Functions and Operations of the Bank of Japan

Edited by
Institute for Monetary and Economic Studies
Bank of Japan

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(Notice)
This publication is the official translation of the revised Japanese edition of *Functions and Operations of the Bank of Japan*, published in March 2011. This is the second English edition. The Bank released the first English edition in January 2004.

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Preface to the Revised Japanese Edition of *Functions and Operations of the Bank of Japan*

The Institute for Monetary and Economic Studies (IMES) of the Bank of Japan published the first Japanese edition of this publication in 2000 in order to explain the functions and operations of the central bank. It was updated in 2004. The economic and financial environment has changed significantly since then, and it was recognized as being appropriate to produce a complete revision.

This revised edition attempts to provide a broader range of information concerning the Bank's functions and operations, so as to deepen the public's understanding of the Bank. We hope this publication will be of use to a wide variety of readers, including undergraduates studying finance, business people interested in financial and economic issues, and those who are interested in the Bank, to capture a real picture of the Bank.

The Bank is an organization established in order to ensure stability in prices and the financial system. This is to be achieved through the Bank's daily operations. Therefore, as in the previous edition, the revised edition focuses on explaining business operations conducted by the Bank in practice, to increase the public's understanding of the Bank's functions and operations. On the other hand, a major difference from the previous edition is that a more detailed explanation is included in the pages introducing the framework for the conduct of monetary policy and the Policy Board, the Bank's highest decision-making body. Moreover, considering the developments in the various payment and settlement systems over the last decade, the latest information on Japan's payment and settlement systems, including the issuance, circulation, and maintenance of Bank of Japan notes, as well as services related to treasury funds and Japanese government securities, is explained. Reflecting the changes in the financial and economic environment, the revised edition also provides broad explanations related to the Bank's initiatives for international cooperation, newly introduced operations, and measures to ensure the soundness of the financial system.

The original members of the bureau for the editorial meetings for the revised Japanese edition were Tatsuya Yonetani (currently the General Manager of the Hiroshima branch), Nobuhito Ochi, Youhei Hisada, and Takahide Habuchi, with the support of Tomoo Yoshida, Sho Kotaka, and Masato Shizume of the IMES, as well as the staff members of the relevant departments.

In order to encourage as many people as possible to understand the real picture of the Bank, it is essential to use the most plain language possible to provide, without bias, an explanation that is accurate, objective, and systematically organized. However, those requirements could not be easily met only by the staff members of the IMES and the relevant departments within the Bank. Therefore, in bringing out the revised edition, the above-mentioned core staff members initially prepared a draft as a basis for discussions, and then thoroughly discussed it in editorial meetings (a total of eight sessions) attended by editorial committee members from inside and outside the Bank, and staff members of the IMES. In this way, the draft for this edition was thoroughly revised by following the same procedures as those used in publishing the previous edition.

In the editorial meetings, committee members enthusiastically took part in discussions to examine the appropriateness of the descriptions, their theoretical adequacy, consistency throughout the chapters, and the use of terminology. Without the support of the editorial committee members, who took great care in reading the draft and provided direct comments and suggestions, this revised edition would not have been completed. I would like to express my sincere gratitude to the members of the editorial committee by introducing their names below.

Amamiya, Masayoshi	Executive Director, Bank of Japan (sixth to eighth sessions)
Fukuda, Shin-ichi	Professor, Graduate School of Economics, University of Tokyo
Nakaso, Hiroshi	Executive Director, Bank of Japan (first to fifth sessions)
Nishimura, Kiyohiko G.	Deputy Governor, Bank of Japan
Noda, Tadao	Member of the Policy Board, Bank of Japan
Suda, Miyako	Member of the Policy Board, Bank of Japan
Ueda, Kazuo	Professor, Graduate School of Economics, University of Tokyo

*Listed in alphabetical order of surname

Based on the comments and suggestions received from the editorial committee members, the core IMES staff members made great efforts to seek ways to balance accuracy and easy-to-follow explanations in the new edition. If any part remains for which further improvement is recommended, the blame lies with the core staff members, including myself.

At the conclusion of this preface, I would like to express my wish that this book will be of assistance in enhancing your understanding of the Bank. I would like to recommend anyone who has developed an interest, and who is willing to know more about the Bank's business operations after reading through this revised edition, to refer to the Bank's website (http://www.boj.or.jp). Further details of the topics included in the text and the reports introduced at the end of this book are available on the website.

Wataru Takahashi
Director-General
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Chapter I Introduction

As the central bank of Japan, the Bank of Japan issues banknotes (Bank of Japan notes). The Bank works to maintain the stability of prices and the financial system to ensure the trustworthiness of money as a means to settle economic transactions. The Bank conducts various business operations, including conducting monetary policy and fulfilling the function of being the lender of last resort, in order to contribute to the steady development of the Japanese economy. This chapter gives an overview of the functions and operations of the Bank.

A. Functions of the Bank of Japan

1. The Bank in the daily lives of the people

The Bank currently issues Bank of Japan notes (hereafter, "banknotes") in four denominations — 10,000 yen, 5,000 yen, 2,000 yen, and 1,000 yen — and works to ensure their smooth circulation throughout the economy. The amount outstanding of banknotes in circulation totaled about 77 trillion yen as of the end of March 2010. Other services provided by the Bank that are familiar to people include ensuring the smooth receipt and payment of the government's funds (treasury funds), such as the payment of public pensions and collection of national taxes. Taking pension payments as an example, the Bank endeavors to ensure that the beneficiaries receive their pensions on the due date by employing the following procedures: upon request of the government, the Bank transfers funds from the government's account at the Bank to the designated financial institutions' accounts at the Bank, and instructs the financial institutions to make such payments. In this way, the Bank — in line with providing the foundations to support the economic activities of individuals and firms through its business operations as the central bank — contributes to the steady development of the Japanese economy by conducting monetary policy and ensuring the stability of the financial system.

The Bank was founded in 1882 as the central bank of Japan. The Bank's purposes and its organizational management are stipulated in the Bank of

Japan Act[1] (see Box 1, "Central Banks around the World").

The Bank's major purposes can be summarized as maintaining price stability and financial system stability.[2] The roles of the Bank in achieving those purposes can be described from several viewpoints. For example, the Bank's roles can be classified by type of business operations as follows: (1) the issuer of banknotes; (2) the bank of banks; and (3) the bank of the government (see Box 2, "The Three Functions of the Bank of Japan as a Central Bank"). When focusing on the aspect of the Bank as an entity to take policy actions, the Bank's roles of conducting monetary policy and being the lender of last resort can also be cited.

Having looked at these various functions and purposes of the Bank, the question arises as to how they are related to each other. In order to provide a starting point to come up with the answer, the following sections begin by explaining how the Bank plays various roles through its business operations as a member of financial markets.

2. The Bank's operations as "a bank"

Individuals and firms make deposits at financial institutions. They withdraw cash from their accounts when necessary, or use their deposits to settle various transactions by funds transfers between financial institutions' accounts. Using the funds deposited with them, financial institutions manage their assets through a range of activities, such as lending and/or investment in bonds.

The Bank does not accept deposits from individuals or firms, but accepts deposits from financial institutions that hold current accounts at the Bank (hereafter, "BOJ account deposits"). Financial institutions conduct funds transfers with other financial institutions via BOJ account deposits. The Bank

[1] The Bank of Japan Act was enacted in 1942, during World War II, to replace the Act of 1882. After that, in view of the globalization of the economy and finance, as well as the expansion of the market economy, a fundamental revision to the central banking system was discussed. As a result, the Act of 1942 was revised fully in 1997, and a new Act was enforced in 1998 under the two principles of respecting the autonomy of the Bank and ensuring the transparency of its monetary policy and business operations. See Appendix 1 for the full text of the current Bank of Japan Act.

[2] The Bank of Japan Act stipulates the Bank's purposes as follows: (1) the Bank issues banknotes and carries out its monetary policy (expressed in the Act as "currency and monetary control") (Article 1, paragraph 1); (2) the Bank's conduct of monetary policy shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy (Article 2); and (3) the Bank ensures smooth and stable operations of payment and settlement systems, and financial system stability (expressed in the Act as "to ensure smooth settlement of funds among banks and other financial institutions, thereby contributing to the maintenance of stability of the financial system") (Article 1, paragraph 2).

also conducts funds transfers related to lending, sales, and purchases of bonds with counterparty financial institutions. In these respects, the nature of the Bank's banking operations is not very different from that of private financial institutions' operations. On the other hand, while private financial institutions do not do so, the Bank issues banknotes as the sole issuer of banknotes in Japan.[3] The issuance of banknotes to financial institutions is conducted by debiting the equivalent amount from their BOJ account deposits.[4]

3. Issuing central bank money

In addition to cash, which consists of banknotes and coins, demand deposits (see Chapter IV.B.2), including current deposits and savings deposits, which households and firms hold at financial institutions, play a major role as payment instruments. These instruments are generally referred to as money. Banknotes and BOJ account deposits are together referred to as central bank money (see Figure 1-1). Central bank money and coins are safe forms of money, with no chance of default,[5] and they are important in daily payment and settlement.

For example, when people go shopping and pay a small amount, they hand over cash at the cashier to complete the settlement. People obtain cash by making a withdrawal from their accounts at financial institutions, and in preparation for such requests, financial institutions withdraw cash from their BOJ account deposits.

Meanwhile, in the case of a payment to a counterparty in a distant location, or a payment of a large amount, funds transfer is often used to settle the transaction. In such case, the settlement is not completed at the time when the payer requests the funds transfer at a financial institution's counter. When the payer's account and the payee's account are held at different financial institutions, it is necessary to process the settlement between the two institutions by transferring funds between the BOJ account deposits these institutions hold. Transactions between financial institutions, without any customer request, are also often settled by the transfer of funds between BOJ account deposits.

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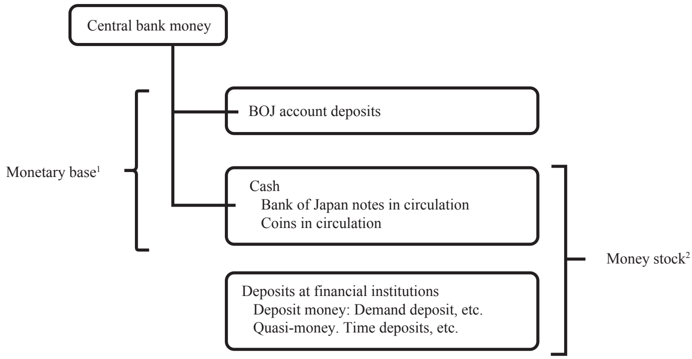
[3] Coins are delivered to the Bank by the government (issuance of coins), and then distributed to financial institutions by the Bank (see Chapter III.A.1).

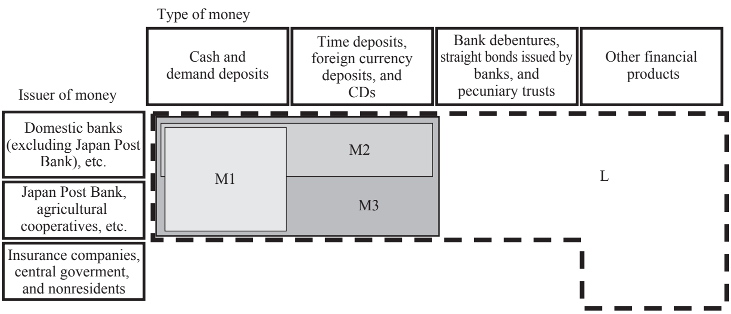
[4] At this time, in the liabilities on the Bank's balance sheet (see Box 3 for Chapter II, "The Bank of Japan's Accounts"), the amount of banknotes increases, while the same amount of current account balances at the Bank decreases.

[5] Central bank money has such characteristics as safety, liquidity, and the highest settlement finality (see Chapter IV). Although these are not characteristics exclusive to central bank money, each one of them is particularly prominent in central bank money.

Figure 1-1 Classification of "Money"



Notes: 1. Monetary base cosists of BOJ account deposits and cash, and is also referred to as "base money" or "high-powered money."
2. Money stock is the aggregate amount of money, including cash and deposit money, held by money holders such as nonfinancial corporations, individuals, and local govemments. It also indicates the total amount of money supplied from the financial sector to the entire economy. The Bank compiles and releases four indices, namely, M1, M2. M3, andL (broadly-defined liquidity).



4. The central bank as the guardian of money

The functions unique to a central bank can be boiled down to ensuring that people can use their money with confidence.[6] There are two conditions necessary

[6] The Bank of Japan Act stipulates that: "Bank of Japan notes shall be legal tender and hence shall be used for payment without limits" (Article 46, paragraph 2). In other words, its banknotes are a legally defined payment instrument that should not be refused by any creditor in satisfaction of any debt (see Chapter III). However, as it is not obligatory to use Bank of Japan notes for payment, it is important for Bank of Japan notes to possess the characteristics of convenience and safety so that people can use them widely as money.

to achieve public confidence in money.

First, the value of money must be stable. As for the stability of its value, there is stability in terms of the internal value (price stability) and the external value (stability of the foreign exchange rate). As described above, one of the Bank's purposes is to maintain price stability.[7] If price stability is impaired and people become concerned that the real-term value of money will considerably fluctuate over the short term, it may be difficult for firms and households to make appropriate decisions concerning their savings and investments, resulting in impairing the efficiency of economic activity.

Second, arrangements for payment and settlement (payment and settlement systems), including the circulation of money, and the financial system[8] must function smoothly and stably. If people are anxious about the financial soundness of financial institutions at which they hold their accounts, and suspect that the smooth conduct of payment and settlement may be disrupted, the function of payment and settlement through deposit money may deteriorate. In such a case, economic transactions may become stagnant. In an extreme case, people may begin to use foreign money, instead of their own country's money, to make payments, and may even resort to barter transactions.

Therefore, the Bank's purposes, such as maintaining price stability and financial system stability,[9] as stipulated in the Bank of Japan Act, are closely connected to public confidence in money. In this way, the Bank contributes to maintaining the foundation of stable and efficient economic activity.

The Bank conducts monetary policy in order to achieve price stability, thereby contributing to the sound development of the national economy. For this purpose, the Bank controls the money market interest rate by adjusting changes in the current account balances at the Bank through transactions with financial institutions, including the lending and sale/purchase of financial assets (transactions that the Bank conducts to achieve such a purpose are referred to

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[7] The Ministry of Finance has the legal authority to stabilize the foreign exchange rate (see Box 2 for Chapter VIII, "Institutional Design of Foreign Exchange Intervention: International Comparison"). The stability of the foreign exchange rate is not the main purpose of the Bank's monetary policy. However, as the Bank conducts monetary policy, it also takes into account the influence of the foreign exchange rate on economic activity and prices.

[8] See Section B.3 in this chapter for the definition of the financial system.

[9] Specifically, the Bank contributes to ensuring the stability of payment and settlement systems, and that of financial systems, by providing payment instruments, operating payment and settlement systems (see Chapter IV), and through functioning as the lender of last resort (see Chapter VI). For the stability of payment and settlement systems, and that of financial systems, the government also needs to play an important role, particularly in areas such as those of legislation and regulation.

as operations). The reason the Bank can play the role of the monetary policy authority derives from the fact that the Bank, as an entity providing central bank money, can adjust the changes in current account balances at the Bank in order to control the level of the short-term interest rate. Moreover, in the event that the stability of the payment and settlement systems or that of the financial system is jeopardized, the Bank, as the country's central bank, can provide funds to financial institutions as the lender of last resort. The reason that this lender of last resort function works effectively derives from the fact that the Bank can provide central bank money, which anyone can use with confidence, without limit, even in the event of a crisis. When anxiety about the financial system arises in the market, the function of highly credible central bank money becomes very important. In this way, the Bank maintains the function of money through conducting banking business with financial institutions based on the money issuing function, which the Bank possesses as a central bank.

Historically, central banks are likely to be exposed to the pressure to adopt an inflationary policy in the conduct of monetary policy. In fact, there have been many cases of a large amount of money being issued to cover fiscal expenditures, which thus led to serious inflation.[10] As the background, it is pointed out that central banks are likely to be exposed to the pressure to achieve immediate economic improvement, partly because it takes time to see the effects of monetary policy on economic activity and prices. Based on the points described above, it is recognized that there is a need to develop a framework in which monetary policy can be decided from a medium- to long-term viewpoint regardless of short-term benefits. Establishing an autonomous central bank is now a global standard (see Box 3, "Monetary Policy Independence").

B. Outline of the Bank of Japan's Business Operations

As described in Section A, in order to achieve the purposes of ensuring the stability of prices and the financial system, the Bank of Japan, through banking operations, fulfills the functions of issuing and managing money that people can use with confidence. The following outlines the daily business operations of the Bank in four categories: (1) provision of cash, and of payment and settlement services; (2) conduct of monetary policy; (3) ensuring of financial system stability; and (4) provision of government-related services.

[10] Based on these experiences, extending central banks' credit to governments is strictly restricted by law in many countries (see Chapter IX).

1. Provision of cash, and of payment and settlement services

As described in the previous section, the basis of business operations provided by the Bank, as the central bank in Japan, is to make the use of cash more convenient, and to ensure that individuals and firms can use it with confidence for daily transactions of trade and settlement. Therefore, the Bank ensures smooth circulation of banknotes nationwide, while working to manage the quality of banknotes and to prevent the use of counterfeit banknotes in order to maintain their cleanliness and safety. Business operations concerning banknotes are explained in Chapter III, "The Issuance, Circulation, and Maintenance of Bank of Japan Notes."

In addition to banknotes, BOJ account deposits held by financial institutions are important payment instruments. The Bank provides various payment and settlement services for financial institutions using their BOJ account deposits. As described later, market operations — the Bank's operational instruments for monetary policy (see Section B.2 in this chapter) — and the lender-of-last-resort provision of funds (see Section B.3 in this chapter) are examples of such transactions between the Bank and financial institutions, and are settled through BOJ account deposits.[11]

The Bank also provides settlement services related to Japanese government securities (JGSs) through the operation of the Japanese Government Bond (JGB) Book-Entry System. The Bank introduced online delivery-versus-payment (DVP) processing via a computer network (the Bank of Japan Financial Network System [BOJ-NET]) in order to facilitate smooth and efficient provision of payment and settlement services through BOJ account deposits, and such services related to JGSs. The Bank continues to improve these systems, and implements measures to reduce various risks involved in payment and settlement as much as possible. It conducts monitoring and assessment of payment and settlement systems operated by the private sector, and induces changes for improvement through its oversight activities.

In Chapter IV, "Payment and Settlement and the Roles of the Bank of Japan," the Bank's transactions with financial institutions through BOJ account deposits, which provide the foundation for various business operations of the Bank, are explained. Chapter IV also provides a comprehensive overview of the structure of Japan's payment and settlement systems and the Bank's role in such systems, and explains international cooperation for improving payment

[11] Under the reserve requirement system, financial institutions are subject to a requirement to maintain a certain fraction of deposits received from their customers as reserves. These reserves are, in principle, deposited in BOJ accounts (see chapters IV and V).

and settlement systems, which includes the Bank's participation in the oversight of global payment and settlement systems. Moreover, the Bank accepts deposits from other central banks and international organizations, and extends credit to them when necessary. These business operations are explained in Chapter VIII, "International Operations and Services."

2. Conduct of monetary policy

The Bank of Japan Act stipulates the principle that monetary policy shall be "aimed at achieving price stability, thereby contributing to the sound development of the national economy." Based on this principle, the Bank endeavors to conduct appropriate monetary policy in order to maintain medium- to long-term price stability. An explanation of how monetary policy contributes to price stability and the sound development of the national economy is given below.

At Monetary Policy Meetings (MPMs),[12] held once or twice a month, the Bank discusses and makes decisions regarding monetary policy, including the guidelines for money market operations. Currently, the Bank sets a target rate (policy interest rate) for the uncollateralized overnight call rate in its guidelines for money market operations.[13] The uncollateralized overnight call rate is one of the interest rates in money markets, where private financial institutions borrow and lend funds.

In order to meet the guidelines, the Bank works to influence the formation of interest rates in money markets by conducting various operations to make funds transactions with private financial institutions and adjust the supply and demand balance of funds in the markets. For example, in order to increase the amount of the supply of funds, the Bank provides loans to financial institutions against financial assets submitted as collateral (funds-supplying operations), and credits the funds to the counterparty financial institutions' BOJ accounts. Conversely, in order to decrease the amount of the supply of funds, the Bank sells, for example, its holdings of JGSs with repurchase agreements (funds-absorbing operations), and debits the funds from the counterparty financial

[12] MPMs are held by the Bank's Policy Board to decide on matters concerning the conduct of monetary policy (see Section B in Chapter II for the structure and procedures of the Policy Board).

[13] In contrast, there have been times when the Bank had employed a policy target other than the uncollateralized overnight call rate. For example, following the MPM in March 2001 until that in March 2006, the Bank set the outstanding balance of current accounts at the Bank as the policy target for market operations.

institutions' BOJ accounts. These types of operations to supply and absorb funds are called open market operations. Details of the frameworks of such operations, including these open market operations, are explained in Chapter V, "Market Operations."

In this way, the Bank influences money market interest rates, which in turn causes changes in the interest rates in other financial markets and those on bank loans to individuals and firms. As these changes in the interest rates influence economic entities' investment and consumption, the effect of monetary policy spreads to economic activity and prices (see Figure 1-2). For example, when the Bank raises the target for the uncollateralized overnight call rate, banks' lending rates rise, housing investments usually become restrained as mortgage rates rise, and firms' fixed investments become restrained. As a result, overall economic activity becomes restrained, exerting downward pressure on prices. On the other hand, when the Bank lowers the target for the uncollateralized overnight call rate, loan rates of banks usually fall, an increasing number of households apply for mortgages as the interest rates thereof fall, causing a rise in housing investments, and firms' fixed investments increase. As a result, overall economic activity picks up, leading to upward pressure on prices.

At MPMs, taking such a transmission mechanism of monetary policy into consideration, the Bank analyzes and assesses the current condition and prospects for economic activity and prices to decide on the guidelines for the policy. In addition to the control of money market interest rates, the Bank has implemented various policy measures according to the financial and economic situation. For example, when the functioning of financial markets was impaired significantly due to rapid contraction of financial and economic activities and anxiety about financial systems increased globally, as seen after the autumn of 2008, the Bank introduced measures to ensure financial market stability and to facilitate corporate financing[14] (see Box 4, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan").

The Bank of Japan Act requires accountability as a counterpart to the

[14] In addition, since the Bank recognized that the most critical challenge the Japanese economy has faced was to raise the potential growth rate and productivity, it introduced a fund-provisioning measure to support strengthening the foundations for economic growth as a temporary measure in June 2010 in order to support, from the financial side, private financial institutions' efforts of their own accord toward strengthening the foundations for economic growth. The measure supplies long-term funds at a low interest rate against eligible collateral to financial institutions in accordance with their efforts in terms of lending and investment toward strengthening the foundations for economic growth. The duration of each loan is one year in principle, and the loan can be rolled over up to three times. The loan rate was 0.1 percent as of the end of 2010.

autonomy of the Bank in monetary policy.[15] Based on this fact, the Bank provides a wide range of information, not only because the Act stipulates the obligation of accountability, but also because it considers that clarifying to the public the content and process of the Bank's decision making regarding monetary policy leads to enhancing the effectiveness of monetary policy (see Box 2 for Chapter II, "The Bank of Japan's Measures to Strengthen Communication on Monetary Policy").

For example, the Bank released a public statement "The Introduction of a New Framework for the Conduct of Monetary Policy" in March 2006, and currently conducts its monetary policy based on this framework. The framework mainly consists of three elements: (1) the Bank's thinking on price stability; (2) examining economic activity and prices from two perspectives; and (3) outlining the current view on monetary policy.

The statement explained that, regarding the Bank's thinking on price stability, the Bank will review its basic thinking on price stability, and disclose an inflation rate level that its Policy Board members understand to represent price stability from a medium- to long-term viewpoint, in the conduct of monetary policy (the "understanding of medium- to long-term price stability;" hereafter, the "understanding"). The Bank will conduct monetary policy in the light of such thinking and such an "understanding."[16] In examining economic activity and prices from the two perspectives, the Bank examines and assesses economic activity and prices based on the following two perspectives: (1) as the first perspective, the outlook considered to be the most likely by the Bank as regards economic activity and prices around two years in the future; and (2) as the second perspective, various risks that are most relevant to the conduct of

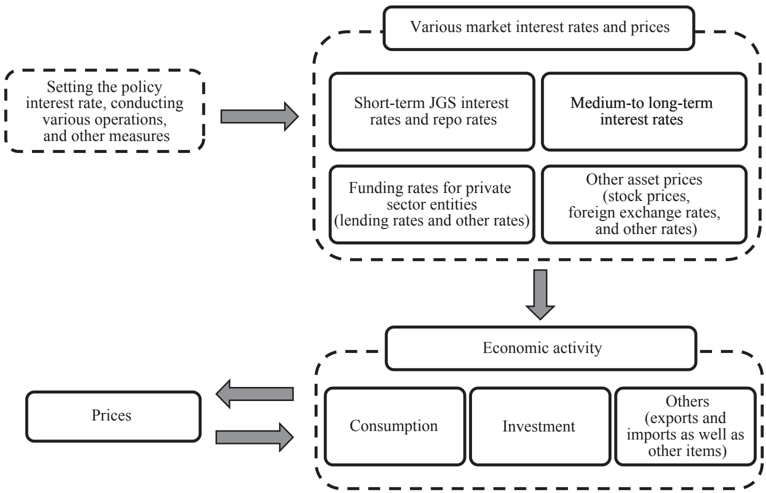
[15] Article 3, paragraph 2 of the Bank of Japan Act stipulates that "the Bank of Japan shall endeavor to clarify to the citizen the content of its decisions, as well as its decision-making process, regarding currency and monetary control."

[16] Price stability is the state where various economic entities, including households and firms, may make decisions regarding such economic activities as consumption and investments without being concerned about fluctuations in the general price level. Considering such elements as the measurement bias regarding the price index, the safety margin in the conduct of monetary policy, and firms' and households' views on prices, the "understanding" is expressed in terms of the consumer price index (CPI). Given that the "understanding," expressed in numerical terms, may change from time to time, reflecting structural changes in the economy and other developments, in principle, Policy Board members review it annually. The "understanding" examined in April 2010 shows that, on the basis of a year-on-year rate of change in the CPI, "each Policy Board member's 'understanding' falls in a positive range of 2 percent or lower, and the midpoints of most Policy Board members' 'understanding' are around 1 percent."

monetary policy over a longer term.[17] In outlining the current view on monetary policy, the Bank, in the light of deliberations from the two perspectives described above, outlines and discloses its view on the future conduct of monetary policy.

In order to appropriately conduct monetary policy as explained above and other business operations, including those to ensure financial system stability described later, it is very important to compile statistics, as well as to conduct research and studies, regarding economic activity and prices. These research and study activities are explained in Chapter VII, "Statistics, Research, and Studies." In addition, in order to accurately understand the economic and financial situation in Japan, it is necessary to consider the economic and financial situation abroad, as well as developments in global financial markets. In this aspect, the Bank maintains a close cooperative relationship with other central banks and international organizations, such as through exchanges of information and opinions related to research and studies. The Bank's international activities are explained in Chapter VIII, "International Operations and Services."

Figure 1-2 Transmission Mechanism of Monetary Policy



[17] In order to realize sustainable economic growth with price stability, it is necessary to examine and assess various factors, including the changes in asset prices and credit volume. In this context, from the perspective of the conduct of monetary policy, it is also important to take initiatives on the macroprudential front, in which risks inherent to the entire financial system are analyzed and evaluated, considering the interconnectedness of economic activity, financial markets, and the behavior of financial institutions (see Section C in Chapter VI).

3. Ensuring financial system stability

The term "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. Financial system stability refers to the situation in which people can lend/borrow or accept/pay money with confidence. To maintain this situation, it is the key premise that financial institutions, which are an integral part of the financial intermediary function[18] and the payment and settlement function,[19] appropriately manage the risks related to these functions and soundly conduct their business.

In order to ensure and strengthen financial system stability, the Bank endeavors to identify actual business conditions of financial institutions by conducting on-site examinations and off-site monitoring, and advises them to improve their business activities if necessary. In on-site examinations, the Bank visits the offices of financial institutions that hold current accounts at the Bank, and in off-site monitoring, it analyzes various documents on financial institutions' business activities and interviews their executives and staff members. The Bank also organizes various seminars and publishes research papers in order to support financial institutions' activities that are aimed at improving management of risks and business activities.

However, in order to ensure the stability of the financial system, it is important to adopt not only measures based on the aforementioned 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 in the financial system as a whole. The Bank has been conducting risk analysis and assessment from the macroprudential perspective by taking in the financial system as a whole, while utilizing a wide range of micro information obtained through its activities. It utilizes the results of the risk analysis and assessment for conducting various policies and makes them public in the *Financial System Report*.

Despite the Bank's efforts to identify risks and encourage improvement in financial institutions' business activities from both microprudential and macroprudential perspectives, systemic risk can materialize. The term "systemic risk" is used to describe the possibility that the bankruptcy of a financial institu-

[18] The financial intermediary function is the function of smoothly and efficiently carrying out lending and borrowing of funds by mediating between lenders and borrowers.

[19] The payment and settlement function is the function of transferring funds and delivering securities associated with economic transactions conducted by financial institutions.

tion or disruptions in a particular market or a payment/settlement system will pose risks to other financial institutions, other markets, or ultimately the entire financial system, through a chain of disruptions[20] or dysfunctions.[21] In order to prevent the materialization of such systemic risk, the Bank will, when necessary, exercise its function as the lender of last resort and may provisionally provide necessary funds to financial institutions experiencing a temporary shortage of liquidity.

With the globalization of financial markets, a global approach to ensuring the stability of the financial system has become more important than ever. The Bank coordinates and cooperates with other central banks and the 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. The business operations described above are explained further in Chapter VI, "The Bank of Japan's Business for Ensuring Financial System Stability," and in Chapter VIII, "International Operations and Services."

4. Provision of government-related services

As part of its banking services, the Bank accepts deposits from the government and provides various services related to the payment and receipt of the government's money (treasury fund services), such as the receipt of national taxes and payments for public works and pensions. The Bank also provides services related to the issuance and settlement of JGSs. These services are described in Chapter IX, "Treasury Funds and Japanese Government Securities Services." The Bank's intervention in the foreign exchange market, as the agent of the Japanese government, is explained in Chapter VIII, "International Operations and Services."

Following this chapter, which provides a summary of the book, Chapter

[20] The financial system consists of a network where many financial institutions transfer their funds. As they are involved in various credit/debt relationships, it is always possible for a chain of disruptions to occur.

[21] Systemic risk may materialize in such cases as follows: (1) a case in which a chain of payment failures occurs in payment and settlement systems and among financial institutions; (2) a case in which concern about the business conditions of an individual financial institution spreads to other financial institutions, resulting in a drain on deposits and market funds; and (3) a case in which a cautious attitude of market participants in transactions causes a drain on market liquidity and deterioration in market functioning, and, as a result, such disruptions spread throughout financial markets.

II explains the organization and management of the Bank, including the Policy Board, which is its highest decision-making body. From Chapter III onward, each business operation outlined in this chapter is explained in detail according to the respective field.

Box 1 Central Banks around the World

Most countries have a central bank, but the history of their foundation and organization structure depends on each country.

One prototype of central banks is the Bank of England (BOE), which was founded in 1694, by the subscription of people in the private sector, such as business people, mainly for the purpose of providing loans to the government. Following the depression of 1825, other private-sector banks began to deposit their reserves with the BOE, which led to the establishment of a payment and settlement system centered on the BOE. The Bank Charter Act of 1844 designated the BOE's banknotes as legal tender. In this way, the BOE became a central bank that was established as a result of the concentration of money issuance and interbank settlement in a single bank.

Another type, the Federal Reserve System of the United States, was established in 1913 by law. Under the Federal Reserve System, twelve regional Federal Reserve Banks provide central banking services, and member commercial banks hold stocks in one of the twelve Federal Reserve Banks. In Europe, the European Central Bank (ECB) was established in 1998 under a treaty and statute. In 1999, the eleven member states of the European Union agreed to issue a single currency, the euro. Currently, the ECB is responsible for conducting monetary policy for the member states that have adopted the euro, and the central banks in those countries conduct their operations according to the direction decided by the ECB.

Table for Box 1 The World's Central Banks

Year of foundation	Name	Country (currency)
1668 (the world's oldest)	Sveriges Riksbank	Sweden (krona)
1694	BOE	United Kingdom (pound sterling)
1882	Bank of Japan	Japan (yen)
1913	Federal Reserve System	United States (U.S. dollar)
1998	ECB	17 out of 27 European Union member states[1] (euro)

Note: 1. For the list of member states, see Figure 3-1 in Chapter III.

Box 2 The Three Functions of the Bank of Japan as a Central Bank

The following explains the Bank's functions as a central bank in each of the three categories: as the issuer of banknotes, the bank of banks, and the bank of the government.

(1) Issuer of banknotes

The Bank is the sole issuer of banknotes in Japan; that is, it has a monopoly on the issuance of banknotes. Article 46, paragraph 2 of the Bank of Japan Act stipulates that the banknotes "shall be legal tender and hence shall be used for payment without limits" (see Chapter III). Current banknotes in Japan are referred to as a managed currency that does not require being backed by the specie reserve for its issuance (see Chapter III.A.3).

(2) Bank of banks

The Bank receives deposits from private banks and other financial institutions in the Bank's current accounts (these deposits are referred to as BOJ accounts; see Chapter IV), and makes loans to these institutions (see chapters V and VI). Because the relationship between the Bank and private financial institutions is similar to that between banks and firms or individuals, the Bank is referred to as "the bank of banks." The funds transfer through BOJ account deposits is used to settle various financial transactions between financial institutions. Moreover, BOJ account deposits are used for the final settlement of credits and debts in private payment systems, including the Domestic Funds Transfer System, and the bill and check clearing system.

(3) Bank of the government

The Bank provides not only treasury funds services as its unique services based on relevant acts and ordinances but also some of the government's business services entrusted by the government, such as those related to Japanese government securities and foreign exchange. Therefore, the Bank is referred to as "the bank of the government" (see Chapter IX). However, Article 5 of the Public Finance Act prohibits the Bank from extending credit to the government (lending and underwriting Japanese government securities) in principle. Whether a central bank provides treasury fund services or not differs from country to country. Therefore, from the international perspective, it may not be common for a central bank to play the role of "the bank of the government."

Box 3 Monetary Policy Independence

In many countries, the government used to decide on monetary policy in pursuit of achieving price stability, or strongly influence the central bank's decisions. It is now common as a universal practice, however, for central banks, which are independent from the government, to conduct monetary policy. This major change began in the 1990s. Looking back at the history of central banks, it is easy for those conducting monetary policy to come under pressure to adopt inflationary policies. In fact, there are several cases where an increase in the issuance of money to cover government spending brought about severe inflation. Based on these experiences, in order to decide on monetary policy from a medium- to long-term viewpoint without any influence from the pursuit of short-term benefits, it is now common for central banks to conduct monetary policy independently.

With regard to this point, the Bank of Japan Act stipulates that, "the Bank of Japan's autonomy regarding currency and monetary control shall be respected" (Article 3, paragraph 1). Considering that monetary policy is conducted through the Bank's business operations, the Act also stipulates that, "in implementing this Act, due consideration shall be given to the autonomy of the Bank of Japan's business operations" (Article 5, paragraph 2).

The arrangements for ensuring the autonomy of the Bank are as follows.

- The terms of office for Policy Board members, including the Bank's Governor shall be five years (Article 24 of the Bank of Japan Act). The Policy Board is the highest decision-making body of the Bank.
- The Policy Board members shall not be dismissed against their will for the reason that they have a different opinion from that of the government (Article 25 of the Act).
- The budget for expenses of the Bank, submitted to the Finance Minister for authorization, is limited to those expenses specified by a Cabinet Order as not hampering currency and monetary control (Article 51 of the Act).
- Article 5 of the Public Finance Act prohibits the Bank from directly underwriting Japanese government securities in principle (see Section C in Chapter IX for the prohibition against directly extending credit to the government).

On the other hand, to ensure that the Bank's monetary policy and the basic stance of the government's economic policy are compatible, the Bank of Japan Act stipulates that the Bank shall "always maintain close contact with the government and exchange views sufficiently" (Article 4 of the Act). The Act also stipulates that representatives of the government may, when necessary, attend the meetings of the Policy Board during which monetary policy is decided (Monetary Policy Meetings), and express their opinions, submit proposals, and request that the Board postpone a vote on proposals until the next Board meeting (Article 19 of the Act). However, the government representatives have no votes in the monetary policy decision. Considering the opinions they express, the decisions are made by a majority vote of the nine Members of the Policy Board.

Box 4 Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan

In the global financial crisis that emerged in the summer of 2007, the subprime mortgage problem, which began in the United States, became acute upon the involvement of Europe; this was first seen in the difficulty in funding conditions of European financial institutions. In addition to Europe and the United States, Japan also became caught up in the Lehman shock (described below), with global financial markets and financial systems malfunctioning, and economic activity taking a sharp plunge. The Bank and other central banks, in response to the situation, took various counter-measures in close cooperation. This box briefly explains the characteristics of the crisis, followed by policy measures taken by the Bank to counteract the crisis.

From 2002 to the summer of 2007, global financial activities, such as lending, expanded enormously, resulting in financial excesses featuring borrowing beyond solvency and excessive risk-taking. The financial crisis occurred in the process of the unwinding of this financial excess, triggered by the escalation of the subprime mortgage problem in the United States. In the crisis, the following three factors amplified the financial turmoil.

First, the pace of expansion in the flow of funds was much more rapid than that of growth in economic activity, resulting in the expansion of the global flow of funds at a faster pace than economic growth. As a result, market liquidity expanded significantly, and, accordingly, the subsequent contraction in liquidity and turmoil in financial markets became severe.

Second, financial institutions acting as intermediaries of the global flow of funds expanded their businesses, and came to take on higher liquidity risk.[1] In particular, European financial institutions significantly expanded their businesses by using short-term U.S. dollar funds raised from other banks to invest in long-term financial products for nonfinancial institutions. As a result, the liquidity risk intensified because of the maturity mismatch between short-term funding and long-term investment.

Third, over the decade leading up to 2007, the global flow of funds expanded along with the increase in financial network density. The network among banking sectors had become closely linked in terms of both the number of counterpart countries and the value of financial transactions. Therefore, the stronger links in the financial network contributed to effectively allocating the gain from the economic growth throughout the world until 2007. Conversely, in the financial crisis since 2007, the shock of the turmoil in the U.S. subprime mortgage loan market quickly spread beyond U.S. borders throughout the network, leading to the difficulty in U.S. dollar funding for European financial institutions.

In response to the sharp decline in the liquidity of U.S. dollar funds in each country beyond the U.S. border, the central banks of various countries closely cooperated with one another and took coordinated action. For example, as a measure to counteract the crisis, they raised U.S. dollar funds from the Federal Reserve and provided the funds to their own financial markets. Supported by such efforts of central banks, in the middle of 2008, global financial markets gradually regained stability.

However, triggered by the failure of Lehman Brothers, one of the large investment banks in the United States, in the autumn of 2008 (referred to as the Lehman shock), the turmoil in global financial markets spread quickly, affecting Japan and emerging economies as well. Especially in European and U.S. financial markets, since financial institutions, as market participants, grew concerned about the default risk of their counterparties and became cautious about lending to other financial institutions, liquidity evaporated and anxiety about financial systems intensified sharply. In addition to the concern over liquidity, financial institutions and investors — concerned about the capital shortage caused by huge losses from securitized products and other financial products — lost their risk appetite and raised their standards for lending and investment. As a result, the credit intermediary function related to corporate finance, such as corporate bond and CP markets as well as bank loans, deteriorated, making funding difficult for firms. The financial contraction worked as a strong restraint on economic activity. With the instability of the financial system as the background, anxiety about the financial system intensified globally, and financial and economic activities deteriorated while creating a negative feedback effect between them.

Based on such a situation, central banks took several measures, including: (1) the lowering of the policy interest rate; (2) the provision of liquidity of their own currency and U.S. dollar funds to ensure the stability of financial markets; and (3) the expansion of the range of assets in outright purchases of their market operations aimed at recovering the financial market function and the financial intermediary function of financial institutions (referred to as "credit easing").

In Japan, especially since the Lehman shock, it became extremely difficult to issue corporate bonds and CP, and the function of the U.S. dollar-yen swap market, where Japanese financial institutions raised U.S. dollar funds, seriously deteriorated. Under these circumstances, the Bank conducted various measures to support the Japanese economy from the monetary policy side. These measures included: (1) the lowering of the policy interest rate in two stages — in October and December 2008 — to 0.1 percent; (2) measures to ensure the stability of financial markets; and (3) measures to facilitate corporate financing (see Table below).

Specifically, in order to ensure financial market stability, the Bank provided ample liquidity to financial markets by actively utilizing various funds-supplying operations and by expanding the range of corporate debts as its eligible collateral for market operations. In addition, the Bank raised U.S. dollar funds from the Federal Reserve based on the temporary U.S. dollar liquidity swap agreement, and directly provided the funds by conducting a U.S. dollar funds-supplying operation against pooled collateral[2] in coordination with other central banks (see Section F in Chapter V).

In order to facilitate corporate financing, the Bank introduced: (1) special funds-supplying operations to facilitate corporate financing for extending loans to the counterparties of the operations up to three months for an unlimited amount within the value of the corporate debt the counterparties submitted to the Bank as collateral; and (2) outright purchases of CP[3] and corporate bonds[4] directly from the counterparties of the operations. The outright purchases of CP and corporate bonds were exceptional as central bank policy measures in that the Bank itself purchased the debt of private firms.[5] Therefore, the Bank clarified the basic principles regarding the outright purchases of corporate financing instruments, and conducted these operations considering the following: (1) preventing the purchases from functioning as arbitrary funds allocation among individual firms; (2) conducting the purchases only for a required period and in appropriate scales; and (3) ensuring the Bank's financial soundness.[6]

Meanwhile, in terms of ensuring financial system stability, the Bank also conducted measures that were unconventional for a central bank, while giving due consideration to maintaining its own financial soundness. Specifically, in February 2009, the Bank decided to resume purchases of stocks held by financial institutions in order to encourage them to cope with the risk associated with stockholdings, which is a critical business challenge for financial institutions in Japan. The Bank continued these purchases until the end of April 2010. In April 2009, the Bank decided to provide subordinated loans to financial institutions. This measure was aimed at ensuring the smooth functioning of financial intermediation, by enabling Japanese financial institutions to maintain sufficient capital bases. The Bank held four auctions for subordinated loans during fiscal 2009 (see Chapter VI.D.2).

Notes: 1. For details on liquidity risk, see Figure 6-1 and Chapter VI.F.3.b.
2. The temporary U.S. dollar liquidity swap agreement with the Federal Reserve and the U.S. dollar funds-supplying operation against pooled collateral expired once in February 2010. However, responding to the intensified strain in U.S. dollar financial markets in Europe due to the fiscal problem in Greece, the Bank resumed them as temporary measures in May 2010.
3. The CP to be purchased were those eligible to be pooled collateral of the Bank, rated a-1 or higher, and issued before or on the auction date with a remaining maturity of up to three months.
4. The corporate bonds to be purchased were those eligible as the Bank's collateral, rated A or higher, with a residual maturity of up to one year at the end of the month in which the purchase was conducted.
5. For the Bank's assets and capital base, see Box 4 in Chapter II, "Basic Accounting Principles for the Bank of Japan's Balance Sheet."
6. Outright purchases of CP and corporate bonds, and special funds-supplying operations to facilitate corporate financing, which had been introduced as temporary measures, expired one by one from the end of 2009 to the end of March 2010, as financial markets gradually regained stability.

Table for Box 4 Global Financial Crisis and Policy Measures Taken by the Bank

August 9, 2007	- BNP Paribas froze its affiliated funds (the so-called BNP Paribas shock).
March 16, 2008	- JPMorgan Chase acquired Bear Stearns to rescue it from bankruptcy.
September 15, 2008	- Lehman Brothers failed (Lehman Brothers Holdings filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. The failure is referred to as the Lehman shock). - Bank of America announced the acquisition of Merrill Lynch.
September 16, 2008	- The U.S. government announced the bailout of American International Group (AIG), the largest insurance company in the United States.
September 18, 2008	- The Bank, together with other central banks, announced coordinated measures (the conclusion of a U.S. dollar swap agreement with the Federal Reserve, or an increase in the maximum aggregate amount of the U.S. dollar swap facility) designed to address the elevated pressures in U.S. dollar short-term funding markets. The Bank decided to conclude a U.S. dollar swap agreement with the Federal Reserve, and introduce a U.S. dollar funds-supplying operation (both the agreement and operation expired in February 2010 but resumed in May 2010).

September 29, 2008	- The Bank, together with other central banks, announced additional coordinated actions (an increase in the maximum aggregate amount of the U.S. dollar swap facility) to expand the capacity to provide U.S. dollar liquidity. The Bank expanded the U.S. dollar funds-supplying operation.
October 14, 2008	- The Bank introduced a U.S. dollar funds-supplying operation against pooled collateral, whereby funds are provided at a fixed rate set for each operation for an unlimited amount against pooled collateral. - The Bank decided to suspend selling stocks purchased from financial institutions on the stock exchanges.
October 31, 2008	- The Bank decided to lower the policy interest rate from 0.5 percent to 0.3 percent and introduce a complementary deposit facility.
December 2, 2008	- The Bank introduced measures of market operations to facilitate corporate financing.
December 19, 2008	- The Bank decided to lower the policy interest rate from 0.3 percent to 0.1 percent, and decided on additional measures such as increasing the amount of outright purchases of Japanese government securities and introducing a special funds-supplying operation to facilitate corporate financing (the operation expired at the end of March 2010).
January 22, 2009	- The Bank announced the basic principles regarding outright purchases of corporate financing instruments and decided on measures such as introducing outright purchases of CP (the purchases expired at the end of December 2009).
February 3, 2009	- The Bank resumed purchases of stocks held by financial institutions (the purchases expired at the end of April 2010).
February 19, 2009	- The Bank decided to expand measures to facilitate corporate financing (such as by introducing outright purchases of corporate bonds which expired at the end of December 2009).
March 18, 2009	- The Bank increased the amount of outright purchases of Japanese government securities.
April 10, 2009	- The Bank decided to provide subordinated loans for financial institutions (this measure expired at the end of March 2010).
May 22, 2009	- The Bank decided to accept eligible foreign bonds as collateral (so-called cross-border collateral) for the Bank's market operations.

Chapter II Organization and Management of the Bank

Important matters concerning the business operations of the Bank of Japan are decided by the Policy Board, and the Bank executes its business operations in accordance with the policy formulated by the Policy Board. This chapter explains the Bank's organization and management, including the Policy Board.

A. The Organization of the Bank of Japan

The Bank is a juridical person authorized by the government of Japan. The Bank has 100 million yen in capital, 55 percent of which is provided by the government, with the remaining 45 percent covered by the private sector.[1]

The organizational structure of the Bank is established based on the Bank of Japan Act (hereafter, the Act), by-laws, and other internal rules. The Bank's officers include the Governor, the Deputy Governors, Members of the Policy Board, Auditors, Executive Directors, and Counsellors. The Policy Board, the Bank's highest decision-making body, is made up of the Governor, two Deputy Governors, and six Members of the Policy Board. In order to accomplish its duty as the central bank, the Bank has a head office (twelve departments, two offices, and one institute[2]), 32 branches, and 14 local offices nationwide (including a computer center and a banknote operations center) and seven overseas representative offices (see Figure 2-1).

The Bank's branches are located throughout the country to conduct the various business operations explained in Chapter I. One of their major operations is the maintenance of the smooth circulation of banknotes. The branches distribute banknotes to private financial institutions and receive from them the banknotes that are not immediately needed for payment to individuals and firms or those that are too damaged or worn for further circulation. The branches also

[1] The Bank issues subscription certificates, which are traded on the Jasdaq Securities Exchange, one of the Japanese stock markets. However, holders of these securities do not have the right to participate in the Bank's management and there are no such meetings as shareholders meetings.

[2] The Bank also has a Management Committee and a Compliance Committee. The members of the Management Committee include the Deputy Governors and Executive Directors. The Management Committee examines and manages Bank-wide issues regarding the Bank's business operations. The members of the Compliance Committee include members appointed from among the Deputy Governors and Executive Directors by the Governor, the Director-General of the Internal Auditors' Office, and one or more legal experts. The Compliance Committee ensures that the Bank's officers and employees perform their duties fairly and in compliance with the relevant laws and regulations.

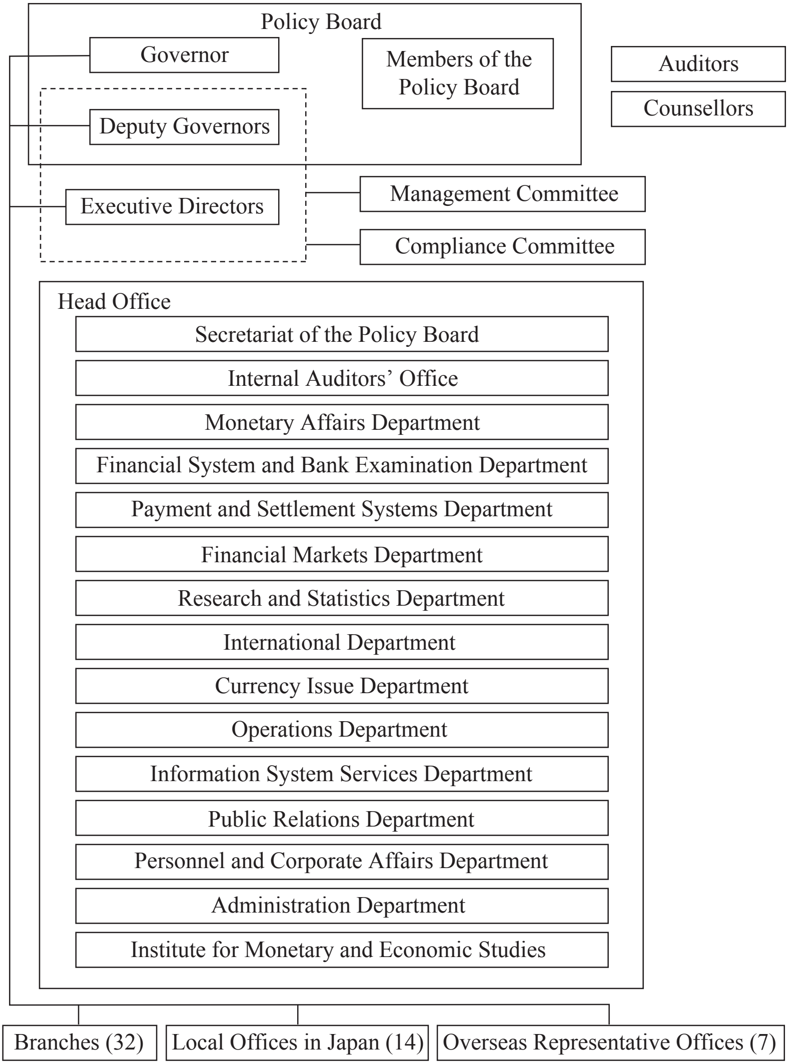
provide over-the-counter services related to treasury funds and Japanese government securities (JGSs).[3] Moreover, the Bank's branches assess the condition of regional financial institutions in their respective regions through interviews with the representatives. The Bank's branches and local offices perform analyses of recent economic and financial developments in the region and release part of their research.

[3] Treasury funds and JGS services entail nationwide transactions with individuals and firms, as well as the government; therefore, private financial institutions across the country serve as the Bank's agents. These financial institutions are entrusted to provide treasury funds and JGS services. They have indications, such as "agent of the Bank of Japan," visible from outside.

A. The Organization of the Bank of Japan

Figure 2-1 Organization of the Bank of Japan

(1) Organization Chart of the Bank



(2) Roles of the Bank's Officers

The Policy Board (nine persons)	(1) The Policy Board is the Bank's highest decision-making body. It decides matters relating to monetary policy, and sets the basic principles for carrying out the Bank's business operations. (2) The Policy Board oversees the fulfillment of the duties of the Bank's officers, except for Auditors and Counsellors. (3) The chairman of the Policy Board is elected by the Board members from among themselves.
Governor	(1) Represents the Bank and exercises general control over the Bank's business operations in accordance with decisions made by the Policy Board. (2) Is appointed by the Cabinet, subject to the consent of the House of Representatives and the House of Councillors. (3) The term of office is five years.
Deputy Governors (two persons)	(1) Represent the Bank and assist the Governor, in accordance with decisions made by the Governor. (2) Act for the Governor whenever the Governor is prevented from attending to his/her duties. (3) Perform the Governor's duties during a vacancy in the office of the Governor. (4) Are appointed by the Cabinet, subject to the consent of the House of Representatives and House of Councillors. (5) The term of office is five years.
Members of the Policy Board (six persons)	(1) Are appointed by the Cabinet, subject to the consent of the House of Representatives and the House of Councillors. (2) The term of office is five years.
Auditors (three or fewer persons)	(1) Audit the business operations of the Bank. (2) May, when they find it necessary based on the audit results, submit their opinions to the Minister of Finance, the Prime Minister (the Commissioner of the Financial Services Agency when the Prime Minister delegates such authority), or the Policy Board. (3) Are appointed by the Cabinet. (4) The term of office is four years.

