BOJ Reports & Research Papers

July 2010

Money Market Operations in Fiscal 2009

Financial Markets Department
Bank of Japan

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Financial Markets Department, Bank of Japan

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Table of Contents

Summary

Throughout fiscal 2009, the Bank of Japan conducted money market operations with the uncollateralized overnight call rate as the operating target. During this period, the target level for the uncollateralized overnight call rate was "around 0.1 percent." The basic loan rate applied to the complementary lending facility was 0.3 percent, and the interest rate applied to the complementary deposit facility was 0.1 percent.

During fiscal 2009, as in fiscal 2008, the Bank continued to conduct money market operations in a flexible manner in response to changes in the market situation, with a view to ensuring market stability.

The Bank provided ample funds by, for example, actively purchasing Japanese government securities (JGSs) and CP under repurchase agreements. In particular, toward the year-end and the fiscal year-end when the demand for funds grew, the Bank increased the provision of ample funds and created a situation in which liquidity concerns did not constrain financial institutions' activity. In addition, the Bank conducted outright purchases of CP and corporate bonds, U.S. dollar funds-supplying operations against pooled collateral, and special funds-supplying operations to facilitate corporate financing. These operations were conducted until the end of December 2009, early February 2010, and the end of March 2010, respectively. As market functioning recovered, financial institutions' demand for liquidity declined, and the amounts bid in outright purchases of CP and corporate bonds and in U.S. dollar funds-supplying operations against pooled collateral declined.

In December 2009, to enhance easy monetary conditions further by encouraging a decline in longer-term interest rates, the Bank introduced a fixed-rate funds-supplying operation against pooled collateral. In March 2010, the Bank decided to expand this measure to encourage a decline in longer-term interest rates by substantially increasing the amount of funds to be provided through the fixed-rate funds-supplying operation against pooled collateral. To ensure the functioning of the money market, the Bank left adjustments of the daily funds imbalance among market participants to the market while increasing the amount of longer-term funds provided through funds-supplying operations.

Under these money market operations, the uncollateralized overnight call rate moved steadily around the target level throughout fiscal 2009. Longer-term interest rates were on a moderate declining trend, falling at a faster pace after December 2009. Although longer-term liquidity remained low, conditions in the money market were generally stable. It should be noted, however, that the Bank's money market operations continued to act as a substitute for market transactions. The environment for corporate financing, with some lingering severity, continued to improve. Meanwhile, the outstanding balance of current accounts held at the Bank and excess reserves remained at increasingly high levels.

In fiscal 2009, the Bank also revised the terms and conditions of money market operations. This included an expansion in the range of eligible collateral for loans on deeds to the government and those with government guarantees and an acceptance of loans on deeds to municipal governments and foreign bonds denominated in foreign currencies as eligible collateral.

The first section of this paper focuses on the sources of changes in current account balances at the Bank, which are preconditions for money market operations. This is followed by a review of the conduct and features of money market operations as well as developments in the money market, including movements in interest rates such as the uncollateralized overnight call rate, in response to these operations. The latter part reviews developments by type of operational tool and explains the main revisions to money market operations.

I. Sources of Changes in Current Account Balances at the Bank of Japan (Autonomous Factors)

To ensure that the uncollateralized overnight call rate remains at the target level, the Bank adjusts the current account balances. Current account balances at the Bank fluctuate in tandem with receipts and payments of banknotes and treasury funds between financial institutions and the Bank or the government. The Bank projects changes in current account balances at the Bank and adjusts the current account balances as needed, by conducting funds-supplying or funds-absorbing operations. Thus, sources of changes in current account balances at the Bank (autonomous factors)[1] constitute important preconditions for the Bank's money market operations.[2]

During fiscal 2009 (April 2009-March 2010), as in fiscal 2008, developments in autonomous factors led to a decrease in the outstanding balance of current accounts. This negative contribution made by autonomous factors amounted to 16.3 trillion yen, down somewhat from 17.4 trillion yen in fiscal 2008. This was mainly due to the fact that while net issuance of banknotes remained almost unchanged, larger net fiscal payments and a positive contribution of "others" exceeded net receipts (issuance above redemption, sources of decrease in current account balances) from Japanese government bonds (JGBs, over one year)[3] and treasury discount bills.

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[1] Developments in banknotes and treasury funds, which are preconditions for the central bank's money market operations, are referred to as "sources of changes in current account balances" or "autonomous factors." In the case of banknotes, financial institutions' deposits of banknotes at the Bank constitute sources of increase in current account balances, while their withdrawal of banknotes from the Bank constitutes sources of decrease. In the case of treasury funds, the issuance of JGSs and payment of taxes result in transfers of funds from financial institutions' current accounts to the government's account and constitute sources of decrease in current account balances, while the redemption of JGSs, pension payments, and other fiscal expenditures made from the government's account to financial institutions' current accounts at the Bank constitute sources of increase.

[2] For details on the framework for the Bank's money market operations, see "Nippon Ginko no Kin'yu Shijo Chousetsu (Bank of Japan's Money Market Operations)," released by the Bank's Financial Markets Department (June 2008, available only in Japanese).

[3] The issuance and redemption of treasury discount bills are not included under "JGBs (over one year)," and are shown separately under "Treasury discount bills."

Chart 1-1: Changes in Autonomous Factors Affecting Current Account Balances (CABs) at the Bank in Fiscal 2009

trillion yen

	FY2008	FY2009	y/y change
Banknotes	- 0.4	- 0.5	- 0.0
Treasury funds and others	- 16.9	- 15.8	+ 1.1
Fiscal payments	+ 26.7	+ 49.9	+ 23.2
JGBs (over one year)	- 24.5	- 32.2	- 7.7
Treasury discount bills	- 18.7	- 34.4	- 15.7
Foreign exchange	- 0.6	- 0.6	- 0.1
Others	+ 0.1	+ 1.4	+ 1.3
Excess/shortage of funds	- 17.4	- 16.3	+ 1.1

(Reference)

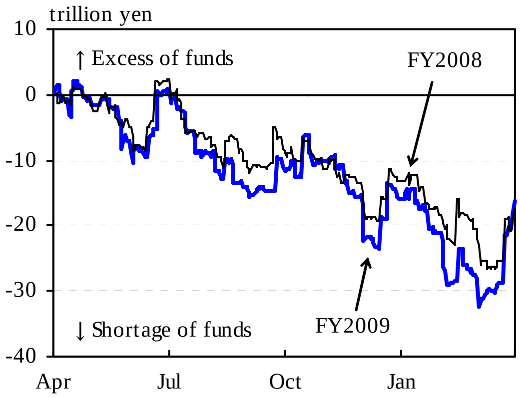
	FY2008	FY2009
Outstanding balance of banknotes	76.9	77.4

Note: Banknotes: Negative figures show net issuance.
Treasury funds and others: Negative figures show net receipts, and positive figures show net payments (adjusted for effects of T-Bill purchasing/selling operations).
JGBs (over one year): Figures include net issuance/redemption of TBs issued by January 2009.
Treasury discount bills: Figures include net issuance/redemption of FBs issued by February 2009.
Excess/shortage of funds: Negative figures show a decrease, and positive figures show an increase, to the CABs (adjusted for effects of T-Bill purchasing/selling operations).
Source: Bank of Japan.

During fiscal 2009, developments in "excess and shortage of funds" were, as in the past, generally in line with changes in treasury funds and others. Funds were in shortage until early June 2009, but shifted to an excess temporarily against the background of pension payments in mid-June and a large redemption of JGBs at the end of June. Thereafter, funds remained in shortage, and a shortage of over 30 trillion yen was recorded in early March 2010. This significantly exceeded the shortage during the same time of the previous fiscal year. Nonetheless, the net shortage of funds throughout fiscal 2009 amounted to 16.3 trillion yen, down somewhat from fiscal 2008. This mainly reflected fiscal payments and large redemptions of JGBs in March 2010. Fluctuations in "excess and shortage of funds" in fiscal 2009 were larger than those in fiscal 2008. This reflected the fact that while the market issuance of JGBs and treasury discount bills increased, fiscal payments increased due to the implementation of a large-scale government budget.

The following section describes the developments in "excess and shortage of funds" by factor.

Chart 1-2: Excess/Shortage of Funds (Banknotes + Treasury Funds and Others) (Daily Developments during Fiscal 2009)

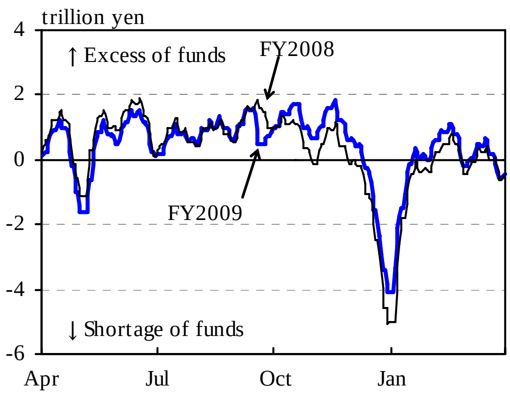


Notes: 1. Cumulative figures for fiscal 2009.
2. Adjusted for effects of T-Bill purchasing/selling operations.
Source: Bank of Japan.

A. Changes in Banknotes

Net issuance of banknotes for fiscal 2009 was 0.5 trillion yen (sources of decrease in current account balances). During fiscal 2009, net issuance, as in the past, increased toward the end of the year, and the outstanding balance of banknotes reached around 81 trillion yen. Thereafter, the outstanding balance declined due to net redemptions of banknotes and recorded around 77 trillion yen at the end of fiscal 2009.

Chart 1-3: Banknotes (Daily Developments during Fiscal 2009)

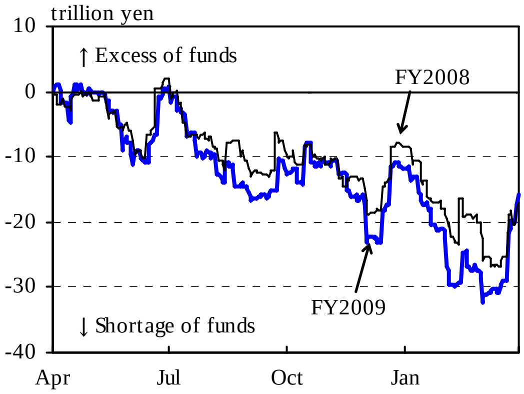


Notes: 1. Cumulative figures for fiscal 2009.
2. Issuance of banknotes means that financial institutions withdraw banknotes from the current account balances at the Bank. Their withdrawals result in "shortage of funds," decreasing the outstanding balance of current accounts at the Bank.
Source: Bank of Japan.

B. Changes in Treasury Funds and Others

Net receipts of treasury funds and others for fiscal 2009 were 15.8 trillion yen (sources of decrease in current account balances). During fiscal 2009, as in the past, the shortage of funds due to a net issuance of JGBs (over one year) and treasury discount bills as well as receipts of taxes and pension insurance premiums (at the beginning of every month) was larger than the excess of funds from large redemptions of JGBs (in late March, June, September, and December), pension payments (in the middle of even months), and allotment of local allocation tax (in early April, June, September, and November).

Chart 1-4: Treasury Funds and Others (Daily Developments during Fiscal 2009)



Notes: 1. Cumulative figures for fiscal 2009.
2. Adjusted for effects of T-Bill purchasing/selling operations.
Source: Bank of Japan.

1. Fiscal Payments and Revenues

"Fiscal payments and revenues" includes payments for public works, social security expenditures, and pension payments as well as tax revenues. It is a concept that includes all treasury payments and receipts but excludes payments and receipts related to the issuance and redemption of JGBs (over one year) and treasury discount bills and foreign exchange transactions (payments and receipts mainly related to foreign exchange intervention).

"Fiscal payments and revenues" resulted in net payments of 49.9 trillion yen, up from 26.7 trillion yen in fiscal 2008 (sources of increase in current account balances). The significant increase in net payments mainly reflected a decrease in tax revenues and the implementation of a large-scale government budget.

2. JGBs (Over One Year)

"JGBs (over one year)" includes the issuance and redemption of interest-bearing JGBs (long-term JGBs) and others.

"JGBs (over one year)" amounted to net government receipts of 32.2 trillion yen. This was up from net receipts of 24.5 trillion yen in fiscal 2008, reflecting the increase in market issuance.

3. Treasury Discount Bills[4]

Net receipts of "Treasury discount bills (T-Bills)" amounted to 34.4 trillion yen in fiscal 2009 (sources of decrease in current account balances), considerably up from 18.7 trillion yen in fiscal 2008. This mainly reflected changes in statistical treatment.[5]

4. Foreign Exchange and Others

"Foreign exchange" registered a net increase of 0.6 trillion yen, virtually unchanged from

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[4] Footnote 1 refers to "autonomous factors" as preconditions for the central bank's money market operations. However, among those factors, "treasury funds and others" is actually influenced by the Bank's purchases/sales of T-Bills, one of the tools for money market operations. The reason is as follows. When the Bank purchases T-Bills from financial institutions and holds them to maturity, redemption funds that would have been deposited in current accounts of the financial institutions involved are paid to the Bank. This transaction results in a decline in treasury payments to current accounts (the opposite occurs when T-Bills held by the Bank are sold to financial institutions).

In order to remove the effects of such purchases/sales of T-Bills and to grasp the developments in treasury funds accurately, it is assumed that, for the autonomous factors used in this paper, funds paid for the redemption of T-Bills purchased through money market operations are paid to financial institutions involved. Similarly, funds paid for the redemption of T-Bills sold through money market operations are assumed to be paid to the Bank.

[5] From February 2009, treasury bills (TBs) and financing bills (FBs) were integrated to form "treasury discount bills." Consequently, TBs which were included in "JGBs" are now included in "T-Bills" (see footnote 4 of "Money Market Operations in Fiscal 2008," released by the Bank's Financial Markets Department [August 2009]). In fiscal 2009, a 26.5 trillion yen increase in net receipts of T-Bills and the same amount of decrease in net receipts of JGBs (over one year) were attributable to this change (a 6.4 trillion yen contribution in fiscal 2008).

0.6 trillion yen in fiscal 2008. Although no foreign exchange intervention was undertaken during fiscal 2009, the Japan Bank for International Cooperation's yen/dollar exchange via the Foreign Exchange Funds Special Account[6] led to receipts of yen funds.

"Others" made a positive contribution of 1.4 trillion yen to the outstanding balance of current accounts at the Bank. This was due to the Bank's purchases of stocks held by financial institutions and a decrease in yen deposits of overseas account holders.[7] During fiscal 2008, receipts and payments of "Others" were close to zero.

C. Accuracy of Projections of Autonomous Factors

The developments of factors affecting current account balances as described above can be summarized by changes in (1) "banknotes," (2) "treasury funds and others," and (3) "excess and shortage of funds," with the latter the sum of the preceding two factors. For each of these items, the Bank, on a daily basis, compiles and releases projections for the next business day, and preliminary and final figures for that day.[8] Furthermore, every morning, the Bank releases projections of reserve balances for that day.[9] These projections are considered to be useful for market participants in predicting money market conditions and the Bank's money market operations on that day and making decisions on investment and fund-raising from the market.

A comparison of the daily projections of changes in the next day's current account balances

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[6] For details, see "Kokusai Kyoryoku Ginko to Gaikoku Kawase Shikin Tokubetsu Kaikei tono Aida no Gaika Koukan ni tsuite (Foreign Exchange Conducted by the Japan Bank for International Cooperation with the Foreign Exchange Funds Special Account)," released by Ministry of Finance (May 2008, available only in Japanese).

[7] The Bank accepts yen deposits from foreign central banks and international organizations. An increase in the balance of such deposits would normally make a negative contribution to the outstanding balance of current accounts at the Bank, while a decrease would make a positive contribution.

[8] Additionally, the Bank releases monthly projections and monthly preliminary and final figures for these three items.

[9] They refer to reserve balances of counterparties subject to the reserve requirement system, which excludes Japan Post Bank. This definition applies to all figures on reserve balances in this paper unless otherwise stated.

at the Bank and the actual figures for fiscal 2009 indicates that, on average, projections of excesses and shortages of funds were accurate within a range of plus or minus 40 billion yen. This was more or less unchanged from the range of plus or minus 50 billion yen in fiscal 2008. This implies that projection errors rarely exerted a significant impact on money market operations. Although on certain days the projections were off the mark by several hundred billion yen, the Bank did not need to conduct same-day operations to adjust current account balances.

