



RESPONSE TO THE DISCLOSURE FRAMEWORK  
FOR SECURITIES SETTLEMENT SYSTEMS

The JGB Book-entry System and  
the BOJ-NET JGB Services

BANK OF JAPAN

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## The JGB Book-entry System and the BOJ-NET JGB Services

This document provides answers to the Disclosure Framework for Securities Settlement Systems, a survey questionnaire drawn up by a joint working group of the Committee on Payment and Settlement Systems (CPSS) of the central banks of the Group of 10 countries, and the International Organization of Securities Commissions (IOSCO).

The answers provide basic information about the Japanese Government Bond Book-entry System (hereafter the JGB Book-entry System) as of September 2003. The Japanese Government Bond Services System of the Bank of Japan Financial Network System (hereafter the BOJ-NET JGB Services), a computer network system that conducts online processing of transfers of Japanese government bonds and bills (JGBs, unless otherwise specified) on the books of the Bank of Japan (hereafter the Bank) under the JGB Book-entry System, is also referred to where necessary.

The answers are prepared by the Bank as the operator of these systems to help current and future participants/users in these systems to understand and assess appropriately the risks associated with participation in and/or access to these systems.

Please note, however, that the answers are given with a view to providing a general explanation of these systems, and thus may not apply to every individual case.

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# Response to the Disclosure Framework for Securities Settlement Systems

## The JGB Book-entry System and the BOJ-NET JGB Services

### I. Basic Information

A. *What is the name of the SSS?*

The JGB Book-entry System. Transfer of JGBs on the books of the Bank under the JGB Book-entry System can be processed electronically through the BOJ-NET JGB Services.

B. *Where and in which time zone is the SSS located?*

The Bank, which operates the JGB Book-entry System, is located in Japan (the head office is located in Tokyo). The host computer of the BOJ-NET is situated in Tokyo. The time zone is GMT+9.

C. *What functions does the SSS perform?*

The JGB Book-entry System effects transfers of JGBs by crediting and debiting accounts on the books of the book-entry transfer institution (the Bank), direct participants, indirect participants, or foreign indirect participants (hereafter collectively referred to as participants), in accordance with the Law concerning Book-Entry Transfer of Corporate and Other Debt Securities (hereafter the Transfer of Corporate Debt Securities Law). The BOJ-NET JGB Services electronically processes transfers of JGBs on the books of the Bank under the JGB Book-entry System.

The JGB Registration System, which is the other JGB settlement system in Japan, is rarely used today.<sup>1</sup> The Bank serves as the registrar in the JGB Registration System, in accordance with the Law concerning Government Bonds.

Those direct participants in the JGB Book-entry System that have been approved by the Bank to use the BOJ-NET JGB Services and have concluded a contract with the Bank for the use of these services can effect JGB transfers by submitting applications for transfers or notices relating to transfers (hereafter collectively referred to as transfer instructions) to the Bank through the BOJ-NET JGB Services (see Appendix 1). It should be noted that not all direct participants in the JGB Book-entry System have access to the BOJ-NET JGB Services. Direct participants in the JGB Book-entry System can provide the Bank with written transfer instructions, without going through the BOJ-NET JGB Services, to effect JGB transfers.

*1. Does the SSS serve as a securities depository and/or provide securities settlement services?*

It provides both services. Besides transferring the rights of JGB holders, it provides services relating to, for example, the establishment of security interests.

*(a) What types of instrument are eligible for deposit at the SSS (e.g., debt, equities, warrants, etc.)?*

The JGB Book-entry System handles domestic issues of government securities that are designated by the Minister of Finance to be subject to the provisions of the Transfer of Corporate Debt Securities Law. These securities comprise all interest-bearing government securities, discounted government securities, and financing bills. Inscribed bonds, which are bonds registered under particular names, are not handled by the system.

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<sup>1</sup> As of end-August 2003, 99.6 percent of the outstanding amount of JGBs was held within the JGB Book-entry System, while only 0.3 percent was held within the JGB Registration System. Of JGB transactions settled by the Bank through the two systems, the percentage for the JGB Book-entry System stood at 99.6 percent in volume terms and 99.9 percent in value terms during 2002.

(b) *What types of instrument are eligible for transfer within the SSS?*

Securities mentioned in (a) above.

(c) *Please describe whether eligible securities are dematerialized, immobilized, or transferred physically.*

Eligible securities are dematerialized.

(d) *Does the SSS provide safekeeping for physical certificates?*

No.

2. *Does the SSS provide cash accounts and/or provide funds transfers in conjunction with securities transfers? If so, in what currencies?*

The Bank as central bank provides current accounts and funds transfer services through the accounts, as part of its regular business as prescribed in Article 33 of the Bank of Japan Law. These accounts are also used for funds transfers in conjunction with securities transfers.

These services are provided in yen.

3. *Does the SSS provide a trade matching service? Do others provide such services for securities settled at the SSS?*

No. There is a private institution that provides such services.

4. *Does the SSS provide a trade netting service (as distinct from undertaking the settlement of securities transfers on a net basis)? Do others provide such services for securities settled at the SSS? In either case, what types of netting (bilateral or multilateral), if any, are performed?*

No. Preparation is proceeding among market participants toward the establishment of a clearing institution that will act as a central counterparty and provide a trade netting service for more than three parties with respect to over-the-counter JGB transactions.

5. *Does the SSS offer a securities lending or borrowing programme?*

No.

6. *Does the SSS provide custodial and/or related services such as the collection of interest, dividends, principal, or withholding tax reclamations? Which types of service are provided?*

It provides services for payments of interest and principal.

7. *Does the SSS act as a central counterparty or principal to transactions with its participants?*

It acts as neither central counterparty nor principal to transactions. However, the Bank may act as principal to certain types of transactions such as open market operations involving JGBs.

8. *Other? Please specify.*

The BOJ-NET JGB Services provides services associated with auction and issuance of JGBs.

D. *What type of organization is the SSS?*

The operator is the central bank.

1. *Please indicate whether the SSS is a public-sector or private-sector entity.*

It is a public-sector entity.

2. *Please indicate whether the SSS is organized on a for-profit or a nonprofit basis.*

It is organized on a nonprofit basis.

3. *What is the legal basis for the establishment of the SSS and for securities transfers made through it?*

The legal basis for the operation of the JGB Book-entry System by the Bank is derived from (i) its designation as the book-entry transfer institution by the competent ministers (the Commissioner of the Financial Services Agency [FSA] to whom the Prime Minister delegated authority, the Minister of Justice, and the Minister of Finance) under Article 47 of the Transfer of Corporate Debt Securities Law, and (ii) authorization of this operation by the Commissioner of the FSA (to whom the Prime Minister delegated authority) and the Minister of Finance as an integral part of the Bank's business, contributing to the smooth settlement of funds as prescribed in Article 39 of the Bank of Japan Law.

The legal basis for the operation of the BOJ-NET JGB Services by the Bank is derived from (i) authorization of this operation by the Commissioner of the FSA (to whom the Prime Minister delegated authority) and the Minister of Finance as an integral part of the Bank's business as prescribed in Article 39 of the Bank of Japan Law, and (ii) contracts between users of the BOJ-NET JGB Services and the Bank.

Transfer of JGBs under the JGB Book-entry System is governed by the Transfer of Corporate Debt Securities Law and other relevant laws as well as the rules and procedures established by the Bank pursuant to these laws.

*E. Please describe and provide a diagram outlining the organizational and ownership structure of the SSS.*

The JGB Book-entry System is operated by the Bank as the book-entry transfer institution under the Transfer of Corporate Debt Securities Law. The BOJ-NET JGB Services, which is a computer network system, is owned and operated by the Bank.

*1. Who are the owners of the SSS?*

See E above.

*2. What entity or entities operate the SSS? Which functions of the SSS, if any, are outsourced to third parties?*

It is operated by the Bank. The Bank does not outsource any functions to third parties.

*3. Does the SSS have a Board of Directors?*

There is no Board of Directors specific to the JGB Book-entry System or the BOJ-NET JGB Services. However, the Policy Board, which is the highest policy-making body of the Bank, functions as the policy-making body for the operation of the JGB Book-entry System and the BOJ-NET JGB Services.

*(a) What is its composition?*

The Policy Board comprises the Governor, two Deputy Governors, and six other members.

*(b) What are its responsibilities?*

See 3 above.

*F. Please describe the financial resources of the SSS.*

The Bank covers the costs of developing and maintaining the system infrastructure at its own expense because it operates the JGB Book-entry System and the BOJ-NET JGB Services as businesses contributing to the achievement of its objectives under the Bank of Japan Law. On the other hand, on the principle of “beneficiary pays,” the Bank charges users of the BOJ-NET JGB Services fees for “online instructions” made through the services and recovers the costs of external linkages (such as the costs of the hardware and software necessary for external linkage and the cost of the use of the online circuit).

*1. Amount of paid-in capital and retained earnings?*

Not applicable.

*2. Guarantees, insurance coverage, or other similar arrangements?*

Not applicable.

*3. Credit lines or letters of credit?*

Not applicable.

*4. Powers to assess participants or equity holders?*

Not applicable.

*G. Please describe whether the SSS or its operator is subject to authorization, supervision, or oversight by an external authority.*

The Bank is designated as a book-entry transfer institution by the competent ministers (the Commissioner of the FSA [to whom the Prime Minister delegated authority], the Minister of Justice, and the Minister of Finance) under the Transfer of Corporate Debt Securities Law, and thus is subject to regulation/supervision by these authorities.

However, in contrast to stock corporations designated as book-entry transfer institutions, the Bank is exempted from certain types of regulation/supervision prescribed in the Transfer of Corporate Debt Securities Law, such as prohibition of other business, subjection of executives to dismissal orders or disqualification under certain circumstances, on-site inspections, and reports and orders on assets, income, and expenditure.

In addition, the Bank operates the JGB Book-entry System and provides settlement services through the BOJ-NET JGB Services under authorization pursuant to Article 39 of the Bank of Japan Law, as mentioned in D.3 in this section.

## II. Rules and Procedures of the SSS

- A. *Does the SSS maintain a complete list of the rules and procedures governing the rights and obligations of participants and the duties of the SSS?*

The rights and obligations of participants and the duties of the Bank under the JGB Book-entry System are set forth in the Transfer of Corporate Debt Securities Law and other relevant laws, the Regulations concerning the JGB Book-entry System (hereafter the Regulations), and the Rules concerning the JGB Book-entry System (hereafter the Rules). The latter two were established by the Bank pursuant to the Transfer of Corporate Debt Securities Law.

The rights and obligations of users of the BOJ-NET JGB Services and the duties of the Bank are laid down in individual contracts between the Bank and users, and in user guides specifying the procedures for each of the services provided through the BOJ-NET JGB Services (e.g., book-entry transfers and delivery versus payment [DVP]).

