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# New BOJ-NET's launch looms as milestone in globalization of financial transactions

Yoshiyuki Kiwata 10. April. 2014

Nomura Research Institute, Ltd.

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Yoshiyuki Kiwata Sales Manager **GWS IT Solutions Department** 

# Executive Summary

The Bank of Japan is building a next-generation BOJ-NET to meet globalized financial transaction needs. Although the new BOJ-NET's implementation entails various challenges, market participants and market infrastructure providers must surmount these challenges without falling behind the international standardization trend.

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#### Efforts to upgrade Japan's financial market infrastructure to international standards

For well over a decade, Japanese market participants and infrastructure providers such as the Japan Securities Depository Center (JASDEC) have been reforming Japan's securities settlement system based on the Financial System Council's June 2000 report "Securities Settlement System Reforms for the 21st Century." Although such reforms have slowed since the switch to a dematerialized book-entry transfer system for stocks in 2009, much was accomplished in the interim, including enactment of various laws on transferring securities, dematerialization of securities certificates, establishment of clearinghouses, and migration to DVP (delivery versus payment) settlement.

Internationally, reduction of settlement risk and international standardization have been priorities since the global financial crisis that ensued from Lehman Brothers' September 2008 bankruptcy. Japan has made substantial progress in reducing settlement risk, particularly in the JGB market. According to the BOJ's Payment and Settlement Systems Department, the Lehman bankruptcy triggered ¥7 trillion in defaults and a ¥6 trillion chain reaction of settlement fails (past-due deliveries). In response, the Financial Services Agency (FSA) sought to shorten the JGB settlement cycle as one means of reducing settlement risk<sup>1</sup>). Given the need for consensus among market participants and infrastructure providers to shorten the JGB settlement cycle, the Japan Securities Dealers Association (JSDA) established a Working Group on Shortening of JGB Settlement Cycle in September 2009. The working group's final report, issued on November 30, 2011, presented a plan to shorten the JGB settlement cycle in two phases. In the first phase, the settlement cycle was shortened to two days (T+2) for outright transactions and one day (T+1) for GC repos<sup>2)</sup> effective from April 23, 2012. In the second phase, the settlement cycle is slated to be shortened to T+1 for outright transactions (T+0 for GC repo trades) by 2017 at the

#### NOTE

- 1) In a paper entitled Development of Institutional Frameworks Pertaining to Financial and Capital Markets (published January 22, 2010), the FSA recommended shortening the JGB settlement cycle and establishing and widely implementing rules for dealing with settlement fails as measures to reduce settlement risk. As a result, fail charges were instituted from November 2010. A fail charge is a monetary penalty paid to counterparties by parties that have failed to deliver JGBs by the scheduled settlement date.
- 2) GC repos (general collateral repurchase transactions) are financing transactions collateralized by debt securities that need not be one specific issue and can be substituted mid-transaction.

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- 3) ISO (International Organization for Standards) 20022 was adopted by JASDEC in January 2014 in response to a trend toward international standardization of transaction and settlement systems amid foreign investors and global players' growing presence in Japanese markets and a growing need for foreign securities clearing and settlement institutions' direct involvement.
- 4) The Japanese Banks' Payment Clearing Network operates a Domestic Funds Transfer System, receives financial institutions' exchange notifications, and conducts centralized funds settlement for domestic funds transfers and other exchange transactions.
- 5) SWIFT (Society for Worldwide Interbank Financial Telecommunication) provides financial institutions with an international communication network for financial transactions.

6) ISINs (International Securities Identification Numbers) are international codes used to identify securities, including bonds, stocks and futures contracts.

earliest. Market participants and market infrastructure providers, led by the JSDA's working group, are now actively working toward realizing a T+1 settlement cycle.

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To achieve international standardization, market infrastructure providers must adopt ISO 20022<sup>3</sup>, an international standard regarding XML (eXtensible Market Language) messaging related to financial transactions. The Japanese Banks' Payment Clearing Network<sup>4</sup> was an early adopter of ISO 20022 in November 2011. It has also increased its system flexibility. Additionally, JASDEC was one of the world's first securities depositories to adopt ISO 20022. JASDEC connected its network to SWIFTNet<sup>5</sup>, a global financial network, in January 2014.