A review of projection errors broken down into "banknotes" and "treasury funds and others" shows that the absolute size of the gap between projections and actual figures was larger for the autonomous factor of "treasury funds and others." This reflected the fact that payments and receipts of treasury funds continued to significantly exceed banknote payments and receipts. Among factors in "treasury funds and others," daily fluctuations in yen deposits of overseas account holders have decreased compared to fiscal 2008.[10] In addition, as the Bank continued to make efforts to improve the accuracy of projections, the projection errors in yen deposits of overseas account holders became smaller.

Chart 1-5: Accuracy of Projections of Autonomous Factors in Fiscal 2009

100 million yen

		Actual average	Average error	Maximum error	Minimum error
Excess/shortage of funds		8,666 (7,864)	447 (526)	5,038 (5,230)	0 (2)
	Banknotes	1,511 (1,559)	170 (186)	683 (1,121)	1 (1)
	Treasury funds and others	8,784 (7,923)	425 (500)	4,971 (5,218)	1 (0)

Notes: 1. Actual average is the average of the absolute size of actual daily autonomous factors.
2. Errors represent the absolute difference between the actual size of autonomous factors and projection made on the previous business day (not adjusted for effects of T-Bill purchasing/selling operations).
3. Figures in parentheses are for the previous year.

Source: Bank of Japan.

[10] During fiscal 2008, the average and standard deviation of the estimated absolute size of fluctuations in the autonomous factor of yen deposits of overseas account holders was about 106 billion yen and 117 billion yen, respectively. By comparison, in fiscal 2009, the average and standard deviation was about 78 billion yen and 64 billion yen, respectively.

II. Conduct of Money Market Operations

Throughout fiscal 2009, the Bank maintained its guideline for money market operations, which encouraged the uncollateralized overnight call rate to remain at around 0.1 percent. During this period, the basic loan rate applied to the complementary lending facility was kept at 0.3 percent. The interest rate applied to the complementary deposit facility (the interest rate applied to balances held at the account with the Bank in excess of required reserves under the reserve deposit requirement system) was set at 0.1 percent.

The concerns about the management of funds over the quarter-end, which were observed toward the end of fiscal 2008, had gradually abated as the Bank continued to provide ample liquidity. Rises in general collateral (GC) repo rates and interest rates on term instruments maturing beyond the quarter-end were small compared to those in fiscal 2008. After December 2009, when the Bank decided to further enhance easy monetary conditions, interest rates on term instruments and GC repo rates hardly increased at both the year-end and the fiscal year-end. With the exception of low-rated corporate bonds, issuing conditions for CP and corporate bonds continued to improve and remained favorable. Conditions in the U.S. dollar funding market also continued to improve. In the call market, the sense of an abundance of liquidity grew after December 2009, and some funds providers resumed their lending to foreign financial institutions. However, as a whole, market participants' concern about counterparty risk associated with foreign financial institutions had not completely disappeared, and liquidity in the call, repo, and foreign exchange swap markets remained low, particularly for longer-term transactions.

Against this backdrop, with a view to ensuring market stability, the Bank continued to conduct money market operations in a flexible manner in response to changes in the market situation, as in fiscal 2008. The uncollateralized overnight call rate remained at around 0.1 percent. This could be attributed to the fact that the interest rate applied to the complementary deposit facility functioned well as a lower limit for the uncollateralized overnight call rate even in a situation where active funds-supplying operations drove current account balances and reserve balances at the Bank to high levels. As a result, the Bank did not conduct funds-absorbing operations, such as sales of bills throughout fiscal 2009. The use of the complementary lending facility declined compared to that in fiscal 2008. In this environment, conditions in the money market were generally stable. It could be said, however, that the Bank's money market operations continued to act as a substitute for market transactions.

The remainder of this section reviews the conduct of money market operations until and after December 2009, and describes the features in each period.

A. Period through the End of November

From April 2009, liquidity in Japan's money market remained low. Funds providers in the uncollateralized call market continued to be cautious when investing, particularly via term transactions. In the repo market, as the market issuance of T-Bills increased, GC repo rates tended to rise on the issue dates of T-Bills and JGBs, at the end of each month and quarter, and on the last days of reserve maintenance periods. As the size of foreign financial institutions' balance sheets declined, they demanded less yen funding. As a result, they significantly reduced the volume of funding in the call market by relying on funds from their head offices and from yen conversion in foreign exchange swap markets. During this period, TIBOR showed more downward rigidity compared with other interest rates on term instruments.

Against this backdrop, with a view to ensuring market stability, the Bank continued to conduct money market operations in a flexible manner in response to changes in the market situation, as in fiscal 2008. The Bank actively purchased JGSs and CP under repurchase agreements. In addition, the Bank implemented outright purchases of CP and corporate bonds, special funds-supplying operations to facilitate corporate financing, and U.S. dollar funds-supplying operations against pooled collateral, all of which had been introduced as temporary measures in fiscal 2008. Moreover, the Bank increased the provision of funds maturing over the quarter-end. Under these circumstances, market concerns observed toward the end of fiscal 2008 gradually abated, with the growing sense of an abundance of liquidity. Money market operations during this period had the following features.

First, with a view to stabilizing the repo market, the Bank, as in fiscal 2008, continued to conduct overnight (S/N[11]) and one-week JGS purchasing operations with repurchase agreement every day. Taking into account the formation of interest rates in the market, the Bank flexibly adjusted the amount offered at each operation. The amount offered totaled 600 billion yen to 3 trillion yen for overnight operations and 600 billion yen to 1 trillion yen for one-week operations. In particular, during times such as at the end of each quarter and on the days of large-scale issuance and redemption of JGBs, when an uneven distribution of substantial funds exerted upward pressure on GC repo rates, the Bank increased the amount offered of overnight operations in a flexible manner. For example, the amount of the Bank's overnight JGS purchasing operations with repurchase agreement offered on June 26, 2009, to start on June 30, 2009, was increased by 0.5 trillion yen from the previous day to 2 trillion yen. On that day, however, GC repo rates (S/N) rose by 0.035 percent to 0.171 percent. The Bank then conducted two-day funds-supplying operations against pooled collateral starting on a T+1[12] basis on June 26, 2009 and overnight funds-supplying operations against pooled collateral starting on a T+1 basis on June 29, 2009. This prevented the uncollateralized overnight call rate from rising at the end of June 2009. Also, the amount of the Bank's overnight JGS purchasing operations with repurchase agreement offered on September 28, 2009, to start on September 30, 2009, was increased by 1 trillion yen from the previous day to 3 trillion yen. During this period, the Bank continued to relax conditions for conducting the security lending facility by, for example, delaying the closing time for applications.

Second, with a view to facilitating corporate financing, the Bank, as in fiscal 2008, continued to conduct CP purchasing operations with repurchase agreements, in principle, twice a week with 400 billion yen offered per operation. The bid-to-cover ratios of operations remained at the 1.0-2.0 level. The accepted bid rates had been at 0.10-0.11 percent, although they sometimes recorded 0.12-0.13 percent. Outright purchases of CP and corporate bonds and special funds-supplying operations to facilitate corporate financing

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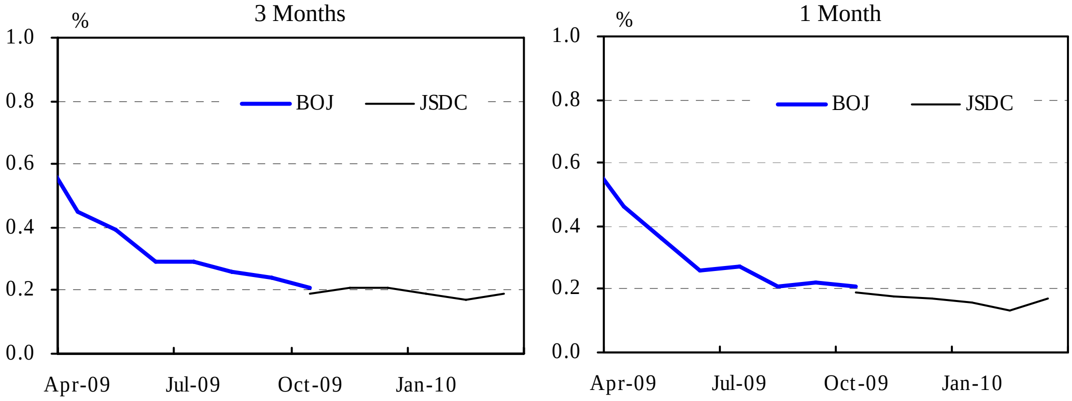
[11] Abbreviation for "spot/next." These are overnight transactions where the funds are delivered two business days after the contract date.

[12] These are transactions where the funds are settled on one business day (+1) after the contract date (T) (T+2 indicates transactions where the funds are settled on two business days after the contract date).

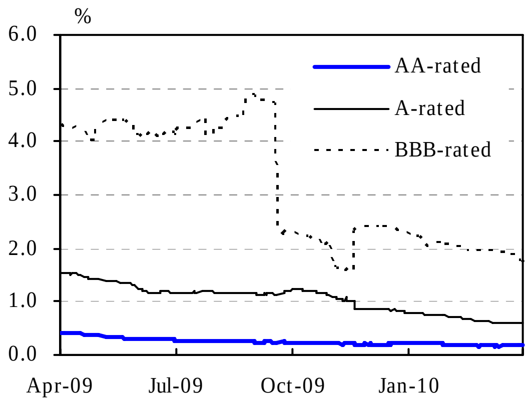
were offered in line with the auction schedule announced in advance. The Bank conducted outright purchases of CP once a week on average (ten times in three months) with 300 billion yen offered per operation. It implemented outright purchases of corporate bonds once a month with 150 billion yen offered per operation. Special funds-supplying operations to facilitate corporate financing were conducted once a week. At the Monetary Policy Meeting (MPM) of the Bank of Japan Policy Board held on July 14 and 15, 2009, the Bank decided to extend the effective periods of these measures from the end of September 2009 to the end of December 2009, in order to continue to facilitate corporate financing and to ensure stability in financial markets. Issuing conditions for CP and corporate bonds, with some lingering severity, continued to improve as issuance rates on CP were on a moderate declining trend and credit spreads on corporate bonds narrowed. Against this background, the Bank's purchases of CP had been undersubscribed since the beginning of fiscal 2009, and no bid had been submitted for eleven consecutive operations since the middle of September 2009. The Bank's purchases of corporate bonds had been undersubscribed since the beginning of fiscal 2009, and the bidding amounts decreased further in the second half of the fiscal year. The bidding amounts of special funds-supplying operations to facilitate corporate financing remained in the range of around 0.2 to 1.4 trillion yen. At the MPM held on October 30, 2009, given that Japan's financial environment, with some lingering severity, had been increasingly showing signs of improvement, particularly in the CP and corporate bond markets, the Bank made the following decisions. First, outright purchases of CP and corporate bonds would expire at the end of 2009 as scheduled. And second, special funds-supplying operations to facilitate corporate financing would remain in effect until the end of March 2010, and would expire thereafter. From April 2010 onward, the Bank would be prepared to provide ample liquidity mainly through funds-supplying operations against pooled collateral, which accepted a wider range of collateral. These decisions were based on the understanding that in order to ensure financial market stability and thereby facilitate corporate financing, it became necessary to adopt the most effective method for money market operations that conformed to changes in financial markets.

Chart 2-1: CP Issuance Rates



Notes: 1. "BOJ" indicates yields on new issues with rates equivalent to a-1 or higher; average rates of selected dealers. Up to October 2009.
2. "JSDC" indicates yields released by the Japan Securities Depository Center, Inc. From October 2009.
Sources: Japan Securities Depository Center, Inc.; Bank of Japan.

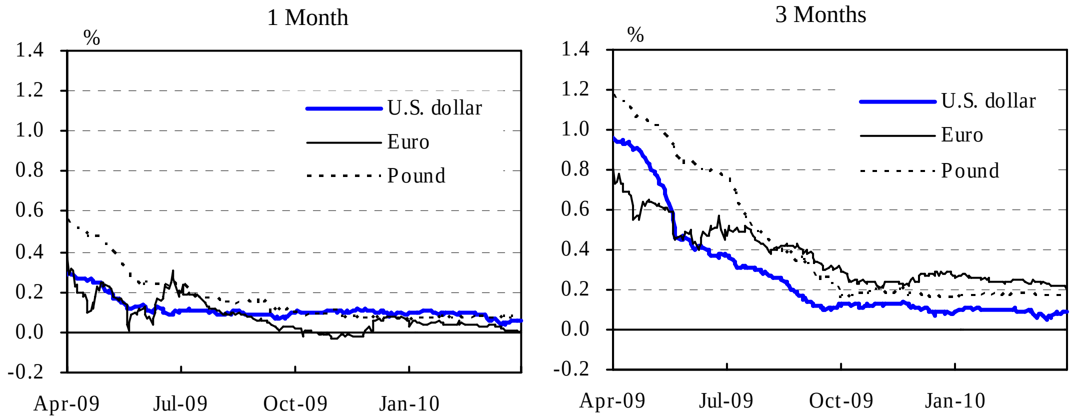
Chart 2-2: Spreads of Corporate Bond Yields over Government Bond Yields



Note: Yields on corporate bonds have been calculated on the expanded pool of issues with maturity of three to seven years.
Source: Japan Securities Dealers Association.

Third, with a view to ensuring stability in the U.S. dollar funding markets, the Bank, as in fiscal 2008, continued to alternately offer one-month and three-month (shortened since October 2009) U.S dollar funds-supplying operations every other week. At the MPM held on July 14 and 15, 2009, the Bank decided to extend the effective period of the measure from the end of October 2009 to the beginning of February 2010. As conditions in the U.S. dollar funding market improved, the rates in the Bank's operations exceeded those in the market, which led the Bank's counterparties to raise funds in the market rather than through the Bank's operations. The bidding amounts had generally been decreasing from 0.98 billion dollars recoded in the beginning of fiscal 2009, and no bid had been submitted to some of the operations conducted in November and December 2009.

Chart 2-3: LIBOR-OIS Spreads for the U.S. Dollar, Euro, and Pound

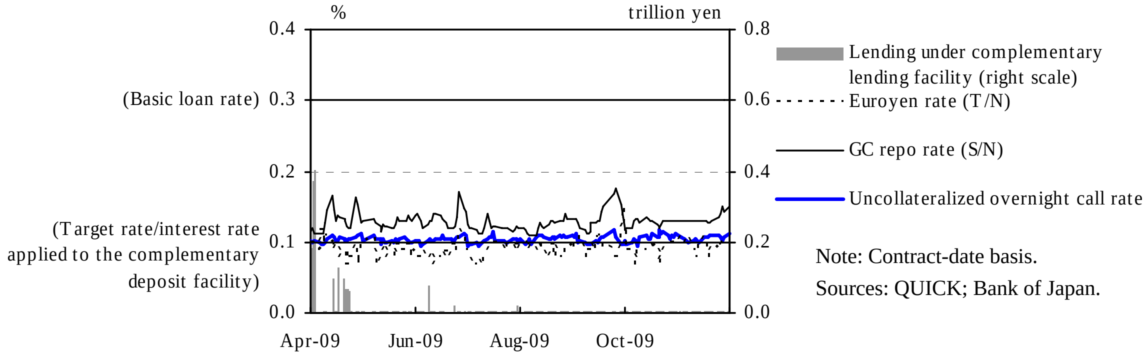


Source: Bloomberg.

And fourth, to ensure stability in the financial markets, the Bank actively supplied funds over the end of September and the year-end. Specifically, on September 9 and 15, 2009, the Bank conducted funds-supplying operations against pooled collateral starting on September 30, 2009, and maturing on October 1, 2009. (These offers were made on a T+12 or T+8 basis.) The Bank started providing funds over the year-end on October 5, earlier than in the previous year, through special funds-supplying operations to facilitate corporate financing. In addition, the Bank started to conduct funds-supplying operations against pooled collateral on October 16, 2009, around the same time as the previous year. As a result, although there was some upward pressure on interest rates on term instruments, such as TIBOR, around the end of June and September 2009, rises in these rates were limited compared to those in fiscal 2008.

On September 30, 2009, as most market participants had already completed their funding over the quarter-end, the uncollateralized overnight call rate did not rise significantly and marked 0.103 percent. Small amounts were drawn from the complementary lending facility. Current account balances and reserve balances at the Bank stood at 17.6 trillion yen (up 32 percent from the previous year) and 13.9 trillion yen (up 32 percent from the previous year), respectively.

Chart 2-4: Money Market Rates and Lending under the Complementary Lending Facility (April 2009-November 2009)



Note: Contract-date basis.
Sources: QUICK; Bank of Japan.

B. Period from December through the Fiscal Year-End

Following the turmoil in international financial markets triggered by the Dubai shock, European stock prices plummeted in later November. In the foreign exchange market in Japan, the yen exchange rate had been unstable, with the yen tending to appreciate against major currencies.