1. *How can participants obtain a copy of the rules and procedures?*

The Rules and Regulations of the JGB Book-entry System are distributed to all participants by the Bank. Further, they are disclosed to the public.

The contracts and user guides of the BOJ-NET JGB Services are distributed to all users by the Bank.

2. *Does other documentation provided to participants (e.g., user guides) have the same status as the rules and procedures?*

User guides and other documentation provided to users of the BOJ-NET JGB Services set out the rules to be observed when using the BOJ-NET JGB Services. However, because they are based on contracts between the Bank and users, their status is different from that of the Rules and Regulations of the JGB Book-entry System.

3. *Describe the process for changing rules and procedures, including any need for regulatory approval.*

As book-entry transfer institution under the Transfer of Corporate Debt Securities Law, the Bank may change the rules and procedures of the JGB Book-entry System whenever it is necessary for smooth operation of the system. Changes to the Regulations must be authorized by the competent ministers (the Commissioner of the FSA [to whom the Prime Minister delegated authority], the Minister of Justice, and the Minister of Finance), while the competent ministers must be notified of changes to the Rules.

In addition, the Bank may make changes to contracts and user guides for the BOJ-NET JGB Services whenever necessary to ensure smooth operation of the services.

- (a) *What authority is required, and how does this differ depending on the type of change involved?*

See 3 above.

- (b) *How are participants notified of changes in rules and procedures?*

The Bank sends a written notice to participants of the JGB Book-entry System and users of the BOJ-NET JGB Services whenever it changes any rule or procedure.

- (c) *Is there a procedure for participants or others to comment on proposed rule changes?*

Such procedures are not specifically stipulated in the rules and procedures of the JGB Book-entry System or the BOJ-NET JGB Services. In practice, however, the Bank may explain the outline of any proposed changes to the rules and procedures and may ask for comments from those participants who will be affected by the changes.

*B. Are the rules and procedures binding on the SSS as well as its participants? Under what conditions and on whose authority can written rules and procedures be waived or suspended by the SSS?*

The rules and procedures of the JGB Book-entry System are binding on the Bank as well as participants in the system. See A above for the procedures following rule changes.

According to the Regulations of the JGB Book-entry System, the Bank can take any measures necessary for smooth operation of the system. The Bank can also take any measures necessary for proper operation of the BOJ-NET JGB Services, in accordance with its contracts with users. In addition, contracts with users clearly state that, should the Bank conclude that the BOJ-NET JGB Services is not able to operate in accordance with its contract provisions due to contingencies such as system disruptions, it may deviate from the procedures laid down in the contract provisions and instruct users to follow different procedures.

### **III. Relationships with Participants**

A. *Please describe the types of membership offered by the SSS.*

The JGB Book-entry System offers the following three types of membership. Access criteria are disclosed to the public in a document entitled Requirements for Establishing Direct Participants' Accounts and Customers' Accounts and Requirements for Admission as Indirect Participants and Foreign Indirect Participants in the JGB Book-entry System (see Appendix 3).

#### Direct Participants

A direct participant is an entity that maintains a direct participant's account with the Bank. To become a direct participant able to establish a customer's account, an applicant needs to be either an entity described in items 1 through 14 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law such as a bank or a securities company, or a book-entry transfer institution as defined in Paragraph 2, Article 2 of the Transfer of Corporate Debt Securities Law (see Appendix 4). Only a direct participant can submit transfer instructions to the Bank through the BOJ-NET JGB Services to effect JGB transfers.

#### Indirect Participants

An indirect participant is an entity that maintains a customer's account with a direct participant, and is approved by the Bank as an entity able to establish a customer's account in Japan. To become an indirect participant, an applicant needs to be either an entity described in items 1 through 14 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law such as a bank or a securities company, or a book-entry transfer institution as defined in Paragraph 2, Article 2 of the Transfer of Corporate Debt Securities Law (see Appendix 4).

### Foreign Indirect Participants

A foreign indirect participant is an entity that maintains a customer's account with a participant, and is approved by the Bank as an entity able to establish a customer's account outside Japan. To become a foreign indirect participant, an applicant needs to be an entity described in Item 15 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law (see Appendix 4).

### (Reference) Number of Participants in the JGB Book-entry System

(As of End-August 2003)

		Number of participants	Users of the BOJ-NET JGB Services
Participants in the JGB Book-entry System	Direct participants	356 <sup>1</sup>	340
	Indirect participants	1,109	--
	Foreign indirect participants	62	--
	Total	1,527	340

Note: 1. Excludes the Bank.

1. *How do the types differ?*

See A above.

2. *Within each membership category, are all participants subject to the same rules and procedures? Please describe important exceptions, including both differences in rules across participants and the rationale for these differences.*

Within the same membership category, all participants are basically subject to the same rules and procedures.

*B. Can participants establish accounts for their customers' assets that are segregated from their own asset accounts at the SSS?*

A participant<sup>2</sup> establishes an account for its customers' assets (direct participant's account [customer ledger], indirect participant's account [customer ledger], or foreign indirect participant's account [customer ledger]) that is segregated from its own asset account (direct participant's account [proprietary ledger], indirect participant's account [proprietary ledger], or foreign indirect participant's account [proprietary ledger]). See Appendix 2.

*1. If so, is this accomplished through a single omnibus customer account or through a multiplicity of accounts and/or sub-accounts?*

These accounts for customers' assets take the shape of a single omnibus account that records the total balances of customers' accounts maintained with the participant.

*2. Is the segregation optional or compulsory?*

Segregation is required by the Transfer of Corporate Debt Securities Law.

*3. Does the fact that a sub-account at the SSS bears the same name of a third party give any rights to that third party as a participant under the rules of the system?*

The third party does not have any rights as a participant.

*C. Please describe participant requirements for each type of membership.*

Requirements for admission as a participant in the JGB Book-entry System are (i) that the applicant meets the requirements of Article 44 of the Transfer of Corporate Debt Securities Law, and (ii) that the participation of the applicant in the JGB Book-entry System does not threaten the credibility of the system nor hinder its

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<sup>2</sup> Excludes a direct participant who cannot establish a customer's account.

smooth operation and orderly administration.

More specifically, an applicant that is not a securities clearing and settlement system shall be deemed to satisfy requirement (ii) above if its financial condition is considered sound and its operational capability is adequate. An applicant that is a securities clearing and settlement system shall be deemed to satisfy requirement (ii) above if, in addition to satisfying the requirements regarding financial condition and operational capability, its clearing and/or settlement business is considered safe in view of its risk management procedures, the arrangements regarding allocation of losses arising from the clearing and/or settlement process, the operational reliability of computer systems provided for its users, and other relevant matters (see Appendix 3).

The requirement for a direct participant to access the BOJ-NET JGB Services is that it has sound operational capability.

*1. Are participants required to be domiciled or resident in a particular jurisdiction?*

An account management institution that holds an account with a book-entry transfer institution (in the case of the JGB Book-entry System, a direct participant able to establish a customer's account) is required to have a branch or an office in Japan for conducting its account management business, in accordance with a ministerial ordinance regarding book-entry transfer institutions for JGBs.

*2. Are participants required to be subject to a supervisory regime? If so, please describe.*

Entities described in items 1 through 14 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law are subject to regulation by the relevant authorities. Entities designated by the competent ministers under Item 15 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law are those that have received license, registration, or some other similar disposition, to manage corporate and other debt securities (or rights similar to these securities) owned by other entities in foreign countries, in accordance with the provisions of the laws and regulations of the said foreign countries.

3. *Are participants required to hold an equity stake in the SSS?*

No.

4. *Are there financial, economic, personal, or other requirements (e.g., minimum capital requirements, “fit and proper” tests)? If so, please describe.*

Only those mentioned in A and C above.

D. *Does the SSS engage in oversight of its participants to ensure that their actions are in accordance with its rules and procedures? If so, please describe.*

As the operator of the JGB Book-entry System, the Bank can require participants to submit reports or provide information about customers’ account balances and other matters relevant to the JGB Book-entry System when necessary. In addition, the Bank can review a participant’s books when it is deemed necessary for smooth operation of the system.

As the operator of the BOJ-NET JGB Services, the Bank can monitor users’ account balances to ensure smooth operation of the services.

E. *Under what conditions can participants terminate their memberships in the SSS? Does this mark the end of all liabilities of the participant? If not, please describe what liabilities could remain.*

A participant in the JGB Book-entry System can terminate its membership on giving one month’s notice. However, the termination of membership does not prevent the Bank from filing a claim for damages.

A user of the BOJ-NET JGB Services can terminate its contract with the Bank regarding the use of the services on giving two months’ notice.

F. *Under what conditions can the SSS terminate a participant's membership in the SSS?*

The Bank can terminate a participant's membership under any of the following circumstances.

- (i) A direct participant able to establish a customer's account or an indirect participant has ceased to be either an entity described in items 1 through 14 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law or a book-entry transfer institution defined in Paragraph 2, Article 2 of the Transfer of Corporate Debt Securities Law; or a foreign indirect participant has ceased to be an entity described in Item 15 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law.
- (ii) The participant has violated laws and regulations, administrative dispositions thereunder, the Rules and Regulations of the JGB Book-entry System, or other matters determined by the Bank to ensure smooth operation of the system.
- (iii) The participant has prejudiced the credibility of the JGB Book-entry System or has hindered its smooth operation and orderly administration, or the Bank has determined that there is a risk of such an eventuality.

The Bank can immediately terminate a contract with a user of the BOJ-NET JGB Services under any of the following circumstances.

- (i) Violation by the user of the terms of its contract.
- (ii) Violation by the user of instructions or guidelines issued by the Bank in connection with the contract.
- (iii) The Bank has determined that the user may become an impediment to the smooth operation of the BOJ-NET JGB Services.

G. *Please describe the scope of the SSS's liability to participants, including the standard of liability (negligence, gross negligence, willful misconduct, strict liability, or other), the force majeure standard, and any limitation to the scope of liability of the SSS (e.g., indirect or consequential damages). Where are these liabilities and their limitations set out (e.g., in statute or contract)?*

The Bank is not liable for any damage caused by any matter that is processed by the Bank with due care and following transfer instructions from direct participants issued in accordance with the Rules and Regulations of the JGB Book-entry System. In addition, the Bank is not liable for any damage that arises from causes not attributable to the Bank. These matters are stipulated in the Regulations of the JGB Book-entry System.

In the BOJ-NET JGB Services, the Bank is responsible for processing electronic cable messages sent in accordance with prearranged procedures only, and does not process messages that do not follow such procedures. The Bank is not liable for any damage caused by forged or counterfeited messages, nor for any damage caused by users' violation of the contracts. These matters are stipulated in the contracts entered into with users.

