February 27, 2014

Bank of Japan

Maximizing the Potential of JGBs as Global Financial Assets: Recent Initiatives to Improve the Market Infrastructure for JGB Settlement

Speech at the International Bankers Association of Japan

Takehiro Sato

Member of the Policy Board

Introduction

It is a great honor to have this opportunity to speak at the International Bankers Association (IBA) of Japan. As an association of international financial institutions serving Japan's financial markets, IBA has an impressive track record in facilitating exchange of views among member financial institutions and fostering dialogue with the relevant authorities. Through those activities, IBA greatly contributes to Japan's economy as well as the development of financial markets in Japan. I pay my respect and extend my gratitude for constant efforts by the IBA members.

Today, I will talk about the payment and settlement services provided by the Bank of Japan. In particular, I will focus on the future services for the settlement of Japanese government bonds (JGBs). The Bank has long put a great deal of effort into the development of payment and settlement systems. Currently, we are carrying out a major project to renew the Bank of Japan Financial Network System or the BOJ-NET, which forms an essential part of Japan's payment and settlement systems. I will talk about this project in more detail later on. To leverage a new capability in the new BOJ-NET, we are discussing with the market participants, including several IBA members of course, the possible extension of the BOJ-NET operating hours. After those payment and settlement issues, I will close my speech with some remarks about the Bank's recent conduct of monetary policy.

I. Role of the Bank of Japan in Payment and Settlement Systems

The Bank of Japan plays a multi-faceted role in Japan's economy. It is responsible for monetary policy and, at the same time, as a bank for banks, it provides banking services and maintains the stability in the settlement of funds and securities in Japan. The Bank plays a multi-faceted role in the field of payments and settlements, too. First, the Bank provides account and settlement services for the Japanese yen and JGBs. Second, the Bank encourages the operators of private-sector payment and settlement systems to maintain and enhance the safety of their services, an important activity which is commonly called "central bank oversight."[1] Third, the Bank cooperates with market participants and

[1] Central bank oversight of Financial Market Infrastructures (FMIs) is defined as the central bank's activities to monitor the design, risk management, and operations of FMIs; to assess them against established safety and efficiency objectives; and to induce changes where necessary. In its oversight of FMIs, a central bank seeks to establish a common understanding with FMI operators

supports your initiatives to review and improve market practices related to trading, payment, clearing and settlement. Here I will focus on our role as an operator of the JGB settlement system and talk about what has been done to date and what will be done in the future.

II. Initiatives to Improve the Safety of JGB Settlement

The Bank of Japan implemented online processing of JGB settlement back in 1990 (Chart 1). For the past quarter century, the Bank has been working with the JGB market players on various initiatives aimed at improving the safety of JGB settlement. Those include the introduction of a delivery-versus-payment (DVP) mechanism[2] for JGB transactions and the changeover from deferred net settlements (DNS) to real-time gross settlements (RTGS).[3] Meanwhile, market participants and the Bank worked together to achieve a new market practice of the rolling settlement of JGBs, in which settlements take place every business day. Before the introduction of the rolling settlements, settlements took place only several times a month. In addition, the Bank encouraged market participants to introduce a central counterparty, or CCP in short, for JGB transactions and subsequently supported the CCP's efforts to strengthen its risk management. Those efforts by market participants over the years helped prevent the failure of Lehman Brothers from causing devastating ripple effects across the whole financial market in Japan.[4]

It is also true, however, that the experience of the recent financial crisis revealed a few challenges of making the clearing and settlement of JGBs more robust. That has led

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and other stakeholders on ways to maintain and improve the safety and efficiency of FMIs, and support their efforts for improvements. Through those activities, the central bank aims to ensure the safety and efficiency not only in individual FMIs but also in the overall FMI in an economy.

[2] DVP is a mechanism which ensures that "a delivery of securities occurs if, and only if, payment occurs." DVP mechanism eliminates the principal risk associated with settlement of a securities transaction, which sometimes results in a large-scale loss.

[3] Compared with DNS, RTGS substantially reduces systemic risk. Systemic risk materializes when one participant fails to settle its transactions, especially in a DNS system. DNS is a settlement mode which effects settlement of transactions among counterparties on a net basis at designated times.

[4] In conjunction with those improvements in the safety of JGB settlement, a number of improvements have been made in terms of the efficiency of JGB trading and settlement, including (1) the introduction of market practices on the bilateral netting and fails-to-deliver when the changeover to RTGS was done and (2) the creation of the JGB repo market when the rolling settlement was introduced.

market participants to make constant efforts to improve the safety of JGB settlement. I will illustrate two major examples of such market initiatives. One is to shorten the JGB settlement cycle, which is aimed at shortening the time-lag between the execution of JGB trading and their settlement. The other is to widen the use of a CCP and the reinforcement of its risk management that is commensurate with the wider use.

A. Shortening of JGB Settlement Cycle

First, let me talk about the issue of a settlement cycle of JGBs (Chart 2). Since the late 1990s, a shorter settlement cycle for JGB transactions has been a major goal in the reform of Japan's securities settlement systems. The longer the time-lag between trading and settlement, the more unsettled positions, leading to a build-up of settlement risk. Actually, the risk became imminent in the financial crisis of autumn 2008, when the failure of Lehman Brothers resulted in a significant amount of settlement failures in the delivery of JGBs. Market participants who had entered JGB trading with the failed financial institution had to go through time-consuming procedures for terminating unsettled transactions and replacing them with new ones in the markets. Those events highlighted the importance of reducing the time-lag between trading and settlement and led market participants to establish a working group under the Japan Securities Dealers Association in order to identify and examine the issues related to a shorter settlement cycle for JGB transactions. Based on the study by the working group, the JGB market moved to the shorter settlement cycle, from T+3 to T+2, in April 2012.

