although there is a certain amount of competition in all sales channels, major life insurers have a reasonable share of the market, and the growing awareness of risk and return due to the prevalence of ERM (Enterprise Risk Management) is making excessive price competition less likely.

(iii) Transaction stability

Life insurance products are not patent subjects, and even if a company develops a product that captures customer needs, it is likely to be followed by competitors. In addition to being long-term contracts, life insurance products are unlikely to be cancelled or switched because premiums generally increase as the age of participation increases and there are surrender charges. The stability of transactions is also supported by the strong grip on customers by sales staff and the company's coping with the obsolescence of coverage through a conversion system. On the other hand, some savings-type products are susceptible to switching to more advantageous products due to changes in market conditions, such as rising interest rates and exchange rate fluctuations.

* JCR does not register the class of asset backed securities as NRSRO ratings.

(iv) Protection and regulation

Life insurance companies are supervised by Financial Services Agency and are required to calculate a solvency margin ratio, which assesses financial soundness by measuring the amount of risks (required capital) based on economic value assessments of assets and liabilities and evaluating the ratio of capital (eligible capital) against it. Partly because the ratio is calculated based on economic value, it is referred to as ESR (Economic Value-based Solvency Ratio). If ESR falls below 100%, early corrective measures are triggered in stages according to the degree of the shortfall.

In addition, life insurance companies are subject to bankruptcy resolution procedures under the Insurance Business Act and the Act on Special Measures for the Reorganization Proceedings of Financial Institutions. Policies of a failed life insurance company may be continued after its bankruptcy through transfer of policies by a bailout company, merger, share acquisition, etc. However, reduction of policy reserve may be implemented. In such cases, Life Insurance Policyholders Protection Corporation of Japan will, in principle, compensate up to 90% of the policy reserve at the time of bankruptcy, except for policies with a high assumed interest rate, in accordance with the Insurance Business Act and other regulations. In addition to reductions in policy reserve, policy terms and conditions may be changed, such as reductions in assumed interest rates.

On the other hand, financial system incorporates various measures (prudential policies) to maintain stability and efficiently function. The expected protection for insurance companies and insurance holding companies is weak compared to that of banks.

(2) Market Position and Competitiveness

The market position and competitiveness of life insurance companies are important for ensuring stable earnings over the medium to long term. The depth and characteristics of the customer base, diversity of sales channels and sales capabilities, uniqueness of product and management strategies, brand power, and high customer convenience through the use of digital and other means determine market position and competitiveness.

Regarding the customer base, JCR evaluates the number of customers (policyholders), characteristics of the customer segment, and the size and stability of in-force contracts. In order to build a stable customer base, it is important to secure stable contract performance. JCR evaluates the stability of in-force contracts not only in terms of size, but also in terms of the fact that in some cases the company has a presence in its own customer base, such as belonging to a particular corporate group.

JCR evaluates how well the new customers are being acquired by the sales channel's sales force and product appeal. For the sales channel, JCR confirms whether the company is accurately capturing diversifying customer needs. In the sales staff channel, JCR evaluates the sales force based on the age group and job classification of sales staff, as well as the state of recruitment and training, and sales efficiency. In the agency channel, JCR qualitatively evaluates business relationship between the life insurance company and its agents and strength of ties between them. In terms of product strategy, in addition to the fullness of product lineup, key point is whether the company is able to quickly and flexibly respond to changes in customer needs. It is not easy to differentiate its products from those of other companies, and merchantability (ease of understanding), marketing ingenuity, and skillful promotion are related to the differentiation.

(3) Management Strategy and Governance

Management strategy and governance are factors that affect the direction of business foundation, and also financial foundation. With regard to management strategy, JCR evaluates whether the company is able to formulate and execute a management strategy that takes into account changes in the business environment. JCR also focuses on the direction of risk appetite and the extent to which the ERM culture has penetrated within the company. With regard to governance, JCR checks whether a check-and-balance function adequately

* JCR does not register the class of asset backed securities as NRSRO ratings.

is functioning through the corporate governance system, such as the board of directors, management control system, risk management and internal control such as compliance, while taking into account the size of the organization. In the event of misconduct, risk of damage to the business foundation due to loss of reputation will become apparent. Therefore, JCR checks whether a system is in place to prevent misconduct from occurring, and whether a system will be in place to prevent similar incidents from recurring in the future when such misconduct has occurred.

2. Financial Foundation

(1) Earnings Power

In evaluating earnings power, JCR focuses primarily on economic value-based indicators. In particular, JCR checks trends in the value of new business, a component of Embedded Value (EV), which represents corporate value based on economic value. In addition, trends in financial accounting-based earnings, including core profit, are referenced. To ensure stable new business value and core profit, it is essential to analyze trends in contract performance.

For economic value-based indicators, emphasis is placed on the accumulation of "the amount of increase in EV associated with the results of sales activities," such as the value of new business, but it should be noted that the assumptions made differ from company to company. Since third-sector products have relatively high profitability in terms of economic value, JCR confirms whether the product portfolio is optimized to accumulate the value of new business, based on the diversification of products. The level of new business margin and control of sensitivity to market fluctuations such as interest rates and stock prices are also key points. At the same time, JCR also analyzes profitability by product, centered on core products.

Earnings power on a financial accounting basis is evaluated based on trends in core profit. With regard to insurance-related profit/loss of the core profit, JCR focuses on the balance between premium revenue and insurance claims/benefits payments or operating expenses. Regarding mortality gains/losses, while traditional mortality insurance is likely to easily have a profit outlook based on historical data, JCR pays attention to the possibility that the actual incidence rate for medical and nursing care insurance may deviate from the projected incidence rate based on data against the backdrop of advances in medical technology and system changes related to medical care and nursing care. In addition, since a decline in contract performance can lead to a reduction in the cost burden of new policies and other expenses, and core profit can swing upward in the short term, JCR does not view increases or decreases in core profit as a straightforward indication of trends in earnings power.

JCR evaluate trends in contract performance, which is the source of earnings power. Particular attention is paid to annualized new business premiums, which are a flow-based indicator. In addition to the acquisition of new policies, JCR checks the composition ratio of protection products and savings products, as well as the composition ratio of third-sector products. As for annualized premiums in-force, which are a stock-based indicator, JCR confirms whether the company is maintaining a reasonable policy size. For insurers that emphasize the provision of death benefits, it may be appropriate to check the trends of amount of new policies and the amount of in-force policies as indicators.

Key financial indicators

- New business value, new business margin
- EV
- Core profit (interest gains (losses), mortality gains (losses), and expense gains (losses))
- Annualized premiums (new business, policies in-force)

(2) Asset Quality (Asset Management)

* JCR does not register the class of asset backed securities as NRSRO ratings.

ALM is extremely important in the asset management of a life insurance company, and JCR confirms whether the company has built an asset portfolio that is consistent with the characteristics of the insurance liabilities. If asset management is not consistent with the characteristics of insurance liabilities, negative spread on long-term life insurance products may put pressure on profitability. Since the risk-return approach to asset management differs depending on the asset management policy of each company, it should be noted that the composition of securities, real estate, loans, and other assets, which account for the majority of assets held, differs. Based on the composition of investment assets, JCR checks the risk of each individual asset and the diversification effect of the assets as a whole. It is important to secure investment income in order to maintain profits for financial accounting purposes. Based on the recognition of the basic risk-taking policy, JCR evaluates the appropriateness of the investment stance, adequacy of personnel and systems for asset management, and status of securing returns.

Key financial indicator

- Composition ratio of asset portfolio

(3) Capital Adequacy

Regarding the financial foundation, JCR places the greatest emphasis on capital adequacy from a quantitative perspective, evaluating capital adequacy in terms of economic value, which is a market value assessment of assets and liabilities as a whole.

As an indicator, JCR pays particular attention to ESR. Since ESR is a numerical value based on internal management-based risk management and differs in terms of assumptions, JCR evaluates ESR by paying attention to trends in regulations and changes in calculation standards both in and outside Japan. While internal management-based ESR, which represents the characteristics of each company, is the main target of the assessment, JCR also incorporates regulatory-based ESR whose prerequisites are standardized to a certain extent for comparability. As regards funding instruments that meet regulatory capital requirements, including hybrid securities that have the characteristics of both equity and liabilities, JCR basically incorporates them into the assessment by taking into account their equity content equivalent to regulations.

The effective components of capital for confirming capital adequacy ratio based on financial accounting include capital stock and capital surplus (joint-stock companies), funds and reserve for redemption of funds (mutual companies), as well as various reserves such as price fluctuation reserve, contingency reserve and policy reserve in excess of surrender values.

Many life insurance companies hold long-term insurance policies and thus have long liability durations. Therefore, they are exposed to interest rate risk arising from the duration gap between assets and liabilities, which varies from company to company. It is important to reduce the amount of interest rate risk through duration matching (shortening the duration gap), cash flow matching, and other measures and control sensitivity to changes in economic assumptions. In addition to appropriately controlling the amount of risk, including other asset management risks, JCR confirms whether the company has stabilized the level of ESR by building up capital through measures such as securing the value of new business.