### Purpose of next-generation BOJ-NET project

In response to the trend toward international standardization, the BOJ is currently upgrading its BOJ-NET financial network system. It is building a next-generation BOJ-NET capable of accommodating globalization of financial transactions and networking of settlement infrastructure.

For example, the new BOJ-NET will use ISO 20022 messaging to support straightthrough processing (STP) of transactions from their inception to their final settlement. For government securities transactions, BOJ-NET will use ISINs<sup>6</sup>, international codes used for securities settlement, to enhance connectivity with financial institutions and financial infrastructure, including JASDEC and overseas securities depositories. Through such means, the BOJ is upgrading domestic and overseas user-friendliness by using universal information processing technologies.

Additionally, the BOJ aims to provide system infrastructure capable of substantially extended operating hours (nearly 24 hours a day) to meet nighttime and early-morning settlement demand as global settlement infrastructure. For example, BOJ-NET will be able to accommodate same-day settlement of nonresidents' JGB and yen currency transactions and yen-denominated remittances from overseas and utilization of financial institutions' JGB holdings as collateral in overseas markets.

The BOJ currently plans to operate the new BOJ-NET for extended hours from 8:30am, 30 minutes earlier than the existing BOJ-NET comes online, until 7:00pm. Since last August, the BOJ has been holding meetings with market participants that will use the new BOJ-NET to discuss further extending operating hours, when to do so, and how to most effectively utilize the new BOJ-NET.

#### New BOJ-NET's launch will facilitate globalization

The BOJ is commissioning the new BOJ-NET in two phases to ensure a smooth transition. In the first phase, which commenced on January 6, 2014, the BOJ has started using the new BOJ-NET for a few functions, including certain tasks related to JGB issuance and transmission of bids and offers for open market operations. Major functions not included in the first phase are slated to migrate over to the new BOJ-NET during the second phase, which is tentatively scheduled to commence between autumn 2015 and early 2016. Market participants are currently preparing for the second phase of the new BOJ-NET's implementation by revising their business processes and upgrading their IT systems, but opinion is divided on further extension of the new BOJ-NET's operating hours.

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Those in favor of further extending operating hours argue that the new BOJ-NET, which is capable of operating nearly 24 hours a day, should be actively utilized to meet increasingly globalized financial transaction needs. While such needs are readily apparent, there are also challenges to be resolved. Market participants and infrastructure providers will need to adjust their staffing to match the new BOJ-NET's operating hours. Switching from the current 9:00am-to-5:00pm work schedule to a round-the-clock schedule would require two- or three-shift staffing. For financial institutions' IT systems that will connect with the new BOJ-NET (externally connected systems), round-the-clock operation should not pose much of a problem, but the account systems from which the externally connected systems access data are not designed to be online 24 hours a day. This could be a problem.

However, such issues must be resolved to switch to a T+1 settlement cycle for outright JGB trades (T+0 for GC repos), which is slated to happen as early as 2017. Globalization of JGB infrastructure is a prerequisite for JGBs to become a global investment product. In other words, JGBs becoming a global investment product largely hinges on the new BOJ-NET's launch. Currently, most JGB issuance is absorbed domestically, but diversification of funding sources is considered very important for national fiscal policy management. Consequently, Japan is broadly seeking overseas investors for its debt. While the current low level of JGB ownership among nonresidents is attributed to various factors, globalization of JGBs.

Market participants should regard the new BOJ-NET's impending advent as an opportunity to build highly efficient, low-risk global market infrastructure. They must endeavor to build global operating models and reduce IT system costs.

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Inquiries to : Financial IT Marketing Department Nomura Research Institute, Ltd. Marunouchi Kitaguchi Bldg.

1-6-5 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan E-mail : kyara@nri.co.jp

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