There are on-going efforts by market participants toward a shorter settlement cycle with an aim of achieving T+1 for JGB transactions by the earliest possible time after 2017. The issues currently being reviewed include possible changes to trading practices and the creation of a market-wide infrastructure for collateral management. In addition to the expected benefit of reducing settlement risk, the shorter settlement cycle is expected to help increase the market liquidity in that it makes it easier to quickly convert financial assets into cash. The Bank is providing active support for the project.

B. The Wider Use of a CCP for JGBs and the Reinforcement of Its Functions

Let me now turn to the second example of a market initiative, which is the wider use of a

CCP and reinforcement of its functions (Chart 3). During the financial crisis, the JGB market, and Japan's financial market more broadly, were able to avoid the contagion of disruptions thanks to the clearing function of Japan Government Bond Clearing Corporation (JGBCC), which is today's Japan Securities Clearing Corporation or JSCC in short. As you know, JSCC is a CCP for over-the-counter (OTC) JGB transactions and plays the role of a buyer to every seller and the role of a seller to every buyer, and provides guarantee for settlements even in the case of the default of a buyer or seller. That experience highlighted the importance of central clearing and led market participants to promote the wider use of JSCC in JGB transactions. Against that background, trust banks, which are major providers of funds in the JGB repo market, are expected to use JSCC in the form of so-called "repo trust" in the first half of 2014.

Benefiting from the lessons during the financial crisis, JSCC is reviewing and strengthening its risk management including loss-sharing arrangements, contingent liquidity lines and participant default procedures so that its risk management remains robust enough in light of the growing clearing volume with new users. I am sure those measures will greatly enhance the JGB settlement infrastructure and the Bank will continue encouraging JSCC's efforts through daily activities of the central bank oversight.

III. Initiatives to Increase the Efficiency of JGB Settlement

For payment and settlement systems, striking a balance between safety on one hand and efficiency and convenience on the other hand is the key. A settlement service that is convenient but less safe may attract users for a short period of time, but it is likely to lose them in the long run. On the contrary, a safe but inconvenient service cannot fully fulfill the potential of its safety, because settlement demand moves away from such an inconvenient service. Since the latest financial crisis, a series of new regulations have been introduced and that certainly has contributed to greater safety of payment, clearing and settlement, and the global financial system. A flip side to this, in my view, is that the enhancement of efficiency and convenience is somewhat left behind. So, while there is no doubt we need to implement the on-going measures for greater safety as planned, it is essential that we now make more efforts to improve the efficiency of JGB settlement so that we can better meet the existing and emerging needs of the industry and financial markets.

I am sure such improvement in efficiency will support Japanese companies and financial institutions in expanding their businesses, make JGBs as well as Japan's financial markets more attractive and competitive, and ultimately stimulate the Japanese economic growth.

A. Enhancement of Cross-Border Settlement

In that regard, I emphasize that cross-border activities should be one of our primary targets in enhancing the efficiency and convenience of payment and settlement systems. For example, Japanese companies are expanding their businesses in the overseas markets, especially in Asia, and consequently their traffic of cross-border funds transfer in the Japanese yen is growing (Charts 4 and 5). Naturally, Japanese financial institutions are increasing their overseas lending in line with the growing foreign business of their customers, and therefore it is becoming very important for them to have stable sources of funding in foreign currencies, for example, by making use of financial assets denominated in the Japanese yen that they have abundantly on their balance sheets. In addition, as more and more non-residents are investing in JGBs, there are growing business opportunities to offer JGB custody services to foreign customers. Furthermore, there is an increasing awareness among market participants that the new regulations related to OTC derivatives, for instance, are likely to increase the importance of market infrastructures that support flexible mobilization of JGBs and other high-quality collateral assets.

How could Japan's future settlement infrastructure address those environmental changes that I just mentioned? In my eyes, the future settlement infrastructure should offer an environment that facilitates the smooth delivery of the Japanese yen and JGBs anywhere, anytime, which I would call the ubiquity of the Japanese yen and JGBs. To increase the usability of JGBs as high-quality financial assets will benefit not only financial institutions in Japan but also broader financial markets around the world. The outstanding balance of JGBs is fairly close to that of the U.S. Treasuries, but the U.S. Treasuries are currently used as collateral much more widely in global financial markets. If we look at the bright side of this, JGBs have much room for expanded use as collateral in global financial markets.

More broadly, various initiatives are already underway to achieve more efficient and convenient settlement systems, in particular with respect to cross-border settlements. In the ASEAN+3 region, market participants and the authorities, including central banks, are working to improve cross-border securities settlement infrastructure in their efforts to stimulate cross-border securities transactions in the region. In Europe, international central securities depositories are upgrading their global collateral management services that help mobilize collateral assets across borders. In Japan, as I mentioned earlier, market participants are reviewing the case of developing a collateral management infrastructure that will support the achievement of the shorter settlement cycle for JGBs. Such a collateral management infrastructure, if established, will also provide leverage in the improvement of cross-border settlements of JGBs in the future. Combining those initiatives in Japan and abroad, the Bank of Japan's efforts to improve its payment and settlement systems will be one piece of the puzzle to make global settlement infrastructure safer and more efficient, and hopefully contribute to the growth of the Japanese and global economies.