Executive Directors (six or fewer persons)	(1) Assist the Governor and the Deputy Governors, in accordance with decisions made by the Governor. (2) Act for the Governor whenever the Governor and Deputy Governors are prevented from attending to their duties. (3) Perform the Governor's duties during a vacancy in the office of the Governor and Deputy Governors. (4) Are appointed by the Minister of Finance on the recommendation of the Policy Board. (5) The term of office is four years.
Counsellors (a few persons)	(1) Give advice to the Board when consulted on any important matters concerning the Bank's business operations; may also express their opinions to the Policy Board when they find it necessary. (2) Are appointed by the Minister of Finance on the recommendation of the Policy Board. (3) The term of office is two years.

(3) Functions of Departments and Offices of the Bank

Committee/ department/ office	Business operations	Related chapters
Management Committee	Examines and manages Bank-wide issues regarding the Bank's business operations. The committee consists of Deputy Governors and Executive Directors.	Chapter II
Compliance Committee	Ensures that the officers and employees perform their duties fairly and in compliance with the relevant laws and regulations. The committee consists of members appointed from among the Deputy Governors and Executive Directors by the Governor; the Director-General of Internal Auditors' Office; and one or more legal experts from outside the Bank.	Chapter II

Secretariat of the Policy Board	(1) Arranges proceedings for Policy Board meetings; (2) liaises with the Diet and the media; (3) reviews the content and wording of important documents, and offers a legal perspective on them; (4) plans and formulates measures relating to the Bank's business operations and organizational management; (5) handles the Bank's budget, settlement, and accounting; (6) provides administrative services for the Bank's officers; and (7) supports the Auditors in auditing.	chapters I and II
Internal Auditors' Office	Audits the Bank's business operations.	—
Monetary Affairs Department	Plans and formulates monetary policy measures.	chapters I, II, and V
Financial System and Bank Examination Department	(1) Plans and formulates measures that contribute to the maintenance of an orderly financial system; (2) conducts on-site examinations and off-site monitoring of financial institutions that hold current accounts at the Bank; (3) judges financial institutions' eligibility to hold current accounts at the Bank and to have access to its lending facilities; and (4) determines the specifics of credit extension and discounting of bills by the Bank.	Chapter VI
Payment and Settlement Systems Department	Plans and formulates measures in the following areas: (1) policy issues relating to the payment and settlement system; (2) financial institutions' access to payment and settlement services provided by the Bank; and (3) the Bank's business continuity planning.	Chapter IV
Financial Markets Department	(1) Determines the specifics of daily market operations; (2) conducts foreign exchange interventions; (3) works toward improving the functioning of Japanese financial markets, including the foreign exchange market; and (4) monitors and analyzes developments in financial markets in Japan as well as overseas, including foreign exchange markets.	chapters V and VIII
Research and Statistics Department	(1) Conducts research on the domestic economy and fiscal situation; and (2) compiles and publishes statistics.	Chapter VII

International Department	(1) Liaises and coordinates with overseas central banks and international organizations; (2) makes arrangements for investment in yen assets by overseas central banks, and conducts operations aimed at providing international financial support; (3) manages foreign currency assets held by the Bank; (4) conducts research on global economic and financial conditions; and (5) compiles Japan's balance of payments and other such statistics.	chapters VII and VIII
Currency Issue Department	(1) Conducts planning and operations related to banknotes; and (2) conducts payment/receipt of coins, and examines and takes custody of them.	Chapter III
Operations Department	Conducts banking operations, including: (1) discounting of bills; (2) credit extension; (3) purchasing/selling of bills, Japanese government securities, and other securities; (4) borrowing/lending of securities with cash collateral; (5) accepting of deposits; (6) domestic funds transfers; (7) handling of treasury funds; and (8) operations relating to stocks purchased by the Bank.	chapters IV, V, and IX
Information System Services Department	Manages the development and operation of the Bank's computer systems.	Chapter IV
Public Relations Department	(1) Is responsible for public relations; (2) administers the Bank's library; and (3) works toward raising the public's awareness and understanding of financial and economic issues.	Chapter II
Personnel and Corporate Affairs Department	Handles business in corporate affairs, personnel policy issues relating to recruitment, assessment of job performance, career planning and training, wages and salaries, and the Bank's code of ethics.	—
Administration Department	Conducts administrative operations relating to the Bank's facilities, supplies, security, and transportation.	—
Institute for Monetary and Economic Studies	(1) Studies theoretical, institutional, technological, and historical aspects of monetary and economic issues; (2) collects, preserves, and exhibits historical materials and documents related to monetary and economic issues; and (3) exchanges views with academics.	Chapter VII

Branches[1] (32)	The branches mainly conduct: (1) business operations relating to currency issues, such as issuance, circulation, and maintenance of banknotes, as well as payment/receipt and examination of banknotes and coins; (2) banking operations, such as discounting of bills, extension of loans, services through deposit accounts, and services relating to treasury funds; and (3) research and analysis on the economic and financial situation in each area.	chapters II–VII and IX
Local Offices in Japan[2] (14)	The computer center operates the Bank's computer systems, and the banknote operations center deals with part of the operations of the Head Office relating to banknotes. The other local offices handle some of the operations of the Head Office and branches.	chapters II–IV and VII
Overseas Representative Offices[3] (7)	The overseas representative offices perform a liaison function, gather information, and conduct research.	chapters II, VII, and VIII

Notes: 1. The 32 branches are located in the following cities: Kushiro, Sapporo, Hakodate, Aomori, Akita, Sendai, Fukushima, Maebashi, Yokohama, Niigata, Kanazawa, Kofu, Matsumoto, Shizuoka, Nagoya, Kyoto, Osaka, Kobe, Okayama, Hiroshima, Matsue, Shimonoseki, Takamatsu, Matsuyama, Kochi, Kitakyushu, Fukuoka, Oita, Nagasaki, Kumamoto, Kagoshima, and Naha.

2. The 14 local offices are located in the following cities: Mito, Obihiro, Asahikawa, Morioka, Yamagata, Toyama, Fukui, Nagano, Tottori, Tokushima, Saga, Miyazaki, Fuchu (Tokyo), and Toda (Saitama). The computer center of the Bank is in Fuchu, and the banknote operations center of the Bank is in Toda.

3. Overseas representative offices are located in New York, Washington, D.C., London, Paris, Frankfurt, Hong Kong, and Beijing.

(4) Head office, Branches, and Local Offices

(5) Overseas Representative Offices

B. The Policy Board

The Policy Board is the Bank's highest decision-making body. It is made up of the Governor, two Deputy Governors, and six Members of the Policy Board. Decisions are made by votes after thorough discussion among Policy Board members. The chairman of the Policy Board is elected by Policy Board members from among themselves. Since the start of the current Policy Board system in 1998, the Governor of the Bank has been serving as the chairman. The nine members of the Policy Board are appointed by the Cabinet, subject to the consent of the House of Representatives and the House of Councillors (Article 23 of the Act). The term of office is five years for each member (Article 24 of the Act), and the members are not dismissed against their will during their terms of office (Article 25 of the Act).

Important matters concerning the Bank's business operations are decided by a majority of votes after discussions at Policy Board meetings. Matters that require a decision by the Policy Board are stipulated by the Act. They include various matters, such as the policy, business management, and internal management of the organization (see Figure 2-2 and Box 1, "The Bank of Japan's Strategic Priorities").[4] Policy Board meetings held for decisions on matters related to monetary policy (Article 15, paragraph 1 of the Act) are called Monetary Policy Meetings (MPMs). Policy Board meetings held for decisions on other matters stipulated in Article 15, paragraph 2 of the Act are called regular Policy Board meetings. MPMs are held once or twice a month,[5] whereas regular Policy Board meetings are held twice a week.

MPMs are different from regular Policy Board meetings in terms of procedures. First, discussions at an MPM are made public later in the form of minutes and transcripts (see C.1 in this chapter). Second, government representatives can, when necessary, attend and make remarks at MPMs and submit proposals, or request a postponement of a Board vote on a proposal (Article 19 of the Act). Third, the schedule of MPMs for the coming twelve months is made public in June and December.

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[4] The Governor, the Deputy Governors, and Members of the Policy Board express their views and opinions as independent members at Policy Board meetings. The Governor and the Deputy Governors are responsible for carrying out decisions of the Policy Board, together with the Executive Directors and the staff. The Members of the Policy Board are full-time officers. They attend Policy Board meetings with the Governor and the Deputy Governors to make important strategic decisions on matters including various policies, business operations, and internal management of the organization.

[5] When the chairman finds it necessary, or when one-third or more of the total incumbent Policy Board members find it necessary and request the chairman to call a meeting, the Bank can hold unscheduled MPMs (Article 17, paragraph 3 of the Act).

Figure 2-2 Matters That Must be Decided by the Policy Board under Article 15 of the Bank of Japan Act

Matters related to monetary policy (Paragraph 1)	Other matters (Paragraph 2)
- The basic loan rate - The reserve requirement ratio - The guidelines for money market operations - Monetary policy measures, e.g., operation schemes and types of collateral - The Bank's view on economic and financial developments	- Issues related to the financial system, e.g., special loans and on-site examination policy - International financial business, e.g., providing credit to foreign central banks - Internal management, e.g., budget and organization - Reports and rules, e.g., reports to the Diet and by-laws - Other matters deemed necessary by the Policy Board

C. Communication with the Public on Monetary Policy and Other Business Management

1. Communication on monetary policy

Regarding monetary policy, Article 3, paragraph 1 of the Bank of Japan Act stipulates that the Bank's autonomy regarding currency and monetary control shall be respected. On the other hand, considering the influence of monetary policy on the daily lives of the public, Article 3, paragraph 2 of the Act stipulates that the Bank shall endeavor to clarify to the citizen the content of its decisions, as well as its decision-making process, regarding currency and monetary control (see Box 3 for Chapter I, "Monetary Policy Independence").

In order to meet this requirement of accountability, Article 20 of the Act requires the Bank to promptly publish minutes describing an outline of the discussion at the MPMs, and to publish transcripts of each MPM after a certain period of time following the meeting.[6] Further, pursuant to Article 54 of the Act, the Bank submits the *Semiannual Report on Currency and Monetary Control* to the Diet and endeavors to explain it to the Diet.

[6] The Bank releases the minutes of an MPM after they are approved at the following MPM. In the case of an unscheduled MPM, the approval of the minutes may take place at the MPM following the next MPM. The transcript of an MPM is made public ten years after the MPM. It shows the details of each participant's remarks in the MPM.

It is important to announce the Bank's outlook for economic activity and prices, and its basic stance for monetary policy, in order to enhance the effectiveness of monetary policy as well as to ensure the accountability of the Bank. From this viewpoint, the Bank takes various measures to accomplish these duties (see Box 2, "The Bank of Japan's Measures to Strengthen Communication on Monetary Policy").

First, the Bank announces the framework of monetary policy. Based on this framework, the Bank releases a public statement after each MPM, which contains a summary of the assessment of economic activity and prices based on "two perspectives," and the Bank's thinking on the conduct of future monetary policy, in addition to the policy decisions made at MPMs, including the guidelines for money market operations (see Chapter I.B.2). At the MPMs in April and October, the Bank decides the text of *Outlook for Economic Activity and Prices* (hereafter, "the Outlook Report"), which indicates the Bank's careful assessment of the outlook and risk factors for economic activity and prices over the coming two years or so, as well as its views on the future course of monetary policy.[7] At the MPMs in January and July, the Bank makes an interim assessment of upside and downside risks concerning the outlook laid out in the latest Outlook Report based on the developments in economic activity and prices since the release of the last report. The interim assessment is included in the statement released after the relevant MPM. The Governor of the Bank holds a press conference as Chairman of the Policy Board after each MPM on the day the policy decision is made, in order to explain the details of the decision and the thinking behind the decisions. A detailed background of the Bank's assessment of economic activity and prices is explained in the *Monthly Report of Recent Economic and Financial Developments*.

2. Accountability for policies and business operations other than monetary policy

The Bank, as a public organization, conducts various public relations activities to ensure the accountability of its policies and business operations. The Bank discloses its financial statements (see Box 3, "The Bank of Japan's Accounts," and Box 4, "Basic Accounting Principles for the Bank of Japan's Balance Sheet") and publishes an outline of business operations every business year, in accordance with Articles 52 and 55 of the Act.

The Bank also makes public the decisions made by the Policy Board in

[7] The April issue of the Outlook Report covers the Bank's outlook for the current and the following fiscal years. The October issue covers the fiscal year following the next year as well.

the Japanese-language *Nippon Ginko Seisaku Iinkai Geppo* (Monthly Report of the Policy Board of the Bank of Japan) and other materials.

Moreover, the Bank releases various kinds of information on its website,[8] including the data of daily market operations, projections and final figures of changes in current account balances at the Bank, payment and settlement statistics, the principal accounts, the standards for selecting counterparties for its operations, and the annual on-site examination policy. The thinking regarding, and the details of, the Bank's policies and business operations are communicated to the public through press conferences and speeches[9] by the Governor, the Deputy Governors, and Members of the Policy Board, as well as through press conferences by general managers of the Bank's branches, public relations activities, and discussions with a wide range of local business managers at its Head Office, branches, and local offices (see Figure 2-3).

Figure 2-3 Releases and Publications on Monetary Policy and the Bank's Business Operations[1]

Title	Frequency of publication	Contents
Announcement of Monetary Policy Meeting Decisions	After each meeting	Announcement of decisions on matters related to monetary policy, including the guidelines for money market operations decided at each Monetary Policy Meeting (MPM). Released immediately after each meeting.
Minutes of Monetary Policy Meetings	After each meeting	Summary of discussions held at each MPM. The minutes of each MPM are approved at the next respective MPM. In some cases of unscheduled MPMs, the minutes are approved at the MPM following the next one.
Transcripts of Monetary Policy Meetings[2]	Ten years after each meeting	Transcripts of discussions held at each MPM. The transcripts of each meeting are released ten years after the meeting concerned.

[8] The Bank's website can be viewed at http://www.boj.or.jp/en/index.htm. The Bank also provides various kinds of information through the websites of the Institute for Monetary and Economic Studies (http://www.imes.boj.or.jp/english/index.html) and of the Bank's branches and local offices (the sites of branches and local offices are available only in Japanese).

[9] The Bank works to facilitate the use of its website for overseas viewers by providing important information, such as decisions made in MPMs and speeches by the Governor, in English, at the same time as the release of the Japanese.

Monthly Report of Recent Economic and Financial Developments	Monthly	Analyses of the economic and financial developments on which decisions on money market operations are based. The Japanese original and the English translation for summary are released on the last day of the first MPM of the month. The English translation of the full text is released on the next business day after the release of the summary.
Outlook for Economic Activity and Prices (Outlook Report)	Semiannually	The Bank's outlook for economic activity and prices as well as risks concerning the outlook. The report also provides the Policy Board members' forecasts for real GDP, the domestic corporate goods price index, and the consumer price index as a reference. At the end of April and October, "The Bank's View" of the report is released after the MPM on the same day, and the full text is released on the following business day. In January and July, the Bank makes interim assessments of the outlook laid out in the latest Outlook Report.
Nippon Ginko Seisaku Iinkai Geppo[2] (Monthly Report of the Policy Board of the Bank of Japan)	Monthly	Monthly report of activities by the Policy Board, including decisions on monetary policy at MPMs and on other matters.
Semiannual Report on Currency and Monetary Control	Semiannually	Report to the Diet on the Bank's monetary policy as specified in Article 54 of the Bank of Japan Act.
Outline of Business Operations[3]	Annually	Outline of the Bank's business operations in each fiscal period as specified in Article 55 of the Bank of Japan Act.
Annual Review	Annually	Review of an outline of the Bank's organization, activities, financial statements, and other materials.
Statement by the Governor	Ad hoc basis	The Bank's view on monetary policy and the financial system at important junctures.
Summary of the Press Conferences by the Bank's Officers[2]	After each press conference	Summary of the press conferences by the Bank's officers.

Speeches by the Bank's Officers	After each speech	Speeches by the Bank's officers.
Financial Statements of the Bank of Japan	Semiannually	Report on the Bank's balance sheet (assets, liabilities, and capital accounts) and the statement of income during the period concerned.
Bank of Japan Accounts	Three times a month	Report on the amount outstanding of major items of the Bank's balance sheet (assets, liabilities, and capital accounts), at the end of the ten-day period concerned.

Notes: 1. Most of the data and reports are available on the Bank's website (http://www.boj.or.jp/en/index.htm).
2. Available only in Japanese.
3. A summary of the text is available in English on the Bank's website as the *Annual Review*.

3. Other public relations activities

The Bank's other public relations activities include the dissemination of information on financial and economic matters as well as the announcement of the Bank's policies and business operations. For instance, the Bank compiles and releases statistics such as the *Tankan* (Short-Term Economic Survey of Enterprises in Japan) and the Corporate Goods Price Index, as well as statistical publications such as the *Financial and Economic Statistics Monthly* and the *Price Indexes Quarterly*. The Bank also releases various reports such as the *Financial Markets Report*, the *Financial System Report*, the *Payment and Settlement Systems Report*, and such market indicators as "Short-Term Money Market Rates" and "Foreign Exchange Rates," which are all available on its website. In addition, the Bank provides introductory explanations related to financial and economic activity via its website and public relations magazines (see Figure 2-4), and responds to inquiries and questions from the public by telephone and e-mail. Furthermore, the Bank offers in-house tours of the Bank's Head Office (reservations required) and rental service of an introductory video about the Bank.

The Bank works to hear a wide range of views regarding its policies and business operations. As part of these activities, the Bank compiles and releases the *Opinion Survey on the General Public's Views and Behavior*[10] and uses the results to improve its conduct of policies and business operations. This survey

[10] This survey has been conducted since 1993 with a nationwide sample of 4,000 individuals who are at least 20 years of age, and the results are released on the Bank's website.

is designed to gain insight into the public's impression of economic conditions, household circumstances, and perception of price levels, as well as the degree of credibility of the Bank and the degree of recognition of the Bank's policies and business operations among the public.

Moreover, the Bank works to enhance financial literacy by providing useful information on financial and economic matters on its website and by hosting, for example, educational events such as essay competitions for students. In addition, the Bank fully supports the activities of the Central Council for Financial Services Information,[11] including various projects on financial literacy education and provision of information on financial and economic activity by giving lectures at schools.

[11] The council was originally established in 1952 as the Central Council for Savings Promotion, and changed its name in 1988 to the Central Council for Savings Information. In 2001, it changed its name again to the Central Council for Financial Services Information. The council's secretariat is located in the Bank's Public Relations Department. The members of the council include representatives from financial and industrial organizations, the media, consumer groups, other academic circles, and the Deputy Governor of the Bank. The details of activities of the council, with the nickname *Shiruporuto* (tips for money at the port of discovery), are available at http://www.shiruporuto.jp/e/index.html (available only in Japanese).

Figure 2-4 Other Publications[1]

Title	Contents and frequency of publication
Nichigin[2]	The Bank's public relations magazine issued quarterly in late March, June, September, and December, containing articles on the Bank's business operations and history, information gathered through the Bank's office network, and explanations concerning finance and the economy.
Bank of Japan: Its Functions and Organization[3]	This pamphlet introduces the Bank's role and business operations.
Atarashii Nihonginkouken no Gizouboushigijutsu[2] (Anti-counterfeiting Technologies for New Bank of Japan Notes)	This pamphlet describes the features of Bank of Japan notes, except for the 2,000-yen notes, e.g., anti-counterfeiting measures.
Okane no Hanashi Arekore[2] (Money Trivia)	This pamphlet describes trivia on money.
Currency Museum	This pamphlet introduces visitors to the exhibits in the Bank's Currency Museum.
The Bank of Japan Main Building	This pamphlet introduces visitors to the history and best places to see in the main building of the Head Office (completed in 1896; an important national cultural property).
Bank of Japan: The Underground Vault in the Main Building	This pamphlet introduces visitors to the history of the vault and best places to see in the basement of the Head Office.
Kinyuu Shiryokan[2] (The Bank of Japan Otaru Museum)	This pamphlet introduces the best places to see in the Bank of Japan Otaru Museum, a former branch of the Bank in Otaru City, Hokkaido.

Notes: 1. For the Bank's releases of statistics and other materials, see Chapter VII.
2. Available only in Japanese.
3. This pamphlet is designed for visitors who are high school students or older. The pamphlet designed for visitors who are elementary or junior high school students is available only in Japanese.

Box 1 The Bank of Japan's Strategic Priorities

The Bank of Japan formulates and releases "The Bank of Japan's Strategic Priorities,"[1] which describes the basic principles for its business operations and organizational management. The Strategic Priorities describe how the Bank would contribute to the sound development of Japan's economy, and to this end, how it would address management issues. The Bank has designed the Strategic Priorities with a rolling three-year horizon to keep a medium-term perspective and respond flexibly to any changes in circumstances, so as to ensure that its business operations and organizational management are conducted in a timely manner. At the end of every fiscal year, the Bank conducts a performance review and then updates the Strategic Priorities accordingly, resetting the horizon to cover the next three years.

The contents of "The Bank of Japan's Strategic Priorities for Fiscal 2010–2012" are listed below.

I. Introduction
II. Background
III. Management Principles
  A. Stability and Efficiency in All Business Operations
  B. Learning in Action
  C. Enhancement of Communication Channels
IV. Issues and Action Plans
  A. Matters Relating to the Conduct of Monetary Policy
  B. Matters Relating to the Financial System
  C. Matters Relating to Payment and Settlement Systems and Market Infrastructure
  D. Matters Relating to the Regional Economic and Financial Environment
  E. Matters Relating to Banknotes, Treasury Funds, and Japanese Government Securities (JGS) Services
  F. Matters Relating to Communication with the Public
V. Organizational Management
  A. Stable and Efficient Business Operations
  B. Human Resources
  C. Budget for Expenses
  D. Performance Reviews
Attachment: Budget for Expenses for Fiscal 2010

Note: 1. The full texts in Japanese and summaries in English are available on the Bank's website.

Box 2 The Bank of Japan's Measures to Strengthen Communication on Monetary Policy

The Bank of Japan works to strengthen its communication on monetary policy in order to enhance the effectiveness of its policy measures, and to fulfill its accountability. A time-series list of measures taken by the Bank to this end is given below.

December 1997	- The Bank releases the new framework of Monetary Policy Meetings (MPMs) with a review of its decision-making process.
April 1998	- The revised Bank of Japan Act is enforced. It stipulates the publication of the minutes and transcripts of MPMs.
September 2000	- The Bank brings forward the release schedule of the minutes of the MPMs and the *Monthly Report of Recent Economic and Financial Developments*.
October 2000	- The Bank releases "On Price Stability," which outlines the discussions of Policy Board members on issues related to price stability. - The Bank starts releasing the *Outlook and Risk Assessment of the Economy and Prices* (the Outlook Report)[1] semiannually, in April and October. In the report, the Bank starts to make public the Policy Board members' forecasts for real GDP, the domestic corporate goods price index, and the consumer price index (CPI; excluding fresh food) as a reference.
April 2001	- The Bank extends the period of the first MPM of each month to two days, to provide sufficient time for Policy Board members to hold extensive discussions and to enable financial markets in Japan to digest the decisions reached at the meetings on the day of the meeting as much as possible.
October 2003	- The Bank decides to strengthen its public communication on its outlook for economic activity and prices as follows: (1) by making interim assessments in January and July of the outlook laid out in the latest Outlook Report; (2) by deciding on the earlier release of the *Monthly Report of Recent Economic and Financial Developments*; and (3) by holding a press conference by the Governor after each MPM on the same day of the MPM.
April 2005	- The Bank decides to extend the projection period in the Outlook Report by one year to cover both the current and the following fiscal years.

March 2006	- The Bank introduces a new framework for the conduct of monetary policy. The Bank announces that it will examine economic activity and prices from two perspectives, and also release its view on medium- to long-term price stability. The Policy Board members' "understanding of medium- to long-term price stability" is expressed in terms of the year-on-year rate of change in the CPI, and falls in the range of approximately between 0 and 2 percent, with most Policy Board members' median figures at around 1 percent.
June 2007	- Expansion of the period covered in the list of scheduled dates of the MPMs. The schedule for twelve months ahead is released immediately after the MPMs in June and December.
April 2008	- The Bank starts releasing "Risk Balance Charts" in the Outlook Report. The charts show the probability distributions compiled by individual Policy Board members' forecasts for the year-on-year rates of change in real GDP and the CPI.
July 2008	- The Bank starts releasing the assessment of economic activity and prices from two perspectives after each MPM. The background of a policy decision is communicated regardless of whether or not policy change takes place. - The Bank extends the projection period in the October Outlook Report to cover the fiscal year following the next year. - The Bank decides on the earlier release of the minutes of MPMs.
December 2009	- The Bank clarifies the "understanding of medium- to long-term price stability." It announces that each Policy Board member's understanding of CPI on a year-on-year basis falls "in the positive range of 2 percent or lower, and the midpoints of most Policy Board members' understanding are around 1 percent."

Note: 1. The report was renamed *Outlook for Economic Activity and Prices* in April 2004.

Box 3 The Bank of Japan's Accounts

At the end of fiscal 2009, items closely related to the Bank of Japan's openmarket operations and loans accounted for a large share of its total balance sheet assets (see chapters V and VI). These included, for example, receivables under resale agreements,[1] Japanese government securities (JGSs),[2] and loans and bills discounted. Another major accounting item under assets was foreign currency assets (foreign currency securities and foreign currency deposits with foreign central banks and monetary authorities; see Chapter VIII). As for liabilities, the largest accounting item was banknotes (the amount outstanding of banknotes issued; see Chapter III), and other major items included deposits (mainly current deposits of financial institutions held at the Bank; see Chapter IV), deposits of the government (see Chapter IX), and payables under repurchase agreements.[3]

In the Bank's statement of income, operating income consisted mostly of interest on JGSs purchased through open market operations and gains on sales of JGSs.[4] Major accounting items under operating expenses were general and administrative expenses and costs (including the cost of production of banknotes, and personnel expenses), and losses on foreign currency assets (including foreign exchange losses). Net income is calculated as follows:

> Net income = operating profits (operating income − operating expenses) + special profits (e.g., transfers from provision for possible losses on foreign exchange transactions, transfers from provision for possible losses on bonds transactions, and gains on disposal of fixed assets) − special losses (e.g., transfers to provision for possible losses on foreign exchange transactions, transfers to provision for possible losses on bonds transactions, and losses on disposal of fixed assets) – provision for taxes, including corporate income tax.

As for the appropriation of net income, funds are transferred to the legal reserve and dividends are paid to shareholders,[5] and the remainder of net income is paid to the government (Article 53 of the Bank of Japan Act).

As described above, the results of the Bank's business operations explained in this book are shown in the Bank's financial statements (e.g., the balance sheet and the statement of income). The Bank has conducted its accounting practices taking into consideration the generally accepted principles of corporate accounting. In 1998, to enhance the transparency of its business operations, the Bank formulated and released its principles of accounting practices and their procedures as a new set of Accounting Rules. The Accounting Rules of the Bank of Japan cover the following: (1) implementation of the budget, such as the criteria for diverting funds to other purposes and the use of contingency funds;

(2) methods for valuation of securities; (3) criteria for maintaining provisions; and (4) the setting of the benchmark for the Bank's capital adequacy ratio. In addition, from fiscal 1998 (April 1, 1998–March 31, 1999), the Bank has made public a schedule for its financial statements and a table of the appropriation of net income.

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[1] The amount paid for commercial paper (CP) and Japanese government securities under resale agreements is included in this item.

[2] Includes treasury discount bills (T-Bills) (financing bills and treasury bills).

[3] The amount received for JGSs under repurchase agreements is included in this item.

[4] Profits from interest-bearing financial assets (assets primarily acquired through open market operations, e.g., JGSs) that are financed by non-interest-bearing liabilities (e.g., banknotes) are called seigniorage.

[5] Article 53 of the Bank of Japan Act stipulates that: (1) the Bank shall retain, as a reserve fund, 5 percent of net income for each fiscal period (if deemed particularly necessary, the Bank may retain more than 5 percent of net income, upon authorization from the Minister of Finance); and (2) dividend payments as a proportion of paid-up capital are limited to 5 percent or below in each fiscal year.

Table 1 for Box 3 Balance Sheet as at March 31, 2010[1,2]

bil. yen

Item	
Assets	
Gold	441.2
Cash	330.1
Receivables under resale agreements	4,983.3
Japanese government securities	73,066.1
Corporate bonds	172.2
Pecuniary trusts (stocks held as trust property)	1,425.5
Loans and bills discounted	35,783.9
Foreign currency assets	5,022.7
Deposits with agents	19.3
Capital subscription to an international financial institution	15.2
Provision of funds to the Deposit Insurance Corporation's "*Jusen* account"	100.0
Provision of funds to the New Financial Stabilization Fund	20.0
Withdrawn cash to be returned to the government	62.1

Accrued interest receivable	139.4
Tangible fixed assets	221.4
Intangible fixed assets	0.1
Total assets	121,824.1
Liabilities	
Banknotes	77,352.7
Deposits (excluding those of the government)	23,498.5
Deposits of the government	3,018.6
Payables under repurchase agreements	11,651.5
Provision for retirement benefits	193.2
Provision for possible losses on bonds transactions	2,243.3
Provision for possible losses on foreign exchange transactions	794.5
Total liabilities	118,796.9
Net Assets	
Capital	0.1
Legal reserve	2,659.9
Special reserve	0.01
Net income	367.1
Total net assets	3,027.2
Total liabilities and net assets	121,824.1

Table 2 for Box 3 Statement of Income for Fiscal 2009[1,2]

bil. yen

Item	
Operating income	832.4
Interest on loans and discounts	39.8
Interest on receivables under resale agreements	9.3
Interest and discounts on Japanese government securities	599.5
Interest on commercial paper	0.7
Interest and discounts on corporate bonds	1.6
Gains on sale of Japanese government securities	6.0
Gains on foreign currency assets	123.3

Operating expenses	465.8
Interest on payables under repurchase agreements	20.2
Losses on foreign currency assets	218.5
General and administrative expenses and costs	192.2
Operating profits	366.5
Special profits	1.1
Special losses	0.5
Net income before taxes	367.1
Provision for corporate income tax, inhabitants taxes, and enterprise taxes	0.009
Net income	367.1

Table 3 for Box 3 Appropriation of Net Income for Fiscal 2009[1]

bil. yen

Item	
Transfer to legal reserve	18.3
Dividends, 5 percent of share face value	0.005
Payment to the government	348.7
Total	367.1

Table 4 for Box 3 Capital Base as at March 31, 2010[1]

bil. yen

Item	
Capital accounts	2,678.4
Provisions	3,037.8
Total	5,716.3

Notes: 1. Figures are calculated in yen and then rounded down to the nearest 0.1 billion yen in principle.
2. Only the major accounting items are listed, and therefore figures under "Total" do not necessarily equal the total of relevant items listed.

Box 4 Basic Accounting Principles for the Bank of Japan's Balance Sheet

The Bank of Japan conducts its policies and business operations to achieve the objectives stipulated in the Bank of Japan Act. These policies and business operations are reflected in the Bank's balance sheet. In that sense, its balance sheet changes in accordance with economic and financial developments and the Bank's policies and business operations in response to such developments. The Bank's basic accounting principles for its balance sheet in conducting its policies and business operations appropriately are as follows.

1. Requirements for the Bank's Assets

In conducting its policies, the Bank makes every effort to maintain the soundness, liquidity, and neutrality of its assets.

(1) Soundness

The Bank makes every effort to hold assets and accept collateral with high creditworthiness. If the soundness of the Bank's assets and collateral were to be impaired and the Bank made a loss, the loss would ultimately be borne by the public through a decrease in the amount of the Bank's payment to the government. Furthermore, if the Bank were to become insolvent and had to receive financial support from the government, the view would spread that the Bank would have difficulty conducting appropriate policies and business operations on its own independent judgment, and this could jeopardize the Bank's conduct of appropriate policies and business operations.

Japanese government securities (JGSs), which account for the highest proportion of the Bank's balance sheet, are financial instruments with high creditworthiness. The Bank also purchases corporate debts as assets in market operations or accepts them as collateral for its loans, as long as their creditworthiness is maintained pursuant to its own criteria.

In addition, the Bank ensures that its financial soundness is not impaired when it extends credit (special loans) as stipulated in Article 38 of the Bank of Japan Act, in order to maintain financial system stability (see Chapter VI.D.1).

(2) Liquidity

The liquidity of the Bank's assets must always be ensured, so as to maintain flexibility in the conduct of monetary policy. To conduct market operations smoothly, it is necessary to adjust the size of assets in response to changes in that of liabilities. However, if the liquidity of the Bank's assets declines, it would be difficult for the Bank to adjust its liability in a flexible and smooth manner. From that viewpoint, the Bank diversifies redemption dates in order to prevent the overall duration of assets from becoming too long and to hold assets that are easy to sell whenever necessary.

The Bank underwrites treasury bills (TBs) with a one-year maturity to refund its JGSs at maturity and, in principle, redeems TBs at maturity. This is an example of ensuring the liquidity of the Bank's assets.

(3) Neutrality

The Bank makes every effort to ensure that its holding of assets does not influence their market prices. If the Bank were to hold a large amount of specific financial assets, the Bank could influence the market price and impair the neutrality of resource allocation, depending on the market size of the assets.

In order to maintain neutrality, the Bank, in conducting open market operations, makes it a rule to purchase financial assets with high liquidity from a deep market.

2. Sufficient Capital Base

The Bank holds its capital base, such as capital, legal reserves, and provisions, to be prepared for potential losses. The Bank measures its capital adequacy ratio by dividing the amount of its capital base by the annual average of banknotes issued, and accumulates provisions and legal reserves to maintain its financial soundness. After a certain amount of the Bank's net income is transferred to legal reserves and dividends are paid, the rest of the net income is paid to the Japanese government.

Chapter III The Issuance, Circulation, and Maintenance of Bank of Japan Notes

The Bank of Japan issues, circulates, and maintains Bank of Japan notes. This chapter explains these activities, and provides some information on the characteristics of Bank of Japan notes and related matters.

A. Cash and the Bank of Japan

1. Outline of cash and the issuance of banknotes

Cash consists of banknotes and coins, and is a payment instrument widely used for payment and settlement in various economic transactions (see Chapter IV), together with demand deposits[1] in financial institutions.

Printed banknotes and minted coins need to be put into circulation to be used as money in the economy. Banknotes, or Bank of Japan notes, are manufactured by the National Printing Bureau, which is an incorporated administrative agency, and are delivered to the Bank in exchange for the cost of their production. Up to this stage, banknotes are not yet considered to be money. Banknotes begin circulating and being used as money when financial institutions withdraw deposits from their current accounts at the Bank (hereafter, "BOJ accounts;" see Chapter IV.B.3),[2] and receive the banknotes at the Bank's counter. The Bank of Japan Act stipulates that the Bank shall issue banknotes (Article 1, paragraph 1, and Article 46, paragraph 1 of the Act), and thus the Bank is referred to as the sole issuer of banknotes in Japan. The banknotes issued are entered as liabilities in the Bank's balance sheet (see Box 3 for Chapter II, "The Bank of Japan's Accounts"). Coins, unlike banknotes, are issued by the Japanese government. Coins are manufactured by the Japan Mint, which is an incorporated administrative agency, and are issued as money when they are delivered to the Bank as stipulated in the Act on Currency Units and Issuance of Coins (Article 4). The procedures to put coins into circulation are similar to those for banknotes and they are put into circulation through the Bank. The issuer of banknotes is the Bank and that of coins is the government (the Ministry of Finance); banknotes are manufactured by the National Printing Bureau and coins by the Japan Mint

[1] Demand deposits are the deposits from which depositors can withdraw cash on demand, such as current deposits and ordinary deposits. Because of their high liquidity, these deposits are used as a payment instrument (see Chapter IV.B.2).

[2] At this point, the banknotes are deemed to be issued by the Bank.

(see Figure 3-1).

Currently, the Bank issues banknotes in four denominations: 10,000 yen, 5,000 yen, 2,000 yen, and 1,000 yen (see Figure 3-2). In 2004, the designs of the 10,000 yen, 5,000 yen, and 1,000 yen notes were renewed for the first time in 20 years. Coins are issued in six denominations (excluding commemoratives): 500 yen, 100 yen, 50 yen, 10 yen, 5 yen, and 1 yen. As of the end of March 2010, approximately 82 trillion yen of cash was in circulation, of which banknotes accounted for 95 percent. Banknotes account for such a large portion of cash in circulation mainly because of their larger face values. The Bank has issued 53 kinds of banknotes since its first issue of banknotes, the *Daikokusatsu* notes, in 1885. At present, 22 kinds of banknotes and 14 kinds of coins, excluding commemoratives, are valid.[3]

[3] At present, only four designs of banknotes are issued and used for payment to financial institutions over the counters at the Head Office and branches of the Bank. The banknotes in other designs are not reissued for further circulation once they are returned to the Bank. The details of the currently valid banknotes are described in "Banknotes and Coins in Use" on the Bank's website (http://www.boj.or.jp/en/index.html).

Figure 3-1 Issuers of Banknotes and Coins in Selected Countries and the Euro Area

	Banknotes		Coins	
	Issuer	**Manufacturer**	**Issuer**	**Manufacturer**
Japan	Central bank	National Printing Bureau (an incorporated administrative agency)	Government	Japan Mint (an incorporated administrative agency)
United States	Central bank[1]	Government	Government	Government
Euro area	National central bank of each member state[2]	National central bank, government, or private entities in each member state[3]	Government of each member state	Government of each member state
United Kingdom	Central bank[4]	Private entities[4]	Government	Government
Canada	Central bank	Private entities	Government	Government

Notes: 1. The Board of Governors of the Federal Reserve System retains the right to issue banknotes. The Board is a federal government agency, and is the supreme decision-making body of the Federal Reserve System. In practice, each of the Federal Reserve Banks is authorized by the Federal Reserve Act to issue banknotes.

2. The euro area comprises the 17 Member States of the European Union (EU) that adopted the euro as the single European Currency: Germany, France, Italy, Belgium, the Netherlands, Luxembourg, Austria, Spain, Portugal, Finland, Ireland, Greece, Slovenia, Cyprus, Malta, Slovakia, and Estonia. The Governing Council of the European Central Bank (ECB), the ECB's decision-making body, has retained the right to issue banknotes, but euro banknotes are issued by the national central banks in the euro area.

3. Varies from country to country.

4. In the United Kingdom, for historical reasons, there are some exceptions in Scotland and Northern Ireland.

Figure 3-2 Banknotes of Japan Currently Issued

Denomination (yen)	Size (mm)		Major Design		Watermark Design	Tactile Marks
	Height	Width	Front	Back		
10,000	76	160	Yukichi Fukuzawa (a pioneer of modern thought in the Meiji Period)	Phoenix statue in *Byodoin* Temple	Yukichi Fukuzawa	The tactile mark is in the shape of a hook.
5,000	76	156	Ichiyo Higuchi (a leading novelist in the Meiji Period)	*Kakitsubata-zu* (painting of irises), a work by Korin Ogata	Ichiyo Higuchi	The tactile mark is an octagon.
2,000	76	154	*Shureimon* Gate (the gate to *Shuri* Castle in Okinawa built by King Shosei of the Ryukyu Kingdom in the 16th century)	A scene from *The Tale of Genji scroll* and portrait of its author, Murasaki Shikibu	*Shureimon* Gate	Japanese braille for *ni,* meaning “two.”
1,000	76	150	Hideyo Noguchi (a bacteriologist who was active in the Meiji, Taisho, and Showa periods)	Mt. Fuji and cherry blossoms	Hideyo Noguchi	The tactile mark is a horizontal bar.

2. Characteristics of banknotes

Banknotes are a widely used payment instrument, especially for small-value or retail payments. Banknotes are often used in face-to-face transactions, in which cash is handed directly from one party to the other. Banknotes are used to make payments for a wide range of economic transactions (general usability) and are accepted by anyone (general acceptability). These functions of banknotes stem from the following characteristics.

First, Article 46 of the Bank of Japan Act stipulates that banknotes shall be the legal tender for payment without limits; in other words, they are the legally defined payment instruments that should not be refused by any creditor in satisfaction of any debt.[4] A banknote is the payment instrument by which the highest settlement finality can be achieved. Unlike payment by credit card or funds transfer between bank accounts, payment in banknotes does not require the intermediation of any financial institution or any other third party.[5] Banknotes also guarantee anonymity, since it is difficult to know who used them, when and where they were used, or for what purpose they were used.[6]

While banknotes have these advantages, they also have shortcomings. The safekeeping and transport of banknotes incur considerable costs if the volume of banknotes is large or if they are transported over a long distance. They also carry the risk of loss, theft, fire, or other damage.

To avoid these risks, funds transfer between bank accounts, which does not involve the physical movement of cash, is widely used. Credit cards, prepaid cards, and debit cards[7] are also used. Recently, a payment instrument called "electronic money" has become prevalent. For example, the major type of electronic money employs a prepaid function provided by integrated circuit (IC) chips. Currently, more than 100 million units of IC chip-loaded electronic money have been issued, which seems to indicate that electronic money is gradually strengthening its position as a retail payment instrument. However, the amount of electronic money in circulation remains small compared to that of coins in circulation (see Box 1, "Electronic Retail Payment Instruments in Japan").

[4] Under Article 7 of the Act on Currency Units and Issuance of Coins, coins are also a legally defined payment instrument that should not be refused by a creditor. However, the recipient may refuse to accept more than 20 coins of the same denomination in one payment, because the use of too many coins in one payment may make it difficult for the recipient to count or store them.

[5] When payment is made by credit card or funds transfer between bank accounts, funds are transferred between the payer/recipient and the financial institutions with which the payer/recipient holds an account, and between the financial institutions involved (see Chapter IV.B.2).

[6] Prepaid cards also guarantee anonymity; however, they can only be used in a limited range of transactions. Thus banknotes are better than prepaid cards in terms of general usability and general acceptability.

[7] Cash cards issued by financial institutions are the most common form of debit card. When a cardholder presents such a card to a retailer's cashier and enters the personal identification number, funds are immediately debited from the cardholder's demand deposit account at the financial institution that issued the card.

3. History of the banknote issuance system

The Bank issued its first banknotes in 1885, three years after its foundation.[8] Originally, banknotes were convertible notes whose convertibility to silver was guaranteed; when the gold standard was adopted in 1897, the banknotes became convertible into gold. Under this standard money system,[9] the Bank was required to hold specie (gold or silver) equivalent to the total amount of banknotes issued (specie reserve requirement).[10] The standard money system ceased to function when the gold standard was suspended (when the convertibility of banknotes into gold was suspended) in 1931 and Japan started to shift into a wartime regime. In 1941, Japan adopted a managed currency system and the standard money reserve requirements were abolished. The Bank of Japan Act of 1942 stipulated that the Bank was to hold prime assets of a value equivalent to the amount of banknotes in circulation (the reserve for banknote issuance system), and to set an absolute ceiling on the issuance of banknotes of Japan in order to control the upper limit on the amount of banknotes issued (the banknote maximum issuance limit system). These two systems were abolished under the Bank of Japan Act of 1997, about 50 years after the end of World War II. The changes were made mainly for the following reasons: (1) under a managed currency system, the stability of the value of banknotes should be maintained through the appropriate conduct of monetary policy by the Bank rather than through a direct link with the value of assets held by the Bank; and (2) the amount of banknotes in circulation should change according to movement in the level of economic activity, and as the absolute ceiling on the

[8] The history of money, including the history of banknote issuance, is described in "Short Essays on Monetary History" in the Currency Museum section of the website of the Institute for Monetary and Economic Studies of the Bank of Japan at http://www.imes.boj.or.jp/cm/english_htmls/index.htm.

[9] Under a standard money system, the value of a national currency, such as the yen or the U.S. dollar, is fixed to a specified commodity. Rare and durable precious metals (e.g., gold or silver) were commonly used as the commodity (standard money or specie money). When Japan adopted a standard money system under the New Currency Act of 1871, the value of one yen was fixed to be equal to the value of 1.5 grams of pure gold (equivalent to 1 U.S. dollar). In order to maintain the value of the currency against standard money, the common methods taken by the government or the central bank were to guarantee that the paper money (banknotes) was convertible into a certain amount of standard money (convertible system) and to authorize free export and import of the standard money.

[10] The Bank entered the banknotes (convertible banknotes) issued as liabilities on its balance sheet, and entered reserve assets (gold, silver, or prime assets such as public bonds up to a limited extent) held to fulfill the responsibility to maintain the standard money reserve requirements as assets on the balance sheet.

issuance of banknotes of Japan had been changed to accommodate the actual amount of banknotes issued, it was considered that the significance of the banknote maximum issuance limit system had been diminishing.

B. Circulation of Banknotes

1. Flow of banknotes and the role of the Bank

This section will explain the channels of banknote circulation. The principal channel of circulation starts when financial institutions receive banknotes at the counters of the Bank's Head Office and branches.[11] Individuals and firms then obtain banknotes by withdrawing money from their deposit accounts at financial institutions. The banknotes are used for various purposes, and then they are returned to the Bank via financial institutions.[12] The Bank and financial institutions serve as the strongholds for banknote circulation to ensure the smooth circulation of banknotes nationwide. In fiscal 2009, the average amount of banknotes in circulation was approximately 76 trillion yen, which was equivalent to approximately 16 percent of Japan's GDP in that year (see Box 2, "Demand for Banknotes in Japan").

The banknotes circulate as shown below (see also Figure 3-3, [a]–[f]).

(a) The Bank receives banknotes from the National Printing Bureau

The Bank places orders with the National Printing Bureau to manufacture banknotes based on the prospective demand for banknotes. When the banknotes are manufactured, the Bank pays the government the cost of production and receives the banknotes. The new banknotes are kept in the vaults at its Head Office and branches.

(b) Financial institutions withdraw money from BOJ accounts (issuance of banknotes)

To provide for payment of banknotes to individuals and firms, financial in-

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[11] The banknote operations center (the Toda Annex) in Toda City, Saitama Prefecture, takes care of payment and receipt of banknotes to and from financial institutions using an automated and integrated processing system. In order to efficiently process the large volume of banknotes needed in the transactions at the Head Office, the banknote operations center is equipped with a fully automated system covering all operations, including receipt, custody, examination, and payment of banknotes. The center ensures accurate and speedy operations, with increased security.

[12] The principal channel of circulation for coins is the same as that for banknotes. Namely, they are distributed from the Bank to financial institutions, then to individuals and firms through these financial institutions.

stitutions obtain banknotes at the counters of the Head Office and branches of the Bank by withdrawing money from their BOJ accounts. Banknotes are issued when they are delivered at the counters of the Bank and start circulation.[13] The total amount of banknotes issued in fiscal 2009 was approximately 61 trillion yen.

(c) *Individuals and firms withdraw money from accounts at financial institutions*
Individuals and firms obtain banknotes at financial institutions' counters, cash dispensers, or ATMs (automated teller machines) by withdrawing money from their accounts at these financial institutions.

(d) *Individuals and firms use banknotes and return them to financial institutions*
Individuals and firms use banknotes for payments to other firms or financial institutions for the purchase of goods and services, financial transactions, or tax payments. The firms and financial institutions which receive the banknotes use them to make payments for other transactions, and individuals and firms bring the banknotes to financial institutions and have their deposit accounts credited.

(e) *Financial institutions return banknotes to the Bank (withdrawal of banknotes from circulation)*
Financial institutions bring their excess banknotes to the Head Office and branches of the Bank and have their BOJ accounts credited.[14] When banknotes return to the Bank, they are withdrawn from circulation. In fiscal 2009, approximately 61 trillion yen of banknotes were returned to the Bank.[15]

(f) *The Bank examines returned banknotes*
The Bank examines the returned banknotes and destroys those unfit for

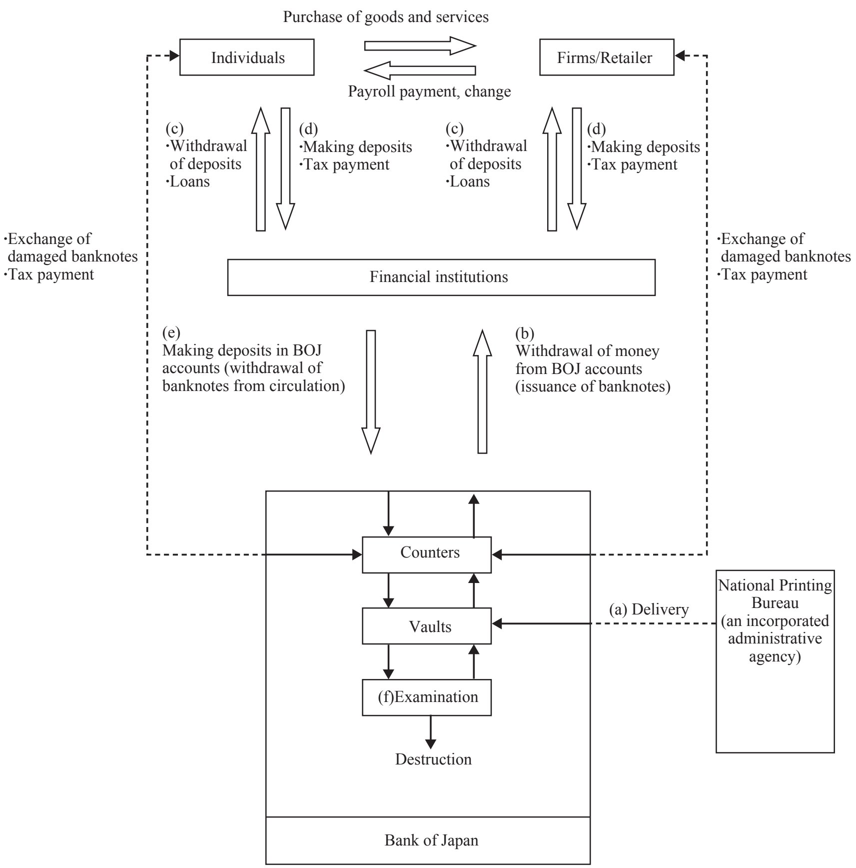
[13] To ensure the smooth delivery of banknotes in areas far from the Head Office or any branch of the Bank, the Bank designates specific offices of some financial institutions as custodians to hold unissued banknotes (banknote custody system). These banknotes are issued when they are paid out from the custodians.

[14] Financial institutions use their current account deposits at the Bank as payment instruments to make payments to the Bank, the government, and other financial institutions, and also as reserve deposits under the reserve requirement system (see Chapter IV.B.3).

[15] In fiscal 2009, approximately 61 trillion yen of banknotes was put into circulation by the Bank, while 61 trillion yen of banknotes was withdrawn from circulation. Thus, the amount of banknotes in circulation in fiscal 2009 remained flat from fiscal 2008.

recirculation. On the other hand, the Bank uses banknotes that are fit for recirculation for its payments at the counters of the Head Office or of the branches of the Bank to put them into recirculation (see C.1 in this chapter).

Figure 3-3 Circulation of Banknotes



2. Fluctuation in demand for banknotes

There are regular patterns of fluctuation in the amount of banknotes issued, reflecting changes in the demand for banknotes by individuals and firms. On a weekly basis, the amount of banknotes issued increases before the weekend, reflecting increased demand for use in shopping and leisure activities over the weekend. Some of these additional banknotes return to the Bank early in the following week. On a monthly basis, the amount of banknotes issued increases during the last ten days of the month, as payroll payments and settlement of various transactions are usually made in this period. A certain proportion of these additional banknotes then return to the Bank early in the following month. On an annual basis, the amount of banknotes in circulation doubles in December compared to other months. This is because December is the month when winter bonuses are paid, and demand for banknotes increases to meet the need for cash at the year-end and the New Year. A significant proportion of the banknotes issued in December return to the Bank in January. In addition to regular or seasonal changes, there are regional differences in the demand for banknotes. The Bank endeavors to ensure the smooth circulation of banknotes nationwide to meet the demand for banknotes.

C. Maintenance of Banknotes

1. Maintaining and improving the convenience of banknotes

As the country's sole issuer of banknotes, it is vital that the Bank of Japan ensures the convenience and credibility of banknotes. When banknotes are returned to the counters at the Head Office or branches of the Bank after being used for various purposes, the Bank makes an accurate count of them and verifies their authenticity. It also separates returned banknotes into those suitable for recirculation and those too damaged or worn for further circulation. This process is called the examination of banknotes. Banknotes that are judged to be unsuitable for recirculation are destroyed, while those in good condition are reissued for further circulation from the Bank's counters along with banknotes that are newly manufactured. The Bank exchanges damaged or worn banknotes that are brought in to the counters of the Head Office and branches, not only by financial institutions but also by individuals and firms, for those fit for recirculation (see Box 3, "Criteria for Exchange of Damaged Banknotes"). The average lifespan of banknotes is one to two years for 5,000 yen and 1,000 yen notes, which are used more frequently, and four to five years for 10,000 yen notes.

