

Risk Management

Basic Policies for Risk Management

Basic Approach

Along with recent economic and financial globalization, the business environment for financial institutions has changed significantly. New profit and operational opportunities have been created even as financial institutions are facing increasingly complex and volatile risks. For financial institutions to maintain a high level of public confidence in such an environment, it is important to establish and operate an effective internal control system.

To implement appropriate company-wide risk management, the Bank has formulated the Basic Policies for Risk Management. The policies identify the types of risks to be managed and the basic framework for risk management, including organizational structure and methodology. Based on the Basic Policies, the Bank is working on the management task of ceaselessly upgrading its risk management framework with the managerial goals to fully demonstrate its competitive edge and presence and fulfill its role adequately as a financial institution involved in the agricultural, fishery

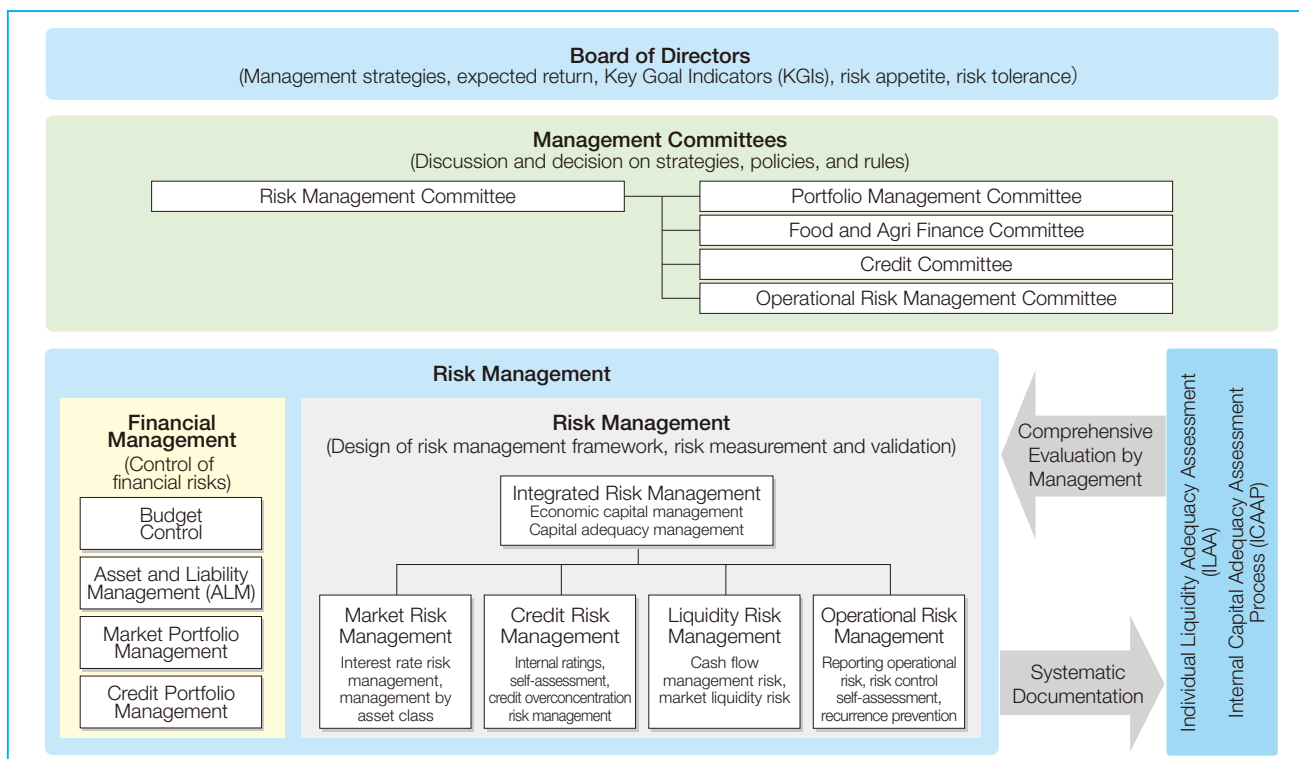
and forestry industries as well as food production and consumption, further reinforce the business base of its cooperative banking business and realize stable returns to its members through the further evolution of its existing globally diversified investments.