Given that these international financial developments might adversely affect economic activity through, for example, business sentiment, the Bank called an unscheduled MPM on December 1, 2009. At the meeting, the Bank introduced a fixed-rate funds-supplying operation against pooled collateral to enhance easy monetary conditions further, by encouraging a decline in longer-term interest rates. On the afternoon of December 1, 2009, two funds-supplying operations against pooled collateral were offered on a T+1 basis. The total amount offered for these two operations was 1.8 trillion yen. Bidding amounted to 2.7 trillion yen, but the amount of accepted bids was limited to 0.5 trillion yen. This was because the Bank did not accept bids at rates of 0.09 percent or lower which a number of counterparties had submitted in response to the calling of an unscheduled MPM.

On December 2, 2009, in response to the undersubscription that had occurred on the previous day, the Bank conducted same-day funds-supplying operations, totaling 1 trillion yen (this was the only same-day funds-supplying operations conducted during fiscal 2009). In order to encourage a further decline in longer-term interest rates, the Bank increased the amount offered at overnight (S/N) JGS purchasing operations with repurchase agreements to 2.5 trillion yen from 800 billion yen on the previous day.

In order to lend to a wide range of counterparties, the Bank conducted the fixed-rate funds-supplying operation against pooled collateral at All Offices of the Bank. Starting from December 10, 2009, the Bank offered 800 billion yen per operation with a term of three months. The bid-to-cover ratio of eight was higher than that of the funds-supplying operation against pooled collateral -- whereby the interest rates to be applied were determined by a multiple-rate competitive auction (hereafter the variable-rate funds-supplying operation against pooled collateral). The Bank conducted the fixed-rate funds-supplying operation against pooled collateral about once a week until the middle of March 2010. The amount outstanding in this operation reached around 10 trillion yen at the end of February 2010.

At the MPM held on March 16 and 17, 2010, given that the amount outstanding of funds provided by special funds-supplying operations to facilitate corporate financing would gradually decline from April 2010 onward, the Bank decided to expand the measure to encourage a decline in longer-term interest rates by substantially increasing the amount of funds to be provided through the fixed-rate funds-supplying operation against pooled collateral. Following the decision, from March 23, 2010 onward, the Bank increased the frequency of the fixed-rate funds-supplying operation against pooled collateral to twice a week.[13] The amount outstanding of this operation was expected to reach around 20 trillion yen by June 2010.

Given the above-mentioned conduct of money market operations, interest rates on term instruments fell further. For example, yields on three-month to one-year T-Bills fell by around 4 basis points to a range of 0.10-0.15 percent from early December 2009 to the end of March 2010. One-month to one-year TIBOR decreased by 6 to 8 basis points during the same period. The sense of an abundance of liquidity grew further, and accepted bid rates in the variable-rate funds-supplying operation against pooled collateral declined to around 0.10-0.11 percent. On February 2, 2010, mainly reflecting a decline in precautionary demand, the variable-rate funds-supplying operation against pooled collateral was

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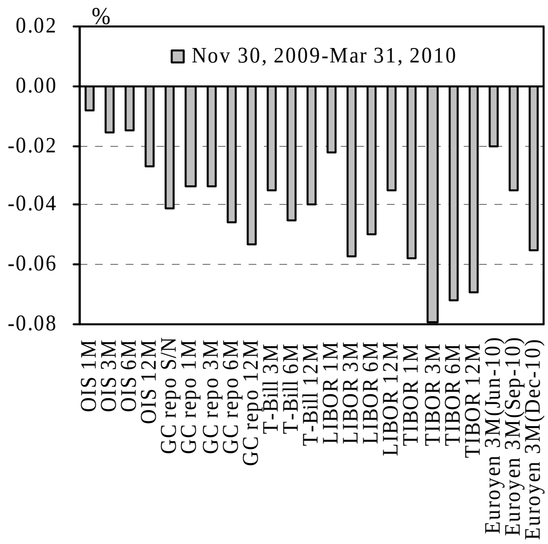
[13] Since April 2010, special funds-supplying operations to facilitate corporate financing have been rolled over by the fixed-rate funds-supplying operation against pooled collateral at their maturity.

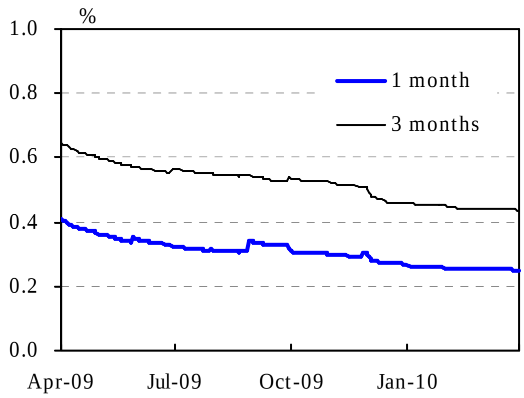
undersubscribed (the Bank offered 1 trillion yen, but the bidding amount was 0.6 trillion yen. As the Bank did not accept bids with rates of 0.03 percent or lower, the amount of accepted bids turned out to be 0.2 trillion yen).

Chart 2-5: Changes in Yen Term Rates



Sources: Bloomberg; Japan Securities Dealers Association; Tokyo Financial Exchange Inc; Bank of Japan.

Chart 2-6: Euroyen TIBOR



Sources: Japanese Bankers Association; Bank of Japan.

Regarding the Bank's purchases of CP under repurchase agreements, as firms' issuance of CP declined, after the middle of January 2010 the bid-to-cover ratios in these operations were at around one or operations were undersubscribed. From the middle of February 2010, the Bank, in principle, continued to conduct CP purchasing operations with repurchase agreements twice a week but reduced the amount offered per operation from 400 billion yen to 300 billion yen.[14]

In order to avoid a situation in which liquidity concerns constrained financial institutions' activity, with a view to ensuring stability in the financial markets, the Bank actively supplied funds over the year-end even after the start of December 2009. On December 3 and 21, 2009, the Bank conducted funds-supplying operations against pooled collateral starting on December 30, 2009, and maturing on January 4, 2010. (These operations were offered on

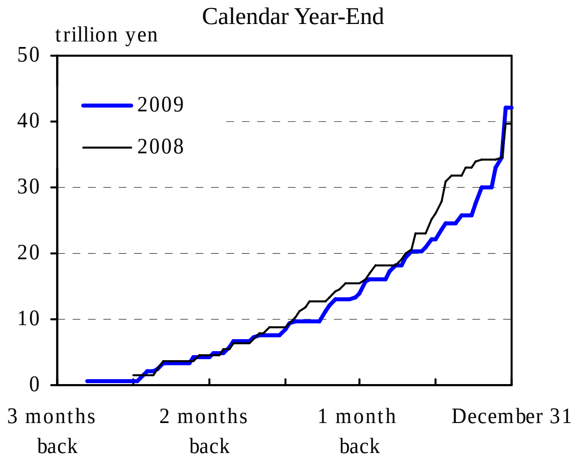
[14] Given that issuing conditions for CP remained favorable, the Bank's purchases of CP under repurchase agreements were brought to normal, and the Bank stopped its successive offerings. The operations have been rolled over by the funds-supplying operations against pooled collateral at their maturity. Under the above-mentioned conduct of money market operations, an unusual situation in which yields on T-Bills exceeded issuance rates on CP had been corrected gradually since April 2010.

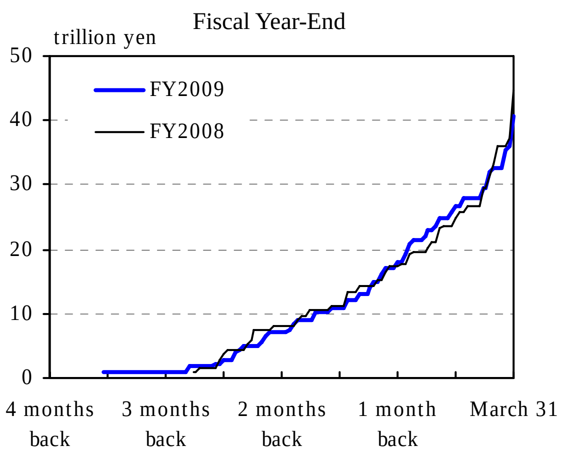
a T+18 or T+6 basis.) As a result, the outstanding balance of operations at year-end reached significantly higher levels than in the previous year.

On December 30, 2009, the last business day of the year, as most participants had already completed their funding over the year-end, the uncollateralized overnight call rate was 0.094 percent. Small amounts were drawn from the complementary lending facility. Current account balances and reserve balances at the Bank stood at 20.3 trillion yen (up 34 percent from the previous year) and 15.9 trillion yen (up 36 percent from the previous year), respectively.

Furthermore, the Bank actively supplied funds over the fiscal year-end. Specifically, the Bank conducted four-month funds-supplying operations against pooled collateral on December 11, 2009, about a month earlier than in the previous year (four-month funds-supplying operations against pooled collateral were conducted once in January 2010, and twice in February 2010). After the start of March 2010, on March 8, 18, and 24, 2010, the Bank conducted funds-supplying operations against pooled collateral starting on March 31, 2010 and maturing on April 1, 2010. (These offers were made on a T+16, T+8, or T+5 basis.) Although the balance of outstanding operations at fiscal year-end was somewhat below the previous year's level, it reached a high level even in a situation where the amount offered in short-term funds-supplying operations had fallen with the increase in outright purchases of JGBs.

Chart 2-7: Funds-Supplying in Operations Carrying over the Calendar and Fiscal Year-Ends





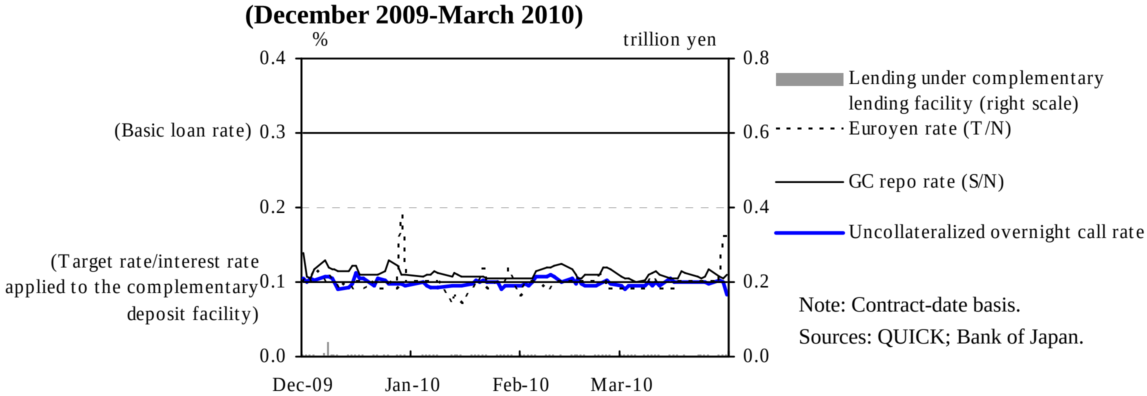
Notes: 1. Start-date basis.

2. Short-term funds-supplying operations (outright purchases of T-Bills, outright purchases of CP, and outright purchases of corporate bonds are not included).

Source: Bank of Japan.

On March 31, 2010, the last business day of the fiscal year, as most market participants had already completed their funding over the fiscal year-end, the uncollateralized overnight call rate declined significantly to 0.082 percent. Small amounts were drawn from the complementary lending facility. Current account balances and reserve balances at the Bank stood at 23.5 trillion yen (up 6 percent from the previous year) and 17.5 trillion yen (up 2 percent from the previous year), respectively. They recorded the highest levels since April 2006, immediately after the termination of the quantitative easing policy. Interest rates on term instruments, such as TIBOR, did not rise significantly around the year-end and the fiscal year-end.

Chart 2-8: Money Market Rates and Lending under the Complementary Lending Facility (December 2009-March 2010)



Note: Contract-date basis.
Sources: QUICK; Bank of Japan.

While providing long-term ample funds so as to encourage a decline in longer-term interest rates, the Bank, with due consideration to ensuring the functioning of the money market, reduced the amount of short-term funds-supplying operations and left adjustments of the daily funds imbalance among market participants to the market.

The Bank took a gradual approach when changing the way by which it conducted money market operations, while carefully monitoring developments in financial markets. After late January 2010, the Bank stopped overnight (S/N) JGS purchasing operations with repurchase agreements which it had conducted daily since the middle of November 2008 (the Bank conducted such operations on two business days in the middle of March when issuance and large-scale redemption of JGBs exerted upward pressure on GC repo rates). After extending the term of the operation from about one week to two weeks or longer, the Bank ceased to conduct daily variable-rate funds-supplying operation against pooled collateral.

III. Developments in Uncollateralized Overnight Call Rate

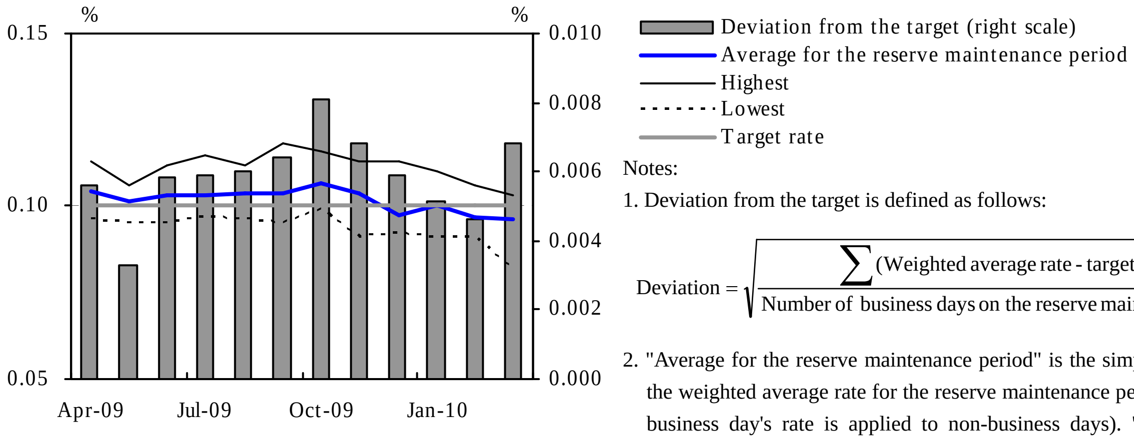
A. Uncollateralized Overnight Call Rate

A review of developments in the uncollateralized overnight call rate, the Bank's operating target, shows that the daily weighted average rate generally remained in line with the target level throughout fiscal 2009.

Specifically, prior to the unscheduled MPM, the daily weighted average rate was frequently a little above 0.1 percent. After the unscheduled MPM, however, it often registered a little below 0.1 percent. This reflected an increase in the share of lending below 0.1 percent by financial institutions, such as insurance companies and investment trusts, that were not eligible for the complementary deposit facility. Such increase in the share of lending could relate to the following. After the decision at the unscheduled MPM to encourage a further decline in longer-term interest rates, the Bank provided funds more actively through such operations as the fixed-rate funds-supplying operation against pooled collateral. This resulted in a growing sense of abundance of liquidity and a decline in financial institutions' demand for funds. Consequently, the daily weighted average rate was frequently below the lowest level recorded before the unscheduled MPM (0.095 percent), and it declined to 0.094 percent and 0.082 percent at the year-end and the fiscal year-end, respectively. The deviation of the daily weighted average of the uncollateralized overnight call rate from the target level was smaller than in fiscal 2008.[15]

[15] The daily weighted average rate was in the range of 0.082-0.118 percent during fiscal 2009. In the United States, while the Federal Reserve maintained the target range for the federal funds rate at 0 to 0.25 percent, the federal funds rate was in the rage of 0.05-0.25 percent. While the European Central Bank maintained the interest rate on the main refinancing operations at 1.00 percent, the EONIA was in the range of 0.299-1.386 percent.