In order to enhance the convenience of banknotes, various elaborations have been incorporated in their features.[16] For example, when a new series of banknotes was issued in 1984, the size of 10,000 yen notes was made smaller by 20 percent to make them more convenient to carry. At the same time, a uniform height was adopted for all denominations to facilitate handling in cash dispensers, an automated teller machine (ATM), and vending machines. The present banknotes also feature tactile marks[17] that make it easier for visually impaired individuals to distinguish the denomination of each bill.

2. Security measures for banknotes and international coordination

The number of counterfeit banknotes that appear in incidents in Japan is relatively low compared to other countries, and therefore public confidence in banknotes is high. To maintain the credibility of banknotes, it is essential that the Bank prevent counterfeiting. For this purpose, the Bank has taken a variety of measures to achieve this goal.

First, in terms of legal provisions, there are penalties for counterfeiting or altering banknotes or coins with the intent of using them for payment, and for the use, delivery, or receipt of counterfeit currency (under the Criminal Code). There are also penalties for the production or sale of items that resemble banknotes or coins (Act on Control of Imitation of Currency and Securities). The government can also ban the issuance, delivery, or receipt of items that are deemed to have the same or similar functions as paper currency (Act on Control of Securities Similar to Money of Bills). The production of paper with watermarks of letters, designs, and emblems made in a certain manner is prohibited, except for those authorized by the government (Act on Control of Manufacture of Watermarked Paper).

In addition to these legal provisions, with the cooperation of the authorities concerned, such as the Bank, the Ministry of Finance, and the National Printing Bureau, banknotes themselves incorporate many anti-counterfeiting features. The 10,000 yen, 5,000 yen, and 1,000 yen notes were renewed in 2004. Three concepts were adopted for the new banknotes: (1) the new banknotes make it difficult to counterfeit banknotes with a personal computer or equipment related to personal computers; (2) the new banknotes support the

[16] Article 47, paragraph 2 of the Bank of Japan Act stipulates that the Minister of Finance shall decide and publicly announce the forms (the designs and sizes) of Bank of Japan notes.

[17] Standard Japanese braille symbols are used to help individuals identify the different denominations by touch.

enforcement of the counterfeit-detecting ability of cash dealing machines; and (3) the new banknotes make it easy to notice counterfeit banknotes on sight. Various advanced anti-counterfeiting technologies have been adopted in the new banknotes, including a watermark bar pattern, intaglio printing in which the ink on the new banknote is raised higher than the old type, and a hologram in which the color and pattern of the design change when the banknote is tilted (see Figure 3-4). As described earlier, the Bank examines banknotes that are returned from financial institutions. It examines them rigorously to weed out possible counterfeits, or banknotes that are too damaged or too worn. The Bank endeavors to make it easier to detect counterfeits by keeping the circulating banknotes clean.[18]

These legal provisions, advanced anti-counterfeiting measures, and efforts to enforce the cleanliness of circulating banknotes have contributed to decreasing the number of incidents involving counterfeits compared to the period prior to 2004. However, the technology that facilitates counterfeiting has progressed rapidly in recent years and instances of counterfeiting banknotes with personal computers or equipment related to personal computers have increased globally. Thus, it is necessary to deal with this problem on a global basis, and therefore the Bank actively exchanges information and conducts joint studies with other central banks, and is strengthening its ties with relevant authorities, such as the National Police Agency and the National Printing Bureau.

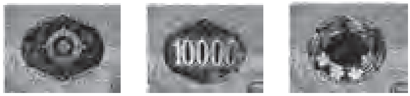
[18] In order to prevent counterfeiting, it is important to actively inform the public about the anti-counterfeiting measures and to encourage people to check banknotes while they are circulating. For that purpose, the Bank prints and distributes posters and brochures describing the anti-counterfeiting measures incorporated in its banknotes. The details of new anti-counterfeiting measures are also available on the Bank's website.

Figure 3-4 Principal Anti-Counterfeiting Technologies for the Current Bank of Japan Notes: Anti-Counterfeiting Technologies for the Current 10,000 Yen Note

1. **Luminescent ink**
   The Governor's seal on the front side glows orange under ultraviolet light. Likewise, some parts of the background pattern glow yellowish-green.

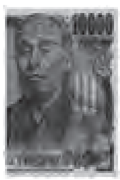
2. **Intaglio printing**
   Raised printing is used for some features of the new note. The ink on the new note is raised higher than the ink on the old type.

3. **Hologram**
   When the banknote is tilted, the color and pattern of the design change.



4. **Latent image**
   When the banknote is viewed from a certain angle, the number "10000" appears on the bottom left of the front side, and the word "NIPPON" ("Japan" in Japanese) appears on the top right of the back side.

5. **Watermark bar pattern**
   When the banknote is held up to the light, three vertical watermark bars become visible. This feature is more difficult to reproduce with personal computers or color copiers than the traditional watermark.



6. **Pearl ink**
   When viewed from different angles, a semi-transparent pattern printed with pink pearl ink appears in the blank areas of the left and right margins on the front of the note.

Box 1 Electronic Retail Payment Instruments in Japan

Although there are various types of electronic retail payment instruments in Japan, those ordinarily referred to as "electronic money" are stored-value, or prepaid-format, electronic instruments for retail payments, which require users to "load" a certain amount of value before using them. Electronic money can be further categorized into two types: one is a chip-based type and the other is a server-based type.

In the chip-based type of electronic instrument, the loaded value is recorded and managed on an integrated circuit (IC) chip embedded in devices such as plastic cards and mobile phones, thereby enabling the management of the loaded value on a decentralized basis. On the other hand, the server-based type of electronic instrument does not require any physical device, and the loaded value is typically recorded and managed centrally on a computer server operated by an electronic money service provider. As for credit cards, a new type of service making use of contactless IC chips, which does not require authorization by signature or personal identification number (PIN) and thus enables users to make swift payments, has become widely available in recent years. As they are used in a way similar to prepaid electronic money for retail payments, except that they adopt post-payment functionality, contactless credit cards are sometimes referred to as "postpaid electronic money."

Electronic money has been gaining in popularity as a retail payment instrument available for use in places such as convenience stores, kiosks at train stations, and supermarkets. According to research conducted by the Bank, the pace of increase in the use of major chip-based prepaid electronic money has been accelerating in terms of the total number of instruments issued, as well as both the value and volume of transactions settled using electronic money, since 2007, the year often referred to as having been the "turning point" year in which electronic money services became firmly established in Japan. However, the outstanding value of major chip-based prepaid electronic money has remained low, at 2.6 percent of the total value of coins in circulation, as of the end of March 2010.

The Bank has been continuing to work on its research and analysis of electronic money, paying due attention to how the introduction of these new payment instruments changes the payment and settlement system in Japan, and how these changes may affect the central bank's policies and business operations in the future.

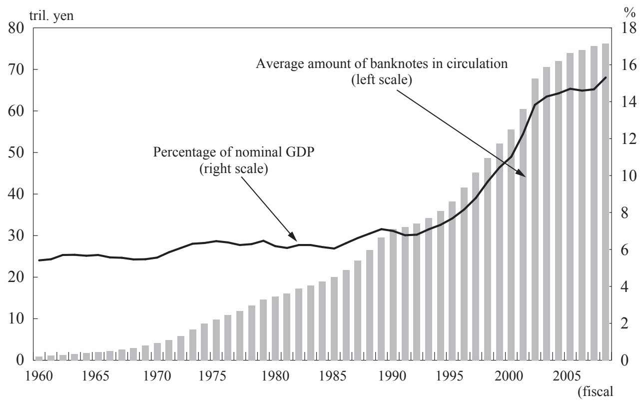
Box 2 Demand for Banknotes in Japan

Demand for banknotes is high in Japan, and the amount of banknotes in circulation as a percentage of nominal GDP has been higher than that in other major advanced countries.[1] Some of the reasons often cited are as follows: (1) cash has long been the main instrument for retail payments among individuals; (2) security is relatively well maintained and people feel that it is safe to carry cash around; (3) cash is easily accessible through the expanded networks of cash dispensers and automated teller machines (ATMs); and (4) public confidence in banknotes is high due to the relatively low number of incidents involving counterfeiting.

The amount of banknotes in circulation as a percentage of nominal GDP had long been stable until the early 1990s, but then began to increase substantially from the late 1990s. The following points are considered to be the reasons for the increase: (1) a decline in deposit interest rates due to monetary easing; (2) the financial turmoil around 1997-1998; and (3) the partial removal of blanket deposit insurance in 2002. These situations encouraged people to keep banknotes on hand by withdrawing them from their deposit accounts. This trend led to the increase in demand for banknotes in Japan, and the amount of banknotes in circulation surged.

Note: 1. The amount of cash (banknotes and coins) in circulation as a percentage of nominal GDP in Japan (12.1 percent in 1998 and 17.0 percent in 2008) was higher than that in the United States (5.9 percent and 6.2 percent) and Canada (4.0 percent and 3.7 percent), and the ratio in Japan is the highest among the Group of Ten (G-10) countries. Source: Bank for International Settlement (BIS), Committee on Payment and Settlement Systems, "Statistics on Payment Systems in the Group of Ten Countries, Figures for 1998," February 2000, and "Statistics on Payment and Settlement Systems in Selected Countries, Figures for 2008," December 2009.

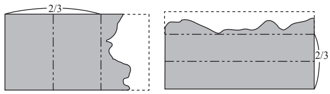
Table for box 2 Amount of Banknotes in Circulation as a Percentage of Nominal GDP



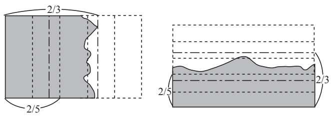
Box 3 Criteria for Exchange of Damaged Banknotes

The Bank of Japan exchanges damaged banknotes for ones fit for circulation based on the criteria below, provided that both sides of the banknotes have been maintained.

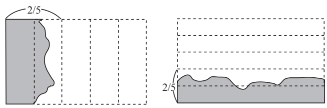
(1) Damaged or burnt banknotes with at least two-thirds of the original area remaining are exchanged at full face value (e.g., 10,000 yen notes will be exchanged for 10,000 yen and 5,000 yen notes for 5,000 yen).



(2) Damaged or burnt banknotes with at least two-fifths, but less than two-thirds, of the original area remaining are exchanged for half of their face value (e.g., 10,000 yen notes are exchanged for 5,000 yen).



(3) Damaged or burnt banknotes with less than two-fifths of the original area remaining have no value.



※··· The shaded area indicates the remaining portion of the banknote.

Chapter IV　Payment and Settlement and the Roles of the Bank of Japan

The Bank of Japan provides Bank of Japan notes and current account deposits at the Bank (hereafter, "BOJ account deposits") as payment instruments. The Bank also operates the payment and settlement systems for BOJ account deposits and Japanese government securities (JGSs). This chapter explains the roles of the Bank in payment and settlement activities, with reference to major payment instruments and payment and settlement systems in Japan.

A. Roles of Payment and Settlement Systems

In most daily economic transactions in the monetary economy, the parties concerned promise to exchange money for goods or services. In executing an economic transaction, one party assumes an obligation to pay money as promised and acquires the right to receive goods or services from its counterparty. On the other hand, the other party assumes an obligation to deliver the goods or services as promised and acquires the right to receive payments from its counterparty. Settlement refers to the process of discharging such rights and obligations by transferring money and delivering goods and services (see Figure 4-1).

For example, in Japan, we use cash when shopping, and we pay public utility charges by direct debit from deposit accounts at banks or by credit card. The discharge of rights and obligations by the transfer of money is referred to as payment. As explained below in Section B in this chapter, various payment instruments are used as money for payments and receipts. When orders for sales and purchases of stocks are placed with a securities company and a contract is concluded,[1] the stocks are delivered in exchange for the transfer of money for the transaction. The discharge of rights and obligations by the delivery of securities such as stocks and bonds is referred to as securities settlement.

Prior to the settlement of funds and securities, a large number of rights and obligations are often netted down into a smaller number. This kind of process taken ahead of settlement is referred to as clearing.

Clearing and settlement transactions, particularly among financial institutions, are often processed systematically in line with a standardized set of rules and procedures that streamline business operations. The arrangements designed for this purpose are payment and settlement systems. These systems include physical

[1] In sales and purchases of stocks, transaction orders are not always executed. Contracts are concluded only when the sell order price comes to terms with the buy order price.

structures, such as computer systems, and institutional arrangements, such as settlement rules and procedures agreed upon among the users of the system, including financial institutions.[2] In financial transactions, as explained below in Section C in this chapter, many financial institutions take part in payment and settlement systems to process settlements of funds and securities. Payment systems that process the transfer of funds, and securities settlement systems that process the delivery of securities, function as infrastructures indispensable for financial transactions.

Various economic activities, including transactions in financial markets, rely on the assumption that settlements will take place as scheduled. Particularly if one party fails to make payments as agreed upon, this raises the risk that its counterparties, who will be making onward payments to other counterparties with the money received from the failing party, could also fail to make payments. Reducing these kinds of risks and maintaining the sound functioning of payment and settlement systems are the crucial roles for the central bank of each country, including the Bank of Japan.

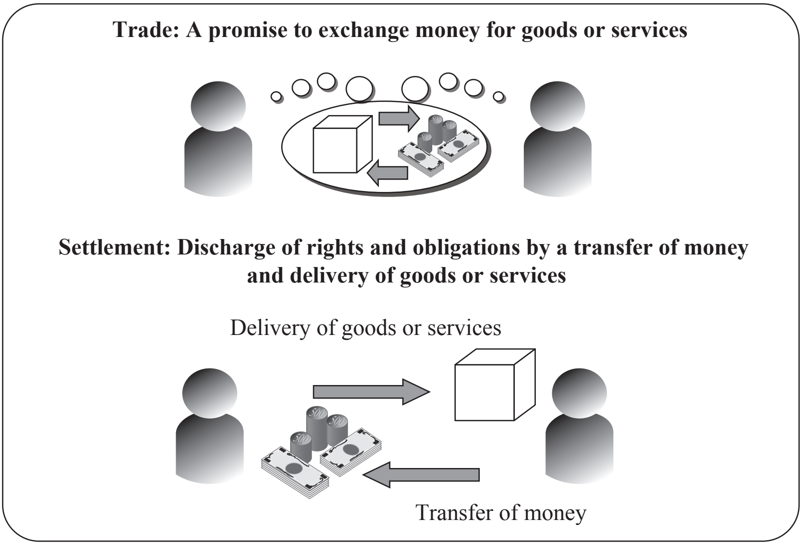
As explained below in Section D in this chapter, in order to ensure safe and efficient payments and settlements, the Bank: (1) directly provides banknotes and BOJ account deposits as very safe payment instruments; (2) provides the payment and settlement systems for BOJ account deposits and JGSs, and operates the Bank of Japan Financial Network System (BOJ-NET) to facilitate payment and settlement processes; and (3) oversees private-sector payment and settlement systems by monitoring their institutional design, risk management, and operations, assessing them against the objectives of safety and efficiency, and inducing changes for improvements where necessary.[3] Moreover, if the materialization of systemic risk (see Chapter I.B.3) were to become highly likely, the Bank would function as the lender of last resort as necessary in order to supply the required liquidity to financial institutions temporarily suffering from liquidity constraints (see Chapter VI.D.1).

The following sections in this chapter describe the major payment instruments (Section B) and payment and settlement systems (Section C) in Japan, followed by the Bank's initiatives in the field of payments and settlements (Section D). The technical terms are collectively explained in Box 4, "Payment and Settlement Terminology".

[2] The term "a payment/settlement system" is used to indicate one specific payment/settlement system, while "payment and settlement systems" indicates a nation's payment and settlement systems as a whole, which consists of individual payment and settlement systems. Throughout this book, these terms are used in line with the above general terminology, with supplementary explanations to provide clarification where necessary.

[3] The Bank also addresses the enhancement of business continuity arrangements and international cooperation related to payment and settlement (see sections D.3 and 4 in this chapter).

Figure 4-1 Trade and Settlement



B. Major Payment Instruments

Cash, namely, banknotes and coins, is one kind of money used for payment (see Chapter III.A.1). Demand deposits held at financial institutions by individuals and firms, as well as BOJ account deposits held by financial institutions (see Section D.1.b in this chapter) are also used as money for payment. These kinds of money, which are received or paid to complete transactions, are collectively referred to as payment instruments.

The following sections briefly explain major payment instruments: cash, demand deposits held at financial institutions, and BOJ account deposits.

1. Cash

Cash is the general term for banknotes and coins. Banknotes and coins are highly creditworthy because they are issued by the central bank and the government, and are widely used as payment instruments, mainly for small-value retail payments. Cash has three notable characteristics: first, it is a legally defined payment instrument that may not be refused by any creditor in satisfaction of any debt; second, cash is a payment instrument by which settlement finality[4] can be achieved; and third, cash guarantees anonymity,[5] since it is difficult to know who used it, when and where it was used, or for what purpose it was used.

2. Demand deposits held at financial institutions

Demand deposits[6] are another payment instrument frequently used in everyday life in Japan. For example, when we want to pay for utilities such as electricity bills by direct debit, we apply at a financial institution, at the bank window or by mail, for a prearranged direct debit service, and the monthly charges are then debited from our deposit account and credited to the account of the electric power company. When we shop by mail order and instruct Bank A, which holds our deposit account, at the bank window, at an automated teller machine (ATM), or by telephone or personal computer, to transfer money to the seller, the payment is made by crediting the money to the seller's account via Bank B, which holds the seller's account (see Figure 4-2).

Moreover, when we make purchases with credit cards or debit cards at a shop, the payment is made, without individually instructing the banks, by debiting the money from our deposit account designated in advance for direct debit use, and by crediting the money to the shop's deposit account.[7] In this way, the demand deposits held at financial institutions are widely used as payment instruments in everyday life.

Demand deposits have three notable characteristics. First, bulk and remote payments can be made efficiently by using payment and settlement systems and the function of financial institutions' funds clearing, as obligations are settled by debiting the payer's account and crediting the payee's account. This avoids the costs and risks associated with payment in cash, namely, the costs of delivery and safekeeping and the risk of loss or theft. Second, like cash, demand deposits can achieve settlement finality. Third, individuals or firms can obtain cash anytime by withdrawing it from their deposits when necessary.

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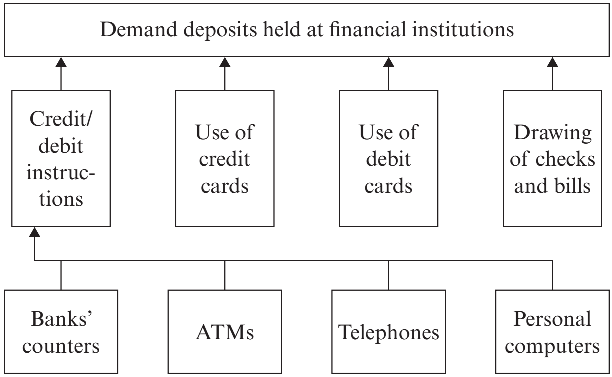
[4] In general, the irrevocable and unconditional characteristics of settlement of debts are referred to as finality (see "A glossary of terms used in payments and settlement systems" provided by the Committee on Payment and Settlement Systems (CPSS), a standing committee located at the Bank for International Settlements; see Footnote 37).

[5] Electronic money, which is rapidly becoming prevalent in the area of settlement of small-value retail payments due to innovations in information and communications technology in recent years, is inferior to banknotes in terms of general usability and acceptability, although many electronic money services also allow anonymity (see Chapter III.A.2).

[6] See Footnote 1 in Chapter III for the definition of demand deposits.

[7] Similarly, when a company purchases materials by drawing checks and bills, the payment is also made by crediting/debiting demand deposits at financial institutions.

Figure 4-2 Payment by Using Demand Deposits held at Financial Institutions



3. BOJ account deposits

The Bank receives current account deposits from financial institutions,[8] and these deposits are referred to as BOJ account deposits. The financial institutions that conduct transactions using BOJ account deposits are referred to as financial institutions holding BOJ account deposits (see Box 1, "Number of Institutions Holding Current Account Deposits at the Bank of Japan [BOJ Account Holders]"). BOJ account deposits are used as very safe payment instruments provided directly by the Bank when transferring funds between financial institutions, between financial institutions and various settlement systems, and between the Bank and financial institutions.

Similar to demand deposits, BOJ account deposits can be used as payment instruments to conduct very safe and efficient settlements by transferring, debiting, and crediting funds, while avoiding the costs of delivery and risks associated with payment in cash. Like cash, BOJ account deposits can achieve settlement finality. In addition, BOJ account deposits have the highest creditworthiness and liquidity compared with demand deposits held at financial institutions, and, as payment instruments provided by the central bank, they possess neutrality.

[8] In addition, the Bank accepts yen deposits from other central banks, international organizations, and governments (see Section C in Chapter VIII for yen deposit transactions with other central banks and international organizations, and Section A in Chapter IX for transactions with the government through the BOJ accounts).

C. An Overview of Japan's Payment and Settlement Systems

In Japan, most financial institutions participate in the payment and settlement systems to settle financial transactions: payment systems execute funds transfers, and securities settlement systems deliver securities. These systems function as the infrastructures indispensable for domestic financial markets. This section outlines Japan's payment and settlement systems. First, an overview of these systems is provided (see Section C.1 in this chapter), followed by explanations on its major components: payment systems (see Section C.2 in this chapter); securities settlement systems (see Section C.3 in this chapter); and the central counterparties (CCPs; see Section C.4 in this chapter).

1. Overview of Japan's payment and settlement systems

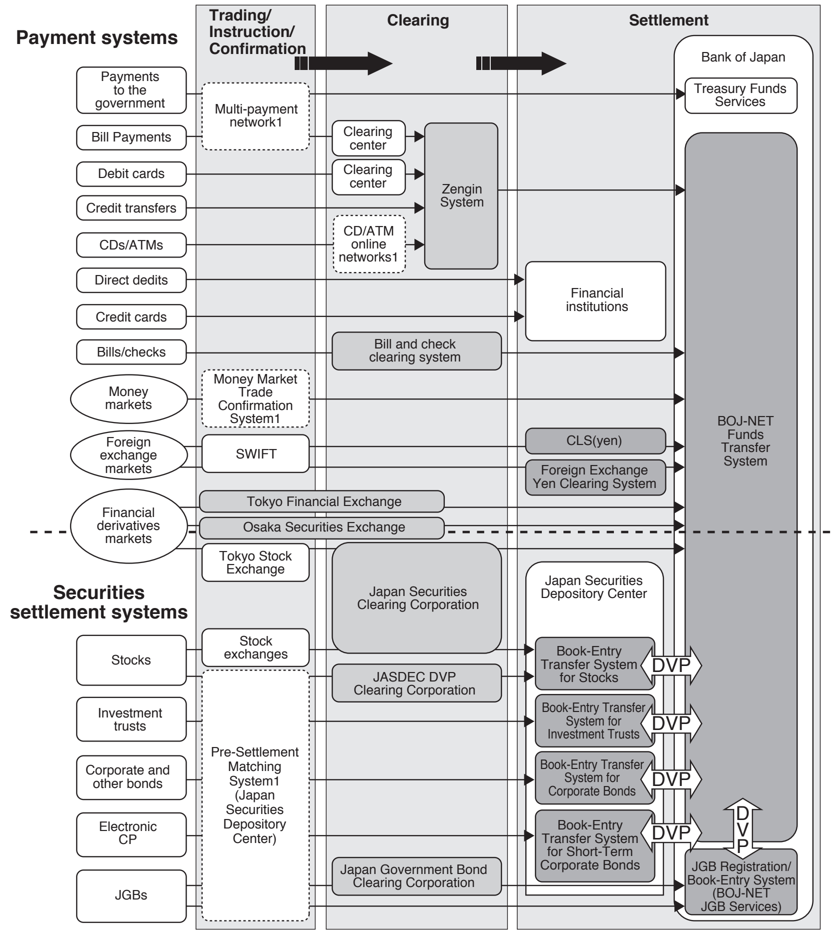
Before explaining individual payment and settlement systems, Japan's payment and settlement systems are overviewed along the lines shown in Figure 4-3. As shown on the vertical axis in the figure, Japan's payment and settlement systems are broadly divided into payment systems and securities settlement systems. As shown on the horizontal axis in the figure, in each of these types of payment and settlement systems, several phases generally follow the conclusion of a transaction contract before reaching settlement. For example, the flow of procedures from the conclusion of a transaction contract to the settlement in the market of financial products is divided into three phases: (1) transactions, such as sales and purchases, at exchanges; (2) clearing conducted at CCPs (see Box 4, "Payment and Settlement Terminology"); and (3) settlements, such as the transfer of funds and delivery of securities, conducted at settlement institutions.

In the transaction phase, the terms of the contracts between buyers and sellers are usually matched after the contracts for transactions are concluded. In the clearing phase, as a preparation for settlements, the data of transactions among market participants are aggregated to calculate the balances of transactions. After these phases, the transfer of funds and delivery of securities are carried out at settlement institutions.

Figure 4-4 shows the average daily value and number of transactions processed by the major payment and settlement systems in 2009. Among these, the average daily value of payments settled in the BOJ-NET Funds Transfer System (see Section D.1.d in this chapter) was more than 100 trillion yen, mainly reflecting large-value payments, including those of interbank call transactions. Accordingly, the BOJ-NET Funds Transfer System is the core payment and settlement system in Japan.

C. An Overview of Japan's Payment and Settlement Systems

Figure 4-3 Overview of Payment and Settlement Systems in Japan



Note: 1. Systems surrounded by dotted lines are not used for all transactions.

Figure 4-4 Average Daily Value and Number of Transactions Processed by Major Payment and Settlement Systems in Japan[1]

Payment systems	Value (tril. yen)	Number (thous.)
BOJ-NET Funds Transfer System	112.1	50.7
Of which: Interbank transfers	38.5	—
DVP[2] for JGBs	42.4	—
CLS (yen payments) system[3]	28.8	81.6
Foreign Exchange Yen Clearing System (FXYCS)	13.1	25.5
Domestic Funds Transfer System[4]	9.9	5,680.1
Bill and check clearing system[5]	1.1	128.3

Securities settlement systems	Value (tril. yen)	Number (thous.)
BOJ-NET JGB Services	81.2	16.1
Japan Government Bond Clearing Corporation (JGBCC)[6]	35.2	—
Japan Securities Clearing Corporation (JSCC)[6]	1.9	—
JASDEC DVP Clearing Corporation (JDCC)[6]	0.9	88.4
Japan Securities Depository Center (JASDEC)[7]		
Of which: Stocks	—	355.4
Electronic CP	5.3	1.3
Corporate and other bonds	1.0	2.0
Investment trusts	0.7	15.4

Notes: 1. Figures are average daily values and numbers for 2009.
2. For details on DVP, see Box 4, "Payment and Settlement Terminology."
3. For details on CLS, see Section C.2.d in this chapter.
4. Figures for the Domestic Funds Transfer System show the value and number of payments cleared.
5. Figures for the bill and check clearing system show the value and number of bills and checks cleared at the Tokyo Clearing House.
6. Figures for JGBCC, JSCC, and JDCC show the value of transactions cleared by a CCP. JSCC is a CCP for stock transactions executed on stock exchanges. JDCC is a CCP for stocks traded between securities companies and their customers.
7. Figures for JASDEC show the total amount of issuance, transfer, and redemption made on the book-entry transfer system for each type of security.

Sources: Bank of Japan, Tokyo Bankers Association, CLS, JGBCC, JSCC, JDCC, and JASDEC.

2. Payment systems

Major payment systems operated by the private sector in Japan are: (1) the Domestic Funds Transfer System; (2) the bill and check clearing system; (3) the Foreign Exchange Yen Clearing System (FXYCS); and (4) CLS. In these payment systems operated by the private sector, final settlements of payments between financial institutions are processed mainly with BOJ account deposits (BOJ-NET Funds Transfer System; for an explanation on BOJ account deposits, and the BOJ-NET, see sections D.1.b and d in this chapter).

a. Domestic Funds Transfer System

Funds transfers between banks at the request of customers (individuals and firms), and settlements associated with collections of bills and checks between financial institutions in different areas, are processed under the Domestic Funds Transfer System. The system is operated by the Japanese Banks' Payment Clearing Network (Zengin-Net),[9] which plays the role of a central organization, aggregating and calculating the balances of the rights and obligations between financial institutions by recalculating them into a bilateral right-and-obligation relationship between Zengin-Net and each financial institution. The arrangement in this system that processes related data is called the Zengin Data Telecommunications System (Zengin System).[10] Most of the financial institutions in Japan participate in the Domestic Funds Transfer System.

To understand the arrangement of the system, the specific operational flow is explained as follows (see Figure 4-5; the numbers in parentheses in the following paragraphs correspond to the numbers in Figure 4-5).[11]

(1) The process starts when a firm (Payer X), holding deposits at Financial Insti-

[9] Zengin-Net started operation in October 2010, as the successor to the clearing operations by the Tokyo Bankers Association, as a licensed clearing agency for interbank funds transfers based on the Payment Services Act.

[10] Moreover, the central organizations of financial cooperatives have built similar systems by business category, including the Cooperative Settlement Data Transmission System of the Norinchukin Bank, the national *shinkin* banks data communication system of the Shinkin Central Bank, the national *shinkumi* banks data communication system of the Shinkumi Federation Bank, and the national labor banks data communication system of the Rokinren Bank. The transfer of funds can be processed between banks and other financial cooperatives with the participation of central organizations in each business category in the Domestic Funds Transfer System.

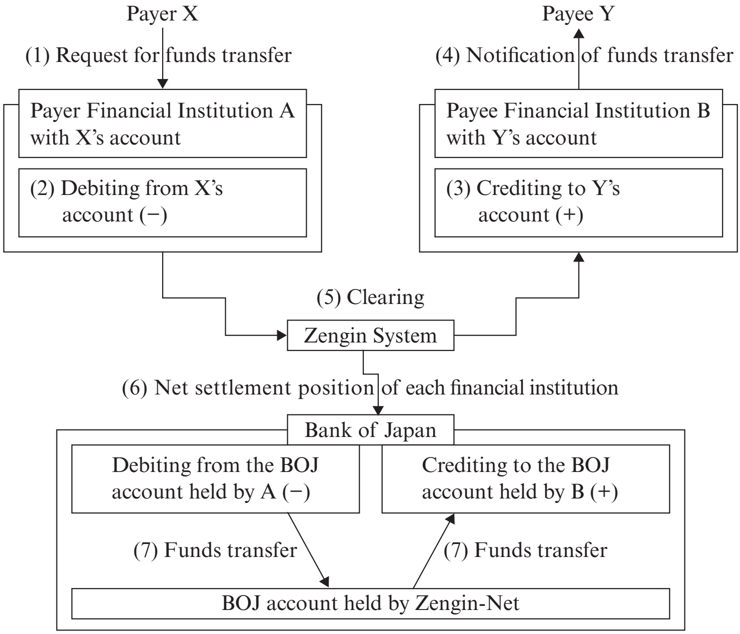
[11] To simplify the explanation, this example supposes that there are no transactions between Financial Institution A and Financial Institution B other than the request from Payer X for payment to Payee Y.

tution A, makes a request to transfer funds to another firm (Payee Y), holding deposits at Financial Institution B.
(2) Payer Financial Institution A, which receives the request, debits funds from the deposit account held by Payer X (Account X).
(3) and (4) Payer Financial Institution A sends payment information to payee Financial Institution B via the Domestic Funds Transfer System. Then, Payee Financial Institution B credits the deposit account held by Payee Y (Account Y) and sends notification of funds transfer to Payee Y.
(5) Data relating to Payer X and Payee Y, the payment value, and other information are exchanged between Financial Institution A and Financial Institution B via the Zengin System Computer Center. The Zengin System Computer Center aggregates and calculates the net settlement positions of participating financial institutions every business day.
(6) The data of the net settlement position of each institution is produced. In this way, rights and obligations between Financial Institution A and Financial Institution B are recalculated as those between Financial Institution A and Zengin-Net, and those between Financial Institution B and Zengin-Net. The center sends information on the net positions of participating financial institutions online to the Bank of Japan.
(7) The settlement of the net position between Financial Institution A and Financial Institution B is completed at 16:15 Japan Standard Time (JST) by transferring funds from the BOJ account held by Financial Institution A to the BOJ account held by Zengin-Net, and then transferring funds from the BOJ account held by Zengin-Net to the BOJ account held by Financial Institution B.

As described below, large-value payments equal to or larger than 100 million yen through the Domestic Funds Transfer System will be settled on a real-time gross settlement (RTGS) basis from November 2011. With RTGS, funds will be transferred one by one on a real-time basis at the request of financial institutions to the Zengin System[12] (see Box 4, “Payment and Settlement Terminology”). Details of RTGS are explained in Section D.1.d in this chapter, “Operating BOJ-NET.”

[12] After the introduction of RTGS for large-value transactions through the Domestic Funds Transfer System in November 2011, only small-value (less than 100 million yen) transactions will be settled by the procedures explained in the text.

Figure 4-5 Domestic Funds Transfer System



b. Bill and check clearing system

Bills and checks drawn by individuals or firms are generally brought to financial institutions in order to collect the money. The bill and check clearing system is used by financial institutions to settle the bills and checks brought to the institutions. Member institutions gather in a designated clearing house at a specific time in order to exchange bills and checks, and to calculate their net settlement positions. Clearing houses are operated by the bankers associations of their respective areas.[13] In most of the clearing houses, the net settlement positions are settled through BOJ account deposits.

[13] Based on the enforcement of the Electronically Recorded Monetary Claims Act in December 2008, the electronic recorded monetary claims system was introduced, with which it became possible to use electronic monetary claims as an alternative to the traditional credit function for bills. In response to this, various initiatives are being taken; for example, the Japanese Bankers Association has been making preparations to establish an electronic monetary claims recording institution, Zengin Electronic Monetary Claims Network, Ltd. (Densai Net), scheduled for May 2012.

To understand the arrangement, the specific operational flow is explained as follows (see Figure 4-6; the numbers in parentheses in the following paragraphs correspond to the numbers in Figure 4-6).[14]

(1) The process starts when a firm (Payer Y) makes payment by drawing a bill to a supplier (Payee X) for goods purchased. The bill drawn by Payer Y designates a branch of Financial Institution B, at which Payer Y has an account, as the place of payment.

(2) Payee X, the recipient of the bill, brings the bill to Financial Institution A, at which Payee X has an account, and makes a request for collection of funds.

(3) Financial Institution A, which accepts the request, brings the bill to the clearing house on the due date and requests Payer Financial Institution B to pay the funds.

(4) At the clearing house, member financial institutions present and exchange bills and checks,[15] and data are prepared on the net settlement position of each institution.

(5) In the case of settling the net settlement position through the BOJ accounts, the settlements are completed at 12:30 JST on the day of the exchange of the bill. At that time, the funds are transferred from the BOJ account held by Financial Institution B to the BOJ account held by the bankers association, while the funds are transferred from the BOJ account held by the association to the BOJ account held by Financial Institution A.

(6) After the bill is exchanged in the clearing house, Payer Financial Institution B brings the bill back from the clearing house.

(7) Payer Financial Institution B debits the deposit held by Payee Y (Account Y).[16]

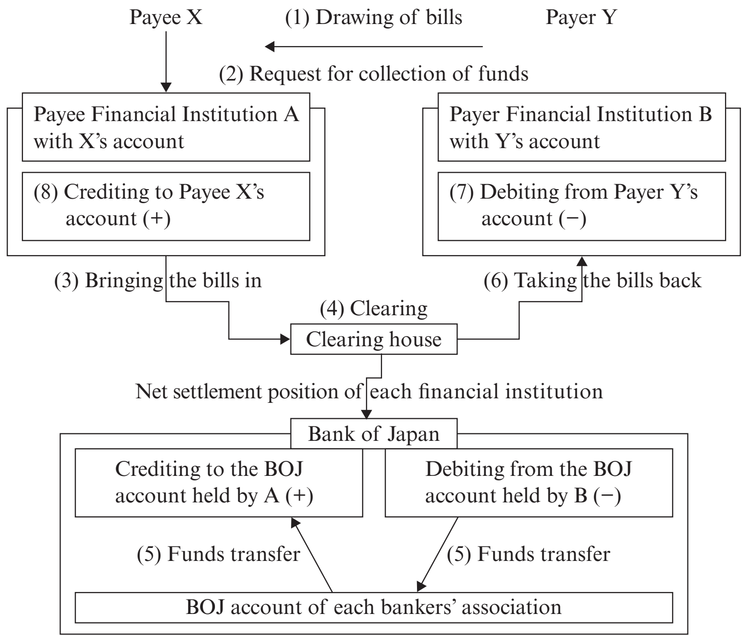
(8) The process is completed when Payee Financial Institution A credits Payee X's account (Account X) on the following business day.

[14] To simplify the explanation, this example supposes that there are no transactions between Financial Institution A and Financial Institution B other than the request to collect bills drawn by Payer Y for payment to Payee X.

[15] Bills and checks exchanged at a clearing house are limited to those payable at the financial institutions within its local area. When it is necessary to collect money for bills and checks across areas because of the network of financial institutions, the transactions are settled through the Domestic Funds Transfer System.

[16] If the financial institution finds any reason to dishonor the bill it brings back, such as a deficiency in the format, insufficient funds, and lack of current account transactions with the institution, the institution brings the bill to the clearing house on the following business day in order to process it as a dishonored bill.

Figure 4-6 Bill and Check Clearing System



c. Foreign Exchange Yen Clearing System (FXYCS)

The FXYCS is used for clearing interbank yen transfers arising from transactions such as yen payments from individuals and firms overseas to residents in Japan, or foreign exchange transactions between financial institutions (see Section D in Chapter VIII). The settlements under the system have been conducted by the RTGS method as a part of the next-generation RTGS project (see Box 2, "Next-Generation RTGS Project") since October 2008. The Bank, entrusted by Tokyo Bankers Association (the present Japanese Bankers Association), operates the system, for example, transferring payment instructions, through the BOJ-NET.

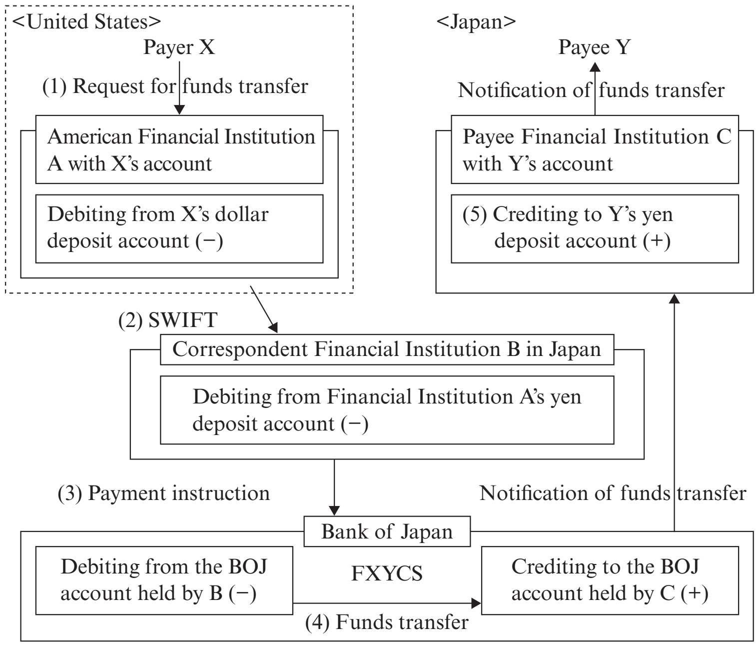
The arrangement of the system is explained as follows (see Figure 4-7; the numbers in parentheses in the following paragraphs correspond to the numbers in Figure 4-7).

(1) This illustrates a case in which a U.S. firm (Payer X) brings U.S. dollars to Financial Institution A in the United States, at which Payer X holds an account, and requests it to make a yen payment to a Japanese firm (Payee Y).

(2) Financial Institution A, which accepts the request, sends payment information by

using systems such as that of the Society for Worldwide Interbank Financial Telecommunication (SWIFT),[17] to its Correspondent Financial Institution B in Japan.[18]
(3) Correspondent Financial Institution B debits Financial Institution A's deposit account at Financial Institution B and sends payment information via the BOJ-NET to Financial Institution C.
(4) Through the BOJ-NET, the funds are transferred from the BOJ account held by Correspondent Financial Institution B to the BOJ account held by Payee Financial Institution C.
(5) Financial Institution C then credits the deposit account held by Payee Y.

Figure 4-7 Foreign Exchange Yen Clearing System (FXYCS)



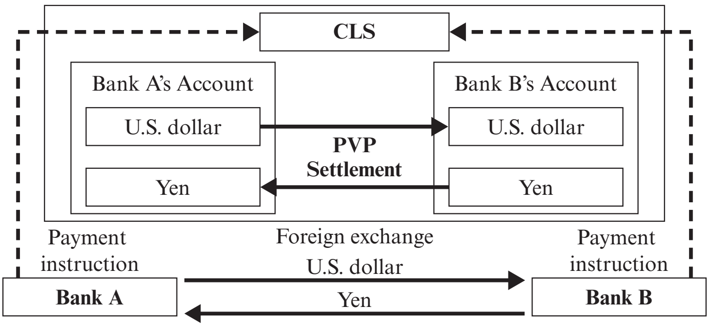
[17] SWIFT is a member-owned cooperative, which was established in Belgium. Its major business operation is to provide global data communication services for financial institutions. The services are related to transfers of customers' funds, interbank funds transfers, and transactions relating to securities. In Japan, SWIFT started its services in 1981.

[18] A correspondent financial institution is entrusted with making the transfer of funds on behalf of other institutions. For example, when a financial institution conducts a cross-border transfer of funds to a country where it does not have branches, it entrusts a financial institution in the country to transfer funds.

d. CLS

Settlements of foreign exchange transactions are also conducted through CLS,[19] which has its headquarters in New York. In foreign exchange transactions, if a trade of two currencies is settled in the payment and settlement systems in each country, a risk that one party will pay the currency it sold but not receive the currency it bought (the risk that the principal value is lost)[20] arises in the settlement process, as there is often a time difference between the settlement arrangements for the two traded currencies. In order to eliminate such risk in foreign exchange transactions, there is a payment mechanism referred to as payment versus payment (PVP). In PVP, by placing certain conditions on the transfer of both currencies to be settled, the transfer of one currency only occurs if the transfer of the counterparty currency takes place (see Box 4, "Payment and Settlement Terminology"). CLS is a cross-border payment system that settles foreign exchange transactions for the major currencies on a PVP basis during a five-hour window[21] (see Figure 4-8). CLS has deposit accounts in relevant central banks for each currency. The transactions between the participating financial institutions and CLS are conducted through accounts at central banks, which are very safe.

Figure 4-8 Settlement at CLS



[19] CLS was established and is owned by major private banks around the world. It started its services in 2002. Central banks in advanced countries, including the Bank of Japan, cooperated in its establishment.

[20] This type of risk is called Herstatt risk, after a case in 1974 in which Herstatt Bank in West Germany went bankrupt without paying funds in dollars to a counterparty after it received funds in Deutsche Marks from the counterparty, and, as a result, the counterparty could not receive the funds in dollars.

[21] The window for Asia-Pacific currencies is three hours.

e. Other payment systems

Other payment systems include CD/ATM networks[22] and the Multi-Payment Network.[23]

3. Securities settlement systems

Securities settlement systems in Japan can be categorized into three groups according to the type of securities: those for Japanese government securities (JGSs), e.g., the JGB Book-Entry System; those for debt securities other than JGSs, i.e., the Book-Entry Transfer System for Short-Term Corporate Bonds and the Book-Entry Transfer System for Corporate Bonds; and those for stocks, i.e., the Book-Entry Transfer System for Stocks and the Book-Entry Transfer System for Investment Trusts. The following sections explain the details of these systems.

a. Japanese government securities

The JGB Book-Entry System and the JGB Registration System are used for the settlements of JGSs. Currently, more than 99.9 percent of JGS settlements are processed under the JGB Book-Entry System, and the JGB Registration System[24] is rarely used. The Bank is the central securities depository for the JGB Book-Entry System and the register institution for the JGB Registration System. In both systems, settlements are processed through the BOJ-NET JGB Services.

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[22] The CD/ATM network among financial institutions processes receipts, payments, and transfers of deposits, using CDs/ATMs of financial institutions at which customers do not hold their deposit accounts. Payments between financial institutions in the network are processed through the Zengin System.

[23] The Multi-Payment Network is the network that electronically receives, sends, and processes the data related to public utility charges, local public funds, and treasury funds that customers pay through financial institutions. The payments related to treasury funds, using the network, are processed through the BOJ accounts. Other payments between financial institutions are processed through the Zengin System (see Chapter IX.A.5.b for the details of online processing of government revenues, using the Multi-Payment Network).

[24] The JGB Registration System was established in 1906. In that system, JGSs are registered without issuance of securities in a physical form based on the request of the JGS holder. The registration of JGSs is conducted by recording in the book — the registration book — which the registrar of the system — the Bank — keeps. When JGS holders change due to transactions of JGSs, the transactions are completed by changing the holders' names in the registration book.

The Bank established the JGB Book-Entry System in 1980 against the background of a surge in JGS transactions since the 1970s. In the beginning, transfer of JGSs by book entries was conducted based on the existence of physical certificates collectively deposited at the Bank. In January 2003, with the enforcement of the Act on Book-Entry Transfer of Company Bonds, etc.,[25] which enabled a full dematerialization of JGSs, corporate bonds, and other securities, the old system was converted to the current JGB Book-Entry System (see Section C in Chapter IX).

In a sale or purchase of JGSs, in order to eliminate the risk that payment for a transaction is not conducted even though the JGSs are delivered, and vice versa, in 1994 the Bank introduced DVP settlement of JGS transactions, which links the BOJ-NET Funds Transfer System and the BOJ-NET JGB Services (see Section D.1.d in this chapter) to ensure that delivery occurs if, and only if, payment occurs (see Box 4, "Payment and Settlement Terminology"). When JGS settlement on an RTGS basis started in 2001, the function of simultaneous processing of DVP and collateralization (SPDC) was also introduced in order to facilitate smooth JGS settlement on a DVP basis (for the SPDC function, see Section D.1.c in this chapter).

b. Debt securities other than JGSs (electronic CP and corporate bonds), stocks, and investment trusts

There are also book-entry systems for debt securities other than JGSs and stocks: namely, the Book-Entry Transfer System for Short-Term Corporate Bonds used for electronic CP;[26] the Book-Entry Transfer System for Corporate Bonds used for corporate bonds;[27] the Book-Entry Transfer System for Stocks used for stocks; and the Book-Entry Transfer System for Investment Trusts used for investment trusts. These systems were set up as part of the series of reforms in security settlement systems aimed at realizing dematerialization of securities certificates. The Book-Entry Transfer System for Short-Term Corporate Bonds started in 2003, that for

[25] The Act on Book-Entry Transfer of Company Bonds, etc. was revised to the Act on Book-Entry Transfer of Company Bonds, Shares, etc., which was enforced in January 2009.

[26] Electronic CP is dematerialized CP that is legislatively referred to as short-term corporate bonds. CP is widely used for short-term financing by firms and is traded in money markets. Due to the dematerialization of CP, settlement periods were shortened, the settlement risk due to the realization of DVP was reduced, and the burden of storing, transporting, and delivering the certificates of CP was eliminated.

[27] Corporate bonds include corporate bonds, municipal bonds, government-guaranteed bonds, Fiscal Investment and Loan Program Agency bonds, asset-backed corporate bonds, and bank debentures.

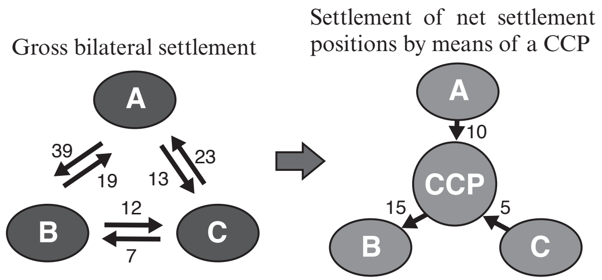
Corporate Bonds started in 2006, that for Investment Trusts started in 2007, and that for Stocks started in 2009. For each system, Japan Securities Depository Center (JASDEC)[28] is the central securities depository to settle securities transactions, and operates systems that process transfers of securities and other procedures.

4. Central counterparties (CCPs)

CCPs (see Box 4, "Payment and Settlement Terminology") clear securities transactions, such as sales and purchases of securities that are contracted among many relevant counterparties. The clearing is conducted by recalculating rights and obligations between the seller and the buyer into a bilateral right-and-obligation relationship between the seller and the central counterparty and that between the central counterparty and the buyer. Therefore, participating counterparties can reduce the amount of funds and securities required for settlement by, for example, calculating the net settlement positions for the same securities and processing settlements of net settlement positions of funds and securities with the CCP (see Figure 4-9). In addition, when a participant is unable to settle a transaction, a CCP can also fulfill a settlement obligation of the defaulting participant in relation to other participants.

The following sections explain CCPs in Japan, namely (1) those for securities transactions and (2) those for financial derivative transactions.

Figure 4-9 Cleaning Arrangement



In settlements among multiple related counterparties, if a CCP intermediates among them, they only have to process the net settlement positions between them and the CCP. For example, in the case of settlement without a CCP, A needs to pay 39 to and receive 19 from B, and also pay 13 to and receive 23 from C. On the other hand, in the case with a CCP, A can settle the transaction merely by paying 10 to the CCP, which is calculated by subtracting the total amount received (19 + 23 = 42) from the total amount paid (39 + 13 = 52).

[28] JASDEC was inaugurated as a non-profit foundation in 1984 and started operation in 1991. It was incorporated in 2002.

a. CCPs for securities transactions

CCPs for securities transactions are: (1) the Japan Government Bond Clearing Corporation (JGBCC),[29] which clears transactions among major participants in the JGS market; (2) the Japan Securities Clearing Corporation (JSCC),[30] which clears transactions such as those of stocks among securities companies in stock exchanges; and (3) JASDEC DVP Clearing Corporation (JDCC),[31] which clears transactions such as those of stocks between securities companies and their client financial institutions.[32] Payments and JGS settlements related to transactions cleared by the JGBCC are processed through the BOJ-NET Funds Transfer System and the BOJ-NET JGB Services (see Section D.1.d in this chapter), both of which are operated by the Bank. Payments related to transactions cleared by the JSCC and the JDCC are processed by funds transfer via deposit accounts held in private financial institutions or funds transfer via BOJ accounts. Settlements of securities, including stocks, are processed through the system operated by JASDEC.

b. CCPs for financial derivatives transactions

Financial derivatives are listed on the Tokyo Stock Exchange (bond futures and other financial products), the Osaka Securities Exchange (stock price index [Nikkei 225] futures, foreign exchange margin contracts, and other financial products), and the Tokyo Financial Exchange (interest rate futures, foreign exchange margin contracts, and other financial products). Financial derivative transactions contracted on the Tokyo Stock Exchange are cleared through the JSCC, which is a CCP. Financial derivative transactions contracted on the Osaka Securities Exchange or the Tokyo Financial Exchange are cleared through each exchange itself, as they also function as CCPs. Payments for the transactions cleared by these CCPs are processed by funds transfer via deposit accounts held

[29] The JGBCC is a stock company established in 2003 by a joint capital investment of major participants in the JGS market, such as securities companies, banks, and *tanshi* companies. It started JGS clearing services in 2005.

[30] The JSCC started its services in 2003 as the first cross-market clearing organization in Japan. The securities clearing functions of the six securities exchanges, including the Tokyo Stock Exchange and Osaka Securities Exchange, were separated from these exchanges and integrated into JSCC.

[31] The JDCC was established as a wholly-owned subsidiary of JASDEC, a central securities depository (CSD), and started its services in 2004.

[32] The three CCPs are licensed Financial Instruments Clearing Organizations based on the Financial Instruments and Exchange Act.

in private financial institutions or by transfer via the BOJ accounts.

D. The Bank's Business Related to Payment and Settlement

Following from the above explanation of payment instruments, and payment and settlement systems, this section outlines the Bank of Japan's business related to payment and settlement. To ensure safety and efficiency in payment and settlement systems, the Bank operates and oversees such systems, and also provides payment instruments. More specifically, the Bank itself provides banknotes and BOJ account deposits as payment instruments. It also operates payment and settlement systems, i.e., the BOJ-NET and the JGB Book-Entry System (see Section D.1 in this chapter). Regarding the oversight of payment and settlement systems, the Bank: monitors the institutional design, risk management, and day-to-day operation of private-sector payment and settlement systems; assesses their safety and efficiency; and induces changes when necessary (see Section D.2 in this chapter). The Bank works to strengthen business continuity arrangements (see Section D.3 in this chapter) and to enhance international cooperation related to payment and settlement (see Section D.4 in this chapter).

