

**Assessment of the Settlement System for
Japanese Government Securities against
the CPSS/IOSCO Recommendations for
Securities Settlement Systems**

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Bank of Japan

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Acronyms List

BIS	Bank for International Settlements
BOJ-NET	Bank of Japan Financial Network System
CCP	Central counterparty
CPSS	Committee on Payment and Settlement Systems
CSD	Central securities depository
CPSIPS	Core Principles for Systemically Important Payment Systems
DVP	Delivery versus payment
FIP	Foreign Indirect Participant
FOP	Free of payment
FSA	Financial Services Agency
IOSCO	International Organization of Securities Commissions
JASDEC	Japan Securities Depository Center
JDCC	JASDEC DVP Clearing Corporation
JGB	Japanese government bond
JGBCC	Japan Government Bond Clearing Corporation
JGSs	Japanese government securities, which cover Japanese government bonds (JGBs), treasury bills (TBs), and financing bills (FBs).
JSCC	Japan Securities Clearing Corporation
JSDA	Japan Securities Dealers Associations
OTC	Over the counter
PSMS	Pre-Settlement Matching System
RTGS	Real-time gross settlement
SPDC	Simultaneous processing of DVP and collateralization
SSS	Securities settlement system

Introduction

- In 2001, the Committee on Payment and Settlement Systems (CPSS)¹ of the Bank for International Settlements (BIS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO)² jointly prepared and released a report, the *Recommendations for Securities Settlement Systems*, in consultation with market participants. The report set out 19 recommendations on the legal framework for securities settlement systems (SSSs), risk management, access, governance, efficiency, transparency, and regulation and oversight that are accepted as international standards for the design, operations, and oversight of SSSs. The recommendations are designed to cover SSSs for all types of securities, for securities issued in industrialized and developing countries and traded among domestic and cross-border counterparties. SSSs are broadly defined to include the full set of institutional arrangements for confirmation, clearance, and settlement of securities trades, and safekeeping of securities, and therefore the recommendations are applied broadly to various institutions, from central securities depositories (CSDs), operators of trade confirmation systems, central counterparties (CCPs), cash settlement agents, custodian banks, to other relevant parties.
- This paper provides the assessment of the compliance of the settlement system for Japanese government securities (JGSs) (institutional arrangements for confirmation, clearing, and settlement of book-entry JGSs traded in over-the-counter [OTC] market) with the *Recommendations for Securities Settlement Systems*.

Scope of the Assessment

1. Securities

- There are three types of marketable government securities issued in Japan; book-entry JGSs handled by the Japanese government bond (JGB) Book-Entry System, paper-based JGSs (JGS certificates), and registered JGSs handled by the JGB Registration System. As the trading of paper-based and registered JGSs is almost negligible, this assessment focuses on book-entry JGSs (i.e., JGSs handled by the JGB

¹ The CPSS serves as a forum for the central banks of the Group of 10 (G-10) countries to monitor and analyze developments in payment and settlement arrangements and to consider related policy issues. The CPSS Secretariat is hosted by the BIS.

² IOSCO currently comprises securities regulators from more than 100 jurisdictions that have resolved to cooperate to promote high standards of regulation in order to maintain efficient and sound domestic and international securities markets.

Book-Entry System operated by the Bank of Japan).³ Although some book-entry JGSs are listed on financial instruments exchanges (securities exchanges), this assessment focuses on the trading of JGSs in the OTC market, as the size of JGS trading on exchanges is almost negligible.

2. Market Infrastructures

- Various institutions provide market infrastructures for confirmation, clearing, and settlement of book-entry JGS transactions in the OTC market. These institutions include (i) the Bank, which operates the JGB Book-Entry System and the Bank of Japan Financial Network System (BOJ-NET) JGB Services, (ii) the Japan Government Bond Clearing Corporation (JGBCC), and (iii) the Japan Securities Depository Center (JASDEC), which operates the Pre-Settlement Matching System (PSMS).

(i) Bank of Japan

The Bank operates the JGB Book-Entry System, which is an arrangement for processing transfers of JGSs associated with JGS transactions by crediting and debiting the accounts on the books of participating institutions. In the JGB Book-Entry System, the participating banks and securities companies open accounts for their customers and manage JGSs owned by their customers, and the Bank opens accounts for the participating banks and securities companies and manages JGSs owned or managed by those participants.

The JGB Book-Entry System was originally established by the Bank in 1980 in response to the surge in volume of JGS trading, and aimed at reducing processing cost of banks and securities companies associated with JGS trading. The legal framework of the system was renewed in January 2003, in response to the implementation of the Law Concerning Book-Entry Transfer of Corporate and Other Debt Securities (Law No. 75 of 2001; hereinafter referred to as the Book-Entry Transfer Law), which provides for the full dematerialization of paper-based JGSs. The system is now operated under the Book-Entry Transfer Law. The Bank is designated, pursuant to Article 47 of the Book-Entry Transfer Law, by competent ministers (the Prime Minister [delegating authority to the Commissioner of the Financial Services Agency {FSA}], the Minister of Justice, and the Minister of Finance) as a book-entry transfer institution. The Bank is

³ Book-entry JGSs handled by the JGB Book-Entry System account for more than 99.95% of the total outstanding of JGSs in a bearer form, i.e., general bonds and fiscal loan bonds, amounting to JPY 672.6 trillion at the end of 2006. Registered JGSs handled by the JGB Registration System and paper-based JGSs, i.e., JGS certificates, account for approximately 0.03% and 0.01%, respectively.

also authorized, in accordance with Article 39 of the Bank of Japan Law, by competent ministers (the Prime Minister [delegating authority to the Commissioner of the FSA] and the Minister of Finance) to operate the JGB Book-Entry System in its role as a book-entry transfer institution.

The Bank also operates the BOJ-NET, an online network system linking the Bank and other financial institutions. The BOJ-NET is used for funds transfer services as well as JGS-related services (i.e., settlement and other services, namely auction and initial payments for the issuance of JGSs and processing of monetary policy operations). Infrastructure for the BOJ-NET that is used for JGS-related services is called BOJ-NET JGB Services. BOJ-NET JGB Services started operations in 1990 to enable online processing of JGS-related services under the JGB Book-Entry System and JGB Registration System. In 1994, the BOJ-NET started delivery-versus-payment (DVP) services by linking the BOJ-NET Funds Transfer System and BOJ-NET JGB Services. Since 2001, the BOJ-NET has shifted to a full real-time gross settlement (RTGS) mode, and introduced a liquidity-saving facility for DVP settlement (i.e., simultaneous processing of DVP and collateralization [SPDC]). By using this facility, a financial institution buying JGSs can post to the Bank the JGSs it receives from the seller as collateral for an intraday overdraft, and use the funds drawn from the Bank to pay for the JGSs it purchases at the same time.

Please see the Bank's web site (<http://www.boj.or.jp>) for more information on the JGB Book-Entry System and BOJ-NET JGB Services.

(ii) Japan Government Bond Clearing Corporation (JGBCC)

The JGBCC was established by major market participants (mostly securities companies and banks) as a "securities transactions clearing institution" (or a current "financial instruments clearing institution") as defined by the Securities and Exchange Law (or the current Financial Instruments and Exchange Law). Since the start of operations in May 2005, the JGBCC has been providing clearing services to various types of JGS transactions in the OTC market (i.e., outright purchases/sales, *gensaki* transactions, and cash-collateralized securities lending transactions). The JGBCC accepts transactions of JGSs executed in the OTC market between the participating securities companies and banks, assumes the seller's obligation to every buyer and the buyer's obligation to every seller, and provides guarantee for settlement of those obligations. The JGBCC carries out netting of the transactions it accepts from the participants for each type of securities and for each settlement date. The resulting net positions are settled on a DVP basis

through BOJ-NET JGB Services by using SPDC.

The JGBCC has received authorization from the competent minister (the Prime Minister) in accordance with the Securities and Exchange Law (the current Financial Instruments and Exchange Law) and provides securities clearing services (current financial instruments clearing services) pursuant to Article 156, Paragraph 2 of the Financial Instruments and Exchange Law.

Please see the JGBCC's web site <http://www.jgbcc.com> for more information on the JGBCC.

