

Review for Further Establishing Japan's Fails Practice

— Revisions in Market Practice Based on the Final Report of JSDA's Working Group on Fails —

Financial Markets Department

April 2011

The Working Group concerning Review of Fails Practice for Bond Trading was founded in May 2009 under the Japan Securities Dealers Association and had been reviewing Japan's Fails Practice with the intention of further establishing the Fails Practice while preventing frequent occurrence of Fails. In April 2010, the Working Group released its final report. The revised Fails Practice applies to a wide range of market participants who conduct outright purchase and sale transactions and repo transactions of Japanese government securities. The revisions became effective in November 2010. Market participants need to further establish Fails Practice by promptly developing business operations capable of handling Fails and the payment and receipt of Fails Charges.

1. Introduction

What is Fails Practice?

A Fail refers to a situation in which a party receiving government securities has not received the relevant securities from the delivering party even after the end of the scheduled settlement date for reasons other than the creditworthiness of the parties to the transaction. Fails Practice refers to market practices that define the general processing procedures to be taken by parties in case of a Fail. It prevents parties from regarding an uncompleted delivery of government securities itself as default and canceling the contract.

Japan's Fails Practice for government securities trading was introduced in January 2001 concurrently to the introduction of the settlement of Japanese government securities transfers on a real time gross settlement basis. Basic rules of procedure in case of Fails and regulations for the resolution of Fails were established in "The Japanese Government Securities Guidelines for Real Time Gross Settlement (the "RTGS Guidelines")" and the "Regulations Concerning Resolution of Fails in Bond Settlements" issued by the Japan Securities Dealers Association (JSDA). Regarding repo

transactions, model forms for master agreements and other relevant regulations were provided in JSDA's "Regulations Concerning Handling of Short Sale and Lending Transaction of Bonds," and "Regulations Concerning Handling of Conditional Sale and Purchase of Bonds, etc." In addition to these, the Bond Gensaki Transaction Study Group, a meeting of market participants, issued "Memorandum concerning Fails" and "Best Practice Guide" for bond lending transactions and conditional purchase and sale transactions of bonds. Taken together, these regulations and guidelines constitute Japan's Fails Practice.

However, Fails Practice had not become fully established in Japan and a number of entities did not accept Fails. This reflected such problems as inadequate understanding of Fails (e.g., regarding Fails as default) and underdevelopment of business operations capable of handling Fails. It was pointed out that these shortcomings distorted efficiency and market liquidity in the bond and repo markets.

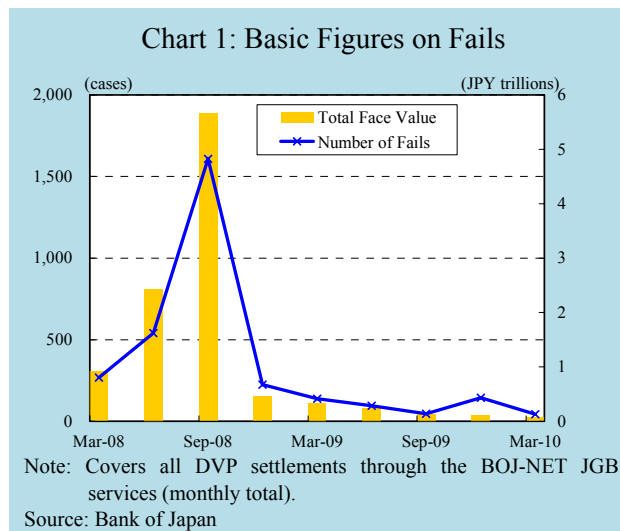
Need to Establish Fails Practice

In addition to the credit risk of counterparties, government securities transactions and settlements

are significantly affected by the supply-demand balance of each issue, settlement procedures, and the sequence of transactions and settlements. Even entities with low credit risk may face the possibility of being unable to deliver a specific issue within a short period of time.

It should be noted that even under normal market conditions, Fails in government securities transactions occur due to a squeeze and loop transactions (a chain of transactions among three or more entities which begin and end with the same entity, thereby forming a loop). Where Fails Practice is not accepted and sure delivery of securities in all contracted transactions is demanded, dealers may have to resort to stocking up on issues scheduled for delivery or refraining from providing investors with quotations on issues for which delivery is uncertain. Moreover, covering issues that are in a squeeze at unusually high prices to avoid Fails not only affects price formation but also leads to a further squeeze and may induce additional Fails.