B. Central Bank Cross-Border Collateral Arrangements

Now, let me talk about another example of the enhancement of cross-border settlement infrastructure, which is a cross-border collateral arrangement for JGBs among central banks. The Bank of Japan has been collaborating with other central banks to establish such arrangements, where a foreign central bank provides liquidity in its local currency against JGBs to its counterparty financial institutions, using the Bank of Japan as a custodian for receiving JGB collateral from those financial institutions. The Bank has been working with Asian central banks to establish such cross-border collateral arrangements. For example, we worked with the Bank of Thailand to establish an arrangement for providing the Thai Baht liquidity against JGBs, which has been put into effect since November 2011 (Chart 6). In addition, we have made an agreement with the Monetary Authority of Singapore and separately with the Bank Indonesia to establish similar arrangements.[5]

With those arrangements, Japanese banks and other financial institutions will have additional sources of local currencies from local central banks in stressed funding conditions in local financial markets. That backstop will enable global financial

[5] In addition, six central banks, namely the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, the National Bank of Switzerland, and the Bank of Japan, have set up foreign exchange swap arrangements as a liquidity backstop.

institutions to manage their liquidity in each local currency more stably, which will in turn facilitate their stable lending to corporate customers in local currencies.

C. Toward the Regional Securities Settlement Infrastructure in Asia

The cross-border collateral arrangements that I just mentioned provide a liquidity backstop in times of stress. In that respect, market-based solutions for stable daily funding in foreign currencies are just as important as, or possibly more important than, those central bank arrangements.

As part of the response to such market needs, the ASEAN+3 countries established a forum to explore the possibility of establishing cross-border settlement infrastructure in the region (Chart 7). This forum discusses several possible models for such infrastructure. One idea is to link a securities settlement system in one country with a central-bank-operated payment system in another country. Another idea is to set up a cross-border link between securities settlement systems. With such cross-border links, market participants will be able to settle foreign-currency funding transactions against domestic collateral assets, known as cross-currency repos, in safe central bank money on a DVP basis. Further, with such links, local investors will have easier access through their local securities settlement system to foreign securities, which will help increase intra-regional securities investment in the long run. Given that market participants and central banks are undertaking similar initiatives in Europe with an aim of improving securities settlement across borders in the region, it would be conceivable that market participants in Asia will start dialogue with their counterparties in regions outside Asia to review the possibility of a cross-border link between settlement infrastructures.

IV. Development of the New BOJ-NET and Extension of Its Operating Hours

Now, let me move on to the new BOJ-NET. Here I will talk about the possible extension of the BOJ-NET operating hours, which the Bank of Japan and market participants are intensively discussing, and the new features that will become available with the completion of the new BOJ-NET. I will try to put those points in the context of the enhancement of cross-border settlements.

A. The Development of the New BOJ-NET

We have been developing the new BOJ-NET to replace the whole IT platform of the current BOJ-NET. The main purpose is to develop a flexible system that can respond to on-going and future market developments such as the globalization of financial markets and increasing interconnectedness among market infrastructures.

The new BOJ-NET is built upon an IT platform equipped with a technical capacity of operating substantially longer hours so that it can respond to user demand for settlements early in the morning and late at night. The possible extension of BOJ-NET operating hours will create a larger overlap between the operating hours of the BOJ-NET and those of the overseas payment and settlement systems, which will provide a solid foundation for the possible future enhancement of cross-border settlements that I talked about earlier.

The new BOJ-NET employs the latest information technology for improved convenience for users. For example, the new BOJ-NET adopts a new technology which facilitates the acceptance of different data formats and communication protocols. It also adopts ISO20022, internationally accepted message formats. Those new features will be introduced in order to enhance the accessibility to the BOJ-NET by other domestic or foreign infrastructures and financial institutions. As those new capabilities will be widely utilized, the new BOJ-NET will demonstrate a greater ability to support financial institutions that seek to achieve a higher level of straight-through processing and to address the future increase in cross-border settlements.

The new BOJ-NET is being developed in two phases in order to make a smooth transition to the new system (Chart 8). In January this year, the first phase of the new BOJ-NET was launched, as originally planned, with the services related to the auction for JGB issuance and those related to the monetary policy operations. The new BOJ-NET has been operating smoothly since its introduction, and I am grateful to all IBA members and other market participants for making this happen. In the second phase, all the remaining services, including core services related to the settlement of funds and JGBs, will migrate to the new BOJ-NET. The second phase is currently planned to be launched sometime between the autumn of 2015 and the beginning of 2016.

B. The Operating Hours of the BOJ-NET

The Bank of Japan made an announcement that, with the launch of the second phase, the BOJ-NET Funds Transfer System and JGB Services would start their daily operation at 8:30 a.m., which is 30 minutes earlier than the present, and close the operation at 7:00 p.m., which is two and a half hours later than the present with respect to JGB services. In addition, the Bank formed an industry forum in August last year to discuss the possibility of extending the operating hours of the BOJ-NET further beyond 7:00 p.m. The forum consists of major market players and industry representatives including of course the IBA secretariat and several member institutions of the association. I am very much grateful for your active involvement in this important work.

I hear that this industry forum will be soon delivering a report with the results of their reviews and that the discussion has demonstrated that a great majority of participants see a huge advantage in extending the operating hours up to 9:00 p.m. as an initial step in maximizing the use of JGBs as collateral in global financial markets and providing their customers outside Japan with improved Japanese yen remittance services (Chart 9). In response to the forthcoming report by the forum, the Bank will make its decision on the operating hours and related issues in due course.