Chart 3-1: Deviation of the Uncollateralized Overnight Call Rate from the Target



Notes:

1. Deviation from the target is defined as follows:

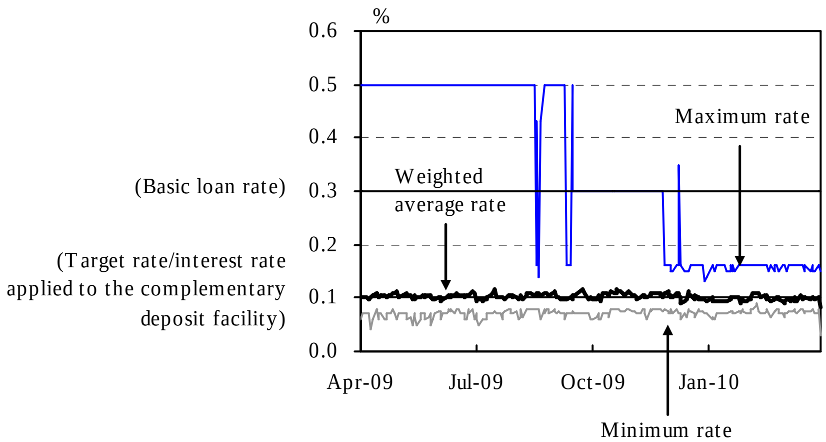
$$\text{Deviation} = \sqrt{\frac{\sum (\text{Weighted average rate - target rate})^2}{\text{Number of business days on the reserve maintenance period}}}$$

2. "Average for the reserve maintenance period" is the simple average of the weighted average rate for the reserve maintenance period (previous business day's rate is applied to non-business days). "Highest" and "lowest" are the weighted average rates in that reserve maintenance period.

Source: Bank of Japan.

The maximum uncollateralized overnight call rate was 0.5 percent at the beginning of fiscal 2009, but it declined intermittently to around 0.15 percent toward the fiscal year-end. The minimum uncollateralized overnight call rate was generally at around 0.07 percent. At each quarter-end, however, as the Bank provided more ample funds, the minimum rate tended to decline, and it reached 0.03 percent on the last day of fiscal 2009.

Chart 3-2: Uncollateralized Overnight Call Rate

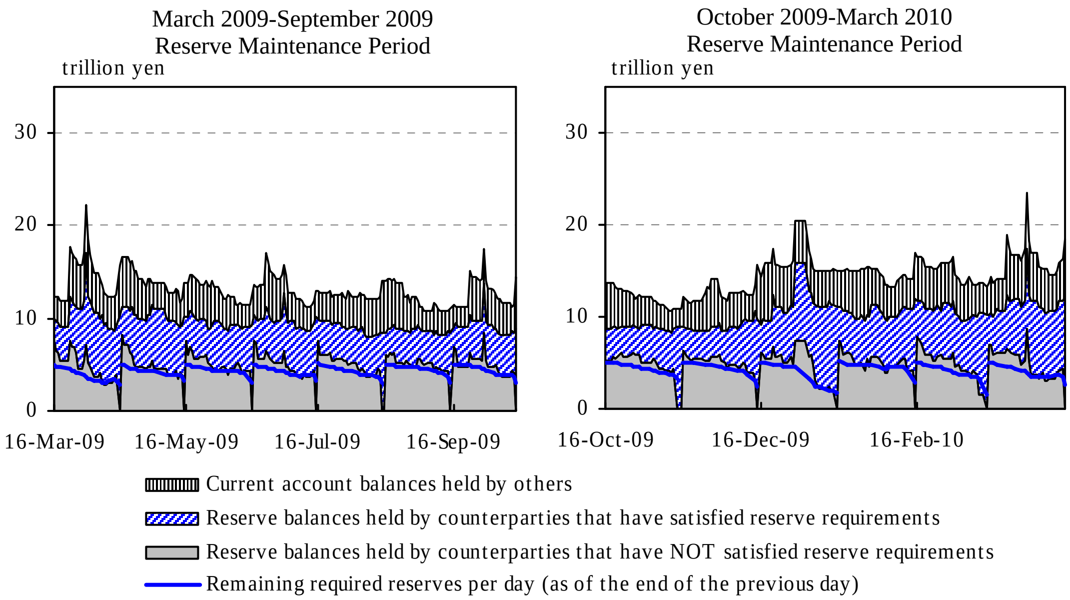


Source: Bank of Japan.

B. Current Account Balances at the Bank of Japan

From April to November 2009, current account balances at the Bank ranged from 10 to 18 trillion yen. From December 2009 onward, they increased to the range of 11 to 23 trillion yen, partly reflecting the increase in the amount outstanding of the fixed-rate funds-supplying operation against pooled collateral. With required reserves steady at about 5 trillion yen throughout fiscal 2009, reserve balances ranged from 7 to 13 trillion yen during April through November and from 8 to 17 trillion yen during December through March. During fiscal 2009, reserves balances were accumulated at a faster pace than in fiscal 2008 when they had been accumulated at a faster pace than in fiscal 2007.

Chart 3-3: Current Account Balances and Reserve Balances



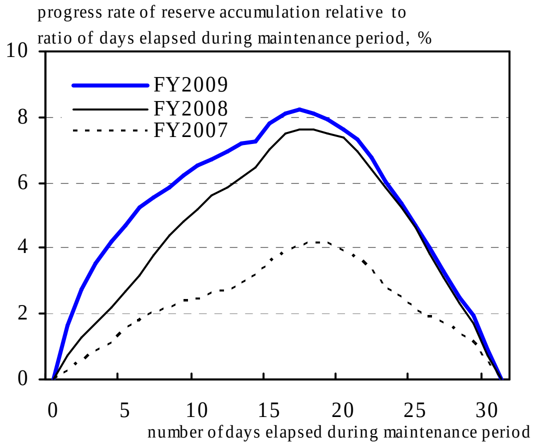
Notes: 1. "Counterparties that have NOT satisfied reserve requirements" are those subject to reserve requirements that have not completed the accumulation of reserves required for the current reserve maintenance period as of the end of the day (does not include figures for Japan Post Bank).

2. "Counterparties that have satisfied reserve requirements" are those subject to reserve requirements that have completed the accumulation of reserves required for the current reserve maintenance period as of the end of the day (does not include figures for Japan Post Bank).

3. "Others" are counterparties not subject to reserve requirements and Japan Post Bank.

Source: Bank of Japan.

Chart 3-4: Progress in Accumulation of Reserves



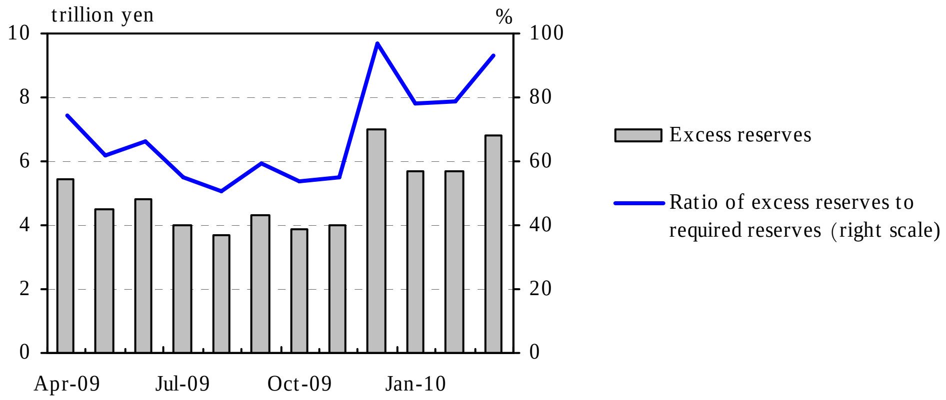
Notes: 1. "Progress rates of reserve accumulation" on a particular date during a maintenance period can be derived by dividing the cumulative reserve balance maintained by financial institutions from the start of the reserve maintenance period to the date, by cumulative total required reserves for the maintenance period (the progress rates for each year are calculated by averaging the progress rate vis-à-vis the number of days elapsed over a year).
2. "Ratio of days elapsed during maintenance period" is the ratio of days elapsed since the start of the reserve maintenance period to the total number of days in the reserve maintenance period (the ratio for each year is calculated by averaging the ratio vis-à-vis the number of days elapsed over a year).
3. "Progress rates of reserve accumulation relative to ratio of days elapsed during maintenance periods" is the difference between the progress rate of reserve accumulation and ratio of days elapsed during maintenance periods. When reserve balances are accumulated at a steady pace, this figure tends to be small for each day.
4. The figures for Japan Post Bank (Japan Post Public Corporation up to September 2007) are not included in reserve balances.

Source: Bank of Japan.

Excess reserves (current account balances at the Bank in excess of required reserves held by financial institutions subject to the reserve requirement system) and current account balances at the Bank held by counterparties not subject to the reserve requirement system, such as securities companies,[16] remained at high levels. This was due to the fact that the opportunity cost of holding excess reserves declined as the target rate was set equal to the rate applied to the complementary deposit facility. In addition, the Bank decided to further enhance easy monetary conditions in December 2009 and to expand the measure to encourage a decline in longer-term interest rates in March 2010, and provided more ample funds toward the year-end and the fiscal year-end. As a result, excess reserves increased further in and after the December reserve maintenance period, especially during the December and March reserve maintenance periods.

[16] Securities companies conduct Securities-Related Business and are engaged in Type I Financial Instruments Business prescribed in the Financial Instruments and Exchange Act.

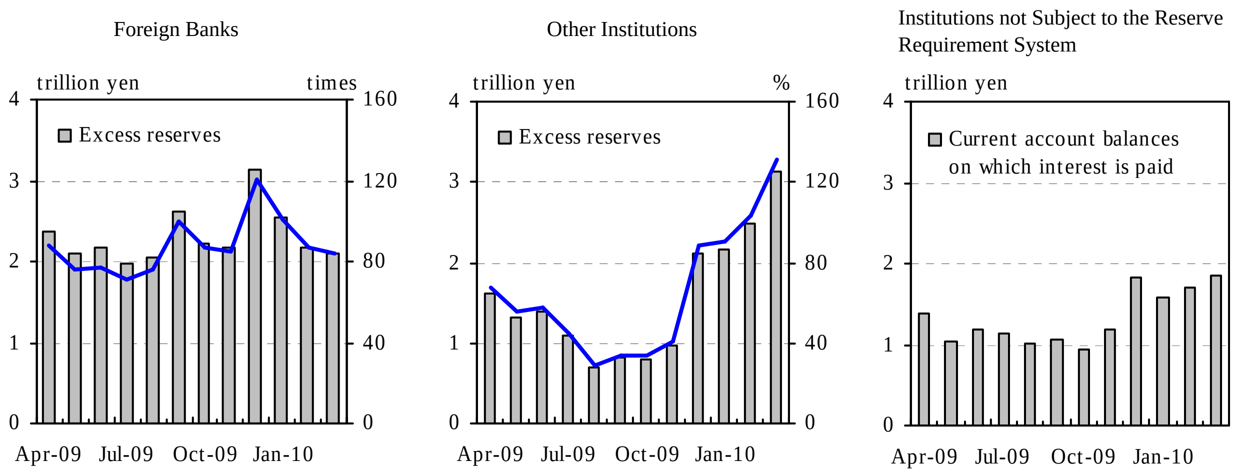
Chart 3-5: Excess Reserves of Institutions Subject to the Reserve Requirement System (Total)



Notes: 1. Average amount outstanding for each reserve maintenance period.
2. Figures for the March 2010 reserve maintenance period are provisional.
Source: Bank of Japan.

By sector, excess reserves held by foreign banks and "other institutions subject to the reserve requirement system" (such as Japan Post Bank and some *shinkin* banks) and current account balances at the Bank held by counterparties not subject to the reserve requirement system (such as securities companies and *tanshi* companies (money market brokers) remained at high levels. In particular, as the sense of an abundance of liquidity grew further, excess reserves held by "other institutions subject to the reserve requirement system" and current account balances at the Bank held by counterparties not subject to the reserve requirement system increased further from the December reserve maintenance period.

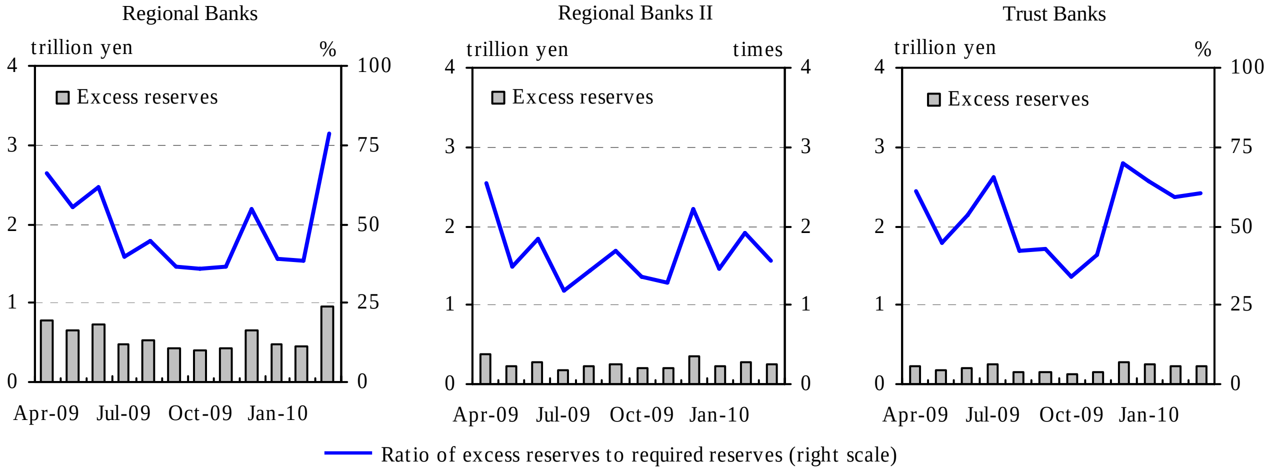
Chart 3-6: Foreign Banks, Other Institutions, and Institutions Not Subject to the Reserve Requirement System



Notes: 1. Average amount outstanding for each reserve maintenance period.
2. Figures for the March 2010 reserve maintenance period are provisional.
Source: Bank of Japan.

Excess reserves held by regional banks, regional banks II, and trust banks remained more or less unchanged, except in the March reserve maintenance period, when regional banks somewhat increased their excess reserves.

Chart 3-7: Regional Banks, Regional Banks II, and Trust Banks

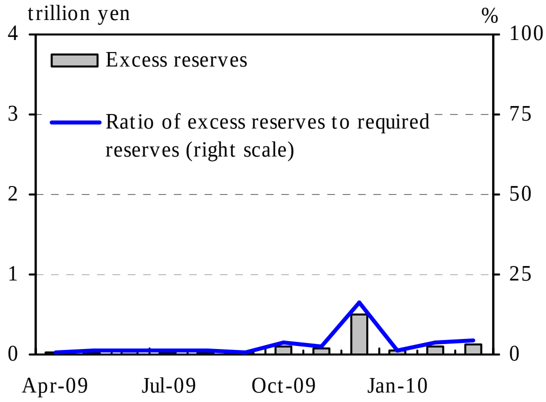


Notes: 1. Average amount outstanding for each reserve maintenance period.
2. Figures for the March 2010 reserve maintenance period are provisional.
Source: Bank of Japan.

Meanwhile, city banks continued to hold almost no excess reserves through most of fiscal 2009, with the exception of the December reserve maintenance period, when their holdings of excess reserves were somewhat large. They rigidly kept controlling their accumulation of reserves by investing any excess reserves in the repo market and in T-Bills. Such liquidity management by city banks with a significant market presence played an important role in maintaining the functioning of the money market. In particular, it contributed to the stable formation of the uncollateralized overnight rate, since the city banks' behavior helped keep the whole remaining required reserves throughout a maintenance period stable even in the presence of high levels of current account balances at the Bank.[17]

[17] Counterparties subject to the reserve requirement system delay the accumulation of reserves by decreasing their borrowing in the market when interest rates are high. On the other hand, they speed up the accumulation of reserves by increasing their borrowing in the market when interest rates are low. Such behavior contributes to the stable formation of uncollateralized overnight call rates.

Chart 3-8: City Banks



Notes: 1. Average amount outstanding for each reserve maintenance period.
2. Figures for the March 2010 reserve maintenance period are provisional.
Source: Bank of Japan.

C. Short-Term Funds-Supplying Operations[18]

At the end of fiscal 2009, the outstanding balance of short-term funds-supplying operations reached 50.9 trillion yen. Although it remained at a high level, it decreased somewhat from the previous year-end (55.3 trillion yen). This mainly reflected the fact that the total amount of short-term funds-supplying operations was reduced partly in response to the increase in outright purchases of JGBs.

[18] The total for funds-supplying operations against pooled collateral, purchases of JGSs with repurchase agreements, purchases of CP with repurchase agreements, special funds-supplying operations to facilitate corporate financing, outright purchases of T-Bills, outright purchases of CP, and outright purchases of corporate bonds.

