

Chapter VI The Bank of Japan's Business for Ensuring Financial System Stability

The Bank of Japan conducts various business activities to ensure financial system stability. This chapter first explains how financial system stability is important for firms' economic activities and people's daily lives. The following is a detailed explanation of the Bank's roles and business operations, such as on-site examinations and off-site monitoring of financial institutions, support for the development of advanced financial technology, initiatives on the macroprudential front, the Bank's function as the lender of last resort, and global activities related to the financial system.

A. Ensuring Financial System Stability

1. Importance of financial system stability

As introduced in Chapter I, Article 1 of the Bank of Japan Act (hereafter, the Act) stipulates that, along with achieving price stability, one of the purposes of the Bank of Japan is to contribute to financial system stability by ensuring smooth settlement of funds.¹

The financial system refers to the entire system that is used to transfer or distribute funds and risks (the possibility of losses occurring) among economic entities such as firms and households. This system consists of various financial institutions, financial markets, and payment and settlement systems. Financial institutions, using deposits collected from individuals and firms, lend and invest in securities in order to provide individuals with funds to purchase houses and for firms to make fixed investments (the financial intermediary function). Most of the payment and settlement of funds, including the payment of wages and pensions to individuals, is conducted through the network connecting financial institutions (the payment and settlement function). Financial system stability refers to a situation in which people can lend/borrow or accept/pay money with confidence. To maintain this situation, the key premise is that financial institutions, which are an integral part of the financial intermediary function and the payment and settlement function, appropriately manage the risks related to these functions and soundly conduct their business. If financial system stability were to waver, downside pressure from the financial sector on economic activity

¹ "Prudential policy" can be used as a general term for policies aimed at ensuring financial system stability.

might intensify, and an adverse feedback loop between financial and economic activity could emerge. Moreover, the transmission mechanism of monetary policy might be impaired. In this context, financial system stability is also important from the perspective of ensuring price stability.

2. The Bank's roles in ensuring financial system stability

The Bank conducts various business operations in order to strengthen and ensure financial system stability, which is important for firms' economic activities as well as individuals' daily lives, as described above.

More specifically, the Bank endeavors to identify each financial institution's business conditions using various methods. One of these methods is daily monitoring of developments in financial markets and financial institutions' lending activities. The Bank also conducts on-site examinations² by visiting the offices of financial institutions that hold current accounts at the Bank. Moreover, the Bank conducts off-site monitoring by analyzing various documents on financial institutions' business activities and by interviewing their executives and staff members. In its endeavors to identify actual business conditions of financial institutions, the Bank uses not only quantitative information, such as indicators of business activities, but also qualitative information to analyze and assess the conditions of financial institutions. The Bank advises financial institutions to improve their business activities if necessary. In addition, in order to support financial institutions' activities that are aimed at improving management of risks and business activities, the Bank established the Center for Advanced Financial Technology (CAFT), which organizes various seminars and publishes research papers (see Section B in this chapter, "Gauging Risks Borne by Individual Financial Institutions"; for the details of the Bank's activities, see Section F in this chapter, "Practices in On-Site Examinations and Off-Site Monitoring").

In order to ensure the stability of the financial system, it is important to adopt not only measures based on the microprudential perspective of identifying risks borne by individual financial institutions and encouraging improvement in their business activities, but also those based on the macroprudential perspective of analyzing and assessing risks by taking into account the financial system as a whole. Against the background of the financial crisis that has swept through the world since summer 2007, the importance of incorporating the macroprudential perspective in financial regulations and supervision has gained

² On-site examinations conducted by the Bank are defined in Article 44 of the Act as follows: "examinations which the Bank carries out regarding the business operations and the state of the property of the counterparty financial institutions, etc. by visiting the premises thereof."

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further recognition around the world. The Bank has been conducting risk analysis and assessment from the macroprudential perspective by taking in the financial system as a whole, while utilizing micro information obtained through its activities, including on-site examinations, off-site monitoring, daily market operations, and the management of the payment and settlement system. The results of the risk analysis and assessment are utilized in the conduct of various policies and are made public in the *Financial System Report* (see Section C in this chapter, “Identifying Risks in the Entire Financial System”).

If the possibility of systemic risk materializing increases despite the Bank’s efforts to identify risks and encourage improvement in financial institutions’ business activities from both microprudential and macroprudential perspectives, the Bank will, when necessary, exercise its function as the lender of last resort. To be more specific, if a temporary liquidity shortage at a financial institution results in payment arrears, the Bank may provisionally provide it with necessary funds. The purpose of this measure is to prevent the problems from spreading successively to other financial institutions, financial markets, and payment and settlement systems — through the chain of payment and settlement or growing concerns among depositors and transaction counterparties — and thereby to avert significant deterioration in the functioning of the financial system as a whole. In the past, the Bank, as the central bank, has taken extraordinary measures such as purchasing stocks from financial institutions — while giving due consideration to its own financial soundness — when it was judged necessary to ensure the stability of the financial system based on the analysis and assessment of financial and economic developments and the state of the entire financial system (see Section D in this chapter, “Provision of Emergency Liquidity to Maintain the Stability of the Financial System”).

With the globalization of financial markets, a global approach to ensure the stability of the financial system has become more important than ever. The Bank engages in coordination and cooperation with other central banks and financial supervisory authorities by gaining consensus and exchanging opinions on financial system issues. The Bank also takes part in the international discussions to revise financial regulations based on the experience of global financial crisis (see Section E in this chapter, “Global Initiatives”).

As explained thus far, the Bank conducts manifold business operations to ensure the stability of the financial system. The following sections explain: the approaches to gauging risks in individual financial institutions and to analyzing and assessing risks in the entire financial system; the framework for provision of funds in order to maintain the stability of the financial system; and the global approach to ensure financial system stability. The business operations of on-site examinations and off-site monitoring are also explained (see Box 1, “Central

Banking Operations and the Financial System”).

B. Gauging Risks Borne by Individual Financial Institutions

1. On-site examinations and off-site monitoring

Financial institutions perform the financial intermediary function and the payment and settlement function. The former function consists of accepting deposits from firms and individuals and investing funds by extending loans and purchasing securities. The latter function consists of transferring funds based on requests from their customers. Financial institutions earn profits from these business operations and also bear various risks, such as credit risk and market risk. For example, they would bear larger funding costs due to deterioration in the value of their assets if borrowers of bank loans were to go bankrupt, or if interest rates, foreign exchange rates, or if stock prices were to fluctuate. If a financial institution does not carry out risk management appropriately, materialization of risks would not only impair the capital base or profitability of the financial institution but also cause a drain of deposits or funding difficulty, and in the worst case, the failure of the financial institution.

As explained in the previous section, financial system stability refers to the situation in which people can lend/borrow or accept/pay money with confidence. To maintain financial system stability, the key premise is that financial institutions, which are an integral part of the financial intermediary function and the payment and settlement function, appropriately manage the risks related to these functions and soundly conduct their business. If the financial soundness of a financial institution is impaired, its financial intermediary function and payment and settlement function may deteriorate, thereby potentially hindering the transfer or distribution of funds and risks in the entire financial system. Moreover, such a problem at a financial institution may spread successively to other financial institutions, financial markets, and payment and settlement systems — through the chain of payment and settlement or growing concern among depositors and transaction counterparties — and thereby cause a significant deterioration in the functioning of the financial system as a whole.

From the perspective of maintaining financial system stability, the Bank always monitors developments in financial markets and the lending activities of financial institutions. The Bank also checks the business operations, risk management, profitability, and capital adequacy of financial institutions such as banks and securities companies that hold current accounts at the Bank (see Box 1 for Chapter IV, “Number of Institutions Holding Current Account Deposits at the

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Bank of Japan [BOJ Account Holders]”), and the Bank encourages them to ensure their financial soundness. Ensuring financial soundness is one of the requirements for financial institutions to become eligible counterparties for the Bank’s complementary lending facility and various operations (see Section C in Chapter V).

To this end, the Bank conducts on-site examinations and off-site monitoring. In on-site examinations, the Bank’s examiners visit the offices of financial institutions, whereas off-site monitoring is conducted without visits through analysis of various documents submitted by these institutions and through meetings and telephone interviews with their executives and staff members. In both on-site examinations and off-site monitoring, the Bank pays attention to gauge the risks — such as credit risk, market risk, liquidity risk, and operational risk (see Figure 6-1) — that financial institutions bear in their business such as lending and securities investment (see Section F.1 in this chapter for an explanation of business operations for gauging these risks in on-site examinations and off-site monitoring, and Section F.3 in this chapter for an explanation of the approach to liquidity risk management).