#### **IV. Relationships with Other SSSs and Commercial Intermediaries**

- A. *Does the SSS maintain linkages (including sub-custodian or cash correspondent relationships) or other relationships with other SSSs?*

The JGB Book-entry System and the BOJ-NET JGB Services maintain no linkages with other SSSs.

1. *Please identify each of the other SSSs used and the type of securities transferred via the linkages.*

Not applicable.

- (a) *What is the name of the other SSS? Where is it located?*

Not applicable.

- (b) *What securities are eligible for transfer via the linkage to the other SSS?*

Not applicable.

- (c) *Are transfers of securities made via the linkage to the other SSS limited to only those that are free of payment or are transfers against payment also made via the linkage to the other SSS? If against payment, please describe the timing of the transfers and the corresponding payments.*

Not applicable.

- (d) *Does the other SSS provide custody services to the SSS and, if so, who bears any credit or custody risks?*

Not applicable.

*B. Does the SSS use securities custodians (other than the other SSSs addressed in the previous question) and/or commercial cash correspondents? Please identify the custodians or cash correspondents used and the duties that each performs.*

No.

*C. Please describe the standards used in approving or reviewing relationships with other SSSs, custodians, or cash correspondents, including any financial or operational requirements or the presence of insurance or public supervision.*

Not applicable.

*D. Does the SSS advance funds or securities to or on behalf of other intermediaries such as issuing or paying agents? If so, please identify the circumstances in which such exposure could arise.*

Not applicable.

*E. Please describe measures in place to protect the SSS and its members against the failure of other SSSs or commercial intermediaries to meet obligations to the SSS, including risk controls, collateral, or alternative sources of funds and securities.*

Not applicable.

## V. Securities Transfers, Funds Transfers, and Linkages between Transfers

- A. *Please discuss whether and how settlement instructions are matched between participants prior to processing by the SSS.*

The BOJ-NET JGB Services and the BOJ-NET Funds Transfer System<sup>3</sup> (hereafter collectively referred to as the BOJ-NET in Section V, unless otherwise specified) do not provide a matching service for settlement instructions. However, the BOJ-NET is structured so as to process DVP settlement only after (i) information about the funds transfer corresponding to the JGB transfer has been transmitted to the paying institution, and (ii) the paying institution has confirmed this information and has subsequently input the funds transfer request. Up until the time that the paying institution inputs the funds transfer request, the receiver of the JGBs can, if necessary, request the deliverer of the JGBs to confirm the content of information received through the BOJ-NET regarding transfers of JGBs and funds.

1. *Is matching required for all transactions without exception?*

Not applicable.

2. *What procedure is used when instructions do not match?*

Not applicable.

3. *Are matched settlement instructions binding on participants?*

(a) *If so, please describe the consequences of failure by participants to meet obligations (e.g., forced settlement, penalties, short positions).*

Not applicable.

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<sup>3</sup> A system that electronically processes transfers of funds between the current accounts held with the Bank.

(b) *Please describe whether this is a feature of the SSS's rules and procedures or of national law or regulations.*

Not applicable.

(c) *Please provide a time line indicating the points at which matched instructions become binding, as well as any pre-matching process that takes place.*

Not applicable.

B. *Are securities transferred within the SSS registered?*

No.

1. *Who is the registrar?*

Not applicable.

2. *Is it normal practice to register the securities in the name of the SSS (or its nominee) or in the name of the beneficial owner? Are there instances in which securities housed within the SSS are registered to neither the SSS (or its nominee) nor the beneficial owner?*

Not applicable.

3. *If the SSS offers custodial services, will it hold securities registered in the name of the beneficial owner?*

Not applicable.

4. *Under what circumstances does the SSS initiate registration of securities in the buyer's name?*

Not applicable.

5. *How long does the registration process typically take? Are participants notified when registration is complete?*

Not applicable.

6. *Can securities be transferred within the SSS before registration in the buyer's name is complete? If so, do the rules and procedures of the SSS provide for an unwind or reversal of such transfers in case of bankruptcy or other events which result in the buyer's name not being entered on the register?*

Not applicable.

- C. *Please describe how securities transfers are processed within the SSS.*

JGB transfers within the JGB Book-entry System are effected by debiting and crediting the appropriate accounts on the books of the Bank and/or participants. Users of the BOJ-NET JGB Services can send transfer instructions to the Bank electronically.

1. *Please indicate whether the transfers are processed as debits and credits to members' accounts or via some other method.*

When a transfer instruction by a direct participant is accepted by the Bank, the deliverer's account is debited and the receiver's account is credited on the books of the Bank.

2. *On a continuous (real-time) basis, or in one or more batches?*

The Bank processes JGB transfers in accordance with transfer instructions from direct participants. Online transfer instructions input via the BOJ-NET JGB Services are processed continuously (on a real-time basis) immediately upon receipt by the Bank, on condition that there are sufficient balances in deliverers' JGB accounts. Written transfer instructions are also processed on a real-time basis.

Note: At the beginning of 2001, the Bank basically abolished the designated-time settlement mode and made real-time gross settlement (RTGS) the sole settlement mode for transfers of funds and JGBs. Although settlement of certain types of JGB transactions<sup>4</sup> did not switch to RTGS at that time, the switch-over to RTGS for settlement of these transactions has been proceeding according to the Schedule for Additional Measures Relating to Real-Time Gross Settlement of Japanese Government Securities Transactions published by the Bank in April 2001.

3. *If continuous, during what hours does the processing occur? If in batches, at what time or times is the processing initiated and completed?*

The input hours for online instructions and the processing hours of the BOJ-NET JGB Services are 09:00–16:30 of the settlement day.

4. *Do securities settlements occur daily? Please identify securities for which settlement occurs only on specific days of the week or month.*

Settlement of JGB transactions occurs daily. Specifically, settlement of outright transactions occurs on a T+3 rolling settlement basis, whereby settlement occurs three business days after the trade date. Settlement of repo transactions mainly

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<sup>4</sup> Specifically (i) transactions involving JGBs kept in custody with the Bank by foreign central banks and international organizations; (ii) JGB issuance for which payments are made online; and (iii) transactions of Japanese government bonds involving the Bank or the government as the buyer or borrower, and outright purchases/sales of treasury bills/financing bills in the Bank's open market operations.

occurs on a T+2 or T+3 rolling settlement basis.

- D. *Please describe whether final funds transfers in conjunction with the SSS are made as debits and credits to balances held at the SSS, at one or more commercial banks, at the central bank, or via some other method.*

In the DVP settlement through the BOJ-NET, final funds transfers are made over the BOJ-NET Funds Transfer System by transferring funds between current accounts that users of the system hold with the Bank. In other cases, final funds transfers may be made using commercial bank deposits in accordance with the terms of the agreement between parties to the transaction, in addition to transfers of funds between current accounts held with the Bank.

1. *Does the SSS maintain cash accounts for its participants? Are these accounts equivalent to deposit accounts at a commercial or central bank or do they serve only as “cash memorandum” accounts?*

See D above.

2. *On what entity (SSS or other) does the participant bear cash deposit risk?*

When a participant holds a current account with the Bank and uses it to make payments for JGB transactions, the participant does not bear any cash deposit risk. When a participant holds a deposit account with a commercial bank and uses it to make payments for JGB transactions, the participant bears cash deposit risk on the commercial bank.

3. *Under what circumstances does the SSS provide credit extensions or advances of funds to its participants and thereby expose itself to credit risk?*

As part of its regular business prescribed in Article 33 of the Bank of Japan Law, the Bank grants intraday overdrafts to its current account holders under certain conditions. If a current account holder is a participant in the JGB Book-entry

System, intraday overdrafts can also be used to make payments for JGB transactions. Almost all credit risk arising from its provision of intraday overdrafts is eliminated, because (i) the Bank's claims for such overdrafts are protected by eligible collateral; and (ii) this collateral is basically limited to securities the Bank considers eligible in terms of credit rating, marketability, and the possible exercise of security or other interests.

4. *How long can such credit extensions last? How long do they typically last?*

Participants must repay intraday overdrafts by the closing time of the BOJ-NET Funds Transfer System (17:00 for all users, 19:00 for users who made an advance application for an extension) on the day of the overdraft.

E. *Is the SSS a DVP system? If so, please describe the DVP model used according to the models outlined in the DVP Report (see the Introduction). Please also provide a diagram indicating the timing of events in the processing of securities and funds transfers in the SSS. Where the SSS provides more than one alternative for settlement processing, please provide a response for each alternative and indicate the relative importance of each alternative.*

The BOJ-NET is a Model I DVP system according to the classification in the DVP Report (i.e., securities transfers and funds transfers are settled on a gross basis). See Appendix 5 for the DVP scheme for JGB transfers.

JGB transfers and funds transfers are processed within the BOJ-NET immediately upon receipt by the Bank of a funds transfer request from a paying institution and confirmation that there are sufficient balances in both the deliverer's JGB account and the paying institution's funds account (funds account balances include intraday overdrafts that can be granted by the Bank). The system controls the timing of both JGB and funds transfers so that neither precedes the other, thereby ensuring simultaneous processing.

Users of the BOJ-NET JGB Services can settle JGB transactions on a DVP basis by using the BOJ-NET Funds Transfer System, following conclusion of necessary contracts with the Bank. This is possible if (i) the user holds a current account with

the Bank and is able to access the BOJ-NET Funds Transfer System, or (ii) the user requests a current account holder with access to the BOJ-NET Funds Transfer System to make payments for JGB transactions on its behalf.

In the case of (i) above, users of the BOJ-NET JGB Services that have access to the Bank's intraday overdrafts facility can use the simultaneous processing of DVP and the collateralization facility (hereafter the SPDC facility).<sup>5</sup> If a receiver of JGBs is a user of the SPDC facility, the receiver can draw intraday overdrafts from the Bank by pledging the Bank the JGBs being received from the deliverer, and make payments for those JGBs with overdrafts. Also, if a deliverer of JGBs is a user of the SPDC facility and has pledged JGBs, the deliverer can withdraw pledged JGBs from the Bank and deliver them to the receiver, and repay intraday overdrafts with payments received for the JGBs delivered.

1. *Are funds transfers and securities transfers processed within the same system or in different systems? If different, how are they linked?*

JGB transfers and funds transfers are processed within the same system (the BOJ-NET).

(a) *Please describe whether each securities transfer is linked to a specific funds transfer on a trade-by-trade basis or on a net basis or via some other method.*

Each JGB transfer is linked to a specific funds transfer on a trade-by-trade basis.