(iii) Japan Securities Depository Center (JASDEC)

JASDEC operates the PSMS, which provides trade confirmation and settlement matching services for transactions executed between institutional investors/trust banks and securities companies and those between securities companies. It started operations of the PSMS in September 2001, and since then, the scope of PMSM services has been expanded. The services provided for JGSs now cover outright purchases/sales, cash-collateralized securities lending transactions, and *gensaki* transactions. With the start of the JGBCC's operations in May 2005, it set up a system linkage with the JGBCC to provide matching services for clearance of JGS transactions in the OTC market.

In accordance with Article 4, Paragraph 2 of the Law Concerning Central Securities Depository and Book-Entry Transfer, JASDEC is authorized by the competent ministers (the Prime Minister [delegating authority to the Commissioner of the FSA] and the Minister of Justice) to operate the PSMS in addition to its book-entry transfer business.

Please see JASDEC's web site (<http://www.jasdec.com>) for more information on the PSMS.

Answers to the Key Questions for Recommendations for Securities Settlement Systems

Responding institution:

The Bank of Japan.

Scope of the Assessment:

Japan's institutional arrangements for settlement of book-entry JGSs, i.e., JGSs handled by the JGB Book-Entry System operated by the Bank and traded in the OTC market, because the trading of other types of JGSs, namely paper-based and registered JGSs as well as JGSs listed on exchanges, are almost negligible.

The information provided in the answers is accurate as of October 1, 2007, based on statistical data as of the end of December 2006, unless otherwise indicated.

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I. Summary of the Assessment of Observance

- The Bank concluded that the settlement system for JGSs observed 17 out of the 19 recommendations, namely, Recommendations 1 and 3 through 18, and broadly observed Recommendation 2 (see the table below). Recommendation 19 (Risks in Cross-Border Links) was not applicable.

Collation of Assessment Results by Assessment Category

Assessment category	Recommendation(s)
Observed	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
Broadly observed	2
Partly observed	None
Non-observed	None
Not applicable	19

II. Recommendation by Recommendation Assessment of Observance

Recommendation 1: Legal Framework

Securities settlement systems should have a well founded, clear, and transparent legal basis in the relevant jurisdictions.

Assessment

The recommendation is observed.

Answers to the key questions

1 Are the laws, regulations, rules and procedures, and contractual provisions governing securities settlement arrangements public and readily accessible to system participants?

- All legislation governing JGS settlement (i.e., the Civil Code, the Commercial Code, the Book-Entry Transfer Law, and other relevant legislation) is public. The Bank makes public (i) the Bank of Japan Regulations Concerning the JGB Book-Entry System (Regulations), which is set out by the Bank acting as a book-entry transfer institution for book-entry JGSs pursuant to the Book-Entry Transfer Law, (ii) the Rules Concerning the JGB Book-Entry System (Rules), which stipulate detailed provisions of the Regulations, and (iii) the Bank's access criteria for the JGB Book-Entry System.
- The terms and conditions for the use of BOJ-NET JGB Services, which processes

transfer of JGSs under the JGB Book-Entry System, are defined by contracts between the Bank and the users of BOJ-NET JGB Services. Operation manuals for the BOJ-NET, which set out operational procedures and rules for each type of BOJ-NET services, are available at the Bank's web site (in Japanese only), and easily accessible to BOJ-NET users.

2(i) Does the legal framework demonstrate a high degree of legal assurance that:

(a) transactions are enforceable?

- Contracts for JGS transactions (e.g., contracts of purchase/sale, lending, and pledging) are legally enforceable under the Civil Code, the Commercial Code, and other relevant legislation.
- In the JGB Book-Entry System, settlement of JGS trades (e.g., transfer of JGSs) is executed by entries to the accounts on the transfer account books of participating institutions. Legal enforceability of JGS settlement is assured by relevant legislation (i.e., the Book-Entry Transfer Law and relevant Cabinet orders and ministry ordinances).

(b) customers' assets are adequately protected (particularly against the insolvency of custodians and intermediaries)?

- The JGS holdings of an account management institution (i.e., the participant who maintains Customers' Accounts) and those of its customers are separately recorded on the transfer account books of upper-tier account management institutions (Article 91 of the Book-Entry Transfer Law). This ensures that customers' assets are adequately protected under the Civil Execution Law and insolvency laws against the attachment order to or insolvency of account management institutions.
- When an account management institution records amounts larger than correct amounts of JGSs on its transfer account books ("overbooking") due to such actions as incorrect entries, the account management institution responsible for overbooking ("responsible institution") is required to resolve the overbooking to protect its customers from losses (Article 104 and other articles of the Book-Entry Transfer Law). Each account management institution in the tiers below the responsible institution is jointly and severally liable for its customers to resolve overbooking of the upper-tier institution (Article 11, Paragraph 2 of the above law).
- The investor protection trust was set up to cover the loss incurred by retail investors (i.e., investors other than institutional investors and the government and regional public

organizations) in case the book-entry transfer institutions or account management institutions (other than Foreign Indirect Participants [FIPs]) become insolvent before resolving overbooking. The investor protection trust will compensate the loss incurred by retail investors up to JPY 10 million per investor (Article 60 of the Book-Entry Transfer Law and Article 6 of the ordinance implementing the law).

(ii) Does the legal framework demonstrate a high degree of assurance that there is a clear and effective legal basis for:

(a) arrangements for the immobilization or dematerialization of securities and the transfer of securities by book entry?

- JGSs handed by the JGB Book-Entry System ("book-entry JGSs") are fully dematerialized, and it is not allowed to issue certificates for book-entry JGSs (Article 89, Paragraph 1 of the Book-Entry Transfer Law). Rights and obligations concerning book-entry JGSs (e.g., transfer of the title of JGSs by book entries) are governed by the Book-Entry Transfer Law and relevant Cabinet orders and ministry ordinances as well as rules and regulations of the JGB Book-Entry System set out by the Bank pursuant to the law.

(b) netting arrangements?

- Under the Civil Code and the Commercial Code, payment netting is considered to be a legally enforceable agreement for the performance of obligations.
- Obligation netting (by novation) is considered to be a legally enforceable agreement under the Civil Code and the Commercial Code. It is also enforceable under insolvency proceedings (e.g., Article 67 of the Bankruptcy Law).
- Close-out netting is considered to be a legally enforceable agreement under the Civil Code and the Commercial Code. It is also enforceable under insolvency proceedings (e.g., Law Concerning Close-Out Netting of Specified Financial Transactions Entered by Financial Institutions [Close-Out Netting Law] and Article 58, Paragraph 5 of the Bankruptcy Law).
- Please see answers to Question 2 of Recommendation 4 for the netting by financial instruments clearing institution as defined by the Financial Instruments and Exchange Law.

(c) securities lending arrangements (particularly the ability to obtain a security interest in assets)?

- There are two types of JGS lending transactions; securities lending transactions with cash collateral ("cash-collateralized securities lending transactions") and security repurchase agreements ("*gensaki* transactions"), which are economically equivalent to cash-collateralized securities lending transactions.
- Cash-collateralized securities lending transactions are construed as a contract of loan for consumption generally with cash collateral. *Gensaki* transactions are construed as a contract of sale with repurchase agreements. Both types of transactions are considered to be legally enforceable agreements under the Civil Code and the Commercial Code. Collateral clauses are considered to be legally enforceable under the Civil Code and the Commercial Code. Close-out netting clauses are considered to be legally enforceable under the insolvency proceedings pursuant to the Close-Out Netting Law.
- Basic arrangements for cash-collateralized securities lending and *gensaki* transactions are set by the rules of the Japan Securities Dealers Associations (JSDA, a self-regulatory industry organization authorized under the Financial Instruments and Exchange Law). The JSDA's model master agreements for each type of transaction set out risk management procedures (e.g., default and close-out netting procedures) for both types of JGS lending transactions.

(d) finality of settlement?

- Transfer and pledging of book-entry JGSs become legally effective and can be set up against a third party by entries to accounts on the books of participating institutions (Articles 98 and 99 of the Book-Entry Transfer Law). In case a deliverer of JGSs who does not have legal title to JGSs delivers JGSs to a receiver, the receiver will acquire legal title to JGSs, provided that the receiver acts in good faith and not in gross negligence (Article 102 of the above law).
- The so-called "zero-hour rule" does not exist in Japanese insolvency laws, so transactions effected before the default will not be voided under the insolvency proceedings.
- Under the insolvency proceedings of a participant of the JGB Book-Entry System, the trustee of the insolvent participant may exercise the right of avoidance against the settlement of JGSs (e.g., transfer of JGSs) processed before the commencement of insolvency proceedings (e.g., Article 167, Paragraph 1 of the Bankruptcy Law). But it

does not have the effect of canceling or voiding the settlement of JGSs itself.

