Collateralization of Derivative Transactions in Japan: A Comparison of Two Methods

TETSUYA SAKAMOTO

This paper discusses the legal issues surrounding collateralization of derivative transactions in Japan. Collateralization is a new financial technique of credit risk management which complements a close-out netting agreement. The author describes two possible methods of collateralization under Japanese law and examines their characteristics.

Key Words: Collateralization; Derivatives; Netting.

I. Introduction

As a new means to reduce the credit risk exposure of derivative transactions, collateralization has come to attract the attention of market participants in recent years. The primary purpose of collateralization is to secure the claim based on a close-out netting agreement between the parties.1 In 1994, the International Swaps and Derivatives Association, Inc. ("ISDA") introduced into the New York market the "1994 Credit Support Annex" (ISDA, 1994a, hereinafter the "New York Version"), the first standard form of a mark-to-market collateral agreement which embodies collateralization. The New York Version aims at collateralizing claims arising from transactions under ISDA Master Agreements.2 The New York Version which is governed exclusively by New York law contemplates that U.S. Treasury securities and cash will be the primary subjects of collateral.

Although the New York Version has been accepted by New York market participants, it does not seem to have satisfied Japanese participants who do not own sufficient U.S. Treasury securities to cover their obligations. For these Japanese participants, it is

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1This paper is based on the author's article written in Japanese which appeared in the July 1995 issue of Kin'yu Kenkyu published by the Institute for Monetary and Economic Studies, the Bank of Japan. The views in this paper are those of the author and do not represent those of the Bank of Japan or the International Swaps and Derivatives Association that has standardized a mark-to-market collateral agreement. The author would like to thank Peter Stern, Esq. (Morrison & Foerster) for his helpful advice on legal expressions.

2See Wood (1994) for netting in general.

These agreements are ISDA (1987) and ISDA (1992).
desirable that Japanese Government Bonds ("JGBs") should be eligible for mark-to-market collateral agreements, because Japanese participants have a sufficient amount of JGBs for this purpose.

When JGBs are used as collateral, however, the rights and duties of the parties will generally be governed by Japanese law. Under Japanese conflict of laws principles, the law of the jurisdiction where a collateral is located will be applied to questions of the enforceability and perfection of the collateral.\(^3\) In most cases, JGBs are considered to be located in Japan. Therefore, in order to deal with JGBs as collateral, the rights and duties of counterparties must be stipulated so that they are effective and enforceable under Japanese law. In addition, any collateral agreement using JGBs must take into account the effects of insolvency proceedings in Japan, which will be applied to the assets of an insolvent entity located in Japan irrespective of the governing law of contracts.\(^4\)

The main purposes of this paper are (1) to describe the possible legal constructions for collateralization under Japanese law, and (2) to analyze the characteristics and enforceability of these constructions. Such analysis and evaluation should be carried out before entering into any collateral agreement.

II. Suitability of JGBs as Subject Matter for Collateralization

The ideal assets for collateralization of derivative transactions are those which satisfy the following practical needs:

1. easy to acquire as collateral;
2. easy to evaluate and liquidate;
3. sufficiently available to cover obligations; and
4. easy to handle and preserve.

In view of the above, JGBs are one of the most suitable assets for collateral, especially for banks who deal actively in financial derivatives. In the present paper, only JGBs will be dealt with as a subject matter of collateral. Most of the arguments made concerning JGBs, however, could be applied to other assets.

In addition, it seems worthwhile to explain the differences in perfection and collateralization procedure between the two JGB transfer systems; such explanation is especially worthwhile for foreign parties to a collateral agreement governed by Japanese law, who may take collateral from Japanese counterparties. The first JGB transfer system is the registration system (tōroku seido), and the second is the book-entry system (furikae-

\(^3\) The Law concerning the Application of Laws in General (Law No. 10 of 1898 as amended) Art. 10, Para 1. Also, the Law concerning Government Bonds (Law No. 34 of 1906 as amended) stipulates the sole method of perfection concerning registered JGBs.

\(^4\) In light of these factors, the ISDA drafted the Japanese version of the 1994 Credit Support Annex (ISDA, 1995) by modifying the New York Version.
kessai seido). A comparison of the registration and the book-entry systems is outlined in Appendix A.  

