

Efficiently preparing for shorter settlement cycle

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NRI

Global trend toward shorter settlement cycles

Since the global financial crisis, the benefits of shortening lag times between trade execution and settlement have garnered renewed interest from regulators and market participants around the world. Those benefits most notably include reducing risk and enhancing financial assets' convertibility to cash.

One way in which a shorter settlement cycle reduces risk is by shrinking the backlog of unsettled trades. Normally, in the event of a settlement default due to a counterparty's bankruptcy or insolvency between the time of trade execution and settlement, another market participant would step in to borrow the requisite securities or funds from the market and settle the trade in place of the defaulting party. Otherwise, delivery of funds and/or securities to settle trades involving other market participants could be delayed, potentially leading to a so-called chain of settlement fails and, in turn, a market-wide increase in pending fails. However, when market participants borrow securities or funds to settle trades in place of one of the original parties to trade, they are exposed to two main risks. The first is liquidity risk, meaning that the needed securities or funds may not be readily borrowable. The second risk is position replication costs stemming from changes in securities prices since the original trade. Shortening the time lag between trade execution and settlement reduces such risks by shortening the time available for a backlog of unsettled trades to accumulate.

Central counterparties (CCPs) are of course increasingly being used in today's securities market, mainly for trades in listed securities and inter-dealer trades. Using a CCP to ensure performance reduces both liquidity risk and the risk of incurring position replication costs. Meanwhile, reducing the backlog of unsettled trades reduces the CCP's risk of incurring position replication costs to hedge against market participants' settlement defaults, thereby helping to reduce market participants' cost of using a CCP.

In the US and UK, outright trades in government bonds are already being settled on the next business day after the trade date (T+1 settlement). One factor enabling T+1 settlement in the US and UK is that both countries have market infrastructure and collateral management services adequate to intraday (T+0) settlement of GC (general collateral) repo trades, the primary purpose of which is to borrow funds against securities holdings after settlement of the outright trades through which they were acquired. Even Asian countries outside of Japan are expediting migration to shorter settlement cycles. Singapore, for example, has already switched to T+1. In Japan, a Japan Securities Dealers Association (JSDA) working group established in 2011 has been studying infrastructure requirements and what market participants need to do to accommodate shorter settlement cycles in the aim of shortening settlement cycles.

In equity and corporate bond markets, Europe was first among developed countries/regions to migrate to T+2 settlement¹. It did so in October 2014, partly by virtue of an ongoing multiphase project to centralize by February 2017 European countries' central securities depositories (CSD) IT infrastructure into the TARGET2-Securities (T2S) platform developed by the European Central Bank. Migration to shorter settlement cycles has regained momentum in the US also. In April 2014, the US Depository Trust & Clearing Corporation (DTCC) proposed shortening the equity settlement cycle to T+2. This proposal was endorsed by the US Securities Industry and Financial Markets Association (SIFMA). In December 2014, the DTCC and securities industry established an Industry Steering Committee and Industry Working Group. In Japan, seminars on T+2 settlement were held in 2014. In June 2016, a JSDA working group established in 2015 issued its final report on migration to T+2.

	Outright trade settlement cycle		Repo market infrastructure		
	Gov't bonds (repos)	Equities	Settlement institutions	CCP	Repo collateral custodians
US	T+1 (T+0)	T+3	Fed, 2 major banks	FICC	2 major banks
UK	T+1 (T+0)	T+2	Euroclear UK & Ireland	LCH. Clearnet	Settlement institutions et al.
France	T+2 (T+1)	T+2	Euroclear France		
Germany	T+2 (T+1)	T+2	Clearstream Frankfurt	Eurex Clearing	
Japan	T+2 (T+1)	T+3	BOJ	JSCC	None

Source: NRI, based on JSDA's Grand Design for Shortening of JGB Settlement Cycle

Shortening of JGB settlement cycle in Japan

In June 2015, the JSDA announced that it had reached an agreement with the Council on Reform of Delivery and Clearing/Settlement of Securities to migrate to T+1 settlement² of JGB trades by a target date of mid-FY2018. At the time, the Council on Reform of Delivery and Clearing/Settlement of Securities' Working Group on Shortening of JGB Settlement Cycle was reportedly proceeding with preparations to switch to T+1 settlement on the assumption that the switch would take effect in May 2018, after Japan's major holiday week. According to the announcement, market participants deemed to require workflow and/or IT system modifications are expected to complete system development and in-house testing by summer 2017 in preparation for industry-wide testing.

¹ Continental European countries migrated to T+2 settlement of government bonds in unison.

² The scope of T+1 settlements in Japan will be trades involving financial institutions and other institutional investors; trades involving retail investors and nonresidents will remain on a T+2 settlement cycle.

Although the nature of such modifications varies widely among market participants depending on the types of trading in which they engage as discussed below, major system development projects and internal testing are generally subject to de facto deadlines ranging from 2016 to summer 2017.

The JSDA Working Group's Grand Design for migration to T+1 settlement comprises migration to T+1 settlement of outright trades and SC repos as well as migration to T+0 settlement of GC repos.

