BOJ Reports & Research Papers

June 2013

Money Market Operations in Fiscal 2012

Financial Markets Department

Table of Contents

I. Introduction

During fiscal 2012 (April 1, 2012 to March 31, 2013), the Bank of Japan continued to pursue powerful monetary easing through such measures as the virtually zero interest rate policy and purchases of financial assets.

Under the policy decisions made during the fiscal year, the Bank repeatedly increased the maximum amount outstanding of the Asset Purchase Program (APP), introduced in October 2010, on a significant scale from about 65 trillion yen to about 101 trillion yen at the end of 2013. The Bank also decided to further enhance monetary easing through the "open-ended asset purchasing method" from January 2014.

Through the money market operations conducted under these policies, the Bank made steady progress in terms of the APP with the fixed-rate funds-supplying operations against pooled collateral and purchases of various financial assets, such as Japanese government bonds (JGBs), treasury discount bills (T-Bills), CP, corporate bonds, exchange-traded funds (ETFs), and Japan real estate investment trusts (J-REITs). As a result, the amount outstanding of the APP increased from 48.9 trillion yen at the end of March 2012 to 67.1 trillion yen at the end of December 2012 against the ceiling of about 65 trillion yen. As the purchases were continued steadily, the amount outstanding of the APP reached 72.1 trillion yen at the end of March 2013.

This paper first explains the conduct of money market operations and developments in financial markets during fiscal 2012. It then discusses changes in the Bank's balance sheet as a result of the money market operations. Finally, the paper describes the conduct of individual measures for the money market operations.

At the beginning of fiscal 2013, the Bank decided on the introduction of "quantitative and qualitative monetary easing" at the Monetary Policy Meeting (MPM) held on April 3 and 4, 2013. With a view to pursuing quantitative monetary easing, the main operating target for money market operations was changed from the uncollateralized overnight call rate to the monetary base. The Bank decided to "conduct money market operations, so that the monetary base will increase at an annual pace of about 60-70 trillion yen." It also decided on an increase in JGB purchases and their maturity extension, as well as on increases in purchases of ETFs and J-REITs. Concurrently, the APP was terminated.

II. Conduct of Money Market Operations and Developments in Financial Markets

This chapter contains an overview of money market operations and financial market developments in fiscal 2012.

A. Conduct of Money Market Operations by the Bank

1. Summary of Monetary Policy Decisions Made in Fiscal 2012

Since October 2010, the Bank has pursued powerful monetary easing through the virtually zero interest rate policy and purchases of financial assets. During fiscal 2012, it repeatedly increased the total size of the APP. In January 2013, the Bank introduced the "price stability target" of 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI). The Bank also introduced the "open-ended asset purchasing method" (i.e., to purchase a certain amount of financial assets without setting any termination date), aimed at achieving the price stability target. It released a joint statement with the government to announce that in order to overcome deflation early and achieve sustainable economic growth with price stability, the government and the Bank would strengthen their policy coordination and work together.

Policy decisions made during the fiscal year included the following. At the MPM held on April 27, 2012, the Bank decided to increase the total size of the APP from about 65 trillion yen set for the end of December 2012 to about 70 trillion yen at the end of June 2013 to better ensure the return of Japan's economy to a sustainable growth path with price stability. At the same time, with the aim of smoothly conducting the large-scale purchases and encouraging a decline in longer-term interest rates effectively, the Bank decided to extend the remaining maturity of JGBs and corporate bonds to be purchased under the APP from "one to two years" to "one to three years." At the MPM held on September 18 and 19, 2012, the Bank decided to increase the amount outstanding of the APP in 2013 to about 75 trillion yen at the end of June and to about 80 trillion yen by the end of December. At the MPM held on October 30, 2012, the Bank decided to increase the total size of the APP to about 91 trillion yen by the end of December 2013, in order to make financial conditions for such economic entities as firms and households even more accommodative, by further encouraging a decline in longer-term market interest rates and a reduction in risk premiums. At the MPM held on December 19 and 20, 2012, the Bank decided to further increase the size of the APP to about 101 trillion yen by the end of December 2013 (Chart 1).

In fiscal 2012, in addition to the above-mentioned increases in the total size of the APP, measures were taken to ensure smooth purchases of financial assets. Specifically, at the MPM held on April 27, 2012, the Bank decided on a reduction in the maximum amount outstanding of the fixed-rate funds-supplying operations against pooled collateral with a 6-month term by about 5 trillion yen, taking into account the episodes of undersubscription -- where total bidding amounts fell short of the offered amounts -- and decided to increase purchases of JGBs by about 10 trillion yen. At the MPM held on July 11 and 12, 2012, the Bank integrated loan durations, which then were "3 months" or "6 months," into "within 6 months" under the fixed-rate funds-supplying operations against pooled collateral, in order to respond flexibly to liquidity demand by financial institutions. It reduced the size of the operation by about 5 trillion yen and increased purchases of T-Bills by the same amount. At the same time, it removed the minimum bidding yield, which was 0.1 percent per annum at the time, for the outright purchases of T-Bills and CP, in order to ensure their smooth purchases. At the MPM held on September 18 and 19, 2012, the Bank also removed the minimum bidding yield for the outright purchases of JGBs and corporate bonds, which was 0.1 percent per annum at the time. These measures contributed greatly to the smooth increase in the amount outstanding of the APP.

At the MPM held in January 2013, the Bank introduced the "price stability target." In order to achieve this target, it also decided to continue the virtually zero interest rate policy and purchases of financial assets as long as it judged it appropriate to continue with each respective policy measure. With respect to the APP, the Bank decided to introduce, from January 2014, a method of purchasing a certain amount of financial assets every month without setting any termination date.

The Bank has also aggressively supported private financial institutions in their effort to strengthen the foundations for Japan's economic growth. At the MPM held on April 9 and

10, 2012, as part of the fund-provisioning measure to support strengthening the foundations for economic growth (the Growth-Supporting Funding Facility), the Bank decided to introduce a new U.S. dollar lending arrangement using the dollar reserves already held by the Bank for foreign currency-denominated investments and loans (special rules for the U.S. dollar lending arrangement).

At the MPM held on December 19 and 20, 2012, the Bank decided to introduce the fund-provisioning measure to stimulate bank lending (the Stimulating Bank Lending Facility). This facility aims to provide long-term funds -- up to the amount equivalent to the net increase in lending -- at a low interest rate, without any limit, to financial institutions at their request, with a view to promoting their aggressive action and helping increase proactive credit demand of firms and households. At the same time, since financial institutions' efforts to strengthen the foundations for economic growth and their initiatives to increase the total amount of lending are mutually complementary, the Bank designated the Stimulating Bank Lending Facility, combined with the Growth-Supporting Funding Facility, as the Loan Support Program, with the aim of demonstrating more clearly the Bank's policy stance to support the spill-over of the accommodative monetary environment to the real economy.

Meanwhile, in order to state clearly the shared understanding concerning the roles of the government and the Bank, the Bank decided to release "Measures Aimed at Overcoming Deflation" on October 30, 2012. In January 2013, the "Joint Statement of the Government and the Bank of Japan on Overcoming Deflation and Achieving Sustainable Economic Growth" was released to announce that in order to overcome deflation early and achieve sustainable economic growth with price stability, the government and the Bank would strengthen their policy coordination and work together.

Chart 1: Increases in the Size of the Asset Purchase Program (APP)

trillion yen, figures in parentheses and in fields of "major change in the size of respective assets" are changes from the previous meeting

Monetary Policy Meeting (MPM)		Size of the APP						
		End-Dec. 2012		End-June 2013		End-Dec. 2013		From 2014
		Total size (approx.)	Major change in the size of respective assets	Total size (approx.)	Major change in the size of respective assets	Total size (approx.)	Major change in the size of respective assets	
2012	Apr. 27	65	JGBs +5 Fixed-rate funds-supplying -5	70	JGBs +5 (change from end-Dec. 2012)	-		-
	Jul. 12	65	T-Bills +5 Fixed-rate funds-supplying -5	70	T-Bills +5 Fixed-rate funds-supplying -5	-		-
	Sep. 19	65		75 (+5)	T-Bills +5	80	JGBs +5 (change from end-June 2013)	-
	Oct. 30	65		78 (+3)	JGBs +2.5	91 (+11)	JGBs +5 T-Bills +5	-
	Dec. 20	65		85.5 (+7.5)	JGBs +2.5 T-Bills +5	101 (+10)	JGBs +5 T-Bills +5	-
2013	Jan. 22	-		85.5		101		The Bank will purchase financial assets totaling about 13 trillion yen per month, which include about 2 trillion yen of JGBs and about 10 trillion yen of T-Bills. (The total size of the APP will be increased by about 10 trillion yen in 2014 and is expected to be maintained thereafter.)

2. Summary of the Conduct of Money Market Operations

Based on these decisions, the Bank conducted money market operations as described below.

First, the Bank increased the amount outstanding of the APP while devising a number of measures to carry out purchases smoothly. As a result, the amount outstanding of the APP increased from 48.9 trillion yen at the end of March 2012 to 67.1 trillion yen at the end of December 2012 against its ceiling of about 65 trillion yen. At the end of March 2013, the amount outstanding of the APP, having increased steadily, reached about 72.1 trillion yen (Chart 2).

In more detail, regarding the fixed-rate funds-supplying operations against pooled collateral, because demand for the operations was receding as perceptions of abundant liquidity continued to be strong, at the MPMs held on April 27 and again on July 11 and 12, 2012, the Bank decided to reduce the maximum amount outstanding of the operations at the end of December 2012 by 5 trillion yen each, from about 35 trillion yen to about 25 trillion yen. As a result, the outstanding amount of loans declined from 34.6 trillion yen at the end of March 2012 to 26.9 trillion yen at the end of December 2012. With the introduction of more flexible loan duration, the Bank conducted these funds-supplying operations, taking into account excess and shortage of funds as well as market participants' incentive to bid. For example, the Bank provided ample funds for relatively short terms to meet the temporary need for liquidity resulting from the postponements of the allotments of local allocation tax.

Regarding the purchases of JGBs, the Bank increased the amount outstanding of purchases, while adjusting the pace of purchases to the increases in the size of the APP. Specifically, as the Bank decided to increase the size at the end of December 2012 from about 19 trillion yen to about 24 trillion yen at the MPM on April 27, 2012, it greatly accelerated the pace of purchases -- which were conducted 3 times a month -- by increasing the size of purchases from 300 billion-500 billion yen per operation to 700 billion-1 trillion yen per operation after April 27, 2012. As a result, the amount outstanding increased from 6.3 trillion yen at the end of March 2012 to 24.1 trillion yen at the end of December 2012. After the turn of the year, the Bank conducted JGB purchases 2 or 3 times a month with 300 billion-800 billion yen offered per operation.

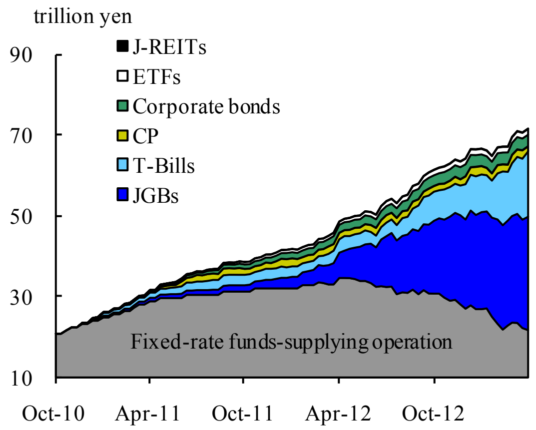
With respect to T-Bills, at the MPM held on July 11 and 12, 2012, the Bank decided to increase the size at the end of December 2012 from about 4.5 trillion yen to about 9.5 trillion yen. Accordingly, it accelerated the pace of purchases by increasing the amount of purchases from 200 billion-300 billion yen per operation to 600 billion-900 billion yen per operation. As a result, the amount outstanding increased from 3.5 trillion yen at the end of March 2012 to 9.6 trillion yen at the end of December 2012. After the turn of the year, the Bank continued purchases at a pace of 500 billion-1.5 trillion yen per operation. Purchases of CP, corporate bonds, and other financial assets were also carried out smoothly.

On the other hand, as the amount outstanding of the APP increased smoothly, resulting in stronger perceptions of abundant liquidity, the frequency of offers of the variable-rate funds-supplying operations against pooled collateral declined significantly.

Based on the U.S. dollar liquidity swap arrangements with the Federal Reserve, the Bank regularly offered the 1-week U.S. dollar funds-supplying operations once a week and the 3-month operations about once every 4 weeks. In order to continue these operations, in December 2012 the Bank postponed the termination date of the arrangements by 1 year, from February 1, 2013 to February 1, 2014. However, since the dollar funding market and foreign exchange swap markets remained calm on the whole, all bids reflected the incentive to test the operational procedure.

Meanwhile, the Growth-Supporting Funding Facility was conducted once every 3 months under the main rules, the special rules for small-lot investments and loans, and the special rules for equity investments and asset-based lending (ABL). In addition, offers were made in October and November 2012 and February 2013 under the U.S. dollar lending arrangement introduced at the MPM held on April 9 and 10, 2012. The funds-supplying operation to support financial institutions in disaster areas was conducted once a month.

Chart 2: Amount Outstanding of the APP



Note: The amount outstanding before the establishment of the APP is that of the fixed-rate funds-supplying operation against pooled collateral.

B. Developments in the Domestic Money Markets and Bond Markets

Against the background of the aforementioned market operations conducted by the Bank, the money markets and the bond markets in Japan, and the foreign exchange swap markets, developed as follows.

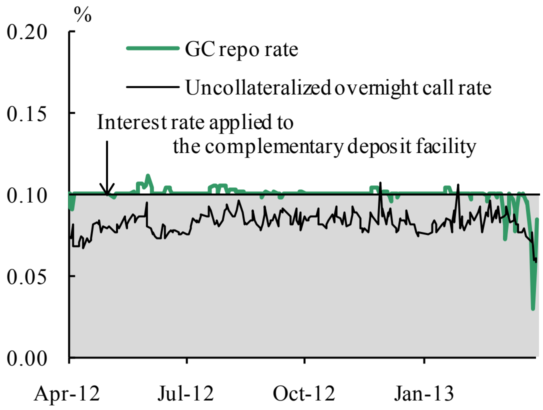
1. Overnight Money Market

In fiscal 2012, the overnight money market remained extremely stable amid the Bank's powerful monetary easing.

The uncollateralized overnight call rate remained in line with the guideline for money market operations: "The Bank of Japan will encourage the uncollateralized overnight call rate to remain at around 0 to 0.1 percent." On the whole, it remained low and stable at around 0.08 percent (Chart 3). Nevertheless, as the progress of purchases of financial assets had been made under the APP and the abundant liquidity provision continued to meet financial institutions' funding demand, the trading volume of the uncollateralized overnight call market remained low.

On the other hand, the general collateral (GC) repo rate behaved differently after the beginning of 2013 compared with 2012. During 2012, because the interest rate applied to the complementary deposit facility of 0.1 percent served as the floor for the GC repo rate, against the background of ample provision of funds by the Bank, when the GC repo rate rose to levels slightly above 0.1 percent, an increasing number of financial institutions invested their surplus funds aggressively. As a result, the GC repo rate converged in a narrow range around 0.1 percent. After the turn of the year, however, the GC repo rate frequently declined to levels significantly below 0.1 percent (see Box 1). From April 23, 2012, as settlement cycle for JGB outright purchases was shortened, the settlement cycle for most of the overnight GC repo trades was shifted from a T+2 basis (2 business days between contract execution and settlement) to a T+1 basis (1 business day between contract execution and settlement). However, this did not have any visible impact on the level of the GC repo rate or the trading volume (see Box 2).