(b) *Does the SSS "split" large transactions into multiple transactions or require participants to do so?*

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<sup>5</sup> Users of the BOJ-NET JGB Services have to conclude contracts regarding intraday overdrafts with the Bank to use the intraday overdrafts facility. In addition, users have to conclude the necessary contracts with the Bank in order to use the SPDC facility.

No. The Bank does not split large transactions into multiple transactions nor does it require participants to do so. To facilitate smooth settlement, however, market participants have agreed on a market practice to limit the maximum size of individual JGB transactions to 5 billion yen. Therefore, any transaction with a face value in excess of 5 billion yen is divided up by participants so that the size of individual transfer does not exceed 5 billion yen. As a result, individual transfer instructions received by the Bank do not usually exceed 5 billion yen.

2. *When do securities transfers and funds transfers become final?*

Transfer of JGBs becomes final when the transferee's account is credited, in accordance with a valid application for transfer. However, there may be cases where certain additional requirements must be satisfied for the transfer to become final. For example, if the person who initiates a securities transfer does not own the rights to the securities concerned, then, in order to duly establish the rights against third parties, the transferee must be acting in good faith and must not be guilty of gross negligence. Transfer of funds becomes final when the current account the receiver of funds holds with the Bank is credited.

(a) *At what time do securities transfers become final? After what event or events?*

See 2 above.

(b) *At what time do funds transfers become final? After what event or events? Does this timing allow for same-day retransfer of funds received in exchange for securities?*

Funds transfers are processed and become final continuously (on a real-time basis). It is possible to retransfer funds received in exchange for securities on the same day.

- (c) *If final delivery of securities precedes the final transfer of funds, can participants dispose freely of such securities prior to funds finality? If so, what actions will be taken if funds are not received?*

Not applicable. In the DVP settlement between direct participants, final delivery of JGBs does not precede the final transfer of funds.

- (d) *If final delivery of funds precedes the final transfer of securities, can participants dispose freely of such funds prior to securities finality? If so, what actions will be taken if securities are not received?*

Not applicable. In the DVP settlement between direct participants, final delivery of funds does not precede the final transfer of JGBs.

- (e) *Does the timing of finality differ depending on the type of security transferred or the currency in which payment is to be made? Please describe.*

Types of securities are limited to JGBs and payments are made only in yen. Thus, the timing of finality does not differ depending on the type of security or currency.

3. *Please discuss whether participants are notified of securities or funds transfers while they are still provisional, only when they are final, or both.*

Direct participants are notified of transfers as soon as processing of transfers of JGBs and funds is completed over the BOJ-NET.

- F. *Does the SSS itself “guarantee” funds or securities transfers?*

No. Funds or securities transfers are effected over the BOJ-NET only when there are sufficient balances in funds or JGB accounts.

1. *Under what circumstances and at what point are transfers guaranteed by the SSS?*

Not applicable.

2. *What actions does the guarantee obligate the SSS to take?*

Not applicable.

3. *Please indicate whether the guarantee is a feature of the SSS's rules and procedures or of national law or regulations.*

Not applicable.

## VI. Default Procedures

- A. *Please discuss the events or circumstances that would constitute default of a participant under the rules and procedures of the SSS or that would lead the SSS to make use of exceptional settlement arrangements or unwind procedures.*

There is no provision that defines “default” of a participant in the rules and procedures of the JGB Book-entry System.

The Regulations stipulate that when transfers of JGBs are prohibited by provisions of laws and regulations (as, for example, in the case when JGBs have been seized), applications for transfers of these JGBs cannot be made.

Contracts between the Bank and users of the BOJ-NET JGB Services state that the Bank can take appropriate measures against users to ensure safe and smooth operation of the services. When a user of the BOJ-NET JGB Services becomes insolvent or is placed under operational restrictions under Japanese law prior to a possible declaration of insolvency, these contracts reserve for the Bank the right to restrict the use of the BOJ-NET JGB Services in connection with that user.

The Bank processes transfers of JGBs and funds on a real-time basis, and does not unwind the transfers once effected.

1. *Failure by a participant to meet a test of its solvency under the applicable laws of its jurisdiction?*

See A above.

2. *Failure to make payments or deliveries of securities within the time specified?*

See A above.

3. *To the extent that the rules and procedures grant discretion in the determination of the use of default or other exceptional procedures, please discuss where the authority to exercise such discretion resides and the circumstances in which this*

*authority would be used.*

See A above.

- B. *What procedures are followed by the SSS once it has determined that a default event has occurred or that exceptional settlement arrangements are to be employed?*

When the Bank has determined that arrangements such as restriction of user's access to the BOJ-NET JGB Services are to be employed, it will promptly take appropriate system-related measures, and notify the relevant users of the BOJ-NET JGB Services and, if necessary, other users of its actions.

For example, when a business suspension order is issued to a user of the BOJ-NET JGB Services under Japanese law (e.g., Article 26 of the Banking Law), and following the acceptance of the user's request for suspension from the BOJ-NET JGB Services, the Bank may suspend any new online settlement instructions relating to transactions involving that user.

1. *How and at what point are participants notified that this has occurred?*

See B above.

2. *Would the SSS be expected to continue to meet all its obligations to participants under these circumstances? Please discuss the resources in place to ensure that this would occur (e.g., collateral, participants' fund, insurance, loss-sharing arrangements, etc.).*

The Bank is not expected to meet such obligations.

3. *Please describe and provide a time line indicating the order in which these resources would be used as well as the timing of participant notifications and important deadlines (e.g., when the SSS's obligations to participants would be met, when participants would need to cover their loss-sharing obligations).*

Not applicable.

4. *Please describe all conditions under which provisional transfers of securities or funds could be unwound by the SSS.*

(a) *How and on what authority would a decision to unwind securities or funds transfers be made by the SSS?*

See A above.

(b) *When and how would participants be notified of a decision to unwind provisional securities or funds transfers?*

See A above.

(c) *How long would participants have to cover any debit positions in their own securities or funds accounts resulting from an unwind?*

See A above.

(d) *In the event of an unwind, would all transfers be unwound or would only a subset of transfers (e.g., only securities purchases or only those of a subset of participants) be unwound?*

See A above.

(e) *If only a subset of transfers, what procedures would be followed to determine which transfers and in what order?*

See A above.

5. *Can bankruptcy or insolvency be declared retrospectively in the SSS's jurisdiction (e.g., under a "zero-hour" rule), and could this cause provisional securities or funds transfers to be unwound?*

No. There is no “zero-hour” rule in Japan.

6. *Please describe any circumstances in which transfers of securities or funds that were defined as final in response to question V.E.2 above would ever be unwound.*

Once transfers of securities and funds become final in such a way as described in V.E.2, they will never be unwound.

- C. *Has a participant in the SSS ever been declared in default or become insolvent?*

Participants in the JGB Book-entry System have been declared in default.

1. *Have loss-sharing procedures been invoked?*

Not applicable. Loss-sharing arrangements do not exist.

2. *Please describe whether any of these defaults or insolvencies resulted in losses for the SSS or its participants and how they were absorbed.*

None of these defaults or insolvencies resulted in losses for the JGB Book-entry System. The Bank is not aware of any entity who has incurred any losses in its capacity as a participant of the JGB Book-entry System, as a result of these defaults or insolvencies.

## **VII. Securities Overdrafts, Securities Lending, and Back-to-Back Transactions**

A. *Is it possible for debit positions (overdrafts) in securities accounts at the SSS to arise?*

No.

1. *Under what conditions could such debit positions occur?*

Not applicable.

(a) *Do these conditions always result in debit positions in securities accounts rather than failed transactions? If not, please explain the basis for differential treatment by the SSS.*

Not applicable.

(b) *Are these situations covered explicitly by the rules and procedures of the SSS?*

Not applicable.

2. *How long can such debit positions last? How long do they typically last?*

Not applicable.

3. *How are debit positions in securities accounts prevented, rectified, or managed?*

Debit positions in securities accounts are prevented under the JGB Book-entry System, because JGB transfers are effected only when there are sufficient balances in deliverers' JGB accounts. The BOJ-NET JGB Services does not accept transfer instructions that would create debit positions in JGB accounts.

4. *What procedures would be followed by the SSS in case the debit cannot be rectified (e.g., failure by a participant with a debit balance in a securities account or unavailability of the securities in the market)?*

Not applicable.

- (a) *Application of loss-sharing provisions allocating the loss to participants?*

Not applicable.

- (b) *Absorption of the loss by the SSS?*

Not applicable.

- (c) *Other? Please specify.*

Not applicable.

- B. *Under what circumstances does the SSS provide for the lending of securities to ensure settlements?*

The JGB Book-entry System and the BOJ-NET JGB Services do not provide securities lending services.

1. *Is the process for lending securities automatic? If not, please describe the procedures used by the SSS to determine whether a securities loan will be made.*

Not applicable.

2. *At what point are participants notified that securities are being lent to them in order to complete their settlements?*

Not applicable.

3. *Which securities on deposit at the SSS are eligible for lending? Do participants have the option to make securities available for lending, or is it mandatory?*

Not applicable.

4. *Are lent securities identified by the SSS with specific participants as lenders or only with a common pool of securities available for lending? Does the participant whose securities are lent become a principal to the transaction?*

Not applicable.

C. *How does the SSS settle back-to-back transactions?*

There is no special procedure for settling back-to-back transactions. In both the JGB Book-entry System and the BOJ-NET JGB Services, back-to-back transactions are processed in the same way as other transactions.

1. *Under what conditions are delivery instructions by participants receiving and redelivering securities on the same day under back-to-back transactions settled for same-day value?*

Not applicable.

- (a) *Only if the participant has securities on deposit with the SSS that have been received pursuant to a final securities transfer?*

Not applicable.

- (b) *If the participant has securities on deposit with the SSS that have been received pursuant to a provisional securities transfer?*

Not applicable.

- (c) *Before securities have been received either provisionally or finally, but when a matched receipt instruction exists for the same or greater value? Is such a practice limited to markets where matching is binding?*

Not applicable.

- (d) *Before securities have been received either provisionally or finally, but when a third party has promised to deliver to the SSS securities of the same or greater value? Must the provider of the guarantee have itself received the securities through a final transfer? Please describe how the SSS evaluates such promises, and whether they are addressed by the written rules and procedures of the SSS.*

Not applicable.

- (e) *Other? Please specify.*

Not applicable.

2. *Please describe limits or controls in place with respect to any of the above arrangements for the settlement of back-to-back transactions, including limits on amounts involved or related to the liquidity of the underlying securities.*

Not applicable.

3. *Under what conditions are payment instructions by participants in the SSS under back-to-back transactions settled for same-day value? Can participants use the proceeds of an on-delivery of securities without the need for an extension of credit?*

Not applicable.