(e) arrangements for achieving delivery versus payment?

- The participants of the JGB Book-Entry System are able to settle JGS transactions on a DVP basis by using the BOJ-NET. Specific arrangements of DVP are defined by the rules and regulations of the Bank and contracts between the Bank and BOJ-NET users. Those rules, regulations, and contracts are legally enforceable.

(iii) Has a court in the jurisdiction ever failed to uphold the legal basis of these activities/arrangements? And if so, for what reasons?

- The enforceability of legal arrangements of the JGB Book-Entry System has never been tested in the court.

3 Are the rules of the system and contracts between system participants enforceable notwithstanding the insolvency of a participant?

- The Rules and Regulations of the JGB Book-Entry System and contracts between the Bank and BOJ-NET users concerning BOJ-NET JGB Services are considered to be legally enforceable notwithstanding the insolvency of a participant of the JGB Book-Entry System or a BOJ-NET user.
- Please refer to answers to Question 2(ii) (d) above for the finality of settlement in cases where the trustee of the insolvent participant exercises its right of avoidance under the insolvency proceedings.

4(i) Is there a significant level of cross-border participation in the SSS? If so, please describe and answer Question 4(ii).

- The total number of participants of the JGB Book-Entry System is 1,512 (excluding the Bank) at the end of 2006. Of which, 122 are cross-border participants based abroad (FIPs).

(ii) Are other jurisdictions relevant for determining the adequacy of the legal framework? How has this been determined? Has the legal framework been evaluated for the other relevant jurisdictions? Are there conflict of laws issues and, if so, have they been addressed?

- In the JGB Book-Entry System, FIPs (e.g., nonresident financial institutions) are allowed to manage their securities accounts through the branches or offices located

outside Japan. In such cases, under rules on conflict of laws, foreign laws including the law of jurisdiction where an FIP is based may affect the legal framework of the JGB Book-Entry System. Japanese laws are selected, by mutual agreement, as the governing laws of rights and obligations between the Bank and FIPs defined by the Rules and Regulations. The Bank confirms that the agreement concerning governing laws is legally enforceable under the law of jurisdiction in which the FIP is based, by requiring the submission of a Legal Opinion from the local lawyer who is an expert of the local jurisdiction.

Recommendation 2: Trade Confirmation

Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.

Assessment

The recommendation is broadly observed.

Answers to the key questions

- 1 What percentage of trades between direct market participants is submitted to a trade confirmation system on the trade date (T+0)? How soon after submission are problems communicated to the appropriate parties?**
 - Most trades between direct market participants are confirmed by the PSMS operated by JASDEC, fax, or other means, on the trade date (T+0). Trades between major market participants are, in many cases, confirmed by the PSMS.
 - The PSMS started to provide trade matching services to outright purchases/sales of JGSs in May 2003, and expanded to cover cash-collateralized securities lending and *gensaki* transactions in February 2005. If a problem occurs during trade confirmation process of the PSMS, the incident is communicated to the buyer and seller of JGSs on a real-time basis.
 - From May 2005, it became possible to submit transaction data confirmed by the PSMS automatically to the JGBCC.

2 Does the CSD require settlement instructions to be matched prior to settlement?

- BOJ-NET JGB Services does not require settlement instructions to be matched prior to settlement.
- In DVP settlement, transfers of JGSs and cash are executed provided that (i) payment information associated with transfer of JGSs is notified to the payer (i.e., the receiver of JGSs or its cash settlement agent), (ii) the payer checks the payment information, and (iii) the payer inputs payment instruction. In this process, the buyer and seller of JGSs have a chance to check settlement instructions.

3 Are there trade confirmation procedures that are capable of comparing trade information between direct and indirect market participants by T+1? Is use of the system mandatory? For what types of indirect market participants? Of those trades involving indirect market participants for which confirmation is required, what percentage is confirmed by T+0, by T+1, by the contractual settlement date?

- The PSMS operated by JASDEC provides trade confirmation and settlement matching services for transactions executed between institutional investors/trust banks and securities companies and those between securities companies. It also provides trade confirmation services to JGS transactions (outright purchases/sales, cash-collateralized securities lending transactions, and *gensaki* transactions).
- The use of the PSMS is not mandatory for JGS settlement via BOJ-NET JGB Services. For acceptance of settlement obligations and netting by the JGBCC, however, the use of the PSMS is mandatory (i.e., DVP settlement of JGS transactions with the JGBCC).
- Most trades are confirmed by the PSMS, fax, or other means on the trade date (T+0). Major market participants, in many cases, use the PSMS to confirm terms of their trades and to submit confirmations of individual trade for cash-collateralized securities lending and *gensaki* transactions electronically.

Recommendation 3: Settlement Cycles

Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated.

Assessment

The recommendation is observed.

Answers to the key questions

1 Are trades settled on a rolling basis of T+3 or shorter?

- Outright purchases/sales are settled on a rolling basis of T+3. Cash-collateralized securities lending and *gensaki* transactions are settled on a rolling basis of mainly T+2 or T+3.

2 What percentage of trades (by number and value) fails to settle on the contractual date? What is the average duration of fails (by number and value)?

- During 2006, 0.088% of trades by number (2,254 cases) or 0.064% of trades by value (JPY 6.7 trillion) failed to settle on the contractual date. The average duration of fails was 1.34 business days per fail.⁴

3 Do market practices, regulations, or SSS rules provide incentives for counterparties to settle their obligations on the contractual date? What forms do these incentives take, for example are penalties assessed for failing to settle? What steps, if any, are taken to mitigate the risks of fails? Are fails required to be marked to market? Are open positions required to be closed out at market prices if the duration of the fail exceeds a specified number of business days? What entity or entities establish, monitor, and enforce these requirements?

- The JSDA's guideline concerning fails⁵ imposes obligations on counterparties to prevent fails and to solve fails as soon as possible.
- The guideline applies no direct penalties for failing to settle. For example, it does not set special penal provisions, nor require payments of default interest. This is because a party suffering a fail will be able to receive interest accrued from the scheduled settlement date to the date of actual receipt of JGSs and will also be able to earn gains by investing funds retained in hand due to the uncompleted settlement, while a party causing a fail will have to incur additional funding costs for holding the JGSs and will not be entitled to receive accrued interest on JGSs. Given the current low interest rate environment, it is agreed for the time being that the party receiving JGSs, when suffering from fails, is entitled to make claim against the delivering party for costs that are incurred for obtaining failed JGSs in securities lending transactions. It is considered that this provisional treatment gives incentives for the party delivering JGSs

⁴ See the "Figures on Settlement of Japanese Government Bonds" released by the Bank.

⁵ A part of the JSDA's "Japanese Government Securities Guidelines for Real Time Gross Settlement."

to settle its trades on the contracted settlement date.

- The JSDA's rule requires the parties involved in a failed transaction to make diligent efforts to resolve the situation of a fail as soon as possible. It allows the use of buy-in procedures (i.e., buying the same or equivalent types of securities from the market) as one of the methods for resolving long-lasting fails. The detailed procedures for buy-in are set out in the JSDA's rule. This rule is made public (in Japanese only).
- A fail to settle cash-collateralized securities lending transactions is marked to the market in accordance with model master agreements set by the JSDA. A fail to settle *gensaki* transactions is also marked to the market in accordance with a guideline set by the Study Group on Bond Repo Transactions (the JSDA acts as the Secretariat).

4 If settlement is on an account period basis or on a rolling basis at T+3 or longer, have the benefits and costs of a rolling cycle or a shorter settlement cycle been evaluated? If so, by whom? Has the evaluation been documented? What was the conclusion? Did the conclusion differ depending on the type of security?

- The Committee for Reform of Securities Clearing and Settlement System hosted by the JSDA⁶ and the Financial System Council of the FSA⁷ discussed the reform of SSSs during 1999-2000.⁸ As a part of discussions, the issue of shortening of settlement cycle was addressed, and specific issues such as the review of current operational flows, specific system necessary for the implementation, and functional requirements were discussed. Based on these discussions, the Committee released the report in November 2002.⁹ The report lists the shortening of settlement cycle as one of the goals of the reform of SSSs, and identifies major issues and implementation schedule for each type of securities (JGSs, CP, stocks, and corporate and other bonds). The goal for JGSs is to develop infrastructures and settlement practices for early realization of T+1 settlement for outright transactions and T+0 settlement for money market transactions including cash-collateralized securities lending transactions.