A) Migration to T+1 settlement of outright trades and SC repos

For outright and SC repo trades, post-trade matching has been done sometime between the evening of the trade date and the following day. T+1 settlement, by contrast, would require the matching process to be completed on the trade date. A market-wide schedule for matching and other settlement procedures is expected to be added to the JSDA's RTGS (Real-Time Gross Settlement) Guidelines. As a result, market participants would need to speed up communication between their front and back offices, expedite trade matching with counterparties in both the front and back offices and standardize and/or automate data exchange for post-trade matching³.

Quite a few market participants with low trading volume have been exchanging post-trade matching data by phone or even in hard-copy format. The time has come for them to start looking at modernizing their business processes in preparation for the switch to T+1. Even market participants that choose to use email- or web-based data exchange without substantially upgrading their IT systems will need to at least adopt a standardized data format and establish systems to expeditiously verify incoming data and facilitate internal coordination.

B) Migration to T+0 settlement of GC repos

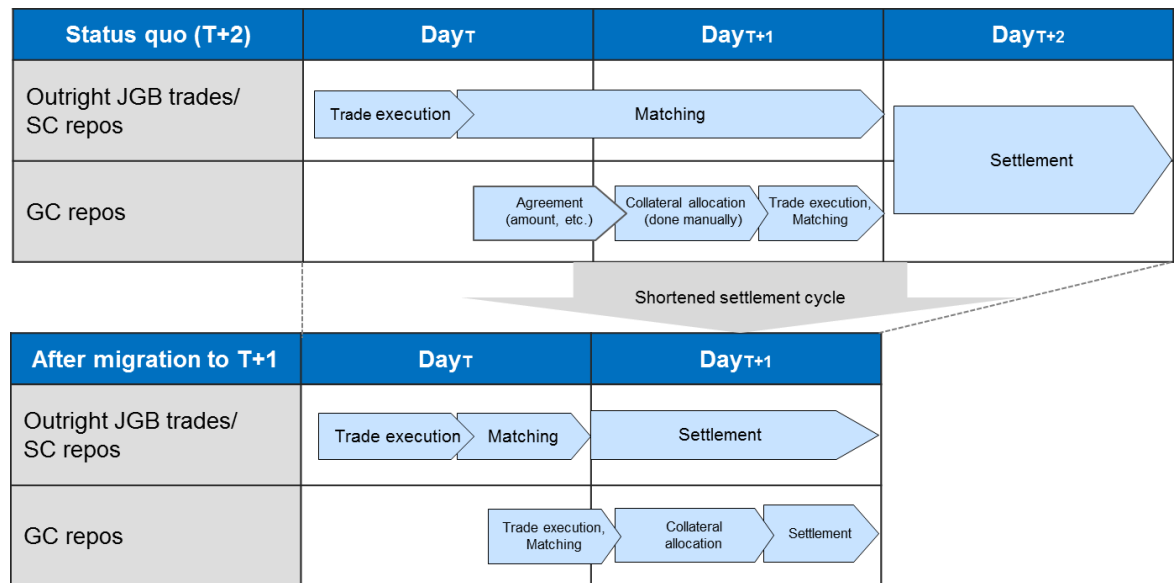
In general, GC repo trading is mostly conducted by securities dealers and trust banks, to finance outright and SC repo trading inventories, after they have completed their outright and SC repo trades for the day. Consequently, migration to T+1 settlement of outright trades and SC repos concurs with migration to T+0 settlement of GC repos.

Two major changes are expected as a result of migration to T+0 settlement of GC repos. The first is adoption of post-trade collateral allocation. In the US and UK, both of which have already switched to T+0 settlement of GC repos, GC repo agreements specify the amount of funds to be lent/borrowed but not bond issues to be pledged as collateral. The borrower is allowed to subsequently pledge as collateral any securities included in a basket of eligible issues. The specific

³ The JSDA Working Group on Shortening of JGB Settlement Cycle's Grand Design for Shortening of JGB Settlement Cycle provides detailed examples of preparations by transaction type.

issue(s) that will collateralize the repo are typically then allocated by a third-party service provider in accord with the GC basket⁴. Such collateral allocation services have improved the efficiency of the collateral allocation function. More efficient collateral allocation is one driver of GC repos' prevalence as an intraday funding source broadly utilized by funds and financial institutions in both the US and UK.

Migration to T+0 settlement of GC repos through post-trade collateral allocation



Source: JSDA's Grand Design for Shortening of JGB Settlement Cycle

Japan likewise plans to adopt post-trade collateral allocation to be performed by a centralized third-party institution. The Japan Securities Clearing Corporation (JSCC), a financial market infrastructure provider, is preparing to fulfill the collateral allocation function. Market participants need to prepare for post-trade collateral allocation by adopting repo agreements negotiated based on transaction size and collateralized by securities subsequently selected from a basket of eligible issues, updating of statutory forms and accounting procedures, arranging to notify the JSCC of available GC-eligible securities issues, complying with the ISO 20022 standard as a format for electronic message exchange with the JSCC, and interfacing with the Japan Securities Depository Center's (JASDEC) pre-settlement matching system in accord with specifications issued by JSCC⁵

⁴ Repos where a third party acts as an intermediary from asset allocation through settlement are called tri-party repos. Parties that fulfill the intermediary role are usually a major European or US custodian bank or international settlement institution.