1. Provision of payment instruments and operation of payment and settlement systems

From the Bank's overall business related to payment and settlement, this section first explains the issuance of banknotes and the provision of BOJ accounts as the provision of payment instruments, and then describes the operation of the JGB Book-Entry System and the BOJ-NET as the operation of the payment and settlement system.

a. Issuance of banknotes

The Bank issues banknotes as payment instruments and works to ensure their smooth circulation. It is an important mission for the Bank to ensure that people have confidence in the safety of banknotes as payment instruments and can use the banknotes conveniently. The Bank endeavors to ensure that banknotes circulate smoothly nationwide through financial institutions' counters and ATMs, to meet demand for banknotes, and that banknotes are circulated smoothly even in the event of disasters and other emergencies (see Chapter III).

b. Provision of BOJ account deposits

BOJ account deposits held at the Bank are used for final settlement of various transactions, such as financial institutions' deposit and withdrawal of banknotes to/from the Bank, funds and securities transactions between financial institutions, and deferred net settlement through private-sector payment and settlement systems (see Box 4, "Payment and Settlement Terminology"). In addition, debiting and crediting BOJ accounts are used to settle such transactions as the market and lending operations that the Bank conducts with financial institutions (see Chapter V.C.1 and Chapter VI.D.1), the payment of treasury funds (see Chapter IX.A.3), and the issuance and redemption of JGSs (see Chapter IX.C.2 and 4).

The Bank introduced a computer network, the BOJ-NET Funds Transfer System, in 1988 to settle fund transactions through BOJ accounts, and has made efforts to improve it so as to ensure safer and more efficient settlement of such accounts (see Section D.1.d in this chapter).

c. Operation of the JGB Book-Entry System

Newly issued book-entry JGSs have been fully dematerialized since 2003 under the Act on Book-Entry Transfer of Company Bonds, etc. (hereafter, "the Act;" see Footnote 25). The Bank operates the JGB book-entry system as the central securities depository stipulated by the Act (see Chapter IX.C.3) for the following reasons: (1) JGSs are closely related to funds transactions and settlements, as they are often used as collateral for funds transactions and settlements in payment and settlement systems; and (2) the sale and purchase of JGSs are used in the Bank's market operations.

In 1994, the Bank introduced a delivery-versus-payment (DVP) mechanism for JGSs (see Section C.3.a in this chapter), placing certain conditions on the transfer of funds and the delivery of JGSs, whereby the delivery of securities occurs only if the corresponding transfer of funds occurs, and vice versa. In 2001, the Bank introduced real-time gross settlement (RTGS) as the sole settlement mode for JGSs and, at the same time, the SPDC function to achieve smooth DVP settlement of JGSs. The SPDC function enables financial institutions that purchase JGSs to receive intraday overdrafts from the Bank by using the JGSs that the institutions receive from the seller as collateral, and then use the funds to pay for such JGSs. This function is widely used, as it is an effective way to reduce the volume of liquidity necessary for settlement.

d. Operation of the BOJ-NET

The Bank operates the Bank of Japan Financial Network System (BOJ-NET) to provide efficient and safe online payment and settlement services for the transfer of BOJ account deposits, and the delivery of JGSs upon their sale and purchase. The Bank's Head Office and branches, as well as BOJ-NET participants are connected to the Bank's computer center in Tokyo by telecommunications lines, via which data are sent to the host computer for online processing. Participants were once able to access the BOJ-NET only with dedicated terminals, but they can now do so via general-purpose personal computers.

To ensure the safety of transfers of funds and delivery of JGSs via the BOJ-NET, important equipment for the BOJ-NET is duplicated as a measure against computer network failures. Such duplicated equipment consists of the host computers and communications control units at the computer center, the telecommunications lines between the Bank's Head Office and branches, and telecommunication companies' switching centers nearest to the Head Office and key branches. The Bank's computer center has backup facilities in Osaka. The computer center, with the support of the Osaka branch, always monitors the operations of the BOJ-NET to detect any system failures and to take necessary measures as promptly as possible if failures arise. The Bank also uses passwords, ID (identification) cards, and data encryption to ensure the security of the information exchanged over the network and prevent fraud.

The functions of the BOJ-NET include the BOJ-NET Funds Transfer System (started in 1988), which is the payment system, and the BOJ-NET JGB Services (started in 1990), which is the JGSs settlement system.[33] The BOJ-NET Funds Transfer System processes transactions in money markets and funds settlements related to JGS transactions by transferring funds between financial institutions' BOJ accounts. The system also processes funds settlements related to private-sector payment and settlement systems, such as the Domestic Funds Transfer System, the bill and check clearing system, and the FXYCS. The BOJ-NET JGB Services deal with settlements for JGS transactions, as well as auction, issuance, and payments at the time of JGS issuance via the online processing.

Since the operation of the BOJ-NET started, the Bank has continued its endeavor to improve BOJ-NET functions through various measures: the introduction of DVP settlement for JGS transactions (1994; see Section C.3.a in this chapter); the introduction of RTGS for the settlement through the BOJ

[33] The BOJ-NET Funds Transfer System operates from 9:00 to 19:00 JST. The BOJ-NET JGB Services operate from 9:00 to 16:30 JST.

accounts and the settlement of JGS transactions (2001); the introduction of DVP settlement for electronic CP, corporate bonds, investment trusts, and stocks by linking the BOJ-NET Funds Transfer System with securities settlement systems operated by the private sector (from 2001 through 2009; see Section C.3.b in this chapter); the introduction of liquidity-saving features to the BOJ-NET Funds Transfer System, and the migration of FXYCS payments to the RTGS system in the next-generation RTGS project (2008); and the migration of large-value payments equal to or larger than 100 million yen in the Zengin System to the RTGS system (scheduled for 2011). Meanwhile, the Bank has also endeavored to develop business continuity arrangements (see Section D.3 in this chapter), including the establishment of a backup center in Osaka in 1996.

In particular, the arrangement of settlement systems has changed drastically by the 2001 migration to RTGS of funds transfer through the BOJ accounts and the settlement for JGS transactions. The following explains the change in detail.

In the deferred net settlement system used before the introduction of RTGS, in order to process settlements between financial institutions, financial institutions holding current accounts at the Bank had to designate the times of settlement from designated time frames (9:00, 13:00, 15:00, or 17:00 JST) in their funds transfer instructions. Following this, the Bank accumulated funds transfer instructions (payment instructions) received from each financial institution until the designated time of settlement. Then, at the designated time, the Bank calculated the total amount of receipts of funds minus the total amount of payment of funds (the net settlement position) of each financial institution, and only net settlement positions were collectively debited from and credited to financial institutions' accounts at the Bank (see Figure 4-10 [1]).

However, in the deferred net settlement system, if a financial institution fails to settle a transaction at the designated time, other participants may not be able to settle their transactions, if expected to use the funds to be received from the failed participant for payments to other counterparties. There was a risk that settlements for transactions among many financial institutions as a whole might be stopped (see Chapter I.B.3 for a form of the materialization of systemic risk).

Therefore, from the perspective of reducing systemic risk, the Bank wholly shifted the settlement system for funds and JGSs through the BOJ accounts from the deferred net settlement system to the RTGS system in 2001. Under the RTGS system, as each settlement is processed individually on a real-time basis by the central bank (the Bank) receiving instructions from financial institutions, the direct influence of failure of one settlement is limited only to the counterparty (see Figure 4-10 [2]).

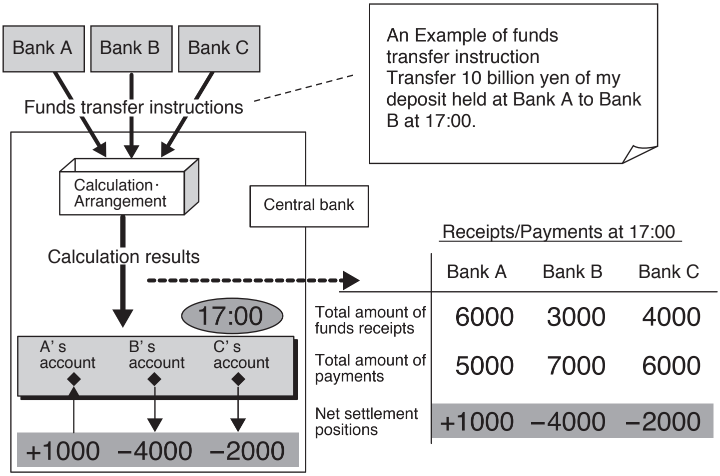
In the case of funds transfers in the deferred net settlement system, each financial institution only needed to hold funds amounting to the net settlement position in the BOJ account at the time of the settlement. However, in the case of funds transfers in the RTGS system, because each settlement is processed individually, each financial institution needs to keep more funds on hand (liquidity) for settlements during business hours. Therefore, at the time of the shift to the RTGS system in 2001, the Bank started to provide collateralized intraday overdrafts without charge to financial institutions, such as banks, that hold BOJ accounts. As a result, financial institutions holding BOJ accounts become able to raise funds from the Bank, within the value of the pooled collateral (see Footnote 34 in Chapter V) submitted to the Bank, at any time during business hours. Under the RTGS system, the participants can use the received funds for their following payments, so they have an incentive to delay their payments as much as possible. Due to this kind of incentive among the participants, the intraday settlement might become stagnant. Therefore, when RTGS was introduced, the market convention was improved in order to accelerate the settlement time.

The Bank is implementing the next-generation RTGS project, which consists of introducing liquidity-saving features to the BOJ-NET Funds Transfer System and of shifting large-value payments currently settled through private sector deferred net settlement systems (the FXYCS and the Domestic Funds Transfer System) to the BOJ-NET on an RTGS basis (see Box 2, "Next-Generation RTGS Project"). The next-generation RTGS project is expected to further improve safety and efficiency in the payment and settlement systems in Japan.

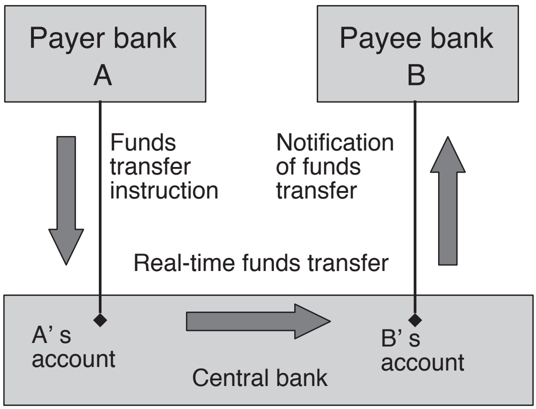
Moreover, the Bank is promoting the New BOJ-NET Project in order to enhance the flexibility and accessibility of the BOJ-NET as well as to ensure the future development of the BOJ-NET while reducing costs in the medium- to long-term period. The project is to keep up with the progress in straight-through processing (STP; see Box 4, "Payment and Settlement Terminology") in settlements that realizes seamless processing of the ordering, execution, matching, clearing, and settlement of financial transactions such as securities transactions and foreign exchange transactions, as well as keeping up with the enhanced linkage between payment and settlement systems across international borders. Basic concepts for the New BOJ-NET are: (1) introducing the latest information processing technology; (2) realizing high flexibility when faced with changes; and (3) realizing high accessibility. This project is planned to be completed in fiscal 2015.

Figure 4-10 Deferred Net Settlement and RTGS Settlement

(1) Deferred net settlement with designated settlement time of 17:00



(2) RTGS settlement



2. Oversight of private-sector payment and settlement systems

The Bank conducts oversight of private-sector payment and settlement systems, in addition to directly providing payment instruments and operating payment and settlement systems. The Bank has made public the objectives and policies of its oversight activities.[34] This section explains the following: the objectives, the significance, and the details of oversight activities; international cooperative oversight; and the initiatives conducted by the Bank.

a. Objectives and significance

The Bank conducts oversight of the payment and settlement system in order to ensure the safety and efficiency of the payment and settlement system in Japan. Oversight is defined as including the following activities: monitoring the institutional design, risk management, and operations of systems by the private sector; assessing the systems against established safety and efficiency objectives; and inducing changes for improvements where necessary.[35]

Payment and settlement systems involve many participants and collectively process a large number of settlement instructions. Therefore, if one participant in a system fails to settle its payment obligations, it could lead to a chain of settlement failures, involving other participants. Also, if the smooth operation of a payment and settlement system is interrupted by computer malfunctions, settlements of all system participants will be disrupted. The materialization of these incidents could possibly lead to a chain of adverse impacts on the settlement of financial institutions other than the system participants, or on other payment and settlement systems. This may be considered to be one form of systemic risk, which starts from a settlement failure (see Chapter I.B.3).

In the Bank's oversight, considering that payment and settlement systems operated by the private sector potentially pose systemic risk, the Bank, as a central bank, seeks to establish a common understanding with system operators and other stakeholders, and takes the initiative in improving their functions in cooperation with them. By doing so, the Bank aims to ensure safety and efficiency not only in individual systems but also in the overall payment and settlement arrangements

[34] See "Policy on Oversight of Payment and Settlement Systems" and "Policy on Oversight of Offshore Yen Payment Systems," both of which were released in May 2010. They are available on the Bank's website (http://www.boj.or.jp/en/index.htm).

[35] Among central banks and relevant parties of payment and settlement systems, the term "oversight" is established as referring to central bank activities such as monitoring, assessment, and inducing changes for improvements, related to various private-sector payment and settlement systems.

in Japan. Although the legal treatment of the oversight of the payment and settlement system differs depending on the country, central banks in other major countries conduct oversight of payment and settlement systems in a similar way.

b. Details of oversight activities

In light of the purpose of oversight, the Bank's oversight focuses on payment systems, securities settlement systems, and CCPs. Moreover, based on the size and characteristics of risks inherent in each payment and settlement system, the Bank conducts oversight particularly focused on payment and settlement systems that are highly likely to seriously affect the financial systems and economy in Japan through the materialization of systemic risk (systemically important systems).[36]

There are three steps in the specific oversight activities: (1) monitoring; (2) assessment; and (3) inducing changes for improvement. In monitoring, the Bank ascertains the performance and characteristics of payment and settlement systems subject to oversight. To do so, the Bank analyzes and monitors their institutional design, risk management, operations, and other aspects based on public and confidential information provided by the systems as well as through regular and ad-hoc dialogues with the system operators.

In the assessment of a payment and settlement system, based on the results of monitoring, the Bank judges whether the system is a systemically important system. As the benchmark for the oversight of systemically important systems, the Bank uses the internationally accepted standards (international standards) established by the Committee on Payment and Settlement Systems (CPSS), a standing committee located at the BIS,[37] and the International Organization of Securities Commissions (IOSCO).[38] The Bank evaluates whether the systems

[36] Whether a payment and settlement system is systemically important or not is determined based on a comprehensive consideration of the following factors: (1) the value and number of transactions settled; (2) the number and types of system participants; (3) the characteristics of transactions settled; (4) the availability of alternative systems or payment instruments; (5) the interdependencies with other systems; and (6) the relationship with the Bank.

[37] BIS is the international organization that serves to enhance the global financial cooperation and plays the role as the bank of central bank. Its head office is located in Basel, Switzerland.

[38] The standards include those set out in "Core Principles for Systemically Important Payment Systems," which the CPSS released in January 2001; "Recommendations for Securities Settlement Systems," which the CPSS and IOSCO jointly released in November 2001; and "Recommendations for Central Counterparties," which the CPSS and IOSCO jointly released in November 2004. The CPSS and IOSCO conduct comprehensive reviews of these standards based on lessons learned from the financial crisis since the autumn of 2008.

meet the requirements set out in the international standards, and makes its own assessment of the systems.

When issues requiring improvements in institutional design, risk management, and operations of payment and settlement systems by the private sector are identified as a result of an assessment, the Bank induces changes for improvements where necessary. At such a time, the Bank works to have regular dialogues with the system operators and participants. Through these intensive dialogues, the Bank seeks to establish a common understanding with the operators on these issues and solutions, and encourages them to take actions that will contribute to safe and efficient payment and settlement systems. For the oversight of the systems operated by the Bank itself, it also adopts the same international standards as those adopted for the oversight of private-sector payment and settlement systems, and releases the results of a self-assessment based on these standards.

Based on such oversight activities, the Bank releases the *Payment and Settlement Systems Report*,[39] which provides a wide range of explanations on developments in and issues regarding Japan's payment and settlement systems as well as on the global trends in payment and settlement systems.

c. International cooperative oversight

In recent years, with the globalization of financial transactions, there has been an emergence of yen payment systems that are operated by entities located outside Japan (offshore yen payment systems). Depending on the size and characteristics of the system, offshore yen payment systems could have a significant adverse impact on the safety and efficiency of payment arrangements in Japan. Therefore, in principle, the scope of the Bank's oversight covers offshore yen payment systems.

At the same time, the oversight of offshore payment systems entails issues that do not arise in the oversight of domestic payment systems. These include the issue of jurisdictional authority, as well as difficulties in obtaining information due to time differences and/or the geographical distance between the Bank and the system operator. With this in mind, the oversight of offshore payment systems is, in principle, conducted in the form of cooperative efforts involving the relevant central banks (the central banks in countries where the systems are located or central banks that issue eligible currencies). This type of oversight is called international cooperative oversight. The relevant central banks conduct international cooperative oversight of some offshore payment systems, and the

[39] The report is also available on the Bank's website.

Bank also takes part in such oversight (see Section D.4 in this chapter).

d. Initiatives conducted by the Bank

While continuing to conduct its hitherto established oversight procedures, the Bank has worked on various initiatives in order to improve the private-sector payment and settlement systems. For example, as a best practice, the international standards formulated by central banks encourage payment systems providing deferred net settlement to prepare capabilities to ensure timely completion of daily settlements in the event of an inability to settle by the participants with the two largest settlement obligations. This includes developing arrangements for obtaining collateral or third party guarantees, contingency liquidity arrangements,[40] and loss-sharing arrangements.[41] Based on this fact, the Bank has encouraged the development of risk management policies that fulfill the best practices for the Domestic Funds Transfer System and FXYCS.

Regarding securities settlements, the Bank introduced the DVP settlement mechanism for JGS settlement processed through the BOJ-NET, in which the Bank itself is the central securities depository. The Bank also took part in the detailed discussion to design the systems for electronic CP, corporate bonds, stocks, and investment trusts, while supporting the realization of DVP settlement by connecting the BOJ-NET Funds Transfer System to private-sector securities settlement systems. In addition, when CCPs for the stocks and JGSs were established, the Bank provided advice on what the institutional design and risk management should be, based on global trends and international standards. In recent years, based on the issues recognized in the financial crisis since the Lehman shock in the autumn of 2008, the Bank has discussed and examined issues with operators of private-sector payment and settlement systems and market participants, regarding, for example, the shortening of the JGS settlement cycle, enhancement of functions of CCPs, and increased adoption of the fails practice (see Box 3, "Fails Practice for Bond Trading").

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[40] Contingency liquidity arrangements: a mechanism activated in the event of failure-to-settle by a system participant in which the system operator obtains funds, either through borrowing from banks or through liquidation of collateral securities, and makes payments instead of the participant in default, thereby preventing a chain of settlement failures among other participants.

[41] Loss-sharing arrangements: a mechanism to prevent the default of a system operator in the event of participants' failure to settle by covering the loss suffered by the system operator with the collateral pledged in advance by the failing participants or through contributions from other participants.

3. Enhancement of business continuity arrangements

This section explains the enhancement of business continuity arrangements within the Bank's business related to payment and settlement. The Bank enhances its own business continuity arrangements, while supporting the improvement of the business continuity arrangements in financial institutions and financial markets.

a. Business continuity arrangements at the Bank

Payment and settlement systems are infrastructures that are important for the economy and society of a country, and it is necessary to adequately develop business continuity arrangements in advance in order to prepare for the occurrence of various incidents. Various kinds of incidents are anticipated, including natural disasters such as earthquakes, floods and storms, technical disasters such as system failure, man-made disasters such as terrorist attacks, and an outbreak of infectious diseases such as new types of influenza. As a major player in the payment and settlement systems, the Bank has worked for a long time to adequately improve its business continuity arrangements, keeping in mind the possibility of various incidents occurring, in order to minimize the impact of a disaster on its business operations, and to smoothly carry out its obligations as a central bank.

Specifically, the Bank prepares for an emergency by: (1) specifying the central bank's business operations that should be continued in the event of a disaster and its aftermath; (2) establishing a disaster management team; (3) securing personnel responsible for initiating disaster response procedures and personnel for carrying out critical business operations; (4) preparing procedures to smoothly ensure that means for communication are available in case of a disaster; (5) improving the backup functions for the Head Office at Nihonbashi in Tokyo and the computer systems; and (6) conducting regular testing.

b. Business continuity arrangements at financial institutions and financial markets

In Japan, improvements in business continuity arrangements at each financial institution and private-sector payment and settlement system are also indispensable for establishing robust financial systems, and payment and settlement systems. Therefore, the Bank monitors developments in business continuity arrangements in financial institutions and private-sector payment and settlement systems through on-site examinations, off-site monitoring, and oversight, and induces improvements in these arrangements whenever necessary. The Bank also works to disseminate knowledge and support initiatives among the relevant parties by holding various seminars and releasing papers and survey results. Moreover, market participants have been developing an information-sharing arrangement in preparation for a disaster and improving arrangements to discuss and provide notice of changes in market practices. The Bank also supports these initiatives.

4. International cooperation

The Bank endeavors to promote international cooperation related to payment and settlement systems. It participates in various international conferences and international cooperative oversight activities, such as those of global payment and settlement systems.

First, the Bank exchanges opinions and makes global rules on payment and settlement with other participants in the CPSS, and the Working Group on Payment and Settlement Systems at the Executives' Meeting of East Asia Pacific Central Banks (EMEAP; see Chapter VIII). The CPSS analyzes the developments in payment and settlement systems in each country, and the cross-border multicurrency settlement schemes. The CPSS also examines the policy issues related to the systems and schemes, and establishes global standards that payment and settlement systems must fulfill. The standard for the risk management of the payment and settlement systems established by the CPSS (see Footnote 38) is globally recognized, and the Bank also follows this standard in its conduct of oversight.

The Bank also cooperates with the related foreign central banks to conduct oversight of CLS, which is a cross-border payment system (see Section C.2.d in this chapter), and SWIFT, which provides services related to settlements (see Footnote 17).[42]

[42] Strictly speaking, SWIFT is not a payment and settlement system. However, it is widely used by financial institutions around the world, and any disruption in the operations of this system may globally influence payment and settlement systems. Therefore, in order to improve internal control and risk management systems, the relevant central banks conduct international cooperative oversight of SWIFT.

Box 1 Number of Institutions Holding Current Account Deposits at the Bank of Japan (BOJ Account Holders)

As of the end of fiscal 2009, the Bank provided current account services to 556 financial institutions, including banks, *shinkin* banks, and securities companies. The Bank selects BOJ account holders, based on the "Criteria for Parties Eligible to Hold Current Accounts with the Bank and That Have Access to the Bank's Lending,"[1] from the perspective of whether providing the services to the applicant institution will contribute to achieving the objectives of the Bank. Specifically, the Bank decides whether an institution is eligible based on the following criteria: (1) the institution should play a major role in funds or securities settlement or as an intermediary in money markets; (2) it should ensure the appropriateness of its businesses and management structure, and of its operational framework; and (3) it should conclude an on-site examination contract with the Bank (see Chapter VI.F.2).

Table for Box 1 BOJ Account Holders by Business Category (as of the End of Fiscal 2009)

Banks[2]	Trust banks	Foreign banks	*Shinkin* banks	Securities companies	Others[3]	Total
126	19	56	263	39	53	556

Notes: 1. See the Bank's website for details of the criteria (available only in Japanese).
2. Excluding trust banks and foreign banks.
3. Including the central institutions for cooperative financial institutions and *tanshi* companies (see Box 1 for Chapter V, "Money Markets and the Call Market").

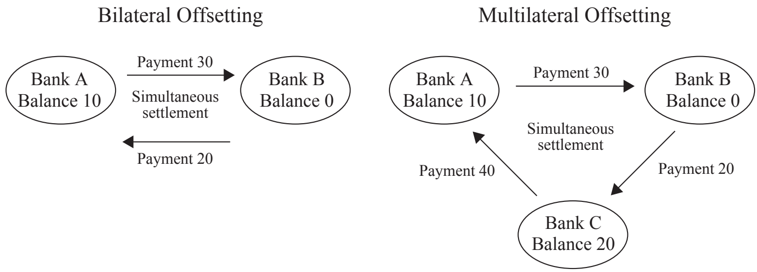
Box 2 Next-Generation RTGS Project

In 2001, the Bank of Japan introduced real-time gross settlement (RTGS) to the Bank of Japan Financial Network System (BOJ-NET) Funds Transfer System. The Bank has advanced the next-generation RTGS project in order to further enhance the efficiency and safety of all the large-value payment and settlement systems in Japan.

The project consists of the following two core components: (1) introducing liquidity-saving features to the BOJ-NET; and (2) shifting large-value payments currently settled through private-sector deferred net settlement systems (the Foreign Exchange Yen Clearing System and the Domestic Funds Transfer System) to the BOJ-NET on an RTGS basis with liquidity-saving features. The project has been implemented in two phases, considering the burden on the participants and the risks associated with system development. Phase 1, which began in October 2008, achieved the first component, "introducing liquidity-saving features to the BOJ-NET," and partly achieved the second, "incorporating the Foreign Exchange Yen Clearing System payments into the BOJ-NET."

Liquidity-saving features allow each financial institution to economize on the use of liquidity, which is achieved by a combination of queuing and offsetting facilities. The queuing facility allows payment instructions to be held pending within the system. In the previous BOJ-NET Funds Transfer System, if a participant did not have sufficient funds to complete a transaction when it sent a payment instruction to the Bank, it was rejected by the system. In the new BOJ-NET Funds Transfer System, a payment instruction that does not satisfy the conditions for settlement will be placed in the central queue for each financial institution. The offsetting facility searches among the newly entered and queued payment instructions for a bilateral or multilateral set of instructions that can be settled simultaneously,[1] and settles those instructions.

The introduction of liquidity-saving features reduces the amount of funds and collateral that individual financial institutions need to prepare for settlement. It also encourages swift payment by effectively preventing gridlock.[2] The following illustrates examples of settlement with liquidity-saving features. In the examples, payment instructions cannot be settled individually but can be settled simultaneously when taking into account incoming payments as a source of liquidity. In effect, it is expected to enhance the overall efficiency in the system by achieving prompt settlements with less liquidity. Prompt settlements also contribute to the reduction of intraday unsettled balances (settlement exposure), which enhances the safety of large-value payments.



In Phase 2 of the next-generation RTGS project, the Bank will implement the shift of large-value payments settled through the Domestic Funds Transfer System to RTGS in November 2011 in cooperation with Zengin-Net (Japanese Banks' Payment Clearing Network), which operates the Zengin System. That is, large-value payments of at least 100 million yen made through the Domestic Funds Transfer System will be settled by RTGS. The large-value payments account for less than 1 percent of the payments processed in the Domestic Funds Transfer System in terms of the number of payments, but account for around 70 percent in terms of value. The introduction of RTGS for large-value payments enables a reduction of the intraday unsettled balances; therefore, further enhancement of the safety of large-value payments in Japan is expected.

Notes: 1. "The set of instructions that can be settled simultaneously" is a combination of payment instructions with which, considering not only funds on hand but also incoming payments anticipated from a counterparty as a source of liquidity, one's payments can be settled simultaneously with the receipt of incoming payments from the counterparty.
2. "Gridlock" refers to a situation in which an unsettled balance for each participant is accumulated because participants hold back their payments in order to economize the use of their own liquidity by relying on the incoming funds from other participants.

Box 3 Fails Practice for Bond Trading

A "fail" is a situation where, in the settlement of securities transactions, a party cannot receive securities from the delivering party as scheduled even after the due date, for reasons other than the creditworthiness of the parties. The "fails practice" only defines general processing procedures to be taken by parties when a fail occurs, and in principle, does not regard an uncompleted delivery of bonds in itself as a default (and so does not cancel the contract) unless a special agreement is concluded.

Japan's fails practice for government securities trading was introduced in January 2001, when the real-time gross settlement (RTGS) system was introduced for Japanese government securities. It had been recognized that, in certain cases, a fail is unavoidable in order to ensure market liquidity and to process smooth settlement, because settlement delays were inevitable under the RTGS system due to the increase in the settlement operations and chain of transactions. However, when many fails occurred triggered by the failure of Lehman Brothers in September 2008, many market participants did not accept fails, and this resulted in deterioration of the market function, such as delays in government bonds settlement, and a liquidity shortage in the bond and repo markets. From these experiences, the need to accept fails has been increasingly acknowledged among market participants and they have conducted revisions to the fails practice.

Box 4 Payment and Settlement Terminology

The following explains the points of the technical terms related to payment and settlement in this chapter.

CCP (central counterparty)
A CCP is the entity that clears transactions, such as the sale and purchase of securities contracted among many relevant counterparties. The clearing is conducted by replacing rights and obligations between the seller and the buyer with those between the seller and the central counterparty, and those between the central counterparty and the buyer (see Section C.4 in this chapter).

DVP (delivery versus payment)
DVP is a link between a securities transfer system and a funds transfer system that ensures that delivery occurs if, and only if, payment occurs. It prevents the risk of payment for a transaction not being conducted even though the JGSs are delivered, and vice versa (see Section C.3.a in this chapter).

SPDC (simultaneous processing of DVP and collateralization) function
The SPDC function enables financial institutions that purchase JGSs to receive intraday overdrafts from the Bank by using the JGSs that the institutions receive from the seller as collateral, and then to use the funds to pay for such JGSs. This function is used to reduce the volume of liquidity necessary for settlement, and to conduct smooth JGS settlement on a DVP basis (see Section D.1.c in this chapter).

PVP (payment versus payment)
In PVP, by placing certain conditions on the transfer of both currencies to be settled, the transfer of one currency only occurs if the transfer of the counterparty currency takes place. It eliminates a risk, for example, of one party not being able to receive dollars even though it paid yen (see Section C.2.d in this chapter).

RTGS (real-time gross settlement)
The RTGS system is a low systemic risk settlement method in which, because each settlement is processed individually on a real-time basis, the direct influence of a failure of one settlement is limited only to the counterparty. The concept paired with RTGS is deferred net settlement (see Section D.1.d in this chapter).

STP (straight-through processing)

STP realizes seamless automated processing of the ordering, execution, matching, clearing, and settlement of financial transactions, such as securities transactions and foreign exchange transactions. STP is facilitated by connecting business operation systems, using standardized message formats (see Section D.1.d in this chapter).

Deferred net settlement

Deferred net settlement is a method in which settlements are not individually processed on a real-time basis, but are processed once or several times a day by debiting and crediting net settlement positions (total amount of receipt of funds minus total amount of payment of funds, both of which are accumulated until a designated time of settlement) (see Section D.1.d in this chapter).

Chapter V Market Operations

The Bank of Japan conducts market operations as a measure to conduct monetary policy. This chapter explains the framework and details of market operations, mainly focusing on open market operations, which are the Bank's principal measures whereby it conducts its market operations.

A. Monetary Policy and Daily Market Operations

The Bank of Japan, at Monetary Policy Meetings (MPMs) held regularly, determines the guidelines for money market operations, and these guidelines are effective until the next MPM.[1] Currently, the Bank sets a target rate for the uncollateralized overnight call rate[2] in its guidelines for money market operations.[3,4] In order to encourage the uncollateralized overnight call rate to remain at the targeted level, the Bank supplies funds to, or absorbs funds from, financial institutions. These processes actually taken to conduct monetary policy are called money market operations (hereafter, "market operations;" see Chapter I.B.2 for details of monetary policy and the transmission mechanism). This chapter explains the framework and the details of market operations.

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[1] The guidelines for money market operations are also decided at unscheduled MPMs (see Footnote 5 in Chapter II).

[2] The uncollateralized call rate is the interest rate for uncollateralized transactions in the call market, where financial institutions lend and borrow short-term funds. Among uncollateralized call rates, the rate at which funds are received and paid on a contract day, and at which reverse transactions are conducted on the business day following the contract day, is called the uncollateralized overnight call rate.

[3] The target rate, to which central banks guide the specified interest rate, is in general called the policy interest rate. A target other than the uncollateralized overnight call rate may be used as the target in market operations. For example, between the MPM in March 2001 and that in March 2006, the Bank set the outstanding balance of current accounts at the Bank as the policy target for market operations.

[4] Generally, other major central banks also use the short-term interest rate as the target rate in their market operations. Currently, the United States, Canada, and Australia apply the interbank overnight interest rate as the target rate, whereas in the euro area the minimum bid rate in operations with one-week maturity is applied as the target, and in the United Kingdom the central bank's deposit rate is applied as the target. The overnight interest rate in the United States is known as the federal funds rate.

B. Framework of Market Operations

The Bank of Japan influences supply and demand for funds and interest-rate formation in money markets by adjusting changes in the financial institutions' current account balances at the Bank through market operations. This section explains the framework of market operations as a whole, including money markets and financial institutions' current account deposits at the Bank (hereafter, BOJ account deposits).

1. BOJ account deposits and money markets

BOJ account deposits have three major roles. The first is their role as payment instruments. Specifically, the following are settled by transferring, crediting, and debiting current accounts at the Bank: (1) fund settlements in receipts and payments of funds among financial institutions via private-sector payment and settlement systems;[5] (2) fund settlements in transactions between financial institutions, such as transactions in the call market, where financial institutions lend and borrow short-term funds (see Box 1, "Money Markets and the Call Market"), and transactions of selling and buying securities;[6] and (3) the Bank's operations and lending to financial institutions, receipts and payments of treasury funds (see Section A in Chapter IX), and the issuance and redemption of Japanese Government Securities (JGSs; see Section C in Chapter IX). The second role of BOJ account deposits is to fulfill the function as funds for payment (reserve for payment) for financial institutions in the same way that demand deposits at financial institutions do for individuals and firms. The third role is to serve as reserves under the reserve requirement system (see Section B.2.a.[2] in this chapter). Under this system, banks and other financial institutions are required to hold a certain fraction (reserve requirement ratio) of deposits and other liabilities in their current accounts at the Bank. The total balance of each financial institution's current account at the Bank, subject to the reserve requirement system, is counted as its reserve.

The relationship between BOJ account deposits and money markets where the lending and borrowing of short-term funds take place is as follows. When financial institutions wish to maintain their current account balances at the Bank at a certain level in preparation for various payments or to meet reserve

[5] Currently, examples of these private-sector payment and settlement systems are the Domestic Funds Transfer System, and the bill and check clearing system (see Section C in Chapter IV).

[6] These types of settlements accounted for around 80 percent of the total amount settled through current accounts at the Bank (the average ratio throughout 2009).

requirements, in order to fulfill a shortage of funds, they generally borrow funds through money markets from other financial institutions holding excess funds. Among the wide variety of money markets in Japan, the call market plays an important role as the market where very short-term transactions are conducted, such as transactions in which funds are received/paid on the contract day, followed by reverse transactions on the following business day (overnight transactions), and as the market in which funds are lent and borrowed among financial institutions in order to adjust changes in current account balances at the Bank. Therefore, when the Bank adjusts the overall changes in current account balances at the Bank through market operations, this influences the amount of funds borrowed or lent by financial institutions in the call market, influencing the formation of the uncollateralized overnight call rate (see Box 2, "Money Markets and the Bank of Japan").

2. Supply and demand of BOJ account deposits

This section explains how the supply-demand balance of BOJ account deposits is determined.

a. Demand for BOJ account deposits and the reserve requirement system

There are two types of demand for BOJ account deposits. One is the fund demand for payment and settlement that corresponds to the first two of the previously-mentioned three roles of BOJ account deposits (payment instruments and reserves for payment). The other is the fund demand for required reserves, reflecting the third role (reserves under the reserve requirement system) of BOJ account deposits.

(1) Fund demand for payment and settlement

Demand for BOJ account deposits arising from payment and settlement is mostly determined by the volume of payment and settlement transactions and the receipts/payment of cash scheduled on that day. For financial institutions holding BOJ account deposits, it is extremely important to settle transactions and receive/pay cash as scheduled throughout the day. Considering the risk of financial institutions not being able to settle these transactions on schedule, they usually maintain certain balances at the Bank, even at the end of the business day. This is based on the same incentive as individuals and firms keeping a certain amount of cash on hand or in demand deposits in order to ensure smooth payment and settlement.

Even if cash on hand becomes a little short, financial institutions' business operations will not be hindered as long as they are able to borrow funds needed in the overnight call money market at the time they realize the shortage of settlement funds. However, if financial institutions totally depend on this kind of fund management, unexpected incidents, such as operational errors, computer system failures, earthquakes, and other contingencies, or instability in financial markets caused by bankruptcies of other financial institutions, may lead to a situation in which financial institutions are unable to borrow the funds necessary to close the day's transactions or are forced to borrow funds at an extremely high interest rate.

In order to prevent such situations, each financial institution plans fund management considering its schedule of receipts and payments, as well as its funding ability in the market, and fund demand for payment and settlement of BOJ account deposits is determined accordingly. The total fund demand for payment and settlement by financial institutions holding BOJ account deposits can be calculated by adding up each financial institution's fund demand for payment and settlement.

Moreover, the Bank offers an intraday overdraft facility[7] in order to facilitate payment and settlement during the day. The overdraft facility automatically supplies intraday funding liquidity up to the amount of collateral submitted in advance at the Bank. As a result, financial institutions can continue to execute payment instructions, even very large ones, taking advantage of intraday overdrafts, as long as they have sufficient collateral.[8]

(2) Fund demand for required reserves

The fund demand for required reserves is derived from the obligation under the

[7] This intraday overdraft facility is offered at no interest; that is, this facility is structured to offer intraday liquidity with collateral, free of charge. However, the funds obtained through the facility must be paid back to the Bank by the end of the day. If the funds cannot be paid back by the cut-off time, interest for the delay is charged as a penalty for the deficiency. Therefore, the counterparties, which hold BOJ account deposits, act to keep current account balances at the Bank in the black at the end of the day, even if they use the facility.

[8] In a simple description, for each entity, the fund demand for the payment and settlement of the BOJ account deposit depends on the excess amount of the peak net payment amount of the transactions throughout the day (the maximum amount of the difference calculated by subtracting the amount of receipts of funds from that of payments of funds during the business day) over the amount of the collateral. This means that when the peak net payment amount is likely to exceed the amount of the collateral, the financial institution is required to hold a current account balance at the Bank that is at least equivalent to the excess.

reserve requirement system that financial institutions must maintain reserves in their BOJ current accounts. In Japan, the Act on Reserve Requirement System, enforced in 1957, stipulates that a financial institution designated in the Act (a financial institution subject to the required reserve)[9] should deposit in its BOJ account an amount of funds equal to or exceeding the designated percentage (reserve requirement ratio) of its deposits and other liabilities.

Under the reserve requirement system, financial institutions are required to maintain average current account balances at the Bank that are equal to or exceed the legal reserve requirements (also referred to as "the required reserve;" see Box 3, "Calculation Method for the Legal Reserve Requirement") for a month at the end of daily business for each one-month period from the 16th of the month to the 15th of the following month (reserve maintenance period). This method is called a semi-lagged system.[10] With this method, even if a financial institution's current account balance at the Bank falls below the required amount on a given day, the requirement can still be met as long as the financial institution holds an excess amount on another day and the average current account balance at the Bank throughout the reserve maintenance period equals or exceeds the legal reserve requirements. On the other hand, if a financial institution's average current account balance at the Bank for a given month falls short of the legal reserve requirement, a penalty is charged for the deficiency. The penalty, equal to the basic loan rate[11] plus an annual rate of 3.75 percent, is levied against the

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[9] Financial institutions subject to the reserve requirement system include: city banks; regional banks; regional banks II; trust banks; foreign banks' branches in Japan; long-term credit banks; *shinkin* banks (limited to those with deposit balances of more than 160 billion yen at the fiscal year end); Norinchukin bank; and Japan Post Bank.

[10] The methods of maintaining reserves in central banks are conceptually divided into a lagged system and a contemporaneous system. Using the lagged system, central banks calculate the required reserves of financial institutions based on their liabilities, which are the subjects of reserves, for a designated period (or point in time), and, later, the institutions maintain the required reserves in central banks. With the contemporaneous system, the calculation period for required reserves coincides with the reserve maintenance period, and the financial institutions deposit their reserves before the required reserves are fixed. A mixed method between these two is known as a semi-lagged system. In Japan, financial institutions have to maintain required reserves, which are calculated from the average balances of the institutions' liabilities, which are the subjects of reserves, during the month. The financial institutions then maintain average current account balances at the Bank from the 16th of the month to the 15th of the following month (reserve maintenance period) that are equal to or exceed the required reserves.

[11] The basic loan rate is the base interest rate used by the Bank to provide loans directly to financial institutions, and is applied in the complementary lending facility (see Section C.2.a in this chapter). The basic loan rate was 0.3 percent as of the end of 2010.

reserve deficiency, and this penalty is paid to the government via the Bank.[12]

On the other hand, reserves generally do not bear interest nor bring profit.[13] In other words, holding BOJ account deposits produces an opportunity cost for financial institutions subject to the reserve requirement system. Therefore, financial institutions that are subject to the reserve requirement system have the incentive to manage their daily current account balances at the Bank so that their average current account balances at the Bank during the reserve maintenance period will be close to their required reserves. In many major economies, the reserve requirement ratio is set to the level at which the average required reserves exceed the fund demand for payment and settlement. Under the current reserve requirement ratio in Japan, it seems that, as a whole, the fund demand for required reserves of financial institutions that are subject to the reserve requirement system usually exceeds that for payment and settlement. As mentioned above, under the current reserve requirement system, the demand for BOJ account deposits is generally stable and highly predictable, since: (1) the demand for BOJ account deposits is usually determined based on the fund demand for required reserves; and (2) financial institutions maintain their reserves to meet legal reserve requirements during the reserve maintenance period. These characteristics of the reserve requirement system contribute to the smooth conduct of monetary policy by facilitating the Bank's market operations.[14]

[12] When it may be difficult for financial institutions to borrow funds in money markets, the institutions can hold reserves utilizing the Bank's complementary lending facility (see Section C.2.a in this chapter) at the basic loan rate, as long as the institutions have sufficient collateral submitted in advance at the Bank.

[13] However, the complementary deposit facility conducted by the Bank as a temporary measure (see Section C.2.b in this chapter) causes the interest to accrue to excess reserves (an amount exceeding the legal reserve requirements under the reserve requirement system).

[14] The first country in the world to adopt the reserve requirement system was the United States, and at that time, the purpose of the system was to protect depositors by compelling banks to reserve a certain percentage of their deposits. Later, this system was utilized as a measure of market operations by changing the reserve requirement ratio. In the past, in Japan, under the situation in which reserves bore no interest, the operation to shift the reserve requirement ratio was considered to be an effective method to tighten or ease monetary conditions by influencing the lending attitude through the increase and decrease of the cost burden on financial institutions. However, currently, major countries, including Japan, where money markets are developed, do not use the reserve requirement system as a monetary tightening or easing measure. In Japan, the reserve requirement ratio has not been changed since October 1991. In some emerging countries, the reserve requirement ratio is used as a monetary tightening and easing measure at present.

b. Sources of changes in current account balances at the Bank

(1) Autonomous factors

Changes in the balance of each financial institution's current account at the Bank are caused by: (1) receipts and payments of funds with other financial institutions; (2) changes in the balance of reserves for cash payment to individuals and firms ("changes in banknotes"); and (3) receipts and payments of funds with the government ("changes in treasury funds and others"). Among these changes, changes in (1) are offset when considering financial institutions as a whole. Therefore, if there is no influence from market operations, changes in (2) — namely, the changes in banknotes — and changes in (3) — namely, the changes in treasury funds and others — are the factors that affect current account balances at the Bank. These changes together are called sources of changes in current account balances at the Bank. The changes in banknotes and those in treasury funds and others reflect the consequences of the economic activity of a wide range of entities such as firms, households, and the government. In the context of daily market operations, these changes are considered autonomous factors.[15]

In the sources of changes in current account balances at the Bank, the changes in banknotes include various elements affecting the issuance of banknotes and their withdrawal from circulation. Banknotes are issued when financial institutions withdraw banknotes by debiting their BOJ account deposits, for example, to provide firms with cash for paying salaries to their employees or households for holiday seasons. As the issuance of banknotes decreases current account balances at the Bank, it is described as a source of a shortage of funds. On the other hand, banknotes are withdrawn from circulation when, for example, financial institutions credit their accounts at the Bank by returning banknotes obtained from their customers after a long weekend. As the withdrawal of banknotes from circulation increases current account balances at the Bank, it is described as a source of an excess of funds.

Changes in treasury funds and others include receipts and payments of various treasury funds. The payments of treasury funds are made when the government debits its account at the Bank and credits the accounts of financial institutions for various reasons, including the payment of public pensions to individuals or payment for public works to firms. Flows of treasury funds between the government and financial institutions take place through their accounts at the Bank. Therefore, the payments of treasury funds are accompanied by an increase in current account balances at the Bank, and are sources of an excess of funds. On

[15] From a medium- to long-term perspective, as the Bank influences economic activity through its conduct of monetary policy, it consequently influences the demand for banknotes.

the other hand, receipts of treasury funds, which are conducted when the government receives funds from financial institutions in the process of collecting funds such as taxes from individuals and firms, are sources of a shortage of funds.[16]

(2) Operations

When the autonomous factors described above change, the excess and shortage of funds, which cannot be adjusted by call transactions among financial institutions, remain in current account balances at the Bank as a whole. This induces the uncollateralized overnight call rate to diverge from the level of the Bank's target rate.

Therefore, it is necessary for the Bank to appropriately adjust the supply-demand balance for BOJ account deposits based on its projection of the daily excess and shortage of funds. The Bank adjusts the fluctuations in current account balances at the Bank through daily market operations,[17] such as the provision of loans and purchases/sales of financial assets, in order to control the uncollateralized overnight call rate. The operations that increase current account balances at the Bank are referred to as funds-supplying operations, and those that decrease current account balances at the Bank are referred to as funds-absorbing operations.

The above flows of funds can be summarized into the following formulas.

- Changes in banknotes + changes in treasury funds and others = excess/shortage of funds
- Excess/shortage of funds + market operations = changes in current account balances at the Bank

[16] Receipts and payments of yen funds between the government and private financial institutions caused by foreign exchange interventions are included in the changes in treasury funds and others. For example, settlements for yen-selling interventions are, in effect, a payment of treasury funds. On the other hand, the issuance of financing bills (FBs) to borrow funds for yen-selling interventions is a receipt of treasury funds. As a result, the excess and shortage of funds related to the interventions are offset when FBs are issued. When the Bank underwrites FBs issued by the government in the case of yen-selling interventions, the excess and shortage of funds related to the interventions will not be offset. Receipts and payments of funds between yen deposit accounts held at the Bank by other central banks and international institutions and those held by private financial institutions are also sources of changes in current account balances at the Bank.

[17] This category of market operations is also referred to as "open market operations."

3. Mechanism for determination of the overnight interest rate

a. Determination of the overnight interest rate

This section briefly explains how the overnight interest rate[18] is determined under the current framework in Japan.[19]

The overnight interest rate is determined at the level where the supply and demand for BOJ account deposits are balanced (see Figure 5-1). For example, when the withdrawal of banknotes by financial institutions increases, the current account balances at the Bank decrease (the supply curve in Figure 5-1 shifts to the left), and the demand for BOJ account deposits exceeds the supply at the level of the prevailing interest rate. In this situation, some financial institutions would pay a higher interest rate to borrow overnight funds in the call market. Consequently, the overnight interest rate rises to the level where the supply and demand for BOJ account deposits are balanced, thereby restoring the equilibrium of such supply and demand. Through such a process, the overnight interest rate is determined at the level that balances the supply and demand for BOJ account deposits.[20]

As mentioned above, there are two sources of demand for BOJ account deposits: the fund demand for payment and settlement and that for required reserves (see Section B.2.a in this chapter). The fund demand for payment and settlement is determined by the amount of settlement of transactions and receipts and payments of cash scheduled on a given day (see Section B.2.a.[1] in this chapter).

On the other hand, with regard to the fund demand for required reserves, the reserve requirement ratio in Japan is set at the level where the required reserves exceed the average fund demand for payment and settlement. Therefore, when the required reserves (the fund demand for the required reserves) are

[18] In the following pages, the uncollateralized overnight call rate is referred to as the "overnight interest rate."

[19] The following is a simplified example. For the details of the mechanism for determining the overnight interest rate and fund demand for required reserves, see "*Gendai no Kinyu Seisaku* (Modern Monetary Policy in Theory and Practice)" by Masaaki Shirakawa (available only in Japanese) listed in the references (Appendix 2).

[20] It should be noted that the daily overnight interest rate is not determined by the monetary base (the total of BOJ account deposits and cash) but by the balance of supply and demand for BOJ account deposits. This is because, as mentioned above (see Section B.2.b.[1] in this chapter), with regard to the daily supply and demand for BOJ account deposits, changes in banknotes are autonomously determined.

sufficient, usually the fund demand for payment and settlement is also met.[21] Because the balance of the required reserves needs to exceed the required reserve amount only on an average basis over the whole reserve maintenance period, the sensitivity of demand with respect to changes in the interest rate differs depending on whether it is the last day of the reserve maintenance period. This is because, on the last day of the reserve maintenance period,[22] the amount of the current account balances at the Bank that each financial institution has to maintain at the end of the day is fixed.

Specifically, on the last day of the reserve maintenance period, financial institutions borrow necessary funds in the money market or by using the Bank's complementary lending facility (see Section C.2.a in this chapter), even if they have to pay a higher interest rate, in order to fulfill the required reserves for the reserve maintenance period. This is because if the average balance of a financial institution's reserves falls short of the required reserve, the financial institution is required to pay a penalty for the deficiency (see Section B.2.a.[2] in this chapter). On the other hand, financial institutions usually avoid holding funds at the Bank exceeding the required amount (holding excess reserves) so as not to lose the opportunity to lend in the money market.[23] Therefore, on the last day of the reserve maintenance period, the fund demand for required reserves becomes extremely inelastic with respect to changes in the interest rate.

Except for the last day of the reserve maintenance period, there are basically no such restrictions on the fund demand for required reserves.[24] Because financial institutions are required to maintain the average balances for the reserve maintenance period to fulfill the required reserves, shortages of balances are acceptable on a daily basis. Financial institutions adjust their daily

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[21] However, because the amount of required reserves changes depending on the amount of deposits accepted by financial institutions (see Box 3, "Calculation Method for the Legal Reserve Requirement"), the amount of required reserves for financial institutions that hold a small amount of deposits is small. In these financial institutions, compared to those holding a large amount of required reserves, the fund demand for payment and settlement tends to exceed that for required reserves.

[22] In Japan, the one-month period from the 16th of the month to the 15th of the following month is referred to as the reserve maintenance period.

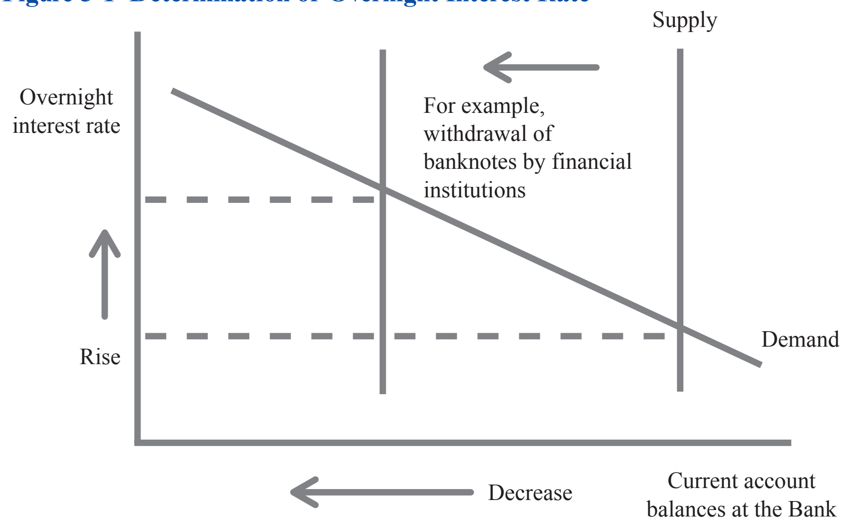
[23] However, under the complementary deposit facility conducted by the Bank as a temporary measure (see Section C.2.b in this chapter), interest accrues to excess reserves, and financial institutions are therefore motivated to hold excess reserves when the market interest rate is lower than the interest rate applied to excess reserves.

[24] However, because financial institutions need to hold required reserves by the last day of the reserve maintenance period, the fund demand for required reserves tends to become inelastic with respect to changes in the interest rate as the last day approaches.

changes in the balances of their reserves by checking the overnight interest rate, which corresponds to the opportunity cost of holding the reserves. For example, financial institutions predict that the overnight interest rate usually becomes close to the target level of the policy interest rate set by the Bank's guidelines for money market operations. Therefore, when they judge that the market interest rate is higher than predicted, they lend their excess funds in the market instead of depositing them as reserves. Conversely, they deposit excess funds as reserves when the market interest rate declines.[25]

As mentioned above, under the reserve requirement system, demand for BOJ account deposits is generally stable and highly predictable, thereby facilitating the Bank's encouragement of the overnight interest rate to stay at an adequate level. In this context, the Bank sets the target level of the overnight interest rate, and when the overnight interest rate is likely to diverge from the target level, the Bank conducts operations to supply or absorb funds. In this way, the overnight interest rate in Japan is guided by the Bank to the target level.