Figure 6-1 Major Risks Borne by Financial Institutions¹

Type of risk	Definition
Credit risk	The risk of loss, partly or completely, in the value of loans, securities, or other assets due to deterioration in the financial state of borrowers, issuers of securities, or guarantors. A typical example is the risk of creditors becoming unable to recover the principal and interest of loans due to the bankruptcy of borrowers.
Market risk	The risk of loss in the value of securities, foreign currencies, and other assets or liabilities due to changes in interest rates, stock prices, and foreign exchange rates. Examples are interest rate risk, market risk associated with stockholdings, and foreign exchange risk.
Liquidity risk	The risk of funding difficulty due to the difference in the term structure between investment and funding. An example is the risk of financial institutions being unable to swiftly secure necessary funds by changing investment portfolios or financing at higher-than-usual interest rates, when deposits drain significantly.
Operational risk	The risk of damage to or loss of customer and financial market confidence due to operational errors, violations of laws or regulations, computer system failures, or difficulty in business continuity due to natural disasters and the like.

Note: 1. A single financial transaction or event may incur various different types of risk.

2. Relationship between on-site examinations and off-site monitoring

Both on-site examinations and off-site monitoring are conducted for the purpose of appropriately gauging business conditions of individual financial institutions and risks borne by them, through assessment of their business operations, risk management, profitability, and capital adequacy. However, on-site examinations and off-site monitoring are conducted differently. In on-site examinations, the Bank's examiners visit the offices of financial institutions and examine their asset quality and risk management by investigating internal documents and observing actual business operations. On the other hand, off-site monitoring is conducted not by visiting financial institutions but by holding meetings and telephone interviews with financial institutions' executives and staff members and by regularly analyzing, on a daily basis, various documents they submit. With such frequently conducted off-site monitoring, the Bank works to swiftly and appropriately gauge business conditions of financial institutions, in terms of their funding conditions, business operations, and profitability.

On-site examinations and off-site monitoring have the common purpose of gauging individual financial institutions' business conditions and the risks they bear. However, the methods of implementation show different characteristics. On-site examinations are suitable for comprehensive and thorough studies and analyses of individual financial institutions' asset quality, risk management, and business operations. Nevertheless, there is a limit in terms of the number of financial institutions at which the Bank can simultaneously conduct on-site examinations, due to constraints in terms of the number of its examiners and the administrative burden on the financial institutions. On the other hand, off-site monitoring is suitable for extensively and flexibly gauging risks financial institutions bear and their daily business operations as well as their influence on financial system stability. Moreover, off-site monitoring can be conducted simultaneously at a large number of financial institutions. The information obtained through both on-site examinations and off-site monitoring is swiftly reported to the Policy Board and associated divisions of the Bank, contributing to the Bank appropriately conducting its policies.^{3,4}

³ Of the information obtained through off-site monitoring, that related to funding conditions of financial institutions is also utilized by the Bank in conducting daily market operations. Accurately ascertaining the supply and demand of funds for each financial institution through off-site monitoring, in addition to those for entire financial markets, has greatly contributed to the Bank appropriately conducting market operations during the global financial crisis since summer 2007.

⁴ The Bank keeps the information on each financial institution obtained through on-site examinations and off-site monitoring strictly confidential.

B. Gauging Risks Borne by Individual Financial Institutions

The Bank uses on-site examinations and off-site monitoring differently in view of their characteristics, while it attempts to uniformly manage conduct to enhance their effectiveness. For example, the information obtained regularly on a daily basis through off-site monitoring is used to clarify the focus of the on-site examinations to be conducted. If serious issues are suspected from the information, the Bank may flexibly conduct on-site examinations with a focus on these issues. Conversely, the information obtained through on-site examinations is used in subsequent off-site monitoring. Especially when deterioration in financial strength or a serious flaw in risk management is found at a financial institution, the Bank requests the financial institution to submit follow-up reports periodically for improvement and checks on the institution's progress through off-site monitoring.

3. Initiatives to develop advanced financial technology

As explained in the previous section, the Bank has been using on-site examinations and off-site monitoring to gauge business conditions and risk management of financial institutions and, when necessary, to encourage them to address issues that are found. In view of advances in financial technology and risk management methods, the Bank established the CAFT within its Financial System and Bank Examination Department in July 2005 to support financial institutions' efforts to better perform their financial functions. The activities of the CAFT include: (1) organizing seminars on practical management of risks and business activities with a view to enhancing communication with financial institutions; and (2) exploring advanced financial technologies and risk management methods, and publishing the outcome.⁵

The themes of the CAFT's activities include improvement in methods for managing major risks, such as credit risk, market risk, liquidity risk, and operational risk, as well as integrated risks. Also included are improvements in information security technology and in internal auditing functions. In recent years, the Bank has supported individual financial institutions in business continuity planning (BCP), which includes making contingency plans and other necessary preparations to be capable of continuing with their important business operations in cases such as a natural disaster, outbreak of a new strain of influenza, terrorist attack, or computer system failure (see Chapter IV.D.3.b).

Moreover, the Bank also develops financial information infrastructure. Specifically, it receives some of the financial report data from financial institu-

⁵ Records of past seminars for advanced financial technologies are available on the CAFT page of the Bank's website (<http://www.boj.or.jp/en/index.htm>).

tions in the extensible business reporting language (XBRL) format.⁶ The Bank also supports financial institutions' use of the XBRL format by developing and delivering a tool that facilitates developing and updating the taxonomy, which is the structural definition of data attributes.

C. Identifying Risks in the Entire Financial System

1. Macroprudence

a. The importance of macroprudence and the roles of central banks

In order to ensure the stability of the financial system, it is important to adopt not only the microprudential perspective of identifying risks borne by individual financial institutions and encouraging improvement in their business activities, but also the macroprudential perspective, from which risks are analyzed and assessed by taking in the financial system as a whole, in view of such factors as the interconnectedness of economic activity, financial markets, and behavior of financial institutions.

The importance of taking the macroprudential perspective has become pronounced worldwide, due to the global financial crisis since summer 2007, and the roles of central banks on the macroprudential front have attracted more attention. In general, central banks: (1) constantly analyze and assess the financial and economic environment to conduct monetary policy; (2) monitor financial markets and funds settlement daily by conducting market operations and operating payment and settlement systems, thereby accumulating expertise (market intelligence); and (3) act as the lender of last resort to prevent systemic risk from materializing. Against the background of these characteristics, the roles of central banks on the macroprudential front are considered to be crucial.

In addition to the general characteristics of a central bank, the Bank of Japan has another feature of having direct access to information on individual financial institutions (micro information) through on-site examinations and off-site monitoring. As the central bank of Japan, the Bank has been working to ensure financial system stability from the macroprudential perspective, by making

⁶ XBRL is an extensible language used for electronic business reporting. It makes business reporting efficient and facilitates secondary uses, such as comparison and analysis, of financial information such as financial statements by converting the information into electronic form to communicate both individual data and their attributes simultaneously. XBRL enables straight-through processing of financial information through the online system.

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use of a variety of micro information.⁷ The information and knowledge obtained through these processes are used to examine economic activity and prices from two perspectives, when conducting monetary policy (see Chapter I.B.2).⁸

b. Macroprudential perspective

Regarding the macroprudential perspective, it is important to analyze and assess risks inherent in the entire financial system along two axes: a cross-sectional dimension of risks and a time-series dimension of risks.

First, the cross-sectional dimension of risks is the axis used for assessing the degree of dispersion and concentration of various risks and also the interactions between risks at a given point in time: beyond differences in the type of risk, financial products that carry risks, and financial institutions that bear risks. For example, even when loans and investments made by each financial institution are not concentrated in a specific industry, the financial system as a whole is likely to bear a significantly large amount of risk if many financial institutions take similar lending and investment positions. In the global financial crisis since summer 2007, the bursting of the U.S. real estate bubble led to a precipitous drop in prices of securitized products backed by subprime mortgages, thereby posing a threat to the business conditions of European financial institutions that held a considerable volume of these products. As financial globalization progressed, it was recognized anew that the risk of problems in one country's financial system spreading to financial systems in other countries has become greater than ever before.

Second, the time-series dimension of risks is the axis used for assessing the dynamic change of risks inherent in the financial system over the course of time. The mechanism whereby a change in the behavior of banks in response to developments in the business cycle amplifies the cycle is referred to as pro-

⁷ Examples of the Bank's initiatives in a time of financial crisis, after the bursting of the bubble economy in the 1990s, are described in the following papers: the Bank's purchases of stocks from financial institutions, which started in 2002, are described in "New Initiative Toward Financial System Stability," released in September 2002; and other initiatives are described in releases such as "Japan's Nonperforming Loan Problem," released in October 2002. For details, see the Bank's website.

