

Working Group on Shortening of JGB Settlement Cycle
Final Report
(Summary Version)

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I. Foreword

This report summarizes the result of the examination and discussions on the issues concerning the shortening of the settlement cycle for Japanese government bonds (JGBs) at the Working Group on Shortening of JGB Settlement Cycle.

In the light of promotion of Japan's financial and capital market's competitiveness, it is necessary to continue to improve the Japan's securities clearing and settlement system and strengthen risk management of market participants. Shortening of the JGB settlement cycle has been regarded as one of the major topics in the reform of Japan's securities clearing and settlement system. To this end, the WG was set up in September 2009 by the Council on Reform of Delivery and Clearing/Settlement of Securities and the Forum on Reform of Securities Clearing and Settlement System¹ in order to identify and examine various issues concerning the shortening of the settlement cycle for JGBs.

Under the membership of various types of market participants and relevant infrastructure service providers, the WG has been discussing the shortening of JGB settlement cycle, and sharing information and exchanging opinions with other market participants' associations: the Study Group on Vitalization of Money Market Trading and the Study Group on Bond Repurchase Transactions. In December 2010, the WG published an interim report.

Based on the conclusion in the interim report, in the end of March 2011, market participants reach the consensus that the settlement cycle will be shortened to two days (T+2) for JGB outright transactions on or after April 23, 2012. Subsequently, market participants amended market practices to support the T+2 settlement cycle. Currently, market participants are preparing to move to T+2.

In the interim report, the WG decided to continue close examination and discussion on T+1 in the

¹ The Council on Reform of Delivery and Clearing/Settlement of Securities was set up in 1999 (chaired by Isao Maeda, Professor Emeritus, Gakushuin University) for the purpose of studying business-level response and efforts in the reform of Japan's securities clearing and settlement system. As a subordinate organ of this council, the Forum on Reform of Securities Clearing and Settlement System was set up in 2003 (chaired by Hideki Kanda, Professor, University of Tokyo's Graduate School) for the purpose of identifying and discussing the issues to be addressed and monitoring the progress of various efforts for such reform.

light of several issues on T+1. As a result, the WG found that the move to T+1 settlement cycle will require multilevel efforts. For one thing, with respect to General Collateral (GC) repos on T+0 basis transactions, it is necessary to design a post-trading framework capable of supporting dealer's efficient funding as well as facilitating investments of surplus funds by investors, and the implementation of such a framework requires some efforts on the part of respective market participants such as further development of Straight Through Processing (STP). For another thing, it is necessary, in parallel, to develop a framework enabling the reduction in transaction costs through a mechanism facilitating the standardization of transactions and the introduction of STP.

This final report is intended to propose the basic framework for T+0 GC repos transactions, which have most issues to be address in order to introduce T+1 settlement cycle. The WG will continue to examine and discuss the feasibility of the move to T+1 by examining the feasibility of this basic framework. In addition, the WG acknowledged that in such examination and discussion, it is also necessary to examine and discuss negative impact of T+1 as well as significance of shortening settlement cycle.

II. Benefits of Shortening of JGB Settlement Cycle

Shortening settlement cycle contributes to reduce settlement risks. In addition, it is expected to bring about some indirect effects such as greater market liquidity which makes financial assets more cashable, and enhancement of the maintenance and strengthening of competitiveness of JGB in global markets. Therefore, in the discussion of shortening settlement cycle, it is also essential to consider what market infrastructures are required in order to maintain and strengthen global competitiveness of the JGB market and how they should be redesigned if needed.

The WG reviewed preceding studies on shortening settlement cycle in the context of the reform of Japan's securities settlement system, and then shared the following three benefits of shortening JGB settlement cycle.

1. Reduction of settlement risks

Shorter settlement cycle can reduce unsettled positions and shorten the length of time required for position replacement, and both of these effects contribute to reducing settlement risks (replacement cost risk and liquidity risk).

2. Enhancement of the liquidity, stability, and efficiency of the JGB market and the money market

If the cashability of JGBs as financial assets is enhanced through shorter settlement cycle, financial institutions will be able to offer more diversified funding methods that are more secured and speedier

and thus investors will be able to enjoy more diversified options for short-term investments for their surplus funds, and the money market (repo markets) will be developed with the lineup ranging from intraday trading and overnight trading. Such development is considered conducive to enhancing the liquidity of the JGB market.