Figure 5-1 Determination of Overnight Interest Rate



[25] In this way, even if central banks do not conduct operations, the overnight interest rate tends to stabilize around the target rate. This function of the reserve requirement system is called the "smoothing function."

b. Fluctuations in the overnight interest rate

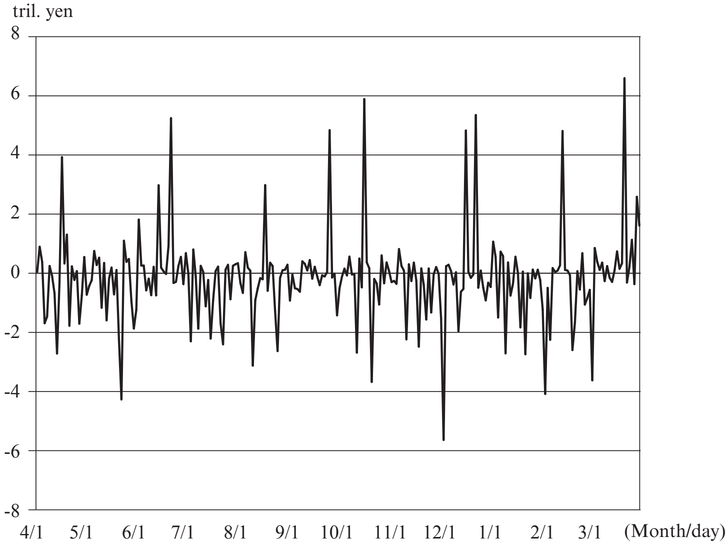
Despite large changes in banknotes and in treasury funds and others (see Figure 5-2 for changes in the excess and shortage of funds, which are the total changes in banknotes and in treasury funds and others), both of which influence current account balances at the Bank, the fluctuations in the overnight interest rate are small in Japan. This is because the Bank's projection regarding changes in banknotes and in treasury funds and others is very precise[26] and the Bank is capable of ascertaining almost the exact amount required for the operations to adjust the excess or shortage of funds. Moreover, the Bank releases its projection of changes in current account balances at the Bank in order to support private financial institutions' planning for funding, thus contributing to preventing large fluctuations in interest rates.[27]

The fund demand for payment and settlement increases, and consequently the pressure to raise interest rates tends to intensify, on days when there is a large volume of transactions of funds, such as on days with a large amount of tax payments, as well as issuance of JGSs, and when financial institutions close their books. The same situation can be observed in the case of turmoil in financial markets, a failure of payment and settlement systems, or a natural disaster such as an earthquake. Moreover, on the last day of the reserve maintenance period, when financial institutions tend to pay a higher interest rate to fulfill required reserves, the fund demand for required reserves becomes inelastic with respect to the interest rate, and the upward pressure on the interest rate tends to intensify. In this situation, the Bank restrains a rise in the overnight interest rate by flexibly providing ample funds in response to an increase in demand.

[26] The Bank's predictions regarding banknotes are accurate because its Head Office and branches obtain data daily, from financial institutions that hold BOJ account deposits, on predicted amounts of receipts and payments of banknotes to be made between the Bank and these institutions. Meanwhile, the high accuracy of the Bank's predictions regarding treasury funds is attributable to the fact that the Bank's treasury fund services cover all related services in an integrated manner, such as the receipt and payment of treasury funds, the accounting of government deposits, and the calculation and checking of treasury funds for government agencies (the treasury fund services conducted by central banks in the United States and major European countries are usually limited to the accounting of government deposits [see Footnote 1 in Chapter IX]).

[27] For the prediction of changes in current account balances at the Bank, the Bank releases the next day's prediction in the evening of every business day, and the monthly prediction at the beginning of every month.

Figure 5-2 Daily Changes in Excess/Shortage of Current Account Balances at the Bank in Fiscal 2009



C. Details of Market Operations

This section explains the specific details of the Bank's market operations. As explained above, under the reserve requirement system, demand for BOJ account deposits is generally stable and highly predictable. Accordingly, the Bank adjusts the balance of supply and demand for BOJ account deposits through the conduct of operations in response to changes in current account balances at the Bank caused by autonomous factors (see Section C.1 in this chapter).

In addition to these operations to adjust the balance of supply and demand for BOJ account deposits as a whole, in order to prevent the uncollateralized overnight call rate from rising excessively, the Bank has established a complementary lending facility, whereby it provides loans[28] secured by col-

[28] Loans exclude the type of loans provided by discounting of bills, which were commercial bills discounted by financial institutions at the request of customers and approved as eligible by the Bank. The discounting of bills was implemented by the Bank through purchases from financial institutions at the face value subtracting the amount equivalent to the interest rate for the period during which the bills were held at the Bank until maturity. The discounting of bills was suspended at the end of June 2001 since its significance as a policy tool had diminished.

lateral to financial institutions holding BOJ account deposits at an interest rate exceeding the Bank's target level of the policy interest rate to some extent (see Section C.2.a in this chapter). Moreover, with a view to preventing the uncollateralized overnight call rate from falling excessively, the Bank has established a complementary deposit facility as a temporary measure, in which it pays interest on excess reserves (balances held in the accounts with the Bank in excess of required reserves under the reserve requirement system) (see Section C.2.b in this chapter). As the reserve requirement system has already been explained in Section B.2.a.(2), the following section focuses on the Bank's operations, the complementary lending facility, and the complementary deposit facility.

1. Operations

Operations are the Bank's primary means to adjust the supply and demand for BOJ account deposits. In other words, the Bank conducts operations in order to encourage the overnight interest rate to remain at the target level by influencing the supply and demand for BOJ account deposits. Operations by the Bank are conducted, for example, by providing loans against financial assets submitted as collateral, or by selling and purchasing JGSs.

Currently, the Bank conducts various types of operations (see Figure 5-3), which can be classified broadly into two categories, namely, funds-supplying operations and funds-absorbing operations. Funds-supplying operations, such as loans against financial assets submitted as collateral, have the effect of increasing current account balances at the Bank. Funds-absorbing operations, such as sales of bills issued by the Bank and sales of JGSs held by the Bank with repurchase agreements, have the effect of reducing current account balances at the Bank (for each type of operation, see sections C.1.a and b in this chapter).[29]

The Bank's operations can also be classified by whether they have fixed maturities. While outright operations, such as purchases or sales, do not have maturities, purchases and sales with repurchase agreements or lending are operations with fixed maturities. In outright operations, the Bank purchases financial assets, and funds supplied by the Bank will not be returned from the counterparties. By the same token, the Bank sells financial assets, and funds absorbed by the Bank will not be returned to the counterparties. On the other hand, in operations with maturities, the Bank temporarily supplies funds, and

[29] In addition to funds-supplying operations and funds-absorbing operations, the Bank has established the securities lending facility for the purpose of providing financial institutions with JGSs held by the Bank as a temporary and secondary source (so-called securities lending; see Section C.1.c in this chapter).

the supplied funds will be returned to the Bank on the due date. By the same token, the Bank temporarily absorbs funds, and such funds will be returned to the counterparties on the due date.

Moreover, operations can be classified by duration, namely, long-term operations and short-term operations. Long-term operations are conducted to supply long-term funds against the Bank's stable debt, mainly in the form of banknotes. Short-term operations are conducted to address temporary excesses or shortages of funds mainly caused by changes in banknotes and in treasury funds and others. The Bank, by effectively using both long-term and short-term operations, works to smoothly adjust current account balances at the Bank without causing disruptions in the markets. At present, the Bank conducts outright purchases of Japanese government bonds (JGBs) (see Section C.1.a.[5] in this chapter) to supply long-term funds, while it supplies short-term funds mainly by conducting funds-supplying operations against pooled collateral (see Section C.1.a.[1] in this chapter).

At MPMs, the Bank's Policy Board decides and modifies basic matters regarding operations, such as the types of eligible financial assets for the Bank's purchases and sales, and the methods of, as well as conditions for, the transaction. The Bank makes public principal terms and conditions for each type of operation. In principle, eligible counterparties in the Bank's operations are selected annually, based on the procedure for selection of eligible counterparties in each type of operation, among depository financial institutions, securities companies, and *tanshi* companies.[30] When actually conducting each operation, the Bank mainly employs the conventional method of competitive yield auction[31]

[30] The criteria for selecting eligible counterparties in the Bank's operations are released (available only in Japanese) on the Bank's website (http://www.boj.or.jp/index.html). Common requirements for eligibility as a counterparty in each operation are as follows: (1) a counterparty should hold a BOJ account (be a BOJ account holder); (2) a counterparty should be a participant in the Bank of Japan Financial Network System (BOJ-NET); and (3) a counterparty should be deemed by the Bank to have sufficient creditworthiness. For each type of operation, the Bank takes into consideration the following for determining the priority among bidders when the number of bidders in its operations exceeds the number of offerings: (1) the bidder's presence in the market in terms of its holdings and transactions of assets concerned; and (2) the results of successful bidding in the Bank's operations if the bidder is already an eligible counterparty. The financial institutions selected as eligible counterparties must: (1) participate in the operations actively; (2) process business operations accurately and promptly; and (3) provide useful market information to the Bank.

[31] Under the conventional method of competitive yield auction, for example, in funds-supplying operations, the Bank accepts bids, starting with the highest yield bid, until the total of the accepted bids reaches the amount offered. If there are multiple bidders at the same yield, the amount of bids accepted may be allocated according to the amount of each bid.

for determining the amount of successful bids and the yield, in order to make full use of the market mechanism. As for collateral for lending, the categories and prices of collateral and eligibility standards are stipulated in the Bank's Guidelines on Eligible Collateral, under which the Bank selects only assets with sufficient creditworthiness and marketability.[32]

The following explains the operations of the Bank by classifying them into funds-supplying operations and funds-absorbing operations.[33]

a. Funds-supplying operations

The Bank has the following types of operations to supply funds to markets. It uses these means depending on the situation in order to conduct market operations in line with the guidelines decided at MPMs.

(1) Funds-supplying operation against pooled collateral

The funds-supplying operation against pooled collateral is the operation by which the Bank provides loans to eligible financial institutions against pooled collateral[34] submitted by the institutions to the Bank. At present, this operation is the main method for supplying short-term funds, and the duration shall not exceed one year. The loan interest is determined either by the variable-rate method, in which the interest rate on loans shall be determined by the conventional method of multiple-rate competitive auctions; or

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[32] The Bank will not accept as collateral, or as purchase with repurchase agreements, liabilities of financial institutions that are BOJ account holders and their related firms. This is because the Bank should: (1) avoid disclosing its judgment on the credibility of individual financial institutions that are BOJ account holders; and (2) exclude from the Bank's assets and collateral liabilities that might be paid back by the Bank's own extension of credit.

[33] The details and characteristics of market operations conducted by the Bank are also explained in "Money Market Operations in Fiscal XXXX," released every fiscal year (available on the Bank's website).

[34] The term "pooled collateral" refers to collateral that counterparties submit to the Bank based on agreements pertaining to transactions with the Bank and the agent contract. The assets most commonly submitted by counterparties to the Bank are JGSs, corporate bonds, other securities, and loans on deeds. Counterparties may borrow from the Bank within the limit of the value of pooled collateral through various means, such as the funds-supplying operation against pooled collateral, complementary lending facility, and intraday overdraft, as well as the funds-provisioning measure to support strengthening the foundations for economic growth as a temporary measure (see Footnote 14 in Chapter I).

Figure 5-3 Operations by the Bank of Japan[1]

1. Funds-Supplying Operations

Type of Operations	Year of introduction	Start day[2]	Duration	Maturity
Funds-supplying operation against pooled collateral (at the Head Office)	2006	From T + 0 through T + 4	Short-term	Within one year
Funds-supplying operation against pooled collateral (at all offices)	2006	From T + 0 through T + 2	Short-term	Within one year
Purchase of CP with repurchase agreements	1989	T + 2	Short-term	Within three months
Purchase of Japanese government securities with repurchase agreements	2002	From T + 0 through T + 2	Short-term	Within one year
Outright purchase of treasury discount bills	1999	From T + 2 through T + 3	Short-term	—
Outright purchase of Japanese government bonds	1966	T + 3	Long-term	—

2. Funds-Absorbing Operations

Type of Operations	Year of introduction	Start day	Duration	Maturity
Sale of bills	1971	From T + 0 through T + 4	Short-term	Within three months
Sale of Japanese government securities with repurchase agreements	2002	From T + 0 through T + 2	Short-term	Within six months
Outright sale of treasury discount bills	1999	From T + 2 through T + 3	Short-term	—

3. Others

Type of Operation	Year of introduction	Start day	Maturity
Operations through the securities lending facility[3]	2004	T + 0	O/N[4] in principle

Notes: 1. Excludes those conducted as temporary measures.
2. The start day is the day when funds and securities are settled after an operation, and when the term of the operation starts. "T" in "T + α" stands for the day of trade, which here indicates the day of offering, when the Bank issues notice to the eligible counterparty to the operation regarding the type of operation, the amount of funds, and the start day. "α" is the number of business days after the day of offering to the start day. Depending on financial market conditions, however, start days other than those indicated above may be used.
3. The operation is conducted as the sale of JGSs with repurchase agreements.
4. When the start day is four business days before the due date of coupon payment of the JGSs subject to the sale, the maturity date will be set on the same day as the due date. The maturity date is the day when funds and securities are settled upon the end of the operation.

the fixed-rate method,[35] in which the interest rate on loans shall be the Bank's target rate for the uncollateralized overnight call rate on the day of disbursement of the loans.[36]

There are two types of such operations. The first type is conducted at the Bank's Head Office and branches, lending to a wide range of counterparties that have transactions with these offices. The other type is conducted at the Bank's Head Office, lending solely to counterparties that have transactions with the Head Office.

(2) Purchase of CP with repurchase agreements

The Bank purchases eligible CP with an agreement to sell them back to the counterparty on a specified date (within three months). On the day of maturity,

[35] The fixed-rate funds-supplying operation against pooled collateral was introduced in December 2009, when the Bank introduced the three-month funds-supplying operation against pooled collateral, as a new method in which the interest rate applied to the operation was fixed. It was introduced to further enhance easy monetary conditions by encouraging a further decline in longer-term interest rates.

[36] However, it was decided at the MPM held in October 2010 that interest rates applied to the fixed-rate funds-supplying operation against pooled collateral would be maintained at 0.1 percent for the time being.

the Bank sells back the CP at prices equivalent to the purchase prices plus interest for the period during which the CP was held by the Bank.

(3) Purchase of JGSs with repurchase agreements

The Bank purchases interest-bearing JGBs and treasury discount bills (T-Bills) in this operation, with an agreement to sell them back to the counterparties on a specified date (within one year). On the day of maturity, the Bank sells back the JGSs at prices equivalent to the purchase prices plus interest for the period during which the JGSs were held by the Bank.

(4) Outright purchase of T-Bills

The Bank purchases T-Bills in this operation.

(5) Outright purchase of JGBs

The Bank purchases interest-bearing JGBs in this operation in order to steadily supply funds to the market, in response to an increasing trend in demand for banknotes that reflects economic growth. Therefore, the amount outstanding of JGBs held by the Bank is managed to be within the outstanding amount of banknotes in circulation.[37] The Bank publishes this management policy in advance to clarify that the purchase of JGBs is not aimed at financing government debt, which has the effect of preventing risk premiums of long-term interest rates from rising (see Box 4, "Market Operations and the Bank of Japan's Balance Sheet"). Moreover, in order to prevent the remaining maturities of JGBs purchased from becoming too short or too long, the Bank introduced a scheme to purchase JGBs from specific brackets classified by bond type and residual maturity. The Bank conducts each purchase in two segments chosen from the following five segments: up to one year; more than one year and up to ten years; more than ten years and up to 30 years; floating-rate bonds; and

[37] In October 2010, as part of the comprehensive monetary easing policy (see Footnote 40 in this chapter), the Bank decided to establish the Asset Purchase Program on its balance sheet, for the purpose of encouraging a decline in longer-term interest rates. In this program, the Bank purchases JGBs with a remaining maturity of one to two years, and holds JGBs apart from the assets obtained through other operations. The purchase of JGBs through the program is different from the existing outright purchase of JGBs, as described in the text, in terms of the purposes and the types of JGB holdings, and is treated differently from the JGBs purchased within the ceiling of the amount of banknotes in circulation.

inflation-indexed bonds.[38]

(6) Exceptional measures

In addition to the conventional funds-supplying operations explained above, the Bank has taken flexible actions when it has been judged necessary considering the economic and financial situation, such as expanding the range of assets in the outright purchase or the range of eligible collateral in its operations.

During the global financial crisis since summer 2007, the Bank introduced various funds-supplying measures, such as the outright purchase of CP and corporate bonds, as well as the special funds-supplying operation to facilitate corporate financing,[39] in response to the sharp deterioration of liquidity in financial markets and the serious damage to financial intermediary functions. Moreover, as part of its collateral policy, the Bank expanded the range of corporate debts to be included in its eligible collateral (see Box 4 for Chapter I, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan").

In 2010, in order to further enhance monetary easing, the Bank introduced the comprehensive monetary easing policy.[40] As part of this approach, the Bank decided to conduct the fixed-rate funds-supplying operation against pooled collateral through the Asset Purchase Program established on its balance sheet. The Bank also conducted outright purchases of various financial assets, such as JGSs, CP, corporate bonds, exchange-traded funds (ETFs), and Japan real estate investment trusts (J-REITs).[41]

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[38] In order to prepare for the market risk entailed by purchased assets, such as JGBs, the Bank allows for a provision for possible losses on bonds transactions based on related governmental and ministerial ordinances, and the Bank's Accounting Rules (see Box 3 for Chapter II, "The Bank of Japan's Accounts").

[39] The special funds-supplying operation to facilitate corporate financing is conducted for an unlimited amount within the value of corporate debt at an interest rate equivalent to the target for the uncollateralized overnight call rate.

[40] The comprehensive monetary easing policy refers to a policy package introduced by the Bank in October 2010 to further enhance monetary easing, which is composed of the following three measures: (1) it will encourage the uncollateralized overnight call rate to remain at around 0 to 0.1 percent; (2) it will maintain the virtually zero interest rate policy until it judges that price stability is in sight; and (3) it will establish a program (the Asset Purchase Program) on its balance sheet as a temporary measure to conduct fixed-rate funds-supplying operations against pooled collateral and to purchase various financial assets.

[41] In addition, as a temporary measure from July 2003 through March 2006, the Bank conducted purchases of asset-backed securities in order to encourage the development of the asset-backed securities market and to strengthen the transmission mechanism of monetary easing.

At the same time, the Bank carefully considers the soundness, liquidity, and neutrality of the assets it holds even when conducting such temporary and extraordinary measures (see Box 4 for Chapter II, “Basic Accounting Principles for the Bank of Japan’s Balance Sheet”). For example, when the Bank purchases corporate debts entailing credit risk, it takes the characteristics of this measure into consideration, such as the high possibility of loss on the assets purchased and deep involvement in micro-level resource allocations for individual industries and firms, and sets countermeasures, such as certain restrictions on the creditworthiness of the assets to be purchased, a limit to the total amount outstanding of purchased assets, and a limit on the amount outstanding of purchased assets per issuer.

b. Funds-absorbing operations

The Bank has the following types of operations to absorb funds from markets. It uses these means depending on the situation in order to conduct market operations in line with the guidelines decided at MPMs.

(1) Sale of bills

The Bank absorbs funds from markets by selling bills drawn by the Bank with a maturity of three months or less.

(2) Sale of JGSs with repurchase agreements

The Bank sells interest-bearing JGBs and T-Bills with an agreement to repurchase them from the counterparties on a specified date (within six months). On the day of maturity, the Bank repurchases the JGSs at prices equivalent to the sale price plus interest for the period during which the securities were held by the counterparties.

(3) Outright sale of T-Bills

The Bank absorbs funds from the market by selling its T-Bills to the counterparties.

c. Securities lending facility

The securities lending facility is different from the aforementioned operations that adjust the fluctuations in current account balances at the Bank. The purpose of the securities lending facility is to contribute to enhancing liquidity in the

JGS markets and to maintaining smooth market functions. In the operation, the Bank sells its JGSs to the markets with repurchase agreements to provide a temporary and secondary source of JGSs (referred to as “securities lending”). In the JGS markets, liquidity may decline occasionally when market participants experience difficulties in securing specific issues or face uncertainties over their availability. In these cases, with the prerequisite of market participants making every effort to maintain market liquidity, the securities lending facility enables market participants to temporarily secure JGSs from the Bank as a complementary tool.

2. Bilateral market operation tools

In addition to the operations described so far, the Bank uses bilateral market operation tools in order to prevent excessive fluctuations in the overnight interest rate and to conduct smooth market operations. The bilateral market operation tools are the complementary lending facility and the complementary deposit facility. The complementary deposit facility is conducted as a temporary measure.

a. Complementary lending facility

The complementary lending facility is a standing lending facility[42] in which, based on conditions pre-specified by the Bank, the Bank extends loans at the request of eligible counterparties. The amount of the loans should not exceed the total value of collateral submitted by the eligible counterparties to the Bank. The maturity of the loans is overnight and the counterparties should pay the loans back to the Bank on the following business day. The loan rate (basic loan rate) is decided and changed at MPMs, and is set to be above the target level of the uncollateralized overnight call rate.[43] The counterparties eligible for the complementary lending facility are financial institutions such as banks and securities companies that request to use the facility and are deemed sufficiently

[42] The Federal Reserve, the European Central Bank, and the Bank of England also have a similar standing lending facility in which operations are conducted at the request of counterparties.

[43] As of the end of 2010, the target for the uncollateralized overnight call rate was around 0 to 0.1 percent and the basic loan rate was 0.3 percent. In the current complementary lending facility, when loans with a duration of one business day are extended for a total of more than five business days per reserve maintenance period, a higher interest rate (the basic loan rate plus 2.0 percent) will be applied to such loans. However, since March 2003, a temporary measure has been taken to remove the restriction of the maximum number of days and to terminate the implementation of the higher interest rate.

creditworthy by the Bank. The loans are provided against pooled collateral (see Footnote 34).

When financial institutions find it difficult to obtain funds from the market at interest rates that are the same or lower than that of the complementary lending facility, they would prefer to use the complementary lending facility. Therefore, the complementary lending facility has the effect of preventing an excessive rise in the overnight interest rate.[44] Moreover, even when financial institutions do not actually use this facility, the facility has the effect of stabilizing the overnight interest rate by building market confidence in the availability of funds.

The basic interest rate at which the Bank provides loans to financial institutions used to be called the official discount rate. It played the role of the policy interest rate, indicating the basic stance of the monetary policy. In the past, under the regulated interest rate system prior to the financial liberalization, various interest rates fluctuated in line with changes in the official discount rate, and the Bank's main market operation was lending to financial institutions. However, with the deregulation of interest rates in recent years and the development of various types of financial markets, such as the secondary market of JGSs, the direct link between the official discount rate and various types of market interest rates was lost. In such a situation, the types of market operations by the Bank have changed to those that utilize market functions, such as operations with multiple-rate competitive auctions. Through such changes, the target level of the uncollateralized overnight call rate based on the guidelines for money market operations is currently considered as the policy interest rate, which indicates the Bank's monetary policy stance. The Bank's loan rate to financial institutions — that is, the basic loan rate for the complementary lending facility — now plays a new role of preventing an excessive rise in the overnight interest rate.

b. Complementary deposit facility

The complementary deposit facility is a facility in which the Bank pays interest on excess reserves (balances held at the accounts with the Bank in excess of

[44] In order to use the complementary lending facility, however, financial institutions are required to hold a corresponding amount of collateral at the Bank. Therefore, financial institutions that cannot afford to hold such an amount of collateral at the Bank may borrow funds from markets at an interest rate higher than that of the complementary lending facility.

required reserves under the reserve requirement system).[45] The interest rate applied is the targeted uncollateralized overnight call rate decided in the guidelines for money market operations minus a spread determined by the Bank. The interest rate is decided and changed at MPMs.[46]

When financial institutions find it difficult to lend funds in the market at an interest rate higher than that of the complementary deposit facility, they would prefer to use the complementary deposit facility. Thus, the complementary deposit facility has the effect of preventing an excessive decline in the overnight interest rate.

As explained above, the Bank's complementary lending facility and the complementary deposit facility function to prevent excessive rises and declines in the overnight interest rate. When the difference between the interest rate applied to the complementary lending facility and that applied to the complementary deposit facility[47] is small, short-term interest rates in the markets tend to stabilize. However, in such a case, the incentive for financial institutions to make transactions in the markets will decrease, and as a result, market functions that distribute liquidity appropriately, according to the risk and other conditions of the counterparties, will also deteriorate. Conversely, if the difference is excessively large, the effects of stabilizing short-term interest rates will decrease.[48]

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[45] The complementary deposit facility was introduced in November 2008 as a temporary measure. It was decided in October 2009 that the facility would remain in effect for the time being. The European Central Bank and the Bank of England pay interest on reserves. They have a deposit facility as a standing facility to accept interest-bearing deposits at the request of financial institutions that are their counterparties. The Federal Reserve pays interest on both the required reserves and excess reserves.

[46] At the MPM held on October 5, 2010, it was decided that the interest rate applied to the complementary deposit facility would be maintained at 0.1 percent for the time being.

[47] The range of fluctuations in the interest rates between the upper limit and the lower limit set by a central bank's bilateral market operation tools is generally referred to as a "corridor."

[48] Even if a central bank does not have a reserve requirement system, it can conduct smooth market operations by setting interest rates on bilateral market operation tools — measures usually referred to as the lending facility and the deposit facility — to the upper level and lower level of the target for short-term interest rates. This is because, in this case, the daily overnight interest rate will be basically determined by the interest rates of bilateral market operation tools. Therefore, central banks that do not have a reserve requirement system often establish a corridor.

D. Actual Business Procedures of Market Operations

The following is an example of actual business procedures, based on data for October 27, 2008 (see Figure 5-4), of how the Bank of Japan conducts various market operations in response to changes in the factors affecting current account balances at the Bank.

1. Flow of business procedures prior to the day of operations

Prior to the day of operations, the Bank makes a projection[49] of changes in the total current account balances at the Bank on the day of operations due to autonomous factors, based on information on the issuance of banknotes and their withdrawal from circulation (see Section B in Chapter III), payment and receipt of treasury funds (see Section A in Chapter IX), and issuance and redemption of JGSs (see Section C in Chapter IX), together with an analysis of historical patterns of excesses and shortages of funds and recent economic developments. Projections in Figure 5-4 show a net issuance of 40 billion yen under "banknotes"[50] ([a], sources of a shortage of funds) and a net receipt of 340 billion yen under "treasury funds and others"[51] ([b], sources of a shortage of funds). The total projected shortage of funds is the sum of these two sources, or 380 billion yen ([c], a decline in current account balances at the Bank).

Adding the net total amount of the operations that start or end on the day of operations to that figure, the Bank makes its projection of changes in current account balances at the Bank, including the effects of the operations offered before the day of operations.

More specifically, in Figure 5-4, the operations starting on October 27 are funds-supplying operations providing 1 trillion yen through purchases of JGSs

[49] Projections are released on the Bank's website at 18:00 Japan Standard Time (JST) on the previous day of the operations (at 19:00 JST in the case of the last business day of every month) as "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations" (updated every business day). The Bank also makes monthly projections of excesses and shortages in current account balances at the Bank, and releases these projections as "Sources of Changes in Current Account Balances at the Bank of Japan (projections)" on the second business day of every month.

[50] If the amount of banknotes withdrawn from circulation exceeds that of banknotes issued, the net exceeded amount is indicated with a plus sign, which shows an increase in current account balances at the Bank.

[51] If the payment of treasury funds and redemption of JGSs exceed the receipt of treasury funds and issuance of JGSs, the excess amount is indicated with a plus sign, which shows an increase in current account balances at the Bank.

with repurchase agreements (d) and funds-supplying operations against pooled collateral at the Head Office providing 1 trillion yen (e). As a result, a total of 2 trillion yen is supplied. On the other hand, the operations ending on October 27 are funds-supplying operations providing 1.2 trillion yen through purchases of JGSs with repurchase agreements (f), funds-supplying operations against pooled collateral at the Head Office providing 600 billion yen (g), and loans of 20 billion yen provided through the complementary lending facility (h). As a result, the total amount of funds supplied through operations ending on October 27 is 1.82 trillion yen. Because, upon the maturity of funds-supplying operations, financial institutions pay back the funds supplied by the Bank, these paybacks become factors for the Bank to absorb funds from the markets. Therefore, the sum of (d) through (h), which is the total amount of funds supplied through market operations, is 180 billion yen (i). The sum of the projected shortages of funds (c) and (i) is 200 billion yen, which shows a projected decline in the total current account balances at the Bank (j), excluding the effects of same-day-start operations that may be offered on October 27.

2. Flow of business procedures on the day of operations

In the morning of the day of operations, based on the above projections of changes in the total current account balances at the Bank due to sources of changes in the balances, and also based on information collected on financial market conditions, the Bank determines the amount of funds to be supplied/absorbed for the day through market operations, and, when necessary, offers same-day-start operations (operations for which settlement is conducted on the day of offer and contract) at 9:20. Moreover, even after the Bank offers the same-day-start operations at 9:20, if the demand for BOJ account deposits increases or decreases compared to the projection due to fluctuations in the demand of funds for payment and settlement or changes in liquidity risks among financial institutions, or if, as a result of such factors, concern arises that the call rate will considerably diverge from the target level, the Bank conducts additional same-day-start operations as necessary. Figure 5-4 indicates that, considering the financial market conditions, the Bank supplied 600 billion yen through same-day-start funds-supplying operations against pooled collateral at the Head Office at 12:50 (k) in order to fulfill the guidelines for money market operations at the time (in this case, “the Bank of Japan will encourage the uncollateralized overnight call rate to remain at around 0.5 percent”) decided at an MPM. On the same day, a net amount

Figure 5-4 Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations: Actual Practice on October 27, 2008

bil. yen

		Projections (excluding same-day-start operations)	Preliminary figures	Final figures
Banknotes (negative: net issuance)		−40 (a)	−10	−10
Treasury funds and others (negative: net receipt of funds)		−340 (b)	−460	−460
Excess/shortage of funds (negative: shortage)		−380 (c)	−470	−470
	Outright purchase of JGBs			
	Outright purchase of T-Bills			
	Outright sale of T-Bills			
	Purchase of JGSs with repurchase agreements	1,000 (d)	1,000	1,000
		−1,200 (f)	−1,200	−1,200
	Sale of JGSs with repurchase agreements			
	Funds-supplying operation against pooled collateral (at the Head Office)	1,000 (e)	1,000	1,000
		−600 (g)	−600	−600
			600	600(k)
	Funds-supplying operation against pooled collateral (at all offices)			
	Purchases of CP with repurchase agreements			
	Sale of bills			
	Loans	−20 (h)	60	60(l)
	Securities lending facility			
	Subtotal	180 (i)	860	860
Net change in current account balances		−200 (j)	390	390(m)

Current account balances (amount outstanding)					10,000	10,000
	Reserve balances				9,500	9,490
		Held by institutions that have fulfilled reserve requirements for the current period			740	740
			Excess reserves		740	740
	Current account balances held by institutions not subject to reserve requirement system				500	510

(Reference)

Required reserves for the reserve maintenance period (October 16 – November 15, cumulative total)	149,560
Required reserves for the reserve maintenance period (October 16 – November 15, daily average)	4,820
Remaining required reserves on and after October 28 (cumulative total)	86,110
Remaining required reserves on and after October 28 (daily average)	4,530

Notes:
- Figures are rounded off to the nearest 10 billion yen.
- The figures for “Current account balances (amount outstanding)” are the total balance of financial institutions’ current accounts at the Bank (including the balances of reserves).
- The figures for “Required reserves for the reserve maintenance period” are revised, in principle, on the last business day of the month and on the seventh of the following month (or the preceding business day when the seventh falls on a bank holiday).
- The figures for “Loans” indicate those of the complementary lending facility.
- The figures for the deposit of the Japan Post Bank are included in “Net change in current account balances,” “Current account balances (amount outstanding),” and “Reserve balances.”
- The figures for the deposit of the Japan Post Bank are not included in “Held by institutions that have satisfied required reserves for the current period,” “Excess reserves,” or “Reference.”
- The figures for market operations in “Projections” indicate those for the operations that were already offered by the time the figures were released. The figure for the projection of “Net change in current account balances” is calculated based on the assumption that the loans through the complementary lending facility on the day will not be provided.

of 60 billion yen[52] was also supplied through the complementary lending facility (l) at the request of financial institutions. As a result, the total of supplied funds, including those supplied by the complementary lending facility on that day, reached 860 billion yen. Adding the excess/shortage of funds on that day updated from the projection made on the previous day (a shortage of 470 billion yen) to this 860 billion yen, current account balances at the Bank marked an increase of 390 billion yen from those on the previous day (m).[53]

As can be seen from the above example, the Bank adjusts the fluctuations in current account balances at the Bank by combining same-day-start and future-day-start operations, and by managing the flow of funds on the day of maturity. To facilitate participation of financial institutions as bidders in operations, the offers of same-day-start and future-day-start operations are basically made at a fixed time determined for each type of operation (see Figure 5-5 for the time schedule of operations as of the end of 2010). The settlement of operations that start or end on the day concerned is completed between the Bank and counterparty financial institutions through credits and debits to current accounts at the Bank and by the delivery of JGSs, bills, and CP used in the operations.

A summary of business procedures relating to the offers and settlements on the day of operations described above is shown in Figure 5-5 in time order, using the example of October 27, 2008.

Figure 5-5 Flow of Operations by the Bank of Japan: Actual Practice on October 27, 2008

Time	Business procedures by the Bank
9:30	• Offered a future-day-start purchase of JGSs with repurchase agreements (1 trillion yen) to the eligible counterparties for the operation.
10:10	• Offered a future-day-start outright purchase of JGBs (300 billion yen) to the eligible counterparties for the operation. • Deadline for bids for the future-day-start purchase of JGSs with repurchase agreements offered at 9:30.

[52] The total of 60 billion yen was calculated by subtracting the amount of loans under the complementary lending facility returned on that day from the amount of loans newly provided through the facility on the same day.

[53] The Bank releases on its website the preliminary figures of the excess and shortage of funds and of the market operations conducted on the business day concerned at 18:00 JST on the same day (at 19:00 JST in the case of the last business day of every month). The corresponding final figures are released at 10:00 JST on the following business day.

Around 10:25	• Decided on the successful bids for the future-day-start purchase of JGSs with repurchase agreements offered at 9:30 and notified the bidders of the results. Released the total amounts of the bids, the amounts of successful bids, and the average successful bid rate via the Bank's website and others.
11:40	• Deadline for bids for the future-day-start outright purchase of JGBs offered at 10:10.
Around 12:00	• Decided on the successful bids for the future-day-start outright purchase of JGBs offered at 10:10 and notified the bidders of the results. Released the total amounts of the bids, amounts of successful bids, and the average successful bid rate via the Bank's website and others.
12:50	• Offered the same-day-start funds-supplying operation against pooled collateral (conducted at the Head Office; 600 billion yen [k]) to the eligible counterparties for the operation.
13:20	• Deadline for bids for the same-day-start funds-supplying operation against pooled collateral (conducted at the Head Office) offered at 12:50.
Around 13:35	• Decided on the successful bids for the same-day-start funds-supplying operation against pooled collateral offered at 12:50 and notified the bidders of the results. Released the total amounts of the bids, amounts of successful bids, and the average successful bid rate via the Bank's website and others.
As needed	• Conducted complementary lending for eligible counterparties at their request (net amount of 60 billion yen [l]).

Notes: 1. Figures for (k) and (l) in this table correspond to those for (k) and (l) in Figure 5-4.
2. The Bank's operations are offered, in principle, according to their type at the following fixed times, as of the end of 2010.

9:20	Same-day-start operations (purchase/sale of JGSs with repurchase agreements, funds-supplying operation against pooled collateral, and sale of bills)
9:30	Future-day-start operations (purchase/sale of JGSs with repurchase agreements and purchase of CP with repurchase agreements)
10:10	Future-day-start operations (outright purchase/sale of T-Bills and outright purchase of JGBs)
12:50	Same-day-start operations (purchase/sale of JGSs with repurchase agreements, funds-supplying operation against pooled collateral, and sale of bills)
13:00	Future-day-start operations (funds-supplying operation against pooled collateral and sale of bills)
14:00	Operations through the securities lending facility

E. Monitoring of Money Markets

The projection of changes in the overall current account balances at the Bank of Japan is an important prerequisite for the Bank's conduct of daily operations. However, even if the Bank precisely projects the changes in the balances, various kinds of information related to the supply and demand for funds in the overall money markets are required in order to appropriately decide on the amount and the timing of the operations. Therefore, the Bank checks market trends on a daily basis through its money market monitoring, including interviews with market participants, so as to conduct smooth market operations. Moreover, the Bank provides market participants with the statistics related to market operations, which are compiled and summarized based on various data obtained from them.

1. Market monitoring

The uncollateralized overnight call rate, which is the Bank's target interest rate, is the value-weighted average rate for transactions made through *tanshi* companies. The daily movements of the uncollateralized overnight call rate are considerably influenced not only by the macro-level supply-demand balance of BOJ account deposits, but also by each market participant's borrowing and lending activities.

For example, if some market participants' current account balances at the Bank happen to decrease significantly, they may need to borrow much more funds within the day than they borrowed in the previous day in order to maintain the positive balances of current accounts at the Bank. In this case, as it is necessary for the participants to borrow a large amount of funds in a short period of time and the amount of funds borrowed from one counterparty may be subject to credit line constraints, they may bid up the rate to borrow funds. Such an action taken by major market participants may influence the borrowing and lending of other market participants, and as a result the rate in the overall market may fluctuate. Moreover, contingencies such as an incident related to settlements may also significantly affect fund transactions in the market during the day.

Therefore, the Bank closely communicates with major participants in money markets, such as banks, securities companies, and *tanshi* companies (money market brokers) and monitors developments in daily borrowing and lending by each market participant as well as the conditions for transactions in the markets. At the Bank, the department in charge of market operations (the Financial Markets Department) and that in charge of off-site monitoring (the Financial System and Bank Examination Department) work together to conduct market monitoring. The information related to funding conditions of each financial institution obtained through off-site monitoring is taken into consideration in the market monitoring (see Footnote 3 in Chapter VI).

Through the market monitoring, the Bank gathers such information as the daily amount of borrowing and lending by major market participants, the projected current account balances at the Bank, the supply and demand for funds in the markets, movements in interest rates, and views among market participants on the Bank's operations. The information is quite useful for the Bank in deciding on the amounts and maturities of daily operations to supply/absorb funds, as well as the types and the timing of operations.

In addition to monitoring money market developments, the Bank conducts research and analysis on developments in financial and capital markets at home and abroad in order to gather information necessary for its conduct of monetary policy. The Bank publishes the *Financial Markets Report* semi-annually, with a view to comprehensively reviewing the information obtained through market monitoring, explaining the Bank's assessment to market participants at home and abroad, and discussing unsettled issues regarding market developments. The report explains not only short-term fluctuations in financial markets, but also market conditions and the underlying supply-demand conditions as well as structural factors. It also provides an overview on the issues with regard to market functioning and the Bank's efforts to settle the issues.[54]

2. Compiling and releasing relevant statistics

The Bank receives various data related to market operations from its counterparties and releases the aggregated data to the public on its website. The data are also useful for market participants, as the data enable them to ascertain developments in money markets as well as changes in interest rates resulting from the Bank's market operations, and to recognize the effects of the operations.

The major statistics released by the Bank are as follows. Regarding interest rates, statistics such as the weighted average of the uncollateralized overnight call rate, which is the target rate in the Bank's policy conduct, as well as its highest and lowest levels (released daily), and the prevalent market rate (Tokyo Repo Rate) for short-term fund transactions that are referred to as repo transactions (securities lending with cash collateral and transactions under repurchase agreements) are released. Regarding the amount outstanding and the

[54] *Financial Markets Report* is available on the Bank's website.

amount of transactions in the markets, the amount outstanding of borrowing and lending in the call market by sector with or without collateral (released monthly on both an end-of-month basis and an average-amount-outstanding basis) and the amount outstanding of the uncollateralized call transactions by maturity (released monthly) are released. Regarding operations and BOJ account deposits, the terms of the operations such as the offered amount and the scheduled dates, and the results of the operations, including the bid amount, the successful bid amount, the successful bid rates, and the average successful bid rate are released whenever the Bank conducts the operations, and the aggregated results of the operations are released monthly. The Bank also releases "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations" (daily and monthly), "BOJ Current Account Balances by Sector" (monthly), "Japanese Government Bonds held by the Bank of Japan" (monthly), "T-Bills Purchased by the Bank of Japan" (monthly), and the amount of pooled collateral — which is the collateral assets for the operations — by type (monthly).

F. International Cooperation

The Bank also participates in international cooperation with other central banks regarding market operations and market monitoring. Specifically, there are various types of cooperation, from bilateral discussions and exchanges of information between the Bank and other central banks to multilateral cooperation and exchanges of information and opinions among groups of central banks. Above all, the Bank's activities in the Market Committee (MC) and the Committee on the Global Financial System (CGFS), of which the Bank for International Settlements (BIS) acts as the secretariat, are an important part of the international cooperation with other central banks.

The MC consists of senior officials responsible for market operations of central banks from 21 major economies. It assesses the functioning of financial markets and market operations by central banks. It also evaluates and analyses long-term structural trends that may have implications for them. To facilitate its discussions and enhance market transparency, the MC publishes a document that summarizes and compares the monetary policy frameworks and market operations of its member countries.[55]

The CGFS consists of the Deputy Governors and the Executive Directors of the central banks from 22 major economies. Its purpose is to

[55] The document is available on the BIS website (http://www.bis.org).

identify and assess potential sources of stress in global financial markets, to further the understanding of the structural underpinnings of financial markets, and to promote improvements in the functioning and stability of these markets. The CGFS also oversees the collection of the "Locational Banking Statistics" and "Consolidated Banking Statistics," published by the BIS.

The central banks exchange opinions and information with each other when necessary. This kind of global cooperation related to market operations and the monitoring of financial markets has been becoming increasingly important recently. In response to the global financial crisis since summer 2007, the central banks' close cooperation and information exchange contributed to realizing policy coordination among them and improvement in various means of their market operations in their respective countries.[56] Specifically, in view of the possible impact of a liquidity shortage in the U.S. dollar market on the liquidity condition in the yen market, the Bank, together with other major central banks, concluded a temporary U.S. dollar liquidity swap arrangement with the Federal Reserve to obtain U.S. dollars, and introduced, as a temporary measure, a U.S. dollar funds-supplying operation against pooled collateral to supply U.S. dollar funds to market participants in Japan. There is a growing trend among major central banks to use the bonds issued by foreign governments as eligible collateral (the acceptance of so-called cross-border collateral). The Bank, in coordination with other central banks, decided in May 2009 to accept bonds issued by the governments of the United States, the United Kingdom, Germany, and France as eligible collateral, with a view to further facilitating the Bank's market operations in response to developments in financial markets, while enhancing efficiency in the management of eligible collateral.

[56] In this aspect, the Bank has many conventional types of market operations compared to other central banks, and its exclusive knowledge related to these measures was extensively utilized when other central banks considered extending their range of types of market operations.

Box 1 Money Markets and the Call Market

Markets in which participants lend/borrow short-term funds maturing within a year are generally referred to as money markets.[1] They are often divided into interbank markets, in which financial institutions, such as banks, securities companies, and *tanshi* companies[2] participate, and open markets, in which not only financial institutions but also nonfinancial institutions and local governments are able to participate. There are other types of money markets, such as: (1) the foreign exchange swap market, which is often used by Japanese banks for funding in foreign currencies (or foreign financial institutions for funding in yen); (2) the Euroyen market, in which offshore yen transactions take place;[3] and (3) short-term interest-rate derivatives markets, including the Overnight Index Swap (OIS) market,[4] which is the market where interest rate swap transactions for the uncollateralized call rate take place.

The call market accounts for the major part of interbank markets as explained below.[5] On the other hand, open markets consist of various types of markets, such as the repo market, where bonds such as Japanese government bonds are lent/borrowed and purchased/sold with repurchase agreements, the CP market, where CP issued mainly by nonfinancial institutions are traded, as well as the treasury discount bill (T-Bill) market,[6] where such bills are traded.

The call market is important in Japan because through this market, financial institutions make the day's final adjustment of current account balances at the Bank, and the uncollateralized overnight call rate determined consequently in this market is used as the target rate of the Bank of Japan's market operations. The call market has no physical trading floor: instead, financial institutions contact *tanshi* companies and other financial institutions by telephone or through computer terminals, and agree on funds transaction contracts. Based on the experience of the financial crisis in 1901, the call market was established rather naturally and has been developed as an interbank market to make the final adjustment of funds between financial institutions. It has the longest history of all the money markets in Japan.

The transactions in Japan's call market (call transactions) can be classified into four types, according to collateral — those with (collateralized call transactions) or without (uncollateralized call transactions) collateral — and according to the counterparty — those via *tanshi* companies or not (direct deals). In terms of their duration, call transactions have a range from overnight (settled on the next business day) to one year, among which a large volume of transactions are traded overnight. The delivery day is set on the same day as the contract (same-day-start) or on a future date, and many overnight trades are same-day-start transactions.

Notes: 1. On the other hand, markets in which funds are lent/borrowed for periods longer than one year are often referred to as capital markets.

2. *Tanshi* companies specialize in intermediating funds in money markets. When financial institutions trade call money, CP, and treasury bills (TBs), they act as dealers that lend/borrow funds to/from these institutions, and as brokers who match buyers and sellers.

3. Offshore markets are the markets that give favor to the lending/borrowing of funds among nonresidents in terms of financial regulation and taxation.

4. OIS transactions are interest rate swap transactions conducted to exchange the uncollateralized overnight call rate for the fixed interest rate, using the overnight interest rate as the floating interest rate. In general, the overnight interest rate of each country is strongly linked to the policy interest rate of the central bank in each country. Therefore, in an OIS market, financial institutions trade by taking the possibility of the central bank's policy change into account. In this context, under the framework that sets the overnight interest rate as the target rate, OIS transactions provide an effective way to monitor market perceptions about future monetary policy.

5. Bills markets are also categorized as interbank markets. However, the volume of transactions conducted in these markets has been decreasing recently.

6. T-Bills were introduced in February 2009 by integrating TBs and financing bills (FBs). Meanwhile, the status of TBs and FBs remains the same under the existing fiscal system and the terms TBs and FBs are still used when necessary.

Box 2 Money Markets and the Bank of Japan

Japan's money markets are important for the Bank of Japan as a central bank, in that the uncollateralized overnight call rate, which is the target rate for monetary policy, is determined in these markets, and they are also where the Bank conducts market operations. The overnight interest rate, which is determined in line with the Bank's target level, eventually influences the level of economic activity and developments in prices through various money market interest rates and the fund-raising cost of firms and financial institutions (see Chapter I.B.2).

In this way, money markets function as the transmission channels of the monetary policy effect. Therefore, the Bank cooperates with the relevant parties such as financial institutions in order to improve the system and functioning of money markets. Specific examples of the Bank's initiatives are the recent implementation of the next-generation RTGS project (see Chapter IV.D.1.d), the enhancement of the business continuity arrangements in the case of disasters affecting the entire market (see Chapter IV.D.3), and the improvement of market statistics (see Section E.2 in this chapter).

Box 3 Calculation Method for the Legal Reserve Requirement

As described in this chapter, in the reserve requirement system in Japan, financial institutions designated in the Act on Reserve Requirement System are obliged to maintain deposits at the Bank of Japan that are greater than the amount calculated by multiplying their liabilities, such as accepted deposits, by a certain ratio (reserve requirement ratio). The setting, changing, and abolishing of the reserve requirement ratio are decided by the Policy Board at Monetary Policy Meetings (see the table below for the current reserve requirement ratios). Financial institutions holding current account deposits at the Bank (BOJ account deposits) do not need to open a separate deposit account for holding reserves, as the total amount outstanding in their BOJ account balances is counted as reserves in satisfying their reserve requirements.

Under the reserve requirement system, the minimum current account balance that a financial institution is required to maintain as reserves at the Bank (referred to as the legal reserve requirement or required reserves) is calculated as follows: (1) the daily amount is calculated by multiplying the balance of the liabilities subject to reserves at the end of the day[1] by the reserve requirement ratio for that day; (2) the total monthly amount is calculated by adding up the amounts calculated from the first through the last day of the month; and then (3) the minimum amount is calculated by dividing the total monthly amount by the number of business days in the month.

Note: 1. The liabilities subject to reserves include deposits, bank debentures, principal of money in trust, foreign currency deposits of residents, and yen deposits of nonresidents.

Table for Box 3 Reserve Requirement Ratios under the Reserve Requirement System as of the End of 2010

%

Reserve ratios on deposits[1]

— Banks, long-term credit banks, and *shinkin* banks with outstanding deposits of more than 160 billion yen at the fiscal year-end[2]

Outstanding deposits of:	Time deposits (including certificates of deposits)	Other deposits
More than 2.5 trillion yen	1.2	1.3

Between more than 1.2 trillion yen and 2.5 trillion yen or less	0.9	1.3
Between more than 500 billion yen and 1.2 trillion yen or less	0.05	0.8
Between more than 50 billion yen and 500 billion yen or less	0.05	0.1
- The Norinchukin Bank	0.05	0.1
Reserve ratio on debentures outstanding[3] issued by banks and long-term credit banks	0.1	
Reserve ratio on outstanding principal balance of money in trust (including loan trusts)	0.1	
Reserve ratio on foreign currency liabilities against nonresidents (excluding special international transaction accounts)	0.15	
Reserve ratios on foreign currency deposits of residents (excluding special international transaction accounts)	Time deposits 0.2	Other deposits 0.25
Reserve ratio on liabilities in nonresident yen accounts (excluding special international transaction accounts)	0.15	
Reserve ratio on balances transferred from special international transaction accounts to other accounts	0.15	

Notes: 1. In Japan, progressive reserve requirement ratios are used where outstanding deposits are classified into brackets by value, and higher reserve requirement ratios are applied to higher value brackets. For example, if a bank had a daily outstanding balance of 3 trillion yen in time deposits throughout March 2010, the legal reserve requirement for the bank for the reserve maintenance period from March 16 through April 15 would be calculated as follows: 500 billion yen (the amount by which liabilities exceed 2.5 trillion yen) × 1.2 percent + 1.3 trillion yen (the amount between more than 1.2 trillion yen and 2.5 trillion yen) × 0.9 percent + 700 billion yen (the amount between more than 500 billion yen and 1.2 trillion yen) × 0.05 percent + 450 billion yen (the amount between more than 50 billion yen and 500 billion yen) × 0.05 percent = 18.275 billion yen.

2. No reserve requirement ratio is set for amounts of 50 billion yen or less.

3. Figures for debentures include those succeeded by designated financial institutions under the Act on Reserve Requirement System through acquisitions of other designated financial institutions from April 1996.

Box 4 Market Operations and the Bank of Japan's Balance Sheet

The assets and liabilities the Bank obtains through its operations are recorded on the Bank's balance sheet. On the balance sheet, the major liabilities are banknotes, current accounts, and government deposits, while the major assets are Japanese Government Bonds (JGBs), treasury discount bills, and the assets related to short-term funds-supplying operations (see Boxes 3 and 4 for Chapter II, "The Bank of Japan's Accounts" and "Basic Accounting Principles for the Bank of Japan's Balance Sheet"). Among the liabilities of the Bank, government deposits and other debts that fluctuate widely in the short term, and current accounts, which require timely control over the amount outstanding, should be backed by short-term financial assets obtained by the Bank through its operations. If the amount outstanding of JGBs, which are long-term assets, were to exceed that of banknotes in circulation, which are long-term liabilities, the Bank would hold JGBs, also as matching assets for government deposits and current accounts, which are short-term liabilities. In this case, in order to provide timely control over the amount outstanding of the current accounts in response to financial conditions, the Bank would be required to trade in the JGB market frequently or conduct funds-absorbing operations continuously. However, this approach could disturb the market by causing wide fluctuations in the market interest rates.

The Bank limits the amount outstanding of its JGB holdings to within that of banknotes in circulation in order to avoid such disturbances. This also enables the Bank to hold short-term financial assets of which the amount outstanding can be flexibly adjusted in response to changes in government deposits and current accounts, thereby contributing to conducting smooth market operations.

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 examinations[2] 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."

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

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 Institutions[1]

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.

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.

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 testing[11] 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.

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 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.

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]

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[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 (*Tokuyu*) 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.

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 soundness[19] (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.

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.

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.

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 examinations[28] 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.

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

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[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;[36]and (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)

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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.

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

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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 monitoring[38]

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

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[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.

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").

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[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).