The extension of the operating hours will conceivably open up a new opportunity for the greater use of JGBs in global financial markets (Chart 10). For example, as the discussion of the forum has made clear, market participants in Japan would be able to deliver JGBs to CCPs and trading counterparties overseas in response to a margin call for derivatives transactions and get back excess collateral immediately when it becomes available for return. In addition, market participants would be able to obtain liquidity in overseas markets more conveniently with the same-day cross-currency repo against JGBs. Further, financial institutions with a large amount of JGBs in their portfolios would see a greater opportunity for transactions in global securities lending markets for high-quality collateral assets.

C. The Future of JGB Settlement

As I said earlier, in the future of JGB settlement, the smooth delivery of JGBs and associated payments in the Japanese yen across borders and across time zones will no longer be a luxury that may be unaffordable today. The Bank will strive toward such future vision in close cooperation with market participants. In doing so, we will be making Japanese financial markets more attractive to diverse sources of investment. As part of those efforts, the Bank will continue to review a range of possibilities for improving the accessibility of the BOJ-NET such as the possible extension of the BOJ-NET operating hours as I mentioned earlier. It is not an easy task to develop market infrastructure that will form the backbone of market's trading and settlement activities, not least because it will involve many actors and a considerable amount of time and cost. It is therefore crucial that market players including the IBA members, as well as the operators of settlement infrastructures including the Bank of Japan, keep a long-term perspective and cooperate steadily to achieve better market infrastructure. For that reason, I would like to ask for your continued support and cooperation in the area of payment, clearing and settlement.

V. Conduct of Monetary Policy

Lastly, let me touch on the recent conduct of monetary policy.

It has been almost a year since the Bank introduced quantitative and qualitative monetary easing (QQE) last April. Economic activity and prices have been broadly in line with the baseline scenario presented in the Outlook Reports and interim assessments. Accordingly, the Bank's policy board has judged it appropriate to steadily pursue the QQE under its current guidelines of asset purchases.

Meanwhile, I acknowledge that there is a wide range of views in financial markets concerning how long the QQE will last and whether or not the Bank needs to take further easing measures. Those views are based on a belief that it is not easy, or at least takes more time, to achieve the outlook -- particularly that for prices -- presented in the Bank's baseline scenario. As a policymaker, I am somewhat hesitant to comment on those views, but let me provide my thoughts specifically on the policy duration of the QQE, as communication with the market is a matter of significant importance to us.

First of all, let me stress that the Bank, in its conduct of the QQE, has made a firm commitment. That is, to achieve the price stability target of 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI) at the earliest possible time, with a time horizon of about two years. At the same time, the Bank has made it clear that it will continue with the QQE, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner.

In my understanding, there are three things about the policy duration of the QQE.

First, the QQE does not automatically end in two years. It does not imply that the Bank can step back, no matter how small, from the commitment to achieve the 2 percent price stability target at the earliest possible time, with the time horizon of about two years.

Second, the commitment to achieve the 2 percent target in about two years does not contradict the policy to continue with the QQE as long as it is necessary for maintaining that target in a stable manner. In my view, the phrase "as long as it is necessary for maintaining that target in a stable manner" embodies the Bank's forecast targeting. If, for example, the Bank judges that the inflation rate of 2 percent can be achieved on a sustainable basis after taking account of various conditions, it will exit from the current policy before the actual rate of inflation reaches 2 percent, taking the lagged effects of monetary policy actions into consideration. Conversely, the Bank will continue with the QQE even after the actual rate of inflation reaches 2 percent, if it judges that the inflation rate of 2 percent is not sustainable. "As long as it is necessary" is a notion that enables the Bank to act flexibly in response to uncertainties that may arise in the future, and complementary to the strong and bold commitment that I described earlier.

Third, the price stability target of 2 percent constitutes part of a flexible policy framework akin to those frameworks adopted by major central banks overseas. Put differently, monetary policy requires long and variable time lags before its effects permeate the economy, and thereafter prices. From the perspective of achieving a sustainable growth path in the context of price stability, monetary policy needs to be flexible by examining the current conditions and the outlook for economic activity and prices, as well as various risk factors including the accumulation of financial imbalances. Such an idea of flexible monetary policy has been widely shared with other countries. Particularly in the aftermath of the global financial crisis, major overseas economies have become increasingly attentive to the flexibility of monetary policymaking by laying out the importance of paying due attention to the stability of the financial system. From that viewpoint, the price stability target is by no means a rigid and superficial framework which calls for the inflation rate to touch 2 percent temporarily. It is a flexible and practical framework which accommodates the needs arising from economic developments. As described in the minutes of the Monetary Policy Meeting held on October 31, 2013, my own view on the outlook for prices is somewhat more cautious than the majority view of the Bank's Policy Board members. That does not mean that I am skeptical of the QQE's effects, nor does it mean that I deny the ability of the QQE's transmission mechanism -- envisaged by the Policy Board -- to shift people's expectations. My understanding is that the price stability target is not to be aimed at with surgical precision, but rather that it represents a flexible policy framework in which some margins -- both upside and downside -- should be accommodated. Based on this understanding, I see some latitude with regard to the achievement of the 2 percent price stability target.