⁶ The committee members include market participants, CSDs, CCPs, securities exchanges, and the Bank of Japan. Relevant authorities participate in the committee as observers.

⁷ Advisory committee to the Prime Minister, the Commissioner of the FSA, and the Minister of Finance.

⁸ In the *Interim Report of the Committee for Reform of the Securities Clearing and Settlement System* (March 2000) drafted by the Committee for Reform of Securities Clearing and Settlement System, major issues for the achievement of T+1 settlement cycle were identified for transactions of stocks, corporate and other bonds, and JGSs.

⁹ See *Towards Japan Securities Settlement Systems and Infrastructure Reform*.

Recommendation 4: Central Counterparties (CCPs)

The benefits and costs of a CCP should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

Assessment

The recommendation is observed.

Answers to the key questions

1 Has a CCP mechanism (or an indemnification arrangement) been introduced?

If so, what types of securities and market participants are covered? If no such mechanism has been introduced, have the benefits and costs of such a mechanism been evaluated? If so, by whom? Has the assessment been documented? What was the conclusion?

- The revised Securities and Exchange Law enforced in 2003 introduced securities transactions clearing institutions (or financial instruments clearing institutions under the current Financial Instruments and Exchange Law) that act as the CCP for securities transactions and provide securities clearing services (or financial instruments clearing services under the new law mentioned above). As securities transactions clearing institutions (or financial instruments clearing institutions), the Japan Securities Clearing Corporation (JSCC), the JASDEC DVP Clearing Corporation (JDCC), and the JGBCC were set up. The JGBCC, the JSCC, and the JDCC provide clearing services for JGS transactions in the OTC market, stock transactions on exchanges, and off-exchange stock transactions, respectively.
- The JSCC provides clearing services for JGSs traded on exchanges, but the volume of exchange-trading of JGSs is very limited. Thus, the following sections only refer to the JGBCC's clearing services provided for JGS transactions in the OTC market.

2 What are the netting arrangements for a CCP (by novation or otherwise)? Do the netting arrangements have a sound and transparent legal basis? Is netting enforceable against the participants in insolvency?

- The JGBCC uses novation netting arrangements under normal circumstances and close-out netting arrangements at the time of default.
- The netting arrangements of the JGBCC are provided by its business rules authorized by the competent regulatory authority (FSA). The JGBCC's business rules are

available at the JGBCC's web site (in Japanese only). The JGBCC's netting arrangements have a sound and transparent legal basis.

- Article 156-11-2 of the Financial Instruments and Exchange Law stipulates that when a financial instruments clearing institution sets out in its business rules the procedures to settle its outstanding obligations in the event of a clearing participant's default, such procedures shall be valid and enforceable under insolvency proceedings. Therefore, the JGBCC's netting arrangements are legally enforceable in the event of a clearing participant's default.

3 Does the CCP impose financial and operational standards for participation? How does the CCP manage its credit risk vis-à-vis participants? Does it require participants to collateralize their exposures? How often are collateral requirements recomputed and collateral collected? How does the CCP manage its liquidity risk? Does the CCP have in place agreements permitting it to borrow against collateral? In assessing its credit and liquidity risk, does the CCP evaluate its ability to withstand the default of more than one of its participants?

- The JGBCC imposes financial and operational standards for initial participation and for continued participation.
- The JGBCC eliminates credit risk by settling its obligations on a DVP basis through its current account held at the Bank.
- The JGBCC does not impose exposure limit on the acceptance of obligations from individual clearing participants. To cover replacement cost risk incurred by the JGBCC, however, every business day JGS positions of clearing participants are marked to market and margin payments corresponding to price movements are collected from the clearing participants. To cover price movement risk after the most recent revaluation, clearing funds (i.e., cash or JGSs as substitute securities) are collected from the clearing participants. The required amounts of clearing funds are calculated and reported to the clearing participants every business day. A clearing participant who is short of clearing funds is required to deposit additional funds by 11:00 a.m. of the following business day.
- In the event of the clearing participant's default, the JGBCC obtains liquidity from (i) clearing funds, (ii) the borrowing from markets or the clearing participants (i.e., the borrowing of funds from the market participants against JGS collateral or the use of T+0 cash-collateralized securities lending transactions with the clearing participants)

and (iii) the use of credit lines. If the JGBCC still lacks liquidity, it conducts T+0 JGS lending transactions with the clearing participants. The clearing participants are obliged to conduct JGS lending transactions with the JGBCC in such a case. With those arrangements, the JGBCC takes measures to obtain liquidity needed for the completion of settlement and completes settlement by the end of the day.

4 Has a participant ever defaulted? If so, how did the CCP handle the default? What are the financial resources of the CCP? How does the CCP assess the adequacy of the size and liquidity of its financial resources? Does it require participants to contribute to a clearing or guarantee fund? Does the CCP have legally enforceable interests in or claims on the assets in the fund? Does the CCP have transparent and enforceable loss allocation rules?

- Since the start of the JGBCC's operations, no clearing participant has ever defaulted.
- The JGBCC requires the clearing participants to contribute to clearing funds. Clearing funds are "clearing deposits" defined by the Financial Instruments and Exchange Law, and thus the JGBCC has priority over repayments from clearing funds (Article 156-11 of the Financial Instruments and Exchange Law).
- Loss allocation rules of the JGBCC are set out in the business rules of the JGBCC, authorized by the competent regulatory authority (FSA). The JGBCC's business rules are available at the JGBCC's web site (in Japanese only). The JGBCC has transparent and legally enforceable loss allocation rules.

Recommendation 5: Securities Lending

Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.

Assessment

The recommendation is observed.

Answers to the key questions

- 1 Are markets or facilities for securities lending (or repurchase agreements and other economically equivalent transactions) clearly supported by legal, regulatory, accounting, and tax systems?**

- The JGS lending market is clearly supported by legal, regulatory, accounting, and tax systems.
- From a legal perspective, cash-collateralized securities lending transactions are construed as a contract of loan for consumption, while *gensaki* transactions are construed as a contract of sale with repurchase agreements. Both types of transactions have clear legal underpinning. The enforceability of close-out netting clauses in cash-collateralized securities lending and *gensaki* transactions under the insolvency proceedings is assured by insolvency laws (e.g., the Bankruptcy Law) and the Close-Out Netting Law.
- From a regulatory perspective, the JSDA set out basic rules and procedures for cash-collateralized securities lending and *gensaki* transactions (e.g., transaction scheme), and drafted model master agreements for respective types of transactions. The Study Group on Bond Repo Transactions (the JSDA acts as the Secretariat), made up of major participants in the cash-collateralized securities lending and *gensaki* markets, set out market guidelines on cash-collateralized securities lending and *gensaki* transactions to facilitate fair and smooth processing of these transactions.
- From an accounting perspective, both cash-collateralized securities lending and *gensaki* transactions are treated as financial transactions (i.e., money transactions) in accordance with accounting standards set by Japanese Institute of Certified Public Accountants. The Japanese Bankers Association set out the detailed accounting procedures for banks, and the JSDA set out the detailed accounting procedures for securities companies.
- From a tax perspective, impediments to cash-collateralized securities lending transactions, namely the upper limit on interest rate and the lower limit on the amount of cash collateral, were abolished in 1996. Securities transaction tax levied on *gensaki* transactions was abolished in 1999. For *gensaki* transactions, temporary tax measures have been taken since 2002 that exempt loan interest received by foreign financial institutions from taxation under certain conditions. Stamp duty is still levied on master agreements of cash-collateralized securities lending and *gensaki* transactions, but the amount of stamp duty is relatively small.

2 Are there markets or facilities for securities lending (or repurchase agreements and other economically equivalent transactions)? If any, are they used as a method to expedite securities settlement? How wide is the range of securities and participants involved in the markets?

- There are cash-collateralized securities lending and *gensaki* markets for various types of

securities including JGSs, which contribute to smooth and expeditious settlement of securities. A wide range of participants including domestic securities companies, banks, and institutional investors as well as nonresident investors participate in those markets.

3 Do supervisors and overseers review risk management procedures for securities lending? Do they have policies with respect to these activities?