⁸ From the lessons learned from the bursting of the bubble economy and past financial crises, if excessive attention is paid to short-term price developments, and excessive rises in asset prices and credit volume are overlooked, the economy could fluctuate significantly and price stability in the medium- to long-term could be impaired. In view of this, when the Bank examines economic activity and prices from the two perspectives in conducting monetary policy, it not only examines economic activity and prices for about two years ahead, but also examines various risks in the longer term from the macroprudential perspective.

cyclicality (amplifying the effect of the business cycle). In general, when the economy is booming, banks' capital adequacy ratios tend to increase, since losses from irrecoverable loans or securities holdings decrease and the following mechanism tends to function: banks with increased capital start to aggressively take on risks in lending and securities investment; as a result, ample liquidity is provided to firms and this fuels the economic boom.⁹ In contrast, when the economy is in recession, banks' capital adequacy ratios tend to decrease, since losses from irrecoverable loans or securities holdings increase. This makes banks wary of taking on risks that lending and securities investment entail. As a result, economic conditions may be aggravated.¹⁰

2. *Financial System Report*

From the macroprudential perspective, the Bank analyzes and assesses the stability of the financial system as a whole, not only by gauging individual financial institutions' business conditions and risk management through on-site examinations and off-site monitoring, but also by using micro information on financial markets obtained through the conduct of daily market operations and the management of the payment and settlement system on a daily basis. The results of the analysis and assessment are widely covered in the *Financial System Report*, which is released semiannually (around March and September). The Bank makes an effort to use this publication in interactive communication with a wide range of related parties to ensure financial system stability.

The *Financial System Report* analyzes the stability of the financial system from the two perspectives of the function and the robustness of the system. Regarding the former, assessments are made of the current status of financial intermediary functions and on whether the financial system performs the role of promoting more efficient allocation of economic resources. With regard to the latter, stress testing¹¹ and other methods are used to assess whether the financial

⁹ The degree to which this mechanism functions depends on the banks' capital adequacy and the state of the entire financial system at the time.

¹⁰ Since the regulations on the capital adequacy ratio for banks are pointed out as promoting procyclicality, the regulations are reviewed in order to mitigate the procyclicality. Specifically, as a countercyclical capital buffer, various national authorities decided to introduce a framework in which financial institutions build up capital during an economic boom and use it during a recession (see Box 3, "Major Points of Revision to Financial Regulations and the Supervisory System").

¹¹ Stress testing is a risk management method in which financial institutions simulate the degree of losses and loss-prevention measures, based on a scenario of shock that is low in probability of occurrence in financial markets, but which would cause significant damage if it were to occur.

D. Provision of Emergency Liquidity to Maintain the Stability of the Financial System

system is capable of absorbing risks that may materialize and jeopardize its stability. The results of financial system analysis and assessment provide the Bank with valuable information not only for conducting on-site examinations and off-site monitoring, but also for taking measures to ensure financial system stability (see Section D.2 in this chapter), and for assessing the transmission mechanism of monetary policy.

D. Provision of Emergency Liquidity to Maintain the Stability of the Financial System

1. Function as the lender of last resort

When financial institutions face a temporary shortage of funds and there is no other lender available, the Bank of Japan acts as the lender of last resort and provides liquidity to them. This function aims to prevent the materialization of systemic risk by ensuring that deposits can be withdrawn and that contracted transactions can be settled at these financial institutions. This is referred to as the lender-of-last-resort function of central banks. The Bank's on-site examinations and off-site monitoring are conducted so that it is prepared to act effectively as the lender of last resort.

The Bank, as the lender of last resort, provides financial institutions with loans against collateral in the form of negotiable instruments, government securities, and other securities (Article 33 of the Act). In some limited cases, the Bank provides financial institutions with uncollateralized loans, based on the interest rate and the procedures decided by the Policy Board, as in the following situations: when they unexpectedly face a temporary shortage of funds necessary for payment due to accidental causes, including failures in electronic data processing systems, whereby their business operations may be seriously hampered if the shortage is not recovered swiftly (Article 37 of the Act); and when provision of such loans is necessary to maintain the stability of the financial system (Article 38 of the Act) (see Box 2, "Loans Provided by the Bank of Japan" for an overview of the Bank's loan transactions).

When the Prime Minister (or the Commissioner of the Financial Services Agency, as entrusted by the Prime Minister) and the Finance Minister request that the Bank conduct business necessary to maintain the stability of the financial system based on Article 38 of the Act, such as the provision of uncollateralized loans to financial institutions (referred to as *Tokuyu* [special loans]), the Bank judges the propriety of the requested business based on its four principles in conducting business necessary to maintain financial system

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stability.¹²

The four principles clarify that the special loans are to provide financial institutions with the minimum necessary liquidity in order to prevent systemic risk from materializing, while giving due consideration to the importance of preventing moral hazard and maintaining the Bank's financial soundness. The Bank carefully assesses the conditions of financial institutions based on the four principles to determine whether or not to provide them with special loans. The outline of the four principles is as follows.

Principle 1: There must be a strong likelihood that systemic risk will materialize.

The first principle is the most important and fundamental among the four. It states that the Bank's decisions to provide individual financial institutions with special loans are not aimed at protecting or rescuing them but at preventing systemic risk from materializing.

Principle 2: There must be no alternative to the provision of central bank money.

If special loans are easily provided, financial institutions may become slack in maintaining the financial soundness. In order to prevent this kind of moral hazard, financial institutions must explore every possible funding source before the Bank's special loans are provided. Special loans should only be provided when there is no alternative for the minimum amount necessary.

Principle 3: All relevant parties are required to take clear responsibility to avoid moral hazard.

In order to prevent moral hazard among financial institutions' management, shareholders, and other stakeholders, it is important for the Bank to ascertain that they will respectively take clear responsibility in case of liquidation.

Principle 4: The financial soundness of the Bank of Japan itself must not be impaired.

Once the Bank loses public confidence, not only does its conduct of policies and business operations become difficult, but also the credibility of Japan's

¹² In May 1999, the Bank reviewed the concepts of the four principles that had already been made public and released refined concepts. For details, see "On Financial Stability" released on May 28, 1999 on the Bank's website.

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economy will be impaired through a decline in confidence in central bank money. Therefore, in extending special loans, as in conducting other policies and business operations, the Bank's financial soundness should be securely maintained because it affects the public confidence (see Box 4 for Chapter II, "Basic Accounting Principles for the Bank of Japan's Balance Sheet").

Extension of special loans is a form of safety net in a broad sense (a measure taken to prevent a financial crisis from materializing). The Bank should extend such loans by giving due consideration to the overall framework of various safety nets including the deposit insurance system.

In the 1990s, when the safety net systems were not fully developed in Japan, the financial system faced a crisis. At the time, the Bank, as an entity that could promptly and flexibly provide necessary funds, frequently extended special loans. In some cases, the special loans extended were more than temporary liquidity provision, and these were used to increase the capital bases of financial institutions and acted as bridging loans until the resolution of failed financial institutions.

Thereafter, the roles and relationships among the government, the Bank, and the Deposit Insurance Corporation of Japan in the resolution of failed financial institutions were defined, and a system to reinforce financial institutions' capital bases using public funds was set established. Today, the Deposit Insurance Act stipulates that the funds required at failed financial institutions to meet customers' withdrawal of deposits are to be provided by the Deposit Insurance Corporation of Japan and not by the Bank. Therefore, the Bank provides failed financial institutions with special loans and other necessary funds only in exceptional cases as measures to prevent a financial crisis from materializing,¹³ for example, when the government decides to fully guarantee all liabilities of failed financial institutions.¹⁴

¹³ To use public funds as a financial crisis countermeasure (Articles 102 to 126 of the Deposit Insurance Act), it is necessary to follow the procedure for approval by holding a session of the Financial Crisis Response Council. The members include the Prime Minister, the Chief Cabinet Secretary, the Minister for Financial Services, the Commissioner of the Financial Services Agency, the Finance Minister, and the Governor of the Bank of Japan.

¹⁴ Following the termination of the measure to protect the entire amount of deposits in April 2002, the Bank decided to extend special loans (*Tokuyū*) for maintaining the stability of the financial system to two banks: Resona Bank, the capitalization of which dropped to an insufficient level in 2003; and Ashikaga Bank, which failed in the same year. However, as no actual need arose for special loans at both banks, the Bank did not extend the loans. For details on both cases, see the Bank's website.

2. Other measures to ensure financial system stability

In addition to its lender-of-last-resort function, the Bank implements other measures to ensure the stability of the financial system.¹⁵ The Bank determines the necessity of such measures based on its analysis and assessment of financial and economic conditions as well as the entire financial system.

One example is the program to purchase stocks from financial institutions. This program was introduced by the Bank in November 2002 and extended until end-September 2004.¹⁶ The purpose of this program was to ensure financial system stability by reducing the risk associated with stock price fluctuations, and thereby to maintain the environment for financial institutions to surely address their nonperforming-loan issues. In February 2009, the Bank resumed its program to purchase stocks from financial institutions in order to ensure financial system stability, given that Japan's financial institutions faced a pressing need to reduce the risk associated with stockholdings amid the effects on Japan's financial system of the turmoil in the global financial system.¹⁷

In April 2009, the Bank decided to provide banks with subordinated loans.¹⁸ This measure was aimed at ensuring the smooth functioning of financial

¹⁵ The purchases of stocks from financial institutions and the provision of subordinated loans to financial institutions were implemented based on Article 43 of the Act. The proviso to Article 43, paragraph 1 stipulates that the Bank shall conduct business necessary to achieve its purpose as specified by the Act, based on authorizations obtained from the Finance Minister and the Prime Minister (or the Commissioner of Financial Services Agency, as entrusted by the Prime Minister).