It is extremely vital to further establish Fails Practice not only for maintaining and enhancing market liquidity under normal trading conditions, but also for preparing for situations in which large numbers of Fails may occur due to natural disasters, computer system failures, and bankruptcy of market participants. Such a situation did emerge in September 2008 at the time of the failure of Lehman Brothers. As Lehman Brothers Japan Inc. went into default, an unprecedented number of Fails occurred. This delayed the settlement of government securities seriously and lowered market liquidity in the repo and government securities markets, leading to the substantial deterioration of market function¹ (Chart 1).



2. Summary of the Fails Working Group's Final Report

Among market participants, these experiences led to a greater awareness of the importance of establishing and reviewing Fails Practice. As a result, the Working Group concerning Review of Fails Practice for Bond Trading (the "Fails WG") was founded in May 2009 as a subordinate organization of the JSDA's Bond Committee. Membership of the Fails WG consists of principal participants in government securities trading, such as securities companies, major banks, trust banks, regional banks, money market brokers (*tanshi*), institutional investors (the *Norinchukin* Bank, life insurance companies, investment trust management companies, and Japan Post Bank), and the Japan Government Bond Clearing Corporation (JGBCC). Additionally, the Financial Services Agency, the Ministry of Finance, the Bank of Japan, and the Government Pension Investment Fund participate in the discussions as observers, creating an unprecedented market-wide group for establishing Fails Practice.

In April 2010, JSDA released the final report of the Fails WG covering the deliberations undertaken in a total of 19 sessions beginning on June 10, 2009 and ending on April 7, 2010. This was followed in June 2010 with the publication of the revised RTGS Guidelines and other materials. The contents of these documents are reviewed in the following section.²

Meaning and Role of Fails Practice³

In starting its deliberations, the Fails WG reconfirmed the meaning and the role of Fails Practice and worked to develop a consensus on the establishment of Fails Practice.

In addition to maintaining and enhancing market liquidity under normal conditions, market participants that had experienced the turmoil following the failure of Lehman Brothers Japan Inc. expressed the view that steps must be taken to develop business operations capable of handling Fails because the inability to cope with Fails (or the non-acceptance of Fails) seriously impedes the function of the market in cases of emergency. It was also pointed out that due to lack of proper understanding, there were some market participants that did not accept Fails. It was argued that in order to rectify this situation and to work toward further establishing Fails Practice, it was necessary to promote better understanding of Fails, particularly on the executive level.

On the other hand, frequent occurrence of Fails would lower market liquidity by raising the level of settlement risk as the outstanding of unsettled transactions increases and by reducing transaction volume due to uncertainty in position management. Therefore, even if unavoidable Fails are to be accepted, frequent occurrence of Fails is clearly undesirable. For this reason, views were expressed that it should be confirmed that market participants should avoid Fails as much as possible, and whenever they occur, resolve them as soon as possible (good-faith efforts to avoid and resolve Fails).

Taking these views expressed by market participants into consideration, the Fails WG launched its review of Fails Practice with the intention of further establishing Fails Practice while preventing frequent occurrence of Fails. Specifically, from the perspective of developing an environment in which a wide range of market participants would be prepared to accept Fails, the Fails WG deliberated on the introduction of Fails Charges, the review of the Cut-off time and related matters. Based on the results of these deliberations, the Fails WG

subsequently considered a series of measures designed to ensure compliance with the good-faith efforts to resolve Fails.

Introduction of Fails Charges

(1) Introduction of Fails Charges

In Fails Practice, a party failing to deliver government securities (the "failing party") loses the opportunity to invest at market the funds that it would have received against delivery (or incurs the funding cost of holding the government securities). Moreover, the accrued interest to be received by the failing party is limited to the amount attributable to the period up to the scheduled settlement date. Such costs incurred under Fails (the "cost of Fails") provide an economic rationale for avoiding the occurrence of Fails. However, it had been pointed out that under circumstances of low interest rates, the cost of Fails declines and this economic rationale may not work effectively as an adequate incentive for a delivering party to avoid Fails.

In the provisional rules of the former Fails Practice, under circumstances of low interest rates, a party that is to receive government securities (the "non-failing party") was entitled to demand the failing party to reimburse the costs incurred in acquiring the same type of government securities.⁴ However, these rules remained unused because specific provisions were not established for claiming the costs to be reimbursed.