Key financial indicators

- Solvency margin ratio (ESR)
- Capital adequacy ratio

(4) Liquidity

Regarding liquidity, JCR confirms that the company possesses highly liquid assets that enable it to respond quickly in times of stress, such as a sharp increase in insurance claims/benefit payments or cash surrender

* JCR does not register the class of asset backed securities as NRSRO ratings.

values. JCR confirms that liquidity risk management is in place to enable reliable payment even if market risk or credit risk materializes during a financial crisis. A sharp increase in claims and benefit payments happens when a large-scale disaster occurs, a covered disease or other event becomes prevalent and morbidity and mortality rates are much higher than assumed at the time of product design. A sharp increase in cash surrender values for savings-type products could be assumed in cases of dynamic cancellations, where cancellations increase due to switching to more advantageous products when the market fluctuates, or in cases where the reputation of the life insurance company is severely damaged due to a deterioration in the business conditions.

Key financial indicator

- Liquid assets (cash, deposits, government bonds, etc.)

(5) Risk Management System

JCR focuses on the integrated management system of earnings and capital based on risk management, and checks the status of ERM development and progress in upgrading it. While excellent risk management is unlikely to be a positive factor in the evaluation, it can be a negative factor if it is considered that there is room for improvement in risk management. JCR mainly evaluates whether the company has incorporated an economic value-based approach into its management strategy and has secured an appropriate balance between risk and return. JCR also confirms whether the company comprehensively and accurately assesses various types of risks, identifies risks that have a significant impact on management, and can appropriately allocate capital accordingly. For effective risk management, it is necessary to elaborate and upgrade the risk management system.

In the life insurance business, there is a risk that the increasing frequency of payment events for third-sector products due to advances in medical technology and changes in the system will put pressure on profits. JCR takes the evaluation based on management conditions, such as payment trends of insurance claims and benefits and monitoring of morbidity rates, into consideration. In addition, JCR also confirms whether major life insurers have a global and group-wide ERM system in place, given the trend toward an increase in the number of group companies in Japan and overseas. The “Own Risk and Solvency Assessment (‘ORSA’) reports” are a useful tool for understanding the status of ERM and risk management systems.

* JCR does not register the class of asset backed securities as NRSRO ratings.

e. Insurance (Non-life Insurance)

This rating methodology mainly applies to non-life insurance companies and non-life insurance groups in Japan. It also applies to mutual aid corporations that handle non-life mutual aid. For overseas non-life insurance companies and others, JCR applies this rating methodology after making necessary adjustments to the analytical indicators based on the laws, accounting systems, regulations, and financial administration, etc. in the country or region where those companies are located. Similarly, for specialized reinsurance companies, JCR applies this rating methodology, paying attention to the characteristics of business, location of risks, and nature of the system.

1. Business Foundation

(1) Industry Characteristics

(i) Market size and growth potential

The non-life insurance business handles insurance products for losses caused by certain accidental events (so-called second-sector) and bodily injury and illness (so-called third-sector) in accordance with the Insurance Business Act.

The non-life insurance market is large and expanding moderately. Non-life insurance is an indispensable function for the stability of people's lives and the sound development of the economy, and as society's risks become more diversified, new needs arise there. Japan's population is on a declining trend, and demographic changes due to the falling birthrate and aging population are expected to further develop. Although it is difficult to expect high growth in the non-life insurance market due to the limited expansion of needs for traditional non-life insurance such as automobile insurance, JCR believes that the market is unlikely to shrink rapidly.

With regard to automobile insurance, which is the main product of many non-life insurers, the impact of the penetration of CASE (connected, automated driving, sharing, and electrification) and MaaS (Mobility as a Service) is expected, among others. Although JCR does not expect the automobile insurance market to change significantly in the short run, it is necessary to monitor the spread of automated vehicles, environmental improvements, and legislative measures from a medium- to long-term perspective.

(ii) Competition

The non-life insurance business is licensed, and there are relatively high barriers to entry. As for sales channels, exclusive agents continue to have a large presence, but they are diversifying, such as joint agencies (insurance shops), bancassurance, and direct (Internet) channels. Non-life insurers have little room for differentiation in their products, so it is not easy for them to secure a competitive advantage. Although there is a certain amount of competition in all sales channels, the market is dominated by major non-life insurers, and the growing awareness of risk and return due to the prevalence of ERM (Enterprise Risk Management) is making excessive price competition less likely.

(iii) Transaction stability

Non-life insurance products include automobile, fire, marine, and personal accident insurance, as well as liability insurance, expense/ profit insurance, workers' compensation and employers' liability insurance, and pet insurance (so-called new types of insurance). Non-life insurance products are not patent subjects, and even if a company develops products that captures customer needs, it is likely to be followed by competitors. Contract terms are relatively short, and contracts are basically renewed each time the maturity date arrives. Currently, there is no significant difference in product quality, and since agents, who account for the majority

* JCR does not register the class of asset backed securities as NRSRO ratings.

of sales channels, have a strong grip on customers, cancellations and switching are unlikely to occur, and the policy persistency rate is stable at a high level.

(iv) Protection and regulation

Non-life insurance companies are supervised by Financial Services Agency and are required to calculate a solvency margin ratio, which assesses financial soundness by measuring the amount of risks (required capital) based on economic value assessments of assets and liabilities and evaluating the ratio of capital (eligible capital) against it. Partly because the ratio is calculated based on economic value, it is referred to as ESR (Economic Value-based Solvency Ratio). If ESR falls below 100%, early corrective measures are triggered in stages according to the degree of the shortfall.

In addition, non-life insurance companies are subject to bankruptcy resolution procedures under the Insurance Business Act and the Act on Special Measures for the Reorganization Proceedings of Financial Institutions. Non-life Insurance Policy-holders Protection Corporation of Japan has been established to protect policyholders of bankrupt non-life insurance companies by providing financial assistance for the transfer of insurance policies of bankrupt insurance companies and the payment of covered insurance claims.

On the other hand, financial system incorporates various measures (prudential policies) to maintain stability and efficiently function. The expected protection for insurance companies and insurance holding companies is weak compared to that of banks.

(2) Market Position and Competitiveness

The market position and competitiveness of non-life insurance companies are important for ensuring stable earnings over the medium to long term. The depth and characteristics of the customer base, diversity of sales channels and sales capabilities, uniqueness of product and management strategies, brand power, and high customer convenience through the use of digital and other means determine market position and competitiveness.

Regarding the customer base, JCR evaluates the number of customers (policyholders), characteristics of the customer segment, and the size and stability of net premiums written. Some non-life insurers, for example, belonging to certain corporate groups, have defended themselves against competitors' offensives in their customer bases with their unique channel and product strategies, and have a high presence over a long period of time. JCR also incorporates into its evaluation the possibility that such non-life insurers will demonstrate earnings power for the future.

JCR evaluates how well the new customers are being acquired by the sales channel's sales force and product appeal. For the sales channel, JCR confirms whether the company is accurately capturing diversifying customer needs. In particular, it is important whether the company has established an appropriate relationship with agency channel. In terms of product strategy, in addition to the fullness of product lineup, key point is whether the company is able to quickly and flexibly respond to changes in customer needs. It is not easy to differentiate its products from those of other companies, and merchantability (ease of understanding), marketing ingenuity, and skillful promotion are related to the differentiation.

(3) Management Strategy and Governance

Management strategy and governance are factors that affect the direction of business foundation, and also financial foundation. With regard to management strategy, JCR evaluates whether the company is able to formulate and execute a management strategy that takes into account changes in the business environment. JCR also focuses on the direction of risk appetite and the extent to which the ERM culture has penetrated within the company. With regard to governance, JCR checks whether a check-and-balance function adequately

* JCR does not register the class of asset backed securities as NRSRO ratings.

is functioning through the corporate governance system, such as the board of directors, management control system, risk management and internal control such as compliance, while taking into account the size of the organization. In the event of misconduct, risk of damage to the business foundation due to loss of reputation will become apparent. Therefore, JCR checks whether a system is in place to prevent misconduct from occurring, and whether a system will be in place to prevent similar incidents from recurring in the future when such misconduct has occurred.

2. Financial Foundation

(1) Earnings Power

In evaluating earnings power, in addition to the scale of earnings and stability of profits from the core insurance business, JCR also analyzes the earnings power of the asset management. While future performance will be factored into the evaluation, JCR takes into account the possibility that changes in the business environment and management strategy can bring changes to the earnings structure of non-life insurance companies, in addition to past performance trends. JCR also takes into account risk-return balance, as non-life insurers have different risk profiles.

In analyzing earnings power, JCR focuses on the level of the combined ratio. Since profit of non-life insurance companies is subject to fluctuation due to the occurrence of major natural disasters such as windstorms, floods, and earthquakes, as well as major accidents, JCR confirms a profit level with one-time effects leveled off by taking it as a moving average over a certain period. It is extremely important for non-life insurers to build a well-diversified business portfolio in terms of risk type and geographic location to ensure profit stability, and JCR pays attention to the status of such efforts. JCR also confirms the extent to which the volatility of periodic profit/loss is controlled based on the company's policies for the establishment of reinsurance schemes and the accumulation of catastrophe loss reserve.