## VIII. Risk Control Measures

- A. *Please describe the roles and responsibilities of those areas of the SSS responsible for risk management and control.*

The Bank operates the JGB Book-entry System and the BOJ-NET JGB Services in accordance with its objective under the Bank of Japan Law to ensure the smooth settlement of funds among financial institutions. The Bank considers that it is responsible for ensuring and enhancing the safety and efficiency of JGB settlement through operation of these systems.

1. *Please describe the process for the internal review of risk management policies and procedures.*

Risk management policies and procedures for every conceivable risk are reviewed by the sections responsible for planning risk management policies as well as by the operations sections of the JGB Book-entry System and the BOJ-NET JGB Services.

2. *Is there a risk management policy that addresses the review and approval of new products and services offered by the SSS? At what level of the organization is risk management approval given for a new product or service?*

When the BOJ-NET JGB Services introduces a new service, the sections responsible for planning risk management policies, through cooperation and discussions with the relevant sections, consider and establish its risk management policies and procedures. A proposal for a risk management policy or procedure must receive approval from the appropriate management body including the Policy Board, where the level of approval depends upon the content of the policy or procedure.

3. *Does the SSS have a risk management function with clear independence from and authority over operational or marketing functions?*

The risk management function of the JGB Book-entry System and the BOJ-NET JGB Services does not have independence from and authority over operational functions. The Bank does not have a marketing function.

4. *Does the Board of Directors review risk management policies and procedures? Does the Board have a risk management or audit committee?*

The Policy Board reviews risk management policies when necessary. However, the Policy Board does not have a risk management or audit committee specifically for the JGB Book-entry System and the BOJ-NET JGB Services.

- B. *Please describe any internal or external audits or supervisory/regulatory examinations that are performed with respect to the SSS. For each such audit or examination, please address the following questions.*

Internal auditors and the examination section of the Bank respectively audit/examine the operation of the JGB Book-entry System and the BOJ-NET JGB Services as part of their audits/examinations of the overall business of the Bank. In addition, the examination section conducts audits of individual systems (system audits) when necessary, and the JGB Book-entry System and the BOJ-NET JGB Services are subject to such system audits.

1. *Who performs the audit or examination?*

See B above.

2. *What is the scope of the audit or examination?*

Internal auditors review the overall business of the operations sections including those responsible for the JGB Book-entry System and the BOJ-NET JGB Services.

The examination section mainly focuses on the following points in its examinations:

- (i) whether the daily operation of the JGB Book-entry System and the BOJ-NET JGB Services (such as maintenance and management of the books) is conducted in accordance with their respective rules;
- (ii) whether appropriate risk management policies have been established and are being duly implemented; and
- (iii) whether appropriate measures are being taken to ensure smooth operation of the JGB Book-entry System and the BOJ-NET JGB Services.

(a) *Please indicate whether and how it addresses the sufficiency of and compliance with internal controls.*

Sufficiency of and compliance with internal controls are addressed as described in 2 above.

(b) *Please indicate whether and how it addresses the SSS's compliance with its own rules and procedures.*

Compliance of the systems with their own rules and procedures is addressed as described in 2 above.

3. *What is the frequency of the audit or examination?*

Audits of the Operations Department, the main operations section, are conducted by internal auditors twice a year. Examinations of the Operations Department and the Information System Services Department by the examination section are conducted once every two to three years.

4. *Are audit or examination reports available for review by participants?*

The Bank decides whether to disclose audit and examination reports to the public based on the Law concerning Access to Information Held by Independent Administrative Corporations.

- C. *Please discuss whether the SSS has the capacity to value (i.e., mark to market) the securities that it holds.*

Neither the JGB Book-entry System nor the BOJ-NET JGB Services (nor the Bank as the operator of these systems) possesses such a capacity. However, the Bank does possess the capacity to value securities pledged by current account holders as collateral for intraday overdrafts.

1. *Please describe how these valuations are used by risk control systems at the SSS.*

The Bank carries out a weekly revaluation, based on market prices, of JGBs and other securities pledged as collateral for intraday overdrafts granted to current account holders.

2. *How frequently are securities revalued?*

As in 1 above, the Bank carries out a weekly revaluation, based on market prices, of JGBs and other securities pledged as collateral. The Bank reserves the rights to change collateral value when necessary, as for example following a rapid and significant change in market prices.

3. *What are the sources for security valuations?*

- (a) *What outside price or data sources are used?*

The Bank uses reliable price or data sources to obtain market prices.

- (b) *If pricing models are used, please describe how the models are chosen and how the model inputs are obtained.*

When market prices for collateral securities are not available, the Bank conducts valuations based on methods it considers reasonable.

*D. Please discuss whether the SSS has a lien on the securities held in or transferred through it.*

Neither the JGB Book-entry System nor the BOJ-NET JGB Services (nor the Bank as the operator of these systems) obtains a lien on the securities held in or transferred through these systems. However, the Bank obtains a pledge on the JGBs submitted as collateral for intraday overdrafts.

*1. Does the lien apply only to the securities owned by the participants themselves or does it extend to the securities beneficially owned by customers of participants?*

The Bank obtains a pledge only on the JGBs owned by the direct participants themselves.

*2. Under what circumstances and in what manner would such a lien allow the SSS to use the securities?*

The Bank uses these JGBs when a direct participant fails to fulfill its obligations under its overdraft agreement.

*E. Please discuss the circumstances in which the SSS requires collateral to limit or mitigate risks.*

Neither the JGB Book-entry System nor the BOJ-NET JGB Services (nor the Bank as the operator of these systems) requires collateral. See D above.

*1. Does the SSS manage its own collateral system?*

See E above. However, the Bank manages its own collateral system. The operations of the collateral system, such as the posting and returning of collateral, are electronically processed in most cases over the BOJ-NET Credit-Collateral Management System.

2. *Does the SSS share a collateral system with another SSS or payment system?*

It is the Bank's own system.

3. *Can collateral at the SSS be posted and returned on the same day?*

Yes. JGBs can be posted and returned anytime between 9:00 and 16:30, i.e., during the operating hours of the BOJ-NET JGB Services.

4. *What types of transaction at the SSS involve the use of collateral?*

JGB transactions for which payments are made using intraday overdrafts.

5. *What are the policies with regard to the type of collateral used or haircuts required?*

The type of collateral used and haircuts required are defined in Guidelines on Eligible Collateral. These guidelines were decided at the Monetary Policy Meeting and are revised by the Policy Board when necessary.

6. *How are collateral valuation methodologies developed and reviewed?*

The Bank has developed collateral valuation methodologies that take account of the creditworthiness, liquidity risk, and market risk of collateral assets.

7. *To what extent are collateral policies described in the written rules and procedures of the SSS?*

Collateral policies are described in Guidelines on Eligible Collateral which are set out and made public by the Bank.

- F. *Please describe the SSS's use of limits on exposures to monitor or control risks.*

The BOJ-NET JGB Services does not use limits on exposures.

1. *Please explain the types of limit used and the exposures to which they apply.*

Not applicable.

2. *Do the limits apply to all participants and/or to other SSSs with which the SSS is linked?*

Not applicable.

3. *Do limits apply to participants individually or in the aggregate, or both?*

Not applicable.

4. *Do limits apply to implicit as well as explicit extensions of credit or securities (e.g., when on-deliveries of securities are permitted pursuant to provisional but not final delivery of securities)?*

Not applicable.

5. *Does the SSS automatically reject transactions that exceed limits or is compliance determined ex post?*

Not applicable.

6. *How are limit policies developed and reviewed?*

Not applicable.

7. *To what extent are limit policies described in the written rules and procedures of the SSS? Where does additional authority to set or amend limit policies reside?*

Not applicable.

G. *Please describe other controls to mitigate or reduce risks at the SSS.*

1. *Does the SSS or its participants have the capacity to monitor participants' accounts continuously during processing?*

Yes.

2. *Is there a special risk control regime that the SSS would apply to a participant known to be experiencing financial difficulties?*

Such a regime does not exist. However, if a user of the BOJ-NET JGB Services becomes insolvent or is ordered to suspend business prior to a possible declaration of insolvency, the Bank can take appropriate measures, such as restricting the use of the BOJ-NET JGB Services.

3. *Does the SSS maintain or administer loss-sharing arrangements other than those applicable to events of default and addressed in Section VI above? Are these loss-sharing pools pre-funded by participants?*

No.

Under the Transfer of Corporate Debt Securities Law, an investor protection trust scheme was introduced to compensate for losses incurred by “retail investors” (investors other than institutional investors, the government, regional public bodies, and the like) in book-entry securities transfer systems. All book-entry transfer institutions, as grantors, are required under the provisions of the Transfer of Corporate Debt Securities Law to conclude the same trust contract with the trustee of the investor protection trust. Under this scheme, if customers incur losses because a book-entry transfer institution or an account management institution (excluding a foreign indirect participant) makes incorrect entries in its books and then becomes insolvent before it fulfills its obligation to resolve the incorrect balances, the trust fund will compensate losses to customers who are “retail investors” (and only to such customers) up to a ceiling of 10 million yen per customer/investor. Book-entry transfer institutions and account management

institutions (excluding foreign indirect participants) are required by the Transfer of Corporate Debt Securities Law to make contributions to the investor protection trust. The amounts of these contributions are determined by the formula set forth in the “business regulations” of book-entry transfer institutions<sup>6</sup> in accordance with the standards prescribed in ministerial ordinances. The investor protection trust was established in January 2003.

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<sup>6</sup> Book-entry transfer institutions are required by the Transfer of Corporate Debt Securities Law to establish “business regulations” regarding the execution of book-entry transfer business. The Regulations of the JGB Book-entry System constitute the “business regulations” for the JGB Book-entry System.

## **IX. Operational Risks**

- A. *Please provide assessments of the operational reliability of the computer and other systems used by the SSS, including any criteria that the SSS uses internally for this purpose.*

Major system equipment and circuits of the BOJ-NET JGB Services are duplicated and application programs are put into operation only after careful testing. Since the start of the BOJ-NET JGB Services, although there have been a few cases where the system became partially unavailable, there has never been a case where the overall system failed to operate properly.

1. *What is the percentage uptime of the systems used by the SSS?*

- (a) *Whole system overall?*

The overall system has never failed to operate properly (see A above).

- (b) *Broken down by major components (e.g., communications network, central processing facility)?*

Major equipment at the computer center (such as the central processing unit [CPU]) is duplicated. In addition, the computer network system of the BOJ-NET JGB Services utilizes (i) two different telephone exchanges on the center side and a fault-tolerant digital data exchange (DDX) packet network for connection through BOJ-NET terminals, and (ii) a duplicated proprietary network for computer-to-computer connection. These measures have ensured proper operation of major components.