⁵ When a clearing institution is used, clearing participants must not only pay clearing charges but also deposit funds (e.g., margin, clearing fund deposit) as a safeguard against default. The amount of such deposits is calculated based on several factors, including historical price volatility and the value of transactions settled in the participant's account over a predetermined look-back period. Because deposit requirements are assessed against current participants' accounts, the way in which they are imposed may need to be updated to facilitate participation in clearing institutions by funds with accounts whose beneficiaries change on a day-to-day basis.

as the clearing institution. Notification of available GC-eligible securities issues (notification of allocable securities holdings) is a new task to be added to settlement workflows, and accurately reflecting settled balances in Bank of Japan (BOJ) accounts to such notifications will be crucial.

The second major change is harmonization of repo formats. Maintaining Japanese repo market's international competitiveness is a key priority as its aging society is changing how Japan's pension funds and households manage their financial assets. Adopting global standard would encourage a broader range of investors' investment in JGBs. In overseas markets, unlike in Japan, the standard repo format is a purchase/sale transaction. To promote universal conformity with this global standard, Japanese repo agreements are slated to be harmonized with the global-standard repo format concurrent with the pending switch to post-trade collateral allocation for GC repos⁶. As a result, some market participants in certain industries are required to update their basic agreements with counterparties, explain the change to their customers and reprogram their IT systems.

C) Trend toward shortening of settlement cycles going forward

Demands for JGBs seem to have grown recently. The BOJ reported that credit extended by nonresidents to Japanese counterparties, mainly securities dealers, through GC repos had grown to ¥9.9 trillion as of 31 July 2014, making nonresidents Japan's second biggest source of repo funding behind trust banks (¥12.3 trillion). Industry insiders we interviewed suggested that growth was driven by interest rate differentials between Japan and Europe as a result of negative yields' growing prevalence in European sovereign bond markets. In European repo markets as of December 2014, the share of repos collateralized by JGBs was 8.6%, nearly double JGBs' year-earlier share of 4.6%.

Migration to T+0 settlement of GC repos will expand the Japanese market for secured funding with intraday settlement, while harmonization with the global-standard repo format will increase the number of foreign investors directly participating in the Japanese market. As a result, Japanese market participants should expect further expansion of opportunities to borrow and invest funds.

⁶ The repo transactions to be harmonized with the global standard are GC repos subject to post-trade collateral allocation. The Grand Design stated that from the standpoint of JGBs' internationalization, it may be advisable to consider switching to the global-standard repo agreement for all repos, not only GC repos subject to post-trade collateral allocation.

Challenges

- Earning profits from JGB trading and related services has become much more difficult for financial institutions than in the past, partly because of negative interest rates.
- Japanese financial institutions must be ready for T+1 settlement of JGB trades.
- When financial institutions develop and update IT systems on their own, the systems can reportedly end up costing hundreds of million or even billions of yen.

Solutions

- NRI (Nomura Research Institute) offers a securities trading back-office solution called I-STAR. To date, I-STAR has been used by over 40 financial institutions (banks and securities firms).
- NRI has already started upgrading I-STAR to accommodate T+1 settlement of JGB trades. By using I-STAR, financial institutions can prepare for T+1 settlement of JGB trades at a low cost.
- NRI launched Prime Settlement Service (PSS), a utility service for processing JGB trades, in November 2015. PSS will likewise be able to accommodate T+1 settlement of JGB trades.

Financial institutions' preparations for T+1 settlement in Japan

Migration to T+1 settlement of outright JGB trades will require financial institutions to substantially upgrade their IT infrastructure to accommodate new repo agreements, post-trade collateral allocation for GC repos and ISO 20022-compliant connectivity with JASDEC.

In addition to IT infrastructure upgrades, migration to T+1 settlement of GC repos will require time and human resources to be allocated to tasks such as designing new business processes in conjunction with post-trade collateral allocation's advent and training personnel in these new business processes. More specifically, with post-trade collateral allocation set to involve thrice-daily notifications of allocable collateral balances from JSCC, market participants' settlement-related workload is expected to increase.

One effective means of reducing back-office workload is utility services, which has recently been gaining popularity globally. Utility services can obviate the labor involved in adopting new business processes and reduce post-implementation workloads.

Additionally, once the switch to T+1 settlement has been completed, post-trade processing must be completed on the trade date to settle outright JGB and SC repo trades on a T+1 basis. Market participants can enjoy the benefits of using a utility service by selecting an IT outsourcing (ITO) service subject to governance based on a service level agreement (SLA) and robust business continuity plan.

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For more information, visit <http://fis.nri.co.jp/en>

About PSS

PSS is Japan's first utility service for investment banks that streamlines post-trade operations by delivering BPO and ITO services. PSS enables users to standardize their business processes, improve post-trade processing efficiency, and easily adapt to regulatory and infrastructural changes.

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