Risk Management Framework

The Bank's risk management framework under its internal control aims to ensure the overall stability and sturdiness of operations according to the Bank's risk appetite as specified in the Risk Appetite Framework (RAF), the aforementioned framework for operational management.

To ensure the effectiveness of the risk management framework, the Bank manages individual risks after assessing the materiality of risks and identifying risks to be managed. The Bank also implements integrated risk management by measuring the overall amount of risk using quantitative methods and comparing it with the Bank's capital resources. Classifying market risk, credit risk, liquidity risk and operational risk as impor-

Risk Management System



tant risks, the Bank conducts risk management with economic capital management and capital adequacy management as its axes.

■ Risk Management in Group Companies

Based on the Basic Policies for Risk Management of the Bank, each of the Bank's group companies has formulated its own risk management structure including effective risk management policies and a framework after discussion with the Bank and taking into consideration each company's business activities and risk profiles and characteristics.

■ Compliance with Basel Regulations

Basel regulations are international agreements relating to various regulations that aim to maintain the soundness of banks operating internationally. Currently, Basel III, which was discussed and agreed upon, learning from the global financial crisis that occurred in 2008, is being adopted incrementally. Moreover, in December 2015, the Bank was selected by the Japanese authorities as a Domestic Systemically Important Bank (D-SIB), thereby an additional capital buffer has applied to the Bank incrementally since fiscal 2016. The Bank is taking appropriate steps mainly for the sophistication of its integrated risk management including the application of the Basel III targets to its internal control, particularly to address the capital adequacy ratio based on the Basel III regulations, and starting to adopt the Interest Rate Risk in the Banking Book (IRRBB) regulation. Keep-

ing a close eye on increasingly tightening regulations, the Bank will continue to respond to new regulatory requirements in an appropriate manner.

Compliance with the Basel Banking Regulations

Topics	Compliance with the Basel Regulations
2007	<ul style="list-style-type: none"> • U.S. subprime mortgage crisis
2008	<ul style="list-style-type: none"> • Collapse of Lehman Brothers
2010	<ul style="list-style-type: none"> • European Sovereign Debt Crisis • Announcement of Basel III
2013	<ul style="list-style-type: none"> • Start of application of capital adequacy ratio requirements (Adopting the ratio incrementally through 2019)
2015	<ul style="list-style-type: none"> • Start of application of Liquidity Coverage Ratio (LCR) • Selected as a D-SIB (Domestic Systemically Important Bank) by the Japanese authorities
2017	<ul style="list-style-type: none"> • Finalization of Basel III • Start of application of Advanced Internal Ratings-Based Approach (A-IRB)
2018	<ul style="list-style-type: none"> • Start of application of Interest Rate Risk in the Banking Book (IRRBB) regulation
2019	<ul style="list-style-type: none"> • Start of application of Leverage Ratio

Capital Management Framework

■ Capital Resources

The Bank considers it a major management priority to secure a sufficiently high level of capital resources in order to maintain and strengthen its financial position. Through these measures, the Bank ensures stable returns to its members and plays its role as the central bank for Japan's agricultural, fisheries and forestry cooperatives, contributes to those industries and the development of the cooperative banking business, and aligns

itself with the diverse needs of its customers. With the strong membership of the cooperative system as its base, the Bank has ensured an adequate capital ratio in compliance with international standards. Furthermore, in March 2019, with the full understanding and support of its members, the Bank implemented the advance repayment of past subordinated loans (about ¥1,510.0 billion), which has become Tier 2 capital under Basel III; newly received increased capital of low dividend

rate stocks (about ¥560.0 billion) as Basel III common equity Tier 1 capital; and implemented the borrowing of perpetual subordinated loans (about ¥1,320.0 billion) as additional Tier 1 capital under Basel III, from the perspective of addressing the qualitative capital improvement with consideration of the Bank's measures to address financial regulations, etc., in the future.