On that point, what the price stability target aims to achieve after all is not simply a rise in prices. Rather, it aims to achieve a situation in which a rise in prices is accompanied by a rise in wages, coupled with an improvement in the overall economy. Down the road, people will become increasingly more sensitive to a rise in prices as Japan sees the consumption tax hike occur this coming April. Under such circumstances, we have to avoid leaving an impression that the Bank has been solely pursuing a pick-up in prices without due attention to the economy. It is for that reason that I emphasize once again the flexible nature of the policy framework to achieve the 2 percent price stability target.

Thank you.

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Takehiro Sato

Bank of Japan

Contents

Chart 1

Recent Initiatives for JGB Settlement

	Major Initiatives
1980s	*'80:* Establishment of the JGB Book-Entry System *'88:* Launch of the BOJ-NET Funds Transfer System
1990s	*'90:* Expansion of the BOJ-NET services to JGB settlement ("BOJ-NET JGB Services") *'94:* Introduction of DVP in the BOJ-NET *'96:* Achievement of the rolling settlement for JGB settlement
2000s	*'01:* Introduction of RTGS to the BOJ-NET *'03:* Dematerialization of JGB certificates *'05:* Start of clearing services by the Japan Government Bond Clearing Corporation (today's JSCC)
2010s	*'11:* Establishment of cross-border collateral arrangements for JGBs with the Bank of Thailand *'14:* Launch of 1st phase of the new BOJ-NET *'15 -'16:* Planned launch of 2nd phase of the new BOJ-NET

Chart 2

JGB Settlement Cycle

Types of transactions		Before Apr. 2012	Present (Apr. 2012 -)	earliest possible time after 2017
Outright transactions		T+3 (standard)	T+2 (standard)	T+1 (standard)
Repos	SC (Special Collateral) Repo	Mainly T+3	Mainly T+2	Mainly T+1
	GC (General Collateral) Repo	Mainly T+2	Mainly T+1	Mainly T+0

SC: Repurchase agreement for which the main objective is to lend or borrow specified bonds by posting cash as collateral.

GC: Repurchase agreement for which the main objective is to lend or borrow funds by posting bonds as collateral.

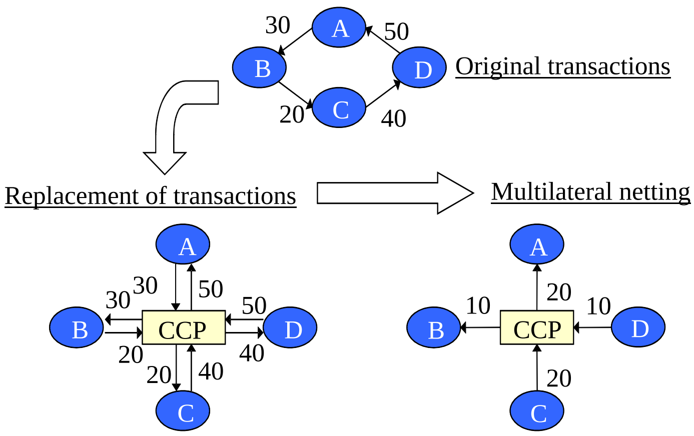
Chart 3

Role of CCP

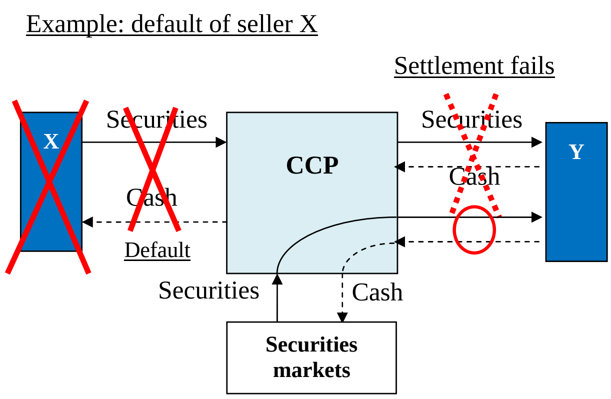
I. Central counterparty (CCP) accepts settlement obligations from clearing members and conducts the multilateral netting.

II. CCP provides guarantee for settlements, even in the case of the default of a buyer or a seller.

I. Acceptance of obligations and the multilateral netting



II. Guarantee of settlement in the case of default

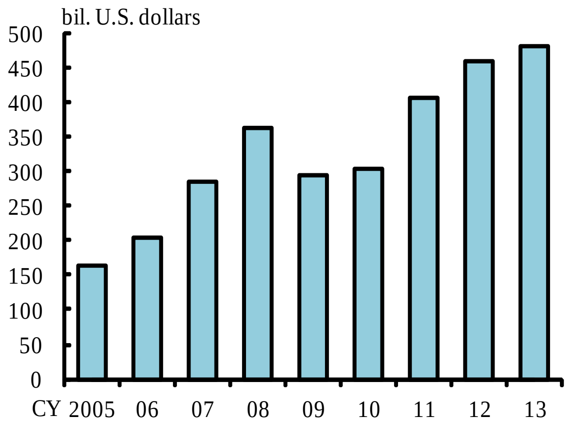


CCP delivers failed securities to Y by buying the securities in the market.