III. Two Methods of Collateralization under Japanese Law

By a close-out netting provision in a master agreement, such as an ISDA Master Agreement, the counterparties could net a single obligation by offsetting the numerous obligations arising from specified transactions between them in the case of the other party’s insolvency. A mark-to-market collateral agreement aims at securing this single obligation (the “Net Obligation”) by granting collateral and adjusting its amount based on periodic calculations of the Net Obligation, assuming a close-out. This paper deals with two possible methods based on the different legal constructions for a mark-to-market collateral agreement under Japanese law. One is the pledge method, and the other is the loan for consumption and set-off method. As described below, both methods have advantages and disadvantages, and there appears to be no single legal construction available which is advantageous for all purposes.

A. Pledge Method

Pledge (shichi-ken) is classified as a real security right (tanpo bukken) permissible under Japanese law. Movables (dosan, similar to chattel), immovables (fudosan, similar to real estate) and obligation-rights (saiken, similar to chose in action) may become the subject matter of pledge.

Where a certain asset is pledged to secure an obligation, the obligee will have a right to prior performance (yusen bensai-ken) of the obligation from the proceeds of a sale of the asset pledged. The pledgee of an obligation-right may directly collect the pledged claim from the obligor. Furthermore, in the case of a commercial pledge (shōji shichi) which secures a claim arising out of a commercial transaction, the pledgee and the pledgor may agree to transfer ownership of the pledged asset as the enforcement of a pledge.

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5The bearer bond (the certificated JGB) is excluded from the analysis of this paper because its share in the total number of outstanding JGBs has long been negligible, and because the costs of its physical delivery and safekeeping are high.
6See Appendix B, which illustrates the basic mechanism of collateralization. For a detailed explanation of an actual collateral arrangement, see ISDA (1994b) Appendices B1 and B2.
7No real rights (bukkan) can be created other than those provided for in the Civil Code and other statutes. The Civil Code of Japan (Minpō, hereinafter “CC”) Art. 175.
8CC Arts. 352, 356 and 362 respectively. The pledge of immovables is irrelevant to mark-to-market collateral agreements, however.
9CC Art. 342 and the Law of Civil Execution (“LCE”) Arts. 190-192.
10CC Art. 367 and LCE Art. 193.
11The Commercial Code of Japan (Shōhō) Art. 515. If the pledgor is not a merchant (shōnin), the pledge cannot be considered a commercial pledge. Therefore, an agreement to transfer ownership of the pledged asset
A pledgee may enforce a pledge outside of a bankruptcy proceeding. In a corporate reorganization proceeding, however, the enforcement of a pledge is suspended after the commencement of the proceeding. The pledgee must realize his security in the proceeding.

When pledging a registered JGB under a collateral agreement, the pledgee cannot establish his right to prior performance against (1) the pledgor's creditors, (2) the trustee in an insolvency proceeding, or (3) the Japanese Government, without the registration of the pledge.

The following steps are to be taken to obtain a registration of pledge. To begin with, a written request for pledge is signed and sealed by the pledgor who is the obligor of Net Obligation (the "Obligor"); the request for pledge is then delivered to the pledgee. The pledgee (the obligee of Net Obligation, the "Obligee") signs and seals the request for pledge, then submits it to the Bank of Japan ("BOJ"), which is an agent of the Japanese Government. Finally, the BOJ registers the contents of the request; which consist of the amount and description of the pledged JGBs; the name of the registered owner of the pledged JGBs (if the registered owner is not the pledgor, the pledgor's name is also registered); the amount of the pledgee's claim; the recipient of the interest on the pledged JGBs (either the pledgee or the pledgor); the date of the request; and the names and addresses of the pledgor and the pledgee.

A book-entry JGB is considered a movable under Japanese law. The pledge of a book-entry JGB cannot be set up against third parties until the book-entry JGB has been delivered. In order to make a delivery (hikiwatashi), the pledgor (the Obligor) instructs the BOJ to make a transfer of a certain amount of a book-entry JGB from his proprietary account to the pledgee's account, which holds the JGBs as collateral. This instruction can be communicated to the BOJ either in writing or by an electronic message. As a matter of law, the BOJ, according to the instruction, identifies the

would be invalid in a case in which the pledgor is a financial cooperative, a non profit-making organization, or a non-merchant individual.