As a result, the Bank's common equity Tier 1 capital ratios at the end of fiscal 2018 on a consolidated and a non-consolidated basis, were both maintained at 16%, and the total capital ratios at the end of fiscal 2018, on a consolidated and a non-consolidated basis, were maintained at a level exceeding 19% (Basel III standard). In the years ahead, the focus of the Bank's management agenda will be to fully perform its role as the central bank for the cooperatives, while maintaining its high-quality capital at a sufficiently high level, and to ensure continuing stable returns to its members.

Moreover, the Bank is rated by the two leading credit rating agencies in the United States—S&P and Moody's Investors Service—and has received top-tier ratings among Japanese financial institutions. One of the main reasons supporting these ratings is the strong capital base afforded by the membership of the cooperative system.

While major commercial banks in Japan received injections of public funds in the past to restore financial soundness and to facilitate their ability to extend credit, the Bank, based on its capital adequacy, has not applied for such an injection.

■ Framework for Maintaining Capital Adequacy

Utilizing the RAF and various risk management frameworks, the Bank strives for sound business operations with a good balance between risk and return. Capital

management checkpoints are established in order to ensure that capital adequacy is maintained above a certain level even in uncertain economic and environments.

The checkpoints provide a framework to ensure that capital adequacy is maintained above the risk appetite indicators and the risk tolerance level—the level of risk that is acceptable to the entity, both of which are set forth in the RAF. This is done by monitoring key volatility factors by discussing countermeasures at an early stage. Specifically, the Bank is closely monitoring the capital ratio and the level of unrealized gains and losses on securities to ensure that the appropriate levels of capital are maintained.

■ Internal Capital Adequacy Assessment Process (ICAAP)

The Bank conducts the Internal Capital Adequacy Assessment Process (ICAAP) and comprehensively manages its capital resources.

The ICAAP is a series of processes for ensuring the recognition of the capital-related tolerable risks for the Bank and the risk tolerance level from the perspective of risk management in light of the business model and risk profile of the Bank, in accordance with its management strategies, business strategies, expected return and risk appetite, all of which are specified in the RAF, and demonstrating that the Bank maintains a sufficient level of internal capital to cover risks based on such recognition. In addition to monitoring the current status of the capital resources that the Bank holds, the Bank conducts comprehensive assessments mainly by verifying the appropriateness of its framework for maintaining capital adequacy and its operation as well as confirming the sturdiness and flexibility of operations from a forward-looking perspective by implementing comprehensive stress tests.