<table>
<tr><th colspan="2">Type of loan[1]</th><th>Outline</th><th>Legal basis in the Bank of Japan Act</th></tr>
<tr><td colspan="2">Intraday overdraft</td><td>Providing non-interest-bearing intraday liquidity against pooled collateral to financial institutions' current accounts at the Bank (see Chapter V.B.2.a.[1]).</td><td>Article 33[2]</td></tr>
<tr><td colspan="2">Intraday overdraft using the SPDC function</td><td>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).</td><td>Same as above</td></tr>
<tr><td colspan="2">Complementary lending facility</td><td>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).</td><td>Same as above</td></tr>
<tr><td rowspan="3">The lender-of-last-resort function</td><td>Collateralized loans (extended as the lender of last resort)</td><td>Providing collateralized loans to financial institutions actively and flexibly when necessary (see Section D in this chapter).</td><td>Same as above</td></tr>
<tr><td>Temporary loans to financial institutions, etc.</td><td>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).</td><td>Article 37</td></tr>
<tr><td>Tokuyu (special loans)</td><td>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).</td><td>Article 38</td></tr>
</table>

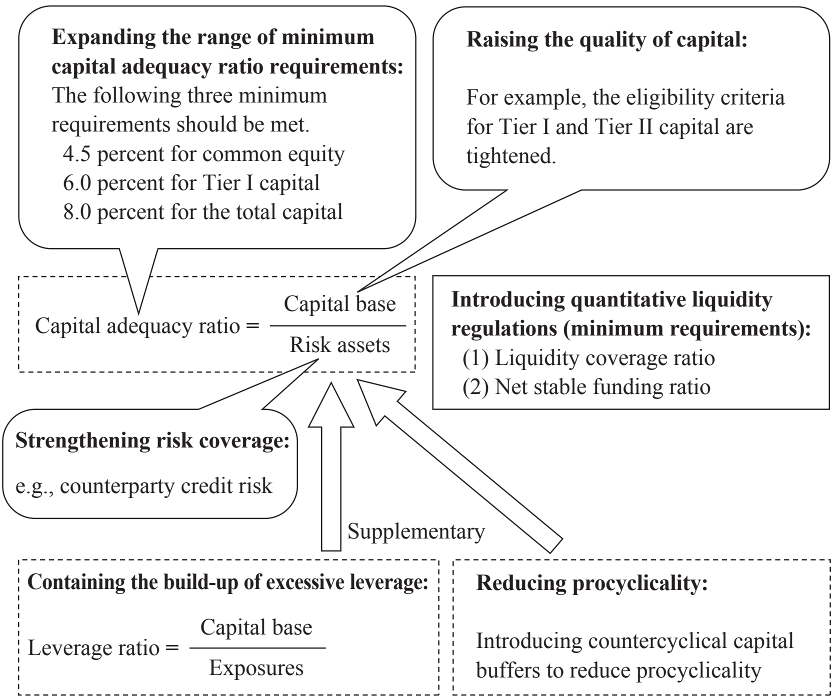
Notes: 1. In addition, the funds-provisioning measure to support strengthening the foundations for economic growth (see Footnote 14 in Chapter I), the funds-supplying operation against pooled collateral (see Chapter V.C.1.a), and the U.S. dollar funds-supplying operation against pooled collateral are 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.

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

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>

	Terms	Amount	Rate
FX Swap			
NCD			
CP			
Funding by Repo			
Investment by Repo			

<BOJ Open Market Operation>

Type	Terms	Amount	Rate

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 / Call Money	Uncollateralized		
		Collateralized		
	BOJ Open Market Operation			
Start	Call Loan / Call Money	Uncollateralized		
		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.

Chapter VII Statistics, Research, and Studies

The Bank of Japan compiles statistics and conducts research and studies, and publishes their results in various ways. This chapter explains how these activities work.

A. Compiling and Publishing Statistics

The Bank not only uses various kinds of statistics, but also compiles them to grasp financial and economic conditions properly.

The statistics the Bank compiles are divided into two kinds: (1) monetary and financial statistics, such as Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations, Flow of Funds Accounts, and the Money Stock; and (2) economic statistics, such as the *Tankan* (Short-Term Economic Survey of Enterprises in Japan), the Corporate Goods Price Index (CGPI), the Corporate Services Price Index (CSPI), and the Balance of Payments[1] (see Figure 7-1). These statistics are compiled through business operations at the Bank's Head Office, branches, and offices, and are devised in various ways to ensure accuracy through interviews, to reduce the burden on reporting entities by pursuing efficiency, and to manage data strictly, in the flow from formulation to collection, examination, calculation, processing, and publication of data.

The Bank continues to pursue better ways to compile more reliable and useful statistics for the public. As a part of this pursuit, in recent years, the Bank introduced the CGPI,[2] revised the research framework of the *Tankan*

[1] The Bank compiles data on the balance of payments on behalf of the government (Minister of Finance) under the Foreign Exchange and Foreign Trade Act (Article 69), based on reports submitted by financial institutions, firms, and individuals (see Chapter VIII.D.4).

[2] The wholesale price index (WPI) was revised in December 2002 to improve the statistical precision of the price index. The improvement was brought about by a considerable increase in the number of sample prices, introduction of average prices, and expansion of the range of commodities calculated by the hedonic regression method for quality adjustment. At the same time, the function of deflators to transform nominal output values into real quantities was enhanced by partly changing the selection criteria for the stage where sample prices were surveyed. As a result, the percentage of prices surveyed at the stage of shipment from producers was increased under the new criteria. Reflecting this fact, the name of the index was changed from the WPI to the Corporate Goods Price Index (CGPI) to express the characteristics of the index more accurately.

survey,[3] and reviewed the Money Stock and the Balance of Payments. The Bank also launched a system on its website to provide a search function for viewing the Bank's time-series statistical data (BOJ Time-Series Data Search).

In May 2007, the Japanese government carried out a full revision of the Statistics Act (Act No. 18 of 1947; hereafter, the Old Statistics Act) for the first time in 60 years. The revised Statistics Act (Act No. 53 of 2007; hereafter, the New Statistics Act) went into effect in April 2009. The New Statistics Act states that official statistics are critical information for the citizens in their reasonable decision making, and stipulates that official statistics shall be developed in a systematic and efficient manner. The New Statistics Act stipulates that all statistics compiled and released by the Bank, including registered statistics under the Old Statistics Act (see Box 1, "Statistics Compiled by the Bank of Japan and Registered with the Government"), are official statistics, and requires that they be in accordance with the fundamental principles of the New Statistics Act.

Considering such changes in the environment for statistics, the Bank examined and organized the existing conception of the compilation, publication, and improvement of statistics, and published its basic principles as "Bank of Japan's Basic Principles for Statistics"[4] in March 2009. The Basic Principles are broken down into the following categories: (1) provision of accurate and appropriate statistics; (2) improvement of convenience for statistics users; (3) enhancement of transparency; (4) reduction of the burden on reporting entities while providing detailed explanations to encourage them to cooperate in surveys; (5) maintenance of strict confidentiality in data management;[5] (6) rationalization and im-

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[3] From the March 2004 *Tankan* (released in April), the Bank conducted a revision of the survey framework from a broader perspective, in addition to a periodic revision of sample enterprises. Specifically, the Bank revised industry classifications, expanded sample enterprises, decided to use capital instead of the number of regular employees as the criterion for classifying enterprises into calculation sizes (large, medium-sized, or small), and abolished some survey items and the "Principal Enterprises' *Tankan,*" which had been used as a reference survey.

[4] The basic principles are available in the "Notices of Changes and Revisions of Statistics" section on the Bank's website.

[5] Maintaining strict confidentiality in the entire process of producing statistics is extremely important in terms of ensuring reliability and preventing abuse of the statistics. Therefore, the Bank follows strict operational procedures to maintain confidentiality of information (e.g., survey results prior to their release and data on individual reporting entities). Some of the methods taken to maintain confidentiality are designating persons who are authorized to work in the production of statistics, prohibiting unauthorized persons from entering statistics-related work areas, and systematically limiting access to statistical data.

provement in the efficiency of statistics production operations;[6] and (7) mutual cooperation and appropriate sharing of roles with relevant organizations, such as administrative organizations. The Basic Principles have been reorganized, taking account of the concepts in the New Statistics Act: the systematic development of official statistics, and the secondary use of statistical data (the use of questionnaire information for purposes other than the original purpose of producing statistics). Furthermore, the Bank has incorporated the concept of the use of private entities taken up in the government's Basic Plan[7] in the Bank's basic principles for statistics.

Under the Basic Principles, the Bank plans to implement the following to improve its statistics: (1) adoption of the 2008 System of National Accounts (SNA)[8] for the Flow of Funds Accounts Statistics, (2) adoption of the *Balance of Payments and International Investment Position Manual, Sixth Edition* (BPM6);[9] (3) promotion of the secondary use of statistical data;[10] (4) revision of the CGPI to the 2010 base; and (5) a response to the introduction of the

[6] In order to compile and release statistics while maintaining and improving their accuracy within the constraints of limited human resources and budgets, rationalization and improvement of efficiency are indispensable. They are also necessary to reduce the burden on reporting entities. Therefore, the Bank works to stop the compilation of particular statistics and drops related survey items when the demand for these statistics becomes relatively small.

[7] Details are available in "Basic Plan Concerning the Development of Official Statistics (released on March 13, 2009)" on the website of the Ministry of Internal Affairs and Communications.

[8] The System of National Accounts (SNA) is a macroeconomic compilation of statistics that systematically records flows, such as consumption and investment, and stocks, such as assets and liabilities. There is a unified standard provided by the United Nations to make economic activities comparable between different nations.

[9] There are various issues discussed in BPM6, including such technical matters as emphasizing the international investment position, enhancing consistency between BPM6 and SNA, and grasping the actual trend of globalization and new types of transactions.

[10] The New Statistics Act stipulates that the secondary use of statistical data to promote their utilization is to be encouraged, while protecting the confidentiality of reporting entities (articles 32–38). The Bank supports the secondary use of statistical data for the development of academic research and the advancement of higher education without impeding its business operations.

Economic Census.[11]

The Bank has tried to forge closer links with statistical organizations in Japan and abroad. In Japan, the Bank participates in various meetings, such as the statistical committees held by the government to exchange views with relevant government agencies. The Bank also cooperates with various statistical organizations overseas in order to maintain the global comparability of statistics. The Bank periodically exchanges views on the improvement of statistics by attending the Irving Fisher Committee on Central Bank Statistics,[12] which is operated under the auspices of the Bank for International Settlements (BIS). The Bank also participates in international initiatives for formulating global statistical standards led by the United Nations (UN), the International Monetary Fund (IMF),[13] and the Organisation for Economic Co-operation and Development (OECD).

The statistics compiled by the Bank are made available to a wide range of users through the Bank's website and other media. They are accessible through the "Statistics" section on the Bank's website. About 160,000 items of long-term time-series data can be searched, graphed, and downloaded through the "BOJ Time-Series Data Search" section on the Bank's website. Moreover, the Bank compiles and publishes various kinds of statistical publications, such as the *Financial and Economic Statistics Monthly*, *Bank of Japan Statistics*, and *Balance of Payments Quarterly* (see Figure 7-1). The publication schedules of statistics and statistical publications are made available on the Bank's website in the "Release Schedule," which is updated weekly, and the "Schedule for Releases of Statistical Data and Publications," which is updated semiannually.

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[11] The Ministry of Internal Affairs and Communications and the Ministry of Economy, Trade and Industry are preparing for the introduction of the Economic Census, a statistical survey to show the activities of business establishments and enterprises in all industries. The Ministry of Internal Affairs and Communications already implemented the Economic Census for Business Framework in fiscal 2009, and the two ministries are planning to conduct the Economic Census for Business Activity in fiscal 2011. Due to this change in the statistical survey, for example, the population from which to obtain the information for the *Tankan* survey will be changed from that used in the Establishment and Enterprise Census to that used in the Economic Census.

[12] The Irving Fisher Committee on Central Bank Statistics is a forum attended by economists and statisticians from central banks.

[13] The IMF established the Special Data Dissemination Standard (SDDS) as the criteria for data release in 1996; it is the guideline for ensuring the transparency of data and developing a sound statistical system in member countries. In Japan, the government is adopting the SDDS with the cooperation of the Bank.

Figure 7-1 Major Statistics Compiled and Released by the Bank of Japan

1. Major Statistics[1]
a. Financial statistics

Title	Frequency of compilation	Time of release	Contents
Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations	Monthly	Projections: on the second business day of the month; final figures: on the first business day of the next month	Changes in current account balances at the Bank (due to banknotes, treasury funds, and other factors), results of market operations, and changes in reserve balances.
Monetary Base	Monthly	On the second business day of the next month	The total amounts outstanding of banknotes, coins in circulation, and current account balances at the Bank.
Monetary Base and the Bank of Japan's Transactions	Monthly	Early in the next month	Statistics explaining the relationship between the monetary base and various transactions conducted by the Bank.
Money Stock	Monthly	On the seventh business day of the next month (data for March and September: on the ninth business day of the next month)	Amounts outstanding of money (e.g., cash in circulation and deposit money) held by money holders.
Amounts Outstanding of Deposits by Depositor (Monthly Data)	Monthly	On the eighth business day after the 19th of the next month	Amounts outstanding of deposits by depositor (end of period basis and average amounts outstanding basis).

Amounts Outstanding of Deposits by Depositor (Fiscal Half Data)	Semian-nually	Domestically licensed banks: on the eleventh business day after the 24th of the next month; *shinkin* banks: on the 13th business day after the 25th of the next month	Amounts outstanding of deposits by depositor (fiscal-half data, by amount, and by detailed type of depositor).
Deposits, Vault Cash, Loans, and Bills Discounted by Prefecture	Monthly	On the seventh business day after the 19th of the next month	Deposits, vault cash, and loans and bills discounted by prefecture.
Principal Figures of Financial Institutions	Monthly	Early in the next month	Amounts outstanding of loans, discounts, deposits (excluding unsettled bills and checks), and certificates of deposit (CDs).
Average Contract Interest Rates on Loans and Discounts	Monthly	At the end of the next month in principle (figures for March and September: at the end of the second month after)	The average rates of contract interest rates on loans and discounts (long-term, short-term, and total) of domestically licensed banks by type of bank.
Loans and Bills Discounted by Sector (Monthly Data)	Monthly	On the eighth business day after the 19th of the next month	Outstanding loans and discounts by sector.
Loans and Bills Discounted by Sector (Quarterly Data)	Quarterly	Figures for March and September: on the eleventh business day of the second month after; figures for June and December: on the 13th business day of the 22nd of the next month	Outstanding loans and discounts by sector (by type of major industries, by scale of enterprises, major new loans for fixed investment, by type of industries, and new loans for fixed investment).

Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks	Quarterly	In January, April, July, and October	The loan survey aims to quantitatively measure the views of senior loan officers at large Japanese banks concerning the loan market.
Payment and Settlement Statistics	Monthly	On the last business day of the next month	Figures for payment and settlement services of the Bank including current account services, and for private clearing systems, such as the value of bills and checks exchanged.
Flow of Funds Accounts	Quarterly	Preliminary figures: in the middle of the third month after (figures for March: late in the third month after); revised figures: in the middle of the sixth month after (figures for March: late in the sixth month after)	Flow of funds classified by economic sectors and financial transactions.
Regular Derivatives Market Statistics in Japan	Semiannually	In March and September	Statistics pertaining to Japan included in the Regular Derivatives Market Statistics released by the Bank for International Settlements.
The Results of BIS International Locational Banking Statistics in Japan	Quarterly	In March, June, September, and December	Statistics pertaining to Japan included in the Locational Banking Statistics released by the Bank for International Settlements.
The Results of International Consolidated Banking Statistics in Japan	Quarterly	In March, June, September, and December	Statistics pertaining to Japan included in the Consolidated Banking Statistics released by the Bank for International Settlements.

b. Economic statistics

Title	Frequency of compilation	Time of release	Contents
Tankan (Short-Term Economic Survey of Enterprises in Japan)	Quarterly	In the beginning of April, July, and October, and in the middle of December	The results of the questionnaire on judgment data items such as business conditions and supply and demand conditions for products, as well as numerical items such as the amount of sales, profits, and fixed investment. (See Box 1, “Statistics Compiled by the Bank of Japan and Registered with the Government”).
Corporate Goods Price Index (CGPI)	Monthly	On the eighth business day of the next month (figures for March and September: on the ninth business day of the next month)	The index consists of basic grouping indexes that cover the Domestic Corporate Goods Price Index (DCGPI), the Export Price Index (EPI), and the Import Price Index (IPI), as well as reference indexes, such as the Index by Stage of Demand and Use (ISDU). (See Box 1, “Statistics Compiled by the Bank of Japan and Registered with the Government”).
Corporate Services Price Index (CSPI)	Monthly	On the 18th business day of the next month	The index consists of a basic grouping index that covers domestic and imported service products traded among companies, and reference indexes, such as the Export CSPI. (See Box 1, “Statistics Compiled by the Bank of Japan and Registered with the Government”).
Input-Output Price Index of the Manufacturing Industry by Sector (IOPI)	Monthly	On the 20th business day of the next month in principle	The Input Price Index and the Output Price Index covering prices of products in the manufacturing industry.

Balance of Payments	Monthly	Early in the second month after	Increase/decrease in the current account, capital and financial account, and reserve assets. The Bank compiles balance of payments statistics on behalf of the government.

2. Major Statistical Publications[1]

Title	Time of release	Contents
Financial and Economic Statistics Monthly	Late in the next month	Statistics covering overall financial, monetary, and economic activities in Japan.
Bank of Japan Statistics	April	Statistical publication covering long-term time-series data related to the statistics the Bank compiles.
Tankan (Comprehensive Data Set)	In April, July, October, and December	Detailed results of the short-term economic surveys conducted by the Bank.
Price Indexes Quarterly	In March, June, September, and December	Detailed series of price indexes released by the Bank, namely, the CGPI, the CSPI, and the IOPI.
Balance of Payments Quarterly	In January, April, July, and October	Systematic records of Japan's cross-border economic transactions.

Note: 1. All of the statistics and statistical publications are available from the Bank's website, and some of them are sold at bookstores and the Government Publication Service Center.

B. Research and Studies

1. Research

The Bank's research activities include the gathering and analysis of a wide variety of data to assist in the formulation and implementation of its policies and business operations. These activities take place at all levels of the Bank, including the Head Office, branches, local offices in Japan, and overseas representative offices. A wide variety of methods are adopted in the Bank's research activities. For example, in addition to making use of various financial and economic statistics, the Bank actively exchanges views with a wide range of organizations, including financial and nonfinancial institutions, industrial organizations, research institutes, the government, foreign central banks, and international organizations. It also participates in various seminars, and, as part of its public relations activities, exchanges views with people in various fields. The Bank's research findings cover many areas of study in line with the vast range of its policy and business operations. For example, the Bank: (1) carries out research on developments in economic activity and prices, which form the basis of the decisions regarding monetary policy; (2) grasps changes in the volume of banknotes going into and being withdrawn from circulation at its Head Office and branches, in order to ensure smooth circulation of banknotes across the country; (3) monitors developments in technological innovations in payment and settlement systems in order to ensure that the Bank of Japan Financial Network System (BOJ-NET) operates safely and efficiently; and (4) monitors developments in financial markets and exchanges views with financial institutions in order to conduct appropriate market operations. As the results of these activities are constantly communicated to the Bank's Policy Board and the relevant operating divisions to support their activities to formulate and implement the Bank's policies and business operations, its research activities play an important role in pursuing the Bank's objectives of achieving price stability and maintaining financial system stability.

Some of the findings obtained from these research activities are made public in the form of various types of reports, research papers, and reviews (see Figure 7-2). For example, the current conditions and issues related to the financial system, financial markets, and payment and settlement systems are communicated through periodic publications, such as the *Financial System Report,* the *Financial Markets Report,* and the *Payment and Settlement Systems Report,* respectively. The Bank also releases the *Bank of Japan Review Series,* which explains recent economic and financial issues to a wide variety of readers.

In addition, each time the meeting of general managers of the Bank's branches is held,[14] the Bank releases the *Regional Economic Report*, which compiles the results of its research and analysis on the regional economic and financial situation in Japan, based on information gathered through interviews with firms conducted by the Bank's staff at the Head Office and branches.[15]

Of the many kinds of research activities in which the Bank engages, the following section focuses on those that contribute to the appropriate conduct of monetary policy.

Figure 7-2 The Bank of Japan's Publications Related to Research and Studies

Title[1]	Frequency of compilation	Contents
Financial System Report	Semiannually	The report periodically analyzes and assesses the stability of Japan's financial system as a whole in terms of its functioning and robustness.
Financial Markets Report	Semiannually	The report reviews financial market developments in Japan every fiscal half year (from January to June, and from July to December), and summarizes mid-term market developments, factors of which the development is composed, trends in supply and demand, and changes in market structure, etc.
Payment and Settlement Systems Report	Annually	The report identifies improvements that can be made to enhance the safety and efficiency of Japan's payment and settlement systems, explains how the Bank is addressing them, and describes international developments related to payment and settlement systems.
Regional Economic Report	Quarterly	The report consists of an analysis of regional economic conditions incorporating economic data and anecdotal information gathered by all regional research divisions, mainly at the Bank's branches in Japan. By releasing the report, the Bank aims to enhance the quality of its research that supports policy implementation, and share information gained from its research with the public.

[14] At the meeting of general managers of the Bank's branches, which is held four times a year, the Bank's officers, including the Governor, general managers of branches in Japan, the general manager for the Americas, the general manager for Europe, and officials at the Head Office, are assembled to discuss and deliberate on the state of economic and financial conditions in each region, based on reports delivered by each branch manager.

[15] These reports, research papers, and reviews are available on the Bank's website.

Bank of Japan Working Paper Series (Japanese and English)	Ad hoc basis	Working papers produced by the Bank's staff or by researchers outside the Bank. Publication of the papers is intended to elicit comments from research institutes and researchers in Japan and abroad.
Bank of Japan Review Series	Ad hoc basis	The report explains recent financial and economic topics to a wide range of readers.
Kin'yu Kenkyu (Monetary and Economic Studies) [2]	Quarterly	Research papers produced by staff members of the Institute for Monetary and Economic Studies (IMES) or by researchers outside the IMES. Papers also include minutes of conferences, workshops, and various symposiums.
Monetary and Economic Studies	About once a year	Research papers, including research papers in *Kin'yu Kenkyu* and original research papers, are published in English.
IMES Discussion Paper Series (J-Series [Japanese]) (E-Series [English])	Ad hoc basis	Discussion papers produced by staff members of the IMES or by researchers outside the IMES. The series is intended to elicit comments from scholars, market participants, and others.
Nihon Kin'yu Nenpyo (Japanese Financial Chronicle [1868-1996])[2]	—	Historical table of financial and political events (1868-1996), including tables focusing on the progress of financial liberalization and globalization.
Currency Museum (New Edition)	—	A full-color publication containing a number of photographs of currencies selected from those displayed in the Bank's Currency Museum. Explanations are given on the history of the Japanese currency.

Notes: 1. All of the publications are available from the Bank's website. Some of them are available free of charge at the Information Room of the Bank's Head Office, or are sold at bookstores and the Government Publication Service Center.
2. Available only in Japanese.

a. Economic developments

The Bank conducts two kinds of research on economic developments: (1) macroeconomic research, analyzing the state of the economy based on a wide variety of statistical indicators; and (2) microeconomic research, mainly based on interviews with company representatives.

The focus of the Bank's macroeconomic research is on trends in demand for goods and services (investment, consumption, government spending, and exports/imports), corporate activities (production, employment, and profits), and trends in prices. Specifically, the Bank conducts research to analyze corporate activities and trends in demand for goods and services using the Bank's statistics, such as the *Tankan* and the Balance of Payments. In addition, the Bank uses other statistics, such as the National Accounts, indices of industrial production, household surveys, machinery orders, and labor force surveys, which are compiled by government agencies and various industrial organizations. Prices are the indicator that reflects supply and demand conditions for goods and services and inflation expectations, and their stability is the objective of monetary policy. In view of this, the Bank extensively and closely analyzes price indicators, such as the Consumer Price Index (CPI)[16] and the CGPI, as well as the CSPI, domestic and overseas commodities prices, and land prices.

On the other hand, the Bank's microeconomic research gives an even more finely detailed view of the background to overall economic trends by grasping changes in the economy that are not completely revealed in macroeconomic research, and making up for the time lags in the publication of macroeconomic statistics. These microeconomic research activities are conducted mainly through interviews with the major firms in various fields, such as those in the steel, machinery, construction, large-scale retail, and trading sectors, as well as with small and medium-sized firms throughout the country. Through its microeconomic research, the Bank keeps track of economic trends by collecting information on each business field and the state of the economy in each geographic region, as well as developments in production, business fixed investment, corporate profits, and exports/imports.

b. Overseas economic and financial developments

As the economy and finance become increasingly globalized and economies around the world grow ever more interdependent, it is all the more important for

[16] The CPI is an indicator of prices for goods and services at the household-consumption level, and is compiled by the Ministry of Internal Affairs and Communications.

the Bank to gather and analyze information on global financial and economic trends. The Bank gathers and analyzes various statistics on production, prices, and trade in economies and regions around the world, as well as trends in various overseas financial markets. Moreover, the Bank frequently exchanges opinions with foreign central banks, the BIS, the IMF, and the OECD. Through these research activities, the Bank ascertains the current economic trends and the outlook for the future in overseas economies. The Bank then uses the information it obtains to project the outlook for Japan's economy. The Bank also uses the results of these research activities to grasp the risk factors in the Japanese economy and prevent them from materializing (see Section B in Chapter VIII).

c. Financial and foreign exchange market developments

The Bank closely monitors developments in the money market, as it is the market in which the Bank conducts market operations. The Bank also analyzes developments in the bond market, stock market, credit market,[17] and foreign exchange market through its research on various indicators and interviews with financial institutions. In carrying out these activities, the Bank works to grasp market participants' current assessments and expectations of the Bank's conduct of monetary policy, the actual conditions of corporate activity, and economic developments.

d. Financial environment

In its research on the financial environment, based on the above-mentioned developments in the financial and foreign exchange markets, while examining the conditions surrounding corporate finance, the Bank also analyzes the interaction between the financial front and the real economy. Specifically, in order to ascertain the current situation of, and the outlook for, corporate finance, the Bank conducts an overall examination of the following points utilizing the results of its analysis of Japan's economic activity and prices, and of financial markets: (1) funding costs, such as loan rates and corporate bond issuance rates; (2) developments in the outstanding balance of funding, such as outstanding loans and corporate bond issuance; (3) various surveys, such as the *Tankan*; and (4) information gathered through interviews with firms. In view of making com-

[17] The term "credit market" refers to the market where financial instruments that embrace credit risk (the risk that the creditworthiness of a borrower may change) are traded. In addition to loans, corporate bonds, and commercial paper (CP), the credit market in Japan currently includes credit derivatives whose underlying assets encompass credit risk.

prehensive assessments of the financial environment faced by various economic organizations, including firms, the Bank assesses the level of the key interest rate for monetary policy in relation to real economic activity. At the same time, the Bank grasps the developments in, and the background of the funding and investment of, various economic organizations.

The results of these research activities are reported at Monetary Policy Meetings (MPMs) and are used as the basis for conducting monetary policy. The assessments of economic and financial developments conducted at MPMs are expressed in the Bank's public statement after each MPM, and are explained in detail in the *Monthly Report of Recent Economic and Financial Developments* published on the day after each MPM. The outlook for economic activity and prices is published in the *Outlook for Economic Activity and Prices* (hereafter, the Outlook Report) at the end of April and October each year (see Chapter II.C.1).[18]

2. Studies

The Bank also conducts theoretical and empirical studies on fundamental financial and economic issues. Some of these studies are undertaken from a short-term perspective to be used in the Bank's analyses described above, such as those on economic developments, the financial environment, and financial and foreign exchange market developments. Other studies include those conducted from a medium- to long-term perspective to establish an appropriate background for the Bank's policies and business operations. These studies cover a wide range of academic fields, including economics, financial engineering, law, accounting, information technology (IT),[19] and financial and monetary history. In addition, the Bank regularly invites domestic and international specialist academics and practitioners in each field to spend time working as visiting scholars at the Bank or to participate in workshops and conferences organized by the Bank, and to share and exchange views on issues in these fields. The results of these studies are released in Japanese and English in the Bank's publications, including *Kin'yu Kenkyu* (Monetary and Economic Studies; available only in Japanese),

[18] The *Monthly Report of Recent Economic and Financial Developments* and the Outlook Report are available on the Bank's website.

[19] On April 1, 2005, the Bank established the Center for Information Technology Studies (CITECS) to support the financial industry in solving new issues that arise with the expansion of electronic trading as a method for conducting financial transactions. The purposes of the center are to: (1) promote the global IT standard for financial operations; (2) provide opportunities to share IT related information in the financial industry; and (3) study and develop new information security technologies.

Monetary and Economic Studies, the *IMES Discussion Paper Series*, and the *Bank of Japan Working Paper Series* (see Figure 7-2).[20] The Bank also maintains a library of 170,000 books for researchers' reference. As described above, in its study activities, the Bank maintains close ties with academic communities and seeks to adopt the fruits of studies from outside the Bank.

As part of its studies on the monetary history, the Bank's Currency Museum[21] maintains a collection of banknotes, coins, and related materials from ancient times to the modern period. This collection includes one of the world's largest collections of Japanese and East Asian currencies. About 4,000 items are on permanent display at the Museum, located in the Bank's Annex Building. Pictures of currencies and materials related to monetary history are shown on the website of the Museum. The Bank also operates an archive in the Annex Building and makes available to the public historical materials on monetary and economic issues. Some of the materials in the Bank's storage have been compiled into a book and published in Japanese as *Nihon Kin'yu Shi Shiryo* (Collected Documents on Japanese Financial History). The materials are collected, preserved, and made accessible to the public at the Bank's Archive.[22] There were approximately 70,000 items available for the public as of the end of March 2010.

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[20] These publications are available on the Bank's website and on the Institute for Monetary and Economic Studies (IMES) website (http://www.imes.boj.or.jp/english/index.html).

[21] The Bank opened the Currency Museum as part of the IMES in 1985 to commemorate the Bank's centennial. The heart of the Museum's collection is a donation made in 1944 by a renowned Japanese coin collector, Keibun Tanaka, to protect his Sempeikan Collection during World War II. In addition to the permanent exhibitions, special exhibitions are held. For details on the Currency Museum including business hours, see the Museum's website (http://www.imes.boj.or.jp/cm/english_htmls/index.htm).

[22] An archive is an institution for collecting, preserving, and making available to the public documents and records related to the operations of an organization or organizations. The documents and records collected in an archive are considered to be of historical, cultural, or academic importance. The documents to be entrusted to an archive for custody are selected after they are used and kept in the workplace for a certain period of time. In September 1999, the Archive of the IMES was established to fulfill the above-mentioned purposes. The core of the materials in the Archive consists of those made by the Bank. In October 2002, it received designation by the Minister of Internal Affairs and Communications under the Act on Access to Information Held by Administrative Organs and related orders for the Act's enforcement. Details on the Archive are available on the Archive's website (http://www.imes.boj.or.jp/english/archive_english/index.html).

Box 1 Statistics Compiled by the Bank of Japan and Registered with the Government

Among the statistics compiled by the Bank of Japan, only the following three — one statistical survey and two indexes — were required to be registered with the government under the Statistics Act (Act No. 18 of 1947) as they were considered to be equal to those compiled by the government in terms of scale and importance. Under the provisions such as Article 25 of the revised Statistics Act (Act No. 53 of 2007) and related regulations, the same statistical survey and indexes are considered to be those that are to be conducted following the Bank's reporting of the surveys' purposes and details to the Minister of Internal Affairs and Communications.

Title	Contents
Tankan (Short-Term Economic Survey of Enterprises in Japan)	(1) Purposes - The survey results are used to assess economic conditions and make projections. - The survey provides judgment survey data in the form of a diffusion index to show business sentiment, as well as quantitative data. Long-term time-series data are also available. (2) Coverage - The survey covers private enterprises (excluding financial institutions) in Japan with 20 million yen or more in capital. About 11,000 sample enterprises are selected from a population of about 210,000 private enterprises listed in the Establishment and Enterprise Census of Japan released by the Ministry of Internal Affairs and Communications. (3) Items surveyed - The survey is conducted quarterly in March, June, September, and December using questionnaires. The questionnaires include the following: (1) judgment survey data on items such as business conditions, supply and demand conditions for products, employment conditions, and financial position; (2) quantitative data such as total sales, profits, and fixed investments; and (3) forecasts of these items. - A sample survey is conducted with financial institutions from the March 2004 survey to supplement the *Tankan*. The survey items include the following: (1) judgment survey data on items such as business conditions, equipment conditions, and employment conditions; and (2) quantitative data, such as fixed investment, number of employees, and number of new graduates hired.

Corporate Goods Price Index (CGPI)	(1) Purposes - The index is used as material to judge economic conditions and to decide monetary policy. The index is also used as a deflator that transforms nominal output values into real quantities, and as a reference when determining prices for individual transactions. - The index consists of basic grouping indexes that cover the Domestic Corporate Goods Price Index (DCGPI), the Export Price Index (EPI), and the Import Price Index (IPI), as well as of reference indexes, such as the Index by Stage of Demand and Use (ISDU) and the Domestic Corporate Goods Price Index using the Chain-weighted Index Formula (Chain-weighted DCGPI). (2) Coverage - The CGPI (2005 base) covers 1,338 commodities and 8,141 sample prices, which are chosen from all types of goods traded between companies, including electric power and gas. The index covers over 70 percent of the total value of goods traded between companies. (3) Items surveyed - Sample prices are surveyed on a monthly basis. The individual prices are indexed, and then compiled into the CGPI by taking the weighted arithmetic mean based on the value fixed in the base period.
Corporate Services Price Index (CSPI)	(1) Purposes - The index is used as material to judge economic conditions and to decide monetary policy. The index is also used as a deflator that transforms nominal output values into real quantities, and as a reference when determining prices for individual transactions. - The index consists of a basic grouping index, which covers domestic and imported service products traded among companies, and of reference indexes, such as the Export CSPI. (2) Coverage - The CSPI (2005 base) covers 137 commodities and 3,463 sample prices, which are chosen from all types of services traded between companies. The index covers about 50 percent of the total value of services traded between companies. (3) Items surveyed - Sample prices are surveyed on a monthly basis. The individual prices are indexed, and compiled into the CSPI by taking the weighted arithmetic mean based on the value fixed in the base period.

Chapter VIII International Operations and Services

The Bank of Japan participates in various international forums, including the Meeting of Finance Ministers and Central Bank Governors of the Group of 20 (G-20) and that of the Group of Seven (G-7), and contributes to the stability of the global financial system. The Bank also engages in a wide range of transactions with other central banks and international organizations. This chapter explains these international operations and services.

A. The Bank of Japan's International Operations and Services

The Bank of Japan's international operations and services include various activities, such as participation in international economic and financial meetings and international cooperation related to specific areas of its operations.[1] In this chapter, the Bank's international operations and services are explained in the following three categories.

First, the Bank engages in discussions and exchanges of views at international meetings, contributes to the formulation of standards and guidelines on international finance, and works on the stabilization of the global economy and financial system by addressing global financial crises. In response to the globalization of financial markets and the global expansion of financial institutions' business activities, the Bank participates frequently in international meetings such as those of the Meeting of Finance Ministers and Central Bank Governors of the G-20 and G-7, the meeting of central bank governors at the Bank for International Settlements (BIS), and the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), and arranges bilateral meetings in order to cooperate closely with other central banks and to discuss adequate policy measures as well as the current state of the global economy and financial system. The Bank also contributes to the formulation of standards and guidelines on international finance as well as to the assessment of recent developments in global financial markets by participating in major international forums, such as those of the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the Committee on the Global Financial System (CGFS), the Committee on Payment and Settlement Systems (CPSS), and the Markets Committee (MC) (see Box 1, "The Bank of Japan's Participation in Major International Forums"). Moreover, in response to global financial

[1] The Bank's international cooperation related to specific areas of its operations includes the prevention of counterfeiting banknotes (see Chapter III.C.2) and harmonization of standards for compiling statistics (see Section A in Chapter VII).

crises, the Bank cooperates closely with other central banks and takes measures to ensure the stability of the global financial system. For example, in response to the global financial crisis since the summer of 2007, the Bank, together with other major central banks, concluded a temporary U.S. dollar liquidity swap agreement with the Federal Reserve to obtain U.S. dollars, and, as a temporary measure, introduced a U.S. dollar funds-supplying operation against pooled collateral in order to address a liquidity shortage in the U.S. dollar money market and supply U.S. dollar funds to market participants in Japan (see Box 4 for Chapter I, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan").

Second, the Bank conducts transactions with other central banks and international organizations, and also provides technical assistance. The Bank accepts yen deposits from central banks and international organizations, acts as a custodian for their securities, and trades government securities for them. The Bank also provides technical assistance to central banks. Through those operations and services, the Bank is strengthening financial cooperation among central banks in Asia.

Third, the Bank acts on the government's behalf in international financial business. The Bank buys and sells yen for foreign currencies[2] (foreign exchange intervention) to stabilize the exchange rate of Japan's national currency, the yen. The Bank also manages foreign exchange reserves, and receives reports of cross-border transactions required under the provisions of the Foreign Exchange and Foreign Trade Act.

These three operations and services are explained in detail in the sections below.

B. Initiatives for the Stability of the Global Economy and Financial System

1. Global financial market expansion and global financial crises

In recent years, the volume of transactions in international financial markets has expanded significantly, and the interconnection among financial markets in different countries has been strengthened, due to the increase in international economic and financial activity, especially the growth in cross-border financial transactions driven

[2] Buying and selling foreign currency refers to the exchange of cash, deposits, checks, bills, and bonds denominated in foreign currency, such as the U.S. dollar, for those denominated in the domestic currency, such as the yen, or the exchange of these instruments between two foreign currencies. The following are examples of such transactions: (1) financial institutions buy, in exchange for yen funds, foreign currency-denominated bills drawn by Japanese exporters that are to be paid by their counterparts in other countries; (2) yen funds are exchanged for U.S. dollar funds, or vice versa, between financial institutions; and (3) individuals exchange yen cash for travelers checks in U.S. dollars.

by deregulation and innovation in information and financial technology. While this gives market participants the opportunity to transfer and allocate funds and risks efficiently, it increases the possibility of disruption in a specific market in a specific country being immediately transmitted worldwide through various channels. One example of this has been the turmoil in the global financial markets since summer 2007, triggered by the U.S. subprime mortgage problem (see Box 4 for Chapter I, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan"). Therefore, it is becoming increasingly important for the Bank of Japan to closely exchange information and views with other central banks and international organizations, to address systemic risk, and to establish and maintain resilient payment and settlement systems.

2. Contributions to the stability of the global economy and financial system

The Bank takes various measures to contribute to the stability of the global economy and finance, to support the functioning of global financial markets, and to prevent global financial crises and their expansion, while closely exchanging information and views with governments, central banks, international organizations, and private financial institutions. The roles of the Bank in this context are categorized into three areas: policy discussions with monetary authorities and international organizations about global economic and financial situations; contributions to the establishment of stable and efficient global financial markets; and actions to address global financial crises.

First, the Bank closely exchanges information and views with other central banks and international organizations, including the BIS and the International Monetary Fund (IMF), at international meetings, such as those of the Meeting of Finance Ministers and Central Bank Governors of the G-20 and that of the G-7, the FSB, and the EMEAP, together with bilateral meetings. The Bank exchanges information and views on recent developments in the global economy and finance and the conduct of monetary policy, as well as the current state of, and outlook for, global financial markets and the global financial system. The Bank also holds discussions on the structural problems of the global economy and finance, the international monetary system, and financial regulation and supervision, as well as appropriate policy measures to address them. In particular, at the bimonthly Global Economy Meeting at the BIS, the forum for central banks, the Bank exchanges information and views on recent transactions in global financial markets and activities of financial institutions. To deepen its understanding of trends in global financial markets, the Bank compiles and disseminates various statistics in cooperation with other central banks at the BIS.

Second, the Bank contributes to activities for establishing stable and efficient global financial markets. The Bank participates in discussions on the formulation of international standards and guidelines at international organizations, and makes proposals based on its research, analysis, and findings from its discussions with financial institutions. The Bank takes part in committees under the meeting of central bank governors at the BIS. The activities of the BIS committees are as follows. The Committee on the Global Financial System (CGFS) monitors global financial markets and proposes policies that aim to promote improvements in the functioning and stability of global financial markets. The Committee on Payment and Settlement Systems (CPSS) monitors and analyzes recent developments in payment, settlement, and clearing systems in member countries, as well as cross-border multi-currency settlement schemes, and formulates international standards for payment, settlement, and clearing systems, in order to maintain their stability and efficiency. The Markets Committee (MC) plays an important role in assessing the functioning of financial markets and market operations by central banks as well as the long-term structural trends that may have implications for them. The MC currently consists of senior officials responsible for the market operations of central banks from 21 major economies. In addition to those committees, the Basel Committee on Banking Supervision (BCBS) proposes and revises international standards on capital adequacy ratios and publishes other principles and banking supervision guidelines. The Joint Forum, which consists of the BCBS, the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors (IAIS), deals with regulatory issues common to the banking, securities, and insurance sectors, including the regulation of financial conglomerates. The Bank contributes to the establishment of stable and efficient global financial markets through its active involvement in the activities of these committees.[3]

Third, the Bank addresses global financial crises by cooperating closely with foreign monetary authorities, including central banks. When disruption in global financial markets occurs, maintaining financial market stability is an important responsibility of a central bank. Under such circumstances, the Bank can: (1) buy and sell foreign currencies in concert with other central banks; (2) acquire loan claims on other central banks that are held by the BIS (e.g., bridging loans[4]); and (3) provide

[3] Officers and officials of the Bank play key roles, such as serving as chairman, in some of these committees.

[4] In general, the term "bridging loans" refers to interim, short-term financing to bridge the time lag until the borrower receives longer-term financing from another source. The BIS makes bridging loans to countries in financial crisis to cover the need for funds until funding arrives from the IMF or other organizations. This type of loan is made when it takes time for funds to arrive from the IMF or other organizations after decisions for loans are made.

credit to other central banks and international organizations, under Articles 40 and 42 of the Bank of Japan Act. Since the global financial crisis in summer 2007, the Bank has been contributing to the stabilization of global financial and capital markets by keeping in closer contact with other central banks, in order to exchange information and views on developments in financial markets and financial activities, and also to take necessary measures (see Box 4 for Chapter I, "Global Financial Crisis after Summer 2007 and Policy Measures Taken by the Bank of Japan"). For example, the Bank, together with other major central banks, concluded a temporary U.S. dollar liquidity swap agreement with the Federal Reserve to obtain U.S. dollars, and introduced, as a temporary measure, a U.S. dollar funds-supplying operation against pooled collateral in order to tackle a liquidity shortage in the U.S. dollar money market and supply U.S. dollar funds to market participants in Japan. The Bank also decided to make certain foreign bonds eligible as collateral for the Bank's market operations, with a view to further facilitating the Bank's market operations in response to developments in financial markets, while ensuring the appropriate and efficient management of collateral (see Section F in Chapter V). Moreover, making full use of the lessons learned from past financial crises in Japan, the Bank supports other central banks by sharing its expertise and knowledge on formulating market operations frameworks and on providing funds to financial institutions in times of crisis.

C. Transactions with Foreign Central Banks

1. Transactions with foreign central banks and international organizations

Pursuant to Article 41 of the Bank of Japan Act, the Bank assists foreign central banks and like institutions, and international organizations, in their investment in, and financing of, yen by accepting yen deposits, acting as a custodian for yen-denominated securities, and providing liquidation services for Japanese Government Securities (JGSs).[5] As of March 31, 2010, the Bank accepts yen deposits from 91 organizations, acts as a custodian for yen-denominated securities for 73 organizations, and provides liquidation services for JGSs for 16 organizations. Likewise, the Bank invests its own foreign currency-denominated assets by holding foreign currency-denominated deposit accounts and securities accounts at international organizations such as major central banks and the BIS.

More specifically, in terms of the yen deposits it accepts, the Bank settles funds according to instructions from overseas account holders, and also provides these overseas account holders with a facility whereby the Bank sells to them,

[5] The guidelines for these transactions are available (in Japanese only) on the Bank's website.

without their specific instruction to do so, Japanese treasury discount bills (T-Bills) held by the Bank under repurchase agreements in order to invest funds in their yen accounts with the Bank (called an "automatic investment facility"). Under Article 40 of the Bank of Japan Act, the Bank conducts transactions related to foreign currencies, such as foreign exchange transactions, with private financial institutions on behalf of overseas account holders (called "arranged transactions"). By acting as a custodian for yen-denominated securities, the Bank accepts and manages the principal and interest of securities such as government securities, government-guaranteed bonds, bank debentures, and certificates of deposit. Moreover, when overseas account holders have a sudden need to raise yen funds, the Bank meets their needs by purchasing securities, either with or without repurchase agreements.

Pursuant to the act on measures accompanying accession to international organizations, the Bank also provides international organizations with safekeeping for notes issued by the Japanese government in lieu of subscription fees and conducts payment and receipt of the principal (see Chapter IX.C.4, "Services Related to Payment of Principal and Interest on JGSs").

2. Technical assistance

In addition to the above operations and services, the Bank provides technical assistance on central banking operations as part of its cooperation with other central banks and international organizations. In response to requests from other central banks and international organizations, especially those in Asia, the Bank sends members of its staff to relevant organizations in the relevant countries, and organizes seminars and workshops at the Bank for staff members from such organizations, to share the Bank's knowledge and expertise regarding central banking operations in areas such as banknote issuance, market operations, payment and settlement systems, and on-site examinations and off-site monitoring. In fiscal 2009, the Bank sent 14 staff members to twelve organizations and hosted 36 seminars or workshops for 400 participants.

3. Promotion of monetary cooperation in Asia

The Bank established the Center for Monetary Cooperation in Asia (CeMCoA) in November 2005 within its International Department in order to further promote monetary cooperation in Asia by accumulating information and know-how at the Bank and other central banks in the region. The CeMCoA's main activities are promoting monetary cooperation in the region, strengthening technical cooperation and staff training in the region, and conducting joint research related to Asia involving experts from both inside and outside the Bank.

The promotion of monetary cooperation in Asia features activities of the EMEAP, a forum of the central banks of eleven economies in East Asia and the Pacific. The EMEAP was established in 1991 on the initiative of the Bank as a forum where central banks can freely discuss monetary policy and central banking operations. Currently, the EMEAP holds Governors' Meetings annually. It also hosts Deputies' Meetings and Working Groups, both of which are set under the Governors' Meeting. At these meetings, members discuss recent macroeconomic developments in the region, payment and settlement systems, the institutional structure of financial supervision and its methods, trends in the foreign exchange and other financial markets, and information technology. The EMEAP has also worked on the Asian Bond Fund (ABF) project since 2003 in order to develop bond markets in the region.[6] The Bank serves as a secretariat of the EMEAP and actively promotes those initiatives.

Also, the Bank, the People's Bank of China (the central bank of China; PBC), and the Bank of Korea (the central bank of South Korea; BOK) strengthened the framework for communication on recent economic and financial developments in East Asia as well as common concerns over central banking operations, and started holding an annual Tripartite Governors' Meeting in 2009 to contribute to economic and financial stability in the region.

Moreover, a currency swap network was established among Japan, China, Korea, and five members of the Association of Southeast Asian Nations (ASEAN5; Thailand, the Philippines, Malaysia, Indonesia, and Singapore) under the Chiang Mai Initiative (CMI), a government-level agreement reached at the ASEAN Plus Three Finance Ministers' Meeting[7] in May 2000. In this currency

[6] The background to the launching of the ABF was that, from the lessons learned from the Asian Financial Crisis in 1997, central banks recognized that this region was in need of bond markets that could supply long-term funds in domestic currencies. Although bond markets in Asia were growing at that time, their investors were mostly limited to domestic financial institutions and their market liquidity was low. Central banks in the EMEAP economies launched the first stage of the Asian Bond Fund (ABF1) in June 2003, which invests in a basket of U.S. dollar denominated bonds issued by sovereign and quasi-sovereign issuers in eight EMEAP member economies (excluding Japan, Australia, and New Zealand), in order to develop government bond markets that are necessary for the development of bond markets. The launch of the second stage of the ABF (ABF2) was announced in December 2004, which invests in domestic currency bonds issued by sovereign and quasi-sovereign issuers in eight EMEAP member economies (excluding Japan, Australia, and New Zealand). Although only central banks in EMEAP economies are allowed to invest in ABF1, private investors and other public sector investors are allowed to invest in ABF2.

[7] Members of the ASEAN Plus Three Finance Ministers' Meeting are finance ministers from 13 countries, including the ASEAN members, Japan, China, and Korea.

swap network, member countries may provide temporary loans in foreign currency to other member countries that cannot repay loans to foreign lenders because of liquidity shortages. In 2009, the CMI framework was further enhanced with the members' agreement on the Chiang Mai Initiative Multilateralization (CMIM[8]). The Bank, in cooperation with the Ministry of Finance (MOF), actively works on such initiatives from the viewpoint of putting them into practice. The Bank also concludes bilateral yen-renminbi and yen-won swap arrangements with the PBC and the BOK, respectively, to strengthen cooperation between central banks.[9]

D. International Operations Conducted on Behalf of the Government

1. The foreign exchange market and purposes of foreign exchange intervention

The foreign exchange market refers generally to the marketplace where individuals, firms, and financial institutions buy and sell foreign currencies.[10] Transactions in the foreign exchange market are broadly divided into two categories: (1) transactions in which a financial institution trades with nonfinancial customers, such as individuals and firms, which are known as financial institutions' customer trades; and (2) transactions in which one financial institution trades directly with another or through foreign exchange brokers,[11] which are known as interbank trades. Financial institutions engage in interbank trades mainly to manage their exposure to foreign exchange risk arising from currency positions as a result of customer trades, to manage their investment in foreign-currency assets, or to raise foreign-currency funds. Over the years, major countries, including Japan, have abolished regulations governing cross-border financial transactions in securities and deposits (capital transactions), and cross-border financial transactions now take place daily on an enormous scale.

Foreign exchange rates are the conversion rates between two currencies,

[8] Under the CMIM, many member countries reached a swap arrangement under a single contract, enabling them to use their foreign reserves to provide temporary loans to other member countries facing liquidity shortages in times of crisis.

[9] The Bank concluded a currency swap arrangement with the PBC in March 2002 and with the BOK in May 2005.

[10] Although it is called the foreign exchange market, in most countries, including Japan, there is no physical trading floor (unlike a stock exchange) where foreign-currency trading takes place. For the most part, financial institutions trade with one another using telephones or specialized terminals provided by information vendors.

[11] Foreign exchange brokers are firms that specialize in intermediating foreign exchange transactions in the foreign exchange market.

such as the rate of exchanging yen for another currency, or of exchanging one foreign currency for another. The fluctuation in exchange rates reflects changes in the balance between currency supply and demand by market participants such as financial institutions and firms. Although the supply and demand balance in the foreign exchange market is vulnerable to conditions in the financial markets of the countries concerned, such as developments in interest rates and stock prices, it generally reflects the macroeconomic fundamentals[12] of each country. From time to time, however, market participants' expectations of financial markets and the macroeconomic fundamentals in their own or another country may concentrate in the same direction, causing an imbalance in supply and demand conditions in the foreign exchange market, and this could lead to increased volatility in the exchange rate.

Volatility in foreign exchange rates can disrupt imports and exports, as well as cross-border investment and funding, and threaten the stability of domestic prices through changes in prices for imported or exported goods. As a result, this could affect the domestic economy and even the economies of trading partners abroad. Foreign exchange intervention is intended to prevent or contain excessive fluctuations in foreign exchange rates and to stabilize them.

2. The Bank of Japan's business operations related to foreign exchange intervention and foreign exchange reserves

When the yen becomes unstable in the foreign exchange market, the Japanese government (Finance Minister) may instruct the Bank of Japan, its agent, to conduct foreign exchange intervention by buying or selling yen against foreign currencies as needed. As the agent of the Japanese government (Finance Minister), the Bank may entrust other central banks to intervene in the foreign exchange market on its behalf.[13] The roles of the government and the central bank in foreign exchange intervention differ from country to country (see Box 2, "Institutional Design of Foreign Exchange Intervention: International Comparison").

When the Bank intervenes, it uses government funds, and specifically those in the Foreign Exchange Fund Special Account (FEFSA). Since the introduction of floating exchange rates, Japan's interventions to stabilize the foreign exchange market have primarily taken the form of yen sales. The government's foreign-currency assets

[12] Macroeconomic fundamentals include inflation, economic growth, and balance of payments.

[13] The Bank may also conduct foreign exchange intervention upon receipt of such requests from other central banks.

held in the FEFSA, together with other foreign-currency assets held by the Bank,[14] make up Japan's foreign exchange reserves, the balance of which at the end of each month is released by the government (MOF).[15] Foreign exchange reserves are primarily used in times of foreign exchange intervention, but they may also be used to pay foreign currency-denominated debt to creditor countries in times of currency crises or other events, when the repayment of such debt becomes difficult.

The Bank closely monitors developments in the foreign exchange market on a daily basis because it regards foreign exchange rates as one of the key elements influencing developments in economic activity and prices. The Bank exchanges information concerning the foreign exchange market with the government (MOF) and with foreign monetary authorities, including central banks. The Bank uses such information when it conducts foreign exchange intervention as the agent of the government (Finance Minister). The Bank is also in charge of the accounting of the FEFSA. Foreign exchange intervention and the accounting of the FEFSA are national government affairs handled by the Bank as stipulated in the Act on Special Accounts and the Bank of Japan Act (Articles 36 and 40).