It is also important to confirm that the company has set appropriate premium rates commensurate with risk. For automobile and fire insurance, which are the main products in the retail sector, profitability could deteriorate if premiums are not set in line with the actual loss ratios, referring to the advisory pure premium rates calculated by General Insurance Rating Organization of Japan. For corporate non-life insurance, which is more individualized, it is important to check whether the company sets premiums in accordance with its own loss ratio and risk status, and also can control revenue and expenses appropriately by, for example, limiting underwriting of excessive risks. In the field of new types of insurance, products must be designed based on appropriate risk management, such as ensuring profitability, because they cover specific risks that are not covered by traditional non-life insurance. For insurance types with deteriorating profitability, JCR checks the adequacy and progress of measures to improve profitability, such as policies for premium rate revision and product revision, and restrictions on or stricter underwriting.

With regard to asset management, JCR mainly analyzes income gains from interest-bearing bonds, which are expected to contribute to securing stable earnings over the medium to long term. JCR takes into account that capital gains/losses are in many cases easily influenced by market conditions. JCR checks medium-term trends, such as whether the balance of investment assets has been built up to generate stable income that is less susceptible to temporary increases or decreases due to aggressive risk-taking.

Key financial indicators

- Combined ratio
- Net premiums written
- Underwriting profit (loss)
- Investment income (loss)

* JCR does not register the class of asset backed securities as NRSRO ratings.

(2) Asset Quality (Asset Management)

Although the asset allocation, risk and return of each asset varies among non-life insurers, JCR analyzes whether they secure returns commensurate with risk while controlling price fluctuation risk and interest rate risk by managing assets in a way that matches the characteristics of the liabilities. JCR also makes an analysis of ALM and risk management techniques, composition of investment assets, and derivatives transactions. Since the risk-return approach to asset management differs depending on the asset management policy of each company, it should be noted that the composition of securities, real estate, loans, and other assets, which account for the majority of assets held, differs. Based on the composition of investment assets, JCR checks whether the risk of each individual asset is not excessively large relative to capital and others and the diversification effect of the assets as a whole. Based on the recognition of the basic risk-taking policy, JCR evaluates the appropriateness of the investment stance, adequacy of personnel and systems for asset management, and status of securing returns.

Key financial indicator

- Composition ratio of asset portfolio

(3) Capital Adequacy

Regarding the financial foundation, JCR places the greatest emphasis on capital adequacy from a quantitative perspective, evaluating capital adequacy in terms of economic value, which is a market value assessment of assets and liabilities as a whole.

As an indicator, JCR pays particular attention to ESR. Since ESR is a numerical value based on internal management-based risk management and differs in terms of assumptions, JCR evaluates ESR by paying attention to trends in regulations and changes in calculation standards both in and outside Japan. While internal management-based ESR, which represents the characteristics of each company, is the main target of the assessment, JCR also incorporates regulatory-based ESR whose prerequisites are standardized to a certain extent for comparability. As regards funding instruments that meet regulatory capital requirements, including hybrid securities that have the characteristics of both equity and liabilities, JCR basically incorporates them into the assessment by taking into account their equity content equivalent to regulations.

The effective components of capital for confirming capital adequacy ratio based on financial accounting include capital stock and capital surplus, as well as various reserves such as price fluctuation reserve and catastrophe loss reserve.

In general, non-life insurance companies have shorter asset and liability durations and smaller duration gaps than life insurance companies. Therefore, ESR of non-life insurance companies is less sensitive to interest rates than that of life insurance companies and remains stable. While considering ESR as a quantitative indicator, JCR pays attention to whether risk buffers are sufficiently secured through risk-based capital management, such as sales of cross-shareholding shares and underwriting risk through the use of reinsurance.

Key financial indicators

- Solvency margin ratio (ESR)
- Capital adequacy ratio

(4) Liquidity

Regarding liquidity, JCR confirms that the company possesses highly liquid assets that enable it to respond quickly in times of stress, such as an occurrence of a major natural disaster. JCR confirms that liquidity risk management is in place to enable reliable payment even if market risk or credit risk materializes during a financial crisis. A sharp increase in cash surrender values for savings-type products could be assumed in cases of dynamic cancellations, where cancellations increase due to switching to more advantageous products when

* JCR does not register the class of asset backed securities as NRSRO ratings.

the market fluctuates, or in cases where the reputation of the non-life insurance company is severely damaged due to a deterioration in the business conditions.

Key financial indicator

- Liquid assets (cash, deposits, government bonds, etc.)

(5) Risk Management System

JCR focuses on the integrated management system of earnings and capital based on risk management, and checks the status of ERM development and progress in upgrading it. While excellent risk management is unlikely to be a positive factor in the evaluation, it can be a negative factor if it is considered that there is room for improvement in risk management. JCR mainly evaluates whether the company has incorporated an economic value-based approach into its management strategy and has secured an appropriate balance between risk and return. JCR also confirms whether the company comprehensively and accurately assesses various types of risks, identifies risks that have a significant impact on management, and can appropriately allocate capital accordingly. For effective risk management, it is necessary to elaborate and upgrade the risk management system.

In the non-life insurance business, since the impact of large-scale natural disasters and major accidents is inevitable, it is extremely important for non-life insurers to build a well-diversified business portfolio in terms of risk type and geographic location. In addition, JCR also confirms whether major non-life insurers have a global and group-wide ERM system in place, given the trend toward an increase in the number of group companies in Japan and overseas. The “Own Risk and Solvency Assessment (‘ORSA’) reports” are a useful tool for understanding the status of ERM and risk management systems.

* JCR does not register the class of asset backed securities as NRSRO ratings.

f. Issuers of Government Securities, Municipal Securities or Securities Issued by a Foreign Government

Sovereign and Public Sector Entities

I. Sovereign

1. Sovereign Credit Rating

An issuer rating of a sovereign primarily indicates the government's ability and willingness to fulfill its debt obligations to the private sector by grading in the rating scale. It does not cover obligations to other governments or international organizations but considers their impact on the government's fulfillment of its obligations to the private sector. A sovereign borrower is usually the government or the central bank, although it may vary depending on the legal norm defined by each country. The major difference between the sovereign and a corporate is that the former has the power to levy taxes and the right to issue currency. It is normally not bound by the bankruptcy laws and cannot become extinct like the latter. This comes from the fact that the government has sovereignty of a country. An individual bond rating may differ from the issuer rating as each bond can have different degrees of certainty in repayment depending on its signed contracts or possible selective default. Rating symbols for the sovereign conform to JCR's Types of Credit Ratings and Definitions of Rating Symbols.

2. Local Currency Rating and Foreign Currency Rating

A sovereign debtor has the power to levy taxes that allows it to secure financial sources for fulfilling its debt obligations and the right to issue currency. For the payment of foreign currency debts, the debtor needs to convert its local currency to foreign currencies or procure them in the markets. The payment of local currency debts is hence less constrained. Considering such risk differences, JCR may assign different ratings to the local currency debts and the foreign currency debts. In that case, the local currency rating is normally higher than the foreign currency rating. The following factors are taken into account when assessing notch differences: financial and monetary conditions of the sovereign that can affect the use of its power to levy taxes and its right to issue currency; degree of development of the domestic financial markets; history of defaults; and the adopted currency.

3. Outline of Rating Process and Evaluation Factors

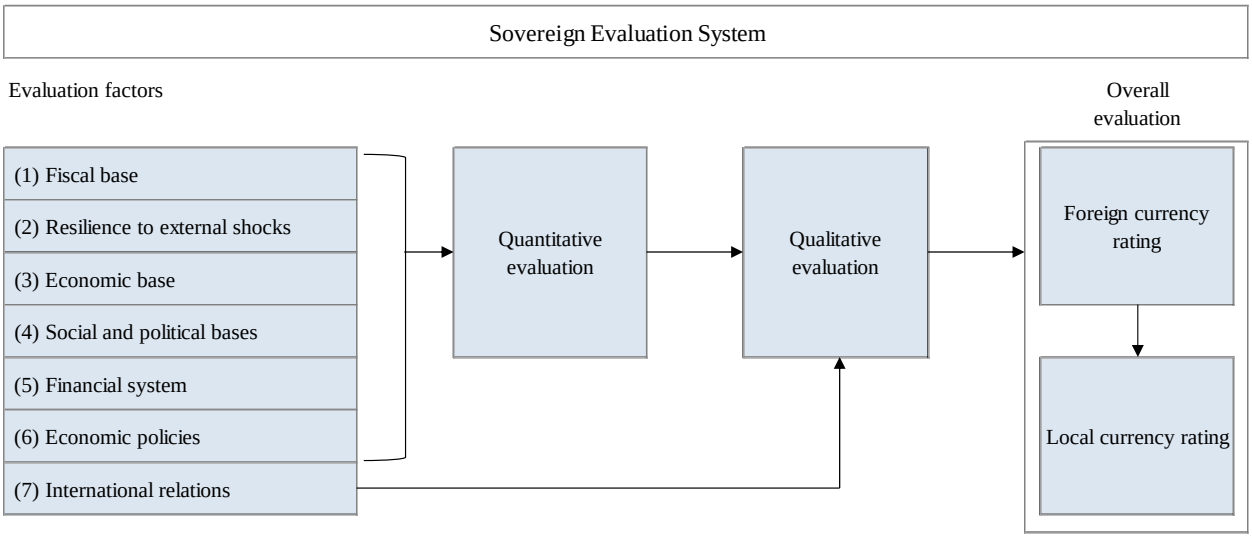
It is important to have a framework of systematic rating process in order to enhance the objectivity and accuracy of the sovereign rating. For this purpose, JCR uses its Sovereign Evaluation System which covers the steps of both quantitative and qualitative evaluations. In assessing a sovereign's ability and willingness to fulfill its debt obligations, the following seven factors are considered: **(1) fiscal base, (2) resilience to external shocks, (3) economic base, (4) social and political bases, (5) financial system, (6) economic policies, and (7) international relations.** (1) The soundness of the government's **fiscal base** is extremely important because it