- Risk management procedures (e.g., mark-to-market, haircut, and close-out netting clauses in case of default) for securities lending (both cash-collateralized securities lending and *gensaki* transactions) are defined by model master agreements set by the JSDA.
- The JSDA is authorized as a self-regulated organization defined by the Financial Instruments and Exchange Law by the competent securities regulator (FSA) and is subject to the FSA's regulation.

Recommendation 6: Central Securities Depositories (CSDs)

Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.

Assessment

The recommendation is observed.

Answers to the key questions

1 Are securities issued on a dematerialized basis or as a physical certificate? If the latter, are they immobilized in a CSD to facilitate settlement? What percentage of securities issued domestically is either immobilized or dematerialized, and what is the trend? Is the transfer of securities carried out by book entry or does it require any form of physical delivery?

- Most JGSs (more than 99.95% of amount outstanding) are dematerialized, while only few paper-based JGSs still exist.
- All new JGSs are now issued in the form of book-entry securities.
- Dematerialized JGSs (i.e., book-entry JGSs) are transferred only by entries to accounts on the transfer account books of participating institutions in the JGB Book-Entry System. It is not allowed to issue certificates for book-entry JGSs (Article 89 of the

Book-Entry Transfer Law), so the delivery of paper-based JGSs is not necessary.

2 Is there a lag between settlement and registration and what are the implications of the time lag for finality? If the CSD is not the official registrar, does the transfer of securities in the CSD result in the transfer of securities in the official register?

- In the JGB Book-Entry System, no time lag exists between settlement and entry to accounts on the transfer account books of participating institutions.

Recommendation 7: Delivery versus Payment (DVP)

CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

Assessment

The recommendation is observed.

Answers to the key questions

1 Does the technical, legal, and contractual framework ensure that delivery of securities takes place if, and only if, payment is received? If so, how?

- The rules of BOJ-NET JGB Services set by the Bank and contracts between the Bank and BOJ-NET users set out that the delivery of JGSs and payment can be settled on a DVP basis.
- The BOJ-NET achieves DVP on an RTGS basis¹⁰ by linking individual transfer of JGSs (gross basis) and its corresponding payment (gross basis) continually during the day and ensures that delivery of JGSs takes place if, and only if, payment is received.

2 What proportion of trades between direct participants of the CSD (by value) is settled on a DVP basis?

- By value, 99% of JGS transfers between Direct Participants in the JGB Book-Entry System are settled on a DVP basis.¹¹

¹⁰ When both the delivery instruction of JGSs and the corresponding payment instruction are input to the BOJ-NET, the system checks both securities and cash balances, and if sufficient balances are available, the delivery of JGSs and payment take place at the same time.

¹¹ Calculated based on the sample data for October 2006.

Recommendation 8: Timing of Settlement Finality

Final settlement should occur no later than the end of the settlement day.

Intraday or real-time finality should be provided where necessary to reduce risks.

Assessment

The recommendation is observed.

Answers to the key questions

1 Does the CSD permit final settlement of securities transfers by the end of the settlement day? Is the timing of settlement finality clearly defined for transactions within the CSD and for transactions over a link to another CSD?

- The BOJ-NET processes final settlement of JGS transfers, both on a DVP and free of payment (FOP) basis, continuously during the day on an RTGS basis.
- The timing of final settlement of JGS transfers on an RTGS basis through the BOJ-NET is clearly defined by contracts between the Bank and the BOJ-NET users as follows. In FOP settlement, a settlement instruction is always unconditional and becomes irrevocable when it is accepted by the Bank. In DVP settlement, when both a JGS transfer instruction and the corresponding funds transfer instruction are accepted by the Bank, they become irrevocable.
- Transfer of JGSs becomes final when the receiver's JGS account is credited on its transfer account book. Transfer of corresponding funds becomes final when a current account of the receiver (i.e., a cash settlement agent) held at the Bank is credited.

2 Does the CSD permit final settlement of DVP transfers on a continuous basis throughout the day or at certain designated times during the day? If the latter, at what times do transfers become final? Is there a need for intraday or real-time finality to reduce risks? Do central banks use the SSS in monetary policy operations or to collateralize intraday credit extensions in a payment system? Do active trading parties or CCPs have a need for intraday or real-time finality to manage their risks effectively? Is there a need for intraday or real-time finality to facilitate settlement through links to other CSDs? Is there a need for intraday finality to facilitate the smooth functioning of some markets (for example, repurchase agreement markets)?

- In the BOJ-NET, the final DVP settlement of JGS trades is carried out continuously

during the day on an RTGS basis.

- JGS transactions are large in terms of their settlement value per transaction as well as in their daily total volume and value of settlement. JGSs are widely used effectively as collateral for money market transactions between financial institutions including cash-collateralized securities lending and *gensaki* transactions, and many of those transactions are interrelated. Thus, real-time finality is needed for JGS transactions.
- BOJ-NET JGB Services is used to process monetary policy operations (e.g., purchase and sale of JGSs) conducted by the Bank. The BOJ-NET Funds Transfer System (an RTGS system) provides the collateralized intraday overdraft facility and the SPDC facility by using a linkage with BOJ-NET JGB Services.

3 Does the CSD prohibit the unilateral revocation of unsettled transfer instructions late in the settlement day? Does the CSD receive provisional transfers of securities from any other CSDs? If so, does it prohibit retransfer of these securities until they become final? If not, what would be the consequences of an unwind of such provisional transfers for the CSD's participants?

- As for JGS settlement via BOJ-NET JGB Services, unilateral revocation of unsettled transfer instructions is not allowed. The Bank does not receive provisional transfers of securities from any other CSDs.

Recommendation 9: CSD Risk Controls to Address Participants' Failures to Settle
CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

Assessment

The recommendation is observed.

Answers to the key questions

- 1 Does the CSD ensure that timely settlement can be completed in the event of an inability to settle by the participant with the largest obligation? If so, how?**

Are the credit exposures of the CSD fully collateralized? If not, what measures are in place to address risks stemming from granting uncollateralized credit? Are limits imposed on credit extensions by the CSD? Does the CSD have sufficient liquidity resources to ensure timely settlement?

- Since JGS transactions are settled on an RTGS basis in BOJ-NET JGB Services, there is no outstanding transaction remaining unsettled.
- Credit extended by the Bank to counterparties eligible for the use of overdraft facility (collateralized intraday overdrafts) is fully secured by eligible securities pledged to the Bank. No limit is set on the amounts of intraday overdrafts.
- The Bank acting as a central bank is able to provide sufficient liquidity to current account holders to ensure timely settlement.

2 Does the CSD permit overdraft or debit balances in securities?

- BOJ-NET JGB Services does not permit overdrafts or debit balances in securities accounts.

3 Does the CSD evaluate the probability of multiple failures? Can settlement be completed in that event? If not, has the CSD evaluated the cost of ensuring settlement in the event of multiple failures?

- See answers to Question 1 above for the case of multiple failures.

Recommendation 10: Cash Settlement Assets

Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.

Assessment

The recommendation is observed.

Answers to the key questions

- 1 Is the settlement agent the central bank that issues the currency? If the central bank is settling in a foreign currency, what steps has it taken as settlement**

agent to ensure that the settlement assets pose little or no credit or liquidity risk? If the central bank is not used, what steps have been taken to protect CSD members from failure of the cash settlement agent? Is the CSD itself organized as a limited purpose bank? Does it strictly limit any risks associated with non-settlement activities?

- In the case of JGS settlement on a DVP basis via BOJ-NET JGB Services, the cash leg of the transaction is settled by the Bank acting as a settlement agent. For the cash leg of a non-DVP transaction (i.e., FOP transaction), the Bank acts as a settlement agent in some cases and a private bank also acts as a settlement agent in other cases based on agreement between trading counterparties. However, by value, 99% of JGS transfers between Direct Participants in the JGB Book-Entry System are settled on a DVP basis.¹²

2 Are settlement banks subject to prudential supervision by government authorities? Who determines which institutions can be used as settlement institutions? What are the criteria? If multiple settlement institutions can be used in principle, how many are used in practice? How concentrated are payment flows? On an average day, what percentage of total payments is credited to accounts at the institution that accounts for the largest share of payment flows? What is the financial condition of that institution (for example, its capital ratios and its credit ratings)? Are the concentration of exposures and the financial condition of the settlement banks monitored and evaluated? If so, by whom?