3. Maintenance and strengthening of competitiveness among global markets

Shorter settlement cycle can maintain and strengthen global competitiveness of the JGB market. In foreign countries, in fact, the significance of shorter settlement cycle is often emphasized in the context of global inter-market competitiveness, with an eye on the benefits such as risk reduction and enhanced liquidity of financial assets as explained before. Likewise, it is important for us in Japan to consider whether the JGB market is sure to maintain and strengthen competitiveness in global markets, based on the trends of global discussions (settlement cycles adopted in foreign countries, international standards for settlement cycle, and situations of trading infrastructures).

III. Introduction of T+2 Settlement for JGB Outright Transactions

Based on the results of discussions at the WG, it was determined that the T+2 settlement cycle will be launched for JGB outright transactions on or after April 23, 2012. Below are the issues to be addressed on the occasion of implementing T+2 settlement cycle and their solutions that have been identified and discussed at the WG.

1. Current trading practices and issues to be addressed for T+2

(1) Scope of shortening settlement cycle

The WG's scope of shortening settlement cycle is outright transactions and repo transactions for JGB among market participants. While settlement cycle is defined as one of the market practices, a shorter settlement cycle is beneficial to reduction of settlement risks. Therefore, the WG concluded that it would be preferable to broaden the scope of shortening settlement cycle as much as possible. With regard to transactions for retail investors or non-residents, however, market participants are not required to uniformly apply the T+2 settlement cycle in light of the nature of such types of transactions.

(2) Position management

Before moving to the T+2 settlement cycle for JGB outright transactions, which is one business day shorter than the currently adopted settlement cycle, the WG confirmed whether or not it is detrimental to fund or position management for JGB transactions. As a result of gathering opinions

from various types of market participants, it was confirmed that the T+2 settlement cycle will not cause any particular problem to them both in terms of funds and bonds.

(3) Post-trade processing

When the settlement cycle for outright transactions is standardized at T+2, the standard settlement cycle for SC repo transactions² will be T+2 and that for GC repo transactions³ will be T+1. On the other hand, there is no significant difference in the basic framework for post-trade processing between outright transactions and repo transactions.

The WG therefore determined that the issue which may arise in relation to post-trade processing for T+2 settlement cycle is to establish a post-trade processing for GC repo on T+1 basis.

Then, the WG classified clearing and settlement operations typically adopted by major market participants into the four categories as follows and identified specific issues required to be solved to establish a standard mechanism capable of completing post-trade processing of a transaction within the day of its execution.

	Counterparties in the transaction (in typical cases)	Post-trade processing method	
		Trade matching	Netting
Pattern I	Securities firm ↔ Securities firm Bank, etc. ↔ Securities firm/bank, etc.	Bilateral central matching (Pre-settlement matching system)	JGBCC
Pattern II	Bank, etc. ↔ Securities firm/bank, etc.		Bilateral netting
Pattern III	Institutional investor (trust company) ↔ Securities firm	Tri-party central matching (Pre-settlement matching system)	
Pattern IV	Institutional investor (trust company) ↔ Securities firm/bank, etc.	Other methods	

2. Measures to overcome the issues

(1) Setting the time schedule common across the market

In Pattern I, STP is already highly developed for post-trade processing and it is not necessary to change the current operation. The WG therefore determined that the time schedule under Pattern I can remain unchanged.

² A special collateral repo (SC repo) is a transaction primarily intended for lending and borrowing of a specified bond substantially collateralized by cash.

³ A general collateral repo (GC repo) is a transaction primarily intended for lending and borrowing of cash substantially collateralized by bonds.

In Patterns II through IV, the WG set the approximate time schedule as follows: 15:30 as cut off time of trade confirmation, and 16:00 as cut off time of exchanging netting notices, followed by the completion of the netting process within the subsequent one hour, i.e., by 17:00.

(2) Promoting the efficient post-trade processing

In order to move to T+2 settlement cycle, the WG determined that the post-trade processing for Patterns II through IV should be more efficient.