With this problem in mind, the Fails WG considered how economic incentives could be introduced to prevent or avoid the frequent occurrence of Fails under circumstances of low interest rates once Fails Practice was better established. Drawing on the practice in the United States, the decision was made to introduce Fails Charges, not as a provisional measure, but as an established practice entitling the non-failing party to claim monetary burden from the failing party ("Fails Charges"). With the introduction of Fails Charges, the economic incentive to prevent Fails can be expected to be maintained under low interest rates as the "cost of Fails" increases by the amount of the Fails Charges.⁵

(2) Calculation of Fails Charges

The U.S. method for calculation of Fails Charges (α - policy interest rate [uncollateralized overnight call rate]) was adopted due to its expected effectiveness in avoiding Fails under low interest rates. The Fails WG discussed how to determine the optimum level of α , where there was not enough historical data for examining the level at which Fails Charges could be expected to prevent Fails. There was some concern that incentive would be weak if α were below the U.S. level (3%). On the other hand, it was argued that with α at higher levels, the Fails Charges would be punitive. Consequently, the decision was made to adopt the same 3% level as the United States (such that Fails Charges would be 3% - policy interest rate [uncollateralized overnight call rate]) (Chart 2).

Chart 2: Level of Fails Charges

$$\sum_{\text{Fail period}} 1/365 \times \max(3\% - \text{Reference rate}, 0) \times \text{Amount of funds delivered}$$

Note: Reference rate means the target level (or if it is indicated by a target band, the lower limit of the target band) of the Bank of Japan's policy interest rate (currently, the uncollateralized overnight call rate) in the conduct of monetary policy.

(3) Scope of Fails Charges

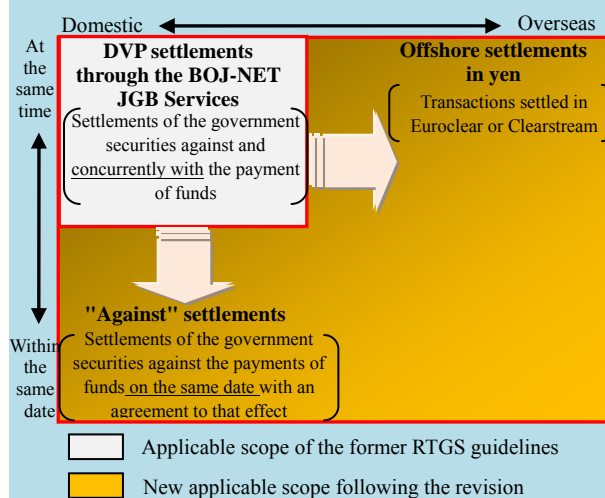
Regarding the scope of Fails Practice (such as Fails Charges), while there was some discussion as to whether to include loop transactions and overseas transactions, the decision was finally made to cover all government securities transactions (purchase and sale transactions and repo transactions) without exception.

While there was some discussion of excluding loop transactions from the perspective of operational efficiency, the decision was made to include loop transactions in the scope of Fails Charges on the grounds that the separate designation of loop transactions was impractical. Regarding overseas transactions, the view was expressed that such transactions should be exempted from the scope of Fails Charges because time zone differences and the complexity of transactional relations render overseas transactions particularly

prone to Fails. However, given the considerable number of Fails related to overseas transactions, the decision was made to include these in the scope of Fails Charges in order to maintain fairness with domestic transactions and to avoid the processing burden and difficulty of differentiating between domestic and overseas transaction, considering the U.S. example of applying Fails Charges to all DVP settlements without exception.

The scope of Fails Practice was also reviewed from the perspective of facilitating their application to non-resident transactions taking into consideration global trends including offshore settlements in yen for Japanese government securities after the establishment of the RTGS Guidelines in 2001, as well as prior cases in the United States. Whereas under the former RTGS Guidelines, the application of Fails Practice was limited to DVP settlements through the BOJ-NET JGB Services, the decision was made to extend the scope of Fails Practice to include Fails in non-resident transactions and others where funds and securities that are tied to each other are settled on the same date (the "Against" settlements⁶). Furthermore, offshore yen settlements, such as those settled in Euroclear and Clearstream are also included in the scope of Fails Practice (Chart 3).

