

## Rating Methodology by Sector

### **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 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 closeness 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 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, 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 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 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 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, 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.

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