Integrated Risk Management Methodology

■ Economic Capital Management

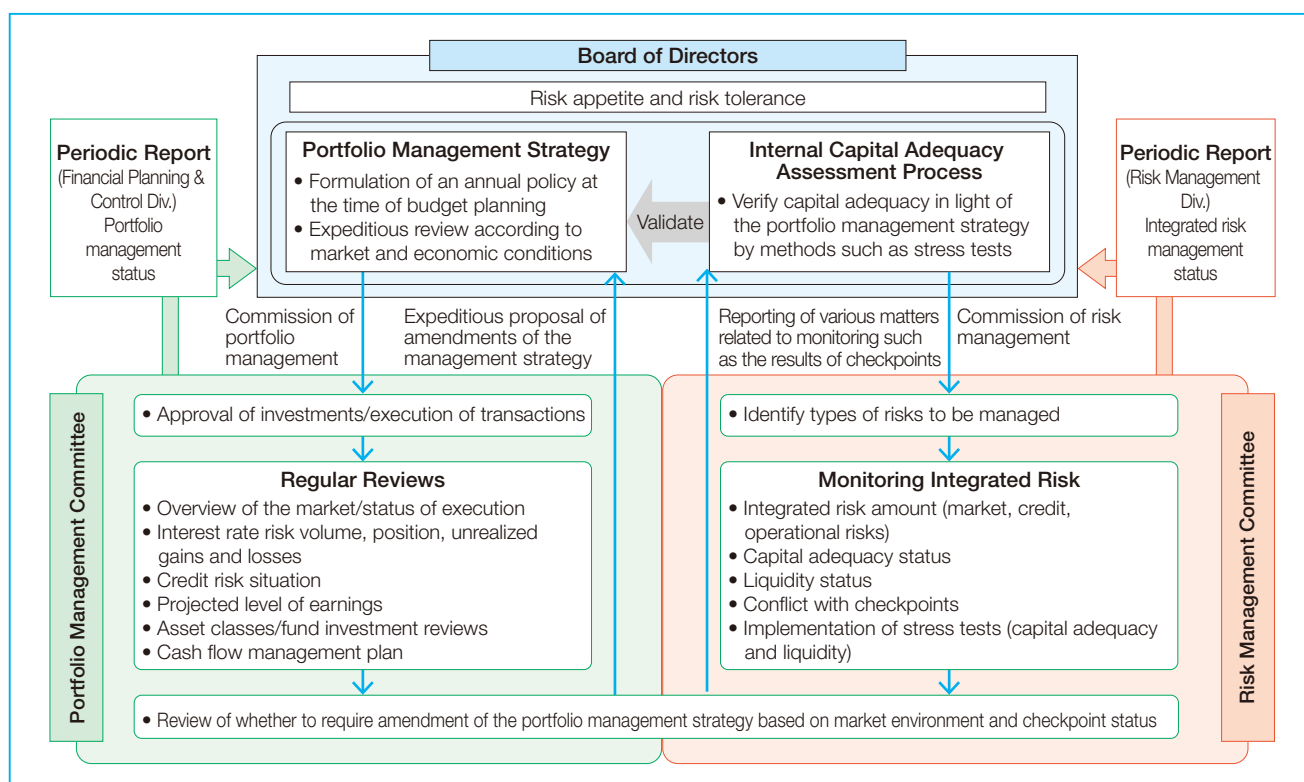
Based on the Basic Policies for Risk Management, the Bank stipulates a core integrated risk management framework that manages risk quantitatively and comprehensively in comparison with capital, which represents its financial strength. The core function in this framework is economic capital management.

Under economic capital management, risks to be covered by capital are measured, and the internal capital for this purpose is applied in advance. The amount of risk is controlled so as not to exceed the applied internal capital by monitoring the changes in the amount of risk caused by market fluctuations during the fiscal year under review and additional risk-taking in a timely manner. The Bank manages economic capital on both a consolidated and a non-consolidated basis.

■ Integrated Risk Management Consistent with Financial Management

The Bank's integrated risk management framework is carried out consistently with its financial management framework to maintain a balance between a sound financial position and adequate profitability. The Bank has particularly established the market risk management infrastructure to enable a prompt response to changes in financial market conditions. The Bank conducts analysis from various perspectives, including static and dynamic interest rate sensitivity analyses toward the impact on earnings, and price sensitivity analysis of its assets for the impact on interest rate changes. In addition, as a part of Asset and Liability Management (ALM), the Bank measures the amount of risk, taking into account of price volatilities of bonds and stocks as well as volatilities in foreign currency exchange rates, and conducts scenario simulations under various stress assumptions. Through the analysis described above, the Bank strives for flexible financial management by understanding the impact of market volatilities on the value of its assets.