Chart 3: Applicable Scope of Fails Charges



(4) Handling of Fails Charges

The Fails WG delegated the discussion of the practical aspects of the handling of Fails Charges to

the Bond Gensaki Transaction Study Group and formulated the "Practical Guidelines for Handling of Fails Charges" (the "Practical Guidelines") based on the outcome of these discussions. The Practical Guidelines set forth the necessary preparations for the introduction of Fails Charges and contain provisions related to the handling of calculations, claims, and the payment and receipt of Fails Charges (Chart 5).

In formulating the Practical Guidelines, especially in view of preparations for the introduction of Fails Charges, the issue was whether it was necessary to revise ongoing contracts related to repo transactions (conditional purchase and sale transactions and lending transactions) or to conclude additional contracts. While the introduction of Fails Charges does not necessitate the conclusion of contracts legally, an agreement between the parties concerned is required. For this reason, the Practical Guidelines recommend sending prior written notice to counterparties when introducing Fails Charges. If the counterparty raises no objection to the notice, an agreement for the introduction of Fails Charges is deemed to have been made.

The Practical Guidelines also recommend the inclusion of notices in confirmation or similar trade notification indicating that the relevant transaction is subject to Fails Charges to be used as evidence for claiming Fails Charges. With regard to bond lending transactions with cash collateral (cash-collateral repo transactions), the Practical Guidelines recommend the exchange of a "Memorandum concerning Fails" to clearly specify the handling of Fails if the parties to the transaction have not previously exchanged one.

Review of Cut-off Time and Related Matters

To promote the development of business operations capable of handling Fails among a wide range of market participants, the revision of delivery time schedule was examined, such as the moving forward of Cut-off time (settlement deadline) for transactions in government securities, and the decision was made to move the Cut-off time from 3:30 p.m. to 2:00 p.m.⁷ (Chart 4). This change was made in

consideration of operations after confirmation of Fails (such as outsourced back-office functions and calculation of constant value), especially by parties that previously did not accept Fails, and in consideration of opportunities to invest funds in hand retained due to Fails. From the perspective of preventing Fails, some suggested that a relatively long time be made available for the resolution of Fails. However, the majority opinion supported the adoption of an earlier Cut-off time in view of the fact that settlement of government securities transactions are mostly completed before noon, and that by mutual agreement, counterparties are able to continue to settle during the Reversal time⁸ that follows the Cut-off time.

Chart 4: Revision of the Cut-off time

	Former RTGS Guidelines	Revised RTGS Guidelines
2:00 p.m.		Cut-off time at 2:00 p.m.
3:00 p.m.		Reversal time from 2:00 p.m. to 4:30 p.m.
4:00 p.m.	Cut-off time at 3:30 p.m. Reversal time from 3:30 p.m. to 4:30 p.m.	
4:30 p.m.	Closing of the BOJ-NET JGB Services	Closing of the BOJ-NET JGB Services