12The Bankruptcy Law of Japan ("BL") Art. 95.
14CRL Art. 123, Para 1 (Art. 112 to apply mutatis mutandis).
15The Law concerning Government Bonds Art. 3.
16The Government Bond Regulations (Ministry of Finance Ordinance No. 31 of 1922 as amended) Art. 38.
17From not later than April 1996, an electronic data processing and communications system for the pledging of registered JGBs is going to be introduced as part of the Bank of Japan Financial Network System (the "BOJ-Net"). Under this system, instead of a written request signed and sealed by both parties, an electronic message for the request for pledge will be sent to the BOJ either by the pledgor or the pledgee with an encrypted message authentication code ("MAC") made by the other party; the MAC is construed as the other party's signature and seal on the request.
18CC Art. 352.
19This on-line service which is part of the BOJ-Net JGB service started in 1990.
requested amount of the certificated JGBs it holds and hold those JGBs thereafter on behalf of the pledgee. In actual practice, however, the BOJ processes the instruction by debiting the pledgor's account and crediting the pledgee's account. Under the book-entry system, a transferor can make a request for the transfer of JGBs from his account without the transferee's cooperation or consent. This feature is advantageous for the enforcement of commercial pledges, since the quantity of pledged JGBs in the pledgee's collateral account can be transferred to his proprietary account solely by his instruction.

It is well established by jurisprudence and doctrine that a pledge may secure all claims which fall within a certain category specified in the pledge agreement, the total amount of which is variable. This kind of pledge, the so-called "base-pledge" (neshichiken), is suitable as a security under a mark-to-market collateral agreement, since the underlying obligations may be added and/or discharged between two valuation times, and since the value of the Net Obligation inevitably fluctuates.

B. Problems in the Pledge Method

From the viewpoint of the market participants, the pledge method may have some inconveniences.

First, selling the pledged JGB constitutes a violation of the pledgee's duty. In such a case, the pledgor will have the right to terminate the pledge. The pledgor can also assert the right to redeem the JGB sold to a third party unless the third party (the transferee) satisfies the conditions set forth in Article 192 of the Civil Code.

Second, frequent pledging incurs significant costs, especially in cases where market participants contract with many others on a bilateral basis. A certain complicated algorithm would be needed to decide the amount of JGBs which should be pledged or discharged from whom to whom in such a network of collateral agreements. That is, fluctuating values of Net Obligations between the counterparties require a chain of steps necessary to pledge and/or discharge pledge in order to adjust the amount of JGBs pledged or repledged. Such a process would be especially costly where the registered JGBs are not only pledged and repledged but also re-pledged (i.e., the repledged JGBs are pledged) or more. This is because re-pledge will require paper-based processing even after the electronic data processing system for the pledge of registered JGBs is introduced.

Third, suppose that party X (a pledgor) pledges JGBs to party Y (a pledgee), and Y then repledges all of those JGBs to party Z. If the amounts of X and Y's Net Obligations vary independently (as is usually the case), X has to give Y permission in advance to

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19 If the amount of the certificated JGBs held by the BOJ falls short of the requested amount, the BOJ will repeat this process until the pledged amount satisfies the requested amount.

20 CC Art. 350 (Art. 296 to apply mutatis mutandis).

21 "If a person has peaceably and openly commenced to possess a movable, acting bona fide and without negligence, he shall immediately acquire the right which he purports to exercise over such movable."
repledge the JGBs of X. When X's Net Obligation to Y diminishes while Y's Net Obligation to Z remains unchanged, X's right to receive the JGBs from Y would conflict with Z's right to retain the JGBs repledged, if Y is unable to pledge the equivalent JGBs to Z as substitution for the part that Y is obliged to return to X. If Y cannot do so, X's right would be subordinate to Z's right because of his permission for repledge. Therefore, it may be difficult to obtain such permission from all counterparties.

Finally, private sale or disposal of pledged assets is prohibited in a corporate reorganization proceeding whereas it is allowed in a bankruptcy proceeding, as stated in III. A., supra.

C. Loan for Consumption and Set-Off Method

The purposes of a mark-to-market collateral agreement could be accomplished by a combination of loan for consumption (shōhi taishaku) and set-off (sōsai) contracts.