Risk Management

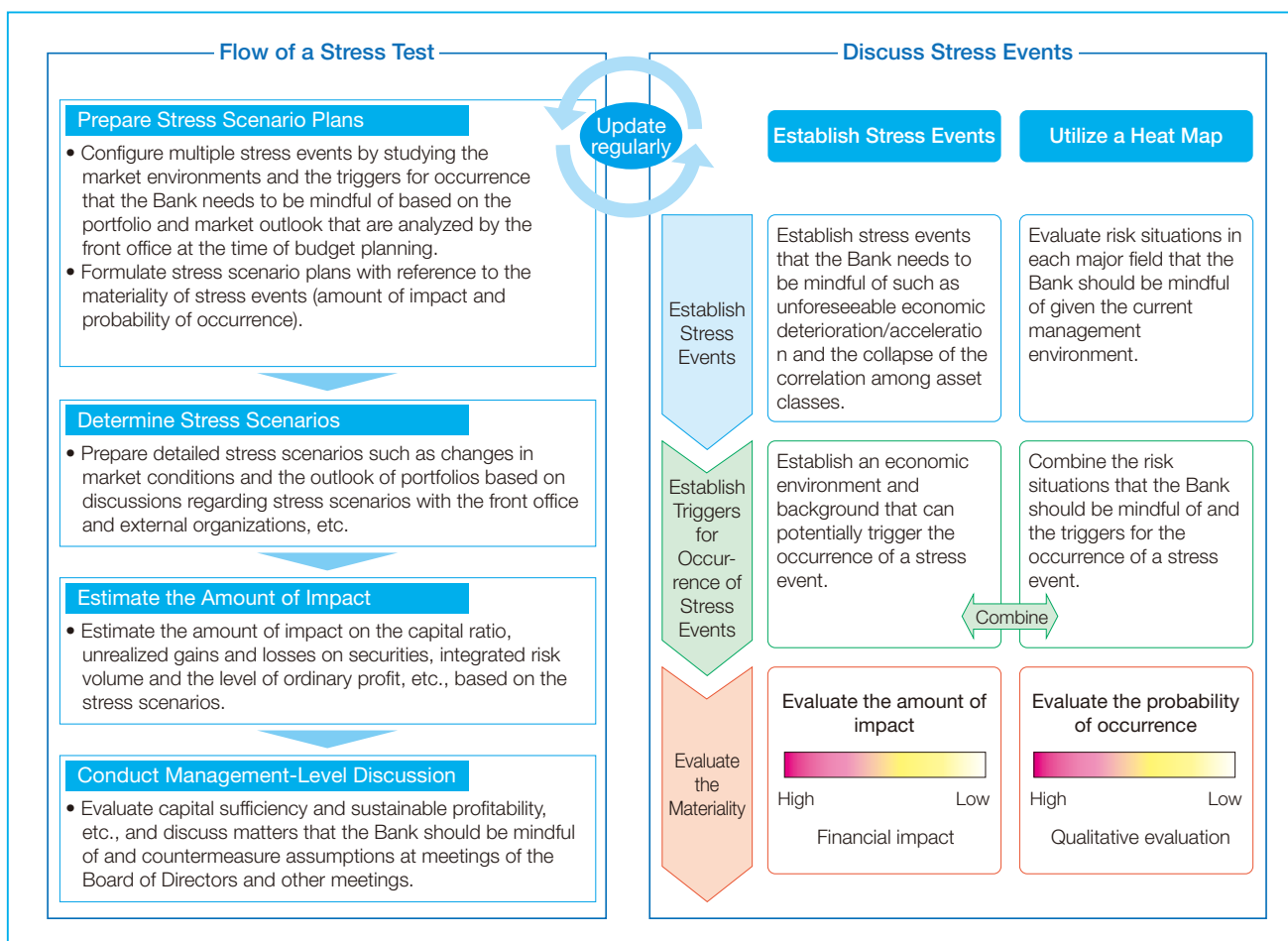


Implementation of Stress Tests

Stress tests are performed together with the implementation of the fiscal year's ICAAP and budget planning. By preparing strict stress scenarios that factor in specific timelines and the ripple effects of risks covering the Bank's entire portfolio after analyzing internal and external environments, the Bank verifies the impact of these stresses on profit, capital and risk.

Moreover, stress tests play an important role in the

process of formulating portfolio management strategies, which occurs along with budget planning. In addition, the Bank also utilizes stress tests for a forward-looking assessment of internal capital adequacy such as reviewing the countermeasures (management actions) to take at times of stress based on the assumed amount of impact on profitability and capital, etc. resulting from stress tests.



Market Risk Management

Market risk refers to a risk of loss incurred by changes in value of assets and liabilities (including off-balance sheet items) caused by changes in various market risk factors such as interest rates, foreign currency exchange rates and stock prices. It also refers to a risk of loss incurred by changes in profits generated by assets and liabilities.