Source: Japan Securities Dealers Association

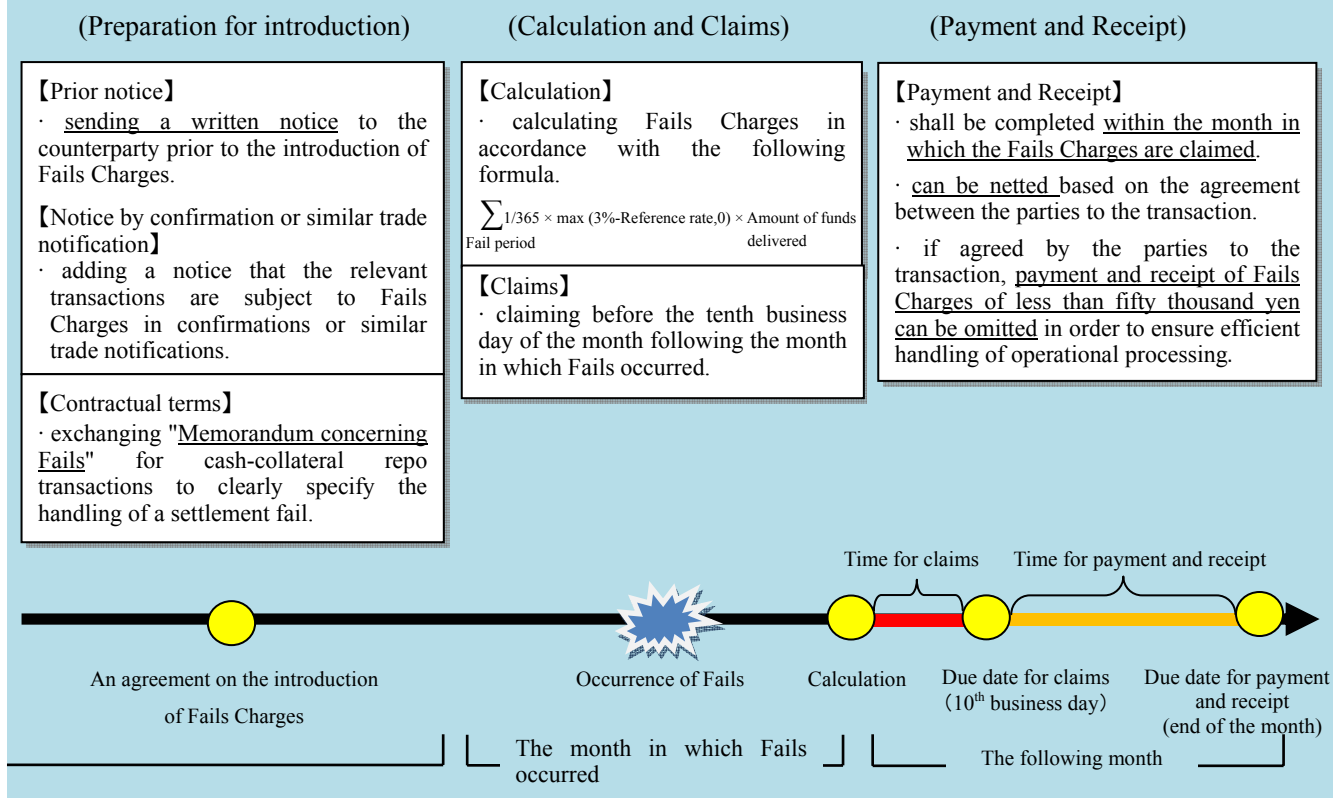
Measures Ensuring Compliance with Good-Faith Efforts

From the perspective of avoiding Fails as much as possible, the Fails WG considered a series of measures that would ensure compliance with good-faith efforts to avoid and to quickly resolve Fails, including the introduction of "Regulations on Short Repo Transactions" and "Accountability for the Situation Leading to the Fail."

(1) Regulations on Short Repo Transactions

Under the provisions of previous JSDA regulations ("Regulations Concerning Handling of Short Sale and Lending Transaction of Bonds"), a party conducting short selling of bonds (selling of bonds on the contract date without holding such bonds) is obligated to conduct short-cover transactions to obtain the bonds needed in delivery. However, this

Chart 5: Workflow from Introduction to Payment and Receipt of Fails Charges



regulation was only applicable to outright purchase and sale transactions and the starting legs of sale transactions under repurchase agreement. From the perspective of preventing irresponsible and intentional Fails and ensuring compliance with good-faith efforts to avoid and to resolve Fails, the scope of the regulations was extended to include all repo transactions, including the closing legs of purchase transactions under repurchase agreement and lending and returning of securities in lending transactions, thus obligating the delivery of securities through short-cover transactions and other means.

The revision of JSDA regulations only affects JSDA members, such as securities companies and banks. Therefore, to broadly promote compliance among the whole range of market participants, the decision was made to include the content of these regulations in the good-faith efforts of the RTGS Guidelines (Chart 6).

Chart 6: Transactions subject to JSDA regulations and RTGS Guidelines

	Before revision	After revision
Purchase and sale transactions (Outright transactions)	Applicable	Applicable
Starting legs of sale transactions under repurchase agreement	Applicable	Applicable
Closing legs of purchase transactions under repurchase agreement	Not Applicable	Applicable
Lending of securities in lending transactions	Not Applicable	Applicable
Returning of securities in lending transactions	Not Applicable	Applicable

Source: Japan Securities Dealers Association

(2) *Accountability for the Situation Leading to the Fail*

Although the failing party explained the situation leading to Fails to the non-failing party in practice, these explanations for the most part remained abstract and non-specific. It was suggested in the Fails WG that consideration be given to requiring concrete explanations. However, in light of the considerable processing burdens involved, the decision was made not to adopt across-the-board requirements for all government securities

transactions. Instead, the revised RTGS Guidelines require the failing party to make a good-faith effort to explain the situation leading to the Fail if so requested by the non-failing party.