JGBs can be lent on the understanding that the borrower will return JGBs of the same kind, quality and quantity. A borrower of a loan for consumption may exercise whatever rights an owner of the JGB may have, subject only to his obligation to return those of the same class and quantity. Thus, where the Obligor lends JGBs to the Obligee for consumption, the latter may use or dispose of the transferred JGBs. Under a mark-to-market collateral agreement, the Obligor transfers as a loan for consumption to the Obligee JGBs the value of which is enough to cover the Net Obligation.

To make a loan of a registered JGB, an electronic message of request for transfer has to be sent to the BOJ through the BOJ-NET, either by the lender (the Obligor) with a MAC made by the borrower (the Obligee), or by the borrower with a MAC made by the lender. The BOJ then makes entries on its books which reflect the transferee (the borrower) as the new registered owner.

If a book-entry JGB is the subject matter of a loan, the lender (the Obligor) instructs the BOJ to transfer a certain amount of a specified JGB from his proprietary account to the borrower's (the Obligee's) proprietary account. The set of procedures required here is identical to that for ordinary sale.

Concurrently, the counterparties contract to set off the Net Obligation against the Obligee's (the borrower's) obligation to return JGBs of the same kind, quality and quantity in the event of the Obligor's default.

This combination seeks to satisfy the counterparties' needs for discretionary use and disposal of the collateral and for security of the prior performance. Therefore, an

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22 If Y does not have permission from X, the effect of a transaction between X and Y which causes the return of pledged JGBs from Y cannot be set up against Z.

23 CC Art. 587.

24 This on-line service also started in 1990 as part of the BOJ-NET JGB service (see note 16, supra). A written request for transfer signed and sealed by both the lender and the borrower is submitted to the BOJ in the case that the on-line service is not available to the parties.
important question to ask is whether the Obligee will have a right to prior performance under this legal construction.

D. **Enforceability of Set-Off**

Enforceability and effectiveness of the set-off in the loan and set-off method should be scrutinized in the following cases:

1. Attachment (sashiosae) or provisional attachment (kari sashiosae) by an Obligor’s creditor on the Obligor’s claim to the return of JGBs of the same kind, quality and quantity;
2. Assignment or pledge of that claim by the Obligor; and
3. Insolvency proceedings of the Obligor.

Let us consider the enforceability and effectiveness of the set-off in each of these cases.

1. **Protection of Set-Off against Attaching Creditor**

According to Article 511 of the Civil Code, set-off by an obligor of an obligation is not effective against a counter-claim which is obtained after an attachment or a provisional attachment which takes effect in respect of the obligation. There is important relevant jurisprudence in connection with Article 511. The judgment of June 24, 1970 by the Grand Bench of the Supreme Court\(^2\) (the “1970 Decision”) held that an obligor may set off his obligation against his counter-claim to the obligee without regard to which maturity date comes first insofar as such counter-claims have not been acquired after the attachment by a third party on the obligor’s obligation. The Court also upheld the enforceability of an arrangement to accelerate a claim and to effect set-off against an attaching creditor as well as between the parties.

The enforceability of the set-off clause in a collateral agreement governed by Japanese law seems to depend on whether it falls within the scope of the 1970 Decision. Two conditions must be satisfied in order for the 1970 Decision to be applied to the set-off in question.

First, the Obligee has to have acquired the claim representing his exposure of derivative transactions (i.e., the Net Obligation) that he sets off against the Obligor’s counter-claim until an attachment takes effect. The Net Obligation under the collateral agreement is contingent in the sense that it becomes due and its amount is confirmed on the occurrence of any event of default set forth in the derivative master agreement and collateral agreement. Nevertheless, it appears that the Net Obligation was acquired by the Obligee prior to the time of attachment because the counterparties had calculated its value and collateralized it by an agreed method at regular intervals.

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\(^2\)Minshù 24-6 p. 587.
Second, the claim and counter-claim to be set off must be of the same kind. The Obligor’s claim to the return of JGBs, however, is different in kind from the Net Obligation, which is a money claim. Therefore, in view of this requirement, a certain technique is needed to make the set-off valid under the collateral agreement.

One such technique would be to give the Obligee the option either to choose to return JGBs of the same kind, quality and quantity, or to pay for their value when the Obligor requests that he return the JGBs. The effect of election, i.e. exercise of the option, is retroactive under Japanese law. Hence, the requirement that claims to be set off must be of the same kind is satisfied at the time of attachment, and so the set-off in question appears to fall within the scope of the 1970 Decision.