For more efficient post-trade processing, the WG decided to expedite trade matching and settlement netting by setting a standard workflow in the JGB markets and reviewing respective market participant's operations.

3. Establishment of new market practices based on the WG's discussions

In the light of the measures suggested by the WG as explained in Paragraph 2 above, related market practices had been reviewed and has amended in such a way to revise "the Japanese Government Securities Guidelines for Real Time Gross Settlement" and prepare the guidances on practical operations. Respective market participants are expected to complete preparations to ensure compliance with such new market practices until the move to T+2 settlement cycle.

4. Next step

The WG will monitor the progress of preparations required to be made on the part of respective market participants.

IV. T+1 Settlement Cycle for JGB Outright Transactions

In the interim report published in December 2010, the WG examined possible methods for executing GC repos and identified issues relating to the T+1 settlement cycle by referring the benefit of the T+1 settlement cycle and the examples of foreign countries' T+1 post-trade operations. As a result, the WG confirmed that in order to move to T+1 settlement cycle, various types of market participants might be required to establish the systems and infrastructures capable of GC repos transactions on T+0 basis in order to ensure the liquidity of the repo market and facilitate fund management and fund procurement. At the same time, the WG recognized that the reinforcement of transactions on T+0 basis will entail many issues and that it will take time to examine such issues, since the current trading practices and operations might need to be drastically changed. However, the WG concluded that in the light of the significance of shortening JGB settlement cycle, the T+1 settlement cycle should be introduced in a future. The WG therefore agreed that it was appropriate to

continue to examine and discuss measures for the issues so far identified and the feasibility of the T+1 settlement cycle in cooperation with a broad range of market participants as well as clearing and settlement infrastructure providers, and relevant authorities, in pursuit of the T+1 settlement cycle.

After the release of interim report, the WG focused on the examination of the methods and workflows for T+0 GC repos under the T+1 settlement cycle. Then, the WG reconfirmed the hurdles, the basic vision and the detail of operations for T+1 JGB outright transactions and set the work road for move to T+1 settlement cycle.

1. Hurdles to overcome for T+1 settlement cycle

(1) Constraints on current post-trade processing and market infrastructures

Under the T+1 settlement cycle, the processes from execution to settlement are required to be completed within one business day in light of GC repos transactions on T+0 basis. Therefore, it is necessary to establish a post-trade processing operation different from the current one under T+2 settlement cycle where there is an interval of at least one business day between the transaction date and the settlement date, which allow market participants to conduct GC repos on T+1 basis.

This means that market participants and market infrastructure providers will be driven to reconstruct post-trade processing system and relevant market practices. In this way, the introduction of the T+1 settlement cycle will necessitate more considerable time and costs, compared with the move to T+2 settlement cycle.

(2) Different incentives among market participants

Securities firms and so on (“hereinafter securities firms”) conducts GC repo transactions in order to raise funds aiming at funding JGBs to be finally held by them as a result of outright transactions or SC repos. Therefore, under T+1 settlement cycle, they generally have incentive to conduct GC repo on T+0 basis.

On the other hand, investors put their funds into GC repos for the purpose of short-term investment. Namely, investors regard GC repos as one of the short-term investment techniques and therefore they are not necessarily eager to conduct GC repos on a T+0 basis.

Therefore, in order to achieve T+1 settlement cycle, it is essential to find the measures which fill a gap between securities firms’ incentive and investors’ one, which cause the different views on the suitable time schedule from execution to settlement resulting.

2. Basic framework for realization of T+1

In order to realize T+1 settlement cycle, the WG reach an agreement to develop further discussions

in line with the direction described as follows.

(1) Outright transactions and SC repos

Regarding outright transactions and SC repos, the WG is going to examine the way to use the framework for GC repos on a T+1 basis, which will establish in the move to T+2 settlement cycle. However, it is also expected that considerable market participants will use it for the first time under the T+1 settlement cycle. We therefore need to examine whether or not this framework is feasible for various types of market participants by reviewing it after T+2 settlement cycle in April 2012.

(2) GC repos

Regarding GC repos, the WG is going to continue to discuss with a focus on the method whereby the amount of funding alone is determined at the time of trading and then the position held is allocated as collateral for GC repo at the time of its settlement (subsequent collateral allocation method, as more detailed in Paragraph 3 below). In this regard, the WG will review the framework capable of reducing trading costs throughout the respective processes for trading, post-trade processing, and settlement, based on comparison with the current system, as necessary.