(3) Margin Calls after the End Fail

The Fails WG considered the handling of margin calls⁹ after the End Fail (a fail in the closing leg of

the transaction) from the perspective of risk management. In light of the burden of changes that would have to be made in computer systems, it was decided not to mandate across-the-board introduction and implementation at this time. However, a recommendation was made for market participants to develop business operations capable of handling margin calls after the End Fail and to

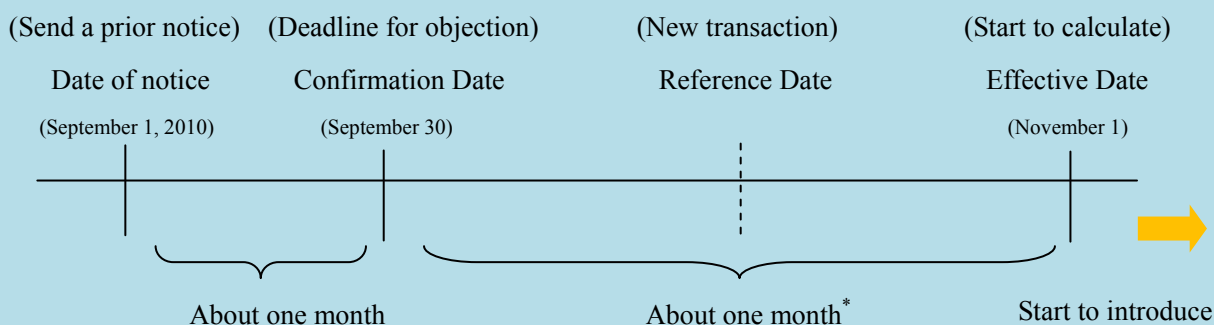
[BOX] Procedures for the Introduction of Fails Charges

To introduce Fails Charges and to put them legally into force, the parties to the transactions must reach an agreement to that effect. In its deliberations, the Fails WG concluded that the agreement needed as legal grounds for claiming Fails Charges can be deemed to have been entered into by completing the following procedures: (1) send prior written notice to the counterparty, (2) allow for the passage of a certain period of time, (3) confirm that the counterparty has raised no objection, and (4) execute new transactions subject to Fails Charges.

In light of these deliberations, the "Practical Guidelines for Handling of Fails Charges" recommend sending prior written notice as the standard method to be used in the introduction of Fails Charges. The following terminology is employed in the model form for prior notice contained in the Practical Guidelines. "Confirmation Date" refers to the deadline for a counterparty to raise objections to a prior notice that has been received. "Reference Date" is the date on which new transactions are executed on and after the next business day of the Confirmation Date. "Effective Date" is the date on which Fails Charges become applicable to transactions. Unless otherwise explicitly agreed upon for individual transactions, not only Fails after the Effective Date but also Fails that begin before and continue after the Effective Date are subject to Fails Charges for the period after the Effective Date.

It is recommended that periods of about one month each be allowed between the date of notice appearing on the prior notice and the Confirmation Date, and between the Confirmation Date and the Effective Date. The initial introduction of Fails Charges to go into effect after the present revision followed the time schedule below. November 1, 2010 was set as the Effective Date. This required sending a prior notice on September 1, 2010, two months before the Effective Date. In this case, the Confirmation Date, the deadline for raising objections, fell on September 30, 2010.

<Workflow from sending a prior notice to introducing Fails Charges>



* If there is no new transaction during the period up to the Effective Date, the Fails Charges will apply after the Effective Date to settlements made after the Reference Date.

claim additional margins pursuant to an agreement between the parties concerned.

(4) Other Matters

The Fails WG also considered measures for improved disclosure, such as "disclosure of issues failed to deliver" and "disclosure of the names of failing parties," but decided not to mandate such disclosure. Although it was recognized that such measures could contribute to preventing Fails, it was expected that the introduction of Fails Charges, Regulations on Short Repo Transactions and Accountability for the Situation Leading to the Fail would have sufficient effects. A decision was also made not to review the buy-in rules¹⁰ at the present time considering related processing costs and the fact that Fails in Japan are resolved in a relatively short period of time.