Chart 4

Expansion of Overseas Business by Japanese Financial Institutions

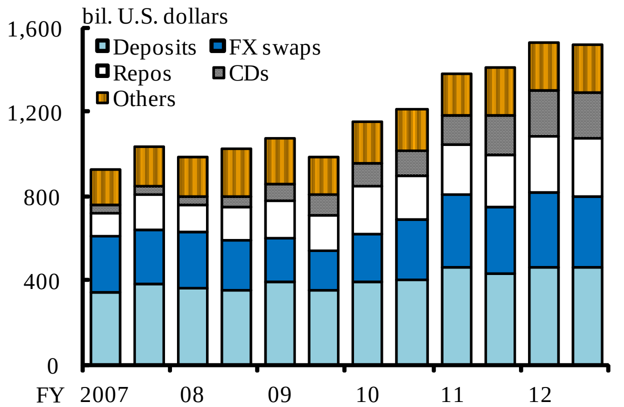
I. Overseas loans of Japanese financial institutions



Note: The data are as of end-December of each year, converted to U.S. dollars. For 2013, the data are as of end-August, converted to U.S. dollars. The chart shows loans outstanding at overseas branches of Japanese major banks.

Source: Bank of Japan.

II. Amount outstanding of foreign currency funding



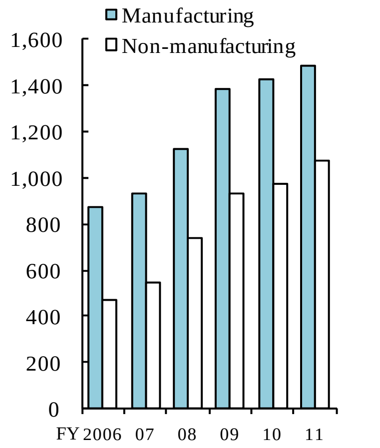
Note: Japanese major banks and regional banks are counted. The latest data are as of end-March 2013.

Source: Bank of Japan.

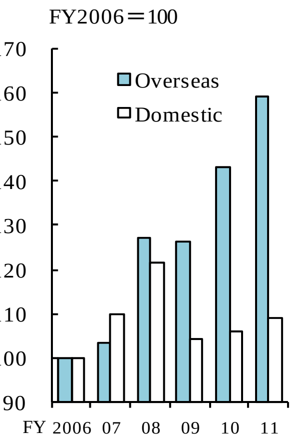
Chart 5

Expansion of Overseas Business by Japanese Small and Medium Enterprises and Increase in Share of JGB Holdings by Foreign Investors

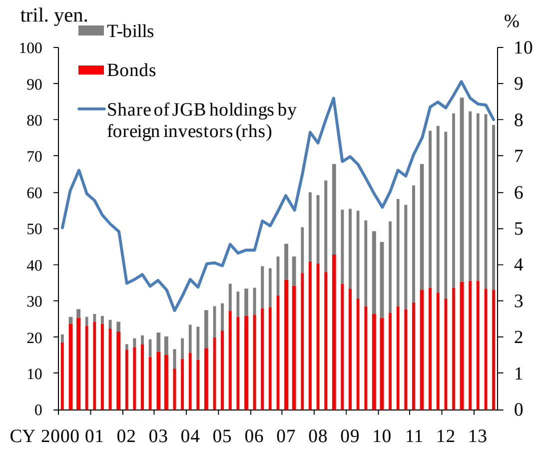
I. Number of overseas affiliated firms



II. Number of enterprises making business fixed investment



III. JGB holdings by foreign investors



Note: Japanese firms whose capital amounts to 100 million yen or less are counted.
Sources: Ministry of Economy, Trade and Industry; Small and Medium Enterprise Agency.

Source: Bank of Japan.

Chart 6

Cross-Border Collateral Arrangements: Case of Bank of Thailand

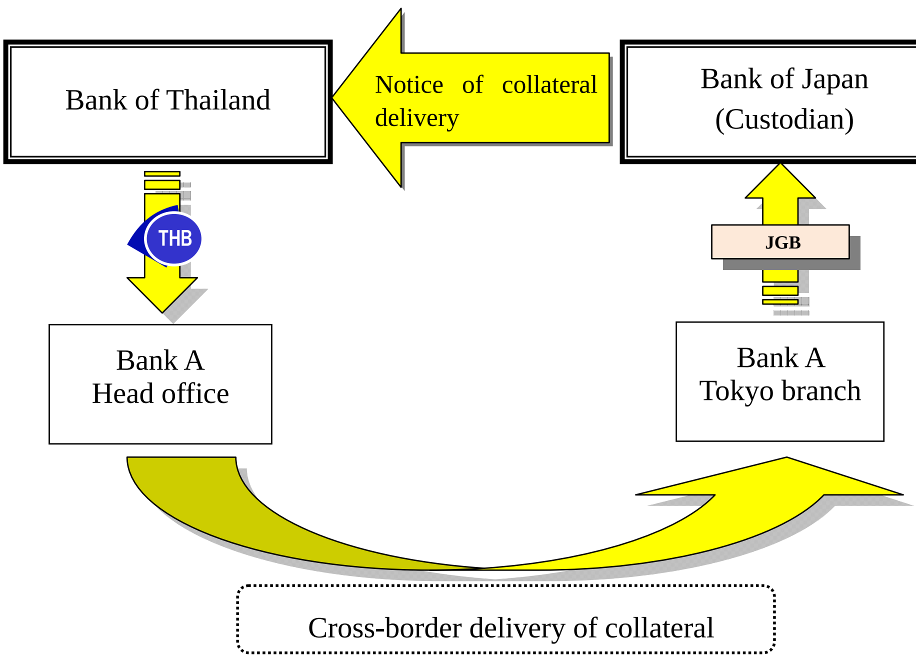


Chart 7

An Illustration of Possible Regional Securities Settlement Infrastructure in Asia