Another such technique is conversion of the Obligor’s claim into an equivalent money claim at the time of attachment. It remains uncertain, however, whether the effect of such an agreement to convert can be set up against an attaching creditor, because it may be considered an evasion of the restriction in question.

If an attaching creditor of the Obligor’s claim collects it or sets it off against his obligation to the Obligor before the Net Obligation becomes due, set-off by the Obligee cannot take effect. Therefore, an attachment or a provisional attachment should be added to the events of default in order to accelerate the Net Obligation. Such an agreement of acceleration seems valid under the 1970 Decision.

2. Protection of Set-Off against Assignee or Pledge

Similar concerns exist when the Obligor assigns or pledges his claim to the return of JGBs to a third party. If the Obligor gives notice thereof to the Obligee, the assignee or the pledgee will prevail over the Obligee’s right of set-off. The Obligee’s right of set-off must arise prior to the notice in order to avoid such a result. Therefore, assignment or pledge of the Obligor’s claim should be added to the events of default. The same argument as that concerning attachment can be applied, in turn, to cases of assignment or pledge.

3. Protection of Set-Off in Insolvency Proceedings

With a few exceptions, an insolvency set-off is available under Japanese law. As one such exception, a set-off is prohibited where an obligor of the insolvent has either

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26CC Art. 505, Para 1: “If two persons are bound to each other by obligations whose subjects are of the same kind and both of which are due, each obligor may be relieved of his obligation by a set-off to the extent of the amount corresponding to that of his obligation; except, however, where the nature of the obligations does not so admit.”

27CC Art. 411.

28CC Arts. 364 and 467.

29These events should be added as events that cause an automatic early termination.

30BL Art. 98 and CRL Art. 162.
acquired a claim in bankruptcy with the knowledge that there has been suspension of
payment or that petition for insolvency has been filed, or has acquired a claim after
adjudication of an insolvency proceeding.\textsuperscript{31} The Obligee may set off the Net Obligation
against the Obligor’s (the insolvent’s) claim, however, because it seems that the Obligee
acquired the Net Obligation before such events occurred as explained in III. D. 1., supra.

Article 162 of the Corporate Reorganization Law requires that both claims to be set
off must mature prior to the deadline for filing the proof of claims. In relation to this
requirement, it is arguable whether enforceability of an agreement to accelerate the Net
Obligation and set it off against the Obligor’s claim under a corporate reorganization
proceeding would be upheld by a court. Academics generally take the view, however,
that the 1970 Decision upholding the enforceability of an acceleration agreement against
an attaching creditor will apply to corporate reorganization proceedings.\textsuperscript{32}

In addition, according to Supreme Court decisions, set-off is not subject to
avoidance.\textsuperscript{33}

Quite apart from the enforceability of set-off, it should be noted that making a loan
for consumption can be avoided by the trustee of the Obligor if the loan was made in a
manner prejudicing the borrower (the Obligee).\textsuperscript{34} To prevent such avoidance, it is
advisable to refrain from making a loan where the Obligor’s credit is deteriorating.\textsuperscript{35}

IV. A Comparison of the Two Methods

This section tries to clarify the advantages and disadvantages of the two methods
described in the preceding sections through a brief comparison of them.\textsuperscript{36}

The pledge method has an advantage over the loan and set-off method in that the
Obligor may redeem the pledged JGBs in the case of the Obligee’s default to the extent
that their value exceeds the Net Obligation. By contrast, in the loan and set-off method,
the Obligor has only an obligation-right to the return of JGBs which is distinguished from
the real right under Japanese law, and so he has no right of redemption prior to general
creditors. The pledge method would also be better than the loan and set-off method if
the securities transaction tax were to be levied on every transfer of JGBs as a loan for

\textsuperscript{31} BL Art. 104, Paras. 3 and 4. Similarly, CRL Art. 163, Paras. 3 and 4.

\textsuperscript{32} Intensive arguments were once made in Japan concerning the enforceability of close-out agreements. Although no specific legislation has been introduced on this point, the enforceability of close-out seems to be well established.

\textsuperscript{33} See the Supreme Court’s judgment of April 22, 1965 (Saihan-Saibanshū-Min 78 p. 739), and the Supreme Court’s judgment of April 8, 1966 (Minshū 20-4 p. 529).