Chart 3-9: The Bank's Balance Sheet (End-March 2010)

trillion yen

Assets		Liabilities and net assets	
Short-term funds-supplying operations	50.9 (55.3)	Short-term funds-absorbing operations	0.0 (0.03)
Of which: Outright purchases of T-Bills	9.4 (9.0)	Government deposits and others	12.7 (10.5)
T-Bills underwritten by the Bank	13.5 (12.6)	Current account balances	23.5 (22.1)
Long-term JGBs	50.2 (42.7)	Banknotes	77.4 (76.9)
Total assets	121.8 (123.9)	Total liabilities and net assets	121.8 (123.9)

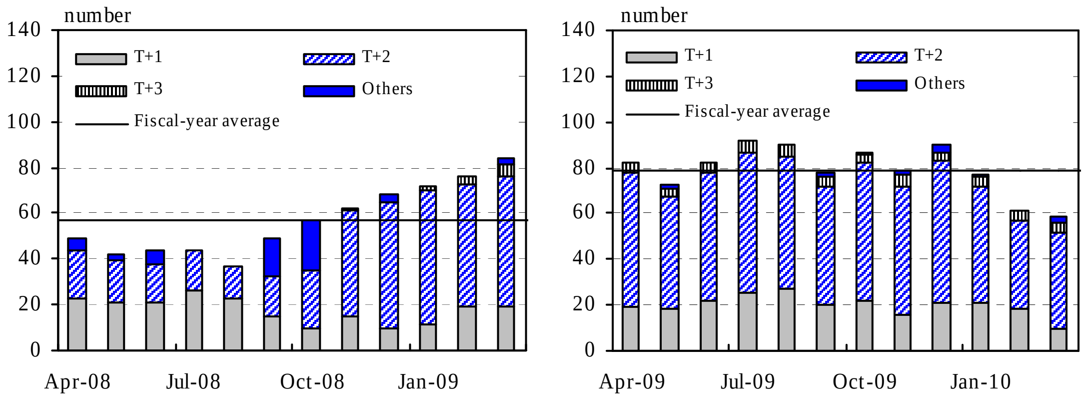
Notes: 1. Major items only.
2. "Short-term funds-supplying operations" is the sum of "funds-supplying operations against pooled collateral," "purchases of JGSs under repurchase agreements," "purchases of CP under repurchase agreements," "special funds-supplying operations to facilitate corporate financing," "outright purchases of T-Bills," "outright purchases of CP," and "outright purchases of corporate bonds."
3. "T-Bills underwritten by the Bank" includes "T-Bills underwritten by the Bank to supply yen funding to foreign central banks and other overseas account holders" and "T-Bills underwritten by the Bank to roll over JGBs and T-Bills."
4. "Short-term funds-absorbing operations" is "securities lending as a secondary source of JGSs."
5. "Government deposits and others" is the sum of "sales of JGBs to the government under repurchase agreements" and "deposits of the government."
6. Figures in parentheses are the results at end-March 2009.

Source: Bank of Japan.

In fiscal 2009, 950 short-term funds-supplying operations were offered. The number of operations offered was much higher than in fiscal 2008 (684 operations), when the Bank increased the number of operations from fiscal 2007. Looking at developments in fiscal 2009, the number of operations offered remained at a high level until December 2009 but fell in January and thereafter. This fall was due to the fact that the Bank, in principle, stopped overnight (S/N) JGS purchasing operations with repurchase agreements offered on a T+2 basis.

Chart 3-10: Number of Short-Term Funds-Supplying Operations Offered

April 2008-March 2009 April 2009-March 2010



Notes: 1. Offer-date basis.

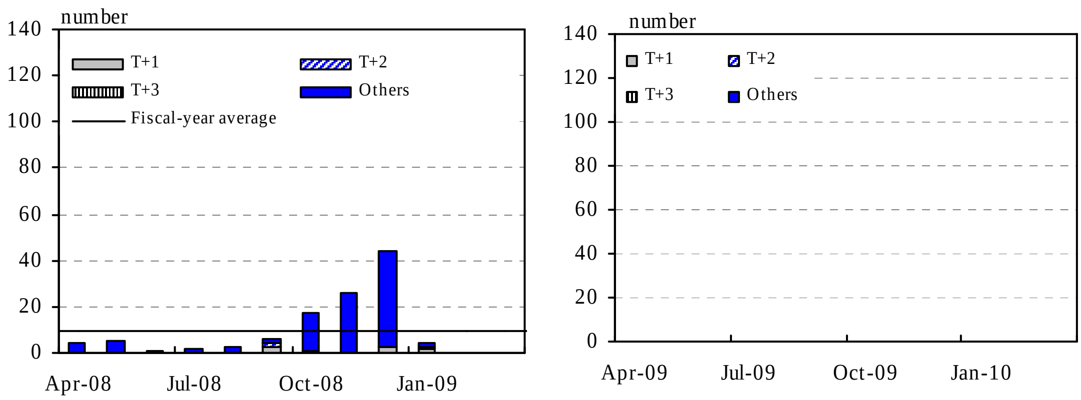
2. Outright purchases of T-Bills, outright purchases of CP, and outright purchases of corporate bonds are not included in short-term funds-supplying operations.

Source: Bank of Japan.

Throughout fiscal 2009, the Bank did not conduct funds-absorbing operations. This was mainly because the interest rate applied to the complementary deposit facility functioned well as a lower limit for the uncollateralized overnight call rate even in a situation where active funds-supplying operations drove current account balances and reserve balances at the Bank to high levels.

Chart 3-11: Number of Short-Term Funds-Absorbing Operations Offered

April 2008-March 2009 April 2009-March 2010

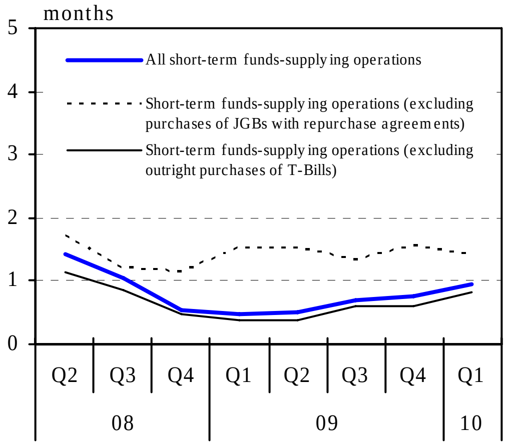


Note: Offer-date basis.

Source: Bank of Japan.

The average maturity of short-term funds-supplying operations, which had shortened after the failure of Lehman Brothers, lengthened from the third quarter of 2009. This reflected the following factors. First, given stable conditions in the money market, the Bank reduced the amount offered through overnight (S/N) and one-week JGS purchasing operations with repurchase agreement. Second, from December 2009 onward, in order to further enhance easy monetary conditions, the Bank increased the amount of funds to be provided through the three-month fixed-rate funds-supplying operation against pooled collateral. And third, with due consideration to ensuring the functioning of the money market, the Bank increased the amount of longer-term funds provided through the variable-rate funds-supplying operation against pooled collateral, thereby leaving adjustments of the daily funds imbalance among market participants to the market.

Chart 3-12: Average Length of Short-Term Funds-Supplying Operations



Notes: 1. "All short-term funds-supplying operations" is the weighted average of (1) the length of funds-supplying operations against pooled collateral, purchases of CP under repurchase agreements, and special funds-supplying operations to facilitate corporate financing (including operations on a same-day basis), (2) the residual maturity of T-Bills purchased in outright purchases of T-Bills, and (3) the length of purchases of JGSs under repurchase agreements, weighted by the allotment amount. Outright purchases of CP and outright purchases of corporate bonds are not included.

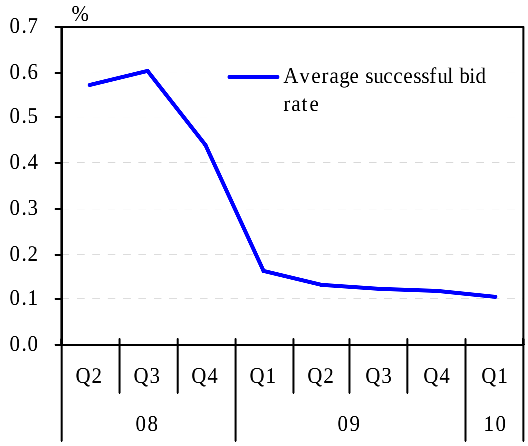
2. "Short-term funds-supplying operations (excluding purchases of JGSs under repurchase agreements)" is the weighted average of (1) and (2) above, weighted by the allotment amount.

3. "Short-term funds-supplying operations (excluding outright purchases of T-Bills)" is the weighted average of (1) and (3) above, weighted by the allotment amount.

Source: Bank of Japan.

After falling significantly in the fourth quarter of 2008, partly due to the reductions in the policy interest rate target, the average accepted bid rate of short-term funds-supplying operations declined further during 2009. The decline seen after the start of 2009 was mainly due to the Bank's increased provision of funds through special funds-supplying operations to facilitate corporate financing, in which the Bank extended loans at a lending rate equivalent to the policy target rate of 0.1 percent. The further decline seen in the first quarter of 2010 reflected the following factors. First, the Bank increased provision of funds through the fixed-rate funds-supplying operation against pooled collateral, in which the Bank extended loans at a lending rate equivalent to the policy target rate of 0.1 percent. And second, there was a decline in the average accepted bid rate of the variable-rate funds-supplying operation against pooled collateral.

Chart 3-13: Average Successful Bid Rate of Short-Term Funds-Supplying Operations



Note: "Average successful bid rate" is the weighted average of those rates of short-term funds-supplying operations (outright purchases of T-Bills, outright purchases of CP, and outright purchases of corporate bonds are not included) weighted by the allotment amount.
Source: Bank of Japan.

Box 1: Comparison of Central Banks' Balance Sheets

Since the failure of Lehman Brothers in autumn 2008, market functioning had been impaired in the United States and Europe, with almost no interbank transactions being conducted. Under these circumstances, central banks around the world made efforts to ensure the stability of financial markets and the financial system through the provision of ample funds. As a result, balance sheets of central banks in the United States and Europe expanded considerably. The size of expansion, however, varied depending on measures taken reflecting the extent of impairment of financial market and financial system of each individual country.

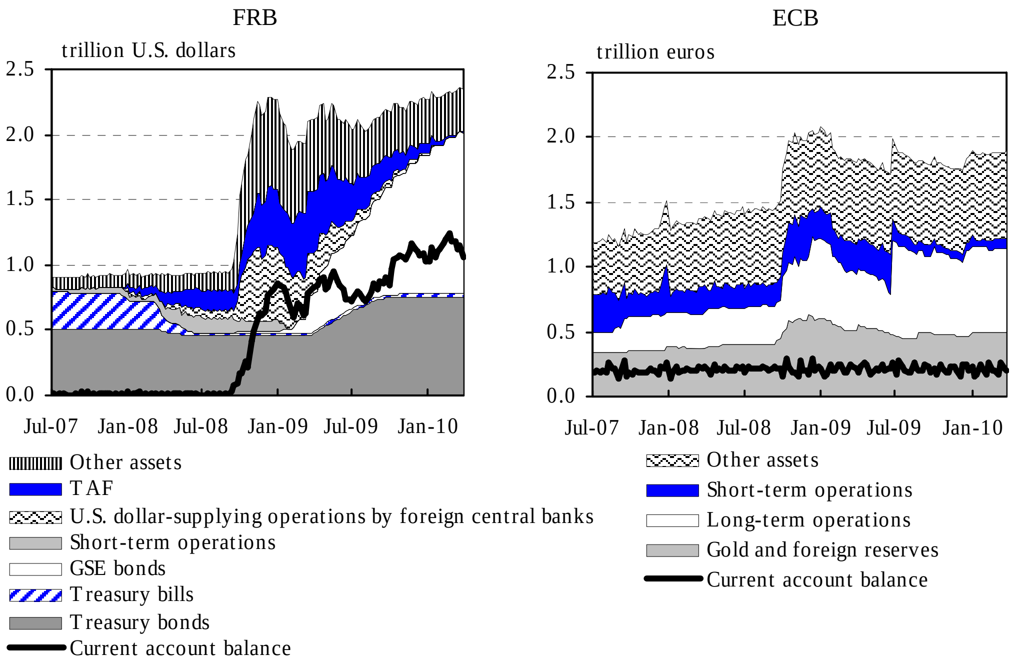
Specifically, the Federal Reserve provided U.S. dollar liquidity in coordination with other central banks and conducted large-scale purchases of agency mortgage-backed securities (MBSs). The European Central Bank conducted longer-term refinancing operations with full allotment. The Bank of England implemented long-term repo open market operations and Asset Purchase Facility gilt-purchase operations on a large scale.

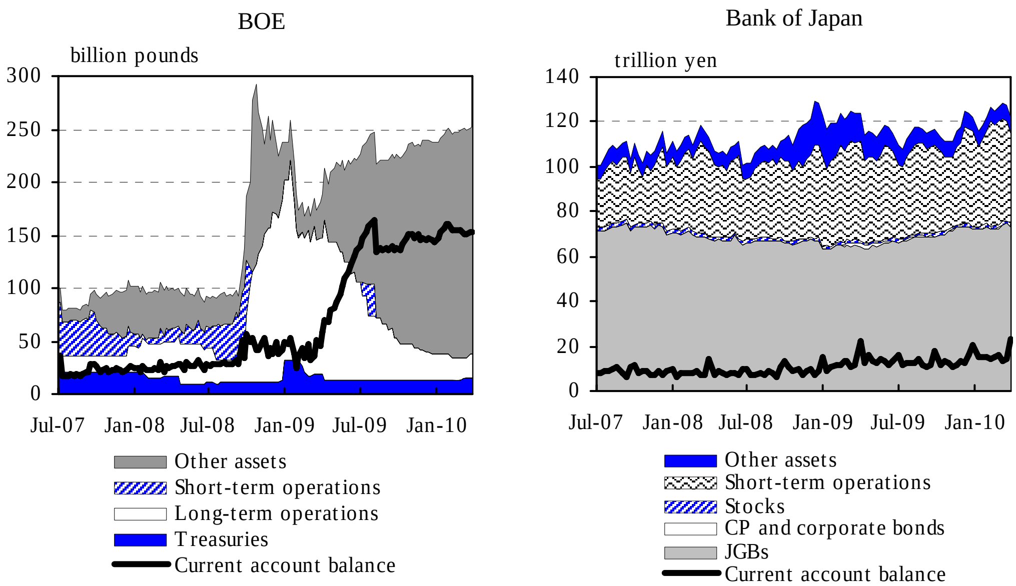
On the other hand, although market functioning had deteriorated in Japan since the failure of Lehman Brothers, the deterioration was small compared with that in the United States and Europe. Moreover, Japan's financial system had remained stable. As a result, the balance sheet of the Bank expanded at a slower pace than that of central banks in the United States and Europe.

Thus, the expansion of central banks' balance sheets after the failure of Lehman Brothers should be regarded as reflecting the extent of impairment of financial market and financial system of each individual country and not indicating the extent of monetary easing.

In order to compare central banks' balance sheets, it is worth looking at the ratio of the balance sheet total to nominal GDP. It should be noted that the size of the balance sheet of the Bank continued to exceed that of central banks in the United States and Europe, reflecting the large amount outstanding of banknotes issued by the Bank. The fact remained unchanged, even though central banks in the United States and Europe significantly expanded their balance sheets after the failure of Lehman Brothers.

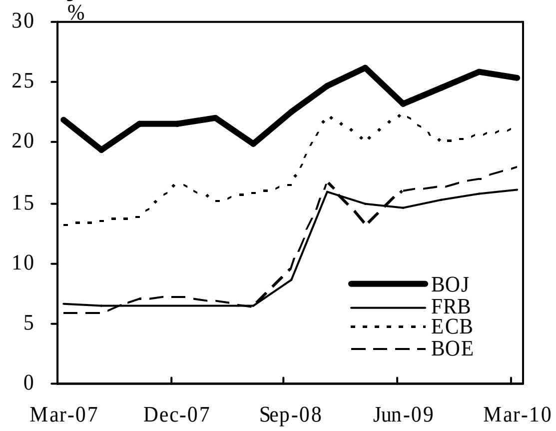
Comparison of Balance Sheets of Major Central Banks





Note: ECB is as of March 26, 2010. FRB, BOE and BOJ are as of March 31, 2010.
Sources: BOE; ECB; FRB; Bank of Japan.

Ratios of Major Central Banks' Balance Sheets to Nominal GDP



Sources: BOE; ECB; FRB; Bank of Japan.