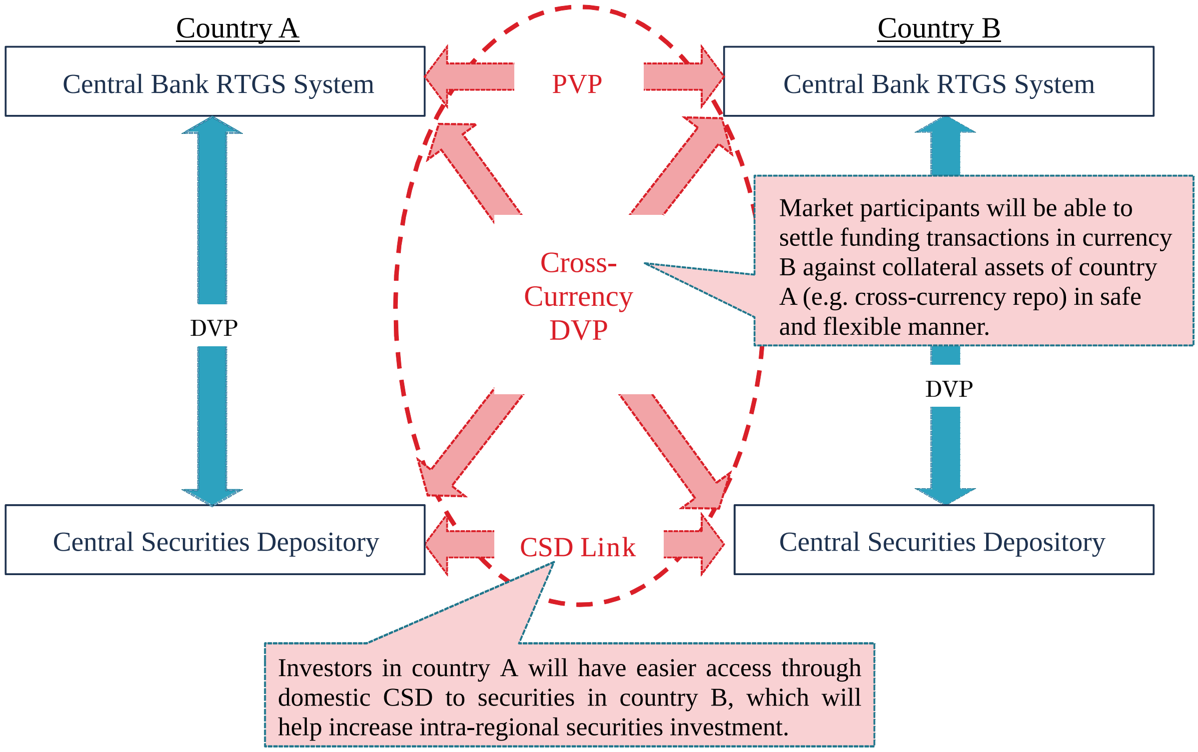


Chart 8

Implementation Timeline of the New BOJ-NET

The BOJ-NET will be fully renewed and the new system will be implemented in two phases.

- Phase 1 went live on Monday 6 January 2014. BOJ market operations and JGB auctions migrated to the new platform.
- A vast majority of transactions (e.g., JPY fund transfers and JGB settlements) will be settled on the existing platform until the start of Phase 2 which is currently scheduled to go live late 2015/early 2016.