Chart 3: Overnight Interest Rates



Notes: 1. Based on contract date.
2. Shaded area indicates the Bank's target policy rate for the uncollateralized overnight call rate (around 0 to 0.1 percent).
3. GC repo rates before April 20, 2012 are on a T+2 basis, and rates after April 23, 2012 are on a T+1 basis.

Box 1: Change in the Supply and Demand Balance and the Rate Decline in the GC Repo Market

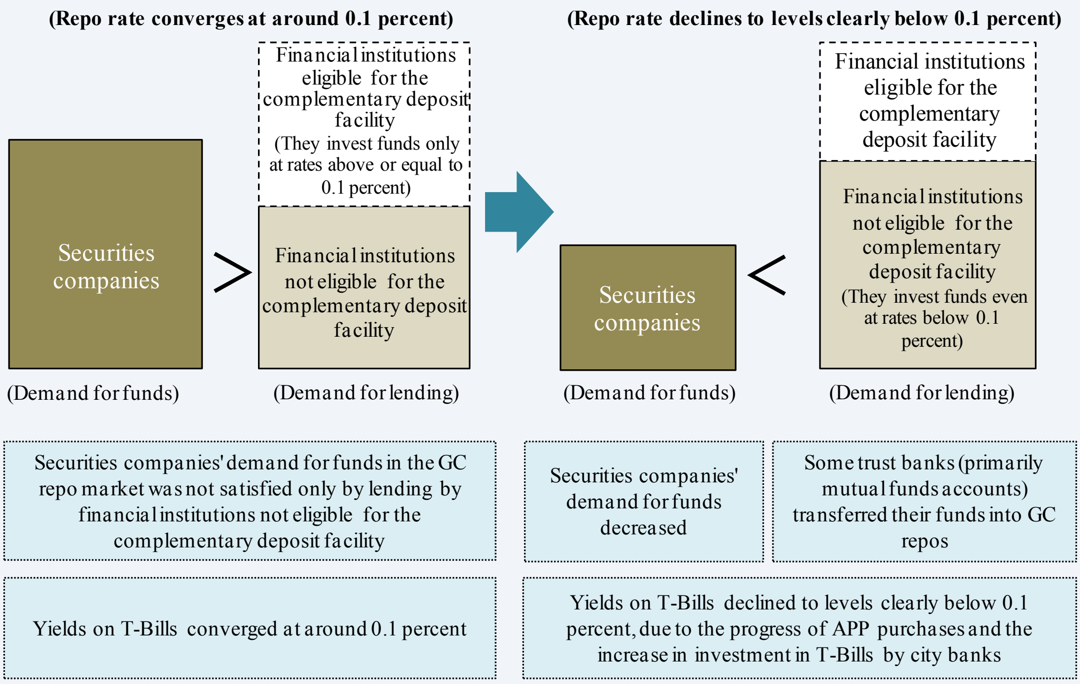
The GC repo rate had remained stable at around 0.1 percent during 2012, but it often fell significantly below 0.1 percent after the beginning of 2013 (Chart 3). This seemed to be due to changes in the supply and demand balance in the GC repo market (Chart 4).

The GC repo market is used mainly by securities companies to finance their holdings of T-Bills and other securities (to obtain funds) and by banks and investment trusts to invest their short-term surplus funds. The lending side consists of financial institutions eligible for the complementary deposit facility (institutions eligible for remuneration) such as banks -- which in principle provide funds only at rates above the interest rate applied to the complementary deposit facility (0.1 percent) -- and financial institutions not eligible for the complementary deposit facility (institutions not eligible for remuneration) such as investment trusts -- which have a need to provide funds even at rates below 0.1 percent.

During 2012, there appeared to be room for institutions eligible for remuneration to provide funds at rates above 0.1 percent, as the funding needs of securities companies to finance their inventories generally exceeded the lending needs of institutions not eligible for remuneration. In addition, given the Bank's provision of ample funds, institutions eligible for remuneration actively invested funds at rates above 0.1 percent. Thus, the GC repo rate remained stable in a narrow range slightly above 0.1 percent.

From early 2013, however, the balance between funding and lending needs changed in the GC repo market, triggered by a tightening in supply and demand and a decline in yields to significantly below 0.1 percent in the T-Bill market (see Chapter II.B.2). In other words, (1) given the tight supply and demand of T-Bills, securities companies considerably reduced their inventories; and (2) when yields on T-Bills fell significantly, some institutions not eligible for remuneration transferred funds that had been invested in the T-Bill market into the GC repo market. As a result, securities companies' funding needs were fulfilled by lending needs of institutions not eligible for remuneration, and the GC repo rate often fell markedly below 0.1 percent.

Chart 4: Changes in Funding and Lending Needs in the GC Repo Market from the Beginning of 2013



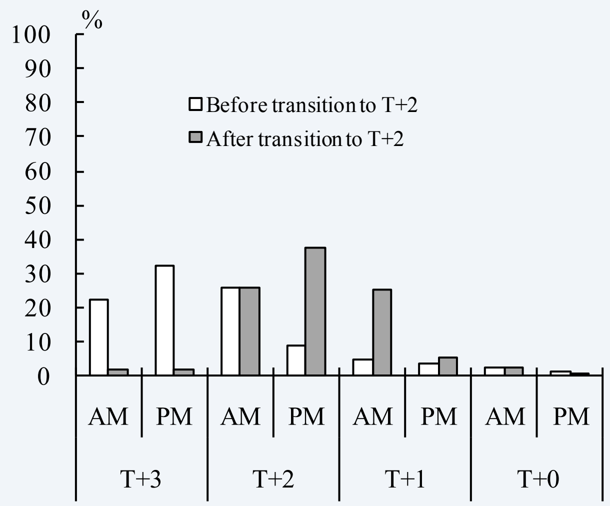
Box 2: Effects of the Shortening of the Payment and Settlement Period for JGBs on the GC Repo Market

Effective from April 23, 2012, the settlement cycle was changed from the traditional T+3 (contract date plus 3 business days) to T+2 (contract date plus 2 business days) for outright JGB trades in the primary and secondary markets. Following this change, the period between the contract date of outright JGB trades and the consequent transfer of funds and delivery of securities was shortened, reducing unsettled positions in the market. As a result, market participants seemed inclined to accelerate their funding in the GC repo market.

For example, when market participants purchased JGBs and raised funds for these purchases through the GC repo market, they often made GC repo contracts with the T+3 settlement cycle on "the contract date of the outright JGB trades (settled on a T+3 basis)" or those with the T+2 settlement cycle on "the day after the contract date." In particular, GC repo contracts with the T+2 settlement cycle constituted major repo contracts due to high liquidity in the market. On the contrary, after the change, market participants now often make GC repo contracts with the T+2 settlement cycle on "the contract date of the outright JGB trades (settled on a T+2 basis)" or those with the T+1 settlement cycle on "the morning of the day after the contract date." While liquidity of contracts with the T+1 settlement cycle on "the morning of the day after the contract date" has improved reflecting market participants' efforts to streamline the operations, such as straight-through processing (STP), the volume of contracts with the T+1 settlement cycle on "the afternoon of the day after the contract date" has been decreasing as the period between the contract and settlement is short and market participants want to secure enough time for back-office operations (Chart 5). Consequently, the period in which transactions are actively conducted has been shortened by about half a day in the GC repo market.

In conducting money market operations, careful attention should be paid to the possibility that the GC repo rate will rise easily due to the growing demand for funds, as the period in which transactions are actively conducted has been shortened. Nevertheless, the GC repo rate seldom rose significantly above the interest rate applied to the complementary deposit facility of 0.1 percent during fiscal 2012, as perceptions of abundant liquidity remained strong reflecting the high level of current account balances at the Bank.

Chart 5: Shift in the Timing of the GC Repo Contract



2. T-Bill Market

Through December 2012, yields on T-Bills had converged to around 0.1 percent due to arbitrage with the interest rate applied to the complementary deposit facility. While the Bank continued to supply ample liquidity, when the yields were above 0.1 percent, major domestic financial institutions which were eligible for the complementary deposit facility invested aggressively in T-Bills. On the other hand, transactions at yields below 0.1 percent were largely limited to purchases by institutions not eligible for remuneration such as overseas investors and investment trusts. As a result, even after the minimum bidding yield was removed at the MPM held in July 2012, yields on T-Bills did not diverge greatly from 0.1 percent in the primary and secondary markets (Charts 6 and 7).

After the turn of the year, amid the acceleration of the pace of purchases under the APP combined with the growing expectation that further monetary easing -- including a reduction of the interest rate applied to the complementary deposit facility -- would be in store, even institutions eligible for remuneration began to actively invest in T-Bills with yields below 0.1 percent. This has resulted in a supply shortage of T-Bills. Also owing to the large share of holding by institutions not eligible for remuneration -- especially foreign investors who have incentives to invest at yields even below 0.1 percent -- yields on T-Bills fell significantly below 0.1 percent in the primary and secondary markets (see Box 3).

Chart 6: T-Bill Rates at Issuance Auction

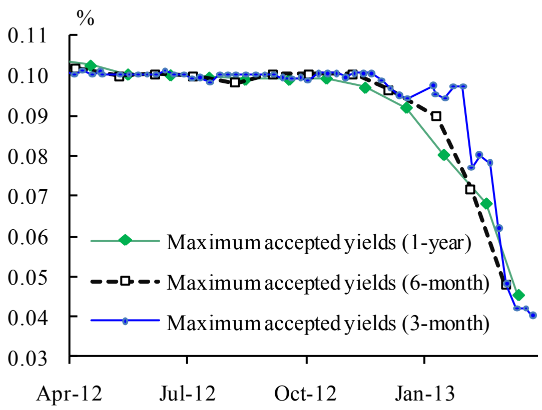
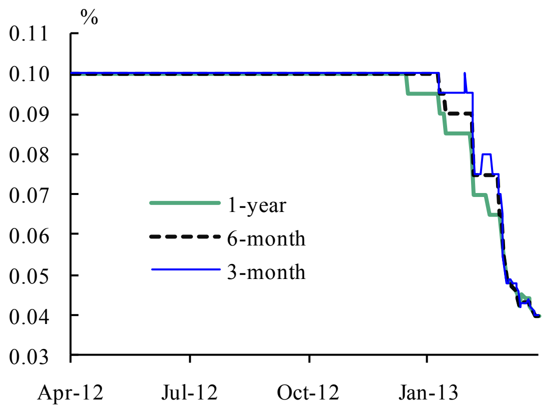


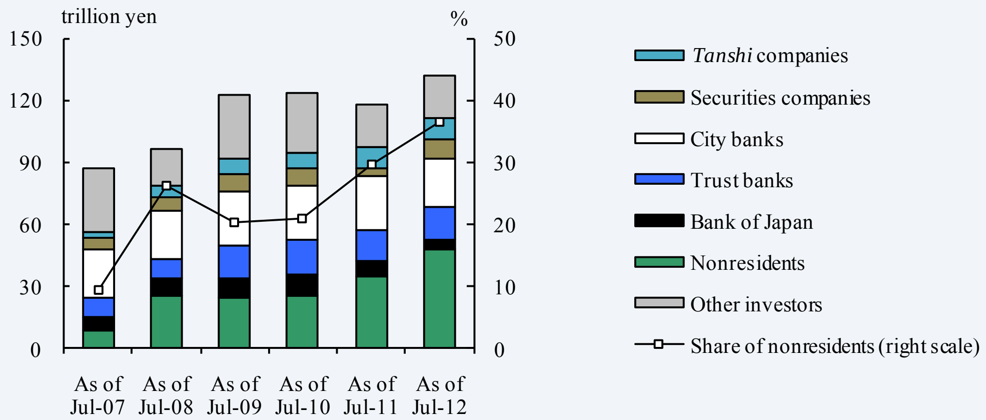
Chart 7: T-Bill Rates in the Secondary Market



Box 3: Investment in T-Bills by Foreign Investors

In Japan, T-Bills are considered to be the most credible short-term financial assets with high liquidity, and they are used for a wide range of purposes, including assets to manage short-term funds as well as cash management and collateral submitted to the Bank and private clearing houses. The share of T-Bill holdings by sector estimated by using various statistics and survey data shows that currently institutions eligible for remuneration such as city banks, securities companies, and *tanshi* companies own about 40 percent of T-Bills while institutions not eligible for remuneration own a fairly large share, with trust banks (trust accounts of pension funds) and foreign investors accounting for about half of the total (Chart 8).

Chart 8: Estimation of the Amount Outstanding of T-Bills by Sector



Notes: 1. "Nonresidents" is based on Ministry of Finance Japan, "International Investment Position." "Bank of Japan" is based on Bank of Japan, "Monetary Base and the Bank of Japan's Transactions." "Trust banks," "city banks," "securities companies," and "*tanshi* companies" are based on Bank of Japan, "Tokyo Money Market Survey (August 2012)."

2. "Bank of Japan" is the sum of the amount outstanding of purchases of T-Bills and those of purchases of T-Bills conducted through the APP.

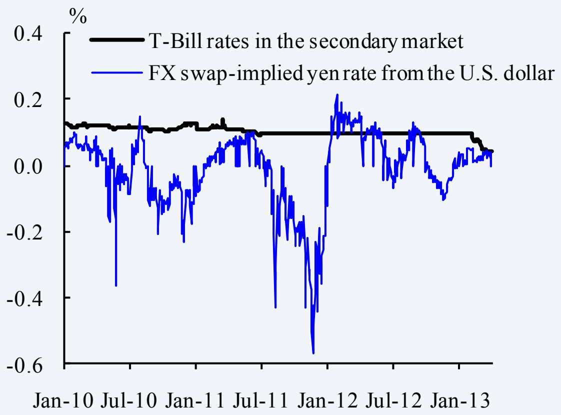
3. "Trust banks" includes mutual fund accounts of institutions not eligible for the complementary deposit facility.

4. "Other investors" includes statistical discrepancies arising from source data in Bank of Japan, "Tokyo Money Market Survey (August 2012)."

In particular, the foreign investors' share has risen markedly in recent years. Foreign investors seem to actively purchase T-Bills to manage their short-term funds, and the following factors can be pointed out as the background to this.

First, when the "flight to quality" intensified in response to global financial crises such as the subprime loan problem, the Lehman shock, and the European sovereign debt crisis, the withdrawn funds flowed into the yen as a relatively "safe-haven currency." This was partly because investors sought refuge in T-Bills. In addition, investment in T-Bills by foreign investors may have been encouraged by the lower level of yen funding costs in the U.S. dollar/yen foreign exchange swap market than yields on T-Bills. In other words, when the foreign exchange swap-implied yen rate -- the total funding cost of raising dollars in the uncollateralized market and converting the proceeds into yen through an foreign exchange swap transaction -- is calculated to measure a benchmark of the attractiveness of investment in T-Bills for foreign investors, the foreign exchange swap-implied yen rate has remained generally at a lower level than yields on T-Bills (Chart 9).

Chart 9: Yields on T-Bills and FX Swap-Implied Yen Rate from the U.S. Dollar



Notes: 1. 3-month term.
2. The FX swap-implied yen rate from the U.S. dollar is the total funding cost of raising dollars at dollar LIBOR and converting the proceeds into yen through an FX swap transaction.