* JCR does not register the class of asset backed securities as NRSRO ratings.

directly affects its debt payment capacity. (2) The **resilience to external shocks** is critical as an indicator to assess a nation's capacity to repay external debts including those owed by the private sector. (3) A solid **economic base** ensures the stability and expansion of tax and other sources of funding for the government through sustained growth. (4) The sustainability of economic growth in turn largely depends on the stability of **social and political bases**. (5) The **financial system** assumes a vital role of supplying capital needed for economic growth. (6) Implementation of appropriate **economic policies** is considered to enhance the sustainability of economic growth through stabilization of the above factors. JCR also considers the sovereign's willingness to fulfill debt obligations and factors that may affect it, based on its track records. Lastly, (7) **international relations** are assessed in light of whether a nation has an environment where it can stably carry out its international economic activities. JCR pays attention to the fact that those evaluation factors are actually interrelated and their degrees of relevance can vary by country and time span.

The process of evaluation based on the Sovereign Evaluation System is summarized as follows: first, quantitative evaluation is conducted based on the quantitative indicators that JCR considers important among the first six out of the seven evaluation factors from (1) fiscal base to (6) economic policies. Next, the foreign currency rating is derived as an overall evaluation by taking into account (7) international relations in addition to qualitative factors that cannot necessarily be ascertained through quantitative evaluation. The overall evaluation considering qualitative factors shall be conducted so as to stay in principle within three notches above and below the quantitative evaluation. Finally, the local currency rating is derived from the foreign currency rating with making an adjustment already described in the Paragraph 2. Local Currency Rating and Foreign Currency Rating as necessary.

< Overview of Evaluation Factors and Sovereign Evaluation System adopted by JCR >



* JCR does not register the class of asset backed securities as NRSRO ratings.

< Outline of Evaluation Factors for Sovereign Credit Ratings >

Evaluation factors	Sub-evaluation factors
(1) Fiscal base	Trends in the fiscal balance State of the government debt State of the fiscal funding
(2) Resilience to external shocks	Trends in the balance of payments State of external debt Impacts of the currency system
(3) Economic base	Fundamental elements of economic development Historical performances of economic development Growth potential
(4) Social and political bases	Social and political stability State of governance
(5) Financial system	Framework of financial regulations and supervision Lenders' financial conditions and trends of asset values International financial conditions
(6) Economic policies	Policy recognition Policy effectiveness Policy continuity
(7) International relations	Political, Economic, and security stability

(1) Fiscal Base

The fiscal base has a significant impact on a government's capacity to fulfill its debt obligations. A nation's fiscal base is analyzed from the standpoint of its soundness and sustainability, primarily based on the trend of the fiscal balance, the state of the government debt and the state of its fiscal funding. In principle, the analysis will cover the general government encompassing both the central and local governments and their social security funds. The central bank is not included in the general government.

In evaluating the fiscal balance, its trends and the government's revenue and expenditure structures are reviewed. The assessment confirms whether the government has been conducting disciplined fiscal management after analyzing the past trends of the fiscal balance in terms of GDP ratio. A nation that has track records of maintaining fiscal discipline under the changing economic environment can be seen highly likely to find appropriate measures to recover its fiscal soundness in the future even when its fiscal balance temporarily deteriorated due to economic stimulus measures and some other factors. In assessing the revenue structure, the tax revenue base covering both direct and indirect taxes is the primary focus of analysis. Cases where revenues heavily rely on specific natural resources or specific industries require attention in light of the stability of revenues. As for the expenditure structure, JCR first sees whether expenditures are appropriate in size relative to revenues and then assesses the structure with a focus on social security expenses, subsidies, public investment, and interest expenses. The point here is whether fiscal discipline is impaired and whether there exists fiscal rigidity. It should be noted that reduction of public investment may have a negative impact on a country's long-term competitiveness and growth potential in terms of social capital formation.

As to the government debt, the gross debt is the primary subject of evaluation. When the government holds a large amount of fiscal surplus funds or sovereign wealth funds, the net debt obtained by deducting financial assets from the gross debt is also taken into consideration. In evaluating the government debt, its past trends in terms of GDP ratio are reviewed at first. JCR

* JCR does not register the class of asset backed securities as NRSRO ratings.

also checks whether the government debt is not diverged and whether it stays at manageable levels. The government's debt is generally an accumulation of the past fiscal deficits and it is desirable for it to stay at a low level. A low level of government debt may add to the government's fiscal leeway in the event of a sudden economic downturn or financial crisis. Its bearable size of debt, however, can differ, depending on the possible room for revenue expansion and the level of interest rates. The government debt is then examined in terms of currency composition, debt duration, investor holding structure, etc. When the proportion of foreign currency-denominated debt is high, attention is paid to the risk that the debt burden may change in accordance with the fluctuation of exchange rates.

With regard to the state of fiscal funding, risks associated with future funding are evaluated through a review of the average maturity, debt redemption schedule and funding policy, based on past records of funding scales and costs. Also to be assessed is the state of the domestic bond market which serves as the primary funding base, specifically the market size, liquidity, interest rate levels and investor composition. Refinancing risk may increase when debt service is concentrated at a particular time. In addition, when foreign investors hold a high percentage of government bonds, refinancing risk may arise in the event of a sudden outflow of foreign capital.

As to contingent liabilities owed by the government, the likelihood of their materialization is judged when necessary, based on their size and content. Main subjects to be monitored include official support aimed to stabilize the financial system, fiscal support for public enterprises, fulfillment of government guarantees, shortage of contributions to social security programs, and fiscal expenditures at a time of natural disasters.

(2) Resilience to external shocks

It is important to analyze a country's resilience to external shocks in the trends in the balance of payments as one of factors largely affecting a sovereign debtor's ability to meet its external obligations.

That factor is analyzed in a comprehensive manner from the standpoint of its stability and sustainability by looking into the balance of payments trends, the state of external debt and the impacts of the currency system. Under circumstances where the resilience to external shock deteriorates, there may arise the need for the government to support or assume the payment of certain debts owed by the private sector in order to prevent its debt problems spilling over to impact the entire macro economy. The analysis therefore needs to cover the country's gross external debt including those owed by the private sector.

The balance of payments consists of the current account, capital account and financial account. As to the current account, JCR grasps the trends of individual items that constitute the account and conducts an analysis of their structures. Important here is to look into the nation's ability to acquire foreign currencies and its stability, for which its export competitiveness is a good indicator. The export of goods and services can, by the way, indicate a sustainable level of external borrowing if it is analyzed in comparison with the amounts of external debt balance and annual debt payment. Since the current account balance equals national savings minus investment, its trend needs to be seen in terms of international fund flows. Key points about the financial account include its size relative to the current account and the national economy, presence and degree of constraints stemming from capital regulations and foreign exchange policies, and components of the financial account and the stability of each component or the room for improvement thereof. Among the components of the financial account, direct

* JCR does not register the class of asset backed securities as NRSRO ratings.

investment tends to be more stable than short-term funds such as portfolio investment and short-term bank loans. In the case of a country with current account deficits, the sustainability of financing is checked through an analysis of the financial account.

With regard to external debt, in order to assess the ability to service external debt burdens in a sustainable manner, the trend of past debts outstanding and debt repayments is analyzed in terms of levels, GDP ratio and the ratio of goods and services exports. Next, its composition by currency, maturities, borrowers and lenders is examined. When a nation holds a large amount of external financial assets, its net debt calculated by deducting financial assets from the gross debt is also considered. In doing so, the composition of external assets and liabilities, their balance and past trends are examined using international investment position statistics. The analysis is also conducted on the basis of external assets and liabilities minus direct investment. As for external assets, attention is paid to the stock of foreign direct investment, foreign exchange reserves managed by monetary authorities, etc. Its appropriate level of adequacy is judged country by country based on the circumstances of each country. High levels of foreign exchange reserves are required in countries with large inflows of capital, such as short-term foreign debt and portfolio investments, which are prone to capital flight. On the other hand, in the case of countries that adopt major currencies with a free floating exchange rate regime, the high capacity to procure foreign currencies through the market is taken into account.