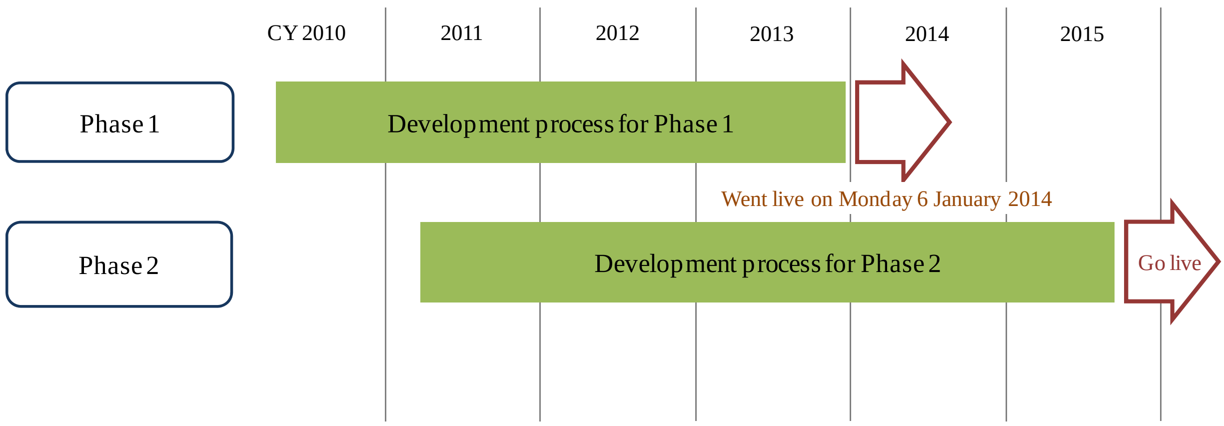
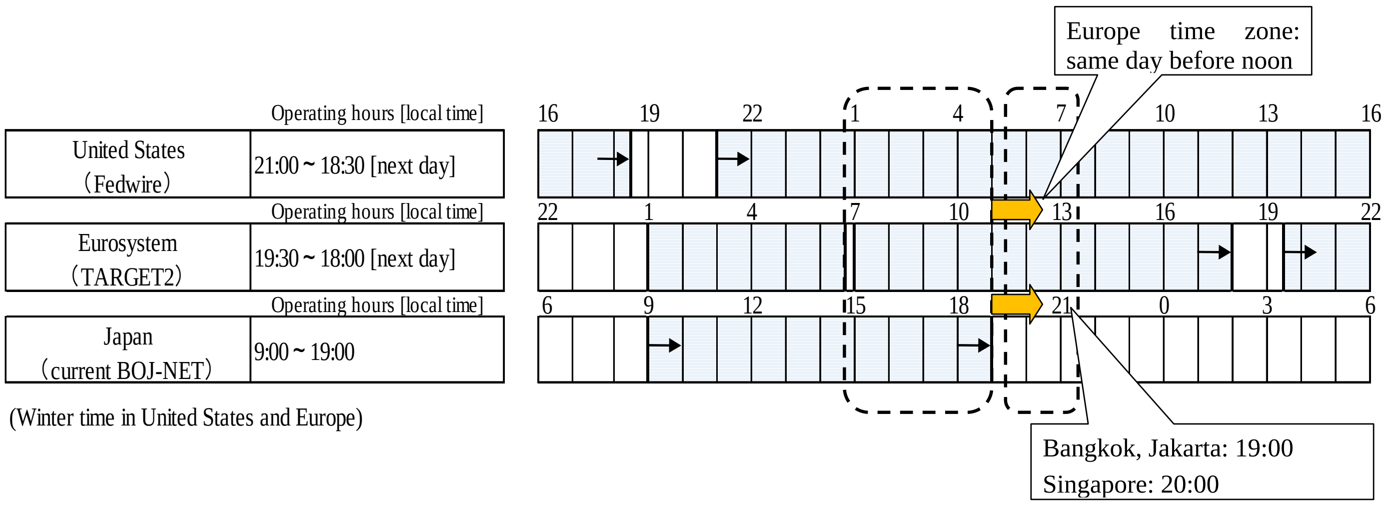


Chart 9

Faster and Safer Cross-Border Settlement

The possible extension of BOJ-NET operating hours will achieve a longer overlap of operating hours with Asian and European markets.

- Same-day remittance in JPY will be possible for customers in Asia.
- Same-day remittance in JPY will be possible for customers in Europe (until CET 13:00).
- Faster and safer settlement of foreign-currency funding/investment.
- Faster and safe posting of collateral to foreign CCPs and trading counterparties.

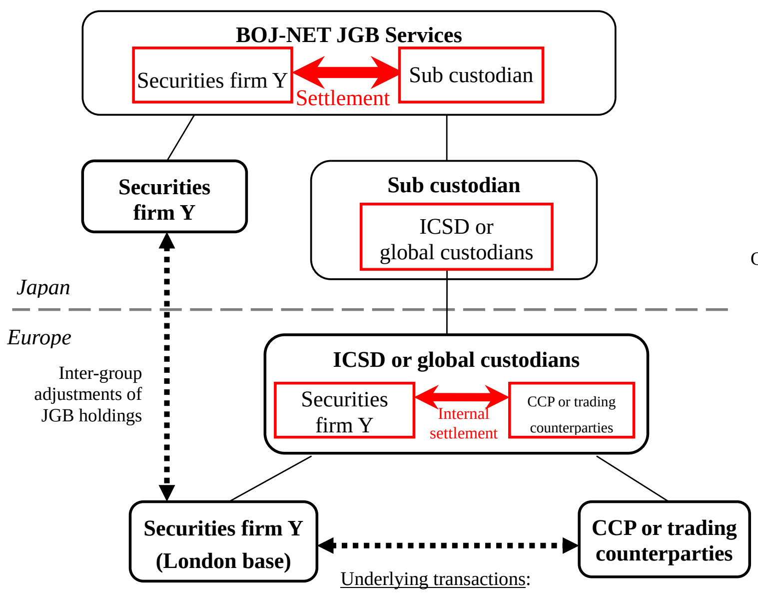


(Winter time in United States and Europe)

Chart 10

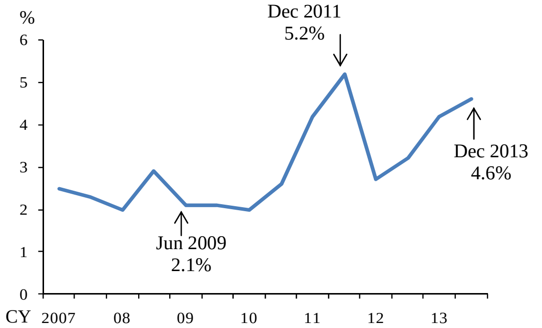
Greater Use of JGBs in Global Financial Markets

I. Settlement of cross-currency repo against JGB and posting of JGB collateral to foreign CCPs and trading counterparties



Underlying transactions:
- Cross-currency repo against JGBs collateral
- Posting of JGB collateral to foreign CCPs and trading counterparties

II. Use of JGB collateral in European repo markets



Sources: ICMA; European Repo Market Survey.

III. Eligibility of JGB collateral at foreign CCPs

LCH.Clearnet Ltd (UK)	○
ICE Clear Europe (UK)	○
Eurex Clearing (DE)	○
CME Clearing (US)	○
FICC (US)	−−