Institutions not eligible for remuneration such as foreign investors have certain needs to invest in T-Bills even at yields lower than the interest rate applied to the complementary deposit facility of 0.1 percent. From the beginning of 2013, in addition to demand from these institutions not eligible for remuneration, more institutions eligible for remuneration started to actively invest in T-Bills at yields below 0.1 percent, as the Bank accelerated the pace of purchases through the APP and market participants became strongly aware of expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility. As a result, the supply and demand balance of T-Bills tightened further, and yields on T-Bills fell significantly below 0.1 percent in the primary and secondary markets.

3. JGB Market

With the steady demand for JGBs among investors, long-term interest rates generally followed a downtrend (Chart 10). Yields on 10-year JGBs declined from April to May 2012 due to mounting concerns over the European sovereign debt crisis, and then remained in the range of around 0.7-0.9 percent from June 2012 onward. Subsequently, they declined further toward the end of fiscal 2012 partly due to the rising expectation for further monetary easing and remained in the range of 0.50-0.59 percent, which was the lowest level since June 2003.

On the other hand, yields on 2-year JGBs converged to around 0.1 percent in 2012 due to arbitrage with the interest rate applied to the complementary deposit facility (Chart 11). As the Bank extended the remaining maturity of JGBs to be purchased under the APP from "one to two years" to "one to three years" at the MPM held on April 27, 2012, yields on JGBs with a remaining maturity of about 3 years, which were now eligible to be purchased under the APP, fell from the levels of about 0.14-0.15 percent to about 0.1 percent by mid-May. As a result, the yield curve flattened at about 0.1 percent, the same level as the interest rate applied to the complementary deposit facility, for overnight instruments and up to JGBs with a remaining maturity of 3 years (Chart 12).

After the turn of the year, due to progress in purchases of JGBs under the APP and mounting expectation for further monetary easing -- including a reduction in the interest rate applied to the complementary deposit facility -- yields on JGBs with a remaining maturity of 3 years or less declined to levels clearly below 0.1 percent. In addition, yields on 5-year JGBs fell to 0.095 percent, a historical low, on some occasions.

Chart 10: Yields on JGBs (5-Year and 10-Year)

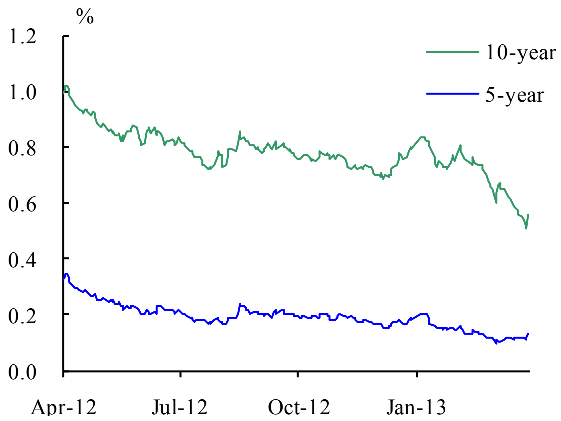


Chart 11: Yields on JGBs (2-Year and 3-Year)

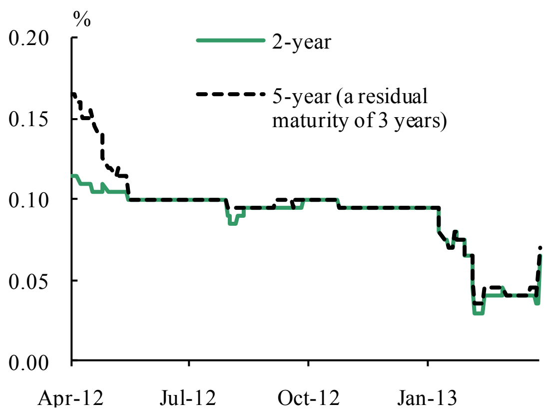
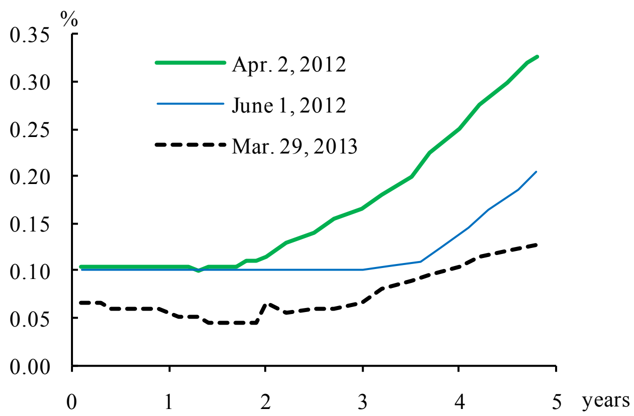


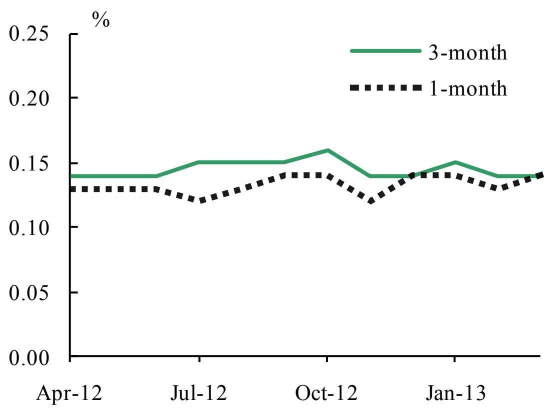
Chart 12: Changes in the JGB Yield Curve



4. CP and Corporate Bond Markets

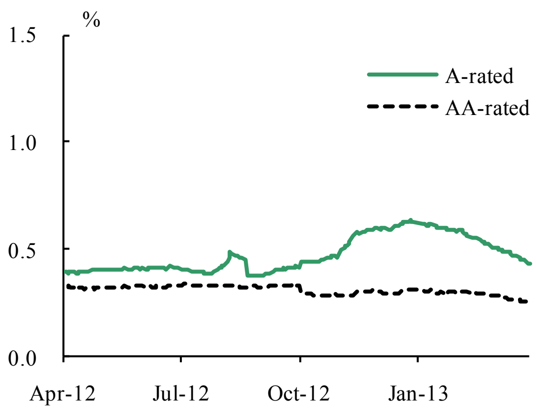
Yields on credit instruments such as CP issuing rates and corporate bond yields remained low and stable on the whole thanks to the accommodative monetary environment and continued purchases of CP and corporate bonds under the APP (Charts 13 and 14). However, yields rose or remained high for issuers in industries with a deteriorating performance or some industries with concerns about rating downgrades, resulting in divergent yields by issuers.

Chart 13: CP Issuance Rates



Note: Those of the corporate sector, on a monthly basis.

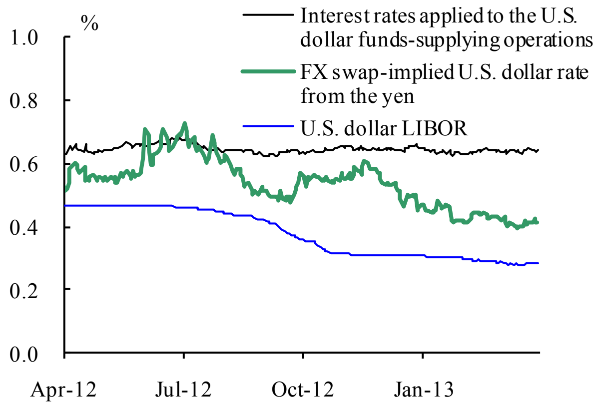
Chart 14: Yield Spreads between Corporate Bonds and JGBs



5. Foreign Exchange Swap Market

In the foreign exchange swap market, the foreign exchange swap-implied U.S. dollar rate from the yen followed a moderate downtrend (Chart 15). The interest rate applied to the U.S. dollar funds-supplying operations (the dollar OIS rate plus 0.5 percentage point) appears to be still regarded as the ceiling for dollar funding costs in the foreign exchange swap market, and the operations have continued to function as a backstop of dollar funding.

Chart 15: U.S. Dollar LIBOR and FX Swap-Implied U.S. Dollar Rates from the Yen (3-Month)



Note: The FX swap-implied U.S. dollar rate from the yen is the total funding cost of raising yen at yen LIBOR and converting the proceeds into dollars through an FX swap transaction.

III. Money Market Operations and the Bank's Balance Sheet

A. Changes in the Bank's Balance Sheet

Partly reflecting the steady increase in the amount outstanding of the APP, the size of the Bank's balance sheet amounted to 164.3 trillion yen as of the end of March 2013, up from 139.6 trillion yen at the end of March 2012 (Chart 16).

Chart 16: The Bank's Balance Sheet (End-March 2013)

trillion yen, figures in parentheses are changes from end-Mar. 2012

Assets			Liabilities and net assets		
Long-term JGBs	63.2	(-1.2)	Banknotes	83.4	(+2.5)
Short-term funds-supplying operations	0.0	(-1.2)	Current account balances	58.1	(+23.7)
Outright purchases of T-Bills	0.0	(-0.4)	Deposits of the government and payables under repurchase agreements	16.0	(-2.1)
Other short-term funds-supplying operations	0.0	(-0.8)	Others	6.8	(+0.5)
APP	72.1	(+23.2)			
Funds-supplying operations against pooled collateral	21.7	(-12.9)			
Outright purchases of JGBs	28.1	(+21.8)			
Outright purchases of T-Bills	16.4	(+13.0)			
Outright purchases of CP	1.2	(-0.3)			
Outright purchases of corporate bonds	2.9	(+0.9)			
Outright purchases of ETFs	1.5	(+0.7)			
Outright purchases of J-REITs	0.1	(+0.0)			
Complementary lending facility	0.0	(+0.0)			
Growth-Supporting Funding Facility	3.4	(+0.3)			
Funds-supplying operations to support financial institutions in disaster areas	0.4	(-0.1)			
Others	25.2	(+3.7)			
Total assets	164.3	(+24.7)	Total liabilities and net assets	164.3	(+24.7)

Notes: 1. Figures are preliminary.
2. "Long-term JGBs" and "outright purchases of T-Bills" do not include those purchased through the APP.
3. "Other short-term funds-supplying operations" includes variable-rate funds-supplying operations against pooled collateral, purchases of Japanese government securities (JGSs) with repurchase agreements, and purchases of CP with repurchase agreements.

In terms of changes from the end of March 2012, the amount outstanding of the APP increased sharply by 23.2 trillion yen. While the amount outstanding of the fixed-rate funds-supplying operations against pooled collateral decreased by 12.9 trillion yen, those of purchases of JGBs and T-Bills increased sharply by 21.8 trillion yen and 13.0 trillion yen, respectively. On the other hand, the amount outstanding of short-term funds-supplying operations excluding the APP fell to zero because of ample provision of funds under the APP. The amount outstanding of the Growth-Supporting Funding Facility increased by 0.3 trillion yen, while those of the funds-supplying operations to support financial institutions in disaster areas decreased by 0.1 trillion yen.

B. Developments in Current Account Balances at the Bank

During fiscal 2012, while the asset side of the Bank's balance sheet expanded partly due to the increase in the amount outstanding of the APP, the current account balances at the Bank, on the liability side, trended upward. At the end of March 2013, current account balances at the Bank stood at 58.1 trillion yen, a year-on-year increase of 23.7 trillion yen (Chart 17). By sector, city banks and other institutions subject to the reserve requirement were chiefly responsible for the increase (Chart 18).

Chart 17: Current Account Balances at the Bank

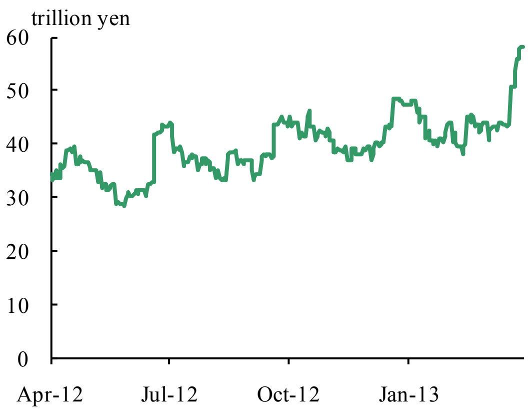
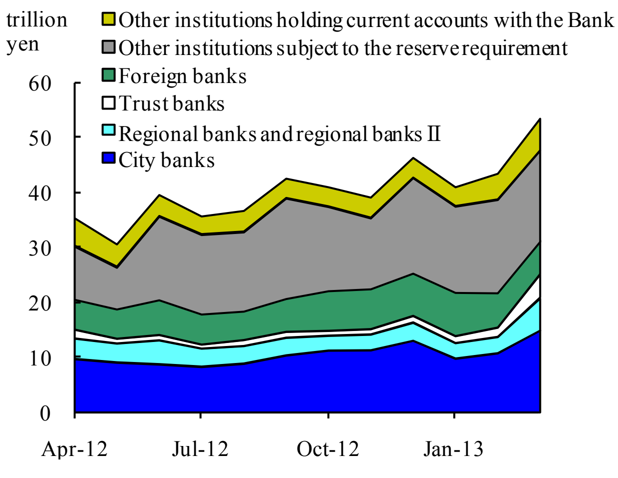


Chart 18: Current Account Balances at the Bank by Sector



Notes: 1. Average amount outstanding for each reserve maintenance period.
2. "Other institutions holding current accounts with the Bank" indicates those that are not subject to the reserve requirement but hold current accounts at the Bank.

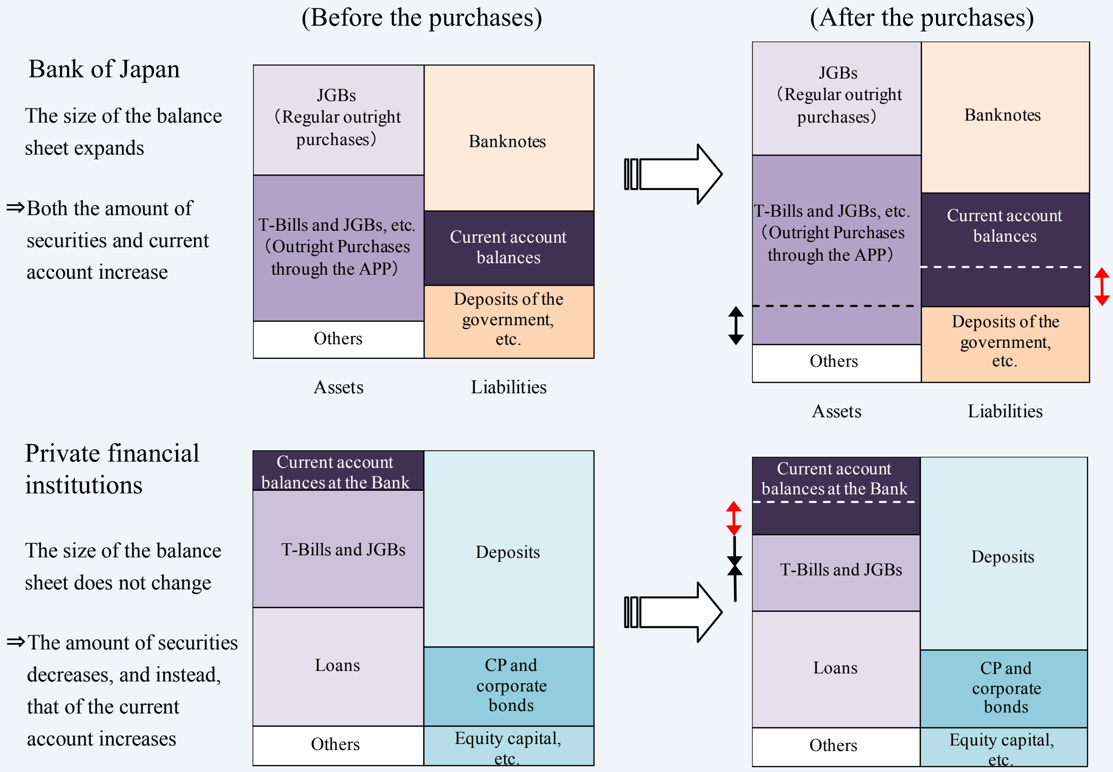
Box 4: Changes in the Composition of Private Financial Institutions' Balance Sheets via Asset Purchases

The Bank's purchases of various assets take effect by changing the composition of private financial institutions' balance sheets and affecting their behavior. Such a set of processes can be considered from two aspects: (1) changes in private financial institutions' balance sheets caused directly by asset purchases; and (2) the consequent expected changes in financial institutions' lending and securities investment stance.