¹⁶ The Bank purchased stocks, with an upper limit of 3 trillion yen, from banks that held current accounts at the Bank and whose stockholdings exceeded their core capital bases (Tier I). The total amount purchased was 2.018 trillion yen. Later, from October 2007, following guidelines set in advance, the Bank started selling the purchased stocks in the market. However, it stopped selling the stocks in October 2008 in response to the intensified strain in the global financial markets.

¹⁷ The Bank purchased stocks, with an upper limit of 1 trillion yen, from eligible banks as a temporary measure through April 2010. The total amount purchased was 387.8 billion yen. Eligible banks were: (1) banks with stockholdings of over 50 percent of their core capital (Tier I) or 500 billion yen; or (2) banks that adopted the capital adequacy ratio based on international standards. As for the purchased stocks, similar to the case of the stocks purchased up through 2004, the Bank will not sell them on a stock exchange until end-March 2012, yet will complete its disposal of them by the end of September 2017.

¹⁸ Subordinated loans are loans where the creditors have a lower priority in loan repayments than other creditors in the event of the debtors becoming bankrupt. Through auctions, the Bank extended loans to eligible banks on a quarterly basis, with an upper limit of 1 trillion yen, as a temporary measure through March 2010. Eligible banks were banks that adopted the capital adequacy ratio based on international standards and were deemed creditworthy.

E. Global Initiatives

intermediation and the stability of the financial system, by enabling Japan's banks to maintain sufficient capital bases even in severe economic and financial conditions.

These measures are extremely unconventional for a central bank, as they mean that it, in a broad sense, bears firms' credit risk and stock price fluctuation risk or provides banks with quasi-capital funds. However, the Bank deemed that these measures were essential to ensure financial system stability and conducted them as temporary measures while giving due consideration to maintaining its own financial soundness¹⁹ (see Box 4 for Chapter I, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan").

E. Global Initiatives

As the globalization of financial markets progresses, global initiatives have become more necessary in order to ensure financial system stability. The Bank of Japan takes part in these initiatives.

Among the diverse initiatives, major international forums in which the Bank participates are those of the Meeting of the Group of 20 (G-20) Finance Ministers and Central Bank Governors, the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the Joint Forum,²⁰ and the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) Working Group on Banking Supervision. Through the experience of the global financial crisis since summer 2007, the G-20 and the FSB have been playing increasingly important roles in offering venues for member countries to discuss topics such as their economic and financial conditions and the desirable form of the global financial system, and to promote cooperation among supervisory authorities in addressing the vulnerability of the global financial system and in ensuring the stability of the system (see Box 1 for Chapter VIII, "The Bank of Japan's Participation in Major International Forums").

Moreover, the Bank frequently holds bilateral meetings with other central banks and supervisory authorities to enhance cooperation by sharing recognition and exchanging views on financial system issues.

The BCBS consists of banking supervisors and central banks from 27 economies, including Japan. It holds discussions to maintain cooperation in

¹⁹ For details on its measures, see the Bank's website.

²⁰ The Joint Forum consists of the BCBS, the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors (IAIS), and the members of the forum discuss various issues on the supervision of financial conglomerates.

banking supervision in order to improve the operations of both banking supervision and risk management globally. The Basel Capital Accord (Basel I) was introduced in 1988 for the purposes of enhancing the soundness of the international banking system and reducing inequality in competition among internationally active banks. It was revised in 2004 (Basel II) and has become the international standard for the capital adequacy ratio of internationally active banks, and has been entrenched as one of the principal pillars of banking regulations in various countries.²¹

The global financial crisis since summer 2007 occurred when discussions on the introduction of Basel II were still underway. With the crisis acting as a turning point, the importance of improving capital bases qualitatively and quantitatively at financial institutions was widely reaffirmed. The member countries started a discussion to revise international financial regulations, including the regulations of the capital adequacy ratio, in order to prevent the recurrence of a financial crisis and improve the robustness of the global financial system. They reached an agreement on a new framework for international financial regulations in 2010 (Basel III).

The Bank, in cooperation with domestic authorities, participates in discussions on the revision of such international financial regulations and works to construct new ones (see Box 3, “Major Points of Revision to Financial Regulations and the Supervisory System”).

F. Practices in On-Site Examinations and Off-Site Monitoring

This section explains the practices and actual procedures of on-site examinations and off-site monitoring based on the basic concept explained in Section B in this chapter.

²¹ Basel II is the revised set of regulations on the capital adequacy ratio based on the Basel Capital Accord (capital base over risk assets being greater than or equal to 8 percent), and consists of the following three pillars.

The first pillar stipulates the minimum capital requirements for credit, market, and operational risks. In this pillar, as compared with Basel I, more sophisticated calculation methods of risk-weight are adopted.

In the second pillar, for the self-management of risks borne by financial institutions and supervisory review, a framework is indicated in which: (1) financial institutions gauge the risks that are not taken into account by the first pillar; (2) they have necessary capital for their business; and (3) the authorities examine the appropriateness of the financial institutions' capital quality.

The third pillar stipulates the utilization of market discipline by disclosure.

F. Practices in On-Site Examinations and Off-Site Monitoring

1. Details of on-site examinations and off-site monitoring

The actual practices of on-site examinations and off-site monitoring — namely, how the Bank of Japan examines individual financial institutions and how it uses the results of on-site examinations and off-site monitoring — depend on the type of financial institution (banks, *shinkin* banks, securities companies, or others) and financial conditions at the time. Financial institutions bear various risks in carrying out business operations, such as lending and securities investment. This section takes banks as an example and explains, in line with their operations, what aspects of their business conditions and risk management the Bank pays attention to when it conducts on-site examinations and off-site monitoring (see Figure 6-1 for major types and the definition of risks borne by financial institutions).

a. Lending operations

Financial institutions are exposed to credit risk mainly through their lending operations.²² Deterioration in their asset quality due to a customer's failure to repay a loan would necessitate an increase in write-offs and loan-loss provisions and also harm their financial strength and profitability. Because lending operations are the most important financial intermediary function of financial institutions, it is useful for the Bank to obtain adequate information on their lending policy guidelines, changes in their loan criteria, loan portfolios,²³ and credit risk management policies, in order to deepen its understanding of financial institutions' functioning as financial intermediaries.

To this end, the Bank analyzes documents submitted by financial institutions on loans outstanding and their breakdowns, lending rates, and asset quality (e.g., nonperforming loans outstanding, write-offs, and loan-loss provisions). The Bank also interviews them about their basic policies on lending and on disposal of nonperforming loans and about risk management systems, in order to gauge their lending operations and associated credit risk as well as their risk management systems. At on-site examinations, in particular, the Bank also checks in detail the effectiveness of their risk management systems by examining self-assessments of financial institutions and the roles and functions of divisions

²² Financial institutions bear the credit risk of issuers of corporate bonds or counterparties of market transactions when they hold corporate bonds issued by private firms or invest funds in the market (provision of call loans).

²³ Specifically, information on loan portfolios includes the distribution of loans by size, industry, and area, and it shows financial institutions' asset soundness and profitability.

in charge of credit risk management.

b. Market-related business

Financial institutions are exposed to market risk from investing in securities, accepting deposits, extending loans, and trading derivatives. Fluctuations in interest rates, stock prices, and exchange rates cause changes in funding costs and in the appraised value of their assets, and eventually affect their financial strength and profitability.

The Bank, therefore, analyzes the impact on financial institutions' business conditions of changes in the term structure of their assets and liabilities, market price fluctuations, and other factors. Its analysis is made based on reports financial institutions submit on various transactions involving market risk, such as details of their securities investments and the remaining term to maturity of deposits and loans. The Bank also works to gauge, through interviews, how financial institutions consider market risk management. Especially at on-site examinations, the Bank checks the effectiveness of financial institutions' risk management systems by examining in detail their assessment and management of market risk as well as their portfolios and characteristics of their securities holdings.

c. Funding conditions and financial investment

If a financial institution faces sudden and massive withdrawals of deposits, it will be forced to raise funds at a higher interest rate and may even be on the brink of failure due to a shortage of funds. To prevent this, the Bank monitors the liquidity management of financial institutions to check, for example, whether they are able to raise the funds they need for settlement from day to day or whether they are exposed to excessive liquidity risk from maturity mismatches between assets and liabilities. Based on its findings, the Bank may encourage individual financial institutions to improve their liquidity management, and if necessary, it acts as the lender of last resort.

Specifically, mainly through off-site monitoring, the Bank analyzes and holds interviews with financial institutions on the following points, based on submitted reports:²⁴ (1) the amount of funds collected from individuals and

²⁴ Particularly in money markets where financial institutions lend and borrow money, information spreads quickly and lenders tend to promptly react. Because the market funding of financial institutions directly affects the funding conditions of their counterparts, the Bank scrutinizes their investment and funding in money markets, including qualitative information.