Procedures for the resolution of loop transactions and the handling of partial settlement (settling only a certain portion of the delivery amount and allowing the remainder to a Fail) were also examined. Regarding the former, it was decided that it would be technically difficult to establish specific rules due to the broad variety of those transactions. Partial settlement was examined as a method for preventing Fails, but was not adopted as a market practice in consideration of the heavy burden of system developments and operations. In this matter, the Fails WG went no further than to confirm that partial settlement was possible if agreed upon by the parties concerned.

3. Process for Implementation

Following the release of the final report and call for public comment, JSDA published the revised RTGS Guidelines and JSDA regulations in June 2010. After releasing its final report, the Fails WG examined practical details related to the introduction of Fails Charges and prepared the Practical Guidelines including model forms for prior notice of the introduction of Fails Charges and sample wording to be described in confirmations or similar trade notifications. It also developed "Questions & Answers about Settlements under "The Japanese

Government Securities Guidelines for Real Time Gross Settlement" and "Practical Guidelines for Handling of Fails Charges," which was published to coincide with the release of the revised RTGS Guidelines and other materials. Fails Charges and other measures of the revised Fails Practice went into effect on November 1, 2010. (Revisions of JSDA regulations related to Regulations on Short Repo Transactions went into effect on July 1, 2010.)

Actions to be taken by Market Participants

The revised Fails Practice covers repo transactions (conditional purchase and sale transactions and lending transactions) as well as outright purchase and sale of government securities. As such, the revised Fails Practice is applicable to a wide range of domestic and overseas market participants engaged in transactions of government securities.

The Practical Guidelines for Handling of Fails Charges stipulate that prior written notice be given to counterparties (or received from counterparties) about two months before the introduction of Fails Charges (November 1, 2010). (See the BOX.) It is also recommended that additional descriptions be incorporated into confirmations indicating that the transaction is subject to Fails Charges. These may require modifications in computer system. (Such additional descriptions can be omitted by exchanging an "Agreement on Omission of Issuance of Confirmations.") It is also recommended to conclude "Memorandum concerning Fails" for bond lending transactions with cash collateral.

As outlined above, market participants must take prompt action to develop business operations capable of handling Fails and the payment and receipt of Fails Charges. It is also hoped that executives will deepen their understanding and exhibit leadership in further establishing Fails Practice.

4. Conclusion

There is an awareness among market participants who experienced the turmoil following the failure of Lehman Brothers Japan Inc. that, in addition to

improving market practices through further establishment and the revision of Fails Practice, it is necessary for the entire market to work toward strengthening risk management by shortening the settlement cycle of JGB transactions and other measures. Market participants are currently engaged in examining these issues with support from the Financial Services Agency and the Ministry of Finance.¹¹

The Bank of Japan hopes that these initiatives by market participants, such as further establishment and the revision of Fails Practice, will contribute to improving market practices and strengthening the market infrastructure and the Bank will continue to support such initiatives.

¹ Regarding the impact of the failure of Lehman Brothers Japan Inc. on the money markets, see Bank of Japan Financial Markets Department (2009), "Waga Kuni Tanki Kin'yu Shijo no Doko to Kadai — Tokyo Tanki Kin'yu Shijo Survey (08/8-Gatsu) no Kekka to Lehman Brothers Shoken Hatan no Eikyo — (Developments and Issues of Money Markets in Japan: The Tokyo Money Market Survey in August 2008 and the Impact of the Failure of Lehman Brothers Japan Inc.: available only in Japanese)," *BOJ Reports & Research Papers*.

² Following the release of the final report in April 2010, public comment was solicited on partial revisions of "The Japanese Government Securities Guidelines for Real Time Gross Settlement," the "Regulations Concerning Handling of Short Sale and Lending Transactions of Bonds" and the "Regulations Concerning Handling of Conditional Sale and Purchase of Bonds, etc." Thereafter, the revisions were finalized and published in June 2010. Concurrently, the following materials were released: "Practical Guidelines for Handling of Fails Charges," the model form for prior notice of the introduction of Fails Charges and sample wording to be described in confirmations, and "Questions & Answers about Settlements under "The Japanese Government Securities Guidelines for Real Time Gross Settlement" and "Practical Guidelines for Handling of Fails Charges.""