First, regarding changes in private financial institutions' balance sheets caused directly by the Bank's asset purchases, the balance-sheet size does not change, but the composition of the asset side changes. In other words, private financial institutions' holdings of JGBs and other assets decrease, while their current account balances at the Bank increase accordingly (Chart 19).

Chart 19: Change in Balance Sheets of the Bank and Other Financial Institutions

(Example: Initial change of balance sheets brought by the APP)



From the viewpoint of private financial institutions' asset management, while the Bank's asset purchases increase their current account balances at the Bank, their assets under management such as JGBs decrease and downward pressure is exerted on JGB yields as asset purchases progress. Therefore, private financial institutions are expected to increase their investment in risky assets and lending in order to maintain profitability of their portfolios as a whole (the portfolio rebalancing effect).

In addition, to smoothly proceed with asset purchases, the following points warrant attention in conducting money market operations.

First, the current account balances of the financial system as a whole held at the Bank do not change with the transactions between private financial institutions. For example, when one financial institution purchases JGBs from a counterparty to reduce its own current account balances at the Bank, those of the counterparty that sells JGBs increase accordingly, resulting in no change in the current account balances at the Bank as a whole. As such, macroscopic current account balances at the Bank are determined solely by the Bank's provision of funds (such as asset purchases). In other words, looking at the process as a whole, the current account balances at the Bank are not transferred to investment in stocks and lending. Rather, investment in stocks and lending increase as asset purchases (and the consequent increase in current account balances at the Bank) take effect.

Second, as the Bank's asset purchases are conducted through voluntary transactions between the Bank and private financial institutions, how smoothly the asset purchases are conducted depends on private financial institutions' need to sell their asset holdings and their stance on holding current account balances at the Bank. For example, from the beginning of 2013, the supply and demand of JGBs eligible for the APP tightened rapidly, and interest rates for purchasing such instruments fell sharply. This seemed to reflect the fact that heightening expectations for monetary easing, including the lowering of the interest rate applied to the complementary deposit facility, made private financial institutions reluctant to hold current account balances at the Bank, and their need to sell their asset holdings decreased significantly.

C. Developments in Excess and Shortage of Funds

The current account balances at the Bank increase or decrease in response to receipts and payments of banknotes and treasury funds between financial institutions and the Bank or the government -- called excess and shortage of funds -- as well as to the money market operations of the Bank. Regarding banknotes, (1) withdrawals of banknotes from the Bank by financial institutions (issuance of banknotes) constitute sources of decrease in current account balances, while (2) deposits of banknotes at the Bank by financial institutions (withdrawal of banknotes from circulation) constitute sources of increase. As for treasury funds, (1) issuance of Japanese government securities (JGSs) and payments of taxes (treasury fund receipts) result in transfers of funds from current accounts of financial institutions to the government account and constitute sources of decrease in current account balances, while (2) redemptions of JGSs, pension payments, and other fiscal expenditures (treasury fund payments) from the government account to current accounts of financial institutions at the Bank constitute sources of increase.

The Bank conducts money market operations, taking into account day-to-day changes in current account balances resulting from receipts and payments of banknotes and treasury funds, or excess and shortage of funds. Thus, excess and shortage of funds are important preconditions for the money market operations conducted by the Bank. The following relationships hold between changes in current account balances at the Bank and excess and shortage of funds.

Changes in current account balances at the Bank
= money market operations + excess and shortage of funds.

Excess and shortage of funds
= changes in the factor of banknotes + changes in the factor of treasury
funds and others

In fiscal 2012, as in fiscal 2011, the money market operations conducted by the Bank contributed to increasing current account balances at the Bank, while changes in excess and shortage of funds contributed to decreasing current account balances at the Bank, mainly due to changes in treasury funds and others (Charts 20 and 21). The shortage of funds amounted to 41.2 trillion yen, up significantly from 25.3 trillion yen in fiscal 2011 (Chart 22).

Chart 20: Excess and Shortage of Funds, and Market Operations

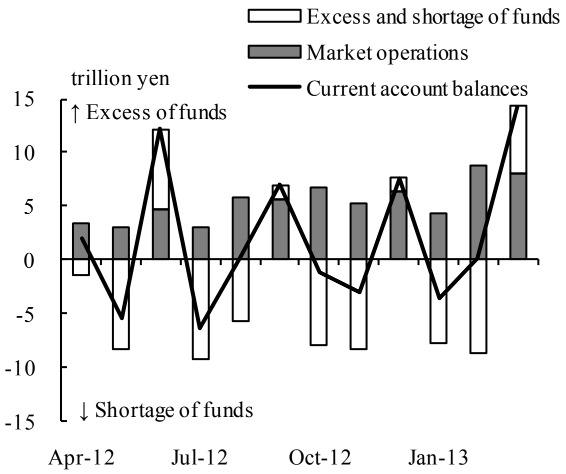


Chart 21: Banknotes, and Treasury Funds and Others

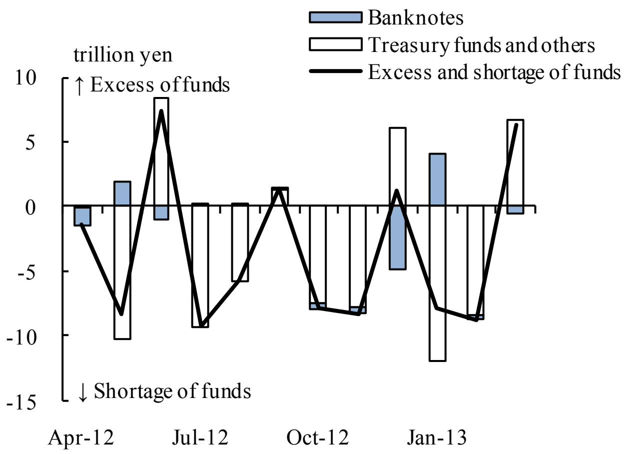


Chart 22: Breakdown of Excess and Shortage of Funds

trillion yen

	Fiscal 2011	Fiscal 2012	
			y/y chg.
Banknotes	+0.1	-2.5	-2.6
Treasury funds and others	-25.4	-38.7	-13.3
Fiscal payments and revenues	+34.8	+33.3	-1.5
JGBs (over 1 year)	-44.3	-57.1	-12.8
T-Bills	-26.4	-13.7	+12.8
Foreign exchange	+9.7	-2.8	-12.4
Others	+0.9	+1.6	+0.6
Excess and shortage of funds	-25.3	-41.2	-15.9

(Reference)

Outstanding balance of banknotes	80.8	83.4

Notes: 1. Positive figures indicate an increase in the current account balances at the Bank, or excess of funds; negative figures indicate a decrease in the current account balances at the Bank, or a shortage of funds.
2. For banknotes, negative figures indicate net issuance; for treasury funds and others, positive figures indicate net payment, and negative figures indicate net receipts.
3. Figures for outstanding balance of banknotes are as of the end of the fiscal year.

1. Changes in Banknotes

In fiscal 2012, changes in banknotes turned to net issuance, from net redemptions of 0.1 trillion yen in fiscal 2011, which were a reaction to the net issuance in fiscal 2010 resulting from heightened demand for banknotes immediately after the Great East Japan Earthquake in March 2011. The net issuance constituted 2.5 trillion yen of the sources of decrease in current account balances at the Bank, or shortage of funds, in fiscal 2012.

The cumulative changes in banknotes during fiscal 2012 showed the following developments. In April and May, they sharply shifted toward shortage of funds, compared with fiscal 2011. This is because although net issuance increased significantly toward the end of fiscal 2010 due to the heightened demand for banknotes immediately after the Great East Japan Earthquake in March 2011, some banknotes were redeemed in early fiscal 2011 amid declining demand. This factor was absent in early fiscal 2012. Seasonal changes in banknotes from June onward remained more or less unchanged from the previous year. However, the amount of shortage of funds increased sharply toward the end of December 2012, reaching 5.8 trillion yen, due to the increase in banknote issuance to meet the high year-end demand for banknotes. The demand for banknotes was especially high, because for the first time in 5 years since 2007, the year-end/New Year holidays extended to 6 consecutive days. Withdrawals of banknotes from circulation after the turn of the year reduced the shortage of funds to 2.5 trillion yen as of the end of March 2013 (Chart 23). The outstanding balance of banknotes stood at 86.7 trillion yen (up 3.2 percent year on year) at the end of December 2012 and at 83.4 trillion yen (up 3.1 percent year on year) at the end of March 2013 (Chart 24).

Chart 23: Cumulative Changes in Banknotes in terms of Excess and Shortage of Funds

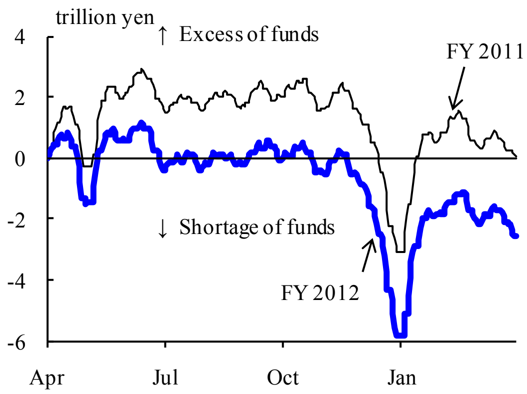
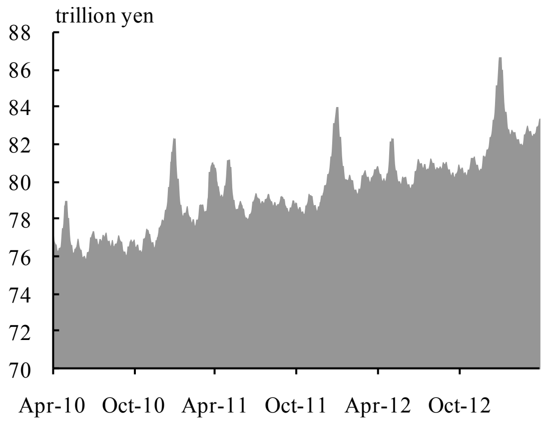


Chart 24: Outstanding Balance of Banknotes

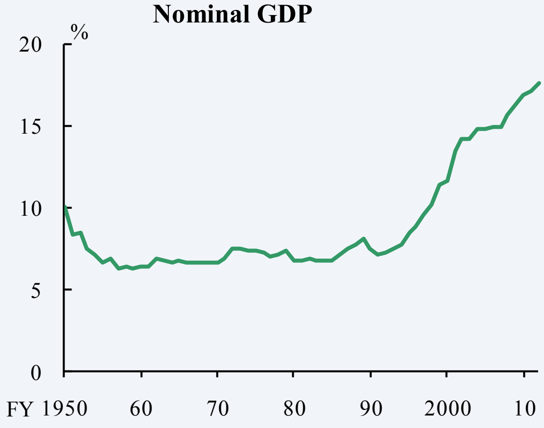


Box 5: Increase in Outstanding Balance of Banknotes and Decrease in the Amount of Payments and Receipts of Banknotes

Since the mid-1990s, changes in the outstanding balance of banknotes and the amount of payments and receipts of banknotes have shown the following developments. Amid the continuing low interest rate environment, the increase in the outstanding balance of banknotes and the decrease in the amount of day-to-day payments and receipts of banknotes have taken place simultaneously.

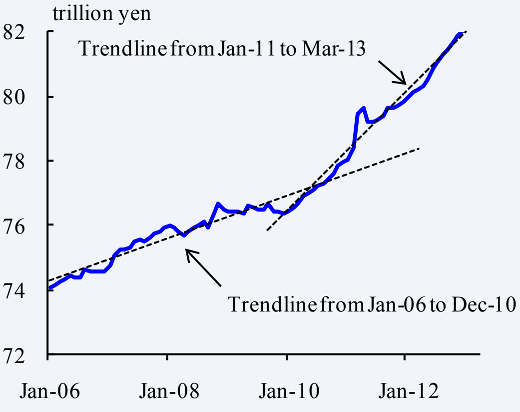
The ratio of outstanding balance of banknotes to nominal GDP has continued to follow a clear uptrend since the mid-1990s. Although the rate of increase in the ratio slowed temporarily between 2004 and around 2007, it began to rise sharply again in subsequent years (Chart 25). This trend was also visible in fiscal 2012. As for the seasonally adjusted outstanding balance of banknote, in or around 2011 it began to deviate upward from the trend, and the trend curve itself has steepened (Chart 26).

Chart 25: Ratio of Amounts Outstanding of Banknotes in Circulation to Nominal GDP



Notes: 1. Figures for the amount outstanding of banknotes in circulation are as of the end of the fiscal year.
2. It is assumed that the nominal GDP for January-March 2013 remains unchanged from the previous quarter.

Chart 26: Seasonally Adjusted Outstanding Balance of Banknotes



Note: Monthly average.

On the other hand, the amount of daily payments and receipts of banknotes between the Bank and financial institutions (the amount of payments and receipts = the amount of withdrawals of banknotes from circulation - the amount of issuance = the banknote factor) has clearly been declining. An analysis of changes in the amount of daily payments and receipts since fiscal 1990 shows that since fiscal 2005 the number of days during the year on which the amount of receipts and payments of banknotes was greater than 1 trillion yen in either direction (±1 trillion yen) has been zero. In fiscal 2012, the amount of daily payments and receipts of banknotes fell to ±500 billion-700 billion yen at the maximum (Chart 27). Similarly, the ratio of the number of days on which the amount of daily payments and receipts of banknotes was below ±200 billion yen increased gradually from 34 percent in fiscal 1990 to 84 percent in fiscal 2012 (Chart 28).

Chart 27: Maximum Amount of Daily Net Issuance and Redemptions

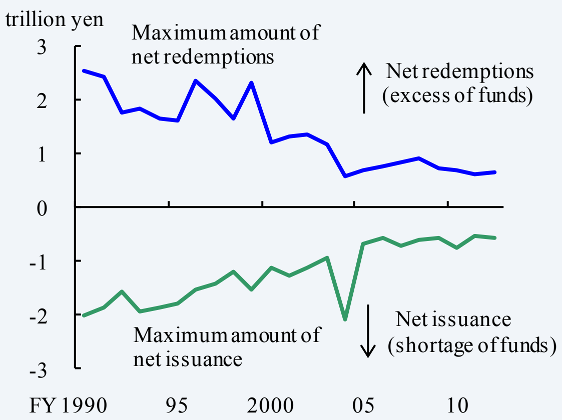
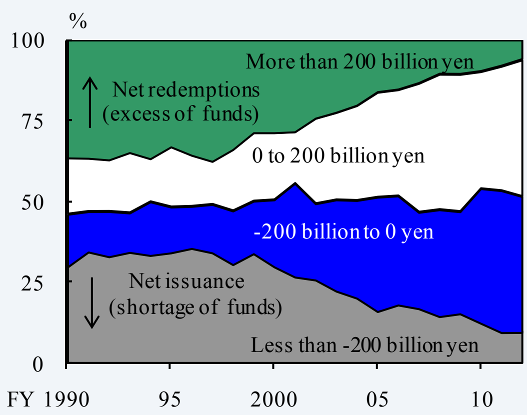


Chart 28: Daily Net Issuance and Redemptions



Note: Ratio of days by amount in each year.