However, BOJ-NET terminals or computer systems at users' premises have occasionally become unusable as a result of power disruption experienced by users as well as natural disasters such as earthquakes.

(c) *During critical processing periods?*

The overall system has never experienced system breakdown, either during critical processing periods or at any other time.

2. *Has the SSS experienced major operational problems during the past two years?*

An operational problem at the Bank's computer center partially prevented smooth transmission of electronic cable messages between the Bank and the users who access the BOJ-NET JGB Services through computer-to-computer connection.

(a) *Have settlements been delayed, been disrupted or otherwise failed because of operational problems during this period?*

There was a case where settlements had been delayed for a part of transactions that were being settled over the BOJ-NET JGB Services. (In this case, however, all settlements were completed by the end of the day.)

(b) *Please describe the nature of any such problems.*

See 2 above.

B. *Please describe contingency or disaster recovery planning at the SSS.*

The Bank endeavors to establish and enhance the business continuity management to ensure smooth settlement of funds and the stability of the financial markets.

With respect to the BOJ-NET JGB Services, the BOJ-NET Funds Transfer System, and the BOJ-NET Credit-Collateral Management System (hereafter collectively referred to as the BOJ-NET), the sections responsible for planning risk management policies and the operations sections of the BOJ-NET cooperate to identify what risks exist and to develop a business continuity plan for any disruption that may arise should such risks materialize. Testing is also conducted to ensure the effectiveness of the plan.

If disruption occurs at the BOJ-NET,<sup>7</sup> the Bank takes appropriate countermeasures, including a possible switching-over to a backup center in Osaka (hereafter the Osaka Backup Center) should this be necessary. The appropriate countermeasure depends on the source of the disruption, which may be (i) disruption at BOJ-NET terminals or computer systems in users' premises; (ii) circuit disruption; or (iii) host computer disruption.

1. *Does the SSS have a formal plan for business continuity in place?*

Yes. See B above.

2. *Is this plan available for review by participants?*

Yes.

3. *How often is this plan tested? Does this involve participants in the SSS?*

Currently, large-scale testing takes place at least once a year. BOJ-NET users volunteer to take part in this test. Other tests/simulations are planned and carried out on the initiative of each operations section.

4. *What are the major elements of the business continuity plan?*

The Bank takes all possible measures to ensure business continuity at the main computer center in Tokyo, including duplicating main equipment (e.g., the CPU) and securing emergency staff. In addition, it has set up the Osaka Backup Center, and secures sufficient staff to ensure a smooth switch-over to the Osaka Backup Center whenever necessary.

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<sup>7</sup> A situation where transmission of information between BOJ-NET terminals/computer systems at users' premises and the host computer at the Bank's computer center is partly or completely interrupted and smooth operation of the BOJ-NET is impeded.

5. *How long would it take the SSS to resume operations if primary systems become unusable?*

Even if both main and backup facilities in Tokyo become unusable, it is possible to resume operation at the Osaka Backup Center within around two hours. This is because all data are mirrored from the main computer center in almost real time.

- C. *What are the key features of the internal controls covering operations and security at the SSS (e.g., change controls or those covering remote access)?*

The Bank ensures a sufficient level of security controls to maintain stable operation of the BOJ-NET. For example, the Bank employs encryption methods for electronic cable messages transmitted via communications networks. It has also set up, within its system department, a section that specializes in security issues, in order to study/analyze the latest security technology as well as to ensure a sufficient level of security controls. In the event of a security violation, a security administrator checks the details of the violation and the likely scope of impact, and takes appropriate measures in accordance with the preset contingency plans. In addition, the Bank has set out a security policy for its computer systems and operates its systems in accordance with this policy.

1. *Please describe controls or security procedures in place to ensure that the SSS acts only on authentic settlement instructions from valid participants.*

There are two steps for sending online instructions to the BOJ-NET through terminal connections. A user first inputs a settlement instruction using a BOJ-NET terminal. The user then validates the content of the settlement instruction and transmits it to the host computer at the Bank's computer center.

The first step can be carried out only by a person who has been registered as an "operator" and who has, accordingly, been issued with a password. The registration of such an "operator" may only be carried out by an "authorized transmitter," who will in turn have been registered by the Bank upon the user's request. The second step can be carried out only by the "authorized transmitter"

and requires the use of an appropriate IC card.

In the case of computer-to-computer connection, a settlement instruction is encrypted and transmitted via a proprietary network, and the Bank verifies its authenticity by a password.

The Bank has set out rules for the management of IC cards and passwords. For example, if an IC card is lost or stolen, the user must report this to the Bank immediately and the Bank will, if the user so requests, take measures to suspend the card.

2. *Are internal operational and security controls included in the internal and/or external audits of the SSS?*

Yes.

3. *Are internal operational and security controls covered by regulatory requirements applicable to the SSS?*

No.

- D. *Does the SSS impose minimum operational or performance standards on third parties (e.g., communications providers)?*

The Bank imposes operational and performance standards on third parties based on the standard agreement.

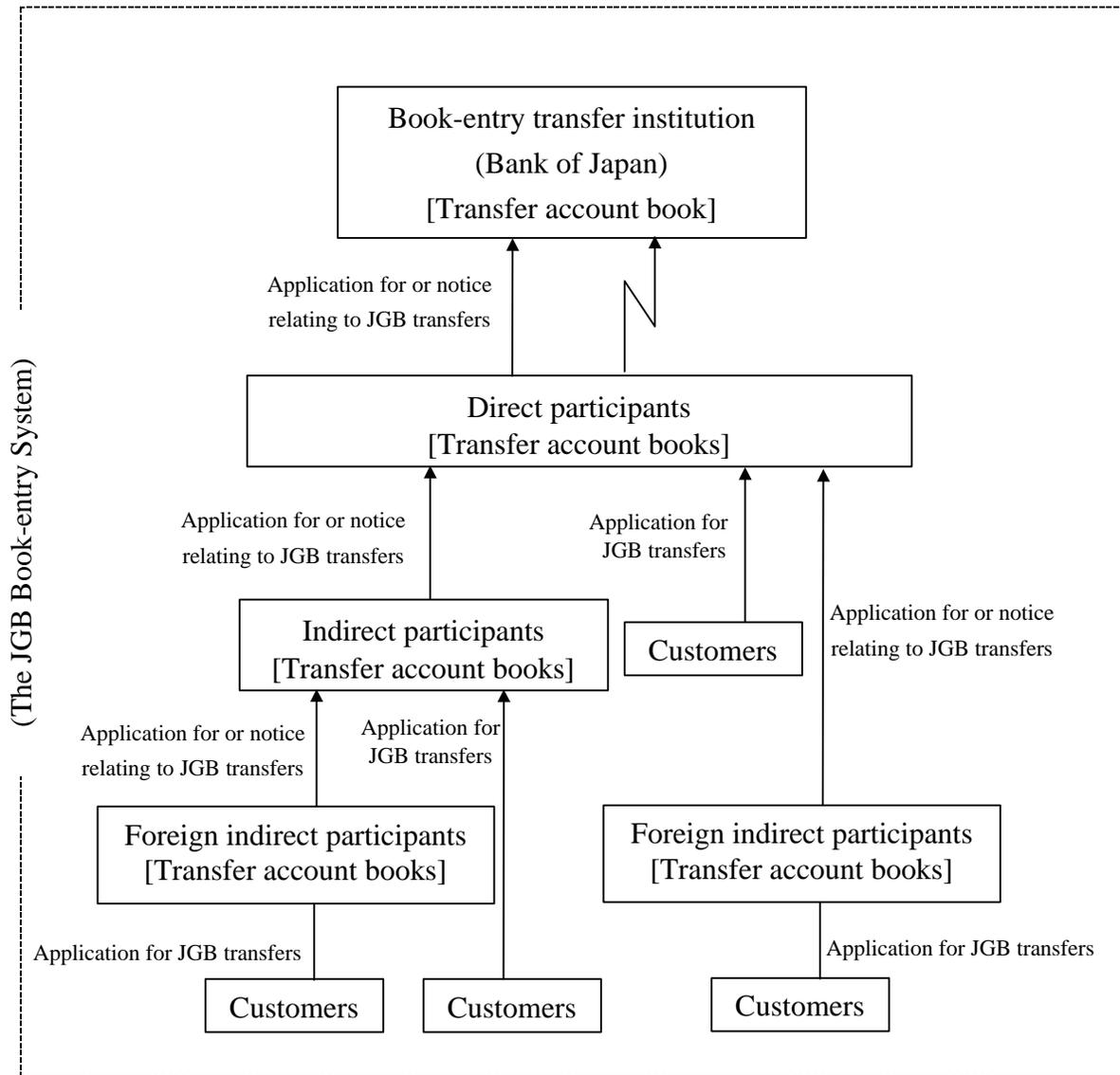
1. *How does the SSS ensure that such standards are met on a continuing basis, and what sanctions are available to the SSS if they are not?*

Standards for communications companies (i.e., communications circuit providers) are set out in the standard agreement. More specifically, communications companies must repay charges for the period during which their services have been unavailable, up to the sum of the fixed charge and communications charges.

2. *How would the SSS allocate losses incurred due to operational problems caused by third parties?*