IV. Developments in the Money Market

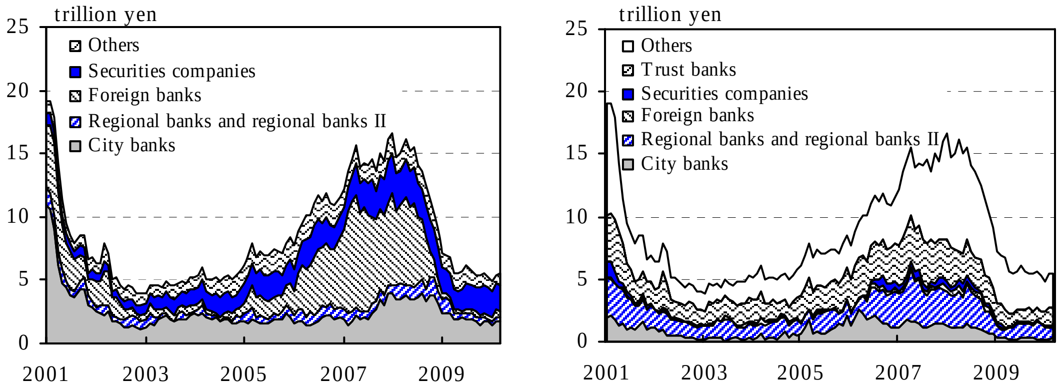
(Call Market)

The amount outstanding in the uncollateralized call market remained at around 5 trillion yen throughout fiscal 2009. With the Bank injecting ample funds while at the same time providing a complementary deposit facility, the amounts outstanding in both term and overnight transactions stayed at low levels. The amount outstanding in the uncollateralized call market recorded the lowest level in about six years, although it was somewhat above the lowest recorded during the period of quantitative easing (about 4 trillion yen in January 2003).

Chart: 4-1 Amounts Outstanding in the Uncollateralized Call Market: By Sector of Participants

By Borrower

By Lender

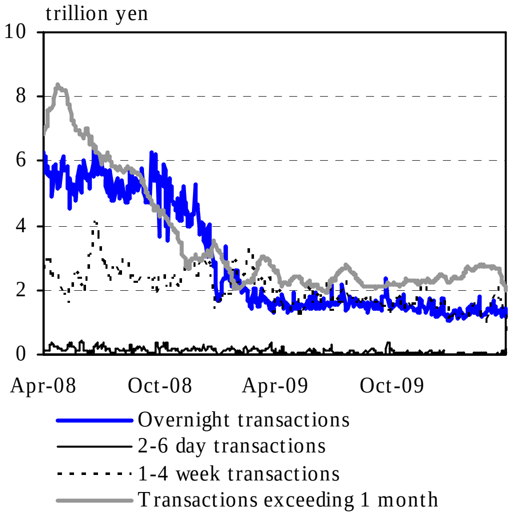


Notes: 1. Transactions intermediated by *tanshi* companies (monthly average balance).
2. "City banks" includes city banks, Shinsei Bank, and Aozora Bank. "Securities companies" includes financial transactions businesses (excluding businesses categorized as "others") and securities finance companies.

Source: Bank of Japan.

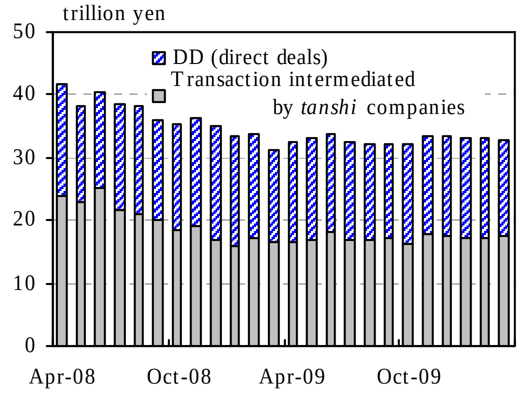
Looking at the amount outstanding in the uncollateralized call market by term and sector, it did not change significantly during fiscal 2009.

Chart 4-2: Amounts Outstanding in the Call Market: By Term



Source: Bank of Japan.

Chart 4-3: Total Amount Outstanding Balances of Call Transactions



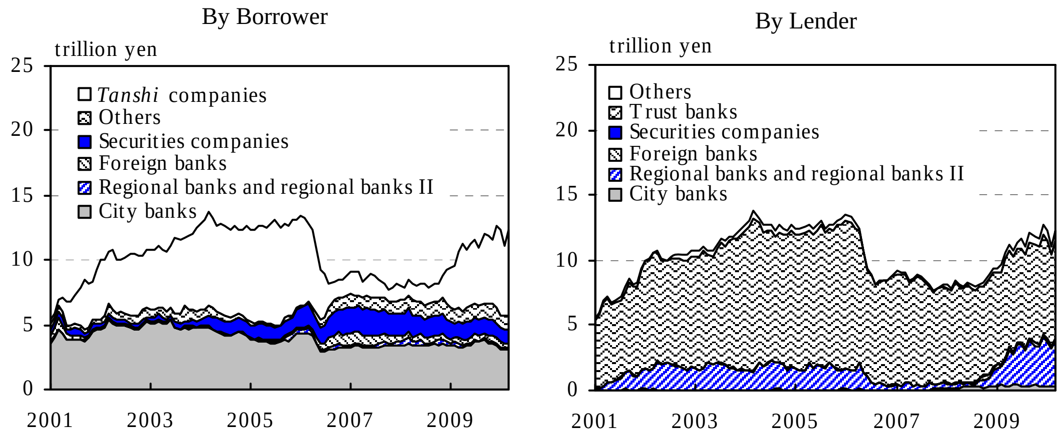
Notes: 1. Outstanding balance at the end of the month.
2. Direct deals (DD) call transactions are computed by subtracting the transactions intermediated by *tanshi* companies from the total outstanding balance of call money for domestic banks (city banks, trust banks, regional banks, regional banks II) and branches of foreign banks in Japan.

Source: Bank of Japan.

On the other hand, the amount outstanding in the collateralized call market was on an increasing trend. Funds providers continued to prefer safe transactions, and with a sense of abundance of liquidity growing, regional banks further increased their lending to *tanshi* companies through the collateralized call market.

Thus, since the end of 2008, the amount outstanding in the collateralized call market had exceeded that in the uncollateralized call market. Moreover, the difference between the amounts outstanding in the two markets had a tendency to widen.

Chart 4-4: Amounts Outstanding in the Collateralized Call Market: By Sector of Participants



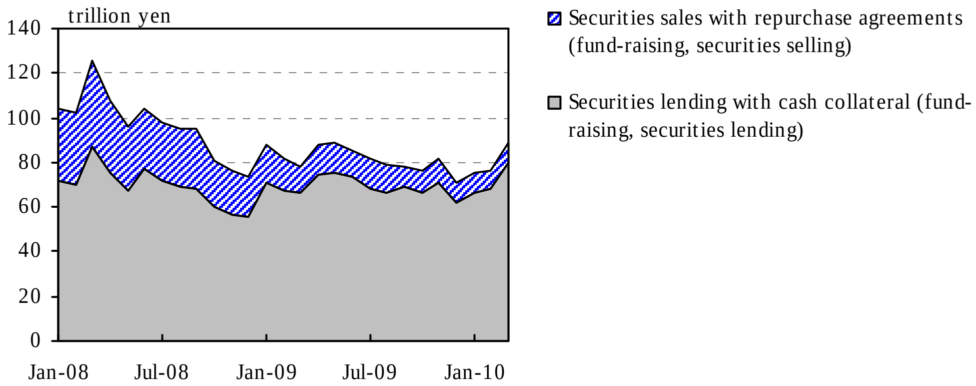
Notes: 1. Transactions intermediated by *tanshi* companies (monthly average balance).
2. "City banks" includes city banks, Shinsei Bank, and Aozora Bank. "Securities companies" includes financial transactions businesses (excluding businesses categorized as "others") and securities finance companies.

Source: Bank of Japan.

(GC Repo Market)

During fiscal 2009, the amount outstanding in the GC repo market was on a moderate downward trend, after having decreased significantly in fiscal 2008. This was mainly due to the following factors. With the Bank providing ample funds, securities companies increased their funding for investment in JGBs and T-Bills through the Bank's operations rather than through transactions in the repo market. In addition, as financial institutions such as city banks continued to take a conservative stance on liquidity management, they reduced arbitrage transactions by lending funds in the repo market and borrowing funds in the uncollateralized overnight call market.

Chart 4-5: Amounts Outstanding Balances in the Repo Market



Notes: 1. There is no continuity in outstanding balances of securities lending with cash collateral between 2008 and 2009.
2. Selling transactions with repurchase agreements conducted by the Bank, government, local public organizations, and government agencies (the government) are excluded. Purchasing transactions with repurchase agreements with the Bank and the government are deducted.
3. Broadly defined, repo transactions consist of securities lending with cash collateral and securities sales with repurchase agreements. The total outstanding balances of the two types of transactions are given here. However, GC and SC are not differentiated.

Source: Japan Securities Dealers Association.

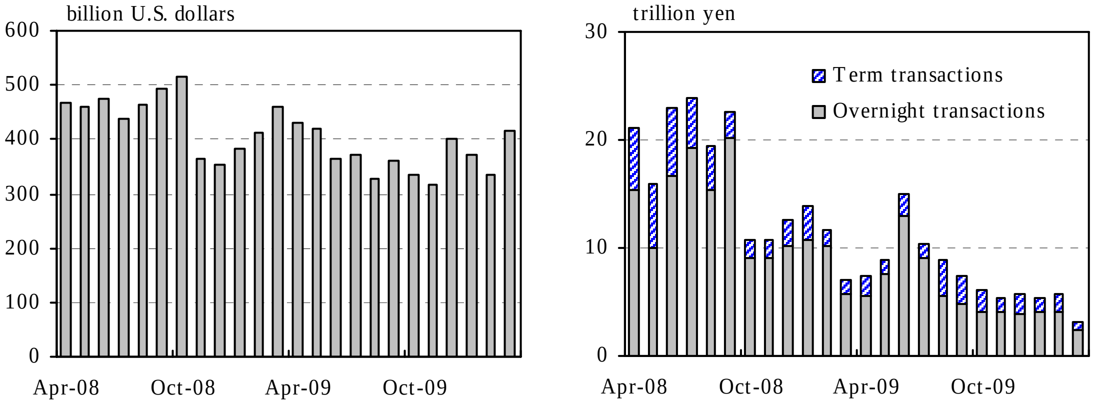
(Foreign Exchange Swap [Dollar/Yen] and Euroyen Markets)

Since foreign exchange swap and Euroyen transactions are widely carried out in overseas as well as domestic markets, they are used mainly by major foreign financial institutions and Japanese city banks to invest and to raise yen funds.

Transaction volumes in foreign exchange swap and Euroyen markets were on a moderate downward trend. Liquidity, particularly in term instruments, remained low in these markets after the failure of Lehman Brothers. Moreover, such a decline resulted partly from the fact that improvements in the U.S. dollar funding conditions led domestic and foreign financial institutions to actively raise funds in markets other than the foreign exchange swap market.

Chart 4-6: Amounts of Euroyen and Foreign Exchange Swap Transactions

Foreign Exchange Swap Transaction Amounts (USD/JPY Transactions, Average per Business Day) | Euroyen Transaction Amounts (Tokyo Offshore Market)



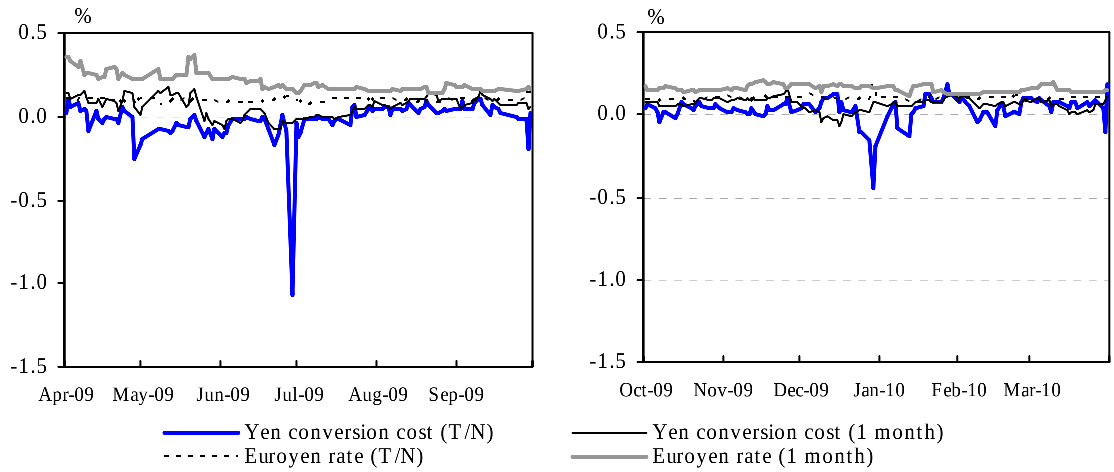
Source: Money Brokers Association.

Note: Cumulative monthly transactions related to "offshore accounts."
Source: Bank of Japan.

As liquidity in the foreign exchange swap market remained low, swap rates remained volatile, particularly at the end of June and December 2009, the fiscal year-end for foreign financial institutions.

Chart 4-7: Yen Conversion Costs and the Euroyen Rate

April 1, 2009-September 30, 2009 | October 1, 2009-March 31, 2010



Sources: Meitan Tradition; QUICK; Bank of Japan.

V. Developments in Operations by Type

A. Money Market Operations by Type

1. Conventional Funds-Supplying Tools

(Outright Purchases of JGBs)

Outright purchases of JGBs are operations to purchase long-term (interest-bearing) JGBs. They are conducted to smoothly and steadily supply long-term funds. With regard to auction methods, floating-rate bonds and inflation-indexed bonds are purchased through conventional auctions based on "price spreads," which are calculated by subtracting the benchmark prices from the prices at which counterparties desire to sell bonds to the Bank. Other interest-bearing JGBs are purchased through conventional auctions based on "yield spreads," which are calculated by subtracting the benchmark yields[19] from the yields at which counterparties desire to sell bonds to the Bank.

During fiscal 2009, the Bank continued to purchase JGBs from specific brackets classified by bond type and residual maturity at a pace of 21.6 trillion yen per year (1.8 trillion yen per month). In each purchasing operation, the Bank offered to purchase JGBs from two out of five brackets. The five brackets are "up to one year," "more than one year and up to ten years," "more than ten years and up to 30 years," "floating-rate bonds," and "inflation-indexed bonds."[20]

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[19] Benchmark prices and benchmark yields are obtained from "Reference Price (Yields) Table for OTC Bond Transactions" of the Japan Securities Dealers Association (compiled on the previous trading day).

[20] For information on classification by bond type and residual maturity, see "Changes in the Amounts of Outright Purchases of Japanese Government Bonds from Specific Brackets Classified by Bond Type and Residual Maturity" released on March 18, 2009.

Box 2: The Bank's Holdings of JGBs

The Bank has been purchasing JGBs at a pace of 21.6 trillion yen per year. At the end of fiscal 2009, the amount outstanding of the Bank's outright purchases of JGBs stood at 50.2 trillion yen (Chart 3-9), and the average residual maturity of JGBs held by the Bank was 5.2 years.

The Bank limits the amount outstanding of its outright purchases of JGBs to within the amount outstanding of banknotes in circulation.[21] At the end of fiscal 2009, the amount outstanding of the Bank's JGB holdings was 27.1 trillion yen below the amount outstanding of banknotes in circulation. This difference was 7.1 trillion yen less than at the end of fiscal 2008.

Changes in Outright Purchases of JGBs

From December 2008	From March 2009
From 14.4 to 16.8 (trillion yen per year)	From 16.8 to 21.6 (trillion yen per year)

Source: Bank of Japan.

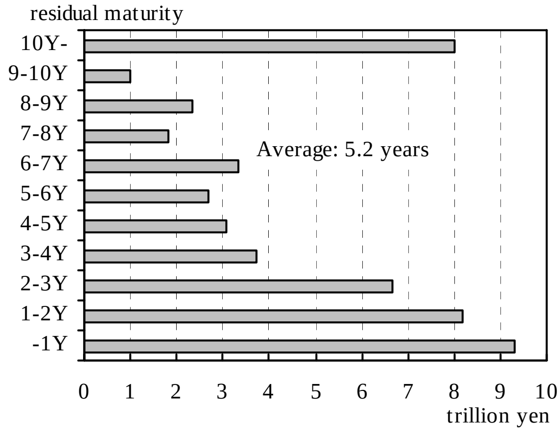
Segmental Breakdown of Outright Purchases of JGBs (From March 2009)

trillion yen per year

Interest-bearing			Floating-rate	Inflation-indexed	Total
Maturity: up to 1Y	Maturity: more than 1Y up to 10Y	Maturity: more than 10Y up to 30Y			
7.44	12.0	1.2	0.72	0.24	21.6

Source: Bank of Japan.