- The cash leg of a JGS transaction is settled by the Bank or a private bank that acts as a settlement agent.
- A private bank is subject to prudential regulation of competent regulatory authorities based on relevant laws and regulations (e.g., the Banking Law). See answers to Recommendation 18 for the case of the Bank.
- It is up to each market participant to decide the settlement agent for the cash leg of a JGS transaction. The Bank is used as the settlement agent in many cases, since the use of DVP to the greatest extent possible is encouraged by the JSDA's guideline.¹³

¹² Calculated based on the sample data for October 2006.

¹³ See "Japanese Government Securities Guidelines for Real Time Gross Settlement."

3 How quickly can recipients use the proceeds of securities settlements? On the same day? Intraday?

- Recipients can use the funds (i.e., the proceeds of securities settlement) transferred via the BOJ-NET Funds Transfer System immediately upon the receipt during the day. The proceeds transferred via a private bank, acting as a settlement agent, can generally be used on the same conditions.

4 Does the payment system used for interbank transfers among settlement banks observe CPSIPS?

- The BOJ-NET Funds Transfer System is an interbank funds transfer system used among settlement banks and observes the *Core Principles for Systemically Important Payment Systems* (CPSIPS).

Recommendation 11: Operational Reliability

Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls, and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

Assessment

The recommendation is observed.

Answers to the key questions

1 Does the system operator have a process for identifying and managing its operational risks?

- The Bank has a process for identifying and managing its operational risks. The Bank has an information security policy that covers all systems for the Bank's operations and the information processed by those systems. The policy and its detailed procedures are stipulated in internal rules of the Bank, contracts between the Bank and the users of BOJ-NET JGB Services, and operational manuals of BOJ-NET JGB Services.
- Those internal rules set out the detailed requirements such as duplication of main equipment (host computer and related peripheral equipment in IT centers) and

communication lines, monitoring of system operations, encryption of telegraphic messages, issuance of identification cards, and password management.

2 Does the system operator have contingency plans and backup facilities for the failure of key systems, and are these tested and reviewed regularly with participants taking part? Do contingency plans ensure at a minimum that the status of all transactions at the time of the disruption can be identified with certainty in a timely manner? How long does it take to recover operations through backup systems? Do the procedures provide for preservation of all transaction data? How does the system operator ensure the integrity of messages?

- For the BOJ-NET, main equipment and communication lines in the Tokyo main center are duplicated, and a back-up center is set up in Osaka. In case of a disruption in the Tokyo main center, the Bank continues to operate the BOJ-NET through the back-up center. Data processed in the Tokyo main center are mirrored to the Osaka back-up center on a quasi-real-time basis, and it takes around two hours to recover operations through the back-up center. The Bank has contingency plans for various types of emergency in the BOJ-NET, and they are tested with BOJ-NET users during annual emergency exercise for the switching over to the back-up center.

3 Are operational reliability issues reviewed regularly by senior management, including review by persons not responsible for the relevant operations? Are periodic external audits of the IT (information technology) system conducted? Is there an independent internal audit function and does it review operational risk controls?

- Operations of the BOJ-NET are reported to and reviewed by the Policy Board of the Bank regularly (generally on a semiannual basis).
- Executive Auditors of the Bank and the Internal Auditors' Office of the Bank, which directly reports to the Governor, conduct audit and examinations of the Bank's overall business, respectively. As a part of these exercises, they regularly audit and examine the business of the Bank's departments that are responsible for operations of the JGB Book-Entry System and BOJ-NET JGB Services (e.g., Operations Department and Information System Services Department).
- Executive Auditors monitor the overall operations of the Bank's business including the JGB Book-Entry System and BOJ-NET JGB Services. The roles of Executive

Auditors are clearly set out by the Bank of Japan Law, and they are independent from the Policy Board (Article 22 and Article 15, Paragraph 3 of the law).

4 How many times during the last year has a key system failed? What is the most common cause of failures? How long did it take to resume processing? How much transaction data, if any, was lost? Does the system operator have capacity plans for key systems and are key systems tested periodically to determine if they can handle stress volume?

- BOJ-NET JGB Services did not have a notable system failure during 2006.
- The Bank checks the capability of the BOJ-NET systems on a regular basis as well as the occasions of the new system development or the changes to the systems, and conducts stress tests if deemed necessary. The Bank monitors operations of the BOJ-NET to make sure that the BOJ-NET systems have sufficient processing capacity for example by checking daily processing volumes.

Recommendation 12: Protection of Customers' Securities

Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.

Assessment

The recommendation is observed.

Answers to the key questions

1 What arrangements are used to protect customers' securities from theft, loss, or misuse and to ensure that they will not become subject to claims of the custodian's creditors (for example, are segregation, insurance, or compensation schemes used)? Are those arrangements based upon specific laws and regulations? In the event of the custodian's insolvency, do those arrangements enable a customer's positions to be moved by a receiver to a solvent intermediary?

- See answers to Recommendation 1, Section 2(i) (b) for protection of customers' securities.
- In case of the default of a participant of the JGB Book-Entry System, the customers

of the defaulted participant are able to open accounts with other healthy participants and transfer their book-entry JGSs to the accounts held with those participants. In case a book-entry transfer institution becomes unable to continue its services, the competent ministers may order such book-entry transfer institution to transfer the business to other book-entry transfer institutions (Article 23 and other articles of the Book-Entry Transfer Law).

2 How often do the entities holding securities in custody reconcile their records? Are the entities holding securities in custody subject to mandatory internal or external audit, or both, to determine if there are sufficient securities to satisfy customer claims?

- The Bank provides Direct Participants of the JGB Book-Entry System with their account balance reports for reconciliation. The account balances are reported to (i) the users of BOJ-NET JGB Services upon the processing of individual transfer instructions, and to (ii) non-users of BOJ-NET JGB Services at the end of the day of transfer or at the beginning of the next business day. Direct Participants in the JGB Book-Entry System reconcile their account balance records by matching them with account balance reports provided by the Bank.
- Executive Auditors of the Bank and the Internal Auditors' Office of the Bank, which directly reports to the Governor, conduct audit and examinations of the Bank's overall business, respectively. As a part of these exercises, they regularly audit and examine the business of the Bank's departments that are responsible for operations of the JGB Book-Entry System and BOJ-NET JGB Services (e.g., Operations Department and Information Systems Services Department).

3 Are the entities holding securities in custody subject to prudential supervision or regulation? Do regulatory reviews examine the procedures and internal controls used in the safekeeping of securities?

- The Bank, as a central bank, is required to maintain financial prudence. Executive Auditors of the Bank conduct regular audit in this respect.
- Participants of the JGB Book-Entry System are subject to prudential supervision and regulation based on the laws that govern the business of each type of financial institution. The Bank also examines the financial condition of applicants before granting access to the JGB Book-Entry System.

Recommendation 13: Governance

Governance arrangements for CSDs and CCPs should be designed to fulfill public interest requirements and to promote the objectives of owners and users.

Assessment

The recommendation is observed.

Answers to the key questions

1 What are the governance arrangements of the CSD or CCP? What information is publicly available regarding the system, its ownership, and its board and management structure, and the process by which major decisions are taken and management made accountable?

- The JGB Book-Entry System and BOJ-NET JGB Services are both operated by the Bank, and the latter is also owned by the Bank. The Policy Board, the highest decision-making body of the Bank, is ultimately responsible for operations of those systems. Basic rules of the JGB Book-Entry System such as access criteria and basic regulations (e.g., Regulations) are decided by the Policy Board or approved by the Governor of the Bank.
- Composition, tasks, and decision-making methods of the Policy Board are set out in the Bank of Japan Law, related Cabinet orders and ministry ordinances, and rules set by the Policy Board.
- The Policy Board's decisions are disclosed through the publication of its monthly report (*Nippon Ginko Seisaku Inkai Geppo* [Monthly Report of the Policy Board of the Bank of Japan {in Japanese only}]) and other reports. The annual reporting on operations of the JGB Book-Entry System and BOJ-NET JGB Services as well as the Bank's policies and measures regarding these systems are disclosed in its *Gyoumu Gaikyo Sho* (Outline of Business Operations),¹⁴ which is prepared by the Bank pursuant to Article 55 of the Bank of Japan Law.