3. Details of the GC repo scheme on a T+0 basis by the subsequent collateral allocation method

(1) Main characteristics of T+0 GC repos under the subsequent collateral allocation method

a) Execution stage

Item	Description
Type of bond to be collateralized	JGB
Maturity	Both overnight repos and term repos
Type of trading/ execution method	Both of securities lending with cash collateral and repurchase agreement will be put on the agenda for discussions. The execution method will be discussed with a focus on the delivery/settlement price basis.

Given that GC repo trading under the subsequent collateral allocation method can be viewed as something similar to cash transaction, many WG members supported the delivery/settlement price basis whereby the amount to be delivered/settled is fixed at the time of trading. In response to this, the WG’s discussions are going to focus on the delivery/settlement price basis. However,

some market participants asserted that the traded price basis is more preferable or that both methods should be made selectable, in light of the consistency with outright transactions and SC repos, and the WG is going to discuss such alternatives when considering details of the trading scheme.

b) Use of JGBCC and collateral management service⁴

		Is collateral management service used?	
		Yes	No
Is JGBCC used?	Yes	T+0 GC repo scheme through CCP	the current scheme, GC repos transactions through CCP
	No	T+0 GC repo scheme without CCP	the current scheme, OTC GC repo transaction

As the T+0 GC repo scheme through CCP (central counterparty) is superior in terms of STP, standardized trading, and risk reduction, the WG is going to discuss the introduction of this scheme for JGB trading. At the same time, such discussions will cover the scheme without CCP, since some market participants are non-participants of JGBCC.

Taking into consideration the circumstances of respective market participants (such as costs required for compatible systems and the capability to allocate collateral), the WG’s discussions are based on the idea that the collateral management service may be used at the respective market participants’ discretion for the time being. However, there are many opinions that it would be preferable to use the collateral management service as a de facto standard in terms of the promotion of the efficiency across the entire JGB market and a tight time constraint under the T+0 basis settlement. Therefore, the way of use of the collateral management service also is put on the agenda for the WG’s discussions on a concrete scheme for T+0.

c) T+1 GC repos under the subsequent collateral allocation method

If the collateral management service is used for T+1 GC repos, it is necessary to design a mechanism differing from the one for T+0 GC repos. For this reason, the design of the T+0 trading environment is given priority when discussing GC repos using the collateral management service.

⁴ Collateral management service refers to the service for allocation of collateral for GC repos (JGBs to be traded) and administration of such collateral performed by market infrastructure providers.

(2) Main trading hours

Most GC repos are expected to be traded from the evening of the date S-1 to the morning of the date S. Nevertheless, taking into consideration the possibility of trading in the evening of the date S, the WG is going to seek the post-trade processing system with the capability to trade GC repos until the evening of the date S.

(3) Use of electronic trading platform and expediting trading matching process

While some WG members pointed out that the use of electronic trading platforms would be effective for expediting the process for matching GC repos trading, the WG reached the recognition that it would not be essential for realizing GC repos on a T+0 basis.

Regarding the facilitation of electronic means of GC repo trading matching on the front side, its need will be discussed, taking into consideration the circumstances of the market participants' trading matching after April 2012, moving to T+2.

(4) Outline of post-trade processing

The respective phases of post-trade processing for T+0 GC repos are outlined as follows.

Phase	What is to be processed
Trading	The parties to a T+0 GC repo agree to the type of basket ⁵ to identify the types of JGBs to be collateralized and other conditions necessary to start the T+0 GC repo.
Matching	Second, the parties check the items mutually agreed upon through the pre-settlement matching system (PSMS) in a timely manner.
Clearing	If a CCP is used, the trade data checked through PSMS are transmitted to JGBCC. Based on such transmitted data, JGBCC conducts novation.

⁵ The type of basket may be specified, for example, as “all types of JGBs (including short-term JGBs) allowed,” or designated by current maturity or by bond type (inflation-indexed bonds, floating rate bonds, etc.).