Maturity Composition of Amounts Outstanding of JGBs Held by the Bank (End-March 2010)

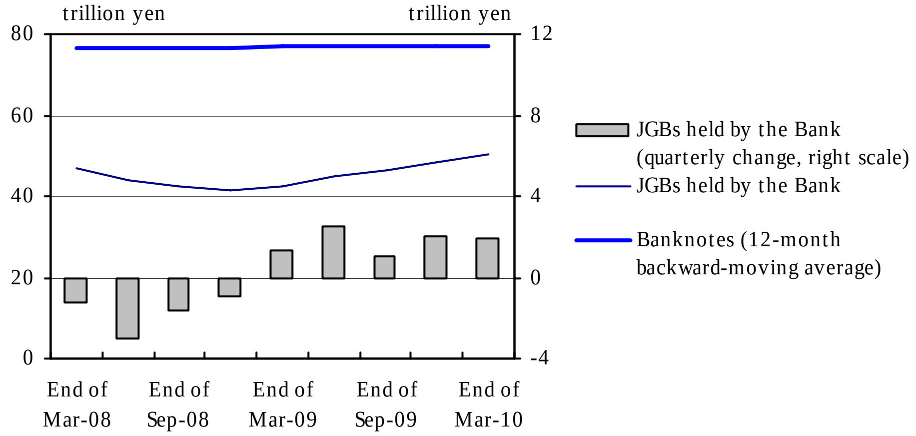


Source: Bank of Japan.

[21] For details on the rationale behind this treatment, see page 28 of "Money Market Operations in Fiscal 2008," released by the Bank's Financial Markets Department (August 2009).

Looking at recent developments, the amount outstanding of the Bank's JGB holdings decreased toward the end of 2008, as the amount of JGB redemptions exceeded that of the Bank's JGB purchases. This reflected the Bank's increased purchases of JGBs with a residual maturity of less than one year (JGBs with short residual maturities).[22] However, after the end of 2008, the amount outstanding of the Bank's JGB holdings started to increase, as JGB purchases far exceeded JGB redemptions. This was because, in addition to increase in JGB purchases, the Bank's purchases of JGBs with short residual maturities were constrained by the introduction of a scheme to purchase JGBs from specific maturity segments in order to prevent the remaining maturities of JGBs purchased from becoming too short or too long. During fiscal 2009, the Bank purchased 21.6 trillion yen of JGBs while the amount of redemptions of JGBs held by the Bank was 14.1 trillion yen. As a result, the amount outstanding of the Bank's JGB holdings at the end of fiscal 2009 increased by 7.5 trillion yen from the end of fiscal 2008 (42.7 trillion yen).

Amounts Outstanding of JGBs Held by the Bank and Banknotes



Source: Bank of Japan.

As for the outlook, the amount outstanding of the Bank's JGB holdings is likely to continue to increase under the following conditions: the Bank keeps the present amount of JGB purchases; and the present maturity composition of the Bank's JGB holdings remains the same. When projecting the amount outstanding of the Bank's JGB holdings, there will be some margin of error as the residual maturities for JGBs may change depending on

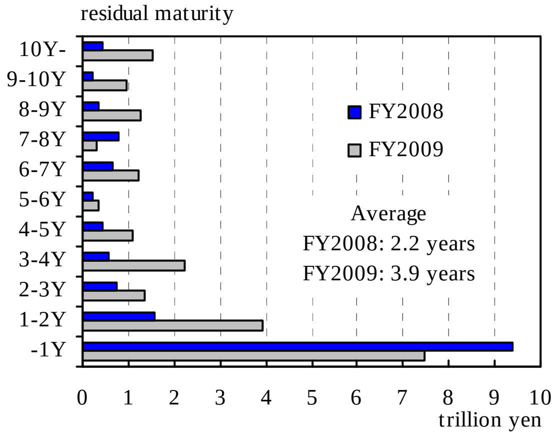
[22] The Bank had determined the purchasing prices in descending order of the yields at which counterparties desire to sell bonds to the Bank, by comparing with the benchmark yields regardless of the residual maturities. This could result in an increase in the Bank's purchases of JGBs with residual maturity of less than one year, depending on counterparties' desire to sell bonds to the Bank.

counterparties' desire to sell bonds to the Bank, despite the scheme to purchase JGBs from specific maturity segments.

On the other hand, the amount outstanding of banknotes in circulation at the end of fiscal 2009 increased by 0.6 percent from the previous fiscal year-end. Since the ratio of banknotes in circulation to nominal GDP is currently well above the trends in recent decades, future developments in the amount outstanding of banknotes in circulation are uncertain.[23]

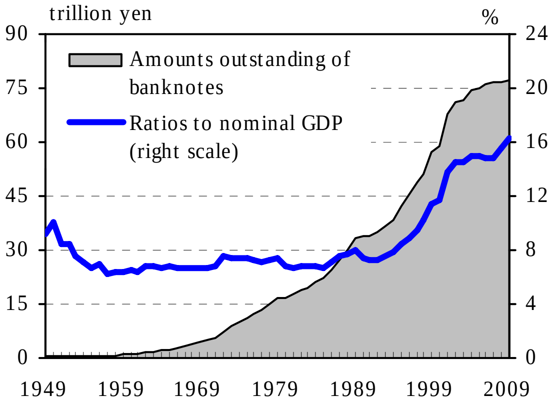
Therefore, the relationship between the amount outstanding of the Bank's JGB holdings and that of banknotes in circulation is likely to vary significantly. Taking this into account, and assuming that the Bank will purchase the same amount of JGBs with the present maturity composition of its JGB holdings as in fiscal 2009, the following projection can be made. If the amount outstanding of banknotes in circulation remains more or less unchanged, the difference between the amount outstanding of the Bank's JGB holdings and that of banknotes in circulation will continue to narrow. In that case, the amount outstanding of the Bank's JGB holdings is likely to approach the amount outstanding of banknotes in circulation within several years.[24]

Maturity Composition of Amounts of JGBs Purchased by the Bank in Fiscal 2008 and Fiscal 2009



Source: Bank of Japan.

Amounts Outstanding of Banknotes and Their Ratios to Nominal GDP in Fiscal Year-Ends



Sources: Cabinet Office; Bank of Japan.

[23] For more details, see "Background to the High Level of Banknotes in Circulation and Demand Deposits," released by the Bank's Monetary Affairs Department (September 2008).

[24] If the Bank purchases the same amount of JGBs with the present maturity composition of its JGB holdings, the amount of redemption of JGBs held by the Bank will increase. As a result, the pace of increase in the amount outstanding of the Bank's JGB holdings will slow.

(Outright Purchases of T-Bills)

Outright purchases of T-Bills are operations to purchase T-Bills with residual maturity of about two months to one year. These operations are conducted through conventional auction based on yield spreads. Outright purchases of T-Bills generally have longer maturities than other short-term funds-supplying operations.

As in fiscal 2008, the frequency and amounts of purchases during fiscal 2009 remained relatively stable. The frequency of purchases remained at about once a week throughout fiscal 2009. The amount purchased per operation was 500 billion yen up through May 2009 and 400 billion yen from June 2009 onward.

(Funds-Supplying Operations against Pooled Collateral)

Funds-supplying operations against pooled collateral are operations in which the Bank extends loans to its counterparties. These loans are backed by pooled collateral[25] that counterparties have submitted to the Bank.

Funds-supplying operations against pooled collateral consist of two categories: operations conducted at All Offices of the Bank (lending to a wide range of counterparties that have transactions with the Head Office and branches of the Bank), and operations conducted at the Head Office (lending solely to counterparties that have transactions with the Head Office of the Bank). A wider range of counterparties can participate in operations conducted

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[25] Pooled collateral refers to collateral that counterparties submit to the Bank based on agreements pertaining to transactions with the Bank, such as funds-supplying operations against pooled collateral, complementary lending facility, and intraday overdraft, and other contracts. Counterparty financial institutions may borrow from the Bank within the limit of the value of pooled collateral through various means. Previously, collateral needed to be specified for each individual agreement or contract, with financial institutions submitting collateral equal to or exceeding the respective required amounts. Since January 2001, for certain borrowings, financial institutions have been permitted to meet collateral requirements by submitting assets eligible for pooled collateral equal to or exceeding the total amount of collateral required by all the outstanding agreements and contracts. The Bank specifies eligible assets for pooled collateral in the "Guidelines on Eligible Collateral" and "Collateral Guidelines on Eligible Foreign Bonds." The assets most commonly submitted by counterparties to the Bank are government bonds, corporate and other bonds, and loans on deeds.

at All Offices of the Bank.

In addition to operations conducted through conventional variable-rate auctions, the Bank introduced, at the unscheduled MPM on December 1, 2009, a fixed-rate funds-supplying operation against pooled collateral, in which it extends loans at a lending rate equivalent to the target for the policy rate at the time of lending.

As in the past, the Bank's funds-supplying operations at the Head Office covered a diverse scope of terms ranging from overnight to relatively longer-term. On the other hand, through fiscal 2007, operations at All Offices had been generally provided stable supplies of funds at relatively longer maturities. In fiscal 2008 and 2009, however, with a view to stabilizing financial markets, the Bank conducted operations at All Offices to also supply short-term funds.

As in the past, in the variable-rate funds-supplying operation against pooled collateral, the Bank offered relatively longer-term funds on a T+2 basis, while short-term funds were offered on a same-day or T+1 basis. Moreover, overnight funds-supplying operations addressing quarter-end and other significant shortages of funds (e.g., due to changes in "treasury funds and others" that cause a considerable decrease in current account balances) were offered earlier than usual (settled on a T+4 to T+18 basis).

The fixed-rate funds-supplying operation against pooled collateral was conducted at All Offices of the Bank with a wide range of counterparties. In general, the Bank operated once a week and offered 800 billion yen per operation. The maximum bidding limit[26] was set at 200 billion yen in order to distribute funds to a wide range of financial institutions. The amount outstanding in the fixed-rate funds-supplying operation against pooled collateral

[26] Purchases of JGSs with repurchase agreements are subject to a maximum bidding limit equal to one fourth of the amount offered. For other operations, the bidding limit is normally set at one half of the amount offered. Following the failure of Lehman Brothers, declining market liquidity resulted in higher demand for fund-raising through money market operations, while greater disparity was seen in availability of funds among some financial institutions. Responding to these developments, the Bank sometimes adopted smaller maximum bidding limits to ensure a more even distribution of funds to financial institutions in fiscal 2009.

reached around 10 trillion yen at the end of February 2010. There was strong demand for this operation; the bid-to-cover ratio marked 7.5 on average and was higher than that of the variable-rate funds-supplying operation against pooled collateral. At the MPM held on March 16 and 17, 2010, the Bank decided to expand the measure to encourage a further decline in longer-term interest rates. Based on this decision, the Bank increased the frequency of operations to twice a week from late March 2010 onward. As a result, the amount outstanding in the fixed-rate funds-supplying operation against pooled collateral increased and was expected to reach around 20 trillion yen in June 2010.

It should be noted that funds-supplying operations against pooled collateral are highly convenient for counterparties since a wide range of assets (government bonds and other public liabilities and corporate debts such as corporate bonds and CP) are eligible and counterparties can easily make substitutions between collateral.[27]

(Purchases of JGSs with Repurchase Agreements)

Purchases of JGSs with repurchase agreements are operations to purchase JGSs for a predetermined period with an agreement to resell them at the end of that period. Such repurchase operations are often used by securities companies to finance their JGS positions.

From the middle of November 2008 until late January 2010, the Bank conducted daily overnight (S/N) and one-week JGS purchasing operations with repurchase agreement on a T+2 settlement basis. In particular, taking account of developments in financial markets, the Bank flexibly increased or decreased its provision of overnight funds in the range of 400 billion to 4 trillion yen. When amounts of offers were increased, the proportion of the maximum bidding amount, which was generally set at one-fourth of the amount offered, was reduced in order to avoid a concentration of funds provision to any particular counterparty.

[27] After their expiry, the special funds-supplying operations to facilitate corporate financing have been rolled into the conventional funds-supplying operations against pooled collateral at their maturity.

After late January 2010, as conditions in the repo market had stabilized, the Bank stopped overnight JGS repurchase operations, with due consideration to ensuring the functioning of the money market (during fiscal 2009, the Bank conducted overnight operations only on two business days in the middle of March 2010 when upward pressure was exerted on GC repo rates). The amount offered in one-week JGS repurchase operations was kept in the range of 600 billion to 800 billion yen.

(Purchases of CP with Repurchase Agreements)

Purchases of CP with repurchase agreements are operations to purchase CP, short-term corporate bonds (dematerialized CP), and asset-backed CP (ABCP) for a predetermined period with an agreement to resell them at the end of that period.

From January 2009 up through early February 2010, the Bank had generally conducted CP repurchase operations twice a week and offered 400 billion yen per operation. The maturities offered in these operations followed a regular pattern. As firms' issuance of CP decreased, the bid-to-cover ratios of operations fell to one or lower after the middle of January 2010. From the middle of February 2010, the Bank reduced the amount offered per operation to 300 billion yen. Following the operations on March 25, 2010, CP repurchase operations were suspended. As a result, the amount outstanding of purchases of CP with repurchase agreements, which stood at around 3.0 trillion yen in the beginning of fiscal 2009, decreased to around 2.5 trillion yen at the end of February 2010 and to around 2.0 trillion yen at the end of March 2010.[28]

2. Temporary Measures for Funds-Supplying

(Special Funds-Supplying Operations to Facilitate Corporate Financing)

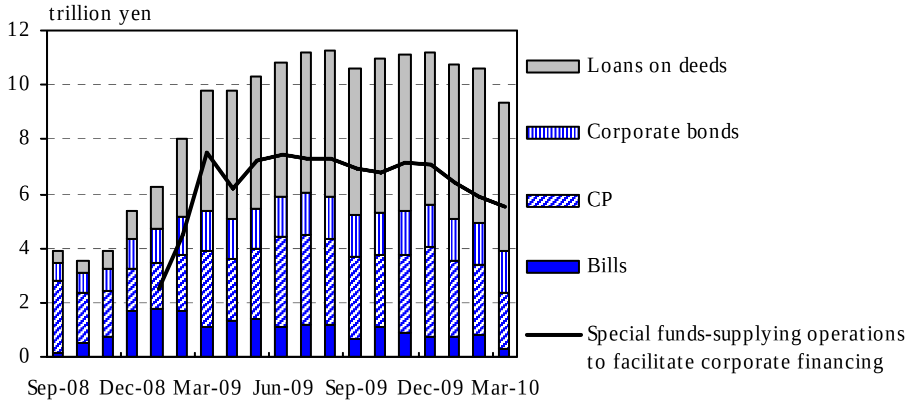
Special funds-supplying operations to facilitate corporate financing were adopted as a

[28] As was the case with the special funds-supplying operations to facilitate corporate financing, since April 2010, the CP repurchase operations have been rolled into the conventional funds-supplying operations against pooled collateral at their maturity.

temporary measure at the MPM held in December 2008. These are operations in which unlimited amounts of funds are supplied against the value of corporate debt pledged as pooled eligible collateral at an interest rate equivalent to the target for the uncollateralized overnight call rate. At the MPM held on July 14 and 15, 2009, the Bank decided to extend the effective period of these operations from the end of September to the end of December 2009. At the MPM held on October 30, 2009, they were further extended to the end of March 2010.

During fiscal 2009, in line with the pre-announced auction schedule, the Bank conducted 51 special funds-supplying operations to facilitate corporate financing. These operations were offered once a week until their expiry at the end of March 2010. As in fiscal 2008, counterparties continued to actively participate in these auctions as this allowed them to raise necessary amounts of funds at low interest rates using corporate debt collateral submitted to the Bank. The amounts outstanding of special funds-supplying operations to facilitate corporate financing remained at a high level throughout fiscal 2009. Specifically, the amount outstanding remained close to its high of around 7 trillion yen until early January 2010 and was around 5.5 trillion yen at the time of the expiry.

Chart 5-1: Amounts Outstanding of Corporate Debts as Collateral and Special Funds-Supplying Operations to Facilitate Corporate Financing



Source: Bank of Japan.