The “globally diversified investment” concept is the basis of the Bank's portfolio management. With bonds, stocks and credit assets as major asset classes, this concept aims to establish a portfolio with high soundness and profitability and a good balance among risks as a whole by controlling profits from each asset and related risks within capital, taking into account the correlation

among asset classes and other related points.

Therefore, the Bank deems market risk, such as interest rate risk and the risk of stock price volatility, to be a significant risk factor affecting the Bank's earnings base. Through active and appropriate risk-taking supported by a robust risk management framework, the Bank aims to retain a stable level of profit.

● Market Risk Management Framework

To ensure the effectiveness of market risk management in the execution of market transaction operations, the Bank's Board of Directors formulates portfolio management strategies (decision making), the front office conducts the trading of securities and risk hedging (execution), the middle office assesses risk amounts (monitoring) and discusses the need for revisions to portfolio management policy (policy change), each office operating independently. In addition, the status of portfolio management is reported to the Board of Directors on a regular basis.

In market risk management, the Bank verifies the status of the market portfolio, such as the amount of market risk, the interest rate risk amount for banking ac-

counts (Δ EVE, NII and Δ NII), the risk-return profile of each asset class and the correlation among asset classes, and manages the risk balance, the level of the interest rate risk amount for banking accounts and the level of earnings. In addition, to address changes in the external environment such as the market environment, as well as the internal environment such as the financial position and in line with revisions to the related outlook, the Bank recognizes expeditious and flexible reviews of the market portfolio as an important element in market risk management. To this end, the Bank adopts a framework to quickly capture changes in the market environment by setting an alarm point for losses in each asset class and risk volume increase as well as the impact of short-term market fluctuations, and then review its market portfolio management strategies.

Glossary

Δ EVE: Decrease in Economic Value of Equity (EVE) due to an interest rate shock

Δ NII: Decrease in Net Interest Income (NII) during 12 months from the base date due to the interest rate shock

Credit Risk Management

Credit risk is the possibility of loss arising from a credit event such as deterioration in the financial condition of a borrower and the economic and financial environment that causes an asset (including off-balance sheet items) to lose value or to be significantly impaired.

For the Bank, in its portfolio management based on "globally diversified investments," credit risk, as well as market risk, is positioned as an important risk in optimizing the portfolio. Specifically, regarding credit risk that arises from investment/financing activities in the "food and agriculture business" and "investment business," the Bank has established a management framework centered on the Internal Rating System, striving to manage credit risk appropriately.

● Credit Risk Assets

The Bank's major credit risk assets in the "food and agriculture business" are loans for and investments in the agricultural, fishery and forestry industries and related companies and other organizations, and those in the "investment business" are credit investments such as domestic and foreign securitized products, bonds and loans, and alternative investments such as private equity and real estate equity.

● Credit Risk Management Framework

Adopting the Advanced Internal Ratings-Based Approach, the Bank manages credit risk regarding individual credit and the credit portfolio based on its Internal Rating System, which consists of the Debtor Rating System for the evaluation of each debtor's future debt

repayment capacity and the Recovery Rating System for the evaluation of the probability of recovery in case of default.

Credit risk amounts regarding individual credit and credit portfolio have been assessed and measured appropriately based on the internal rating, simulations and stress tests, etc., and are reflected in capital management, write-offs and provisions to reserves.

In the management of individual credit, the Bank formulates a basic strategy, considering the medium- to long-term outlook of credit risks and the evaluation of business viability. Then, a designated authorized person approves the credit to the borrower. The credit risk for each loan is assessed by the Bank’s Loan Facility Evaluation System based on the internal rating, the purposes of the loan and loan structure, etc. with the comprehensive consideration of such factors as the risk-return balance and consistency with the basic strategy for the borrower.

In credit portfolio management, the Bank is focused on managing credit concentration risk as investment and loan projects become increasingly large in scale and globalization progress, etc.