Bilateral currency swap agreements and multilateral or regional financial arrangements that may supplement foreign currency liquidity are factored into evaluations as appropriate. International credit enhancement frameworks such as the European Central Bank in the euro area are also woven into assessments as needed. As to assistance such as the one provided by the IMF, precautionary credit lines are assessed as complementary to sovereign liquidity. On the other hand, with regard to financial assistance such as standby credit facilities in response to a balance of payments crisis, deterioration in sovereign liquidity is usually factored into JCR's credit rating at the stage up to the request for assistance, and such IMF assistance is assessed as a potential halt to further liquidity deterioration. As failure to receive such ex-post financial support due to political or other reasons does not supplement liquidity, JCR's sovereign ratings can be further downgraded.

Lastly, as to the currency system, JCR bases its assessment on the examination of the features of the system each country adopts. The floating exchange rate system has less problems as it can adjust macroeconomic imbalances. However, such adjustment is difficult under the fixed exchange rate regime, where the country's currency is pegged to the key currencies. This needs to be heeded along with the risks of major capital inflows or inflows stemming from the gap between domestic and foreign interest rates. In the case of countries taking part in a monetary union like the euro-zone countries, whereas capital movements can be easily made within the region since they are free from foreign exchange constraints, they may find it difficult to adjust macroeconomic imbalances between the member countries. JCR therefore looks into both their advantages and disadvantages. A country which adopts a currency in global circulation is in an advantageous position to secure international capital. The United States particularly enjoys this advantage as the issuer of the key currency.

(3) Economic Base

A solid economic base supports the stability of a country’s public finance, banking, politics and society, enhancing the effectiveness of its market mechanism and economic policy. As to a

* JCR does not register the class of asset backed securities as NRSRO ratings.

country's economic base, JCR assesses its stability and sustainability after reviewing the fundamental elements of its economic development in light of the historical performances of economic development and its growth potential.

Its analysis of fundamental elements of economic development covers a country's territory, natural resource endowment, demography and infrastructure as needed. Countries with rich natural resources have good prospects of economic development. However, that is not a sufficient condition. Even if a country is blessed with natural resources, its economic development will be hard if it fails to make an effective use of them. On the other hand, a country with little resource endowment can grow if it aspires for an open economy and succeeds in industrialization. The development of infrastructure may also lead up to strengthening the supply capacity of the whole economy and improving its investment environment in the medium term, and the country can hope for increased domestic and foreign investments.

JCR reviews a country's historical performances of economic development after looking into its economic scale and per capita GDP. Per capita GDP suggests that the higher it is, the greater are the government's sources for tax revenues and funding. Purchasing power parity is prioritized here. The review of historical performances covers the evolution of a country's economic system and the degree of development of its market economy. While types of the economic system can vary depending on countries and time, it is important whether or not the market mechanism is actually functioning. Development of a market economy ensures an efficient allocation of resources and holds the key to the promotion of a long-term economic growth.

The growth potential is analyzed from a country's economic structure and transition of its economic growth rates in recent years. Greater emphasis is given here to structural characteristics than cyclical aspects. The economic structure is examined at its subcategories, i.e. industrial, international trade and employment structures. JCR assesses whether efforts are being made to encourage a structural shift to industries with higher productivity and whether each structure is being diversified to do away with dependency on a specific industry. As to the industrial structure, attention is paid to the level of its maturity, the competitiveness of key industries, and the systems and regulations in the background. The international trade is measured by major export and import items, their prices and counterparty countries. The degree of economic openness counts as well. Also important is to check whether a country’s exports are concentrated on specific products or counterparties to the extent even a minor environmental change can jeopardize its whole economy. The employment structure is seen in terms of the number of employees by industry, the labor force population and the number of the unemployed. As for the economic growth, JCR looks into its actual levels and volatility, and assesses whether a country has achieved a sustainable growth without distortions formed by inflation, asset price bubbles, external imbalances, etc. while giving consideration to its potential growth rate. It then conducts a detailed analysis of GDP growth rates in recent years, based on a review of each demand item. In so doing, it takes into consideration structural impediments to the growth, impacts from foreign economies and effects of government economic and financial policies.

(4) Social and Political Bases

The social and political bases give a country a foundation of economic activities and policy implementation. JCR assesses them by analyzing their stability and the state of governance. With regard to a country's political and social stability, JCR first examines the government’s political

* JCR does not register the class of asset backed securities as NRSRO ratings.

base by reviewing the historical changes of its political and social systems. Then it checks whether the stability of its whole society is secured from the viewpoint of religion, ethnicity, political thoughts and economic disparity. It also pays attention to the possibility of exceptional developments such as a civil war or an unexpected overthrow of the government and risks of the legitimacy of a sovereign debtor becoming extinct as a consequence of a war or revolution. As to the state of governance, JCR assesses whether rule of law is established, whether corruption is controlled and whether the quality of public services is maintained. Administrative transparency and independence of the judiciary, the central bank and the media are also important. When carrying out its assessment, JCR refers to relevant indicators made available by the World Bank and other international organizations.

(5) Financial system

A stable and efficient function of the financial system is vital for a sustainable economic growth and the maintenance of a sound public finance. As long as the financial system is sound, the economy can get a stable supply of funds needed for the growth. An effective functioning of the regulations and supervision by the authorities can preemptively prevent a financial crisis. On the contrary, a fragile financial system can interfere with economic activities and even set off a crisis. Because of its importance, the financial system often receives government support such as injection of public funds and debt guarantees in time of crisis. Therefore, an analysis of the financial system is also important from the viewpoint of grasping the government's contingent liabilities. The analysis is focused on the banking sector as the centerpiece of the financial system.

Taking those viewpoints into consideration, JCR assesses the stability of the financial system, based on the framework of financial regulations and supervision, the lenders' financial conditions, trends of asset values and international financial conditions. In so doing, it examines institutional characteristics of financial institutions, such as the composition of their business type and the degree of oligopoly, the maturity of financial and capital markets and the financial supervision systems including macroprudential policy and failure resolution system (including coordination with international frameworks such as Basel regulations). The lenders' financial conditions is measured by the soundness of their assets, capital adequacy, funding structure, liquidity and profitability. As to asset value trends, whether there are asset bubbles is checked along with an analysis of the state of fund availability, such as bank lending and money supply to the private sector, as well as trends of interest rates. An upsurge of asset prices away from the real economy can have a serious adverse impact on the financial system in the subsequent adjustment process. Moreover, in today's world where financial institutions have become gigantic and the financial markets have been globalized, there are growing possibilities that a default by an individual institution may spread to the entire financial system and that a country's crisis may spill over to other countries, resulting in grave consequences. Accordingly, taking into account the size of the financial system, JCR also tries to take hold of systemic risks where a financial trouble at a large bank, its adjustment of asset prices and a resultant decline of liquidity can cause a wave of ripple effects. When looking at comparison to international banking systems, it relies on statistics based on globally recognized common standards as much as possible.

(6) Economic Policies

The economic policy is a tool with which the government and the central bank address their policy challenges such as sustainable economic growth. JCR assesses its effectiveness and

* JCR does not register the class of asset backed securities as NRSRO ratings.

continuity, starting with such recognition on the part of relevant authorities.

JCR first checks how the government and the central bank recognize their policy issues. A precise recognition will make it possible for them to take appropriate policy measures. Their strong commitment can also be confirmed. Then JCR examines each of their policy measures and checks if they are consistent with each other and if they are effective. The flexibility of their policy responses taken in the past is also reviewed at the time. Finally, the sustainability of the current policies is evaluated based on the past records of policy implementation, public support thereto and the international environment at the time. Successes in overcoming economic and financial crises in the past can convince JCR about the effectiveness and continuity of the current policy measures to some extent. Even in a change of administration, new policies can be predictable if there is public support under an advanced political system. On the other hand, problems about succession of administration or concentration of power can be uncertain factors for the continuity of policies. It is also necessary to check fully if a country's policies are relevant in the ongoing international environment it faces.

When evaluating economic policies, JCR also considers the history of defaults and the reliability of statistical information, as necessary. Various indicators published by the World Bank and the World Economic Forum are also used as reference for the evaluation.

In recent years, there have been an increasing number of cases where central banks have introduced unconventional policies, such as an asset purchase program involving government bonds. Attention needs to be paid to an exit strategy because there is no denying those policies can lead up to a loss of confidence in currencies or a possibility of rapid inflation.

(7) International Relations

International relations are assessed political, economic and security stability. From the political perspective, JCR first looks into a country's positioning in the international community. Important here is whether it is internationally recognized as a state and whether it has established political relations of trust in some multilateral framework. From the economic perspective, JCR sees if the country has put in place frameworks that allow it to freely conduct international trade and financial activities. From the security perspective, it is necessary to ascertain the country's geopolitical position and identify the risk that heightened political and military tensions in another country may spread to that country due to its geographic location. When the country is a party to a regional integration like the EU or affiliated with international organizations and frameworks aimed to curb such risk, JCR factors them into its assessment after checking how those arrangements actually work.