2. Changes in Treasury Funds and Others

In fiscal 2012, net receipts from JGBs and T-Bills (sources of decrease in current account balances, or shortage of funds) were greater than net payments of fiscal payments and revenues (sources of increase in current account balances, or excess of funds). As a result, changes in treasury funds and others registered net receipts of 38.7 trillion yen, up significantly from net receipts of 25.4 trillion yen in fiscal 2011 (Chart 29).

The sharp increase in net receipts was mainly because while the amount outstanding of the APP increased, the redemption of the JGBs and T-Bills purchased by the Bank increased, reducing redemption to private financial institutions (payments to current accounts at the Bank).[1] On the assumption that redemption proceeds of JGBs and T-Bills the Bank

[1] When the Bank purchases JGBs and T-Bills from financial institutions and holds them to maturity, redemption proceeds that would have been deposited in current accounts of financial institutions involved are paid to the Bank. Such transactions result in declines in treasury payments to current

purchased outright through operations were paid not to the Bank but to the financial institution involved, net payments in fiscal 2012 amounted to 4.4 trillion yen against net receipts of 1.8 trillion yen in fiscal 2011 (Chart 30).

Chart 29: Cumulative Changes in Treasury Funds and Others in terms of Excess and Shortage of Funds

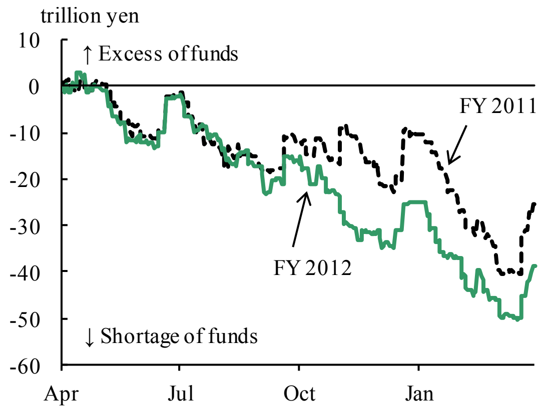
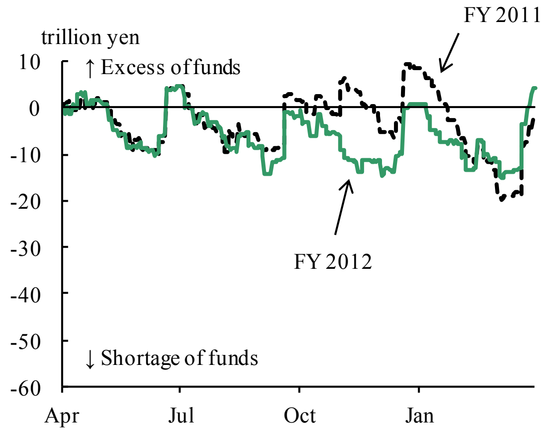


Chart 30: Cumulative Changes in Treasury Funds and Others in terms of Excess and Shortage of Funds (Reflecting Effects of Operations)

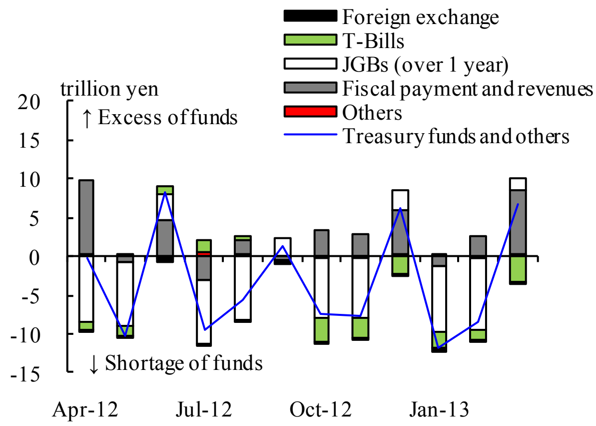


A comparison of cumulative changes in treasury funds and others (adjusted for the effects of operations) during fiscal 2012 and fiscal 2011 shows that they followed more or less the same pattern through July, but they behaved differently in and after August. In 2012, they temporarily shifted toward shortage of funds during the first 10 days of September and the first 10 days of November compared with the same periods of 2011, due to the postponements in the allotments of local allocation taxes owing to restraint on execution of the budget caused by the delay in the passage of the Deficit Financing Bill (see Box 6). Foreign exchange interventions conducted in fiscal 2011 also contributed to the difference between fiscal 2011 and fiscal 2012. (In August and November 2011, payments of yen funds for foreign exchange interventions contributed to excess of funds, while during the second half of the fiscal year, increased issuance of T-Bills contributed to the shortage of funds.) Such developments were not visible in fiscal 2012, because no foreign exchange intervention was made in that year.

accounts at the Bank. Although receipts and payments of "treasury funds and others" during a fiscal year as a whole are supposed to be more or less equal, such treatment of redemption proceeds leads to large net receipts (shortage of funds).

A review of monthly changes in treasury funds and others (not adjusted for the effects of operations) shows that in June, September, and December 2012 and March 2013, "JGBs (over 1 year)" shifted toward excess of funds, primarily due to large volumes of JGB redemptions (Chart 31). Toward the second half of the fiscal year, as purchases of T-Bills by the APP made progress, the amount of redemptions to private financial institutions decreased. Hence, "T-Bills" contributed to shortage of funds.

Chart 31: Breakdown of Treasury Funds and Others



a. Fiscal Payments and Revenues

"Fiscal payments and revenues" is a concept that includes all treasury payments and receipts except for those related to JGBs (over 1 year), T-Bills, and foreign exchange. Fiscal revenues comprise receipts of taxes -- corporate taxes and consumption tax (at the beginning of every month) and withholding income taxes (in the middle of every month) -- and pension insurance premiums (at the beginning of every month). Fiscal payments include pension payments (in the middle of even-numbered months), allotments of local allocation taxes (in early April, June, September, and November), and payments on public works.

In fiscal 2012, "fiscal payments and revenues" resulted in net payments of 33.3 trillion yen, down from 34.8 trillion yen in fiscal 2011. The decrease in net payments was mainly due to the decline in payments related to the supplementary budget.

Box 6: Impact of the Delay in the Passage of the Deficit Financing Bill on Excess and Shortage of Funds

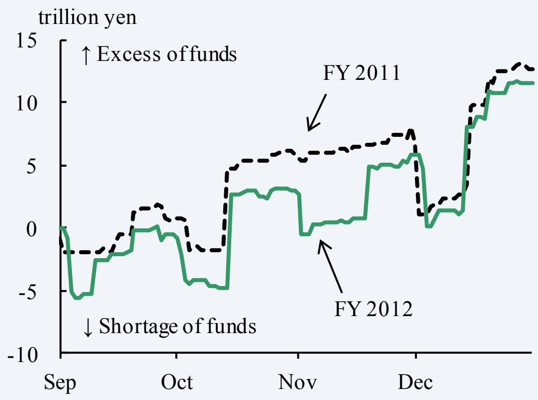
In fiscal 2012, the passage of the Bill on Special Provisions concerning Issuance of Public Bonds and Transfer of Funds from the Special Account for Fiscal Management (the Deficit Financing Bill) was delayed to November 16 (whereas in fiscal 2011, the bill was cleared by the Diet on August 26). Since the issuance of deficit financing bonds is not possible until the bill is cleared by the Diet, the execution of the budget was restrained (i.e., expenditure was postponed) starting in September 2012 to avoid the depletion of the sources of funds for the general account.

For example, with respect to the allotments of local allocation taxes, out of the allotments of 4.1 trillion yen originally scheduled for September 4 -- a tax payment date -- 2.6 trillion yen was disbursed on September 10, and the remaining 1.4 trillion yen was disbursed in installments in early October and early November. The amount planned to be allotted in November was disbursed on November 19 rather than on November 2, the original payment date. As a result, fiscal payments and revenues, a component of treasury funds and others, shifted sharply toward shortage of funds on September 4 and November 2, and toward excess of funds on September 10 and November 19 (Chart 32).

In addition, the payments of administrative expenses, management expenses grants to independent administrative institutions and national university corporations, and subsidies to the Japan Health Insurance Association and others were postponed from the original payment dates. These restraints on the execution of the budget were removed with the passage of the bill, and the difference in changes in fiscal payments and revenues between 2011 and 2012 diminished.

During this period, in order to meet the temporary demand for funds stemming from the postponements of the allotments of local allocation taxes, the Bank offered the fixed-rate funds-supplying operations against pooled collateral on relatively short terms to provide ample funds (see Chapter IV.A).

Chart 32: Cumulative Changes in Fiscal Payments and Revenues in terms of Excess and Shortage of Funds from September



b. JGBs (Over 1 Year)

"JGBs (over 1 year)" includes issuance and redemption of JGBs.

During fiscal 2012, "JGBs (over 1 year)" amounted to net government receipts of 57.1 trillion yen, marking a very large increase from 44.3 trillion yen in fiscal 2011, due to an increase in issuance amount combined with a decrease in redemption, both compared with the previous year. Issuance during the year amounted to 128.8 trillion yen, up from 126.0 trillion yen during fiscal 2011. Out of the total redemption amount, redemption to the Bank of those JGBs (over 1 year) that had been purchased by the Bank and were due in fiscal 2012 was greater than the redemption to the Bank in fiscal 2011. As a result, the redemption amount to private financial institutions in fiscal 2012 decreased to 71.7 trillion yen from 81.7 trillion yen in fiscal 2011.

c. T-Bills

"T-Bills" includes issuance and redemption of T-Bills.

During fiscal 2012, "T-Bills" amounted to net government receipts of 13.7 trillion yen, down sharply from 26.4 trillion yen during fiscal 2011, as the annual increase in the redemption amount was greater than that in the issuance amount. Issuance during fiscal 2012 amounted to 395.5 trillion yen, up considerably from 373.6 trillion yen during fiscal 2011, partly because the issuance amount of 3-month T-Bills was increased repeatedly starting in October 2011 (from 4.8 trillion yen per week in September 2011 to 6.0 trillion yen per week in May 2012). With respect to the redemption amount, while redemption to the Bank of T-Bills that had been purchased by the Bank increased, total redemption amount of T-Bills increased even more because of the increase in issuance of 3-month T-Bills. As a result, the redemption amount to private financial institutions also increased, up sharply from 347.1 trillion yen in fiscal 2011 to 381.9 trillion yen in fiscal 2012.

d. Foreign Exchange

"Foreign exchange" includes receipts of yen funds in foreign exchange interventions and in the yen/U.S. dollar exchanges between the Foreign Exchange Funds Special Account and private financial institutions.

During fiscal 2012, "foreign exchange" registered net receipts of 2.8 trillion yen. By contrast, in fiscal 2011, it registered net payments of 9.7 trillion yen, mainly due to the payments of yen funds related to yen selling/U.S. dollar purchasing foreign exchange interventions conducted during the year. The absence of this factor, combined with receipts of yen funds by the Foreign Exchange Funds Special Account, contributed to net receipts in fiscal 2012.

e. Others

"Others" includes receipts and payments of funds between yen deposit accounts held by foreign central banks and international organizations at the Bank (deposits of overseas account holders) and those held by financial institutions, and the Bank's provision of funds to maintain stability of the financial system, such as the provision of loans as stipulated under Article 38 of the Bank of Japan Act, referred to as "*Tokuyu* (a special loan)," and loans to the Deposit Insurance Corporation of Japan. Together with receipts and payments of treasury funds, these are included in "changes in treasury funds and others" (represented by "others"). For example, an increase in deposits of overseas account holders by transfers from current accounts results in a decrease in current account balances at the Bank; a decrease in deposits of overseas account holders results in an increase in current account balances at the Bank.

During fiscal 2012, "others" registered net payments of 1.6 trillion yen, up from 0.9 trillion yen in fiscal 2011.

IV. Conduct of Individual Measures in Money Market Operations

This chapter explains the individual measures taken in the course of the money market operations conducted during fiscal 2012.

A. Asset Purchase Program

The APP was instituted in October 2010 to encourage a decline in longer-term interest rates and various risk premiums. During fiscal 2012, the Bank increased the amount outstanding of the APP, given that its size was expanded 4 times (on April 27, September 19, October 30, and December 20). The amount outstanding of the APP rose from 48.9 trillion yen at the end of March 2012 to 67.1 trillion yen at the end of December 2012, reaching the target size of the APP at that time of about 65 trillion yen. It continued to increase thereafter, recording 72.1 trillion yen at the end of March 2013.

As the increase in the APP was earmarked mainly for the purchase of JGBs and T-Bills, the Bank increased the amount outstanding of these assets while accelerating the pace of purchases. From the beginning of 2013, interest rates for purchasing such instruments fell sharply, mainly given the transmission of monetary easing effects led by the increase in the amount outstanding of purchases and expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility. In addition, as strong perceptions of abundant liquidity became widespread reflecting the increase in the amount outstanding of the APP, the demand for the fixed-rate funds-supplying operations against pooled collateral declined, and undersubscriptions occurred frequently.

1. Fixed-Rate Funds-Supplying Operation against Pooled Collateral

As the effects of the Bank's powerful monetary easing spread, market demand for funds had already been fulfilled, and expectations of interest rate rises were limited as a whole with the assumption of continued monetary easing for the time being. As a result, the advantage of obtaining long-term funds at a fixed rate of 0.1 percent lessened substantially. Under these circumstances, during fiscal 2012, bidding amounts in the fixed-rate funds-supplying operations against pooled collateral remained generally small, and out of 141 operations offered, 63 were undersubscribed -- where total bidding amounts fell short of the offered amounts (Chart 33).

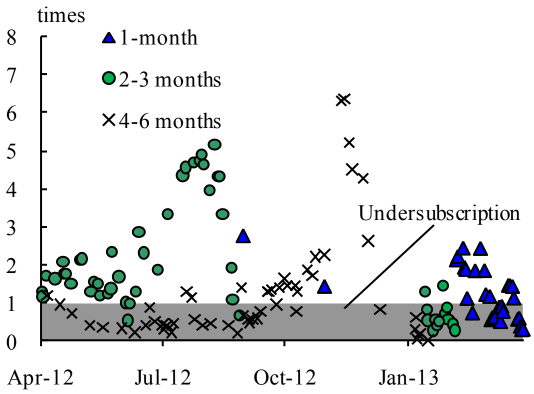
In response to low demand for bidding, at the MPM held on April 27, 2012, the Bank decided to reduce the maximum amount outstanding of the fixed-rate funds-supplying operations with a 6-month term, from about 15 trillion yen to about 10 trillion yen, while increasing the purchase of JGBs by about 10 trillion yen. At the MPM held on July 11 and 12, 2012, the Bank decided to reduce the maximum amount outstanding of loans from about 30 trillion yen to about 25 trillion yen and to allocate the reduced amount to outright purchases of T-Bills. The Bank also decided to remove loan durations -- which were "3 months" or "6 months" -- in order to respond flexibly to financial institutions' liquidity demand.