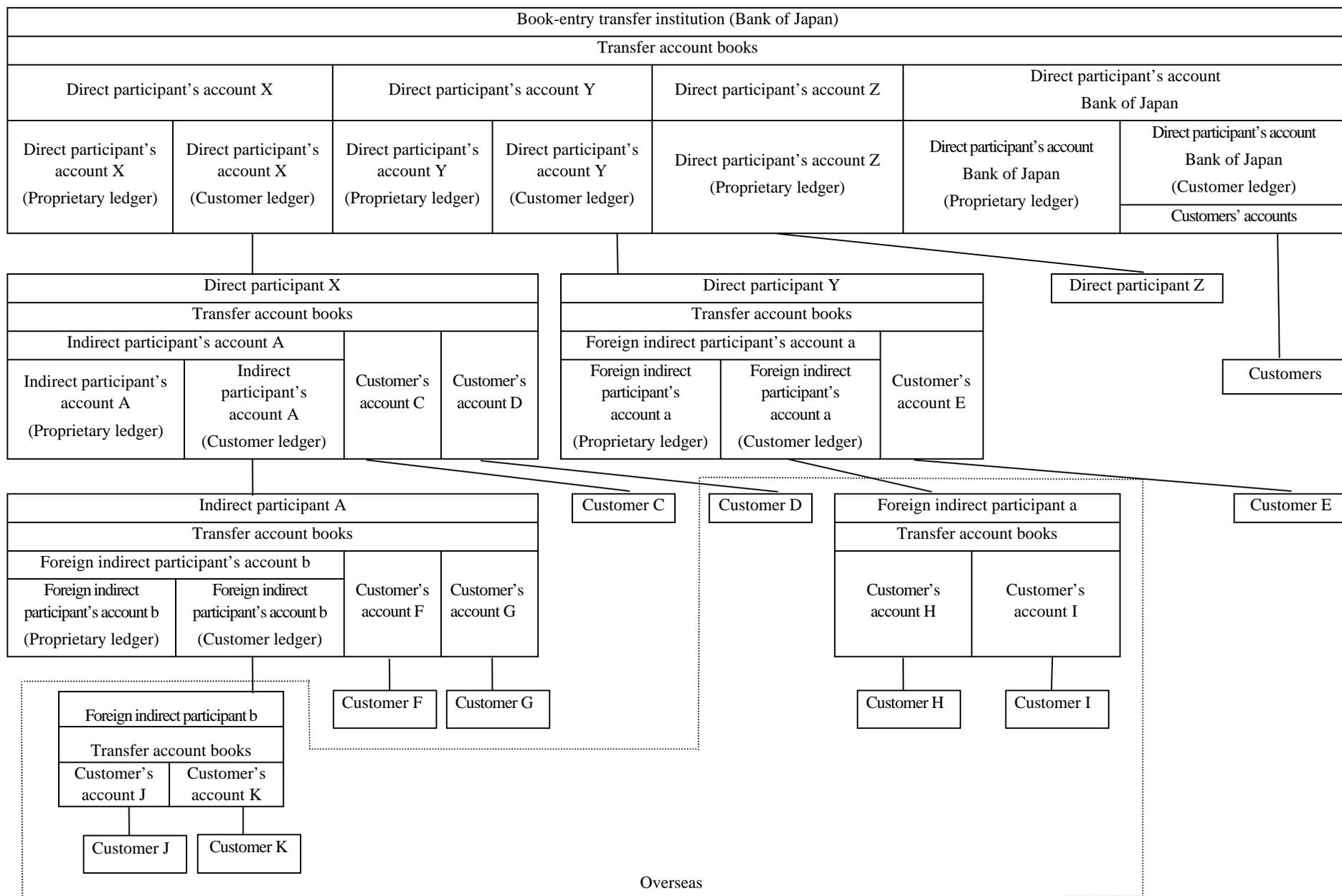
There is no specific loss-sharing rule.

Overview of the JGB Book-entry System



→ in the chart above indicates application for or notice relating to JGB transfers sent online via the BOJ-NET JGB Services.

Tiered Structure of the JGB Book-entry System



**Requirements for Establishing Direct Participants' Accounts and Customers'  
Accounts and Requirements for Admission as Indirect Participants and Foreign  
Indirect Participants in the JGB Book-entry System**

1. An entity applying to the Bank of Japan (hereafter the Bank) to become a Direct Participant that can establish a Customer's Account or an Indirect Participant<sup>1</sup> shall satisfy the following two requirements to be approved as a Direct Participant that can establish a Customer's Account or an Indirect Participant.
  - (a) That the applicant is either an entity described in items 1 through 14 of Paragraph 1, Article 44 of the Law concerning Book-Entry Transfer of Corporate and Other Debt Securities (Law No. 75 of 2001, hereafter the Transfer of Corporate Debt Securities Law) or a Book-entry Transfer Institution (*furikae kikan*; other than the Bank) as defined in Paragraph 2, Article 2 of the Transfer of Corporate Debt Securities Law.
  - (b) That participation of the applicant in the JGB Book-entry System does not threaten the credibility of the system or hinder its smooth operation and orderly administration.
  
2. An entity applying to the Bank to become a Direct Participant that cannot establish a Customer's Account shall satisfy the following two requirements to be approved as a Direct Participant that cannot establish a Customer's Account.
  - (a) That establishment of a Direct Participant's Account for the applicant by the Bank contributes to the achievement of the objective stipulated in Article 1 of the Transfer of Corporate Debt Securities Law and the Bank's objectives stipulated in Article 1 of the Bank of Japan Law.
  - (b) That participation of the applicant in the JGB Book-entry System does not threaten the credibility of the system or hinder its smooth operation and orderly administration.  
Specifically, based on (a) above, Direct Participants that cannot establish a Customer's

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<sup>1</sup> An Indirect Participant is an entity which maintains a Customer's Account with a Direct Participant that can establish a Customer's Account and which can itself establish a Customer's Account in Japan.

Account shall be selected from securities clearing and settlement systems as defined in Section 7 and bankers' associations (operators of payments clearing systems<sup>2</sup> that have legal person status).

3. An entity applying to the Bank to become a Foreign Indirect Participant<sup>3</sup> shall satisfy the following two requirements to be approved as a Foreign Indirect Participant.
  - (a) That the applicant is an entity described in Item 15 of Paragraph 1, Article 44 of the Transfer of Corporate Debt Securities Law.
  - (b) That participation of the applicant in the JGB Book-entry System does not threaten the credibility of the system or hinder its smooth operation and orderly administration.
  
4. An entity applying to the Bank to become a Customer<sup>4</sup> of the Bank that falls into either of the following two categories shall be approved as a Customer of the Bank.
  - (a) An entity that needs to maintain a Customer's Account with the Bank under the laws and regulations of Japan.
  - (b) An entity that satisfies both of the following requirements.
    - (i) That establishment of a Customer's Account for the applicant by the Bank contributes to the achievement of the objective stipulated in Article 1 of the Transfer of Corporate Debt Securities Law and the Bank's objectives stipulated in Article 1 of the Bank of Japan Law.
    - (ii) That participation of the applicant in the JGB Book-entry System does not threaten the credibility of the system or hinder its smooth operation and orderly administration.

Specifically, based on (i) above, Customers of the Bank shall be selected from entities which are counterparties of the Bank in its business under Article 41 of the Bank of Japan Law.

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<sup>2</sup> A payments clearing system is an arrangement that calculates and settles each participant's net settlement position on a multilateral basis.

<sup>3</sup> A Foreign Indirect Participant is an entity which maintains a Customer's Account with a Direct Participant that can establish a Customer's Account, with an Indirect Participant, or with a Foreign Indirect Participant, and which can itself establish a Customer's Account outside Japan.

<sup>4</sup> A Customer of the Bank is an entity which maintains an account with the Bank for the transfer of book-entry Japanese government securities but which is not a Direct Participant.

5. Regarding the requirements in sections 1.(b) and 3.(b), the following two different criteria apply depending on whether the applicant is a securities clearing and settlement system as defined in Section 7. Even if the applicant meets the following criteria, participation in the JGB Book-entry System may not be approved in cases where the Bank considers that the applicant cannot comply with the Transfer of Corporate Debt Securities Law and the rules and procedures of the system.
- (a) An applicant that is a securities clearing and settlement system shall be deemed to satisfy the requirements in sections 1.(b) and 3.(b) if (i) its clearing and/or settlement business is considered safe in view of its risk management procedures, the arrangements regarding allocation of losses arising from the clearing and/or settlement process, the operational reliability of computer systems provided for its users, and other relevant matters, and (ii) its financial condition is considered sound and its operational capability is adequate.
  - (b) An applicant that is not a securities clearing and settlement system shall be deemed to satisfy the requirements in sections 1.(b) and 3.(b) if its financial condition is considered sound and its operational capability is considered adequate.
6. Regarding the requirements in Section 2.(b), where an applicant is a securities clearing and settlement system as defined in Section 7, the criteria in Section 5.(a) shall apply *mutatis mutandis*. Even if the applicant meets the criteria in Section 5.(a), participation in the JGB Book-entry System may not be approved in cases where the Bank considers that the applicant cannot comply with the Transfer of Corporate Debt Securities Law and the rules and procedures of the system.
7. A “securities clearing and settlement system” is defined as follows:
- (a) An entity that engages in clearing of securities transactions for parties including three or more financial institutions based on common rules and procedures, for example, a central counterparty which interposes itself between the members in a system and acts as the exclusive counterparty to these members with regard to their securities transactions; or

- (b) an entity that executes securities transfer instructions for its members including three or more financial institutions by means of book entries based on common rules and procedures.

In addition to the above, the Bank takes the following into account in deciding whether an entity is a securities clearing and settlement system:

- (i) the procedures for clearing and/or settlement of securities transactions and corresponding funds transfers; and
  - (ii) the existence and nature of arrangements regarding allocation of losses arising from the clearing and/or settlement process.
8. Detailed criteria with regard to requirements concerning an applicant's financial condition in sections 5.(a) and 5.(b) are set out in the Attachment.

**Detailed Criteria with regard to the Financial Condition of an Applicant**

1. The financial condition of an applicant shall be deemed sound if it satisfies the requirements in the table. Even in cases where an applicant satisfies these requirements, the applicant's financial condition shall not be deemed sound if the Bank considers that, based on the applicant's situation at the time of application,<sup>5</sup> the applicant would not be capable of fulfilling the requirements after joining the system.
  
2. In the case of an applicant described below, if the Bank considers that the admission of the applicant as a Direct Participant that can establish a Customer's Account, an Indirect Participant, or a Foreign Indirect Participant is equivalent to succession to the position of the current Direct Participant, Indirect Participant, or Foreign Indirect Participant, the financial condition of the applicant shall be deemed sound and the requirements in the table shall not apply.
  - a. Where an applicant undergoes a merger with an entity which is currently a Direct Participant, an Indirect Participant, or a Foreign Indirect Participant;
  - b. Where an applicant is an entity created by a corporate separation of an entity which is currently a Direct Participant, an Indirect Participant, or a Foreign Indirect Participant;
  - c. Where an applicant acquires the whole business of an entity which is currently a Direct Participant, an Indirect Participant, or a Foreign Indirect Participant; or
  - d. Where an applicant is a Direct Participant applying to become an Indirect Participant, or vice versa.
  
3. Financial requirements for applicants that do not fall into any of the categories in the table will be decided individually upon request.

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<sup>5</sup> Including changes in the applicant's situation after the end of the most recent accounting period.