2 Are the system's public interest, financial and other objectives clearly articulated and public? What are they? Do the system's objectives reflect the needs of users as well as owners? How is the public interest taken into account? Can

¹⁴ Excerpts of *Gyoumu Gaikyo Sho* (Outline of Business Operations) are translated into English and published by the Bank as *Annual Review*.

the system's participants or the public influence the system's decision-making process? How are major decisions communicated to owners and users?

- Objectives for operations of the JGB Book-Entry System and BOJ-NET JGB Services are disclosed through documents such as the "Role of Bank of Japan in Payment and Settlement Systems" (2002).
- The Bank operates the JGB Book-Entry System and BOJ-NET JGB Services to "ensure smooth settlement of funds among banks and other financial institutions," which is one of the Bank's objectives as stipulated in Article 1, Paragraph 2 of the Bank of Japan Law.
- Given that JGS transactions are closely related to money market transactions and cash settlement, the Bank operates the JGB Book-Entry System and BOJ-NET JGB Services with the aim to contribute to smooth and stable operations of payment and settlement systems and to respond to needs of the participants and the users.
- The Policy Board's decisions about system operations are made public through the reports to the Diet, *Nippon Ginko Seisaku Inkai Geppo* (Monthly Report of the Policy Board of the Bank of Japan [in Japanese only]), and *Gyomu Gaikyo Sho* (Outline of Business Operations). The adequacy of Policy Board's decisions is reviewed by the participants of JGB Book-Entry System, the users of BOJ-NET JGB Services, and the public through those reports.
- The Bank's major decisions regarding the JGB Book-Entry System and BOJ-NET JGB Services are communicated to the participants and the users through the Bank's web site and other publications. When the Bank makes important decisions such as changes to the BOJ-NET, it will consult with BOJ-NET users and other interested parties, if deemed necessary.

3 What steps are taken to ensure that management has the incentives and skills needed to achieve the system's objectives and is accountable for its performance?

- See answers above.

4 How is the composition of the board determined? What steps are taken to ensure that board members have the necessary skills, and represent or take into account in their deliberations the full range of shareholder and user interests as well as the public interest?

- See answers above.

Recommendation 14: Access

CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access.

Assessment

The recommendation is observed.

Answers to the key questions

1 Are access rules/criteria objective and clearly disclosed to all potential applicants?

- Access criteria for the JGB Book-Entry System ("Requirements for Establishing Direct Participants' Accounts and Customers' Accounts and Requirements for Approval as Indirect Participants and Foreign Indirect Participants in the JGB Book-Entry System")¹⁵ and application forms are available through media such as the Bank's web site, and are disclosed to all potential applicants. The access criteria specify, as objectively as possible, requirements for approval and factors to be considered.
- The Bank generally approves the use of BOJ-NET JGB Services to Direct Participants in the JGB Book-Entry System on condition that they have adequate operational capabilities.

2 Are the same rules applied regardless of the identity, type, and location of the applicant? If not, what variations apply and why? Can differential restrictions on access to the system be justified in terms of the need to limit risks to the system operator or to other users?

- The access criteria are basically the same regardless of the types of membership (Direct Participants, Indirect Participants, FIPs, and Customers). Detailed criteria with regard to the financial condition are different for each type of institution, because these criteria are based on the requirements stipulated in laws that govern the business of each type of financial institution.

¹⁵ The JGB Book-Entry System has three types of participants: "Direct Participants" (account management institutions that hold accounts directly with the Bank), "Indirect Participants" (account management institutions that hold accounts with Direct Participants), and "FIPs." "Customers" of the Bank (entities who hold accounts directly with the Bank) are the deposit office, foreign central banks (including their equivalents), and international financial institutions.

3 Under what conditions can participants terminate their membership? What arrangements does the system have in place to facilitate the exit of members who no longer meet the participation requirements? Are these arrangements publicly disclosed?

- Pursuant to the publicly disclosed Regulations set by the Bank, participants of the JGB Book-Entry System can terminate their membership by giving advance notice of one month to the Bank.
- Pursuant to contracts between the Bank and the users of BOJ-NET JGB Services, the latter can terminate their membership by giving advance notice of two months to the Bank.
- Pursuant to the Regulations, the Bank can terminate membership of the participants of the JGB Book-Entry System in the following cases:
 - (1) For a case of Direct or Indirect Participant who is allowed to hold Customers' Accounts, when a Direct or Indirect Participant has ceased to be any institution provided for in Article 44, Paragraph 1, Items 1 through 12 of the Book-Entry Transfer Law or other book-entry transfer institutions (other than the Bank); and for a case of FIP, when an FIP has ceased to be an institution provided for in Article 44, Paragraph 1, Item 13 of the law.¹⁶
 - (2) When a participant of the JGB Book-Entry System has breached laws and regulations, administrative dispositions thereunder, the Regulations, or other matters determined by the Bank.
 - (3) When the Bank considers that a participant of the JGB Book-Entry System does, or threatens to, prejudice the credibility of the JGB Book-Entry System or prevent its smooth operation.
- Pursuant to contracts between the Bank and the users of BOJ-NET JGB Services, the Bank can terminate membership of the latter in the following cases:
 - (1) When a user of BOJ-NET JGB Services has breached its contracts with the Bank.
 - (2) When a user of BOJ-NET JGB Services has breached orders issued by the Bank or other matters determined by the Bank pursuant to the contracts.
 - (3) When the Bank considers that a user of BOJ-NET JGB Services does, or threatens to, prevent smooth operation of BOJ-NET JGB Services.

¹⁶ Article 44, Paragraph 1 of the Book-Entry Transfer Law exhaustively enumerates the type of entity that is eligible to be an account management institution (e.g., banks and financial instruments firms providing the first financial instruments business as defined by Article 28, Paragraph 1 of the Financial Instrument and Exchange Law).

Recommendation 15: Efficiency

While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

Assessment

The recommendation is observed.

Answers to the key questions

- 1 Does the system operator have in place procedures to control costs (for example, by benchmarking its costs and charges against other systems that provide a similar service and to analyse the reasons for significant differences)? Does the system operator have in place procedures to regularly review its pricing levels against its costs of operation?**
 - The Bank provides online processing services for the JGB Book-Entry System through BOJ-NET JGB Services. The BOJ-NET is a combined online system covering, other than settlement of JGSs, various central bank functions, including functions such as settlement of funds via current accounts held at the Bank, issuance of JGSs, and implementation of monetary policy operations.
 - Given that the Bank provides the services for various central bank functions to contribute to the achievement of the Bank's objectives, the Bank bears, as a general rule, the cost for developing BOJ-NET infrastructures. However, the Bank recovers the cost for external connection (e.g., the cost of hardware and software used for access to the BOJ-NET and the cost for the use of communication lines) based on the beneficiaries-pay principle. The Bank collects fees from BOJ-NET users, who enjoy the merit of, for example, online processing.
 - For the BOJ-NET as a whole including BOJ-NET JGB Services, the Bank controls the cost recoverable from the users based on the balanced-revenue-and-expenditure principle, and regularly reviews the fee level accordingly.

- 2 Does the system operator regularly review its service levels, including by regularly surveying its users? Does the system operator have in place procedures to regularly review operational reliability, including its capacity levels against projected demand?**
 - The Bank, if deemed necessary, consults with interested parties about the contents and

the level of its services. The Bank talks with BOJ-NET users frequently and conducts survey as necessary to understand the users' views and requests.

- The Bank checks the capacity of the BOJ-NET systems on a regular basis as well as the occasions of the new system development or the changes to the systems, and also conducts stress tests. The Bank monitors operations of the BOJ-NET by checking daily processing volume, and makes sure that the BOJ-NET systems have sufficient processing capacity for both the average of processing volume and the predictable peak level.

Recommendation 16: Communication Procedures and Standards

Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.

Assessment

The recommendation is observed.

Answers to the key questions

1 Does the securities settlement system use international communication procedures or standards or is it able to easily convert domestic procedures and standards into the relevant international communication procedures and standards for cross-border securities transactions?

- BOJ-NET JGB Services offers two access solutions; one is computer-to-computer connection and the other is terminal connection.
- Users of computer-to-computer connection are changing their communication protocol from the *Zengin* Protocol to the internationally accepted Internet Protocol (TCP/IP). The use of the *Zengin* Protocol will end by March 2009.
- Users of terminal connection are changing their communication protocol from the SNA Protocol used for the current proprietary terminal to TCP/IP used for the new universal PC-based terminal, which was introduced in November 2006. Use of the current proprietary terminal will end around April 2008.
- The message format of BOJ-NET JGB Services is a proprietary product for the BOJ-NET, but the users of TCP/IP-based computer-to-computer connection can use the ISO15022-based message format for major types of telegraphic messages (JGS

transfer instruction for DVP and FOP settlement). The message format of BOJ-NET JGB Services can be easily converted to and from internationally accepted message formats (e.g., ISO15022).