Following these decisions, the Bank conducted money market operations by setting loan durations flexibly from less than 1 month to 6 months to increase or maintain the amount outstanding of loans, and it provided funds at an appropriate timing by managing the temporary heightening of liquidity demand.

Specifically, to steadily increase the amount outstanding of loans to the target size set for the end of 2012, the Bank actively offered the operations with a 6-month term from June 2012 and those mainly with a 4-month term maturing over the calendar year-end from the end of August 2012. In addition, to deal with temporary liquidity demand due to the postponements of allotments of local allocation taxes that were scheduled on September 4 and November 2, 2012, the Bank offered 2.4 trillion yen in total on August 31, 2012, through 1-month and 4-month operations amounting to 800 billion yen and 1.6 trillion yen, respectively, and 2.4 trillion yen in total on October 31, 2012, through 1-month and 5-month operations amounting to 1.6 trillion yen and 800 billion yen, respectively. With these efforts, the amount outstanding of loans remained at around 30 trillion yen by early November 2012. Toward the end of 2012, some counterparties, which expected a reduction in the amount outstanding of loans, seemed to actively bid to frontload the acquisition of necessary funds, and the bid-cover ratios showed an uptrend. As a result, the amount outstanding of loans stood at 26.9 trillion yen at the end of December 2012, reaching the target size of about 25 trillion yen.

From January 2013, financial institutions grew reluctant to raise funds with term instruments given heightening expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility. Consequently, the bid-cover ratios declined sharply, and undersubscriptions occurred frequently. To stimulate demand for operations as much as possible, the Bank gradually shortened loan durations, eventually conducting the operations mainly with a 1-month term. However, demand for operations continued to be sluggish as a whole, and the amount outstanding of loans stood at 21.7 trillion yen at the end of March 2013. This was partly because funding needs of securities companies to finance their inventories were limited, reflecting heightened needs of banks and other financial institutions to hold T-Bills and JGBs with shorter residual maturities, and the GC repo rate declined to a level below 0.1 percent.

Chart 33: Bid-Cover Ratios of the Fixed-Rate Funds-Supplying Operation against Pooled Collateral



2. Outright Purchases of JGBs

Regarding outright purchases of JGBs, at the MPM held on April 27, 2012, the Bank decided to increase the size at the end of December 2012 from about 19.0 trillion yen to about 24.0 trillion yen and the size at the end of June 2013 to about 29.0 trillion yen. In addition, with the aim of smoothly conducting the large-scale purchases after this increase and encouraging a decline in longer-term interest rates effectively, the Bank decided to extend the remaining maturity of JGBs to be purchased from "one to two years" to "one to three years."

In response to such policy decisions, the Bank offered outright purchases of JGBs 3 times a month with 700 billion-1 trillion yen per operation, taking into account the supply and demand conditions of JGBs. When conducting operations, the Bank purchased JGBs with the tranches classified by bond type and residual maturity to avoid excessive concentration of purchases on specific issues of JGBs.[2]

Later, with the progress of these asset purchases, yields on eligible JGBs with a residual maturity of 1 year or more and up to 3 years declined to the level slightly below 0.1 percent, as evident in the maximum accepted yield of 0.097 percent at the 2-year JGB auction on July 31, 2012. As the minimum bidding yield for the outright purchases was set at 0.1 percent, the so-called undersubscriptions -- where total bidding amounts fell short of the offered amounts -- occurred frequently. In this situation, at the MPM held on September 18 and 19, 2012, the Bank decided to remove the minimum bidding yield in order to ensure their smooth purchase. After the removal of the minimum bidding yield, counterparties could bid the yield at the same level as the market rates of below 0.1 percent, and the bid-cover ratios rose to the range of 2 to 4 times (Chart 34). Meanwhile, the yield curve between 1-year and 3-year JGBs flattened, and the probability decreased that the purchases would be concentrated on specific issues. Thus, effective from operations offered on September 28, 2012, the Bank removed the tranches classified by residual maturity and integrated them to "one to three years." At the end of December 2012, the amount outstanding of purchases stood at 24.1 trillion yen, reaching the target size of about 24 trillion yen (Chart 35).

---

[2] Under the APP, an auction was conducted for each purchase where counterparties bid the yield at which they desired to sell financial assets to the Bank regardless of the market rates of each issue. Under this purchasing method, among eligible assets, those with higher market rates were likely to be accepted. For example, when the yield curve for market interest rates was positive (i.e., upward sloping), JGBs with longer residual maturities were intensively submitted to the operations, resulting in a possible excessive tightening in the supply and demand conditions of specific issues. For details on the purchasing method, see Box 9 of "Money Market Operations in Fiscal 2011."

From January 2013, the minimum bidding yield significantly declined to below 0.1 percent as financial institutions increasingly held JGBs with shorter residual maturities given heightening expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility (Chart 36). Under these circumstances, the Bank conducted operations, taking into account the supply and demand conditions of JGBs. For example, when the supply and demand conditions of eligible JGBs tightened, the Bank somewhat reduced the frequency of the purchases offered in order to avoid making the supply and demand conditions too tight. As a result, at the end of March 2013, the amount outstanding of purchases stood at 28.1 trillion yen.

Chart 34: Bid-Cover Ratios of Outright Purchases of JGBs Conducted through the APP

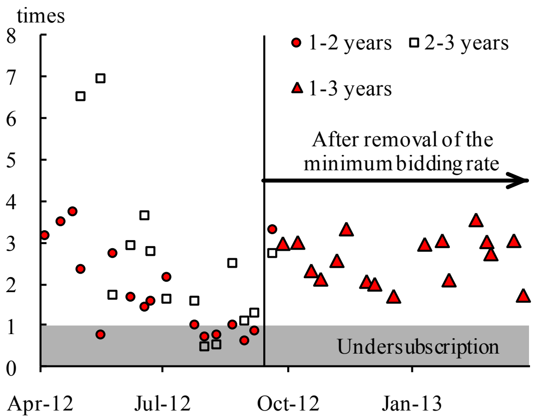


Chart 35: Amount Outstanding and Amount of Monthly Purchases of JGBs

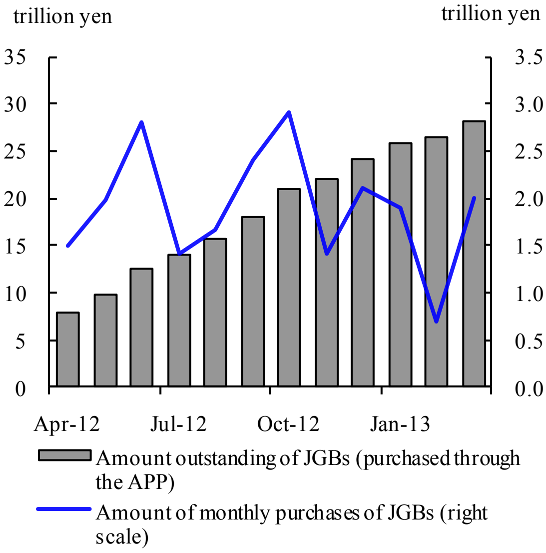
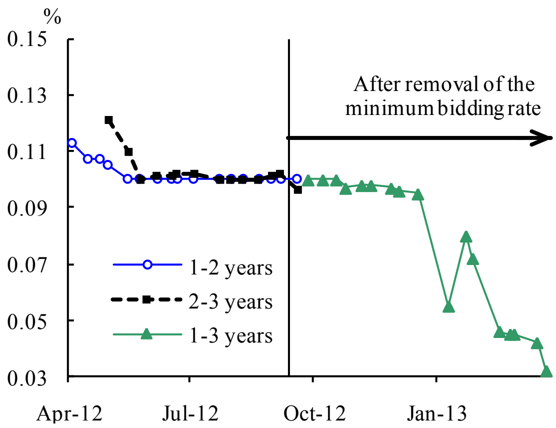


Chart 36: Lowest Accepted Bid Rates of Outright Purchases of JGBs Conducted through the APP



3. Outright Purchases of T-Bills

Regarding outright purchases of T-Bills, until early July 2012, when the size of purchases was set at about 4.5 trillion yen, the Bank assigned the 2 latest issues of 6-month T-Bills and 1-year T-Bills with a residual maturity of 6 months or more for each purchase and conducted purchases twice a month with 300 billion yen offered per operation. However, when the market rates fell below the minimum bidding yield of 0.1 percent as the need to invest in T-Bills increased with growing perceptions of abundant liquidity, undersubscriptions -- where total bidding amounts fell short of the offered amounts -- occurred in some purchases.

After the Bank decided to increase the size of purchases at the end of December 2012 to about 9.5 trillion yen and remove the minimum bidding yield at the MPM held on July 11 and 12, 2012, the Bank sought to increase the amount outstanding of purchases by substantially expanding the range of eligible T-Bills to all issues with a residual maturity of more than 2 months, including 3-month T-Bills, and subsequently adjusting the amount offered per operation and the frequency of the operations in a flexible manner. As the minimum bidding yield was removed, counterparties could bid yield at the same level as the market rates of slightly below 0.1 percent. Thus, the bid-cover ratios remained generally between 4 to 6 times, and total bidding amounts for each operation significantly exceeded the offered amounts (Chart 37). As a result, these asset purchases steadily progressed, and the amount outstanding of purchases stood at 9.6 trillion yen at the end of December 2012, reaching the target size of about 9.5 trillion yen (Chart 38).

The size of purchases from 2013 was increased at the MPMs held on October 30 and on December 19 and 20, 2012, and it was set at about 19.5 trillion yen at the end of June 2013 and about 24.5 trillion yen at the end of December 2013. In response to these policy decisions, the Bank raised the amount offered per operation and the frequency of the operations with a view to increasing the amount outstanding of purchases at a rapid pace toward the end of June 2013. Meanwhile, when the need to hold T-Bills increased given expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility, the Bank temporarily adjusted the amount offered per operation and the frequency of the operations in order to avoid aggravating the overheating in the market and conducted operations, taking into account the supply and demand conditions in the market. As a result, at the end of March 2013, the amount outstanding of purchases stood at 16.4 trillion yen.

Chart 37: Bid-Cover Ratios and Lowest Accepted Bid Yield of Outright Purchases of T-Bills

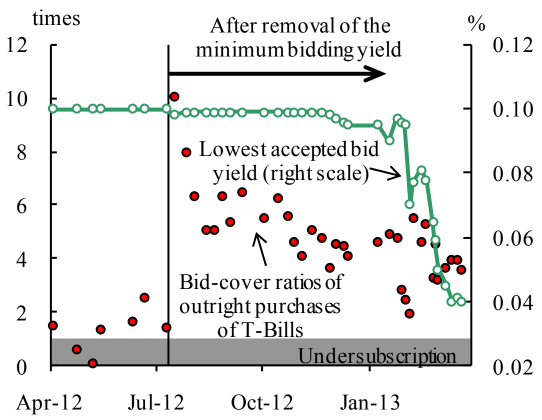
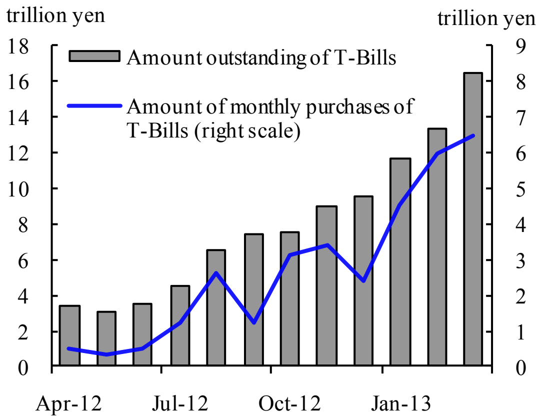


Chart 38: Amount Outstanding and Amount of Monthly Purchases of T-Bills



4. Outright Purchases of CP

The Bank offered outright purchase of CP 2 or 3 times a month with 300 billion yen per operation from April to October 2012. As the redemption schedules of the issues that had been purchased by the Bank were concentrated at the end of November and late December 2012, the Bank accelerated the pace of purchases to 3 times a month with 400 billion yen offered per operation in November and December 2012, to cover the decrease in the amount outstanding of purchases and reach the target size of about 2.1 trillion yen at the end of December 2013.[3] As a result, the amount outstanding stood at 2.1 trillion yen at the end of December 2012, reaching the target size of about 2.1 trillion yen (Chart 39). Meanwhile, given the acceleration of the purchasing pace, the minimum bidding yield fell significantly. It recorded below 0.1 percent in all 3 operations offered in December 2012, declining to the same level as primary and secondary market yields on 3-month T-Bills (Chart 40).

---

[3] At the MPM held on October 30, 2012, the Bank decided to increase the size of purchases to about 2.2 trillion yen by December 2013.

Chart 39: Amount Outstanding and Amount of Monthly Purchases of CP

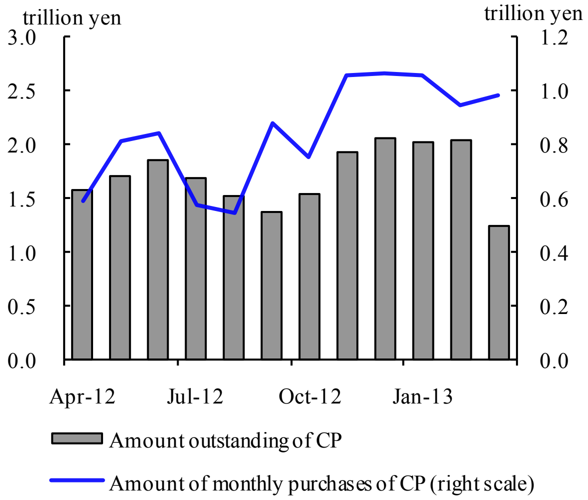
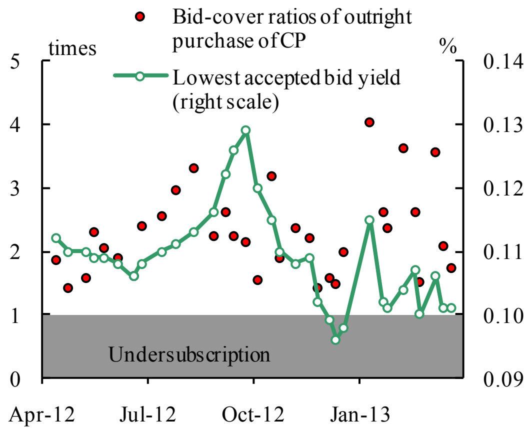


Chart 40: Bid-Cover Ratios and Lowest Accepted Bid Yield of Outright Purchase of CP



From January to March 2013, the Bank adjusted the pace of purchases, taking into account the redemption schedules of the issues that had been purchased. It purchased 3 times a month with 300 billion or 400 billion yen offered per operation. At the end of March 2013, the amount outstanding of purchases declined to 1.2 trillion yen, as many issues of CP that had been purchased by the Bank were redeemed.

5. Outright Purchases of Corporate Bonds

In principle, the Bank offered outright purchases of corporate bonds once a month with 100 billion-200 billion yen per operation. Many investors in Japan purchase corporate bonds as a long-term investment, and the size of the secondary market is not large. In addition, as the Bank continued to offer outright purchases of corporate bonds, the amount outstanding of eligible corporate bonds in the market declined. As a result, the bid-cover ratios remained generally low, and undersubscription occurred on April 6, 2012 (Chart 41).