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firms through acceptance of deposits, and the balance between these liabilities and assets such as loans and securities investments; (2) the interest rate on funding and the amount of funds raised in money markets; and (3) the amount of collateral and highly liquid assets on the balance sheets. The Bank also checks whether financial institutions have made effective contingency plans or established global liquidity risk management systems appropriate to their business operations.²⁵

d. Operational procedures

Financial institutions must comply with relevant laws and regulations and also exhibit accuracy and swiftness in their operational procedures, such as the acceptance of deposits, lending, funds transfer operations, and market transactions. Frequent operational errors, frauds, accidents, or computer system failures at a financial institution not only inflict damage directly, but also cause a loss in confidence from customers and market counterparties. This may also cause that institution to lose business and even threaten its business viability.

To prevent this, the Bank examines, mainly through on-site examinations, financial institutions' systems of operational risk management: whether they maintain operational procedures designed to prevent errors and accidents; and whether the procedures actually function effectively.²⁶ Given the recent progress in outsourcing of computer system operations and integration of computer systems regarding core financial data at some regional financial institutions, the Bank examines whether the financial institutions have set up adequate risk management systems. Moreover, the Bank ascertains whether financial institutions have developed business continuity arrangements in preparation for times of natural disaster, the outbreak of a new strain of influenza, terrorist attack, or computer system failure.

e. Business administration

Internal audits focusing on major risks play a key role in the effective function-

²⁵ See Section F.3 in this chapter, "Off-site monitoring" for the Bank's monitoring of financial institutions' liquidity.

²⁶ With regard to operational procedures and compliance, it is important to ensure that there is a plan-do-check-act (PDCA) cycle. The PDCA cycle consists of: (1) identifying risks by using various information, including that on past troubles and accidents (Plan); (2) adjusting the organization, computer systems, and internal rules based on the aforementioned identification (Do); (3) monitoring the performance of operations (Check); and (4) conducting necessary measures for improvement (Act).

ing of financial institutions' internal control, which is the basis for ensuring their financial soundness. The Bank checks whether financial institutions adequately conduct internal audits as part of appropriate business administration.

From the perspective of ensuring their financial soundness and enhancing profitability, the number of financial institutions that adopt an integrated risk management framework has been increasing. An integrated risk management framework is developed for financial institutions to quantitatively gauge various risks (credit risk, market risk, operational risk, and so on) with a single measure, manage the aggregate of risks to keep within the limits of their financial strength such as capital bases, and assess their profitability by checking whether sufficient returns are gained relative to the risks they bear. The Bank regards integrated risk management as a useful communication tool to discuss risk profiles and capital adequacy with financial institutions. Mainly at on-site examinations, the Bank holds in-depth discussions on the introduction, development, and utilization of an integrated risk management framework with financial institutions.²⁷

Moreover, in light of the global financial crisis since summer 2007, stress testing is a useful measure to complement the risk assessment and to confirm financial institutions' risk tolerance and capital adequacy. As for the stress testing conducted at financial institutions, the Bank checks the appropriateness of stress scenarios and the utilization of the results as part of ascertaining their risk management, and it also encourages them to firmly establish and make more use of stress testing.

f. Profitability and financial strength

Ensuring core profitability and reinforcing capital are vital for the financial soundness of financial institutions.

The Bank makes every effort to share with financial institutions the recognition of their financial strength through the analysis of their financial statements, disclosure reports, and other documents on profitability and capital adequacy and through the exchange of views. Mainly at on-site examinations, the Bank checks financial institutions' self-assessment of assets and thereby confirms the accuracy and the adequacy of their write-offs and loan-loss provisions. The Bank also assesses the possibility of a massive loss and the impacts

²⁷ The Bank also confirms the status of utilization of asset-liability management (ALM). ALM generally refers to the comprehensive management of assets and liabilities to maximize profits by reducing funding costs and investing funds efficiently, while controlling market risk from changes in the financial environment.

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of such a loss on profits and the financial strength of financial institutions.

In on-site examinations and off-site monitoring, the Bank urges improvement if it judges that the financial strength and risk management of a financial institution are insufficient relative to its operations and associated risks.

2. Legal framework and procedures for on-site examinations

a. Legal framework of on-site examinations

As explained above, on-site examinations²⁸ and off-site monitoring are very similar in terms of purpose and perspective. However, because on-site examinations are conducted by visiting the offices of financial institutions, the Bank concludes contracts (on-site examination contracts) with the financial institutions and sets the framework for on-site examinations.²⁹ The following acts and ordinances stipulate some requirements for the on-site examination contract.

Specifically, Article 44 of the Bank of Japan Act and Article 11 of the Bank of Japan Act Enforcement Order (hereafter, “the Enforcement Order” in this chapter) stipulate the following purpose of and requirements for on-site examinations.³⁰ The purpose of on-site examinations is to ensure that the Bank prepares or appropriately conducts: (1) temporary loans to financial institutions (Article 37 of the Act); (2) business contributing to maintaining the stability of the financial system (Article 38 of the Act); and (3) business contributing to the smooth settlement of funds (Article 39 of the Act). They also stipulate that, when conducting on-site examinations, the Bank must give due consideration to the burden placed on the financial institutions and obtain their consent in advance (see Box 4, “A Comparison of On-Site Examinations by the Bank of Japan and

²⁸ The Bank’s on-site examinations started in 1928. As discussions on ensuring the financial soundness of banks became heated after the economic crisis following World War I, the Financial System Research Council reported that the Bank should conduct contract-based examinations of business operations or properties of banks that hold current accounts at the Bank, and communicate with the government inspection authority. In compliance with the report, the Bank determined to start the examinations. Under the former Bank of Japan Act, there was no provision related to on-site examinations. However, the current Act, enforced in 1998, provides for on-site examinations from the perspective of clarifying the business operations of the Bank.

²⁹ For samples of on-site examination contracts and the inquiry contracts mentioned below, see the Bank’s website.

³⁰ The “Cabinet Office Ordinance on Contracts Concerning On-Site Examinations Concluded Between the Bank of Japan and the Counterparty Financial Institutions, etc.” also stipulates the purpose of and requirements for the Bank’s on-site examinations.

On-Site Inspections by the Financial Services Agency in the Case of Banks”).

In accordance with such acts and ordinances, the on-site examination contract states that: (1) the Bank is obliged to clearly notify the financial institution and obtain consent in advance about the on-site examination's purpose, scope, and schedule; (2) both the Bank and the financial institution are obliged to maintain confidentiality concerning information obtained through the on-site examination; and (3) the Bank is obliged to give due consideration to minimizing the burden placed on the financial institution in conducting the on-site examination.

Article 44, and Article 37, paragraph 1 of the Act and Article 10 of the Enforcement Order stipulate that the financial institutions subject to on-site examinations shall be: (1) banks, *shinkin* banks, and other institutions engaged in the business of taking deposits and in funds transfers in the course of trade, or (2) other financial business entities (securities companies, securities finance companies, and *tanshi* companies). Most financial institutions that hold current accounts at the Bank are in principle subject to on-site examinations, as the Bank requires an on-site examination contract to be concluded as one of the eligibility criteria for a financial institution to hold a current account at the Bank.³¹

From the perspective of complementing on-site examinations and gauging business conditions of financial institutions more accurately, when financial institutions subject to on-site examinations have financial holding companies, the Bank makes on-site inquiry contracts with the companies and conducts on-site inquiries to the extent needed to complement the examinations.³² Moreover, when the Bank judges that it is necessary to conduct on-site inquiries on subsidiaries and subcontractors of the financial institutions in light of the purpose of on-site examinations, the Bank obtains consent from them individually and conducts the on-site inquiries.

b. Concept and policy of on-site examinations

The Bank formulates the on-site examination policy every fiscal year based on the decision of the Policy Board, and makes it public. The on-site examina-

³¹ Among the financial institutions that hold current accounts at the Bank, clearing houses are not subject to on-site examinations. However, when the Bank judges as necessary to conduct an inquiry into clearing houses, the Bank requests it to sign an on-site inquiry contract.

³² When a financial institution that wishes to have a current account at the Bank has a financial holding company, in addition to concluding an on-site examination contract, the Bank requires an on-site inquiry contract to be concluded between the Bank and the financial holding company as one of the eligibility criteria for the financial institution to hold a current account at the Bank.