³ Regarding the meaning and role of Fails Practice, see Bank of Japan Financial Markets Department (2009), "Waga Kuni ni Okeru Fail Kanko no Issou no Teichaku ni Mukete — Fail Kanko no Igi Yakuwari to Beikoku no Torikumi Jirei wo Chushin ni — (Toward the Well-Established Practice on Settlement Fails in Japan: Focusing on Significance and Role of Fails Practice and the Review of Fails Practice in the U.S.: available only in Japanese)," *Bank of Japan Review 2009-J-12*.

⁴ Under the former RTGS Guidelines, the following provisional rules applied under circumstances of low interest rates. The non-failing party was entitled to charge the failing party the cost of procuring the same securities through lending transactions and other means. Aside from this, the "Regulations Concerning Resolution of Fails in Bonds Settlements" establish procedures for the resolution of Fails through buy-in (see footnote 10).

⁵ Regarding the effect of Fails Charges on preventing Fails,

see Bank of Japan Financial Markets Department (2009), *Bank of Japan Review 2009-J-12* (available only in Japanese) [BOX 3].

⁶ "Against" settlements refers to settlements by the delivery of government securities against the payment of funds on the same date under an agreement between the parties to the transaction in which their mutual claims and debts are explicitly preserved. In addition to DVP settlement via the BOJ-NET JGB Services, in certain cases, this form of government securities settlement is used between Japanese securities companies and overseas subsidiaries and investors. In such cases, the securities are settled through transfer via the BOJ-NET JGB Services, and the corresponding funds are settled on the same date as the transfer of the securities via bank transfer and other means.

⁷ Subject to prior agreement between counterparties, Fails can be determined before the Cut-off time. Under the former RTGS Guidelines, the Cut-off time was postponed whenever the closing time of the BOJ-NET JGB Services was extended. Under the revised RTGS Guidelines, the Cut-off time remains fixed at 2:00 p.m. even when the closing time of the BOJ-NET JGB Services is extended. However, in cases of emergency, if the closing time of the BOJ-NET JGB Services is extended through the BCP (Business Continuity Plan) framework of the bond market, recommendations can be made in certain situations to extend the Cut-off time and to make other modifications in market practices.

⁸ "Reversal time" is the period during which counterparties can resolve Fails if the extension of the settlement is agreed upon by the parties concerned before the Cut-off time, or can correct errors if there are any errors in the settlement procedure. Under normal conditions, Reversal time is the period between the revised Cut-off time (2:00 p.m.) and the closing time of the BOJ-NET JGB Services (4:30 p.m.). The period of half an hour preceding the closing time of the BOJ-NET JGB Services (4:00 – 4:30 p.m.) is used mainly for correcting errors that have occurred in settlement procedures.

⁹ In repo transactions, under current market practices, margin calls (delivery and acceptance of additional margins) are made during transaction period. Regarding margin calls after Fails in the closing legs of transactions, however, the "Best Practice Guide" for bond lending transactions provides that the non-failing party can claim additional margins subject to agreement between the parties concerned. Furthermore, the "Best Practice Guide" for conditional purchase and sale transactions allows the non-failing party to require the failing party to submit collateral in excess of the credit exposure of individual transactions.

¹⁰ "Buy-in" is a method used by non-failing parties to resolve Fails. Under this procedure, when a settlement remains failed for more than a certain period of time, the non-failing party separately procures securities from the market and completes the settlement by charging the cost of procurement to the failing party. In Japan, the execution of buy-in takes at least 21 business days to complete.

¹¹ The Financial Services Agency's "Development of Institutional Frameworks Pertaining to Financial and Capital Markets," released in January 2010, calls for the implementation of the following measures aimed at reducing settlement risk in government securities transactions: enhancing the function of the Japan Government Bond Clearing Corporation (JGBCC) to promote its use; shortening of the JGB settlement cycle; and, establishing and promoting Fails Practice. Market participants were required to draw up and publish roadmaps during the first half of 2010 to clearly indicate deadlines for the implementation of the above measures. With regard to the revision of Fails Practice and

JGB settlement systems, the report on the "Kokusai Kanri Seisaku no Genjyo to Kadai (Current Situation and Future Challenges of Debt Management Policy, available only in Japanese)" (Material No. 23) of the Ministry of Finance's Advisory Council on Government Debt Management states that it is desirable for the Ministry of Finance as the issuing authority to support the discussions on secondary market reform being pursued under the initiative of market participants and to take appropriate measures as needed.

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