Under these circumstances, at the MPM held on April 27, 2012, the Bank decided to extend the remaining maturity of corporate bonds to be purchased from "one to two years" to "one to three years." The bid-cover ratios rose, as bids increased mainly for purchases of newly eligible corporate bonds with a residual maturity of more than 2 years and up to 3 years. As the amount outstanding of purchases increased smoothly toward the end of 2012, the Bank judged that the achievement of the target size at the end of 2012 was in sight and decreased the amount offered on December 3, 2012 from 200 billion yen to 150 billion yen. The amount outstanding of purchases stood at 2.9 trillion yen at the end of December 2012, reaching the target size of about 2.9 trillion yen (Chart 42).

At the MPM held on October 30, 2012, the Bank decided to increase the size of purchases to about 3.2 trillion yen by December 2013. Based on this decision, the Bank increased the amount outstanding of purchases by offering outright purchases of corporate bonds once a month with 100 billion-150 billion yen per operation, taking into account the redemption schedules of the issues that had been purchased. However, as the effects of the Bank's powerful monetary easing spread in the market, investors showed a stronger appetite for corporate bonds with higher yields than for JGBs with the same residual maturity. The bid-cover ratios remained low as a trend as seen in, for example, undersubscription at the auction offered on March 1, 2013, when expectations for monetary easing grew. The amount outstanding stood at 2.9 trillion yen at the end of March 2013.

Chart 41: Bid-Cover Ratios and Lowest Accepted Bid Yield of Outright Purchase of Corporate Bonds

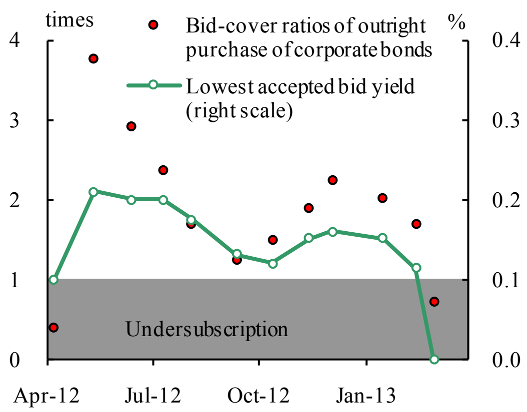
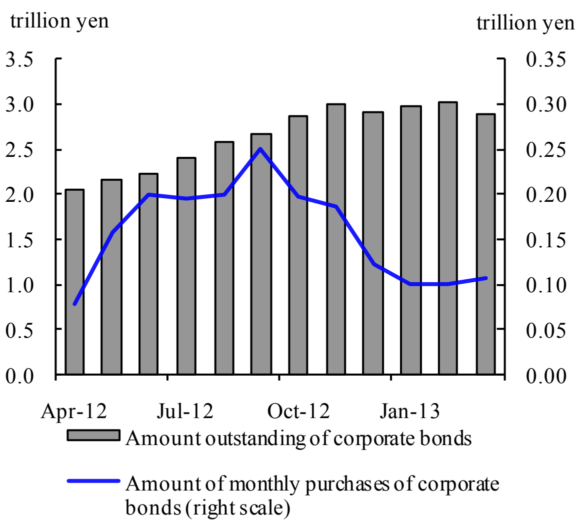


Chart 42: Amount Outstanding and Amount of Monthly Purchases of Corporate Bonds



6. Outright Purchases of ETFs

As a result of 24 purchases conducted in total, the amount outstanding stood at 1.5 trillion yen at the end of March 2013, increasing from 0.8 trillion yen out of the target size of about 1.4 trillion yen at the same time last year.

7. Outright Purchases of J-REITs

As a result of 24 purchases conducted in total, the amount outstanding stood at 0.12 trillion yen at the end of March 2013, increasing from 0.07 trillion yen out of the target size of about 0.11 trillion yen at the same time last year.

Box 7: Removal of the Minimum Bidding Yield and Arbitrage Mechanism with the Interest Rate Applied to the Complementary Deposit Facility

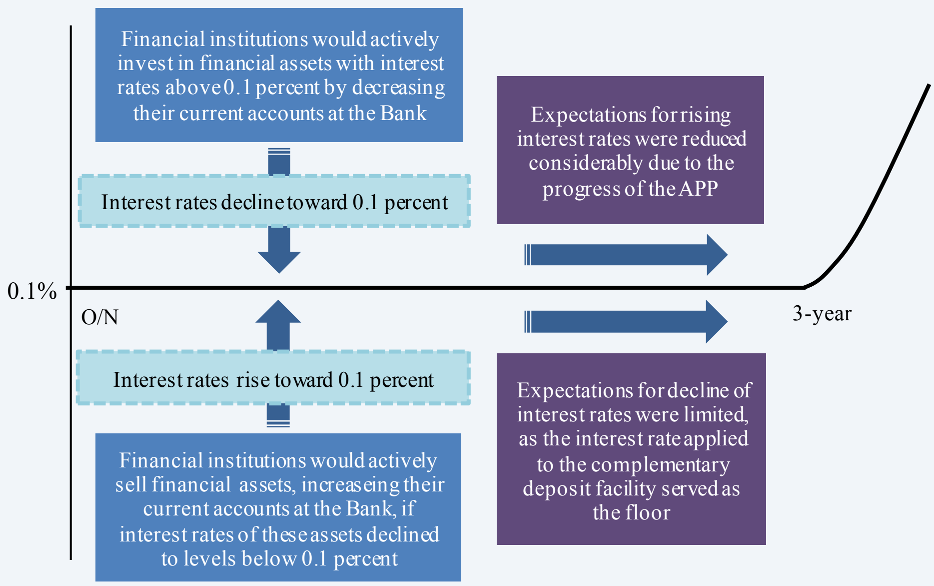
During fiscal 2012, the Bank took a number of measures to ensure the steady implementation of asset purchases in line with a series of increases in the size of the APP. In particular, a removal of the minimum bidding yield (0.1 percent per annum) for the outright purchases of T-Bills, JGBs, CP, and corporate bonds contributed to the steady implementation of asset purchases, helping significantly the smooth increase in the amount outstanding of the APP.

After the establishment of the APP, because asset purchases are conducted in a continuous manner, the market rates of eligible assets for purchases continued to fall. During fiscal 2012, they sometimes fell below 0.1 percent. As the minimum bidding yield for the outright purchases was set at 0.1 percent, demand for operations decreased, and undersubscriptions -- where total bidding amounts fell short of the offered amounts -- occurred frequently in outright purchases of T-Bills and JGBs. Responding to this situation, at the MPM held on July 11 and 12, 2012, the Bank decided to remove the minimum bidding yield for the outright purchases of T-Bills and CP in order to ensure the steady increases in the amount outstanding of the APP, and at the MPM held on September 18 and 19, 2012, it decided to remove the minimum bidding yield for the outright purchases of JGBs and corporate bonds.

After the removal of the minimum bidding yield, strong bids were seen in outright purchases of T-Bills and JGBs (Charts 34 and 37). Meanwhile, although the minimum bidding yield for these purchases was below 0.1 percent, the divergence from 0.1 percent was limited until December 2012.

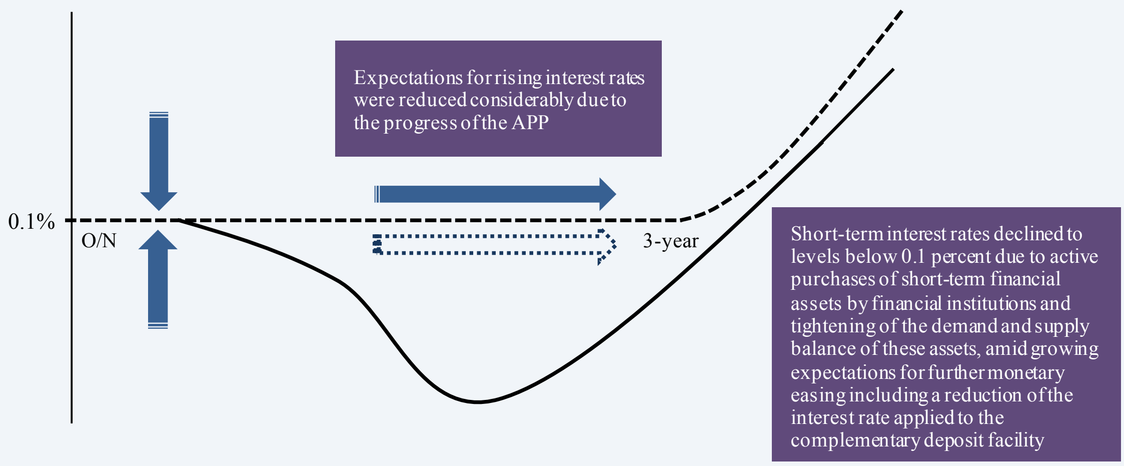
As a possible factor behind this, it can be pointed out that an arbitrage with the interest rate applied to the complementary deposit facility worked to some extent. Taking T-Bills as an example to examine the specific mechanism, if yields on T-Bills fall clearly below 0.1 percent in the secondary market due to some factors, institutions eligible for remuneration will sell their T-Bills at a rate below 0.1 percent. They can obtain an interest rate margin by depositing the proceeds in their current accounts at the Bank to earn income from the 0.1 percent interest. Such transactions by institutions eligible for remuneration will continue until yields on T-Bills reach close to 0.1 percent in the secondary market. As a result, the secondary market yields are unlikely to diverge significantly from 0.1 percent. It can be said that, reflecting this, the minimum bidding yield for the outright purchases of T-Bills through the APP remained at around 0.1 percent (Chart 43).

Chart 43: Arbitrage Mechanism with the Interest Rate Applied to the Complementary Deposit Facility



However, if expectation of a decline in money market rates grows or the supply and demand conditions for eligible assets for purchases tighten excessively, the arbitrage mechanism may not work smoothly. In fact, from the beginning of 2013, given expectations for monetary easing including the lowering of the interest rate applied to the complementary deposit facility, financial institutions deliberately tried to hold a large amount of short-term financial assets including term instruments. In addition, as asset purchases steadily progressed, the supply and demand conditions of short-term financial assets tightened. At this time, the above-mentioned arbitrage mechanism did not seem to work smoothly. Yields on T-Bills and JGBs with a residual maturity of up to 3 years fell clearly below 0.1 percent, and the minimum bidding yield for the outright purchases of JGBs and T-Bills through the APP also declined significantly below 0.1 percent (Chart 44).

Chart 44: Malfunction of the Arbitrage Mechanism with a Growing Expectation for Further Monetary Easing



B. Regular Operation Tools

1. Outright Purchases of JGBs

During fiscal 2012, as in fiscal 2011, the Bank purchased JGBs at a pace of 21.6 trillion yen per year (1.8 trillion yen per month) with the tranches classified by bond type and residual maturity. The Bank conducted the purchasing operations 4 times a month. In each operation, it offered to purchase JGBs for 2 out of 5 tranches, namely, "up to 1 year," "more than 1 year and up to 10 years," "more than 10 years and up to 30 years," "floating-rate bonds," and "inflation-indexed bonds." Regarding inflation-indexed bonds, in view of the decrease in the amount outstanding in the market due to buybacks by the National Debt Consolidation Fund and purchasing operations by the Bank while new issuance paused from August 2008 onward, the Bank reduced the amount of purchases from 0.24 trillion yen to 0.12 trillion yen per year and the amount offered per operation from 40 billion yen to 20 billion yen from May 2012. At the same time, the Bank increased the amount of purchases of floating-rate bonds from 0.72 trillion yen to 0.84 trillion yen per year and the amount offered per operation from 0.12 trillion yen to 0.14 trillion yen.

The amount outstanding of JGBs held by the Bank, excluding those purchased through the APP, stood at 63.2 trillion yen at the end of March 2013, down 1.2 trillion yen from the same time last year. This reflected the fact that while the Bank purchased JGBs at a pace of 21.6 trillion yen per year during fiscal 2012, redemptions of JGBs that had been purchased by the Bank exceeded the amount of JGBs newly purchased by the Bank. Meanwhile, the amount outstanding of banknotes in circulation at the end of March 2013 amounted to 83.4 trillion yen, up 2.5 trillion yen from the same time last year. The difference between the amount outstanding of the Bank's JGB holdings and that of banknotes in circulation expanded somewhat (Chart 45).[4]

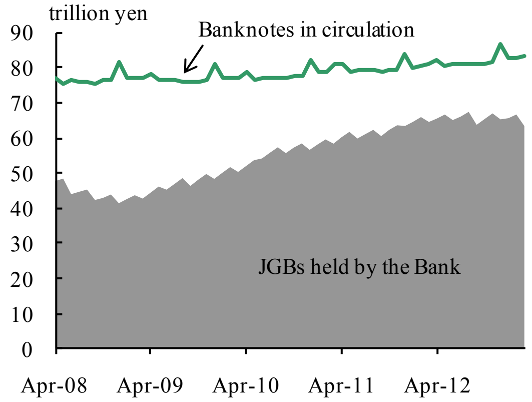
The average residual maturity of JGBs purchased by the Bank (flow), excluding those purchased through the APP, was 3 to 4 years on average, from February 2009 onward, during which the Bank purchased JGBs with the tranches classified by bond type and residual maturity. In fiscal 2012, it was about 4.1 years. One characteristic of outright purchases of JGBs during fiscal 2012 is that many issues of JGBs with a residual maturity of 3 to 4 years are accepted (Chart 46). This was because not many JGBs with a residual maturity of 1 year or more and up to 3 years were submitted as they were eligible for outright purchases under the APP and their supply and demand conditions tend to be tight with the progress of purchases under the APP.

---

[4] At the MPM held on April 3 and 4, 2013, the Bank decided to temporarily suspend the so-called banknote principle -- the Bank limits the amount outstanding of its holdings of JGBs, excluding those purchased under the APP, within that of banknotes in circulation.

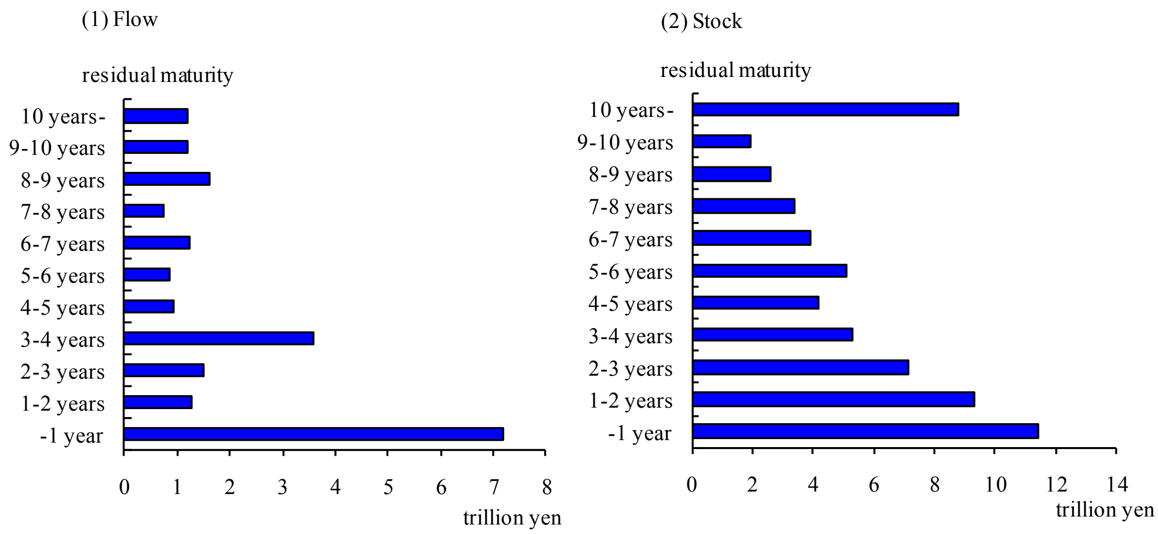
The average residual maturity of JGBs held by the Bank (stock), excluding those purchased through the APP, was 5.0 years at the end of March 2013 (Chart 47).