4. ESG Factors

JCR incorporates ESG (Environment, Social and Governance) into the evaluation factors for its sovereign ratings. Environmental factors are mainly focused on climate change and natural disasters in the evaluation of a country's economic base and fiscal base. If the government successfully transforms the economic structure by promoting effective measures to stimulate demand and accelerate investment associated with decarbonization through its initiative to combat climate change, it will lead to stabilizing both the economic and fiscal bases. Social factors are mainly viewed in terms of employment conditions, human rights and political freedom, demographic changes, education, etc. when evaluating a country's social and political bases and economic base. Improvement of employment conditions and alleviation of poverty

* JCR does not register the class of asset backed securities as NRSRO ratings.

may enhance not only socio-political stability but also economic growth. Enhancement of education standards may also lead to strengthening the economic base through improvement of human resources. Governance factors are mainly viewed in terms of rule of law, control of corruption and the quality of public services in the evaluation of social and political bases. The government's economic policies and international relations surrounding the government are another important factors related to governance, and are looked at when evaluating a country's economic policies and international relations.

< Overview of Evaluation Factors for ESG >

Evaluation factors	Sub-evaluation factors
① Environment	Evaluated through economic base and fiscal base - Costs of dealing with climate change - Natural disasters etc.
② Social	Evaluated through social and political bases and economic base - State of employment - State of human rights and political freedoms - Demographic changes - Education and health and sanitation etc.
③ Governance	Evaluated through social and political bases, economic policies and international relations - Rule of law - Control of corruption - Quality of public services - Economic policies - International relations etc.

5. Country Ceiling

A country ceiling reflects JCR's assessment of authorities' likelihood to impose restrictions on foreign currency transactions made by a corporate entity in the country to fulfill its debt obligations, such as conversion of local currency into foreign currency and remittance of foreign currency outside the country. It serves as a maximum limit for the entity's foreign currency rating and in most cases is higher than the sovereign foreign currency rating.

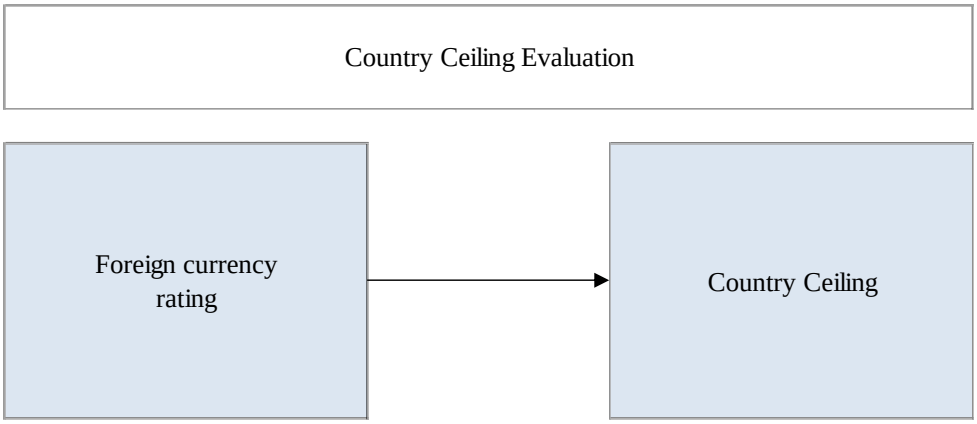
A country ceiling only applies to a foreign currency rating. This is mainly because authorities generally have limited capability to procure or issue foreign currency as compared to local currency. Therefore, authorities sometimes impose restrictions on foreign currency transactions of an entity in the country when they run into difficulties financing repayment of its debt in foreign currency.

A country ceiling will be determined, based on the overall assessment of the currency in circulation, foreign exchange regime, trade settlement and capital control, economic policies and foreign debts as well as responses to crises. In most cases, a country ceiling will be increased by zero-three notches from the sovereign foreign currency rating. However, countries like the US and Japan or in the Euro area may not come under the above criteria mainly because they adopt hard currencies and therefore have only limited likelihood to restrict foreign currency transactions.

In most cases, a country ceiling is a maximum limit for the foreign currency rating of an entity in the country. However, there may be some exceptions when agreements are in place among countries such as multilateral development banks and when strong support is provided to

* JCR does not register the class of asset backed securities as NRSRO ratings.

the entity by its parent company outside the country.



* JCR does not register the class of asset backed securities as NRSRO ratings.

II. Public Sector Entities

1. Credit Rating Methodology

For the rating of government-affiliated institutions such as state-owned banks and enterprises, JCR gauges the strength of their relationship with the relevant government by reviewing if they have legal support, their importance in the government's industrial policy, etc., and judges to what extent the government's creditworthiness should be reflected in their ratings. At the same time, JCR analyzes and assesses the financial position and business risks of such entities to draw the judgment. As a result, ratings on public sector entities can be equal to or lower than those of the relevant government. This rating methodology is applied to foreign public sector entities.

2. Key factors in the evaluation

JCR measures the strength of relationship between the public entity and the relevant government from various angles, with attaching importance to the following five factors. Each factor has its own evaluation weight. Basically, JCR considers that factor (1) weighs most among the five factors below, but such weightings are not strictly fixed. When appropriate, JCR may change the weights depending on types and situations of the entities reviewed.

(1) Strength of legal protection including regulatory protection

If government protection of a public sector entity is stipulated under legislation including the law for its inception, that can be a positive factor in assessing the strength of its relationship with the government. Such protection may include, for example, (i) explicit guarantees by law, (ii) government support defined by law, and (iii) laws to provide budgetary support such as operational subsidies, official loans, and interest payment allowances for bond issues.

In addition, the existence of protective governmental regulations can also be a positive factor in evaluating the strength of the entity's relationship with the government. For example, the government can restrict new market entry with a licensing system to control competition in the domestic market. It is also necessary to foresee future of the government's regulatory moves. The forecast takes into consideration matters such as the regulatory authority's policy towards privatization, and the external environment and the existence of social or political organizations which may influence the authority's policies.

(2) Strength of government support other than the above-mentioned

It is also necessary to analyze the measures for credit enhancement by way of economic and regulatory supports by the government, which does not necessarily have clear legal grounds such as a founding law. Such supports may include: (i) explicit guarantees not based on any legislation, (ii) the government's will to support the entity to fulfill its liabilities in case it falls into a financial difficulty and (iii) an indirect subsidy and assistance in a broad sense such as creation of a general economic and social environment that can contribute to enhancing the credit quality of the entity. With regard to the government supports other than explicit guarantees, it is important how the government sets up and maintains the overall regulatory, economic and political environment. In that case, it is necessary to analyze whether the government has capacity and will to create a business environment to the future managerial advantage of the entity.

* JCR does not register the class of asset backed securities as NRSRO ratings.

(3) Strength of capital relationship

If the government intends to continue holding an equity stake in a public sector entity, that can be evaluated positively in assessing its relationship with the government as it may indicate the government's will to maintain its power to control the management of the entity. However, it should be noted that the government's equity holding does not necessarily mean it is fully responsible for the entity's obligation of debt payment. If the government holds more than 50% of the entity's shares, it is generally considered more likely than not to intervene in its management when it falls into a financial difficulty, as compared to the case where a government stake is less. This may not be the case all the time, however.

Also important is the purpose of government's equity holding. For example, if it is to prevent foreign companies from controlling the entity, it can be expected that the government will promote policies to protect the entity's market and keep its business environment secured. Furthermore, it is necessary to check if the government has plans to privatize the entity or change the shareholding ratio.

(4) Importance in the government's industrial policy

It is necessary to analyze the importance of a public sector entity in light of the government's national policies including energy policy, industrial policy, social security policy and defense policy. If the entity is given a greater importance, that can be positively evaluated, in assessing the strength of its relationship with the government or vice versa.

(5) Strength of personnel relationship with government

A public entity's strong personnel relationship with the government can be positively evaluated in assessing the strength of its relationship with the government. If the government participates in the management of the entity or it has the power to appoint management of the entity, it is necessary to check whether there is any legal ground for it.

In assigning the credit standing of a public sector entity, JCR judges the strength of its relationship with a government by analyzing and evaluating the above-mentioned five factors. However, it should be noted that the entity's strong relationship with the government can be a negative factor from the viewpoint of creditworthiness on the basis of its financial and operating performance. For example, a high government equity stake can be an impediment to the entity's efforts to enhance its management efficiency and run its business in keeping with market principles. It can also lead to moral hazard. In addition, a regulation that restricts investment in the entity by foreign companies can be a negative factor in a long-term perspective as it may restrain its overseas fund raising. Therefore, a comprehensive evaluation based on all these factors is required in the final phase of the rating process for a government-affiliated entity.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-4 Rating Assessment and in-house financial evaluation system

Rating Assessment and in-house financial evaluation system

JCR conducts rating assessment on the ground of all available information about the issuer or any other object entity, which is obtained from the entity itself as well as other sources. They collect not only the issuer-specific information but also the one which belongs to its business environment. JCR usually requires the issuer submission of all the disclosure documents and relevant published materials as well as some non-public information in the area of planning, new products, etc. As a rule, after the assigned analysts have exercised thorough examination on the numbers and information thus accepted, JCR gives management interviews, often by visiting the premises of the issuer, for the purposes of verification, clarification and augmentation of the given information and the resulted initial assessment.