\textsuperscript{34} BL Art. 72, Para 1. Similarly, CRL Art. 78, Para 1.

\textsuperscript{35} The same concern exists in the case of pledging JGBs to the Obligee.

\textsuperscript{36} See Appendix C.
consumption.  

On the other hand, the loan and set-off method is advantageous in that discretionary use and disposal of the collateral are allowed. This advantage might be of critical importance in the practice of collateralization.

V. Conclusion

Two methods of securing the Net Obligation are available to users of a mark-to-market collateral agreement under Japanese law. There is certainty as to the legal consequences and effects of the pledge method. The loan and set-off method seems to be effective as well, although there remains uncertainty regarding its enforceability due to the lack of jurisprudence on point.

Parties to such a collateral agreement must make a choice between the two methods according to their needs and preferences. In making such a choice, the above comparison of the characteristics of the two methods should be carefully considered.

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37Furthermore, in relation to Japanese accounting rules, the pledge method would be advantageous if, in the loan and set-off method, the Obligor had to recognize the profit from a sale of JGBs whenever the Obligee chose to pay for the return amount as the exercise of his option.
### Appendix A: Outline of the Registration System and the Book-Entry System

<table>
<thead>
<tr>
<th>Registration System</th>
<th>Book-Entry System</th>
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<tbody>
<tr>
<td><strong>Main Features:</strong></td>
<td><strong>Main Features:</strong></td>
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<tr>
<td><strong>Legal Construction</strong></td>
<td><strong>Legal Construction</strong></td>
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<tr>
<td>and Perfection</td>
<td>and Perfection</td>
</tr>
<tr>
<td>a. Any owner of a JGB may request to become a registered owner. All requests for registration are processed only by the BOJ. The registration system is classified as a direct holding system.</td>
<td>a. An Owner of certificated JGBs deposits his JGBs with a system participant. System participants deposit with the BOJ (the Depository) (1) the JGBs deposited by their customers, and (2) their own certificated JGBs. The book-entry system is classified as an indirect holding system.</td>
</tr>
<tr>
<td>b. A transfer or pledge of a registered JGB cannot be set up against the Japanese Government or other third party, without registration.</td>
<td>b. The deposited bonds constitute a fungible bulk. The depositors acquire co-ownership (or quasi co-ownership) of the fungible bulk proportionately according to the deposit balance thereof.</td>
</tr>
<tr>
<td>c. Certificated bonds are surrendered when they are registered.</td>
<td>c. A transfer or pledge of a deposited JGB (book-entry JGB) cannot be set up against third parties without delivery. In the case of transfers between system participants, delivery is made when the transferor directs the BOJ to hold the JGB thereafter on behalf of the transferee.</td>
</tr>
<tr>
<td>d. Most of the deposited JGBs of a certain issue are registered in the name of the BOJ in the registration system, which is called ‘package registration’ (ikkatsu-tōroku). The rest of the deposited JGBs of the same issue are held by the BOJ or system participants in certificated form.</td>
<td>d. Most of the deposited JGBs of a certain issue are registered in the name of the BOJ in the registration system, which is called ‘package registration’ (ikkatsu-tōroku). The rest of the deposited JGBs of the same issue are held by the BOJ or system participants in certificated form.</td>
</tr>
</tbody>
</table>

### 2. JGBs Eligible for System

- Interest bearing JGBs and discount JGBs (except Treasury Bonds and Financing Bills)
- Interest bearing JGBs and discount JGBs (without exception)

### 3. Constituents of System

<table>
<thead>
<tr>
<th>Registration System</th>
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<tbody>
<tr>
<td>a. Registrar: the BOJ as an agent of the Japanese Government</td>
</tr>
<tr>
<td>b. Registree: registered owners and registered pledgee</td>
</tr>
<tr>
<td>Book-Entry System (Furikae-kessai Seido)</td>
</tr>
<tr>
<td>a. Depository: the BOJ not as an agent of the Japanese Government</td>
</tr>
<tr>
<td>b. Participants and indirect participants: financial institutions and governmental entities whose participation in the system is permitted by the BOJ</td>
</tr>
<tr>
<td>c. Customers: owners of JGBs who deposit their JGBs with a participant or an indirect participant</td>
</tr>
</tbody>
</table>
4. **Types of Requests**