Chart 45: Amounts Outstanding of the Bank's JGB Holdings



Note: JGBs purchased through the APP are excluded.

Chart 46: Maturity Composition of Amounts Outstanding of JGBs Purchased or Held by the Bank



Note: JGBs purchased through the APP are excluded.

Chart 47: Average Maturity of the Bank's JGB Holdings

years

	Flows during the fiscal year	Stock at the end of the fiscal year
FY 2009	3.9	5.2
FY 2010	3.8	4.9
FY 2011	3.3	4.6
FY 2012	4.1	5.0

Note: JGBs purchased through the APP are excluded.

2. Variable-Rate Funds-Supplying Operation against Pooled Collateral

During fiscal 2012, the Bank did not basically offer the variable-rate funds-supplying operations against pooled collateral. While ample provisioning of funds was made under the APP, overnight rates, such as the uncollateralized call rate and the GC repo rate, remained extremely stable. In addition, as the current account balance at the Bank climbed to record levels owing to sharp increases in the amount outstanding of the APP, the increase in demand for funds was limited even when a large shortage of funds was expected (i.e., on the days when tax payments are due or JGBs are issued). Under these conditions, while addressing sudden surges in market interest rates, the Bank reduced the frequency of offers from a total of 143 times in fiscal 2011 to a total of a mere 3 times in fiscal 2012.

Because of the shortening of the settlement cycle for JGB outright purchases, with respect to the variable-rate funds-supplying operations, offers on a T+1 basis (settled the next business day after the offer date) were introduced in addition to those on a T+2 basis (settled 2 business days after the offer date).

3. Other Operations

a. Securities Lending Facility

During fiscal 2012, the Bank offered securities lending 13 times in total. The number of offers decreased for two consecutive years from 17 in total during fiscal 2010 and 14 in total during fiscal 2011.

Securities for lending consisted primarily of inflation-indexed bonds and floating-rate bonds (Chart 48). Regarding inflation-indexed bonds, new issuance paused from August 2008 onward, while new issuance of floating-rate bonds paused from May 2008 onward. In addition, buybacks by the National Debt Consolidation Fund and purchasing operations by the Bank continued, decreasing their outstanding balance in the market. As a result, the market liquidity and functioning of the special collateral (SC) repo market of these bonds remained low.

Chart 48: Number of JGB Issues Offered through the Securities Lending Facility

	Total number of operations	Number of inflation-indexed bonds and floating-rate bonds offered	Number of JGBs with coupons offered, excluding inflation-indexed bonds and floating-rate bonds
FY 2010	17	14	5
FY 2011	14	13	1
FY 2012	13	12	3

C. Complementary Lending Facility

During fiscal 2012, as in fiscal 2011, the use of the complementary lending facility was extremely limited, against the background of the supply of ample funds by the Bank.

D. Growth-Supporting Funding Facility

During fiscal 2012, the Bank disbursed loans under the main rules for the Growth-Supporting Funding Facility introduced in June 2010 once a quarter, 4 times in total. In addition, the Bank disbursed 4 loans in total under a line of credit for equity investments and ABL established in June 2011 (special rules for equity investments and asset-based lending) (Chart 49).

The Bank also disbursed a total of 4 loans from May 2012 onward under a new line of credit for small-lot investments and loans (for 1 million yen or more but less than 10 million yen) introduced in March 2012 (special rules for small-lot investments and loans), and 3 loans in total from October 2012 onward under a new line of credit for investments and loans denominated in foreign currencies introduced in April 2012 (special rules for the U.S. dollar lending arrangement) (see Chapter V.B).

At the end of March 2013, the outstanding balance of loans under the main rules reached 3.2 trillion yen out of the ceiling for loans to be disbursed at that time of 3.5 trillion yen. The outstanding balance of loans under the special rules for equity investments and asset-based lending stood at 0.12 trillion yen out of the ceiling of 0.5 trillion yen; those under the special rules for small-lot investments and loans at 6.2 billion yen out of the ceiling of 0.5 trillion yen, and those under the special rules for the U.S. dollar lending arrangement at 3.5 billion dollars out of the ceiling of 12 billion dollars.

Chart 49: Loan Disbursement under the Growth-Supporting Funding Facility

(Main rules)

100 million yen

	8th (May 31, 2012)	9th (Aug. 31, 2012)	10th (Nov. 30, 2012)	11th (Feb. 28, 2013)	Outstanding balance of loans (as of end-Mar. 2013)
Major banks	462	878	402	112	12,382.3
Regional banks, etc.	2,434	1,244	1,754	1,499	19,970.2
Total	2,896	2,122	2,156	1,611	32,352.5

(Special rules for equity investments and asset-based lending)

100 million yen

	4th (May 31, 2012)	5th (Aug. 31, 2012)	6th (Nov. 30, 2012)	7th (Feb. 28, 2013)	Outstanding balance of loans (as of end-Mar. 2013)
Major banks	173	30	95	44	765.2
Regional banks, etc.	41	6	20	58	390.3
Total	214	36	115	102	1,155.5

(Special rules for small-lot investments and loans)

100 million yen

	1st (May 31, 2012)	2nd (Aug. 30, 2012)	3rd (Nov. 29, 2013)	4th (Feb. 27, 2013)	Outstanding balance of loans (as of end-Mar. 2013)
Total	30.00	14.66	9.15	12.06	61.67

(Special rules for the U.S. dollar lending arrangement)

million U.S. dollars

	1st (Oct. 16, 2012)	2nd (Nov. 29, 2013)	3rd (Feb. 27, 2013)	Outstanding balance of loans (as of end-Mar. 2013)
Total	711	1,546	1,219	3,476.0

Note: Dates in parentheses are those of notification of loan disbursement.

E. Funds-Supplying Operation to Support Financial Institutions in Disaster Areas

During fiscal 2012, after increasing the number of financial institutions to be covered by this operation from 36 to 37 in April, the Bank disbursed loans once a month 12 times in all (Chart 50). Demand for funds had increased sharply immediately after the Great East Japan Earthquake for precautionary purposes. However, as such demand eased, the outstanding balance at the end of March 2013 declined somewhat from 0.5 trillion yen registered at the end of March 2012 to 0.4 trillion yen out of the ceiling of 1.0 trillion yen.

Chart 50: Loan Disbursement under the Funds-Supplying Operation to Support Financial Institutions in Disaster Areas

100 million yen

	12th (Apr. 17, 2012)	13th (May 17)	14th (June 21)	15th (July 19)	16th (Aug. 23)	17th (Sep. 21)	18th (Oct. 18)	19th (Nov. 21)	20th (Dec. 19)	21st (Jan. 17, 2013)	22nd (Feb. 21)	23rd (Mar. 21)	Outstanding balance of loans (as of end-Mar. 2013)
Major banks	0	31	134	0	0	0	133	9	32	0	0	0	339
Regional banks, etc.	50	219	593	1,165	504	808	630	0	0	0	0	0	3,969
Total	50	250	727	1,165	504	808	763	9	32	0	0	0	4,308

Note: Dates in parentheses are those of notification of loan disbursement.

F. U.S. Dollar Funds-Supplying Operations

During fiscal 2012, in line with the pre-announced auction schedule, the Bank conducted the 1-week U.S. dollar funds-supplying operations once a week and the 3-month operations about once every 4 weeks. In these operations, an unlimited amount of funds was provided against eligible collateral submitted to the Bank by individual financial institutions. Interest rates on the loans were a fixed rate set by the Federal Reserve Bank of New York, taking into account the prevailing dollar OIS market rate that corresponded to the duration of the loan. Specifically, they were set at the dollar OIS rate plus 0.5 percentage point.

With respect to the use of these operations during fiscal 2012, as the U.S. dollar funding market remained calm and as the rates in the Bank's operations continued to exceed those in the market, there was no bid stemming from actual demand for funds. As a result, the amount outstanding of the operations continued to fall from 13.5 billion dollars at the beginning of April 2012 to almost zero from the end of June 2012 onward.

V. Systemic Changes Related to Money Market Operations

A. Introduction of the Stimulating Bank Lending Facility

At the MPM held on December 19 and 20, 2012, the Bank decided to introduce the Stimulating Bank Lending Facility. Given the current accommodative monetary environment, this facility aims to provide long-term funds -- up to the amount equivalent to the net increase in lending -- at a low interest rate, without any limit, to financial institutions at their request, with a view to promoting their aggressive action and helping increase proactive credit demand of firms and households. At the same time, since financial institutions' efforts to strengthen the foundations for economic growth and their initiatives to increase the total amount of lending are mutually complementary, the Bank designated the Stimulating Bank Lending Facility, combined with the Growth-Supporting Funding Facility, as the Loan Support Program, with the aim of demonstrating more clearly the Bank's policy stance to support the spill-over of the accommodative monetary environment to the real economy.

Under the Stimulating Bank Lending Facility, funds are provided up to the amount equivalent to the net increase in lending from the base period, which is the October-December period of 2012, at a fixed rate, which will be the Bank's target for the uncollateralized overnight call rate stipulated in the guideline for money market operations on the offer date of the loans (which is currently 0.1 percent per annum). The duration of loans is decided at the request of each counterparty (1 year, 2 years, or 3 years, but no more than 4 years including rollovers). The characteristic of this facility is that, unlike the Growth-Supporting Funding Facility, the total amount of loans provided by the Bank and the amount of loans extended to each counterparty are unlimited. The first disbursements of these loans are scheduled for June 2013, and the initial screening has selected 189 counterparties.

B. Enhancement of the Growth-Supporting Funding Facility

At the MPM held on April 9 and 10, 2012, the Bank decided to establish a new line of credit for 12 billion U.S. dollars (equivalent to 1 trillion yen) as part of the Growth-Supporting Funding Facility, using dollar reserves already held by the Bank, to provide broader support to financial institutions' activities for strengthening the foundations for Japan's economic growth (special rules for the U.S. dollar lending arrangement).

This measure provides funds for investments and loans denominated in foreign currencies, made for a period of no less than 1 year, which should support strengthening the foundations for Japan's economic growth by increasing the production of goods and services, business fixed investment, or employment in Japan. U.S. dollar loans will be made against eligible collateral at the 6-month dollar London Interbank Offered Rate (LIBOR). The duration of each loan is 1 year and loans may be rolled over up to 3 times and, consequently, the maximum duration of loans is effectively 4 years.

At the same time, in order to provide broader support to financial institutions' activities for strengthening the foundations for Japan's economic growth, in June 2012, the Bank decided to reduce the unit amount of loans under the special rules for small loans introduced in March 2012 from 100 million yen to 1 million yen.

C. Periodic Review of Collateral Value of Eligible Collateral and Other Related Matters

Since fiscal 2005, the Bank has generally conducted an annual review of collateral values of eligible collateral and other related matters, comprising (1) collateral value of eligible collateral, (2) the margin ratios of JGSs used in JGS purchasing operations with repurchase agreements and the collateral value of margin collateral, and (3) margin ratios of JGSs used in the securities lending facility. The review is based on developments in financial markets, and the Bank makes necessary revisions accordingly.

During fiscal 2012, the collateral value and other related matters were revised at the MPM held on October 4 and 5, 2012.

D. Extension of Bilateral Liquidity Swap Arrangements among the Central Banks to Enable the Provision of Liquidity in Any of Their Currencies

At the MPM held on December 19 and 20, 2012, in view of developments in the global money markets and their potential repercussions on the liquidity of the yen money market, the Bank decided to extend the expiration of the existing foreign exchange liquidity swap arrangement with 5 central banks (the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, and the Swiss National Bank) and the concomitant U.S. dollar funds-supplying operations through to February 1, 2014 from February 1, 2013.

List of Data Sources and Referenced Materials

Chart 1: Bank of Japan.

Chart 2: Bank of Japan, "Bank of Japan Accounts (Every Ten Days)."

Chart 3: Bank of Japan, "Tokyo Repo Rate (before October 26, 2012)," "Uncollateralized Overnight Call Rate;" Japan Securities Dealers Association, "Tokyo Repo Rate (after October 29, 2012)."

Chart 5: Bank of Japan, "Trends in and Challenges for the Money Market in Japan."

Chart 6: Ministry of Finance Japan.

Chart 7: Japan Bond Trading.

Chart 8: Ministry of Finance Japan, "International Investment Position;" Bank of Japan, " Monetary Base and the Bank of Japan's Transactions," "Trends in and Challenges for the Money Market in Japan."

Chart 9: Bloomberg; Japan Bond Trading.

Chart 10: Japan Bond Trading.

Chart 11: Japan Bond Trading.

Chart 12: Japan Bond Trading.

Chart 13: Japan Securities Depository Center.

Chart 14: Japan Securities Dealers Association.

Chart 15: Bloomberg.

Chart 16: Bank of Japan, "Bank of Japan Accounts (Every Ten Days)," "Financial Statements of the Bank of Japan," "Monetary Base and the Bank of Japan's Transactions."

Chart 17: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)."

Chart 18: Bank of Japan, "BOJ Current Account Balances by Sector."

Chart 20: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Final Figures)."

Chart 21: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Final Figures)."

Chart 22: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Final Figures)."

Chart 23: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)."

Chart 24: Bank of Japan, "Bank of Japan Accounts (Every Ten Days)."

Chart 25: Cabinet Office; Bank of Japan, "Bank of Japan Accounts (Every Ten Days)."

Chart 26: Bank of Japan, "Currency in Circulation."

Chart 27: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)."

Chart 28: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)."

Chart 29: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)."

Chart 30: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Updated Every Business Day)," "T-Bills Purchased by the Bank of Japan," "Japanese Government Bonds Held by the Bank of Japan."

Chart 31: Bank of Japan, "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations (Final Figures)."

Chart 32: Bank of Japan.

Chart 33: Bank of Japan, "Bank of Japan Operations."

Chart 34: Bank of Japan, "Bank of Japan Operations."

Chart 35: Bank of Japan, "Bank of Japan Operations."

Chart 36: Bank of Japan, "Bank of Japan Operations," "Monetary Base and the Bank of Japan's Transactions."

Chart 37: Japan Bond Trading; Bank of Japan, "Bank of Japan Operations."

Chart 38: Bank of Japan, "Bank of Japan Operations," "Monetary Base and the Bank of Japan's Transactions."

Chart 39: Bank of Japan, "Bank of Japan Operations."

Chart 40: Bank of Japan, "Bank of Japan Operations," "Monetary Base and the Bank of Japan's Transactions."

Chart 41: Bank of Japan, "Bank of Japan Operations."

Chart 42: Bank of Japan, "Bank of Japan Operations," "Monetary Base and the Bank of Japan's Transactions."

Chart 45: Bank of Japan, "Monetary Base and the Bank of Japan's Transactions."

Chart 46: Bank of Japan.

Chart 47: Bank of Japan.

Chart 48: Bank of Japan, "Bank of Japan Operations."

Chart 49: Bank of Japan, "Loan Disbursement under the Fund-Provisioning Measure to Support Strengthening the Foundations for Economic Growth."

Chart 50: Bank of Japan, "Loan Disbursement under the Funds-Supplying Operation to Support Financial Institutions in Disaster Areas."