To each case JCR applies the standard set of credit analysis employing quantitative, qualitative and statistical methodologies. Analysts have intranet access to the internal database and financial evaluation systems for their analytical works and reference on their desktops. They also make inputs from their research, and derive various financial ratios, graphs and charts that allow them to “eye-ball” the issuer’s relative standing in the categories of industry and credit rating, as well as along the historical trends. The credit rating database covers macro, industrial and publicized corporate information; of historical records of bonds and other financial instruments; and JCR ratings including their historical migration and average rates of default by rating category; as well as clients and relating news and reports.

JCR maintains statistical credit models of its own development. Analysts are required to run them on each case to come up with the estimated probabilities of default on cumulative basis from one to several years of near future. The result of model rating, which is denoted by regular JCR rating symbols assigned by the computer on the basis of the probability of default and the historical study of defaults, makes a part of the documentation that analysts prepare for the presentation in the Rating Committee. The model rating does not necessarily coincide with the analyst judgment and they are responsible to defend their cases in the Committee meetings whenever the discrepancy happens.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-5 External data sources used in the rating assessment

External data sources used in the rating assessment

List of External Data Sources

External Data Sources	Department	Usage
Toyo Keizai Inc.	Financial Institution Rating Dept. Corporate Rating Dept. Structured Finance Dept.	"JCR Indicators" (A spreadsheet displaying information derived from financial statements and financial ratios) Comparison sheet of financial ratios (with other entities in the same industrial sector and in the same rating category) Comparison sheet showing ranking by financial ratio
Japan Reit DB	Structured Finance Dept.	Databases of individual real estate properties used for J-REIT credit rating analysis
EIU Data Services	International Dept.	"Economic, Fiscal and External Indicators" used for sovereign credit rating analysis
IMF International Financial Statistics and other statistics	International Dept.	Same as above.
CEIC Data Company Ltd.	International Dept.	Same as above.
World Bank Global Development Finance	International Dept.	Same as above.
OECD Economic Outlook	International Dept.	Same as above.
Bankscope	International Dept.	Financial data used for rating analysis of financial institutions

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-6 Rating Committee Rules

Rating Committee Rules

Article 1 *General Rules*

1. JCR shall establish the Rating Committee (hereinafter referred to as the "Committee,") in accordance with Article 5 of the Organization Rules.

2. The Committee may hold more than one meeting simultaneously, if required.

Article 2 *Purpose*

The purpose of the Committee shall be to consider and determine credit ratings in relation to the credit rating business (including the credit rating outlook, and credit monitor and its likely direction of a credit rating. The same shall apply hereinafter).

Article 3 *Definitions*

In the Rating Committee Rules (hereinafter referred to as the "Rules"), the following definitions shall be used:

(1) General Manager of Rating Department/Division (Department/Division hereinafter "Department"): the general manager of departments in charge of credit ratings set out in the Organization Rules (excluding the SME Rating Division)
(2) Responsible General Manager: a general manager of the department that is in charge of assigning a credit rating to a subject entity
(3) Rating Analysts: the chief analysts, senior analysts and analysts described in the Organization Rules
(4) Responsible Rating Analyst: an responsible credit analyst who is appointed by the General Manger of Rating Department as a person who routinely monitors the credit standing of an issuer and conducts the analysis and assessment necessary for assigning a credit rating (including rating analysts appointed by the responsible manager of rating department as a person who temporarily acts for the assigned credit rating analyst and conducts the analysis and assessment necessary for consideration at the Rating Committee or the Credit Rating Council).
(5) Chief Responsible Rating Analyst: a chief responsible rating analyst appointed by the general manager of the rating department as the principal responsible rating analyst who has the role of the chief responsible rating analyst set out in Article 295, Paragraph 3, Item 4 of the Cabinet Office Ordinance Concerning the Financial Instruments and Exchange Act (Cabinet Office Ordinance No. 52 of 2007)
(6) Responsible Rating Director: a Board Member who supervises any rating department/division (department/division that is in charge of assigning credit ratings)
(7) Credit Rating Business: the credit rating business set forth in Article 2, Paragraph 35 of the Financial Instruments and Exchange Act (Act No. 25 of 1948)
(8) Credit Ratings: Credit ratings in relation to the credit rating business

* JCR does not register the class of asset backed securities as NRSRO ratings.

(9) Stakeholder: the stakeholders set forth in Article 66-33, Paragraph 2 of the Financial Instruments and Exchange Act (Act No. 25 of 1948)
(10) Asset Securitization Products: the asset securitization products set forth in Article 295, Paragraph 3, Item 1 of the Cabinet Office Ordinance Concerning the Financial Instruments and Exchange Act (Cabinet Office Ordinance No. 52 of 2007)
(11) Rating Committee, Etc.: the Rating Committee or the Credit Rating Council

Article 4 *Function*

1. Credit ratings shall be assigned by resolution of the Committee or the Credit Rating Council in accordance with this Rules and the Credit Rating Council Rules. Issues for consideration in assigning an individual credit rating shall first be submitted to the Committee, and only those issues that were not resolved by agreement at the Committee shall be submitted to the Credit Rating Council.

2. When assigning a preliminary credit rating, the Committee may resolve in advance to use a preliminary credit rating (including a credit rating outlook, and credit monitor and its likely direction of a credit rating. The same shall apply hereinafter) as a final credit rating of a product when the product is actually issued in the future, by designating the preliminary credit rating as the credit rating (the final credit rating) to be assigned when the product is actually issued in the future, on the condition that the Chief Responsible Rating Analyst confirms the product design, issue terms and the status of the issuer at the time the product is actually issued and that the Responsible General Manager gives approval (the procedures above set forth herein shall be hereinafter referred to as the "Simplified Method"). To apply the Simplified Method to a credit rating, the criteria set separately shall be met.

3. When assigning a credit rating to an asset securitization product that constitutes a short-term receivable, the Committee may resolve in advance to use a credit rating determined at the time of designation as the credit rating of the individual product when it is actually issued, by designating it the credit rating of the asset securitization product, on the condition that the Chief Responsible Rating Analyst confirms the issue terms of the product and the status of underlying assets at the time the individual product is actually issued, that a standardized analytical method is applied, and that the responsible manager of the rating department gives approval (the procedures above set forth herein shall hereinafter be referred to as the "SF Short-Term Stylized Simplified Method"). To apply the SF Short-Term Stylized Simplified Method to a credit rating, the criteria set separately shall be met.

4. When assigning a credit rating to an asset securitization product the creditworthiness of which is effectively linked to a credit rating of a certain corporation, etc. or assigning a credit rating to a structured finance product the creditworthiness of which is effectively linked to the credit rating of a single corporation, etc., the Committee may resolve in advance to use the credit rating of the corporation, etc. to which the credit standing is linked as the credit rating of the product by designating the credit rating as an object of the simplified review method based on the Simplified Method, on the condition that the responsible manager of the rating department grants approval and that certain conditions are met when the credit rating is reviewed (the procedures above set forth herein shall be hereinafter referred to as the "Simplified Method-

* JCR does not register the class of asset backed securities as NRSRO ratings.

Based Easy Review Method"). To apply the Simplified Method-Based Easy Review Method to a credit rating, the criteria set separately shall be met.

5. When assigning a credit rating to a structured finance product the creditworthiness of which is effectively linked to the creditworthiness of a corporation, etc. which has the lowest level of creditworthiness among specific corporations, etc. engaged in the product (hereinafter referred to as "the Weakest Level"), the Committee may resolve in advance to assign credit ratings for the products that shall be repeatedly issued by the same issuer (vehicle) and is recognized as having the same credit risk characteristics at the Weakest Level of the newly rated products, on the condition that the Chief Responsible Rating Analyst confirms the issue conditions of the product, application of the standardized analytical method, and on the condition that the Responsible General Manager approves the assignment (the procedures above set forth herein shall hereinafter be referred to as the "SF Weak-linked Simplified Method"). To be recognized as having the same credit risk characteristics, the criteria set separately shall be met.

Article 5 *Constituent Members*

1. The constituent members of the Committee (meaning those who participate in resolutions. The same shall apply hereinafter) shall comprise the Rating Committee members appointed by the Responsible General Manager.

2. The Responsible General Manager or a Rating Committee member appointed by the responsible General Manager shall become the Committee Chairman.

3. Responsible Rating directors and the Compliance Officer may attend the Committee. However, they cannot participate in resolutions.