3. Procedures for foreign exchange intervention

The operational flow of foreign exchange intervention is as follows (see Figure 8-1).

When the government (Finance Minister) deems it necessary to intervene in the foreign exchange market because of rapid fluctuations in the yen, the government (MOF) instructs the Bank to intervene. The Bank provides the government (MOF) with the latest market information relevant for making decisions on intervention. Based on this information, the government (MOF) gives the Bank specific instructions for the intervention. The Bank then conducts operations by concluding, through its dealers, foreign exchange trade agreements with major participants in the interbank market, such as financial institutions and foreign exchange brokers. If intervention is required during nighttime hours in Japan, the Bank usually entrusts the operation to the central bank of the region with the

[14] The foreign-currency assets held by the Bank are mainly invested in the major economies' government bonds and respective foreign central banks' deposits based on the "Guidelines for the Management of External Assets Held by the Bank" decided by the Policy Board. The two basic principles are as follows: (1) with respect to investment assets, that a high degree of safety and liquidity is required and, provided this condition is met, the return is also to be taken into consideration; and (2) with respect to the conduct of transactions, that due attention is paid not to disrupt financial and exchange markets.

[15] The government (MOF) officially announces the total amount of intervention in the yen on a monthly basis. The government also officially announces the total amount and daily amount of intervention in currency pairs on a quarterly basis.

most active trading in its foreign exchange market at that time of the day.

Once the Bank's dealers reach an agreement on foreign exchange transactions with financial institutions or foreign exchange brokers, the Bank draws up a contract record of the intervention, including the currencies, amounts, and foreign exchange rates involved. Based on this record, the Bank then confirms the transactions with the counterparties via telephone or SWIFT[16] messages. After confirming that the content of the transactions matches what was agreed upon, the Bank prepares for the settlement of funds. For example, when the Bank buys U.S. dollars against yen in spot transactions,[17] it is on the second business day after the contract that the Bank debits the yen amount from the government's account and credits the same amount to the current account held by the receiving party at the Bank. U.S. dollars involved in the trade are also settled on the second business day after the contract.

4. Other business operations, including those conducted under the Foreign Exchange and Foreign Trade Act

The Bank performs other services related to international finance for the government: (1) receiving reports required under the Foreign Exchange and Foreign Trade Act, as well as foreign exchange intervention and FEFSA accounting; and (2) compiling statistics on Japan's balance of payments and international investment position.

With regard to (1), the Bank's main responsibility is to receive regular reports on foreign exchange transactions from financial institutions as well as reports on capital transactions, such as foreign direct investment, purchases and sales of securities, borrowing and lending of funds, and deposit transactions.

In terms of (2), the Bank's main responsibility is to collect data on cross-border current account transactions (exports and imports of goods and services), capital transactions, and financial institutions' foreign exchange transactions, and to compile "flow" statistics for a given period of time (balance of payments), and "stock" data on assets and liabilities (international investment position). These statistics are reported by the government (MOF) to the Cabinet annually, and are released periodically.[18]

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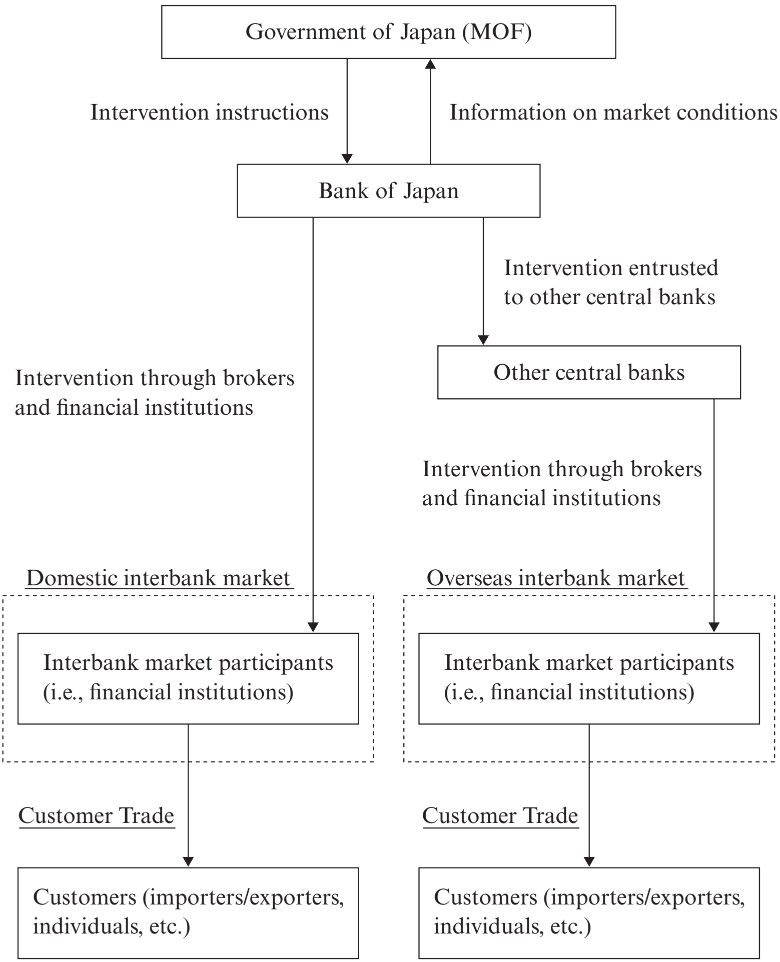
[16] See Footnote 17 in Chapter IV for details on the Society for Worldwide Interbank Financial Telecommunication (SWIFT).

[17] Spot transactions refer to foreign exchange transactions that are settled two business days after the contract.

[18] Balance of payments statistics are released by the MOF jointly with the Bank.

Figure 8-1 The Operational Flow of Foreign Exchange Intervention



Box 1 The Bank of Japan's Participation in Major International Forums

1. Meeting of Finance Ministers and Central Bank Governors of the Group of 20 (G-20) and Meeting of Finance Ministers and Central Bank Governors of the Group of Seven (G-7)

Finance ministers and central bank governors from the G-20 and G-7 countries participate in these meetings to discuss the current state of the world economy and financial markets, the international monetary system, and financial regulation and supervision.

The G-20 Meeting of Finance Ministers and Central Bank Governors is made up of members from 20 economies of systemic importance, namely, the G7 countries, the European Union, and the European Central Bank (ECB), plus twelve other countries (Argentina, Australia, Brazil, China, India, Indonesia, South Korea, Mexico, Russia, Saudi Arabia, South Africa, and Turkey) as well as international organizations such as the International Monetary Fund (IMF) and the World Bank (WB). Regular meetings were held once a year between 1999 and 2008; however, they have been held more frequently since 2009 in response to the global financial crisis.

The G-7 Meeting of Finance Ministers and Central Bank Governors has been held since 1986. Before the G-7 meetings, the Meeting of Finance Ministers and Central Bank Governors of the Group of Five (G-5) had been held since the 1970s, involving five countries: Germany, the United Kingdom, France, the United States, and Japan. The members of the G-7 include the finance ministers and central bank governors from Canada and Italy in addition to those from the members of the G-5. The meetings are usually held three times a year. Following the introduction of the euro, the President of the ECB (instead of the central bank governors of the three countries in the euro area, namely, Germany, France, and Italy) and the Chairman of the Eurogroup attend the meetings, during which participants discuss the world economy and exchange rate.

2. Meeting of Central Bank Governors at the Bank for International Settlements (BIS)

The meeting of central bank governors at the BIS, which is in principle held bimonthly, is a general term for various meetings held at the BIS, including the Global Economy Meeting and the All Governors' Meeting. Governors discuss the current state of their national economy, financial system, and monetary policy, as well as the global financial markets. Committees such as those listed below are established in relation to the Global Economy Meeting, and they discuss current issues of global financial markets and infrastructures, and then report the results of their discussions to the Global Economy Meeting.

a. Committee on the Global Financial System (CGFS)

The CGFS was established in 1971 and is currently made up of central banks from 22 major economies. The committee has a mandate to identify and assess potential sources of stress in global financial markets, to further the understanding of the structural underpinnings of financial markets, and to promote improvements to the functioning and stability of these markets. The committee meetings are held four times a year and discuss issues such as the current state of global financial markets. It also oversees collection of the "Locational Banking Statistics" and "Consolidated Banking Statistics," published by the BIS.

b. Committee on Payment and Settlement Systems (CPSS)

The CPSS was established in 1990 and is currently made up of central banks from 23 major economies. This committee, which holds meetings three times a year, monitors and analyzes recent developments in payment, settlement, and clearing systems in member countries, as well as in cross-border and multi-currency settlement schemes. It also explores related issues that require policy measures. For example, it publishes international standards for payment, settlement, and clearing systems.

c. Market Committee (MC)

The MC was established in 1962 and is currently made up of senior officials responsible for market operations of central banks from 21 major economies. The committee holds meetings bimonthly, and assesses the functioning of financial markets and market operations by central banks, as well as long-term structural trends that may have implications in these areas. To facilitate its discussions and enhance market transparency, it publishes a document that summarizes and compares the monetary policy frameworks and market operations of its member countries. The document is available on the BIS website (http://www.bis.org).

3. Basel Committee on Banking Supervision (BCBS)

The BCBS, which was established in 1974, provides a forum for banking supervisors and central banks. The committee consists of banking supervisors and central banks from 27 major economies. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. It has published international standards on capital adequacy ratio, called the Basel Capital Accord (Basel I), and later revised standards, called Basel II. It also publishes other banking supervisory principles and guidelines. Since the global financial crisis in the summer of 2007, it has been working on further revisions of the international standards on capital adequacy ratio (see Section E in Chapter VI).

The activities of the committee are directed by the Group of Governors and Heads of Supervision, which is the oversight body of the BCBS. The BCBS, along with the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS), come together in a Joint Forum in order to deal with regulatory issues common to the banking, securities, and insurance sectors, including the regulation of financial conglomerates.

4. Financial Stability Board (FSB)

The FSB works to address financial vulnerability and to promote cooperation among financial supervisors and central banks, with the goal of financial system stability. It is made up of representatives of central banks, financial supervisors, and fiscal authorities from 25 major economies, as well as those of major standard-setting bodies: the IMF, the WB, the BIS, and the Organisation for Economic Co-operation and Development (OECD). It was established in April 2009 as a successor to the Financial Stability Forum (FSF), which was established in 1999 and provided a forum for central banks, financial authorities, and ministries of finance to discuss the issues related to the stability of the global financial system, as well as to promote international cooperation related to the supervision of financial institutions.

5. Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)

The EMEAP is a forum made up of the central banks of eleven economies: Australia, China, Hong Kong, Indonesia, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Japan (for details of EMEAP activities, see Section C.3 in this chapter).

Box 2 Institutional Design of Foreign Exchange Intervention: International Comparison

The institutional design of foreign exchange intervention differs from country to country. In Japan, the Ministry of Finance (MOF) has the legal authority to conduct foreign exchange intervention, and the Bank of Japan executes foreign exchange intervention operations. In the United States, both the U.S. Department of the Treasury (Treasury Department) and the Federal Reserve Board (FRB) have the legal authority to conduct foreign exchange intervention. The FRB conducts intervention as part of its open market operations. The Treasury Department and the FRB, after mutual consultation, each fund half of the cash necessary for an intervention, whereas the Federal Reserve Bank of New York (New York Fed) executes the intervention operations. In the euro area, where the euro was introduced as the single currency, the Economic and Financial Affairs Council (Ecofin Council) of the European Union (EU) grants the European Central Bank (ECB) the legal authority to conduct foreign exchange intervention in line with the general guidelines[1] on foreign exchange rate policy formulated by the Ecofin Council in consultation with the ECB. The ECB and central banks of member states in the euro area execute the intervention operations. In the United Kingdom, both Her Majesty's Treasury (HM Treasury) and the Bank of England (BOE) have the legal authority to conduct foreign exchange intervention. The authority of the BOE is limited to cases where foreign exchange intervention is necessary to achieve the objectives of monetary policy, and the intervention operations are executed by the BOE. In China, under the guidance of the State Council of the People's Republic of China, the People's Bank of China (PBC), China's central bank, has the legal authority to conduct foreign exchange intervention and execute intervention operations. In Korea, the Ministry of Strategy and Finance (MOSF) has the legal authority to conduct foreign exchange intervention, and the Bank of Korea (BOK) executes intervention operations.

Table for Box 2

Country/ Region	Foreign exchange intervention decision	Execution of intervention operations	Accounts for intervention, and release of records of intervention
Japan	MOF.	Bank of Japan.	MOF (Foreign Exchange Funds Special Account, FEFSA). Monthly and quarterly data are released on the MOF website.

United States	Treasury Department and FRB.	New York Fed.	Treasury Department (Exchange Stabilization Fund) and FRB (each provides half of the funds necessary for intervention). Records are reported quarterly to Congress and released in "Treasury and Federal Reserve Foreign Exchange Operations."
Euro area	ECB, in line with the general guidelines, which are formulated by the Ecofin Council. The guidelines are decided after consultation with the ECB and must not prejudice the primary objective of maintaining price stability.	ECB and central banks of member states.	ECB. Records are not released (only the fact that intervention was conducted is made public).
United Kingdom	HM Treasury and BOE. BOE is authorized to conduct intervention only in cases where the intervention is necessary to achieve the objectives of monetary policy.	BOE.	HM Treasury (Exchange Equalisation Account) and BOE. Records are released monthly on the HM Treasury website.
China	PBC under the guidance of the State Council of the People's Republic of China.	PBC.	PBC. Records of intervention are not released.
South Korea	MOSF.	BOK.	MOSF (Foreign Exchange Stabilization Fund). Records are not released.

Note 1. These guidelines are not permitted to prejudice the primary objective of maintaining price stability.

Chapter IX Treasury Funds and Japanese Government Securities Services

The Bank of Japan provides services related to the receipt and payment of funds of the government (treasury funds), the government's cash management, and Japanese government securities (JGSs). This chapter explains the services related to treasury funds and JGSs.

A. Treasury Funds Services

1. Government-related services of the Bank of Japan

In addition to accepting deposits from financial institutions in their current accounts at the Bank of Japan, or BOJ accounts (see Chapter IV.B.3), the Bank accepts treasury funds as government deposits. The funds received by the government, such as national taxes and social security premiums, are called government revenues, and payments by the government, such as public works expenditures and public pensions are called government expenditures.

Japanese acts and ordinances stipulate that the Bank, as the bank of the government (see Box 2 for Chapter I, "The Three Functions of the Bank of Japan as a Central Bank"), shall provide services related to treasury funds (see Sections A.2 to A.5 in this chapter), the government's cash management (see Section B in this chapter), JGSs, and custody of securities held by the government (see Section C in this chapter). They also stipulate that the Bank shall conduct foreign exchange intervention on behalf of the government (see Section D in Chapter VIII).

2. Treasury funds services and the agent system

The Bank carries out various treasury funds services under acts and ordinances such as the Bank of Japan Act (Article 35) and the Public Accounting Act (Article 34). The latter sets the framework for the government's accounting. These services consist of: (1) the receipt of revenues and payment of expenditures; (2) accounting for increases and decreases in government deposits as receipt and payment of treasury funds are carried out; and (3) the sorting of receipts and payment of treasury funds for government agencies and specific government accounts, calculating their respective total amounts, and checking them against those calculated by the government agencies themselves[1] (see Figure 9-1).

Regarding the services related to the receipt of revenues and payment of expenditures, an agent system has been established for the convenience of both the public and the government. Under this system, treasury funds are received and paid not only at the Head Office and branches of the Bank but also at designated branches and offices of private financial institutions. With the approval of the government — specifically, the Finance Minister — the Bank has made agent contracts with private financial institutions throughout Japan so that designated branches and offices of these financial institutions can receive and pay treasury funds as the Bank's agents. The agents can be divided into two types: treasury agents, and revenue agents.[2] As of March 31, 2010, there were 529 treasury agents and 41,025 revenue agents[3] (see Figure 9-2). Treasury agents provide services related to the receipt and payment of treasury funds: almost the same services as those handled at the Bank's Head Office and branches. They also carry out services related to payments of principal and interest on JGSs (see Section C in this chapter). Revenue agents, on the other hand, only deal with the receipt of government revenues such as national taxes and social security premiums.

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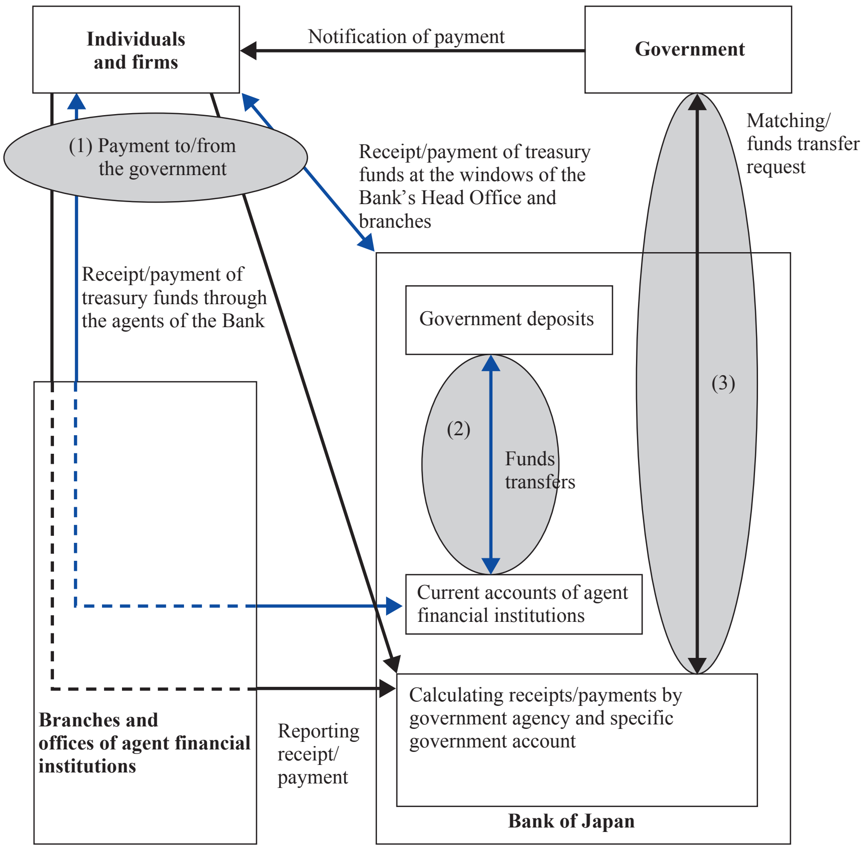
[1] The central banks of the United States and major European countries also provide treasury funds services, but their businesses are usually limited to the accounting of government deposits. The Bank provides services that are related to the receipt and payment of treasury funds (see Footnote 10), the accounting of government deposits, and the calculation and checking of treasury funds for government agencies. In other words, all the services related to the Japanese government's deposits are concentrated at the Bank. Under this system, fluctuations in the government deposits tend to be wide. However, it enables the Bank, from a unified standpoint, to obtain information on the government's funds management accurately and swiftly; therefore, the Bank can conduct appropriate open market operations based on the supply and demand conditions in government funds (see Chapter V.B.3.b).

[2] The Bank has treasury agent contracts with city banks, regional banks, regional banks II, and *shinkin* banks. It has revenue agent contracts with these types of banks and also with trust banks, Shinkin Central Bank, the Shoko Chukin Bank, the Norinchukin Bank, the Shinkumi Federation Bank, the Rokinren Bank, and Japan Post Bank.

[3] The number of revenue agents includes "revenue sub-agents" and "sub-agents of revenue sub-agents." Revenue sub-agents are entrusted with the handling of government revenues by revenue agents. At present, offices of the credit federations of agricultural cooperatives, credit cooperatives, and post offices serve as revenue sub-agents under the entrustment of the Norinchukin Bank, the Shinkumi Federation Bank, and Japan Post Bank, respectively. Part of the handling of government revenues, limited to traffic fines and national pension insurance premiums, is entrusted by revenue sub-agents to sub-agents of revenue sub-agents. Currently, contracted post offices serve as sub-agents of revenue sub-agents.

Figure 9-1 Flow of Treasury Funds Services[1]



Note: 1. Blue arrows indicate the flow of funds, and black arrows indicate the flow of papers and messages. Each shaded oval represents the following services: (1) the receipt and payment of treasury funds; (2) the accounting for increases and decreases in government deposits as receipt and payments of treasury funds are carried out; and (3) the sorting of receipts and payments of treasury funds for government agencies and specific accounts, calculating their respective total amounts, and checking them against those calculated by the government agencies themselves.

Figure 9-2 Number of Agents as of March 31, 2010[1]

Type of financial institution	Treasury agents	Revenue agents[2]
City banks	78 (5)	1,873 (6)
Regional banks	402 (58)	6,811 (64)
Regional banks II	45 (11)	3,015 (42)
Shinkin banks	4 (4)	7,396 (263)
Japan Post Bank	—	21,088 (1)
Total, including others	529 (78)	41,025 (441)

Notes: 1. Figures in parentheses are the number of financial institutions with agent contracts with the Bank.
2. Revenue agents include revenue sub-agents and sub-agents of revenue sub-agents.

3. The flow of treasury funds services

This section describes the flow of treasury funds services by following typical transactions.

a. Flow of government revenues

The following subsection gives an example of the flow of treasury funds when an individual pays national taxes through an agent of the Bank (see Figure 9-3; the numbers in parentheses in the following paragraphs correspond to the numbers in Figure 9-3).

(1) The process starts when the individual receives a notification of tax payment due and related documents from a tax office.

(2) The taxpayer pays the tax in cash at an agent of the Bank, or by having his/her bank account debited.[4]

(3) After the tax payment is received, the agent reports its receipt of tax payment and sends a notification of receipt to the Bank.

(4) Funds received by agents of the Bank are then settled by debiting the BOJ account of each agent and crediting government deposits at the Bank. There is a certain period of time between the receipt of treasury funds by agents and the

[4] At present, about half of the payments made to the government are made in cash and the rest are made by debiting a bank account. Under certain conditions, payment to the government can also be made by negotiable instruments, such as Japanese government bond (JGB) coupons and checks that can be readily cashed.

settlement between the agents and the government, in order to give the agents enough time to process the transactions.[5]

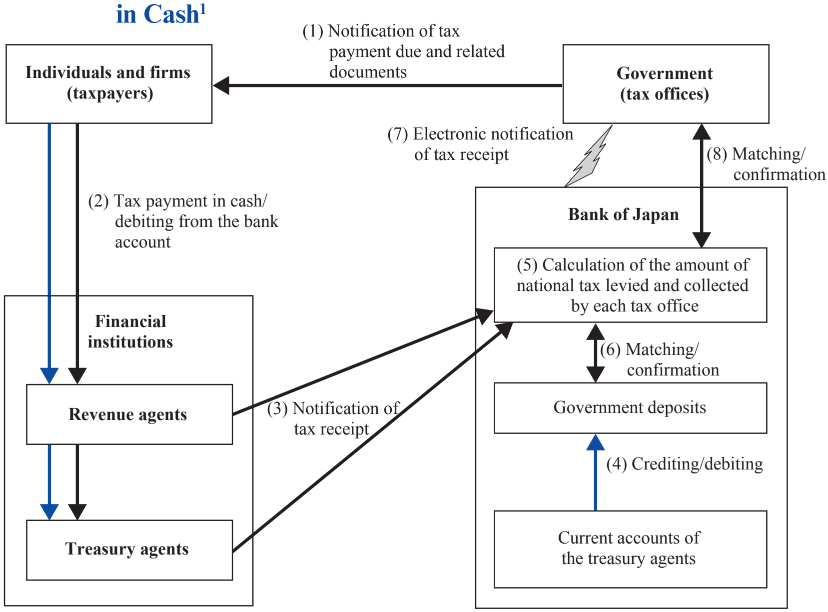
(5) On its side, the Bank collects the notifications of receipt sent from the agents to calculate the amount of national taxes levied and collected by each tax office.

(6) The Bank checks the calculation results against the figures of the government deposits.

(7) The Bank electronically transmits the notification of receipt information to the authorities concerned.

(8) The Bank checks the calculation results against the figures prepared by tax offices every month.

Figure 9-3 Flow of Government Revenues: An Example of National Tax Paid in Cash[1]



Note: 1. Blue arrows indicate the flow of funds, and black arrows indicate the flow of papers and messages.

[5] The BOJ account of the agent is debited and the government deposit is credited two business days after the receipt of treasury funds at the agent. However, some parts of government revenues that are received at revenue agents and then handled by treasury agents are credited to the government deposit account four business days after the receipt of treasury funds at revenue agents. In the case of online processing of government revenues, government deposits are credited on the business day following the day they are received.

b. Flow of government expenditures

The flow of government expenditures can be shown by considering an example of public works expenditures being paid into a contractor's deposit account (see Figure 9-4; the numbers in parentheses in the following paragraphs correspond to the numbers in Figure 9-4). At present, most government expenditures are paid by transferring funds to payees' bank accounts.

Public works payments occur in the following manner.

(1) The government sends notifications of funds transfer to the contractors: the payees of funds.

(2) The government also sends the information necessary to make payments, such as the payees' names, their designated bank accounts, and the amounts of payment, to the Accounting Center of the Ministry of Finance (MOF).

(3) The Accounting Center organizes the payment data received from the relevant ministries and then sends them to the Bank with the payment instruction data to request crediting of the designated deposit accounts.

(4) Subsequently, the Bank sends the data to the designated financial institutions through the Zengin Data Telecommunications System (Zengin System)[6] to give notice of the amounts of payment and the deposit accounts to be credited. At the same time, the Bank debits the total amount of public works expenditures from the government deposits and credits the BOJ accounts of the designated financial institutions.[7]

(5) The financial institutions credit the public works expenditures to the relevant contractors' accounts based on the payment instructions received from the Bank.[8,9] The Bank calculates the government expenditures paid.

(6) The Bank checks the figures with those held at the Accounting Center every month.

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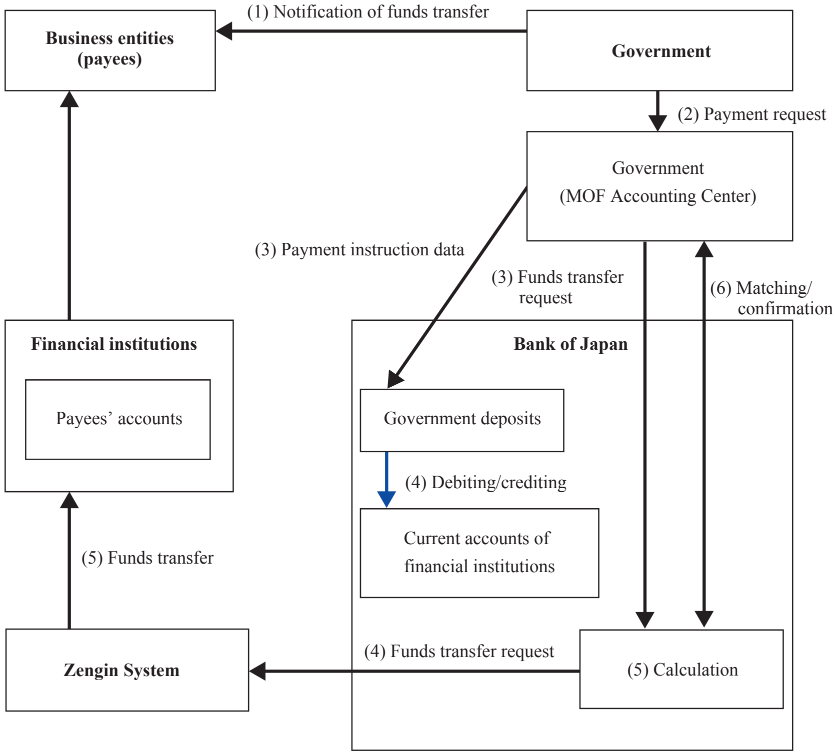
[6] The Zengin System is an interbank clearing system for domestic credit transfers operated by the Japanese Banks' Payment Clearing Network (Zengin-Net; see Chapter IV.C.2.a).

[7] The Bank's operations of receiving funds from the government and then requesting that financial institutions transfer the funds to the bank accounts of specified payees are called treasury funds remittances.

[8] In principle, the debiting from the government deposits, the crediting to the BOJ accounts of designated financial institutions, and the crediting to the payees' deposit accounts of the institutions are all conducted on the same day.

[9] In addition to treasury agents and revenue agents, offices of credit cooperatives, labor credit cooperatives, agricultural cooperatives, and fishery cooperatives handle services that relate to treasury funds remittances.

Figure 9-4 Flow of Government Expenditures: An Example of Public Works Expenditure Paid through a Bank Account[1]



Note: 1. The blue arrow indicates the flow of funds, and black arrows indicate the flow of transaction data and other messages.

4. The significance of the Bank's provision of treasury funds services

Article 35 of the Bank of Japan Act stipulates that, as the central bank of Japan, the Bank shall assume responsibility for handling services related to treasury funds. The Bank has performed treasury funds services since its establishment in 1882, starting with the services related to the receipt of government revenues. Since 1921, when the vault system was replaced by the deposit system, the Bank has been carrying out services related to treasury funds as part of its central banking operations.[10]

The Bank performs treasury funds services soundly and accurately, observing detailed statutory provisions, to maintain public confidence in the handling of treasury funds and to ensure the accuracy of the government's accounting. Related statutes, including the Public Accounting Act, stipulate how treasury funds are to be handled, how books are to be kept, and how deeds are to be drawn up. The Bank also checks that the treasury funds services entrusted to private financial institutions based on agent contracts are performed accurately in compliance with related statutory provisions. To this end, the Bank's staff visit agents for inspections as needed; they check how each agent handles treasury funds, and how the headquarters of the financial institutions oversee their agents.[11] Based on the results of these inspections, the Bank gives operational guidance to the financial institution concerned if necessary.

5. Improvement in the efficiency of treasury funds services

The number and value of treasury funds transactions have been increasing (see Figure 9-5). Against this background, the Bank, while improving convenience for the public, has endeavored to promote the efficiency of treasury funds services. Specifically, the Bank previously introduced a magnetic tape based system to enable computer processing of funds transfer requests to financial institutions regarding payment of government expenditures such as public pensions. The Bank has also introduced optical character readers (OCRs) for sorting and calculating some revenue items such as national taxes. In addition,

[10] When the Bank was established in 1882, a department of the MOF, which was in charge of the receipt and payment of treasury funds as the government's vault, entrusted the Bank with assisting in the handling of the government's cash. In 1890, when that department was closed due to the implementation of the Public Accounting Act, the vault was installed at the Bank. Accordingly, the Governor of the Bank was assigned the role of the government's vault accounting officer and entrusted with all services related to the receipt, payment, and holding of treasury funds. In 1921, a revision to the Public Accounting Act abolished the vault system, ending the Bank Governor's role as the vault accounting officer. Instead, the Bank, as a legal person, started to manage government deposits. Under this new deposit system, the receipt and payment of treasury funds began to be conducted by crediting and debiting the government deposits at the Bank, and the Bank's services related to the receipt and payment of treasury funds continued.

[11] Agent inspections are similar to on-site examinations in that the Bank's staff directly visit financial institutions. However, the purpose and content of on-site examinations are different from those of agent inspections. The main purpose of on-site examinations is to maintain financial system stability (see Section B and F in Chapter VI); the Bank examines the financial institution's risk management and business performance, and its financial strength, and gives it advice based on the results of these examinations.

in recent years the Bank has endeavored to promote electronic processing of the receipt and payment of treasury funds, and, as a result, major treasury funds services related to government expenditures, government revenues, recording and transferring, and money submitted to the government to be held in custody or as deposits are already being processed electronically.

Figure 9-5 Receipts and Payments of Treasury Funds by Number and Value of Transactions

Unit: 1,000 transactions, tril. yen

Fiscal year	Number of transactions	Value of transactions
1980	108,542	484
1985	135,601	560
1990	205,913	985
1995	246,243	1,454
2000	279,398	1,484
2005	454,724	2,169
2006	456,988	2,091
2007	458,769	1,835
2008	456,415	1,842
2009	458,434	2,036

a. Online processing of government expenditures

In April 2003, the Bank began online processing of funds transfer request data for government expenditures received from the Accounting Center of the MOF. This led to the establishment of computer networks that linked all government agencies in Japan and the designated financial institutions holding the payees' accounts.

b. Online processing of government revenues

In November 2001, the Bank announced a detailed plan for introducing a new scheme for electronic payments of government revenues based on the Multi-

Payment Network (MPN),[12] and implemented the scheme in January 2004. Since then, electronic payments of administrative fees, national taxes, and social security premiums have been made possible, in that order. The electronic payment system enables payers to make payments of government revenues, such as administrative fees and national taxes, by debiting their accounts through Internet banking services, or, alternatively, by paying in cash or debiting their accounts through designated automated teller machines (ATMs) at financial institutions. By using the electronic payment system, payers no longer have to go to financial institutions and wait in line at tellers' windows. Moreover, they can make payments outside financial institutions' business hours, even at night. The introduction of the electronic payment system has also contributed to promoting efficiency in the processing of these transactions by the agencies concerned.

c. Online processing of recording and transferring of treasury funds

In March 2004, the Bank initiated a unified system for electronic recording and transferring of treasury funds. It links the Bank's Head Office, branches, and agents, and electronically implements receipts, payments, recording, and transferring of treasury funds for the accounts of all government agencies in Japan. The establishment of this system has contributed to paperless processing of the Bank's treasury funds services and swift operation of treasury funds transfers.

d. Online processing of money submitted to the government to be held in custody or as deposits, and receipts and payments to the Fiscal Loan Fund

Between March and June 2005, the Bank introduced online processing of money submitted to the government to be held in custody or as deposits[13] and receipts

[12] The MPN is an online network that deals with electronic data related to various payments, such as public utility charges, local public funds, and treasury funds. It is operated by the Japan Multi-Payment Network Management Organization. The payment and settlement services used for the electronic payment of public utility charges are known as "Pay-easy," and are provided through the Internet banking system, the mobile banking system, or automated teller machines (ATMs) at financial institutions.

[13] Money submitted to the government to be held in custody includes deposits for bids for government contracts and for purchase contracts between the government and the private sector. Money submitted to the government as deposits includes deposits given by a lessee of a house or land when a dispute arises between a lessee and a lessor about their rights to a house or land, and deposits offered by prepaid card issuers.

and payments to the Fiscal Loan Fund.[14] Money submitted to the government to be held in custody or as deposits requires two-way processing of treasury funds (receipt and payment), as in the case of auction deposits.[15] The receipt and payment of treasury funds were handled at the windows of the Bank's Head Office, branches, and agents until the start of online processing. The online processing was achieved via a combination of an electronic payment scheme for government revenues, an online scheme for funds transfer request data for government expenditures, and a unified system for the electronic recording and transfer of treasury funds. As for the Fiscal Loan Fund, the electronic processing of loans provided to local governments was realized through an online funds transfer scheme. Similarly, the electronic processing of loan collection was realized through an electronic payment scheme. In addition, the electronic processing of deposits to the Fiscal Loan Fund,[16] the source of these loans, was realized through an electronic payment scheme and the online funds transfer scheme.

e. Online processing of national tax refunds

The Bank initiated the online service for transfers of national tax refunds[17] in cooperation with the National Tax Agency and private financial institutions in September 2006.[18] This service provided an online network linking tax offices nationwide, the National Tax Agency, the Bank, and private financial institutions with payees' accounts. It achieved swift transfers of national tax refunds, and contributed to efficient paperless processing of national tax refunds, both at private financial institutions serving as the Bank's agents and at the Head Office and branches of the Bank.

[14] Refers to loans provided pursuant to the Fiscal Investment and Loan Program (FILP) Plan.

[15] Auction deposits are offered by bidders before the government's auctions and returned to them if they fail to bid.

[16] These are funds deposited by the government's special accounts or special public corporations to the account of the FILP.

[17] National tax refunds are, for example, refunds paid to taxpayers after they file an income tax return when the tax withdrawn at source of income or the amount paid as the estimated tax exceeds the amount calculated based on the annual income.

[18] Before the introduction of the online processing system, funds transfers related to national tax refunds were implemented by sending the magnetic tapes that contained the funds transfer data from the National Tax Agency to the relevant private financial institutions, or by sending documents from the tax offices to the Bank's Head Office, branches, and agents.

B. The Government's Cash Management

1. The government deposit balance's fluctuations and the Bank of Japan's operations

Treasury funds are received from and paid to the private sector through the government deposits at the Bank of Japan.[19] The receipt and payment of various kinds of government revenues and expenditures result in the daily settlement of a large number of transactions of treasury funds of enormous value. Since the due dates for payments are concentrated on specific days, there are certain patterns observed related to the inflows and outflows of treasury funds.

Regarding the monthly payment trends observed over the past several years, during the first ten days of each month, government receipts tend to exceed payments because treasury agents and revenue agents transfer corporate taxes, consumption taxes, and social security premiums they received around the end of the previous month to the government accounts. For the second ten-day period of each month, there are two alternating patterns, depending on the month. In the odd months, receipts tend to exceed payments mainly due to the collection of withholding income taxes, while in the even months, payments tend to exceed receipts because of the payment of public pensions. In the last ten days of each month, there are also two patterns, depending on the month. Payments tend to exceed receipts in March, June, September, and December, due to the mass redemption of JGSs, and at the end of the fiscal year, as a result of an increase in payments of public works expenditures and social security benefits. Receipts tend to exceed payments in other months mainly due to the issuance of JGSs.

Looking at the pattern during the fiscal year, there are large net payments in March, June, September, and December, when the mass redemption of JGSs occurs, and in April, when regular allocation tax is distributed (the payment months are April, June, September, and November) and public pensions are paid (large pension payments are observed in the even months). In other months, there is a tendency for there to be net receipts due to the receipt of taxes, social security premiums, and income from JGS issuance (see Figure 9-6).

Regarding the flow of treasury funds, a receipt causes a decrease in cash on hand and deposits of individuals and firms, followed by a decrease in the

[19] The deposits of the government include: (1) the current account deposit to manage both the receipt and payment of treasury funds; (2) the special deposit account to manage the accounting of the negotiable securities submitted in payment of treasury funds and coins used for payment; and (3) designated domestic deposit accounts with specific conditions for the investment and interest of the fund having been set by the Finance Minister.

balance of financial institutions' BOJ accounts. On the other hand, a payment causes an increase in the balance of financial institutions' BOJ accounts, followed by an increase in cash on hand and deposits of individuals and firms. The flow of treasury funds between the government and the private sector (fiscal balance) affects the balance of financial institutions' BOJ accounts.[20] Therefore, the Bank not only monitors, on a prompt and appropriate basis, the daily movements in the amount of treasury funds, but also predicts such movements through interviews with government agencies that are involved in large receipts and payments, and by statistical methods using past data. At the same time, the Bank conducts appropriate open market operations, taking account of the issues causing increases and decreases in the BOJ accounts (see Chapter V.B.2.b).

2. The Bank's services related to the government's cash management

The government needs to maintain its deposit balance at an appropriate level to avoid having an excessive surplus in the balance, or an insufficient balance that could disrupt the smooth payment of funds. The Bank contributes to the government's efficient cash management by communicating its projections of the flow of treasury funds as described above to the government.

When the government is in need of extra funds in the short term, it raises such funds by, for example, issuing financing bills (FBs).[21] FBs are issued to financial institutions[22] through public auctions[23] (for an explanation of the

[20] Since fiscal 2005, the MOF has been seeking to manage the cash in the national treasury efficiently by adjusting imbalances caused by the time lag between receipts and payments (see "Efficient Management of the Cash in National Treasury" and "Approaches to Strengthening Efficient Management of the Cash in the National Treasury," released by the MOF on August 26, 2005 and May 24, 2006, respectively).

[21] In February 2009, FBs were unified with treasury bills (TBs) under the name of treasury discount bills (T-Bills). At the same time, the status of FBs and TBs remains the same under the existing fiscal system. Under the system, FBs are issued to cover temporary shortage of cash in the national treasury or the special accounts. T-Bills account for a large share of the financial instruments in the money markets (see Box 1 for Chapter V, "Money Markets and the Call Market").

[22] Financial institutions that can bid for FBs include banks, securities companies, insurance companies, the Norinchukin Bank, the Shoko Chukin Bank, *tanshi* companies (money market brokers-cum-dealers), and *shinkin* banks.

[23] In April 1999, public auctions were introduced as the principle method for issuing FBs, taking the place of the previous method that used a fixed discount rate with the Bank's guarantee of underwriting of unsold FBs.

Figure 9-6 Main Factors behind Monthly Increases/Decreases in the Government Deposit Balance during a Fiscal Year

Month	Major increasing factors (receipts)	Major decreasing factors (payments)
April	- Self-assessed income taxes (final declaration in the third term) - Public pension insurance premiums - Income from JGS issuance	- The first allocation of the regular allocation tax - Public pensions - Adjustment funds for the previous fiscal year (public works, social security, overhead cost, etc.)
May	- Public pension insurance premiums - Income from JGS issuance	- Lending from the FILP to local areas
June	- Corporate taxes (from firms whose accounting periods end in March) - Public pension insurance premiums - Income from JGS issuance	- The second allocation of the regular allocation tax - Public pensions - Large amount of redemption of JGSs
July	- Withholding income taxes (on summer bonuses) - Public pension insurance premiums - Labor insurance premiums - Income from JGS issuance	- Half-year-end compensation for government officers
August	- Withholding income taxes (on summer bonuses) - Self-assessed income taxes (tax prepayment in the first term) - Public pension insurance premiums - Income from JGS issuance	- Public pensions
September	- Collection of principal and interest from the Fiscal Investment and Loan Program (FILP) - Public pension insurance premiums - Income from JGS issuance	- The third allocation of the regular allocation tax - Large amount of redemption of JGSs

October	- Public pension insurance premiums - Income from JGS issuance	- Public pensions
November	- Public pension insurance premiums - Labor insurance premiums - Income from JGS issuance	- The fourth allocation of the regular allocation tax
December	- Corporate taxes (interim payment from firms whose accounting period ends in March) - Self-assessed income taxes (tax prepayment in the second term) - Public pension insurance premiums - Income from JGS issuance	- Public pensions - Year-end compensation for government officers - Public works, overhead cost, etc. - Large amount of redemption of JGSs
January	- Withholding income taxes (on winter bonuses) - Public pension insurance premiums - Income from JGS issuance	
February	- Public pension insurance premiums - Labor insurance premiums - Income from JGS issuance	- Public pensions
March	- Collection of principal and interest from the FILP - Public pension insurance premiums - Income from JGS issuance	- Allocation of the special allocation tax - Public works, social security, overhead cost, etc. - Large amount of redemption of JGSs

operations of the auction, see Section C.2 in this chapter).

There are exceptional cases in which the Bank underwrites FBs, such as when the government is in unexpected need of funds, or when bids from financial institutions fall short of the amount offered. In these cases, the Bank can underwrite FBs at the average successful bidding rate of the most recent auction.[24] The FBs underwritten by the Bank are redeemed as soon as possible with funds raised through the following public auctions of FBs. When there is a surplus in the government's treasury funds, the Bank will accept the government's request for early redemption of the FBs held by the Bank, providing that the early redemption does not disrupt the smooth implementation of the Bank's market operations or other business operations. The Bank will also transfer surplus funds from the government's current account to a designated domestic deposit account (see Footnote 19) in which interest is paid based on the weighted average of the successful bidding rates for FBs in the most recent 13 weeks, using the volumes of the public auction results as a weighting factor.

To ensure appropriate business operations pertaining to the transactions with the government, in 1999, the Bank's Policy Board established principal terms and conditions for the Bank's transactions with the government. These terms and conditions stipulate that the Bank can: (1) underwrite FBs at issuance in exceptional cases; and (2) underwrite Japanese government bonds (JGBs) and treasury bills (TBs) from the government, with the advance approval of the Policy Board, to roll over JGBs and TBs that were purchased by the Bank through market operations and that have reached maturity[25] (see Section C.2 in this chapter).

C. Services Related to JGSs

1. Overview of the Bank of Japan's JGS services

The Bank of Japan provides a variety of services related to JGSs, as stipulated in Article 36 of the Bank of Japan Act, Article 1 of the Act on National Government Bonds, and other acts and ordinances. The Bank's JGS services are broadly classified into three categories: first, the services related to JGS issuance, for which the Bank announces public auctions, accepts bids, and collects payments (see Section C.2 in this chapter); second, the services related to book-entry transfer of JGSs, for which the Bank provides JGS transfer services (see Section C.3 in this chapter); and third, the services related to payments of principal and interest on JGSs, where the Bank pays

[24] Article 34 of the Bank of Japan Act stipulates that: "as the central bank of Japan, the Bank of Japan may, in addition to the business prescribed in paragraph 1 of the preceding Article, conduct the following business with the national government." Item (iv) of the Article stipulates "subscribing or underwriting financing bills and other financing securities."

[25] The data related to transactions of the Bank with the government are released monthly on the Bank's website as "Bank of Japan's Transactions with the Government." The data include the amount outstanding of FBs underwritten by the Bank.

interest on and redeems JGSs,[26] and collects coupons[27] and physical securities (see Section C.4 in this chapter).

To facilitate the provision of JGS services to JGS holders, there is an agent system similar to that for treasury funds services. Specifically, with the authorization of the Finance Minister, the Bank concludes agent contracts with private financial institutions so that these institutions can also offer JGS services. There are three types of agents: (1) treasury agents (see Section A in this chapter), which, in addition to providing JGS services, pay and receive treasury funds; (2) JGS agents, which make JGS principal and interest payments for physical JGSs; and (3) JGS paying agents, which make principal and interest payments for certain types of physical JGSs.[28] The Bank ensures the smooth provision of services related to JGSs by managing these agents, and communicating and coordinating with the government.

There are several types of JGSs, classified by purpose (see Figure 9-7), maturity, and method of issuance (see Figure 9-8). This section deals mainly with general securities (revenue securities), which account for most JGSs, and explains (1) how they are issued, (2) how book-entry transfers are processed, and (3) how payments of principal and interest are made.

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[26] Redemption is the repayment of a debt security (or other type of security) by paying the principal of the security.

[27] Coupons are detachable certificates attached to the bottom of paper certificates of interest-bearing bonds, corresponding to a series of payment dates. The bearer of the bonds receives interest in exchange for the coupons.

[28] As of March 31, 2010, there were: 614 offices designated as JGS agents, composed of branches and offices of city banks, regional banks, regional banks II, trust banks, *shinkin* banks, Shinkin Central Bank, the Shoko Chukin Bank, the Norinchukin Bank, and Japan Post Bank; 20 offices designated as JGS paying agents, composed of branches and offices of trust banks, securities companies, and securities finance companies; and 19,981 post offices entrusted, by the financial institutions that are JGS agents, as sub-agents to provide services related to the payment of principal and interest of JGSs.

Figure 9-7 Types of JGSs

<table>
<tr><th colspan="3">Purpose of issuance</th><th>Related JGSs</th></tr>
<tr><td colspan="2">General securities (revenue securities)</td><td>Revenue securities are issued to raise funds as revenues for various expenditure demands</td><td></td></tr>
<tr><td rowspan="2"></td><td>New financial resource securities (Construction bonds, special deficit-financing bonds)</td><td>New financial resource securities are issued to finance expenditure for the year of issue.</td><td rowspan="3">40-year fixed rate bonds
30-year fixed rate bonds
20-year fixed rate bonds
15-year floating rate bonds
Ten-year fixed rate bonds
Five-year fixed rate bonds
Two-year fixed rate bonds
Ten-year inflation indexed bonds
Ten-year floating rate bonds for retail investors
Five-year fixed rate bonds for retail investors
Three-year fixed rate bonds for retail investors
Six-month treasury bills[1]
One-year treasury bills[1]</td></tr>
<tr><td>Refunding securities</td><td>Refunding securities are issued to finance redemption of JGSs.</td></tr>
<tr><td colspan="2">FILP bonds</td><td>FILP bonds are issued to raise funds for investment in the Fiscal Loan Fund. Revenues from FILP bond issuance are allotted to the annual revenue of the FILP Special Account.</td></tr>
<tr><td colspan="2">Converted bonds</td><td>Converted bonds are government bonds converted from the bonds and debts of public organizations under acts on special measures.</td><td>Government bonds converted from Honshu-Shikoku Bridge Authority bonds
Government bonds converted from road bonds</td></tr>
<tr><td colspan="2">Subsidy bonds</td><td>Subsidy bonds are issued instead of treasury funds payments to defer payments until the maturity of deferred bonds.</td><td></td></tr>
</table>

	Government compensation bonds	Government compensation bonds are bonds delivered in lieu of condolence money and other compensation for veterans of World War II, and for the families of those who died in the war, including the inscribed bonds that are issued with the bondholder's name inscribed.	JGBs issued for bereaved families, etc., Special Benefit Treasury Bond, etc.
	Subscription/ contribution bonds	Subscription and contribution bonds are delivered to international organizations such as the International Monetary Fund (IMF) and the World Bank, as well as corporations such as the Development Bank of Japan in lieu of subscription to those institutions.	Notes issued in substitution for currencies to be paid into international organizations, such as the IMF as subscription, etc.

Cash management bills	Cash management bills are issued to cover the government's day-to-day shortfalls of funds.	FBs[1] (two-month, three-month, or six-month)

Note: 1. In February 2009, FBs were unified with TBs under the name of T-Bills; however, the status of FBs and TBs remains the same under the existing fiscal system.

Figure 9-8 Maturity of JGSs and How They Are Issued

Type and maturity		Method of issuance	Method used for determining terms of issuance	Frequency of issuance scheduled in fiscal 2010
Interest-bearing bonds	40-year	Public auction	Yield-competitive auction/ Dutch-style auction	Quarterly
	30-year		Price-competitive auction/ conventional-style auction	Eight times in the fiscal year
	20-year			Monthly
	15-year floating rate			Yearly
	Ten-year	Public auction Over-the-counter (OTC) sales (making offerings and accepting subscriptions)	Price-competitive auction[1]/ conventional-style auction	Monthly[2]
	Five-year			
	Two-year			
Discount bills	Six-month TBs; one-year TBs[3]	Public auction Bank of Japan switch	Price-competitive auction/ conventional-style auction	One-year: monthly Six-month: unscheduled
Interest-bearing bonds	Ten-year inflation-indexed[4]	Public auction	Yield-competitive auction/ Dutch-style auction	Yearly
	Ten-year floating rate for individual investors	OTC sales (making offerings and accepting subscriptions)	—	Quarterly
	Five-year fixed rate for individual investors			
	Three-year fixed rate for individual investors			Monthly[5]

Discount bills	Two-month, three-month, and six-month FBs[3]	Public auction	Price-competitive auction/ conventional-style auction	Weekly in principle

Notes: 1. In addition to the competitive auctions, two-year, five-year, and ten-year bonds are issued through noncompetitive auctions. This approach is used to take into account small- and medium-sized market participants, who tend to submit smaller bids than their larger counterparts.
2. Ten-year, five-year, and two-year bonds are issued not only through the monthly public auctions, but also through monthly OTC sales.
3. In February 2009, FBs were unified with TBs under the name of T-Bills; however, the status of FBs and TBs remains the same under the existing fiscal system.
4. Issuance of inflation-indexed bonds began in March 2004, with the bonds' principal and interest linked to the fluctuation of prices. The bonds' redemption amounts are equal to their amount of principal at maturity, but the amount of interest at the time of each payment is calculated by multiplying the notional principal, which is calculated at the time of the interest payment and linked to the fluctuation of prices, by the coupon rate. The principal and interest of fixed-rate interest-bearing bonds do not change until redemption.
5. Three-year fixed rate bonds for individual investors started to be issued in July 2010.

2. Services related to the issuance of JGSs

This section explains the Bank's role in the issuance of JGSs by following the flow of procedures for the issuance of general securities. Hereinafter, in this section the term "JGSs" refers only to general securities.

JGSs are, for the most part, issued in the market and bought by investors, mainly financial institutions and individuals, based on the principle known as market assimilation. This principle is backed by the following statutes and conceptions pertaining to the extension of credit to the government.

Article 5 of the Public Finance Act and Article 34 of the Bank of Japan Act both prohibit the Bank from underwriting JGBs and TBs or extending loans to the government, in principle. The acts to prohibit the central bank from extending credit to the government are drawn from lessons learned through the histories of major countries, including Japan. These lessons tell us that if a central bank were to provide credit to the government by, for example, underwriting JGBs and TBs, the government might lose its ability to maintain fiscal discipline (the self-discipline to balance revenues and expenditures). In such a case, there would be no brake to stop the government from making the central bank increase the amount of central bank money, which would induce spiraling inflation. This would end up in a loss of confidence, both domestically and internationally, in the country's currency and its economic policy.

Major countries, including Japan, strictly prohibit central banks from extending credit to their governments in an effort to avert the chain of negative events mentioned above. In the United States, for example, the Federal Reserve Act allows the Federal Reserve Banks to buy U.S. Treasury securities from the market, but prohibits them from underwriting them. Moreover, in the 1951 accord between the Federal Reserve Board and the U.S. Department of the Treasury, it was agreed that the Federal Reserve Banks would not purchase U.S. Treasury securities through open market operations, which were aimed at supporting the market assimilation (prices) of the treasury securities. In Europe, both the Maastricht Treaty, which came into effect in 1993, and the European Central Bank Law based on the Treaty call upon participating countries to establish similar provisions to prohibit their central banks from extending credit to the government. This was given as one of the requirements to take part in the European Monetary Union and the European System of Central Banks.