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tion policy outlines the basic approach and key issues in the conduct of on-site examinations. On the basis of this policy, the Bank works to conduct efficient and effective on-site examinations.³³

One example is risk-based on-site examinations. In risk-based on-site examinations, the frequency and scope of the examinations and the number of examiners involved will be flexibly determined based on a comprehensive assessment from two perspectives. The first perspective is the impact that individual financial institutions' latent risks would have on the financial system if they became manifest. The second perspective is the financial soundness of the financial institutions concerned, such as their financial strength and their degree of risk-taking. Specifically, for financial institutions that have a substantial impact on the financial system, the Bank conducts enhanced on-site examinations in response to rapid changes in the business environment and operations, increasingly complex characteristics of associated risks, and advances in risk management methods. Meanwhile, for financial institutions that have only a small influence on the financial system and sufficient financial strength to absorb the risks, the Bank basically conducts off-site monitoring to gauge their business conditions and risks, and then, based on the information obtained, it conducts on-site examinations in a timely manner. From the same perspective, the Bank actively utilizes targeted on-site examinations, which limit the conduct of the examinations to certain risk areas and are conducted by fewer examiners in a shorter period.³⁴

Moreover, to improve the transparency and credibility of its on-site examinations, the Bank: (1) publishes the record of on-site examinations, including names of financial institutions examined and periods of on-site examinations;³⁵ (2) receives, after the on-site examination periods, opinions from the financial institutions when their understandings differ from those of

³³ The Act (Article 15, paragraph 2, Item v) stipulates that the content of a contract concerning on-site examinations and important matters concerning the implementation of on-site examinations for each business year shall be decided by the Policy Board. On-site examination policy, for every fiscal year, is available on the Bank's website.

³⁴ From the perspective of conducting efficient and effective on-site examinations, the Bank reviews the materials that it requests financial institutions to submit in advance, while considering their operational burden. The Bank also takes initiatives to improve the functioning of the online data exchange system used to send and receive materials associated with on-site examinations.

³⁵ The record of on-site examinations is published every fiscal year. In fiscal 2009, on-site examinations were implemented at a total of 112 financial institutions, consisting of 46 domestic banks, 47 *shinkin* banks, and 19 other financial institutions, such as foreign banks and securities companies.

the Bank's examiners;³⁶and (3) conducts post-examinations surveys.

c. Procedure for on-site examinations

The frequency of on-site examinations is determined flexibly based on the concept of risk-based on-site examinations and on financial institutions' business conditions and these institutions' presence in the financial system. The period of on-site examinations is usually about two to three weeks in the case of normal on-site examinations, which assess overall business conditions of a financial institution and do not focus on specific risk areas.³⁷ Besides the normal on-site examinations, the Bank conducts targeted on-site examinations, which, as described earlier, limit the conduct of the examinations to certain risk areas. The standard procedure for on-site examinations is shown in Figure 6-2.

Figure 6-2 Standard Procedure for On-Site Examinations

Period	Main operations	Details
Before the on-site examination (from four weeks in advance)	- Offer of an on-site examination - Consent of the financial institution	(In principle, the offer is made at least one month prior to the examination, as stipulated in the on-site examination contract)
	- Receipt and analysis of reports and documents submitted by the financial institution in advance	- Ascertaining the business conditions of the financial institution - Clarifying points to focus on in the on-site examination (utilizing the information obtained through off-site monitoring)



³⁶ Financial institutions were previously obliged to attach an auditor's opinion when submitting their opinions to the Bank. However, the procedure was simplified from fiscal 2009, and the attachment of an auditor's opinion became optional.

³⁷ For financial institutions operating internationally, the Bank, as necessary, conducts on-site examinations at their major overseas offices and affiliates, e.g., those in New York and London, to assess their asset quality and risk management systems on a consolidated basis.

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During the on-site examination (for two to three weeks)	- Interview with the executives and directors	- Ascertaining the financial institution's business strategy and outline of its risk management system
	- Asset assessment	- Evaluating the actual value of loans, ¹ securities, and derivatives trading ² - Examining the accuracy of the financial institution's self-assessment, ³ the appropriateness of write-offs and loan-loss provisions, and verifying the possibility of an increase in nonperforming loans
	- Check on the effectiveness of the risk management system - Visit the institution's offices for the examination	- Ascertaining the details of risk management issues pertaining to specific business operations - Interviewing the executives and staff members, and looking through the account ledgers
	- Exchange of opinions with the executives and staff members	- Exchanging opinions about issues, including those on risk management



After the on-site examination (two to three weeks later)	- Feedback on the results of the on-site examination	- Providing the management of the financial institution with the findings on points that need improvement, and urging improvement
	- Request for follow-up reports	- Requesting periodic follow-up reports on improvements, which are to be utilized for off-site monitoring, if financial strength deteriorated or a serious risk management issue became evident

Notes: 1. The Bank examines whether the size of the financial institution's nonperforming loans is excessive relative to its capital base, by: (1) examining how the extended loans have been used; and (2) determining the extent of nonperforming loans extended to borrowers in financial difficulties.

2. The Bank assesses the quality of assets both on and off the balance sheet by including credit risk from derivative transactions and other off-balance-sheet transactions; in other words, including the cost of paying the market price to cover the loss from a default of the counterparty.

3. With the framework of prompt corrective action, which was introduced by the government and took effect from fiscal 1998, financial institutions are required to make self-assessment of their assets by separating normal loans and problematic loans and classifying the latter loans. The Bank also examines the accuracy of financial institutions' self-assessment at the on-site examinations.

3. Off-site monitoring³⁸

a. Outline

In conducting off-site monitoring, the Bank can broadly and swiftly gauge financial institutions' business conditions—in terms of funding conditions, business operations, and profitability—by regularly conducting meetings and telephone interviews with their executives and staff members on a daily basis and by analyzing various documents they submit.

Based on information obtained through off-site monitoring, the Bank: (1) provides appropriate advice to financial institutions, considering risks they bear;³⁹ and (2) analyzes and assesses, from the macroprudential perspective, how their business operations (lending activities, securities investment, funding, and the stance in off-balance transactions) as a whole influence financial conditions and the financial system at the time. The results of the analysis and assessment are swiftly reported to the Policy Board and are used for appropriate policy conduct. They are also widely utilized in the Bank's *Financial System Report* (see Section C.2 in this chapter) and in the exchange of views with domestic and overseas supervisory authorities.

The following section takes up the Bank's thinking regarding financial institutions' liquidity risk management and the functions and characteristics of liquidity monitoring as an example of the Bank's off-site monitoring.

b. Liquidity monitoring

The global financial crisis since summer 2007 has highlighted the importance of liquidity risk management at financial institutions.⁴⁰ The Bank gauges and analyzes developments in liquidity in financial markets and the financial system from a macro perspective. In addition, the Bank closely monitors financial institutions' liquidity conditions daily and offers guidance and advice when

³⁸ For details on the off-site monitoring explained in this section, see “The Bank of Japan's Approach to Liquidity Risk Management in Financial Institutions” released in June 2009 on the Bank's website.

³⁹ The Bank takes initiatives to implement on-site examinations and off-site monitoring in a more integrated manner (see the last paragraph in Section B.2 in this chapter). The operations of the division in charge of off-site monitoring include sharing information with staff members engaged in on-site examinations of financial institutions and examining follow-up reports after on-site examinations.

⁴⁰ For example, the direct cause of the failure of Lehman Brothers in September 2008 is considered to have been a rapid deterioration in its funding conditions due to customers' runs on it.

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necessary.⁴¹ Together with the initiatives for the conduct of market operations and ensuring financial system stability, the framework for liquidity monitoring has functioned effectively to date.

The Bank conducts a comprehensive analysis and assessment of financial institutions' liquidity risk based on individual risk characteristics, using a financial indicator and also other indicators and qualitative information obtained from financial institutions.⁴² To be more precise, the Bank scrutinizes the following aspects of liquidity risk at financial institutions and urges them to make improvement in their liquidity risk management when necessary:⁴³ (1) developing a governance structure in risk management; (2) gauging the liquidity risk profile and balance-sheet management; (3) ensuring stability in daily cash management; (4) strengthening resilience in a stress phase; (5) establishing an action plan in case of emergency; and (6) establishing a global liquidity risk management system (see Figure 6-3).

In the Bank's division that conducts off-site monitoring, staff members are assigned to individual counterparty financial institutions, including banks, securities companies, and foreign financial institutions' branches/subsidiaries in Japan. The staff members monitor financial institutions' liquidity positions daily and exchange opinions regularly with their treasurers about the aforementioned aspects. This characterizes the Bank's liquidity monitoring (see Box 5, "A Case Study of the Bank of Japan's Monitoring of Financial Institutions' Liquidity Conditions").

⁴¹ The Bank has been playing a supervisory role in relation to financial institutions' liquidity risk management by, for example, advising financial institutions daily, as the central bank.

⁴² Since the global financial crisis, the importance of liquidity risk management has been recognized anew and the introduction of numerical criteria for international regulations has been decided. However, regarding liquidity risk, where the risk lies and how significant it is cannot necessarily be assessed from the figures on balance sheets, and risks lurk in various areas of financial institutions' operations. Moreover, the state and size of the risk can vary according to their business models and environments. Thus, liquidity risk should be assessed comprehensively, using multiple indicators and qualitative information.