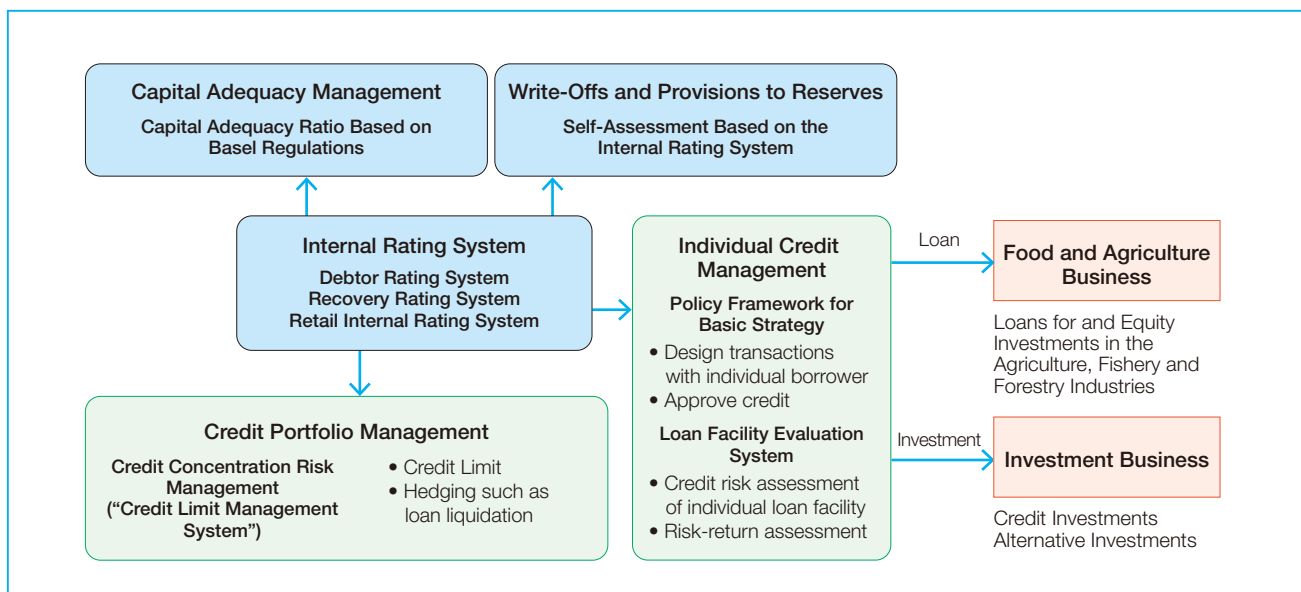
Specifically, the Bank is controlling risks appropriately through the cross-divisional approaches over its “food and agriculture business” and “investment business,” from the multifaceted perspectives including borrowers’

internal rating, business sector and operational region, mainly by setting a soft limit and monitoring under the “Credit Limit Management System” and hedging by loan liquidation.

• **Credit Review Framework**

The Bank’s credit review framework utilizes its expertise developed in making loans for the agriculture, fishery and forestry industries—the Bank’s specialized field—and conducting globally diversified investments. Especially in the food and agriculture business, the Bank is striving to strengthen its credit review capability for the evaluation of business viability utilizing its proprietary analysis methods for each business type/project and deliver a consulting function leveraging its research on the food and agricultural industry. In credit review related to the investment business, according to the characteristics of investment products and business fields, the Bank has strengthened due diligence analysis including stress tests at the time of investment and monitoring after investment. For investments in the form of a fund as well, the Bank strives to look through the component assets as much as possible, allocate an internal rating to each asset, apply overconcentration risk management to such investments and evaluate the fund managers’ operations.

The Entire Picture of Credit Risk Management



Liquidity Risk Management

The Bank defines liquidity risk as the following: “The risk toward financial losses incurred from the difficulty in securing funds required for activities of the Bank, or from being forced to procure funds at significantly higher funding costs than normal as a result of a maturity mismatch between investment and funding procurement, or as a result of an unforeseen fund outflow from the Bank (cash flow risk).” It is also defined as: “The risk towards financial losses arising from being unable to execute transactions in the market due to market turmoil, or from being forced to execute transactions under significantly less favorable conditions than normal occasions (market liquidity risk).”