A proviso to Article 5 of the Public Finance Act allows the Bank to extend credit to the government, up to an amount authorized by the Diet, in exceptional cases. In practice, such cases are limited to the Bank's underwriting of JGBs and TBs from the government to refund at maturity the JGBs and TBs that the Bank purchased through market operations.

In fiscal 1965, when Japan resumed issuing JGSs for the first time after World War II, the only method available was underwriting by a syndicate made up of banks, securities companies, insurance companies, and other financial institutions (syndicate underwriting).[29] Issuance through public auctions started in fiscal 1978, aiming to have the terms of issuance better reflect prevailing market conditions. Since then, the public auction system has become the major issuance method and the syndicate system was abolished at the end of fiscal 2005.[30] The

[29] In the syndicate underwriting system, the members of a syndicate made up of major financial institutions offered JGSs to investors and, if they failed to sell the full amount of the issue, they purchased the remaining JGSs themselves. The method played a large role in facilitating the purchase of JGSs for about 40 years from the time Japan started issuing JGSs in January 1966.

[30] Moreover, JGSs for individual investors were introduced in 2003, in order to expand the opportunities for individual investors to purchase JGSs. In addition to JGSs for individual investors, in 2007, a new over-the-counter (OTC) JGS sales method at financial institutions (two-year, five-year, and ten-year interest-bearing bonds) was introduced to further expand opportunities for individual investors. In contrast with the previous system, in the new OTC sales method, the JGSs are sold at private financial institutions at a price pre-fixed by the MOF (from 1988 until the start of the new OTC sales method, post offices were the only facilities that provided OTC services for individual investors to purchase JGSs). In the previous method, started in 1983, JGSs were sold by auction or at a price designated by the private financial institution that purchased the JGSs through the market.

following sections explain the procedure of how JGSs are issued through public auctions and their online processing using the Bank of Japan Financial Network System (BOJ-NET) JGB Services.

a. Public auction

When JGSs are issued through public auctions, the terms of the new issuance are determined through price-competitive auction. The total amount of JGS issuance is determined by adding up the amount issued through this type of auction together with the other types of auctions.[31] Currently, public auctions are used for issuance of interest-bearing bonds with maturities of two, five, ten (including inflation-indexed bonds), 15 (floating-rate bonds), 20, 30, and 40 years, and TBs[32] with maturities of six months and one year.

The procedures for the issuance of ten-year interest-bearing bonds through price-competitive auctions are as follows. After the total amount of JGS issuance in the fiscal year concerned is determined, the government (MOF) announces, one by one, the details of each auction, such as the issuance date and issuance amount. At the time of each auction, the government notifies the Bank of the terms of issuance (e.g., the issue number, issuance amount, coupon rate, and dates of issuance and maturity). The Bank then announces the auction, accepts bids on prices and amounts from participating financial institutions (hereafter, "auction participants"), and reports the results of the bids to the MOF. The MOF determines successful bids,[33] of which the auction participants are notified via the Bank.

In many cases, successful bidders and issue terms are determined by price-competitive auctions (conventional-style auctions). In this type of auction, successful bidders are determined from the highest bid until the total amount of

[31] Other types of auctions are as follows: (1) non-competitive auctions, carried out to facilitate bidding by smaller financial institutions that do not have access to bond market information, in which the price offered is equal to the weighted average price of the price-competitive auctions; (2) non-price-competitive auctions I, carried out for "JGB market special participants" at the same time as a price-competitive auction, in which the price offered is equal to the weighted average price decided at the price-competitive auction; and (3) non-price-competitive auctions II, carried out for "JGB market special participants" after a competitive auction is finished, in which the price offered is equal to the weighted average price in the price-competitive auction or the lowest accepted price in the yield-competitive auction.

[32] In February 2009, TBs were unified with FBs under the name of T-Bills; however, the status of TBs and FBs remains the same under the existing fiscal system.

[33] Based on the auction results, the MOF determines the amount of JGBs that each auction participant subscribes to.

issuance is fulfilled. For ten-year inflation-indexed bonds and 40-year interest-bearing bonds, however, successful bidders are determined by yield-competitive auctions (Dutch-style auctions). In this type of auction, bidders make competitive bids on yields, and all the successful bidders are offered bonds at a single price (see Figure 9-8).

b. Processing through the BOJ-NET JGB Services

As JGS issuance expanded, the Bank started to process services related to the issuance and underwriting of JGSs through the BOJ-NET JGB Services in 1990, so as to carry out these services safely and efficiently (see Chapter IV.D.1.d for an overview of the BOJ-NET). Banks, securities companies, money market brokers, securities finance companies,[34] insurance companies, and other institutions participate in the system. The BOJ-NET JGB Services implement online processing of auction announcements, acceptance of bids, notifications of auction results, payments for newly issued JGSs,[35] and credits to government deposits.

3. Services related to book-entry transfer of JGSs

Progress has been made in securities settlement with the establishment of a legal framework including the Act on Book-Entry Transfer of Bonds, etc., and the Act on Book-Entry Transfer of Company Bonds, Shares, etc., which has enabled securities issued since 2003 to be dematerialized. In January 2003, the full dematerialization of newly issued JGSs was realized.[36] Following these changes in the legal framework, in order to further promote safety and efficiency in JGS settlement, the Bank converted the old system into the new JGB Book-Entry System and has been operating this system based both on designation under the Act on Book-Entry Transfer of Company Bonds, Shares, etc. (Article 47), and

[34] Securities finance companies supply funds and securities to facilitate the smooth issuance and distribution of stocks and bonds. These companies are established and licensed under the Financial Instruments and Exchange Act to provide financial services.

[35] Payment for newly issued JGSs is made by debiting financial institutions' BOJ accounts.

[36] Currently, JGSs can be held in three forms: (1) book-entry JGSs, where securities are held in the JGB Book-Entry System; (2) registered JGSs, where securities are held in the JGB Registration System (see Footnote 24 in Chapter IV); and (3) physical securities, where JGSs are held as paper certificates. As of the end of March 2010, the total amount outstanding of revenue securities and FILP bonds was about 673 trillion yen, the majority of which was book-entry JGSs. Registered JGSs accounted for only about 51.6 billion yen, and physical securities accounted for only about 26.1 billion yen.

on authorization by the government under the Bank of Japan Act (Article 39, paragraph 1).

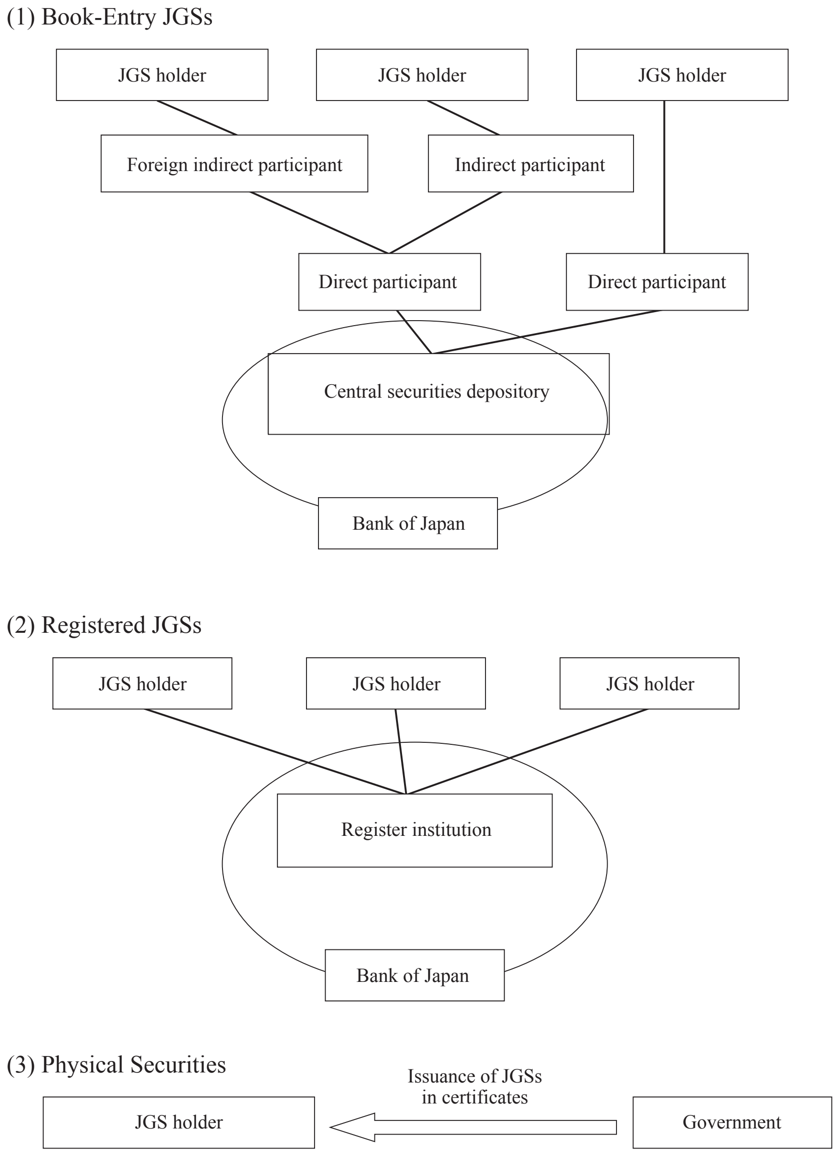
This system is composed of JGS holders (e.g., firms and individuals), direct and indirect participants[37] (e.g., banks and securities companies), and the central securities depository (the Bank). This system has a tiered structure in which intermediaries, such as banks and securities companies, interpose themselves between JGS holders and the Bank acting as the central securities depository. Under the system, rights to own JGSs can be transferred by book entries on the accounts. The JGB Book-Entry System enables the delivery of JGSs to be completed only through the transfer between accounts on the books initiated at the request of the transferor (the seller) (see Figure 9-9).

This new system contrasts sharply with the old one in that no JGB certificates (physical securities) exist in the new system. In the old system, which was based on certificates, the transferor, who had deposited certificates with the Bank, instructed the Bank to transfer the possession of the physical securities from the transferor to the transferee, so that the transferee acquired the possession of the certificates. In other words, in the old system, ownership of JGBs was conferred and transfer became legally effective upon possession or delivery of certificates as represented by the balances or transfers recorded on the books. On the other hand, in the new system, the rights to own JGSs become effective immediately upon book entries being made (the increase and decrease in the respective accounts).[38]

[37] There are about 300 direct participants, such as city banks and securities companies, that hold direct participant's accounts at the Bank. There are about 1,000 indirect participants, such as *shinkin* banks and securities companies that hold their own accounts at direct participants, and they open accounts for their customers with the approval of the Bank. In addition, there are about 100 foreign indirect participants, such as foreign banks and foreign securities companies that do not have business offices in Japan.

[38] Book-entry JGSs do not acquire the legal structure of being deposited with the Bank. Therefore, the traditional package registration of physical JGSs deposited with the Bank is not carried out anymore. In this system, conversion of book-entry JGSs to physical JGSs or to registered JGSs is not admitted.

Figure 9-9 Composition of How JGSs Are Held



4. Services related to payment of principal and interest on JGSs

As for the payment of principal and interest on JGSs, the Bank calculates the amount of funds needed for principal and interest payments of JGSs (the funds for redemption of public bonds and payment of interest on public bonds) based on the amount of JGSs outstanding, and asks the government (MOF) to transfer the funds to the government deposits at the Bank from the Special Account for Government Debt Consolidation Fund.[39] The Bank then debits government deposits to make payments for the principal and interest through the Bank's Head Office and branches as well as through its agent financial institutions throughout Japan. For payments made through financial institutions nationwide that act as agents, the Bank credits the current account it holds for the relevant agent financial institution.

In practice, the methods for principal and interest payments depend on how the JGSs are held. In the case of book-entry JGSs, the Bank, as the central securities depository, receives principal and interest on behalf of all the JGS holders from the government (MOF) and credits the funds directly to participants' BOJ accounts; and the participants then pay their customers.[40]

5. Services related to the custody of securities

Pursuant to Article 36 of the Bank of Japan Act, and Article 35 of the Public Accounting Act, the Bank provides custody, transfer, book-keeping, and accounting services for the following two types of securities: (1) the securities owned by the government, which are either securities the government has purchased as a means of investing through the Fiscal Loan Fund surpluses, or those it has accepted from taxpayers as payment for inheritance tax; and (2) the securities held by government agencies as collateral for postdated payment of postal charges or election deposits. The types of securities eligible for deposits at

[39] The special account was established in 1906. Funds in this account are used to redeem JGSs regularly, in order to equalize the government's fiscal burden and maintain the creditworthiness of JGSs. Funds for redemption of JGSs are in principle appropriated from the general account of the government budget every fiscal year.

[40] For registered JGSs, payment is made to the registered owner of the JGSs, in exchange for a certificate of receipt sent in advance by the Bank, at the Head Office or branches of the Bank, treasury agents, JGS agents, or JGS paying agents that are specified by the JGS holder as the place of payment. For JGS certificates (physical securities), payments are made in exchange for certificates or coupons at the Head Office, branches of the Bank, treasury agents, JGS agents, and JGS paying agents. The Bank collects the certificates and coupons used for payment of principal and interest, examines and classifies them by type, and either holds them or disposes of them.

the Bank by the government for these services include physical JGSs, municipal bonds, stocks, and corporate bonds. These services are available at some treasury agents as well as the Head Office and branches of the Bank.

Appendixes

Appendix 1 Bank of Japan Act (Act No. 89 of June 18, 1997)

In 1996, discussions on the comprehensive revision of the Bank of Japan Act were initiated by the then three-party coalition government. More discussions followed at the Central Bank Study Group (under Chairman Yasuhiko Torii, then President of Keio University), an advisory panel to the then Prime Minister Ryutaro Hashimoto set up in July 1996, and at the Subcommittee on the Revision of the Bank of Japan Act (under Chairman Ryuichiro Tachi, then Professor Emeritus of the University of Tokyo) of the Financial System Research Council (an advisory committee to the then Minister of Finance), set up in November 1996. Finally, in June 1997, the new Bank of Japan Act was enacted by the Diet and came into effect in April 1998.[1]

Note: 1. The Bank of Japan Act was first enacted in 1942 and revised in 1949 to prescribe the establishment of the Policy Board and the abolition of an article requiring the permission of the government to set or change the official discount rate. Discussions on revising the Act were held during 1957–1960 and again around 1965; however, these discussions did not result in revisions being made.

Bank of Japan Act

(Unofficial translation by the government of Japan)

Enforced: April 1, 1998 (partially enforced: June 18, 1997)

Amended: June 22, 1998; December 15, 1998; April 1, 2000; January 6, 2001 (partially enforced: July 1, 2000); January 1, 2005; May 1, 2006; December 1, 2008

Chapter I General Provisions

Article 1 (Purpose)

(1) The purpose of the Bank of Japan, or the central bank of Japan, is to issue banknotes and to carry out currency and monetary control.
(2) In addition to what is prescribed in the preceding paragraph, the Bank of Japan's purpose is to ensure smooth settlement of funds among banks and other financial institutions, thereby contributing to the maintenance of stability of the financial system.

Article 2 (The Principle of Currency and Monetary Control)

Currency and monetary control by the Bank of Japan shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy.

Article 3 (Respecting the Autonomy of the Bank of Japan and Ensuring Transparency)

(1) The Bank of Japan's autonomy regarding currency and monetary control shall be respected.
(2) The Bank of Japan shall endeavor to clarify to the citizen the content of its decisions, as well as its decision-making process, regarding currency and monetary control.

Article 4 (Relationship with the Government)

The Bank of Japan shall, taking into account the fact that currency and monetary control is a component of overall economic policy, always maintain close contact with the government and exchange views sufficiently, so that its currency and monetary control and the basic stance of the government's economic policy shall be mutually compatible.

Article 5 (Public Nature of the Bank of Japan's Business and Its Autonomy)

(1) In light of the public nature of its business and property, the Bank of Japan shall endeavor to conduct its business in a proper and efficient manner.
(2) In implementing this Act, due consideration shall be given to the autonomy of the Bank of Japan's business operations.

Article 6 (Juridical Personality)

The Bank of Japan shall be a juridical person.

Article 7 (Head Office and Branch Offices, etc.)

(1) The Bank of Japan shall locate its head office in Tokyo.
(2) The Bank of Japan may, pursuant to an Ordinance of the Ministry of Finance and upon authorization from the Minister of Finance, establish,

relocate, or abolish offices including branch offices.

(3) The Bank of Japan may, pursuant to an Ordinance of the Ministry of Finance and upon authorization from the Minister of Finance, establish or abolish agencies that perform a part of the Bank's business.

(4) If an application for authorization set forth in the preceding two paragraphs has been filed but the Minister of Finance has denied it, he/she shall make public this denial of authorization and the reason therefor promptly, together with the content of the requested application.

Article 8 (Stated Capital)

(1) The amount of the Bank of Japan's stated capital shall be one hundred million yen to be contributed to by both the government and non-governmental persons.

(2) Of the amount of stated capital set forth in the preceding paragraph, the amount of contribution by the government shall be no less than fifty-five million yen.

Article 9 (Investment Securities)

(1) The Bank of Japan shall issue investment securities for capital contribution pursuant to paragraph 1 of the preceding Article.

(2) Other matters concerning investment securities set forth in the preceding paragraph, as well as matters concerning capital contribution in general, shall be specified by a Cabinet Order.

Article 10 (Transfer of Equity)

Contributories to the Bank of Japan's capital may, pursuant to a Cabinet Order, transfer their equity or put it in pledge.

Article 11 (Articles of Incorporation)

(1) The Bank of Japan shall stipulate the following matters in its articles of incorporation:

(i) Purpose;
(ii) Official name;
(iii) Locations of the head office and branch offices;

(iv) Matters concerning the stated capital and contribution;
(v) Matters concerning the Policy Board;
(vi) Matters concerning officers;
(vii) Matters concerning its business and the execution thereof;
(viii) Matters concerning the issuance of banknotes;
(ix) Matters concerning accounting;
(x) Means for public notice and publication.

(2) Any amendments to the articles of incorporation shall not come into effect unless authorized by the Minister of Finance and the Prime Minister.
(3) The provisions of Article 7, paragraph 4 shall apply mutatis mutandis to the authorization set forth in the preceding paragraph.

Article 12 (Registration)

(1) The Bank of Japan shall register relevant matters pursuant to a Cabinet Order.
(2) Matters to be registered as prescribed in the preceding paragraph may not be asserted against a third party unless having been registered.

Article 13 (Restriction on Use of the Bank of Japan's Name)

No person other than the Bank of Japan may use the name "Bank of Japan."

Chapter II Policy Board

Article 14 (Establishment)

A Policy Board (hereinafter referred to as the "Board" in this and the following Chapter) shall be established in the Bank of Japan.

Article 15 (Authority)

(1) The following matters concerning currency and monetary control shall be decided by the Board:

(i) Determining or altering the basic discount rate and other discount rates pertaining to the discounting of negotiable instruments set forth in Article 33, paragraph 1, item (i), as well as the types and conditions of negotiable

instruments pertaining to the said discounting;
(ii) Determining or altering the basic loan rate and other loan rates pertaining to the loans set forth in Article 33, paragraph 1, item (ii), as well as the types, conditions, and value of collateral pertaining to the said loans;
(iii) Determining, altering, or abolishing reserve requirement ratios, the base date, and other matters prescribed in Article 4, paragraph 1 of the Act on Reserve Deposit Requirement System (Act No. 135 of 1957);
(iv) Determining or altering the guidelines for financial market control (currency and monetary control conducted through financial markets [including open market operations]) through such measures as the buying and selling of negotiable instruments, bonds, or electronically recorded claims (electronically recorded claims prescribed in Article 2, paragraph 1 of the Electronically Recorded Claims Act [Act No. 102 of 2007]; hereinafter the same shall apply in this item and Article 33, paragraph 1) prescribed in Article 33, paragraph 1, item (iii), as well as determining or altering the types, conditions, and other matters of negotiable instruments, bonds, or electronically recorded claims pertaining to the said financial market control;
(v) Determining or altering other guidelines for currency and monetary control;
(vi) Determining or altering the Bank of Japan's view on currency and monetary control, including its basic view on economic and monetary conditions which provides the basis for matters listed in the preceding items.

(2) In addition to matters to be subject to the Board resolution as prescribed in the preceding paragraph, the following matters shall also be decided by the Board:

(i) Making loans pursuant to Article 37, paragraph 1, and executing business pursuant to Article 38, paragraph 2;
(ii) Applying for authorization pursuant to Article 39, paragraph 1, and determining important matters concerning the business pertaining to the said authorization;
(iii) Conducting the buying and selling of foreign exchange to facilitate international financial business which the Minister of Finance specifies as constituting cooperation in the field of international finance as prescribed in Article 40, paragraph 3, initiating transactions with a foreign central bank, etc. (a foreign central bank, etc. prescribed in Article 41) pertaining to the business prescribed in the same Article, and executing transactions

pursuant to Article 42;

(iv) Applying for authorization pursuant to the proviso of Article 43, paragraph 1, and determining important matters concerning the business pertaining to the said authorization;

(v) Determining the content of a contract concerning on-site examinations prescribed in Article 44, paragraph 1, as well as determining important matters concerning the implementation of on-site examinations for each business year;

(vi) Altering the articles of incorporation;

(vii) Preparing or altering a statement of operation procedures;

(viii) Establishing, relocating, or abolishing offices including branch offices and agencies;

(ix) Determining important matters concerning the Bank of Japan's organization and size of staff (excluding what is listed in the preceding item);

(x) Establishing or altering the standards for paying remuneration prescribed in Article 31, paragraph 1, as well as rules on service prescribed in Article 32;

(xi) Acquiring or disposing of real estate and other important property;

(xii) Making or altering a budget for expenses (a budget for expenses prescribed in Article 51, paragraph 1), preparing an inventory, balance sheet, profit and loss statement, and statement of accounts, and determining important matters concerning accounting including the appropriation of any surplus;

(xiii) Preparing a written report prescribed in Article 54, paragraph 1, as well as the outline of business operations prescribed in Article 55;

(xiv) Establishing or altering the rules prescribed in Article 59;

(xv) Determining matters to be decided by the Board pursuant to this Act or to be carried out by the Board pursuant to this Act or other laws and regulations;

(xvi) Determining matters which the Board finds particularly necessary, in addition to what is listed in the preceding items.

(3) The Board shall supervise the execution of their duties by the officers (excluding Auditors and Counsellors in this paragraph) of the Bank of Japan.

Article 16 (Organization)

(1) The Board shall be composed of nine members.

(2) Board members shall consist of six Members of the Policy Board, the Bank of Japan's Governor and two Deputy Governors. In this case, the Governor and the Deputy Governors shall perform their duties as Board members independently of each other, irrespective of the provisions of Article 22, paragraphs 1 and 2.
(3) The Board shall have a chairperson, who shall be elected by Board members from among themselves.
(4) The chairperson shall exercise general control over Board business.
(5) The Board shall designate, in advance, a member who shall perform the duties of the chairperson when the chairperson is prevented from attending to his/her duties.

Article 17 (Calling of Board Meetings)

(1) Board meetings shall be called by the chairperson of the Board (or by the designated alternate prescribed in paragraph 5 of the previous Article; hereinafter the same shall apply in this Article, the following Article, and Article 20).
(2) The chairperson shall, pursuant to a Cabinet Order, regularly call Board meetings at which the matters listed in the items of Article 15, paragraph 1 (hereinafter referred to as "monetary control matters" in this Chapter) are to be discussed.
(3) The preceding paragraph shall not be interpreted as preventing a Board meeting for monetary control matters from being called on an ad hoc basis, when the chairperson finds it necessary, or when one-third or more of the total incumbent Board members find it necessary and request the chairperson to call such a meeting.

Article 18 (Management of Board Meetings)

(1) The Board may neither meet nor vote unless the chairperson and two-thirds or more of the total incumbent Board members are present.
(2) Matters shall be decided by a majority of votes cast by Board members who are present. When the votes are equally split, the chairperson shall make a final decision.
(3) Except for those specified in this Act, procedures of meetings and other necessary matters concerning the administration of the Board shall be determined by the Board.

Article 19 (Attendance of Government Representatives)

(1) The Minister of Finance or the Minister of State for Economic and Fiscal Policy prescribed in Article 19, paragraph 2 of the Act for Establishment of the Cabinet Office (Act No. 89 of 1999) (referred to as the "Minister of State for Economic and Fiscal Policy" in the following paragraph; in the case where the office is vacant, it shall be assumed by the Prime Minister) may, when necessary, attend and express opinions at Board meetings for monetary control matters, or may designate an official of the Ministry of Finance or the Cabinet Office, respectively, to attend and express opinions at such meetings.
(2) The Minister of Finance, or a delegate designated by him/her, and the Minister of State for Economic and Fiscal Policy, or a delegate designated by him/her, may, when attending the Board meetings for monetary control matters, submit proposals concerning monetary control matters, or request that the Board postpone a vote on proposals on monetary control matters submitted at the meeting until the next Board meeting for monetary control matters.
(3) When a request has been made to postpone a vote as prescribed in the preceding paragraph, the Board shall decide whether or not to accommodate the request, in accordance with the Board's practice for voting.

Article 20 (Publication of Transcripts, etc.)

(1) After each Board meeting for monetary control matters, the chairperson shall promptly prepare a document describing an outline of the discussion at the meeting in accordance with the decisions made by the Board, and make public the document following its approval at another Board meeting for monetary control matters.
(2) The chairperson shall prepare a transcript of each Board meeting for monetary control matters in accordance with the decisions made by the Board, and make public the transcript after the expiration of a period of time which is determined by the Board as appropriate.

Chapter III Officers and Employees

Article 21 (Officers)

The officers of the Bank of Japan shall consist of six Members of the Policy Board, a Governor, two Deputy Governors, three or fewer Auditors, six or fewer

Executive Directors, and a small number of Counsellors.

Article 22 (Duties and Powers of Officers)

(1) The Governor shall represent the Bank of Japan and exercise general control over the Bank's business in accordance with decisions made by the Board.
(2) The Deputy Governors shall, in accordance with decisions made by the Governor, represent the Bank of Japan, administer the business of the Bank assisting the Governor, act for the Governor whenever he/she is prevented from attending to his/her duties, and perform the Governor's duties during a vacancy in the office of the Governor.
(3) The Auditors shall audit the business of the Bank of Japan.
(4) The Auditors may, when they find it necessary based on the audit results, submit their opinions to the Minister of Finance, the Prime Minister, or the Board.
(5) The Executive Directors shall, in accordance with the decisions made by the Governor, administer the business of the Bank of Japan assisting the Governor and the Deputy Governors, act for the Governor when the Governor and the Deputy Governors are prevented from attending to their duties, and perform the Governor's duties during a vacancy in the office of the Governor and the Deputy Governors.
(6) The Counsellors shall be consulted by the Board on any important matters concerning the Bank of Japan's business operations, and may express their opinions to the Board when they find it necessary.

Article 22-2 (Restrictions on Authority of Representation)

Restrictions on the authority of representation of the Governor or the Deputy Governors may not be asserted against a third party without knowledge of such restrictions.

Article 22-3 (Acts of Conflict of Interest)

The Governor or the Deputy Governors shall not have the authority of representation with regard to matters for which their interests and the interest of the Bank of Japan conflict with each other. In this case, the court shall appoint a special agent, upon a request from an interested person or a public prosecutor.

Article 23 (Appointment of Officers)

(1) The Governor and the Deputy Governors shall be appointed by the Cabinet, subject to the consent of the House of Representatives and the House of Councillors.
(2) The Members of the Policy Board shall be appointed by the Cabinet, subject to the consent of the House of Representatives and the House of Councillors, from among persons with relevant knowledge and experience including experts on the economy or finance.
(3) The Auditors shall be appointed by the Cabinet.
(4) The Executive Directors and the Counsellors shall be appointed by the Minister of Finance based on the Board's recommendation.
(5) If the term of office of a Governor, Deputy Governor, or Member of the Policy Board expires or a vacancy occurs in the office of any of these, and if the Diet is out of session or the House of Representatives has been dissolved and it is impossible to obtain the consent of both Houses, the Cabinet may appoint a Governor, Deputy Governor, or Member of the Policy Board, irrespective of the provisions of paragraphs 1 and 2.
(6) In the case set forth in the preceding paragraph, the appointment shall be approved ex post by both Houses in the first Diet session after the said appointment. If the Cabinet fails to obtain such ex post approval, it shall immediately dismiss the said Governor, Deputy Governor, or Member of the Policy Board.

Article 24 (Officers' Terms of Office)

(1) The terms of office shall be five years for the Governor, Deputy Governors, and Members of the Policy Board, four years for Auditors and Executive Directors, and two years for Counsellors. However, if a vacancy occurs in the office of a Governor, Deputy Governor, or Member of the Policy Board, the term of office for a substitute Governor, Deputy Governor, or Member of the Policy Board shall be limited to the remaining term of his/her predecessor.
(2) The Governor, Deputy Governors, Members of the Policy Board, Auditors, Executive Directors, and Counsellors may be reappointed.

Article 25 (Guarantee of the Officers' Status)

(1) Officers of the Bank of Japan (excluding Executive Directors in this

paragraph) shall not be dismissed against their will during their terms of office, except in the case prescribed in the second sentence of Article 23, paragraph 6 or in the following cases:

(i) An officer has received a ruling of the commencement of bankruptcy proceedings;
(ii) An officer has received punishment under this Act;
(iii) An officer has been sentenced to imprisonment without work or a heavier punishment;
(iv) An officer has been deemed incapable of carrying out his/her duties due to mental or physical disorder by the Board (or by the Board and the Cabinet in the case of the Auditors).

(2) The Cabinet or the Minister of Finance shall dismiss an officer of the Bank of Japan if he/she falls under any of the cases listed in the items of the preceding paragraph.
(3) In addition to the case prescribed in the preceding paragraph, the Minister of Finance may dismiss an Executive Director when the Board has requested the dismissal thereof.

Article 26 (Restriction on Officers' Acts)

(1) An officer of the Bank of Japan (excluding Counsellors; hereinafter the same shall apply in this Article and Articles 31 and 32) shall not conduct any of the following acts during his/her term of office:

(i) Becoming a candidate for the Diet, for any local council, or for any elected public office;
(ii) Becoming an officer of any political body including a political party or actively engaging in political activities;
(iii) Engaging in other work that brings remuneration (excluding work that the Board finds as meeting the requirements specified by the rules on service prescribed in Article 32 as the standards of work that does not interfere with the proper execution of his/her duties as an officer);
(iv) Carrying out commercial business or other business for the purpose of pecuniary gain.

(2) If an officer of the Bank of Japan becomes a candidate for the Diet, for any

local council, or for any elected public office, he/she shall be deemed to have resigned as an officer of the Bank.

Article 27 (Appointment of Agents)

The Governor and the Deputy Governors may appoint agents, from among the Bank of Japan's Executive Directors or employees, who shall have the authority to act on behalf of the Bank in all juridical and non-juridical matters with regard to the business of the Bank's head office and branch offices.

Article 28 (Appointment of Employees)

The Bank of Japan's employees shall be appointed by the Governor.

Article 29 (Confidentiality Obligations of Officers and Employees)

The Bank of Japan's officers and employees shall not leak or misappropriate secrets which they have learned in the course of their duties. The same shall apply even after they have left the Bank.

Article 30 (Status of the Officers and Employees)

The Bank of Japan's officers and employees shall be deemed to be those engaged in public service pursuant to laws and regulations.

Article 31 (Standards for Paying Remuneration)

(1) The Bank of Japan shall establish the standards for paying rewards (including the payment of money such as bonuses), salaries (including the payment of money such as bonuses), and retirement allowances (collectively referred to as "remuneration" in the following paragraph) to be paid to its officers and employees, as being consistent with the general standards prevailing in society, and shall report such standards to the Minister of Finance and, at the same time, make them public. The same shall apply when making any change to the standards.
(2) Among the standards for paying remuneration prescribed in the preceding paragraph, those pertaining to officers shall be established in consideration of salaries, retirement allowances, and other circumstances of national public officers to whom the Act on Salaries of Government Officials with

Special Capacity (Act No. 252 of 1949) is applicable.

Article 32 (Rules on Service)

The Bank of Japan shall, in light of the public nature of its business and in order to ensure the proper execution of their duties by its officers and employees, establish rules on service for its officers and employees, such as rules on the obligations to devote themselves to their duties and to separate themselves from private enterprises, and shall report such rules to the Minister of Finance and, at the same time, make them public. The same shall apply when making any change to the rules.

Chapter IV Business

Article 33 (Regular Business)

(1) In order to achieve the purpose prescribed in Article 1, the Bank of Japan may conduct the following business:

(i) Discounting of commercial bills and other negotiable instruments;
(ii) Making loans against collateral in the form of negotiable instruments, national government securities and other securities, or electronically recorded claims;
(iii) Buying and selling of commercial bills and other negotiable instruments (including those drawn by the Bank of Japan in this item), national government securities and other bonds, or electronically recorded claims;
(iv) Lending and borrowing of national government securities and other bonds against cash collateral;
(v) Taking deposits;
(vi) Conducting domestic funds transfers;
(vii) Taking safe custody of securities and other instruments pertaining to property rights, or certificates;
(viii) Buying and selling gold and silver bullion and carrying out business related to business set forth in the preceding items.

(2) "Taking deposits" set forth in item (v) of the preceding paragraph refers to taking deposits based on a deposit contract.

Article 34 (Loans, etc. to the National Government)

As the central bank of Japan, the Bank of Japan may, in addition to the business prescribed in paragraph 1 of the preceding Article, conduct the following business with the national government:

(i) Making uncollateralized loans within the limit decided by the Diet as prescribed in the proviso of Article 5 of the Fiscal Act (Act No. 34 of 1947);
(ii) Making uncollateralized loans for the national government's temporary borrowing permitted under the Fiscal Act or other acts concerning the national government's accounting;
(iii) Subscribing or underwriting national government securities within the limit decided by the Diet as prescribed in the proviso of Article 5 of the Fiscal Act;
(iv) Subscribing or underwriting financing bills and other financing securities;
(v) Taking safe custody of precious metals and other articles.

Article 35 (Handling of Treasury Money)

(1) As the central bank of Japan, the Bank of Japan shall handle treasury money, pursuant to laws and regulations.
(2) When handling treasury money as prescribed in the preceding paragraph, the Bank of Japan may conduct the business necessary for this purpose in addition to the business prescribed in Article 33, paragraph 1.

Article 36 (Handling of National Government Affairs)

(1) As the central bank of Japan, the Bank of Japan shall handle national government affairs concerning currency and finance, pursuant to laws and regulations.
(2) When handling national government affairs as prescribed in the preceding paragraph, the Bank of Japan may conduct the business necessary for this purpose in addition to the business prescribed in Article 33, paragraph 1.
(3) Expenses necessary for handling national government affairs as prescribed in paragraph 1 may be borne by the Bank of Japan, pursuant to laws and regulations.

Article 37 (Temporary Loans to Financial Institutions, etc.)

(1) Irrespective of the provisions of Article 33, paragraph 1, the Bank of Japan may provide financial institutions (banks and other institutions engaged in the business of taking deposits, etc. [deposits and others prescribed in Article 2, paragraph 2 of the Deposit Insurance Act {Act No. 34 of 1971} and other deposits for savings] and in funds transfers in the course of trade; the same shall apply hereinafter) and other financial business entities specified by a Cabinet Order (hereinafter collectively referred to as "financial institutions, etc.") with uncollateralized loans the amount of which is equivalent to the shortage of funds for a period no longer than the length of time prescribed by a Cabinet Order, when the relevant financial institutions, etc. unexpectedly experience 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, provided that the Bank finds the advance is necessary to secure smooth settlement of funds among financial institutions.

(2) The Bank of Japan shall, when having provided loans as prescribed in the preceding paragraph, report to that effect to the Prime Minister and the Minister of Finance without delay.

Article 38 (Business Contributing to the Maintenance of Stability of the Financial System)

(1) The Prime Minister and the Minister of Finance may, when they find it especially necessary for the maintenance of stability of the financial system, such as in the case where they find that serious problems may arise in the maintenance of stability of the financial system based on the consultation pursuant to Article 57-5 of the Banking Act (Act No. 59 of 1981) or other laws and regulations, request the Bank of Japan to conduct the business necessary to maintain stability of the financial system, such as to provide loans to the financial institution pertaining to the said consultation.

(2) When a request has been made from the Prime Minister and the Minister of Finance as prescribed in the preceding paragraph, the Bank of Japan may conduct the business necessary to maintain stability of the financial system, including the provision of loans under special conditions, responding to the said request, in addition to the business prescribed in Article 33, paragraph 1.

Article 39 (Business Contributing to Smooth Settlement of Funds)

(1) In addition to the business prescribed in Article 33 through the preceding Article, the Bank of Japan may, upon authorization from the Prime Minister and the Minister of Finance, conduct the business deemed to contribute to smooth settlement of funds among financial institutions in conjunction with the business prescribed in Article 33, paragraph 1, items (v) through (vii) or the business prescribed in Article 35, paragraph 2 or Article 36, paragraph 2.
(2) The provisions of Article 7, paragraph 4 shall apply mutatis mutandis to the authorization set forth in the preceding paragraph.

Article 40 (Buying and Selling of Foreign Exchange)

(1) The Bank of Japan may, when necessary, buy and sell foreign exchange on its own account or as an agent handling national government affairs pursuant to Article 36, paragraph 1, and it may also buy and sell foreign exchange on behalf of foreign central banks, etc. (foreign central banks and those equivalent thereto; the same shall apply hereinafter) or international institutions (international institutions of which Japan has a membership, including the Bank for International Settlements; the same shall apply hereinafter) as their agent in order to cooperate with them as the central bank of Japan.
(2) The Bank of Japan shall buy and sell foreign exchange as an agent handling national government affairs pursuant to Article 36, paragraph 1, when the purpose of the buying and selling is to stabilize the exchange rate of Japanese currency.
(3) The Bank of Japan shall, when buying and selling foreign exchange on its own account or as an agent on behalf of foreign central banks, etc. or international institutions to cooperate with them as the central bank of Japan pursuant to paragraph 1, conduct the buying and selling for the purpose which the Minister of Finance specifies as constituting cooperation in the field of international finance, at the request, or upon the approval, of the Minister of Finance.

Article 41 (International Financial Business)

The Bank of Japan may conduct the following business with foreign central banks, etc. or international institutions in order to cooperate with them as the central bank of Japan:

(i) Taking deposits pertaining to deposit money denominated in Japanese currency (deposits prescribed in Article 33, paragraph 2);
(ii) Buying and selling national government securities in exchange for deposits received through the business set forth in the preceding item;
(iii) Taking safe custody of securities, precious metals, and other articles;
(iv) Carrying out intermediary, brokerage, or agency services for sales and purchases of national government securities conducted by the said foreign central banks, etc. or international institutions;
(v) Other business specified by an ordinance of the Ministry of Finance as those deemed to contribute to the proper management of Japanese currency or assets denominated in Japanese currency held by the said foreign central banks, etc. or international institutions.

Article 42

In addition to the business prescribed in the preceding Article, the Bank of Japan may conduct the following transactions and other transactions necessary for cooperating, as the central bank of Japan, with foreign central banks, etc. or international institutions in the field of international finance, including the provision of international financial assistance, at the request, or upon the approval, of the Minister of Finance:

(i) Substituting loan claims against foreign central banks, etc. which are held by the Bank for International Settlements;
(ii) Providing credit to foreign central banks, etc. or international institutions.

Article 43 (Prohibition of Other Business)

(1) The Bank of Japan may not conduct any business other than that specified by this Act as the business of the Bank; provided, however, that this shall not apply to the case where such business is necessary to achieve the Bank's purpose specified by this Act and the Bank has obtained authorization from the Minister of Finance and the Prime Minister.
(2) The provisions of Article 7, paragraph 4 shall apply mutatis mutandis to the authorization set forth in the preceding paragraph.

Article 44 (On-Site Examinations)

(1) The Bank of Japan may, for the purpose of appropriately conducting or

preparing to conduct the business prescribed in Articles 37 through 39, conclude a contract with financial institutions, etc. which would be the counterparty in such business (hereinafter referred to as the “counterparty financial institutions, etc.” in this Article) concerning on-site examinations (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; hereinafter the same shall apply in this Article) (such contract shall meet the requirements specified by a Cabinet Order including those whereby the Bank shall notify and obtain prior consent from the counterparty financial institutions, etc. when carrying out on-site examinations).

(2) The Bank of Japan shall consider the administrative burden incurred by counterparty financial institutions, etc. when carrying out on-site examinations.

(3) When a request has been made from the Commissioner of the Financial Services Agency, the Bank of Japan may submit the documents describing the results of the on-site examinations and other related materials to the Commissioner or have officials of the Financial Services Agency inspect them.

Article 45 (Statement of Operation Procedures)

(1) The Bank of Japan shall prepare a statement of operation procedures and submit it to the Minister of Finance and the Prime Minister. The same shall apply when making any change to the statement.

(2) The statement of operation procedures set forth in the preceding paragraph shall contain matters specified by a Cabinet Order, including those concerning the provision of loans.

Chapter V Bank of Japan Notes

Article 46 (Issuance of Bank of Japan Notes)

(1) The Bank of Japan shall issue banknotes.

(2) The banknotes issued by the Bank of Japan (hereinafter referred to as “Bank of Japan notes”) as prescribed in the preceding paragraph shall be legal tender and hence shall be used for payment without limits.

Article 47 (Types and Forms of Bank of Japan Notes)

(1) The types of Bank of Japan notes shall be specified by a Cabinet Order.
(2) The Minister of Finance shall decide the forms of Bank of Japan notes and publicly notify them.

Article 48 (Exchange of Bank of Japan Notes)

The Bank of Japan shall exchange, without fees, Bank of Japan notes rendered unfit for further circulation due to defacement, mutilation, or other causes, pursuant to an Ordinance of the Ministry of Finance.

Article 49 (Printing and Cancellation of Bank of Japan Notes)

(1) The Bank of Japan shall determine the procedures for printing and canceling Bank of Japan notes and submit those procedures to the Minister of Finance for approval. The same shall apply when making any change to the procedures.
(2) The provisions of Article 7, paragraph 4 shall apply mutatis mutandis to the approval set forth in the preceding paragraph.

Chapter VI Accounting

Article 50 (Business Year)

The business year of the Bank of Japan shall run April 1 through March 31 of the following year.

Article 51 (Budget for Expenses)

(1) Every business year, the Bank of Japan shall make a budget for expenses (limited to those specified by a Cabinet Order as not hampering the currency and monetary control; hereinafter such budget shall be referred to as a "budget for expenses"), and submit it to the Minister of Finance for authorization before the business year begins. The same shall apply when making any change to the budget.
(2) If the Minister of Finance finds it inappropriate to authorize the budget for expenses submitted as prescribed in the preceding paragraph, he/she shall make prompt notice to the Bank of Japan to that effect along with the reason therefor, and make public the details of the submitted budget for

expenses and the said reason.

(3) When the notice as prescribed in the preceding paragraph has been made, the Bank of Japan may express its opinions to the Minister of Finance or, if necessary, make public the said opinions.

Article 52 (Financial Statements, etc.)

(1) The Bank of Japan shall prepare an inventory of property and a balance sheet for each six-month period running from April through September and from October through March and prepare a profit and loss statement for each business year as well as for each six-month period mentioned above, and submit these documents (hereinafter referred to as "financial statements") attached with Auditors' written opinions thereon to the Minister of Finance for approval within two months after the relevant six-month period or the business year has elapsed.

(2) When submitting the financial statements for a business year to the Minister of Finance as prescribed in the preceding paragraph, the Bank of Japan shall attach a statement of accounts for the business year and the Auditors' written opinions thereon.

(3) When having received the approval from the Minister of Finance as prescribed in paragraph 1, the Bank of Japan shall, without delay, keep the financial statements, the statement of accounts set forth in the preceding paragraph, and the Auditors' written opinions set forth in the preceding two paragraphs at its head office and branch offices and make them available for public inspection for a period determined by the Policy Board as appropriate.

Article 53 (Appropriation of Surplus)

(1) The Bank of Japan shall reserve, as a reserve fund, five-hundredths of the surplus resulting from the settlement of profits and losses for each business year.

(2) Irrespective of the provisions of the preceding paragraph, the Bank of Japan may, when it finds it especially necessary, reserve the money which exceeds the amount prescribed in the preceding paragraph as a reserve fund, upon authorization from the Minister of Finance.

(3) The reserve fund reserved as prescribed in the preceding two paragraphs shall not be disposed of, except to cover losses incurred by the Bank of Japan or to be appropriated for dividends as prescribed in the following paragraph.

(4) The Bank of Japan may, upon authorization from the Minister of Finance,

pay dividends to contributories out of the surplus resulting from the settlement of profits and losses for each business year; provided, however, that the rate of dividend payments against paid-up capital may not exceed five-hundredths per annum.

(5) After deducting the amount reserved as prescribed in paragraphs 1 and 2 and the dividend payments prescribed in the preceding paragraph from the surplus resulting from the settlement of profits and losses for each business year, the Bank of Japan shall pay the remaining surplus to the national treasury within two months after each relevant business year ends.

(6) The government may have the Bank of Japan make the payment to the national treasury for each business year as prescribed in the preceding paragraph, partially during the said business year, by estimate, pursuant to a Cabinet Order.

(7) The amount of the payment to the national treasury pursuant to paragraph 5 shall be treated as losses when accounting the amount of income prescribed by the Corporation Tax Act (Act No. 34 of 1965) and the amount of income pertaining to the business tax prescribed by the Local Tax Act (Act No. 226 of 1950).

(8) In addition to what is prescribed in the preceding three paragraphs, necessary matters concerning the payment to the national treasury pursuant to paragraph 5 shall be specified by a Cabinet Order.

(9) The provisions of Article 7, paragraph 4 shall apply mutatis mutandis to the authorization set forth in paragraphs 2 and 4.

Chapter VII Reporting, etc. to the Diet

Article 54 (Reporting to and Attendance at the Diet)

(1) The Bank of Japan shall, approximately every six months, prepare a written report on the Policy Board resolutions regarding the matters listed in the items of Article 15, paragraph 1 and conditions of business operations that the Bank has conducted based thereon and submit it to the Diet through the Minister of Finance.

(2) The Bank of Japan shall endeavor to explain to the Diet the written report set forth in the preceding paragraph.

(3) The Bank of Japan's Governor or the chairperson of the Policy Board, or a representative designated by them, shall attend the sessions of the House of Representatives, the House of Councillors, or their Committees when requested by them, in order to explain the state of the Bank's business opera-

tions and property.

Article 55 (Publication of an Outline of Business Operations)

When having received the approval regarding financial statements for each business year as prescribed in Article 52, paragraph 1, the Bank of Japan shall prepare, without delay, an outline of its business operations for the business year and make it public along with the said financial statements and a statement of accounts for the said business year.

Chapter VIII Rectification, etc. of Illegal Acts, etc.

Article 56 (Rectification of Illegal Acts, etc.)

(1) The Minister of Finance or the Prime Minister may, when he/she finds that the Bank of Japan, its officers or employees have violated or are likely to violate this Act, other laws and regulations, or articles of incorporation, request the Bank to take the measures necessary to rectify such acts.
(2) When a request has been made from the Minister of Finance or the Prime Minister as prescribed in the preceding paragraph, the Bank of Japan shall promptly take measures which the Policy Board finds necessary, such as rectifying the said acts, and report those measures to the Minister of Finance or the Prime Minister.

Article 57 (Audit at the Request of the Minister of Finance or the Prime Minister)

(1) The Minister of Finance or the Prime Minister may, when he/she finds that the Bank of Japan, its officers or employees have violated or are likely to violate this Act, other laws and regulations, or articles of incorporation, request the Auditors of the Bank to audit such acts and other necessary matters and report the results thereof to the Minister of Finance or the Prime Minister.
(2) When a request has been made from the Minister of Finance or the Prime Minister as prescribed in the preceding paragraph, the Auditors of the Bank of Japan shall promptly audit such matters and report the results thereof to the Minister of Finance or the Prime Minister and also to the Policy Board.

Article 58 (Reports, etc.)

The Minister of Finance or the Prime Minister may, when he/she finds it necessary in light of the conditions of the business operations of the Bank of Japan, request the Bank to submit a report or relevant materials.

Chapter IX Miscellaneous Provisions

Article 59 (Rules)

The Bank of Japan shall, when having established rules regarding the organization or other matters other than those specified by this Act separately, report such rules to the Minister of Finance without delay. The same shall apply when making any change to the rules.

Article 60 (Dissolution)

(1) The dissolution of the Bank of Japan shall be specified separately by an Act.
(2) In the case where the Bank of Japan has been dissolved, when the residual assets of the Bank exceed the amount of paid-up capital, the residual assets equivalent to the excess amount shall belong to the national treasury.

Article 60-2 (Jurisdiction over Cases Concerning Appointment of Special Agents)

Cases concerning the appointment of special agents shall be under the jurisdiction of the District Court which exercises jurisdiction over the location of the head office of the Bank of Japan.

Article 61 (Mutatis Mutandis Application of the Act on General Incorporated Associations and General Incorporated Foundations)

The provisions of Article 4 and Article 78 of the Act on General Incorporated Associations and General Incorporated Foundations (Act No. 48 of 2006) shall apply mutatis mutandis to the Bank of Japan.

Article 61-2 (Delegation of Authority)

The Prime Minister shall delegate the authority under this Act (excluding Article 19) to the Commissioner of the Financial Services Agency except for those prescribed by a Cabinet Order.

Article 62 (Delegation to a Cabinet Order)

In addition to what is prescribed in this Act, matters necessary to implement this Act shall be specified by a Cabinet Order.

Chapter X Penal Provisions

Article 63

Those who have leaked or misappropriated secrets in violation of Article 29 shall be punished by imprisonment with work for not exceeding a year or a fine not exceeding five hundred thousand yen.

Article 64

Those who have failed to conduct an audit pursuant to Article 57, paragraph 2, or have failed to make a report pursuant to the same paragraph or have made a false report shall be punished by a fine not exceeding five hundred thousand yen.

Article 65

(i) Having failed to obtain the authorization from the Minister of Finance or from both the Minister of Finance and the Prime Minister, or the approval from the Minister of Finance, as required by this Act (excluding the provisions of Article 43, paragraph 1);
(ii) Having failed to make a report to the Minister of Finance or to both the Minister of Finance and the Prime Minister as required by this Act, or having made a false report;
(iii) Having failed to make public what is required by this Act, or having made it public falsely;
(iv) Having neglected to register in violation of a Cabinet Order prescribed in Article 12, paragraph 1;
(v) Having been engaged in other work that brings remuneration or having carried out commercial business or other business for the purpose of pecuniary gain in violation of Article 26, paragraph 1;
(vi) Having conducted any business other than that specified as the business of the Bank of Japan in violation of Article 43, paragraph 1;
(vii) Having violated Article 48;
(viii) Having failed to keep the financial statements, the statement of accounts,

or the Auditors' written opinions or having failed to make them available for public inspection in violation of Article 52, paragraph 3;

(ix) Having failed to reserve a surplus as a reserve fund in violation of Article 53, paragraph 1;

(x) Having disposed of a reserve fund in violation of Article 53, paragraph 3;

(xi) Having paid dividends in violation of the proviso of Article 53, paragraph 4;

(xii) Having failed to make a report as required in Article 56, paragraph 2 or having made a false report;

(xiii) Having failed to submit a report or materials as required in Article 58 or having submitted a false report or false materials.

The Bank of Japan's officers or employees shall be punished by a non-penal fine not exceeding five hundred thousand yen when falling under any of the following items:

Article 66

Those who have violated Article 13 shall be punished by a non-penal fine not exceeding five hundred thousand yen.

Appendix 2 References for the Japanese Edition

Chapters I and II

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Shiono, Hiroshi, chief ed., *Nipponginkou no Houteki Seikaku – Shin Nichiginho wo Fumaete* (Legal Characteristics of the Bank of Japan – Based on the Revised Bank of Japan Act), Koubundou Publishers Inc.[1]

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Chapter IV

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Bank of Japan, Payment and Settlement Systems Report. Released about once a year.[3]

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Chapter VI

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Chapter VII

Umeda, Masanobu and Kiyohito Utsunomiya, *Keizaitoukei no Katsuyou to Ronten* (Usages and Issues of Economic Statistics), Toyo Keizai Inc.[1]

Chapter VIII

Nippon Ginko Kokusaishushi Tokei Kenkyukai, *Nyumon Kokusaishushi* (Introduction to Balance of Payments), Toyo Keizai Inc.[1]

Chapter IX

Ministry of Finance, Financial Bureau, Debt Management Report. Released annually.[3]

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[1] Available only in Japanese.

[2] Available only in Japanese on the Bank's website at http://www.boj.or.jp/index.html.

[3] Available on the Bank's website at http://www.boj.or.jp/en/index.htm.

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