⁴³ For financial institutions' liquidity risk management following the global financial crisis since summer 2007, see "Liquidity Risk Management in Financial Institutions Following the Global Financial Crisis" released in July 2010 on the Bank's website.

Figure 6-3 Check Points for Liquidity Risk Management of Financial Institutions

Point	Necessary measures and check method
Developing a governance structure in risk management	In order to develop the risk management system appropriately, financial institutions' management should consider liquidity risk management as an important element in business and thoroughly commit themselves to improving their systems.
Gauging the liquidity risk profile and balance sheet management	The liquidity risk profile differs according to the business category and business model of individual financial institutions. Therefore, financial institutions should gauge the liquidity risk profile appropriately and establish a risk management system that is consistent with the profile.
Ensuring stability in daily cash management	Financial institutions should stably raise funds required daily, diversify funding sources and instruments, and manage intraday liquidity appropriately.
Strengthening resilience in a stress phase	Financial institutions should conduct stress testing with various scenarios and secure a sufficient level of liquid assets that can be converted into cash corresponding to the projected outflows of funds.
Establishing an action plan for an emergency	Financial institutions should properly recognize changes in the funding environment and prepare effective measures, such as a control system that matches the tightness of the funding market and concrete measures to secure liquidity.
Establishing a global liquidity risk management system	Each global financial group should lay out a comprehensive contingency plan for the group, considering the possibility of simultaneous difficulties in overseas offices' local market funding and in intra-group fund accommodation.

Box 1 Central Banking Operations and the Financial System

The objectives of the Bank of Japan as the central bank of Japan are to maintain price stability and financial system stability. In order to achieve these objectives, the Bank maintains the smooth circulation of banknotes, operates the payment and settlement system stably, provides liquidity to financial markets, and handles the receipt and payment of treasury funds through its operations. All these business operations may involve the Bank's provision of credit to financial institutions in various forms, including its functioning as the lender of last resort. Therefore, the Bank is naturally attentive to ensuring the financial soundness of financial institutions.

In other words, from the perspective of appropriately conducting central banking operations, the Bank needs to gauge the financial soundness of financial institutions through on-site examinations and off-site monitoring. Moreover, the Bank is in a position to take initiatives in ensuring financial system stability, with the use of the information obtained from its on-site examinations and off-site monitoring, together with the knowledge and awareness obtained from other business operations.

Meanwhile, in the government, the Financial Services Agency, as the administrative authority that regulates and supervises financial institutions, works to ensure not only the soundness of individual institutions but also the stability of the overall financial system. Specifically, the Agency plans and formulates acts and ordinances governing financial institutions and financial markets. It also implements various administrative measures and inspections including granting licenses to banks (see Box 4, "A Comparison of On-Site Examinations by the Bank of Japan and On-Site Inspections by the Financial Services Agency in Case of Banks"). In addition, the Ministry of Finance, as the fiscal authority, is in charge of planning and formulating the resolution regime for failed financial institutions and financial crisis management in view of maintaining the fiscal soundness of the government.

The preferable level of role sharing between a central bank and government in ensuring the stability of the financial system depends on the country or region, reflecting the historical and institutional background, and may change over time. In Japan, the authorities such as the Bank, the Financial Services Agency, and the Ministry of Finance work to ensure financial system stability by coordinating and cooperating with one another, while each performs its own functions. This framework has been effective amid the global financial crisis (for discussions in the United States and Europe on the review of the financial supervisory systems, see Box 3, "Major Points of Revision to Financial Regulations and the Supervisory System").

Box 2 Loans Provided by the Bank of Japan

As described in previous chapters, the Bank of Japan may extend loans to financial institutions that have current accounts at the Bank. In general, the Bank provides two types of loans: (1) collateralized loans, which are backed by such collateral as bills or Japanese government securities (JGSs), to recover the amount extended if borrowers become insolvent; and (2) uncollateralized loans, which are provided under specific conditions without any collateral (see the Table below).

Type of loan ¹	Outline	Legal basis in the Bank of Japan Act
Intraday overdraft	Providing non-interest-bearing intraday liquidity against pooled collateral to financial institutions' current accounts at the Bank (see Chapter V.B.2.a.[1]).	Article 33 ²
Intraday overdraft using the SPDC function	Providing non-interest-bearing intraday liquidity to financial institutions against JGBs submitted to the Bank as collateral when they use the simultaneous processing of DVP and collateralization (see Chapter IV.D.1.c).	Same as above
Complementary lending facility	Providing loans at the request of a counterparty to complement the framework of market operations. The loans are provided against pooled collateral at the basic loan rate and must be repaid on the following business day (see Chapter V.C.2.a).	Same as above
The lender-of-last-resort function	Collateralized loans (extended as the lender of last resort)	Providing collateralized loans to financial institutions actively and flexibly when necessary (see Section D in this chapter).
	Temporary loans to financial institutions, etc.	Providing loans to financial institutions that unexpectedly experience a temporary funds shortage due to accidents such as a computer system failure, in order to ensure the smooth settlement of funds. The loans are extended without collateral for a maximum period of one month (see Section D in this chapter).
	<i>Tokuyū</i> (special loans)	Providing loans under special conditions, such as loans without collateral, at the request of the government, when there is a strong likelihood that systemic risk will materialize (see Section D in this chapter).

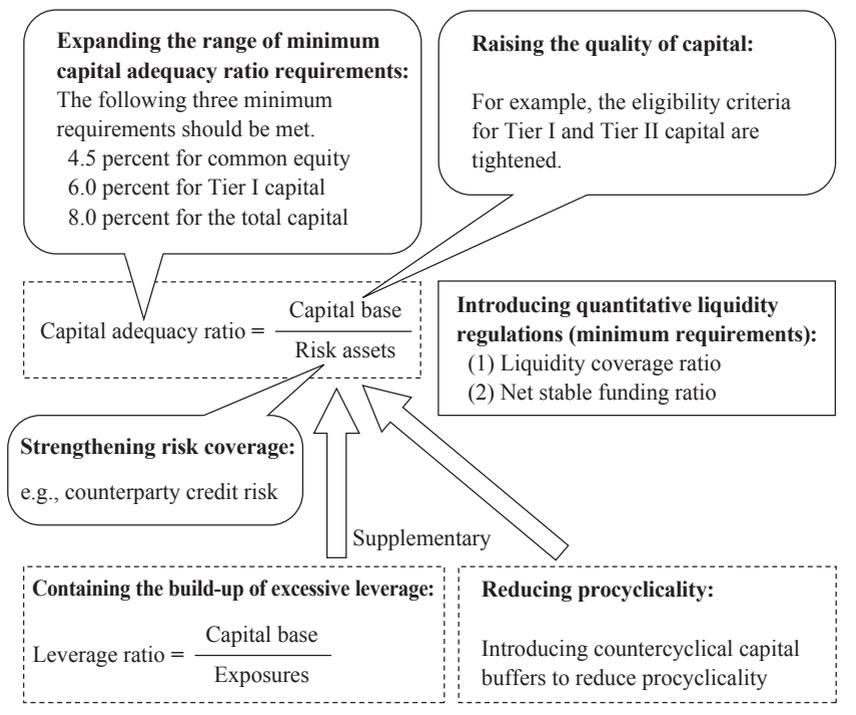
Boxes

- Notes: 1. In addition, the funds-provisioning measure to support strengthening the foundations for economic growth (see Footnote 14 in Chapter I), the funds-supplying operation against pooled collateral (see Chapter V.C.1.a), and the U.S. dollar funds-supplying operation against pooled collateral are all extended against the pooled collateral (for pooled collateral, see Footnote 34 in Chapter V).
2. Except for providing financial institutions with loans against the collateral of their loans on deeds to companies, which is the business based on the proviso to Article 43, paragraph 1 of the Bank of Japan Act.

Box 3 Major Points of Revision to Financial Regulations and the Supervisory System

Given the experience of the global financial crisis since summer 2007, discussions on reviewing global financial regulations have been conducted on various occasions, such as international forums, so as to prevent recurrence of a crisis and to enhance the robustness of the global financial system.

In December 2009, the Basel Committee on Banking Supervision (BCBS) issued a consultative package of proposals concerning regulations in such areas as capital bases and liquidity to be held by banks, as a comprehensive measure to prevent recurrence of a financial crisis. After that, the BCBS continued discussions based on comments to the proposals and the results of a quantitative impact study (QIS) on major financial institutions in each country. In 2010, an agreement was reached on the definition of the capital base, the concrete regulatory standard, the liquidity regulation, and the schedule to implement new regulations and the transition thereof. The outline of the agreement (Basel III) is as follows.