- The PSMS adopts a message format based on ISO15022 and adds some modifications that reflect Japanese market practices. It generally uses International Securities Identification Numbers (ISIN) Code for securities identifier code, and Bank Identification Code (BIC) for bank identifier code.

Recommendation 17: Transparency

CSDs and CCPs should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using the CSD or CCP services.

Assessment

The recommendation is observed.

Answers to the key questions

1 Does the CSD or CCP make clear disclosures to market participants about its rules, regulations, relevant laws, governance procedures, risks, steps taken to mitigate risks, the rights and obligations of participants, and the cost of participating in the system?

- Basic rules for JGS settlement services of the Bank (the CSD for JGSs) are defined by (i) the Book-Entry Transfer Law and other relevant legislation, (ii) the rules for conducting the Bank's business set by the Bank pursuant to the Bank of Japan Law, and (iii) the Rules and Regulations set by the Bank and authorized by competent ministers pursuant to the Book-Entry Transfer Law. These laws, rules, and regulations are available at the Bank's web site (mostly in Japanese only). Operation manuals that define operational procedures and rules for each type of BOJ-NET services are released on the Bank's web site (in Japanese only), and easily accessible to BOJ-NET users. The rights and obligations of the Bank and BOJ-NET users, detailed arrangements for the use of the BOJ-NET, and fees for the use of BOJ-NET JGB Services are disclosed to the system participants and BOJ-NET users.
- Basic rules for clearing services of the JGBCC (the CCP for JGSs) are defined by (i) the Financial Instruments and Exchange Law and other relevant legislation, (ii)

business rules set by the JGBCC pursuant to the law, and (iii) other rules and regulations of the JGBCC. These laws, rules, and regulations are available at the JGBCC's web site (in Japanese only). The rights and obligations of the JGBCC and the clearing participants, detailed arrangements for the use of the JGBCC's system, and fees for the use of the system are disclosed to the clearing participants.

2 Has the system completed and disclosed the questionnaire set out in the CPSS/IOSCO disclosure framework or the answers to the key questions set out in this assessment methodology? Have the authorities responsible for regulation and oversight publicly disclosed their answers to the key questions regarding implementation of the recommendations?

- The Bank, as the operator of the JGB Book-Entry System and BOJ-NET JGB Services, prepared the "Response to the Disclosure Framework for Securities Settlement Systems: the JGB Book-Entry System and the BOJ-NET JGB Services," and released it on its web site. The responses were most recently updated in September 2003.
- The "Assessment of the Settlement System for Japanese Government Securities against the CPSS/IOSCO Recommendations for Securities Settlement Systems" was prepared and published by the Bank, which is responsible for oversight of SSSs.

3 How is this information made available? In what language or languages? In what form?

- The disclosure document of the JGB Book-Entry System and BOJ-NET JGB Services (i.e., the "Response to the Disclosure Framework for Securities Settlement Systems: the JGB Book-Entry System and the BOJ-NET JGB Services") is available at the Bank's web site in both Japanese and English. More information (mostly in Japanese only) is available for the participants of the JGB Book-Entry System and the users of BOJ-NET JGB Services at the counters of the Bank's Head Office and branches as well as at the Bank's web site. Contracts between the Bank and BOJ-NET users are distributed to BOJ-NET users, and operation manuals (in Japanese only) are released on the Bank's web site and easily accessible to the users.

4 What steps are taken by the CSD or CCP to ensure that the disclosures are complete and accurate? Are there regular reviews to ensure they remain current?

- The Bank discloses all necessary information regarding JGS settlement services by releasing it on the Bank's web site and/or sending out the notices in writing to the participants of the JGB Book-Entry System. The Bank does not have special arrangements for regular reviews, but tries to ensure that disclosures remain accurate and current by reflecting any changes or additions to disclosures in a timely manner.
- The same applies to the JGBCC.

Recommendation 18: Regulation and Oversight

Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.

Assessment

The recommendation is observed.

Answers to the key questions

1 How is the system regulated/overseen? Describe the laws that authorise and govern the system's operation, the applicable regulatory bodies and their respective authority concerning the system's operation.

- The Bank is authorized by competent ministers (the Prime Minister [delegating authority to the Commissioner of the FSA] and the Minister of Finance) pursuant to Article 39 of the Bank of Japan Law in order to operate the JGB Book-Entry System in its role as a book-entry transfer institution in accordance with the Book-Entry Transfer Law.
- The Bank is designated by competent ministers (the Prime Minister [delegating authority to the Commissioner of the FSA], the Minister of Justice, and the Minister of Finance) as a book-entry transfer institution as defined by the Book-Entry Transfer Law. Pursuant to Article 47 of the law, the Bank is subject to regulation on book-entry transfer institutions. Unlike the case of other book-entry transfer institutions (stock corporations), however, the Bank is exempted from the regulations regarding the prohibition of other business, dismissal or disqualification of executives, on-site inspection, and financial reporting and improvement orders, as a special exception admitted by Article 48 of the law.
- The Bank ensures that the safety and efficiency of its own systems (i.e., the JGB Book-Entry System and BOJ-NET JGB Services) meet the *Recommendations for Securities*

Settlement Systems and CPSIPS, and tries to further improve the safety and efficiency of these systems.

2 Are the responsibilities of the securities regulator, central bank, and, where relevant, banking supervisor clearly defined with respect to securities settlement systems? Are their roles and major policies disclosed publicly? Are they written in plain language so that they can be fully understood by designers, operators, and participants of securities settlement systems, and other relevant parties?

- The purpose and responsibilities of the securities regulator (FSA) are clearly defined by the Book-Entry Transfer Law and other relevant laws and regulations.
- The purpose and responsibilities of the Bank in SSSs are explained in the "Role of the Bank of Japan in Payment and Settlement Systems" (2002).
- The Bank monitors the safety and efficiency of SSSs operated by the private sector, and encourages the operators of SSSs to make further improvement, if deemed necessary.

3 What is the regulatory and oversight framework based on? Is it a statute-based approach where specific tasks, responsibilities, and powers are assigned to specific public authorities? Or a non-statute-based approach? Do the securities regulator and the central bank have experienced staff, proper resources, and funding to carry out regulatory and oversight functions effectively?

- Please see above for the basis of the regulatory and oversight framework.
- The securities regulator (FSA) has experienced staff, proper resources, and funding to carry out regulatory function effectively.
- The Bank has set up a department that specializes in oversight of payment and settlement systems (i.e., Payment and Settlement Systems Department), and assigned experienced staff, proper resources, and funding to effectively carry out oversight of SSSs.

4 Is there a framework for cooperation between the securities regulator and the central bank, such as for the exchange of information and views on securities settlement systems? Is there such a framework for cooperation with relevant authorities both within and outside the country?

- No formal framework for cooperation exists; however, the securities regulator (FSA) and the central bank (the Bank) exchange information and views on SSSs on an ad-hoc basis, if deemed necessary.
- The FSA participates in IOSCO, and the Bank participates in the CPSS. These forums serve as a framework for international cooperation with foreign authorities. The FSA signs a memorandum of understanding (MOU) for the information exchange with several foreign securities regulators.

Recommendation 19: Risks in Cross-Border Links

CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.

Assessment

The recommendation is not applicable.

Answers to the key questions

- 1 What kinds of links are in operation (see explanatory note)? Has the CSD done a risk analysis of the design of the link and the financial and operational integrity of the linked CSD?**
 - The JGB Book-Entry System and BOJ-NET JGB Services operated by the Bank do not have a direct link with foreign SSSs for processing of cross-border settlement.
- 2 How is DVP achieved? Does the link permit provisional transfers of securities across the link? If so, is the retransfer of these securities prohibited until the first transfer is final?**
 - This question is not applicable.
- 3 If the CSD extends credit to a linked CSD, are credit extensions to the linked CSD fully secured and subject to limits? Are risk controls and liquidity resources adequate to address liquidity risks posed by the link?**
 - This question is not applicable.