<table>
<thead>
<tr>
<th>Registration System (Ｔōrōku Seido)</th>
<th>Book-Entry System (Furikae-kessai Seido)</th>
</tr>
</thead>
</table>
| a. Concerning “main registration” (shū-tōrōku):  
(1) request for initial registration when issued and request for registration of a certificated JGB;  
(2) request for transfer; and  
(3) request for a certificated JGB.  

| a. Request for deposit  
b. Instruction of transfer between accounts (i.e. delivery)  
— each participant (including indirect participant) has two kinds of accounts  
(1) accounts for holding by himself based on ownership or other real security:  
(a) non taxable, for ownership; (b) non taxable, for pledge or other security interests; (c) taxable, for ownership; and (d) taxable, for pledge or other security interests  
(2) custodial accounts:  
(a) non taxable; and (b) taxable  
c. Request for a certificated JGB  |

| b. Concerning “additional registration” (fuki-tōrōku):  
(1) request for pledge or other security interests;  
(2) request for change of registered contents (including the pledgee); and  
(3) request for deletion of pledge (or other security interests) registration. |

5. **Number of Constituents***

<table>
<thead>
<tr>
<th>Registration System (Ｔōrōku Seido)</th>
<th>Book-Entry System (Furikae-kessai Seido)</th>
</tr>
</thead>
<tbody>
<tr>
<td>— Registered owners: N/A</td>
<td></td>
</tr>
</tbody>
</table>

| a. Participants: 385 (banks and securities corporations, etc.)  
b. Indirect participants: 3,083 (Shinkin banks and agricultural cooperatives, etc.) |

6. **Share in the Outstanding of JGB***

<table>
<thead>
<tr>
<th>Registration System (Ｔōrōku Seido)</th>
<th>Book-Entry System (Furikae-kessai Seido)</th>
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<tbody>
<tr>
<td>N/A (approximately 40%)</td>
<td>56%</td>
</tr>
</tbody>
</table>

7. **Value and Volume of Transactions**

<table>
<thead>
<tr>
<th>Registration System (Ｔōrōku Seido)</th>
<th>Book-Entry System (Furikae-kessai Seido)</th>
</tr>
</thead>
</table>
| a. Value: 129,310 billion yen  
b. Volume: 43.7 thousand transactions |

| a. Value: 216,496 billion yen  
b. Volume: 41.7 thousand transactions |

8. **Legal Basis**

<table>
<thead>
<tr>
<th>Registration System (Ｔōrōku Seido)</th>
<th>Book-Entry System (Furikae-kessai Seido)</th>
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</thead>
</table>
| a. Law concerning Government Bonds, Law No. 34 of 1906  
b. Government Bond Regulations, Ministry of Finance Ordinance No. 31 of 1922 |

| a. Ministerial Ordinance on the Package Registration of Government Bonds, Ministry of Finance Ordinance No. 4 of 1980  
b. Private standard contracts between (1) the BOJ and the participants, and (2) the participants and the customers |

*As of the end of March 1995  
** Through the BOJ-NET, during March 1995

Appendix B: The Basic Mechanism of Collateralization

1. There exist obligations arising from derivative transactions between party X and party Y.

2. Assuming early termination at the time of evaluation (t=0), the counterparties calculate the amount of the Net Obligation \((a_0)\) on a mark-to-market basis.

3. In order to secure the Net Obligation, Y delivers eligible collateral to X which is enough to cover the Net Obligation.

4. Suppose that at the next valuation time \((t=1)\), the Net Obligation \((a_1)\) decreases to 8 whereas X holds collateral that values 10.

5. To adjust the difference between \(a_i\) and the posted collateral, X returns collateral with a value of 2 to Y.


### Appendix C: A Comparison of the Two Methods

<table>
<thead>
<tr>
<th>Items for Evaluation</th>
<th>Pledge Method</th>
<th>Loan for Consumption and Set-Off Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Obligor's right to redeem over-collateralized JGBs in the event of the Obligee's insolvency</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2. Discretionary use and disposal of the collateral by the Obligee</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Levy of securities transaction tax</td>
<td>No</td>
<td>Probably No</td>
</tr>
</tbody>
</table>

### References


――――, *ISDA Credit Support Annex (Subject to Japanese Law)*, 1995.