- **Individual Liquidity Adequacy Assessment (ILAA)**

The Bank conducts Individual Liquidity Adequacy Assessment (ILAA) as a framework for the Board of Directors to periodically assess the appropriateness and adequacy of management of liquidity (cash flow), an element that is as important as capital resources (solvency) for financial institutions to remain in business.

ILAA involves the systematic assessment of the appropriateness of liquidity in terms of the framework for maintaining appropriate liquidity, the current status and future outlook of liquidity and the verification results thereof.

- **Liquidity Risk Management Methods**

In addition to the proper assessment of the market liquidity of each asset it holds, the Bank monitors the Warning Index to detect any change in the market expeditiously and switches the liquidity alert level based on the impact of the change. In addition, with a basic framework of calculating the assumed amount of outflow of funds at times of stress based on the fund gap and securing assets with liquidity at a level that exceeds the assumed amount of such outflow or covering such outflow by procuring low-liquidity assets with a certain residual period, the Bank operates various frameworks for the evaluation of funding ability and the timely understanding of the collateral margin to prepare for unpredicted situations, etc. The Bank also has formulated countermeasures for times of stress (Liquidity Management Action), the effectiveness of which has been verified by conducting stress tests.

Operational Risk Management

Operational risk refers to a risk that arises in the course of business operations which per se do not generate profit. Operational risk is different from market risk, credit risk and liquidity risk, or the types of risks the Bank actively takes to generate profits. At the Bank, operational risk is further broken down into subcategories, such as processing risk, IT systems risk, legal risk, personnel risk, tangible assets risk, information security risk, business continuity risk, reputational risk and regulatory risk.

For operational risk management, the Bank has established definitions of the risk, its management framework and basic management processes by resolutions

of the Board of Directors. In line with these, the Bank has clearly formulated basic policies for operational risk management such as the prevention of large-scale operational risks as outlined in the aforementioned RAF and has been managing the risk control framework based on such policies. Specifically, for the appropriate management of operational risks that are borne by the Bank’s company-wide operations, the Bank has adopted the operational risk reporting system for the collection and analysis of risk events that have come to light, as well as the Risk & Control Self-Assessment (RCSA) system for the evaluation of potential risks applicable to all divisions and branches.

• Organizational Structure of Operational Risk Management

Important issues such as the basic policies and annual planning of the Bank's operational risk management are first discussed at the Risk Management Committee, and then approved by the Board of Directors. The Operational Risk Management Committee, comprised of relevant members of the Board as well as the general managers of related divisions, is set under the Board's supervision, and monitors the current status of the Bank's operational risk management. The committee also promotes cross-risk as well as cross-divisional approaches towards managing operational risk. Furthermore, the Bank has established a division to be in charge of operational risk management, which is independent of the business lines, as well as divisions to be in charge of individual risks. The Bank has also designated a person to be in charge of operational risk management in each branch and division.

• Information Security Initiatives

The Bank utilizes a variety of information obtained during transactions with customers, etc., for various kinds of operations. Amid the increasingly diverse environments and purposes for information handling due to the rapid progress and evolution of information technology, the Bank is focused on information security measures to protect and manage customers' information appropriately.

The Bank works systematically to enhance its information security, centered on the Risk Management Division with overall responsibility for information security planning, promotion and progress management. Also, important matters related to the improvement of the information security management frameworks are discussed mainly at the Operational Risk Management Committee. Especially concerning personal information, the Bank has set out the Personal Information Protection Declaration and has created a framework for the requirements from a Personal Information Handling Business Operator and Person in Charge of a Process Related to an Individual Number to facilitate the proper handling of Personal Information and Individual Number.

• Cyber-security Initiatives

The Bank recognizes the threat of increasingly sophisticated and intricate cyber-attacks as an important managerial risk. Mainly at the core IT & Systems Planning Division in charge of cyber-security, under the cross-division management framework including discussions at management-level meetings, the Bank is strengthening its cyber-security measures. The Bank also has installed a cyber-security-dedicated CSIRT (Computer Security Incident Response Team), which is in charge of addressing a situation at the occurrence of an incident, multi-tier prevention of such incidents, improving detection and monitoring systems, and conducting training assuming that such an incident has just happened.