Type of applicant		Criteria	
		Applicants that have already closed their books at the end of the first accounting period after the start of business	Applicants that have not yet closed their books at the end of the first accounting period after the start of business (including entities planning to start business)
Entities subject to home-country regulations laid down in line with “International Convergence of Capital Measurement and Capital Standards” published by the Basel Committee on Banking Supervision in July 1988	Entities operating in and outside their home country	The capital adequacy ratio <sup>6</sup> at the end of the most recent accounting period on a consolidated and a non-consolidated basis must be 8 percent or more.	Applicants’ capital adequacy ratio <sup>6</sup> at the end of each accounting period on a consolidated and a non-consolidated basis for the first three years after the start of business is expected to be 8 percent or more.
	Entities operating only in their home country	The capital adequacy ratio <sup>6</sup> at the end of the most recent accounting period on a consolidated and a non-consolidated basis must meet the standard required by home-country regulations.	Applicants’ capital adequacy ratio <sup>6</sup> at the end of each accounting period on a consolidated and a non-consolidated basis for the first three years after the start of business is expected to meet the standard required by home-country regulations.
Securities companies as defined in Paragraph 9, Article 2 of Japan’s Securities Exchange Law (Law No. 25, 1948), or foreign securities companies as defined in Item 2, Article 2 of Japan’s Law concerning Foreign Securities Dealers (Law No. 5, 1971)		The Japanese capital requirement ratio <sup>7</sup> at the end of the most recent accounting period must be over 140 percent.	Applicants’ Japanese capital requirement ratio <sup>7</sup> at the end of each accounting period for the first three years after the start of business is expected to be over 140 percent.

<sup>6</sup> Calculated based on the method laid down in the home-country regulations to which the applicant is subject.

<sup>7</sup> The ratio stipulated in Paragraph 1, Article 52 of Japan’s Securities and Exchange Law.

**Criteria with regard to the Financial Condition of  
an Applicant Seeking Admission  
as a Foreign Indirect Participant in the JGB Book-entry System**

The financial condition of an applicant seeking admission as a foreign indirect participant in the JGB Book-entry System that does not fall into any of the categories prescribed in the table of the Detailed Criteria with regard to the Financial Condition of an Applicant in the Requirements for Establishing Direct Participants' Accounts and Customers' Accounts and Requirements for Admission as Indirect Participants and Foreign Indirect Participants in the JGB Book-entry System shall be deemed sound if it satisfies the criteria in the table below.

However, even in cases where an applicant satisfies the criteria, the applicant's financial condition shall not be deemed sound if the Bank considers that, based on the applicant's situation at the time of application,<sup>8</sup> the applicant would not be capable of maintaining the financial condition that would satisfy the criteria, or the applicant would be unfit as a foreign indirect participant due to other special circumstances.

Criteria	
Applicants that have already closed their books at the end of the first accounting period after the start of business	Applicants that have not yet closed their books at the end of the first accounting period after the start of business (including entities planning to start business)
The financial condition at the end of the most recent accounting period must satisfy the criteria for financial soundness as applied to an entity who has received license or registration or other disposition similar to these as prescribed in Item 15 of Paragraph 1, Article 44 of the Law concerning Book-Entry Transfer of Corporate and Other Debt Securities (Law No. 75 of 2001).	The financial condition at the end of each accounting period for the first three years after the start of business is expected to satisfy the criteria for financial soundness as applied to an entity who has received license or registration or other disposition similar to these as prescribed in Item 15 of Paragraph 1, Article 44 of the Law concerning Book-Entry Transfer of Corporate and Other Debt Securities (Law No. 75 of 2001).

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<sup>8</sup> Includes changes in the applicant's situation after the end of the most recent accounting period.

**Law concerning Book-Entry Transfer of Corporate and Other Debt Securities  
(Law No. 75 of 2001)**

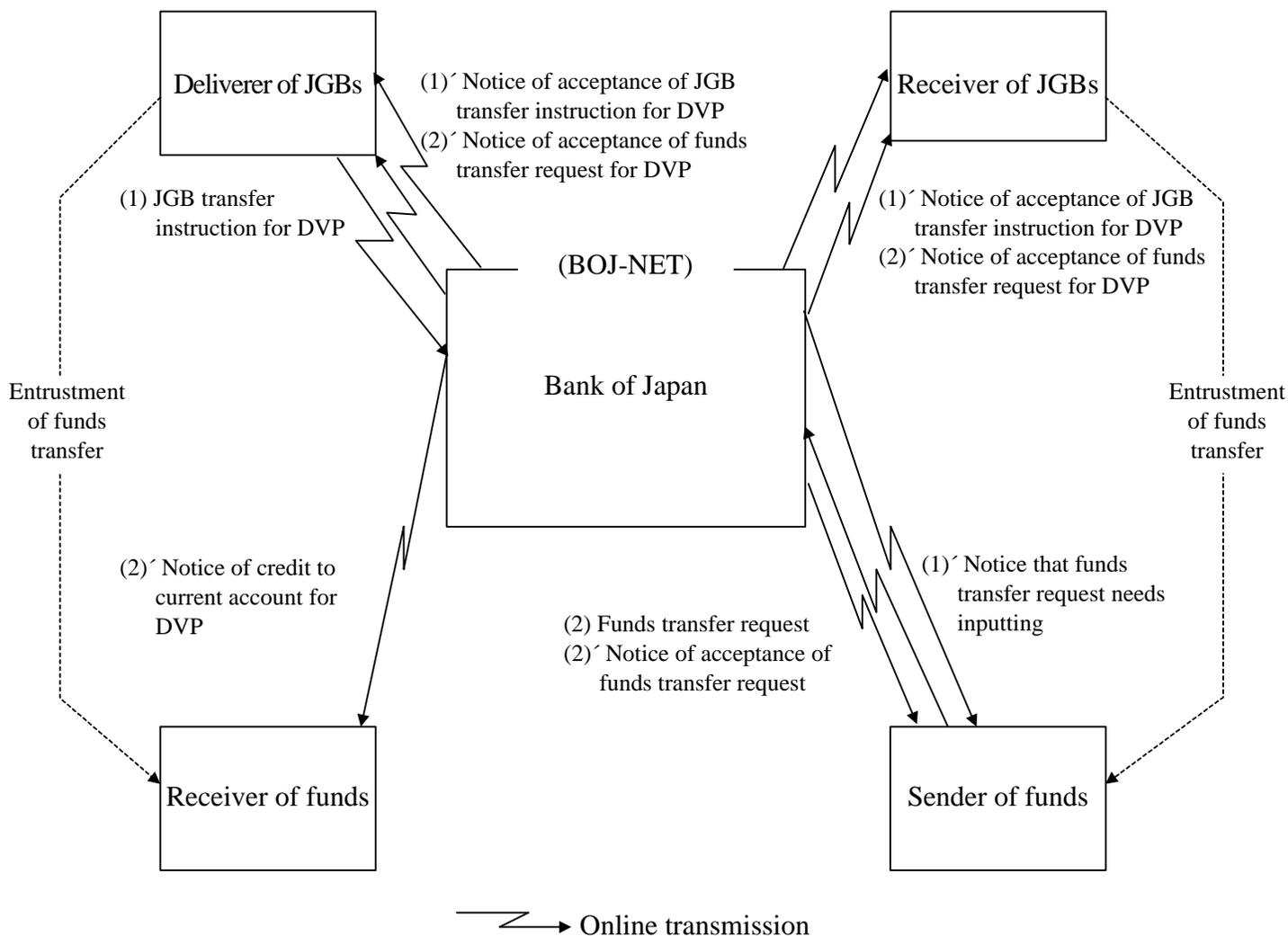
Article 44 Establishment of Account by Account Management Institution

1. The persons mentioned in each of the Items below may establish an account for providing book-entry transfer of corporate bonds, etc., for others upon their proposal pursuant to the provisions of this Law and the Business Regulations of book-entry transfer institution. In this case, they shall beforehand have the account for providing the book-entry transfer established by the book-entry transfer institution or other account management institution pertinent to the book-entry transfer institution (excluding the persons prescribed in the ordinances of competent ministries):

- (1) Securities companies prescribed in Article 2, Paragraph 9 of the Securities and Exchange Law;
- (2) Foreign securities companies prescribed in Article 2, Item 2 of the Law concerning Foreign Securities Companies (Law No. 5 of 1971);
- (3) Banks prescribed in Article 2, Paragraph 1 of the Bank Act (Law No. 59 of 1981) (including branches and agents with license given by the Prime Minister prescribed in Article 4, Paragraph 1 of the same Act pursuant to the provisions of Article 47, Paragraph 1 of the same Act);
- (4) Long-term credit banks prescribed in Article 2 of the Long-Term Credit Bank Act (Law No. 187 of 1952);
- (5) Trust companies;
- (6) Norinchukin Bank;
- (7) Central Cooperative Bank for Commerce and Industry;
- (8) Agricultural cooperatives and the Japan Federation of Agricultural Cooperatives to execute businesses prescribed in Article 10, Paragraph 1, Item 3 of the Japan Agricultural Cooperatives Law (Law No. 132 of 1947);

- (9) Fishery cooperatives to execute businesses prescribed in Article 11, Paragraph 1, Item 4 of the Japan Fishery Cooperatives Law (Law No. 242 of 1948), the Japan Federation of Fishery Cooperatives to execute the businesses prescribed in Article 87, Paragraph 1, Item 4 of the same Law, fishery processing cooperatives to execute the businesses prescribed in Article 93, Paragraph 1, Item 2 of the same Law, and the Japan Federation of Fishery Processing Cooperatives to execute the businesses prescribed in Article 97, Paragraph 1, Item 2 of the same Law;
  - (10) The Shinkumi Federation Bank to execute the businesses prescribed in Article 9-9, Paragraph 1, Item 1 of the Law concerning Credit Union and Credit Union for Small- and Medium-Sized Enterprises (Law No. 181 of 1949);
  - (11) *Shinkin* banks and the Japan Federation of Shinkin Banks;
  - (12) *Rokin* banks and the Japan Federation of Rokin Banks;
  - (13) Japan Post;
  - (14) A person prescribed in the ordinances of the competent ministries, from among those other than the persons mentioned in each Item above who are authorized to manage corporate bonds, etc., of others as business in accordance with the laws and ordinances in Japan;
  - (15) The person designated by the competent ministers who has received license or registration or other disposition similar to these for managing corporate bonds, etc., or rights similar to corporate bonds, etc., of others in foreign countries pursuant to the provisions of laws and ordinances in the foreign countries.
2. When any book-entry transfer institution establishes an account for carrying out the book-entry transfer of corporate bonds, etc., for others upon the proposal therefrom in accordance with the provisions of the Business Regulations of the other book-entry transfer institutions, the book-entry transfer institution shall beforehand have the account for carrying out the book-entry transfer of corporate bonds, etc., established by the other book-entry transfer institutions or account management institutions pertinent to such other book-entry transfer institutions (excluding the persons prescribed in the ordinances of the competent ministries).

DVP Scheme for JGB Transfers



Note: 1. This diagram briefly describes the procedures for DVP settlement of a JGB transaction, in which a direct participant in the JGB Book-entry System with access to the BOJ-NET requests a current account holder at the Bank who also has access to the BOJ-NET to make payments for the JGB transaction on its behalf. The BOJ-NET, upon receiving messages (1) and (2), transmits them to the appropriate BOJ-NET users.