Phase	What is to be processed
Collateral allocation	The collateral management service provider allocates JGBs as collateral based on the trade data received from JGBCC or through PSMS. Then, the result of this allocation is reported to related parties (the counterparties to the repo and JGBCC). Upon this report, the type of JGBs used as collateral for the T+0 GC repo is specified by issue. In addition, the collateral management service provider prepares settlement instructions based on the result of the collateral allocation and transmit them to BOJ-NET.
Settlement	In BOJ-NET, the repo transaction is settled based on the settlement instructions transmitted by the collateral management service provider.

(5) Timeline for the respective phases of the initial trade

The respective phases of the initial trade for a T+0 GC repo are outlined as follows.

Phase	Timeline
Execution	The parties to a GC repo proceed with trading and matching or clearing in a timely manner. As their cutoff times are supposed to be determined in relation to the time schedule for collateral allocation and settlement, such cutoff times as well as the said time schedule will be discussed and examined by the WG.
Matching	
Clearing	
Collateral allocation	The collateral management service provider's collateral allocation is made by either: instant allocation (allocated whenever initiated by a collateral provider) or fixed-time allocation (allocated at specified points of time each day for all the repos executed and received by the respective point of time).
Settlement	The period available for settlement starts from 9:00 am and ends on the cut-off time specified for inputting the data for settled JGBs. As part of market practices, the cut-off time for trading GC repos (T+0) will be set.

(6) Collateral management service

Collateral management service providers are expected to provide collateral allocation services for each T+0 GC repo, as explained in Paragraph (5), as well as service related to management of collateral eligibility.

With respect to the provider of collateral management service, one of existing market infrastructure providers is primarily nominated, although it is necessary to establish the framework allowing private sector financial institutions or the like to provide collateral management service.

Which market infrastructure providers are preferable will be subsequently discussed with taking into consideration the relevant discussions in foreign countries.

4. Next steps for T+1 settlement cycle

(1) Outstanding issues and points to be noted

With respect to the T+0 GC repos scheme described above, there are some more issues to be addressed⁶. Such issues result from the fact that the scheme requires post-trade operations differing from current those in many respects. When discussing to solve such additional issues, it is necessary to consider the possibility of designing and introducing a new post-trade processing system and framework by taking the current post-trade operations into consideration.

On the other hand, with respect to post-trade operations regarding outright transactions and SC repos, as described in Section IV.2.(1), it is necessary to explore a framework which allow a broad range of market participants to conduct transactions on T+1 basis by reviewing the move to T+2 in April 2012. In addition, it is also necessary to examine the treatment of non-resident transactions, the impact on other money markets including the call market that may be affected with the introduction of T+1.

(2) Time schedule for the WG's subsequent discussions

First, the WG must monitor and assist the preparatory work to smoothly introduce T+2 from April 2012. For half a year or so after April 2012, it should review JGB market and market participants' operation after move to T+2. Accordingly, the WG will restart discussions on the introduction of T+1 in the second half of FY 2012. In the next year's discussions, the targeted year for T+1 will be 2017 or after as early as possible, based on the implementation status of T+2 and the examination of additional issues mentioned above.

V. Conclusion

The WG has discussed over the two years together with a broad range of market participants, infrastructure providers, and other related parties in the light of the significance of shorter settlement cycle.

After the discussion, market participants decided to move to T+2 from April 2012. Regarding T+1, the WG steadily deepened the feasible way to move to T+1. As explained before, on the other

⁶ For example, additional issues refer to how to handle the legal aspects including a master agreement for repo trading or how to recover from system failure.

hand, it is also necessary to form a consensus on the introduction of T+1 through an appropriate process for discussions among market participants after close examination of the benefits and costs by moving to T+1.

Some market participants assert that T+2 might be sufficient in terms of reduction of settlement risks and settlement costs. However, shorter settlement cycle contributes not only to reduce settlement risks, but also to promote market liquidity and maintain and strengthen competitiveness among global markets through improvement of market infrastructures. We should continue to form common understanding on this point among market participants in the course of subsequent discussions.

It is necessary for market participants, together with market infrastructure providers and relevant authorities, to share common understanding on the concrete vision and consensus for T+1, to specify the goal and process, which enable them introduce T+1 settlement cycle in 2017 or after as early as possible.