4. Rating Committee members and Responsible Rating Directors shall not attend the Committee when any of the following applies:

   - A Rating Committee member or a Responsible Rating Director holds securities issued by the stakeholder or derivative instruments of these securities ("Holds" includes cases in which a Rating Committee member can execute a voting right or any other rights or make a demand as a shareholder of the issuer based on a money trust agreement, etc. and cases in which a Rating Committee member has the authority necessary to invest in securities under a discretionary investment contract, etc.)
   - A Rating Committee member or a Responsible Rating Director holds securities or derivatives instruments issued by an associate of the stakeholder ("Holds" includes cases in which a Rating Committee member can execute a voting right or any other rights or make a demand as a shareholder of the issuer based on a money trust agreement, etc. and cases in which a Rating Committee member has the authority necessary to invest in securities under a discretionary investment contract, etc.)
   - A Rating Committee member or a Responsible Rating Director had at any time in the last year or currently has an employment relationship that could cause a conflict of interest with the stakeholder (including a case in which a Rating Committee member was an

* JCR does not register the class of asset backed securities as NRSRO ratings.

officer or held an equivalent position) or some other important business relationship with a stakeholder

- A Rating Committee member or a Responsible Rating Director is a relative of a person who is an officer or holds an equivalent position at the stakeholder (spouse or blood relative or an in-law within the first degree of kinship)
- A Rating Committee member or a Responsible Rating Director has a personal relationship that could cause an actual or apparent conflict of interest with an officer or an employee of a stakeholder or an agent thereof and the Chief Compliance Officer judges that the relationship does cause conflict of interest

5. At least one third or more of the Rating Committee members may not participate in a succession of resolutions concerning a credit rating on matters of interest to the same stakeholder. For a credit rating of an instrument other than asset securitization products, when two or more credit ratings are assigned to the same product during the same business year, they shall be regarded as one credit rating. When holding a Committee meeting, persons who should be excluded from the constituent members of the Committee shall be appointed in accordance with the provision above in this Paragraph. (The procedure to exclude persons from the constituent members of the Rating Committee, Etc. shall be hereinafter referred to as the "Rotation")

6. When requesting the convening of the Credit Rating Council because an agreement was not reached at the Committee (the Committee in this case shall be hereinafter referred to as the "Initial Committee" in this Paragraph), the Initial Committee shall be treated as if it had not met for the purpose of the Rotation at the said Credit Rating Council. The Initial Committee shall also be treated as if it had not met for the purpose of the Rotation at the Rating Committees, Etc. to be held after the said Credit Rating Council.

7. When convening the Committee to reconsider a credit rating, the resolution at the Rating Committee, etc. that conducted the initial consideration (hereinafter referred to as the "Initial Rating Committee, Etc." in this Paragraph) shall be treated as if it was cancelled, and the Initial Rating Committee, Etc. shall be treated as if it had not met for the purpose of the Rotation at the Committee that makes the reconsideration. The Initial Rating Committee, Etc. shall also be treated as if it had not met for the Rotation at the Rating Committees, Etc. to be held after the Committee that conducted the reconsideration.

8. At least one or more of the Rating Committee members shall have experience in performing credit analysis for not less than three years.

9. When newly assigning or reviewing a rating for an issuer (or for a program in the case of structured finance products), one or more Rating Committee members shall belong to a department other than the department in charge of assigning the credit rating.

Article 6 *Convocation*

The Committee shall be convened by the responsible manager of the rating department as needed at the request of a Rating Committee member or assigned rating analyst, taking the

* JCR does not register the class of asset backed securities as NRSRO ratings.

appropriateness of the Rating Committee members into account.

Article 7 *Matters to Be Submitted to the Committee*

The following shall be submitted to the Committee:

(1) Matters related to the assignment of a credit rating (including reviews)
(2) Matters related to the confirmation of a credit rating (limited to those matters which the responsible manager of the rating department deems necessary to submit to the Committee)

Article 8 *Quorum*

The Committee shall come into effect with the attendance of five or more Rating Committee members.

Article 9 *Points to Be Checked*

1. To commence consideration, the Committee Chairman shall check whether the following conditions are met based on the method separately set forth. If any of the conditions cannot be confirmed (including a case in which the inability to meet a condition becomes apparent after commencing consideration), the Committee shall not proceed.

(1) The Rating Committee members and the rating analysts have the requisite knowledge and skills to assign the credit rating.
(2) The information used to assign the credit rating is of adequate quality.
(3) There is not or could not be a conflict of interest among JCR, the Rating Committee members, Responsible Rating Director attended to the Rating Committee and the responsible rating analysts as to a credit rating, or if there could be a conflict of interest, measures to avoid it are taken.
(4) If the design of a product to be considered is markedly different from that of a product that has previously been assigned a credit rating, there is no substantial doubt about the possibility of assigning an appropriate credit rating in consideration of the complexity or design of the product or the lack of clear data on the underlying assets, etc. That the design of an asset securitization product is markedly different from that of an asset securitization product that was previously assigned a credit rating means that the existing rating policies and methodologies, etc. cannot apply as is or that the application of the existing rating policies and methodologies, etc. is considered inappropriate, for instance because the new method of cash flow analysis and new legal consideration becomes necessary.

2. Even if the Committee does not proceed with a credit rating based on the provision of the preceding Paragraph, on the grounds that an actual or potential conflict of interest among the Rating Committee members or Responsible Rating Directors attended to the Rating Committee could not be ruled out and a measure to avoid the conflict of interest could not be confirmed, the Committee shall proceed if it is confirmed through the procedures set forth in the preceding Paragraph that the grounds have subsequently been removed.

Article 10 *Resolution Method*

* JCR does not register the class of asset backed securities as NRSRO ratings.

1. Resolutions at the Committee shall be made by agreement of all attending Rating Committee members.

2. If the agreement is not reached, items on the agenda shall be submitted to the Credit Rating Council. However, if the Chairman deems it necessary, a resolution may be made by a majority of the attending Rating Committee members. In the case of tie vote, the Chairman shall decide. The decision of the necessity shall be made mainly by considering whether it will take time to hold a credit rating council and investors may suffer from such elapsed time to assign the credit rating or not. The decision of the necessity to resolute by a majority vote shall be recorded clearly in the rating committee minutes.

3. In case that a credit rating was determined by the majority vote or the chairman's decision according to the article above, the Chairman shall report the result to the rating council promptly after the rating committee.

Article 11 *Determination of Credit Rating in Emergency*

If the Committee cannot meet as the Rating Committee members are unable to convene due to a holiday, business trip, accident, disaster, or other contingency, and if it is a matter of urgency, a credit rating may be determined by holding the Committee meeting through such methods as telephone and electronic mail at the discretion of the Responsible General Manager. In this case, the Committee shall have a quorum with the participation of three or more Rating Committee members. However, the result of this credit rating shall be subject to the *ex post facto* approval of an ordinary Committee meeting at the earliest opportunity.

Article 12 *Publication, etc.*

1. Procedures for disseminating a credit rating determined in accordance with the preceding two Articles shall be taken after the result is reported by the Responsible General Manager or the Responsible Rating Analyst to the stakeholder designated by rated entities (it may be an arranger in the case of structured finance products, etc.) and procedures for the stakeholder to check whether there is any factual errors in the principal information used by JCR to assign the credit rating (hereinafter referred to as the "Factual Error") are taken.

2. After a credit rating is determined in accordance with the preceding two Articles, the Responsible General Manager shall instruct another assigned rating analyst to conduct a re-examination and convene the Committee for reconsideration if necessary. If the stakeholder simply expresses an objection to the credit rating result, the re-examination and the re-consideration shall not be conducted.

Article 13 *Acting Officers*

For the procedures set forth in Article 4, Article 6, Article 11 and Article 12, Paragraph 1 of the Rules, if the Responsible General Manager is absent, a General Manager of another rating department or a GMD of the rating department shall act in his/her stead, and if the Chief Responsible Rating Analyst is absent, the responsible General Manager or the chief analyst appointed by the responsible General Manager shall act in his/her stead.

* JCR does not register the class of asset backed securities as NRSRO ratings.

Article 14 *Secretariat*

A secretariat shall be set up in the Rating Administration Department.

Article 15 *Revision and Rescission*

Revisions to, and the rescission of, the Rules shall be carried out by the Board of Directors.

Supplementary Provisions

Introduced on April 1, 1985
Revised on April 1, 1995
Revised on April 1, 1997
Revised on May 20, 2004
Revised on April 28, 2005 and enacted on May 31, 2005
Revised on May 9, 2005 and enacted on May 31, 2005
Revised on December 11, 2008
Revised on October 7, 2009
Revised on July 22, 2010 and enacted on July 30, 2010
Revised on March 26, 2012
Revised on December 19, 2012
Revised on June 19, 2015
Revised on November 18, 2016
Revised on July 19, 2021
Revised on February 1, 2024

* JCR does not register the class of asset backed securities as NRSRO ratings.

Exhibit 2-7 Disclosure of Procedures and Methodologies

The following is corporate Internet Web site address which contains more information about procedures and methodologies.

https://www.jcr.co.jp/en/rrinfo

* JCR does not register the class of asset backed securities as NRSRO ratings.