Regarding capital adequacy regulations, it was decided that the range of capital bases would be expanded, based on the lesson learned from the global financial crisis that internationally active financial institutions should have sufficient capital bases as a buffer against possible losses in the event of market fluctuations causing rapid and significant deterioration in their financial conditions. Specifically, the regulations require banks to raise the quality and quantity of their capital bases higher than the present level. In other words, the quality of banks' capital bases is raised by strictly defining the required capital: most of the capital should be common equity, which has a high loss-absorption capacity. In calculating risk assets, the capital adequacy regulations strengthen the coverage of risks, such as capital charges on securitized products, market risk, and counterparty credit risk. For the minimum requirements for the capital adequacy ratio, current regulations require the following: (1) the total capital ratio should at least be 8 percent; (2) the core capital (Tier I) ratio should at least be 4 percent; and (3) common equity should be the predominant form of Tier I capital. On the other hand, Basel III requires the following: (1) the total capital ratio should be at least 8.0 percent, which is the same as the current regulation; (2) the core capital (Tier I) ratio should be at least 6.0 percent; and (3) the common equity ratio (after deduction is adjusted) should be at least 4.5 percent. In addition, for the purpose of surely absorbing losses in times of stress, a capital conservation buffer (2.5 percent), which is added to the minimum requirement of the capital base, will be introduced. Moreover, to reduce the procyclicality inherent in the regulations, countercyclical capital buffers, in which financial institutions build up capital during an economic boom and use it during a recession, will also be introduced.

The leverage ratio (capital base/exposure) without consideration of the risk weight will be introduced as an indicator to complement the capital adequacy ratio, which financial institutions use to gauge the volume of risks in individual assets and business operations, and to prevent excessive risk taking through increases in leverage. As it has been recognized anew during the financial crisis that a deficiency in liquidity risk management directly links to a business crisis at a financial institution, liquidity regulations (liquidity coverage ratio and net stable funding ratio) will also be introduced.

In implementing the framework of the new regulations, a transitional measure or period will be introduced to restrain any negative influences on economic activity. Specifically, the capital adequacy ratio requirements will be raised step by step from the beginning of 2013, and will be fully implemented from the beginning of 2019.

In addition, to address the moral hazard issue (the “too big to fail” issue)

concerning systemically important financial institutions, such measures as an additional charge for capital and liquidity and enhancement of supervision for these institutions have been discussed.

Meanwhile, in the United States and Europe, in line with the global discussion on desirable financial regulations, a revision to the financial supervisory system has also been discussed. One of the factors behind the discussion is that, after the global financial crisis, financial regulations and supervision based on the macroprudential perspective and the roles of central banks became more important in order to ensure financial system stability (see Section C.1 in this chapter). Another is the awareness that institutional measures should be taken to prevent banks as well as other systemically important financial institutions from exploiting loopholes in regulations and supervision.

Regarding the roles of central banks in the context of the U.S. and European financial systems, the following characteristics of the previous systems were pointed out. First, in the United States, as there are many supervisory authorities for each type of financial institution, the subject of supervision by the Federal Reserve had been limited to banks' financial holding companies. Second, in Europe, as there are many financial institutions which conduct business across borders, neither the European Central Bank (ECB) nor the Bank of England (BOE) had a function of financial supervision, or a function similar to the Bank of Japan's on-site examinations, and therefore accessibility to micro information on individual financial institutions had been limited.

In 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) was approved in the United States, and the Federal Reserve gained broader authority to supervise systemically important financial institutions, irrespective of their types. In the same year, in the United Kingdom, it was decided that the Financial Services Authority's supervisory function for individual financial institutions would be transferred to the BOE. Moreover, in Europe, it was decided that the European Systemic Risk Board would be established, and that it would be in charge of macroprudential oversight. The Board would include core members of the governors of the ECB and the central banks in the EU member states.

Boxes

Box 4 A Comparison of On-Site Examinations by the Bank of Japan and On-Site Inspections by the Financial Services Agency in the Case of Banks

On-site examinations conducted by the Bank of Japan are based on on-site examination contracts and differ from on-site inspections of the Financial Services Agency (FSA) conducted as an exercise of administrative power.

	The Bank's on-site examinations	The FSA's on-site inspections
Legal basis	On-site examination contracts based on Article 44 of the Bank of Japan Act	The Banking Act (Article 25, etc.)
Purpose and content	In order to prepare for its appropriate functioning as the lender of last resort, the Bank examines financial institutions' business operations and assets, and gives advice based on the results of the examination.	In order to ensure the sound and appropriate business operations of financial institutions, the FSA examines their compliance and risk management, and indicates the issues to be solved and ascertains the recognition that financial institutions have toward these issues.
Framework to ensure appropriate implementation	If a financial institution refuses the Bank's request for on-site examination or refuses to provide reports or documents without any legitimate reason, the Bank may make the fact public. In this case, the Bank is not precluded from terminating the current account services provided to the financial institution.	The FSA is given the mandate to conduct on-site inspections as an exercise of its administrative powers, and to ask financial institutions to submit reports or materials on their business and financial conditions. The FSA may impose penalties on financial institutions if they refuse to undergo inspections or submit reports.

Box 5 A Case Study of the Bank of Japan's Monitoring of Financial Institutions' Liquidity Conditions

In the case of Bank A, the sum of its loans and securities investments exceeds the amount of deposits it holds, and it is highly dependent on funding through money markets such as call money.

1. Regular monitoring of liquidity conditions

Through on-site examinations and off-site monitoring, the Bank gauges Bank A's business model and checks its daily funding conditions and balance-sheet management (see Table below for an example of a daily liquidity position report).

In order to enhance the stability of funding while giving due consideration to profitability, the Bank provides guidance and advice, for example, when necessary.

- (a) If the Bank judges through stress testing that Bank A's scale of market funding exceeds the maximum possible amount of funding under a stress scenario (i.e., it depends too much on market funding), the Bank urges Bank A to take action, including broadening its deposit base and/or restraining asset investment.
- (b) The Bank urges Bank A to increase its source of market funding and to diversify the maturity dates of transactions.

2. Monitoring of liquidity conditions when funding conditions deteriorate

In the process of monitoring daily funding conditions, if the Bank detects a sign of a rise in Bank A's funding rates or a failure in rollover, the Bank strengthens the liquidity monitoring of Bank A and collects more detailed information on its funding conditions and its plans for future investment and funding.

The Bank urges improvement based on the obtained information and the situation of Bank A and from the following perspectives.

If funding conditions in the entire market deteriorate:

- (1) Whether or not Bank A is aware of the seriousness of the situation and is taking appropriate action.
- (2) Whether or not Bank A manages its liquidity position so as not to hinder its funding conditions even if market funding worsens; for example, whether it

Boxes

keeps the amount of daily funding within the amount of eligible collateral for the Bank's operations and complementary lending facility.

If Bank A's creditworthiness in the market declines:

In this case, Bank A is unlikely to recover its funding conditions in a short period of time and may suffer a massive drain of deposits in the course of time. For example, taking these factors into account, in addition to (1) and (2) above, the Bank checks Bank A's efforts to adopt the following measures, and urges it to immediately take effective measures for improvement.

- (3) Fundamental review of investment of funds to improve the liquidity position, including reducing loans and selling securities.
- (4) Strengthening of funding capacity by means of measures including securing new sources of funds, obtaining additional funding from an existing source, and acquiring more deposits.
- (5) Identifying additional assets eligible for collateral and holding them in pledge.

Table for Box 5

Liquidity Position Report for the Day and the Next Day (A Sample)							
1. Transaction Result of the Day							
<Interbank Transaction>			(100 mil. yen, %)				
	Types of Transaction and Terms, etc.	Investment		Funding			
		Amount	Rate	Amount	Rate		
Call Loan / Call Money (Uncollateralized, Overnight)	Direct Dealing						
	Brokers						
Call Loan / Call Money (Collateralized, Overnight)	Broking Dealing						
T/N							
S/N							
Term Instrument							
Intraday Call							
<Open Market Transaction>			<BOJ Open Market Operation>				
	Terms	Amount	Rate	Type	Terms	Amount	Rate
FX Swap							
NCD							
CP							
Funding by Repo							
Investment by Repo							

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2. Amount Outstanding at the End of the Day

<Interbank Transaction>

Call Loan	Uncollateralized	
	Collateralized	
Call Money	Uncollateralized	
	Collateralized	
BOJ Open Market Operation		

<Open Market Transaction>

FX Swap	
NCD	
CP	
Funding by Repo	
Investment by Repo	

<Amount Outstanding of Reserve Balance at BOJ>

3. Estimate for the Next Day

<Sources of changes in current account>

Cash		FX Swap	
Government Revenues		NCD	
Loan		CP	
Securities		Repo	
Deposit			

<Interbank Transaction>

			Investment	Funding
End	Call Loan / Uncollateralized			
	Call Money / Collateralized			
	BOJ Open Market Operation			
Start	Call Loan / Uncollateralized			
	Call Money / Collateralized			
	BOJ Open Market Operation			

<Today's Funding>

Amount	
Reserves	

<The Probable Maximum Intraday Overdraft>

Time Zone	
Amount	
Usable Collateral	

Note: An example of simplified liquidity position report. Practically, items are customized for each institution depending on its business and other factors.