(Outright Purchases of CP)

Outright purchases of CP are operations in which the Bank offers to purchase CP and ABCP from counterparties. They were adopted as a temporary measure at the MPM held in January 2009. CP eligible for outright purchase had to be eligible as pooled collateral at the Bank, rated at a-1 or higher, and issued before or on the auction date with residual maturity of up to three months. Furthermore, the Bank limited its purchases of CP (including ABCP) to a total of 3 trillion yen, with purchases from a single issuer limited to 100 billion yen.[29] Purchases were conducted as multiple-price competitive auctions where counterparties bid at non-negative "yield spreads," which were calculated by subtracting the "minimum yields" determined by the Bank from the yield at which counterparties desired to sell CP to the Bank. Minimum yields were equally applied to CP and ABCP according to their residual maturity. (For CP and ABCP with residual maturity of up to one month, the minimum yield was the targeted uncollateralized overnight call rate plus 20 basis points, and for CP and ABCP with residual maturity of more than one month and up to three months, the minimum yield was the targeted uncollateralized overnight call rate plus 30 basis points.) At the MPM held on July 14 and 15, 2009, the Bank decided to extend the effective period of the outright purchases of CP from the end of September to the end of December 2009.

During fiscal 2009, in line with the pre-announced auction schedule, the Bank offered 30 CP purchasing operations in amounts of 300 billion yen per operation by the end of December 2009. Given that the minimum yield was set at a level that would be relatively low when market conditions were tight but would be relatively high under normal conditions, demand for these operations declined as the functioning of the CP market improved. Specifically, these operations had been undersubscribed since the beginning of fiscal 2009. In the second half of the fiscal year, no bids had been submitted for eleven consecutive operations until the last operation conducted on December 18, 2009. As a result, the amount outstanding of the Bank's outright purchases of CP, which stood at around 1.5 trillion yen at the beginning of fiscal 2009, declined to zero at the time of the expiry of the operations. The total amount of CP the Bank purchased from the introduction to the expiry of the operations was about 2.7 trillion yen.

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[29] In addition, if the outstanding amount of a single issuer's CP purchased by the Bank at the time of purchase exceeded 25 percent of the highest end-of-month figure for the CP issued by an issuer between July 2008 and December 2008, the CP would be excluded from the eligible list.

(Outright Purchases of Corporate Bonds)

Outright purchases of corporate bonds are operations in which the Bank offered to purchase corporate bonds (excluding dematerialized CP) from counterparties. They were adopted as a temporary measure at the MPM held in February 2009. Corporate bonds eligible for purchase had to be eligible as the Bank's collateral, have a rating of A or higher, and have a maturity date that fell within one year at the end of the month in which the purchase was conducted. Furthermore, the Bank limited total purchases to 1 trillion yen, with purchases from a single issuer limited to 50 billion yen.[30] A multiple-price competitive auction was conducted for each purchase where counterparties bid non-negative "yield spreads," which were calculated by subtracting the "minimum yields" determined by the Bank from the yield at which counterparties desired to sell corporate bonds to the Bank. Minimum yields were determined according to the residual maturity. (For corporate bonds with residual maturity of up to six months, the minimum yield was the targeted uncollateralized overnight call rate plus 40 basis points, and for corporate bonds with residual maturity of more than six months, the minimum yield was the target level of the uncollateralized overnight call rate plus 60 basis points.) At the MPM held on July 14 and 15, 2009, the Bank decided to extend the effective period of the outright purchases of corporate bonds from the end of September to the end of December 2009.

During fiscal 2009, in line with the pre-announced auction schedule, the Bank offered nine corporate bond purchasing operations of 150 billion yen per operation by the end of December 2009. As in outright purchases of CP, the demand for the operations declined as the functioning of the corporate bond market improved. Specifically, these operations had been undersubscribed since the beginning of fiscal 2009, and bidding amounts decreased further in the second half of the fiscal year. As a result, the amount outstanding of the Bank's outright purchases of corporate bonds was around 170 billion yen at the time of the expiration. The total amount of corporate bonds the Bank purchased from the introduction to the expiry of the operations was about 300 billion yen.

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[30] In addition, if at the time of purchase, purchases by the Bank of corporate bonds from a single issuer exceeded 25 percent of the highest end-of-the-month outstanding amount of that issuer's corporate bonds between July 2008 and January 2009, corporate bonds from that issuer would be excluded from the eligible list.

(U.S. Dollar Funds-Supplying Operations)

In U.S. dollar funds-supplying operations, the Bank lends U.S. dollars that it has borrowed under the U.S. dollar-yen swap agreement with the Federal Reserve to its counterparties against pooled collateral submitted to the Bank. Such operations were adopted as a temporary measure at the MPM held in September 2008.[31] At the MPM held on July 14 and 15, 2009, the Bank decided to extend the effective period of U.S. dollar funds-supplying operations from the end of October 2009 to early February 2010. Given the improvements in financial market functioning, the Bank, in coordination with other central banks including the Federal Reserve, confirmed the expiration of its temporary liquidity swap lines with the Federal Reserve.[32]

During fiscal 2009 until early February 2010, in line with the pre-announced auction schedule,[33] the Bank offered 20 U.S. dollar funds-supplying operations. In these operations, an unlimited amount of funds was provided against the pooled collateral at a fixed rate[34] set

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[31] On September 18, 2008, six central banks, namely, the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, the Swiss National Bank, and the Bank of Japan, announced coordinated measures designed to address the continued elevated pressures in U.S. dollar short-term funding markets. They were later joined by, nine central banks, namely, Denmarks Nationalbank, Norges Bank, the Reserve Bank of Australia, Sveriges Riksbank, the Banco Central do Brasil, the Bank of Korea, the Banco de Mexico, the Reserve Bank of New Zealand, and the Monetary Authority of Singapore, in a coordinated action to expand significantly the capacity to provide U.S. dollar liquidity.

[32] On May 10, 2010, in response to the reemergence of strains in U.S. dollar short-term funding markets in Europe, the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, and the Swiss National Bank announced the reestablishment of temporary U.S. dollar liquidity swap facilities authorized through January 2011. On the same day, the Bank held an unscheduled MPM and decided to reestablish temporary U.S. dollar swap agreement with the Federal Reserve as well as to reestablish U.S. dollar funds supplying operations. It offered the first 84-day U.S. dollar funds-supplying operations on May 18, 2010.

[33] The schedule was basically coordinated to match the Term Auction Facility (TAF) operations conducted by the Federal Reserve.

[34] The fixed interest rate was set by the Federal Reserve Bank of New York taking into account the prevailing U.S. dollar Overnight Indexed Swap market rate that corresponded to the duration of the loan. There was another variable-rate auction method for U.S. dollar funds-supplying operations, but the Bank did not use this method during fiscal 2009.

for each operation. As conditions in the U.S. dollar funding market continued to improve, the rates in the Bank's operations exceeded those in the market, which led the Bank's counterparties to raise funds in the market rather than through the Bank's operations. The bidding amounts had generally been decreasing since the beginning of fiscal 2009, and no bids had been submitted in some of the operations conducted in the second half of the fiscal year. The amount outstanding of U.S. dollar funds-supplying operations was around 54 billion U.S. dollars at the beginning of fiscal 2009 but trended lower thereafter. It stood at 0.1 billion U.S. dollars at the end of January 2010.

3. Funds-Absorbing Operations

Funds-absorbing operations primarily consist of outright sales of bills issued by the Bank and sales of JGSs with repurchase agreements.

As the interest rate applied to the complementary deposit facility functioned well as a lower limit for the uncollateralized overnight call rate, the Bank did not conduct funds-absorbing operations, such as sales of bills throughout fiscal 2009.

4. Securities Lending Facility

In order to improve liquidity in the JGS market and to contribute to maintaining smooth market functions, the Bank supplies JGSs to market participants from its own holdings on a temporary and complementary basis. This is conducted in the form of sales of JGSs with repurchase agreements.

On April 28, 2009, October 20, 2009, and January 18, 2010, in order to improve liquidity in the JGB repo market, the Bank decided to extend the effective period of the relaxation in conditions for conducting the sale of JGSs with repurchase agreements (securities lending facility) (from April 30, 2009 to October 30, 2009, later to January 29, 2010, and then to April 30, 2010).[35] (The relaxation in conditions included (1) increasing the number of requests for implementation of offers from "three or more counterparties" to "one or more

[35] On April 23, 2010, the measure was further extended until July 30, 2010.

counterparties" for an issue; (2) extending the time limit for accepting requests for lending from "until 11:30 a.m." to "until 1:00 p.m."; and (3) lowering the minimum fee rate applied to the facility from 1 percent to 0.5 percent.)

During fiscal 2009, nine operations were conducted, a significant fall from 27 operations in fiscal 2008. Nonetheless, this was more than the three operations conducted in fiscal 2007.

B. Complementary Lending Facility

The complementary lending facility is a means by which the Bank lends funds to counterparties upon request. Lending is limited by the borrower's outstanding amount of pooled collateral that has been submitted. As a rule, these loans are subject to the basic loan rate (0.3 percent during fiscal 2009) and are repayable on the following business day. The facility is expected to set an upper limit for the overnight interest rate. In principle, counterparties can use the facility at the basic loan rate for a maximum of five business days per reserve maintenance period. Counterparties that wish to use the facility beyond this maximum number of days must pay a higher rate of 2 percent in addition to the basic loan rate. However, this restriction on the maximum number of days has been suspended since March 2003 and the basic loan rate has been applied regardless of the number of days the facility has been used. The modification remains in place at present.

During fiscal 2009, use of the complementary lending facility decreased sharply compared to fiscal 2008. This reflected the supply of ample funds by the Bank.

C. Complementary Deposit Facility[36]

Under the complementary deposit facility, the Bank pays interest on excess reserve balances

[36] Because interest accrues to excess reserves under this system, counterparties of the system, such as banks and securities companies, no longer have an incentive to invest funds at rates below the rate applied to excess reserves (or the applied rate plus the commissions in uncollateralized call transactions on the uncollateralized call market). Therefore, this system is expected to function to mark the lower limit for the uncollateralized overnight call rate under ample provision of funds by the Bank.

held in current accounts and special reserve accounts at the Bank (balances held at the account with the Bank in excess of required reserves under the reserve deposit requirement system). Counterparties subject to the reserve requirement system and counterparties with current account balances at the Bank that are not subject to the reserve requirement system, such as banks, securities companies, securities finance companies, and *tanshi* companies, are in principle eligible for this facility. The applicable rate is the targeted uncollateralized overnight call rate less a spread that is determined by the Bank (0.1 percent during fiscal 2009), and is expected to function as the lower limit for overnight rates.

At the MPM on July 14 and 15, 2009, in order to continue ensuring market stability, the Bank decided to extend the effective period for the complementary deposit facility (from October 15, 2009 to January 15, 2010). At the MPM on October 30, 2009, the Bank decided that the facility would remain in effect for the time being, from a viewpoint of ensuring smooth conduct of money market operations while providing ample funds sufficient to meet liquidity demand in financial markets.

During fiscal 2009, use of the complementary deposit facility increased significantly compared to fiscal 2008.[37]

D. Pooled Collateral Submitted

Assets eligible as pooled collateral include corporate debts such as corporate bonds and CP, as well as government bonds and other public liabilities. Pooled collateral is highly convenient for counterparties since a wide range of assets are eligible, allowing counterparties to select collateral from their assets and to easily make substitutions between collateral. U.S. dollar funds-supplying operations and special funds-supplying operations to facilitate corporate financing, which were introduced to ensure stability in the financial market and to facilitate corporate financing, were also based on the pooled collateral framework. Regarding the temporary measures, during fiscal 2009, the Bank decided to extend the period for easing the eligibility standards for corporate debts, and it took steps to

[37] For details, see subsection B, "Current Account Balances at the Bank of Japan," of Section III, "Developments in Uncollateralized Overnight Call Rate."

expand the scope of financial assets eligible as collateral.

The amount outstanding of pooled collateral accepted by the Bank remained at a high level during fiscal 2009. With regard to the assets pledged as pooled collateral, as in fiscal 2008, while JGSs continued to account for the largest portion of pledged collateral, the volume of corporate debts remained at a high level.

Chart 5-2: Amounts of Pooled Collateral Accepted by the Bank

trillion yen

Type of collateral	End-Mar 2009		End-Mar 2010	
	Collateral value	Share in total	Collateral value	Share in total
Total	107.3	100.0%	110.9	100.0%
JGSs	70.2	65.4%	74.3	67.0%
Interest-bearing JGBs [1]	49.9	46.5%	52.4	47.2%
T-Bills	20.3	18.9%	22.0	19.8%
Corporate bonds	1.5	1.4%	1.5	1.4%
Other bonds	9.3	8.6%	7.8	7.0%
Dematerialized commercial paper	2.8	2.6%	2.1	1.9%
Bills	1.6	1.5%	0.5	0.5%
Commercial paper	0.5	0.5%	0.2	0.2%
Loans on deeds	24.8	23.1%	26.7	24.1%
To companies	4.4	4.1%	5.5	4.9%
To the government, etc. [2]	20.4	19.0%	21.2	19.2%
Of which: Private liabilities	10.3	9.6%	9.6	8.7%

Notes:

1. Consists of interest-bearing bonds, discount bonds, converted bonds and STRIPS.
2. Consists of loans to the government (including the government's special accounts), loans with government guarantees and loans to municipal governments.

Source: Bank of Japan.

Reference 1: Loans to Companies Accepted by the Bank

100 million yen

	End-Mar 2009	End-Mar 2010
Asset-backed securities	426	123
Asset-backed commercial paper	5,141	2,789
(of which, accepted by the Bank as a temporary measure)	(15)	(33)
Corporate bonds accepted by the Bank as a temporary measure	737	489
Loans on deeds to companies accepted by the Bank as a temporary measure	3,195	5,013
Bonds issued by real estate investment corporations	37	5
Commercial paper issued by real estate investment corporations	0	0
Loans on deeds to real estate investment corporations	0	0
Government-guaranteed dematerialized commercial paper	0	0

Reference 2 : Asset Purchased under Repurchase Agreements by the Bank

100 million yen

	End-Mar 2009	End-Mar 2010
Government securities purchased by the Bank under repurchase agreements	89,649	29,970
Commercial paper purchased by the Bank under repurchase agreements	29,879	19,867

	End-Mar 2009	End-Mar 2010
Asset-backed commercial paper	5,999	4,336
(of which, purchased by the Bank as a temporary measure)	(5,477)	(3,691)
Commercial paper issued by real estate investment corporations	0	20
Government-guaranteed dematerialized commercial paper	520	0

VI. Revisions in Operational Tools and Procedures

Major revisions in operational tools and procedures other than those appearing under Section V are as follows.

A. Expansion in the Range of Eligible Collateral for Loans on Deeds to the Public Sector

At the MPM held on April 6 and 7, 2009, in order to further facilitate money market operations, the Bank decided to expand the range of eligible collateral for loans on deeds to the government and those with government guarantees and accept loans on deeds to municipal governments as eligible collateral.

B. Acceptance of Foreign Bonds Denominated in Foreign Currencies as Eligible Collateral

At the MPM held on May 21 and 22, 2009, with a view to further facilitating the Bank's money market operations in response to developments in financial markets, while ensuring the appropriate and efficient management of collateral, the Bank decided to accept, only when deemed necessary, foreign bonds denominated in foreign currencies (bonds issued by the governments of the United States, the United Kingdom, Germany, and France) as eligible collateral. In light of conditions in domestic and overseas financial markets, it also decided to start accepting these bonds as collateral as soon as the preparatory work was completed.[38]

C. Extension of the Effective Period of Expansion in the Range of Corporate Debt and ABCP Eligible as Collateral

At the MPMs held on July 14 and 15, 2009, and October 30, 2009, in order to continue facilitating corporate financing and ensuring market stability, the Bank decided to extend the effective period of expansion in the range of corporate debt and ABCP eligible as

[38] The Bank started to accept foreign bonds denominated in foreign currencies as collateral from July 31, 2009.

collateral[39] (from the end of December 2009 to the end of March 2010, and then to the end of December 2010).

D. Periodic Review of Collateral Value of Eligible Collateral

Since fiscal 2005, the Bank generally conducts an annual review of collateral values of eligible collateral and other related matters.[40] Subsequent to this verification based on developments in financial markets up to this point in time, collateral value and other related matters were revised at the MPM held on October 13 and 14, 2009.

[39] At the unscheduled MPM held on October 14, 2008, the Bank broadened the range of eligible ABCP by accepting debt obligations guaranteed by the Bank's counterparties. At the unscheduled MPM held on December 2, 2008, with a view to facilitating corporate financing, rating requirements of corporate bonds and loans on deeds to companies as eligible collateral were relaxed from "A rated-or higher" to "BBB-rated or higher." At the MPM held on February 18 and 19, 2009, the decision was made to extend the effective period of the modifications from the end of April 2009 until the end of December 2009.

[40] In addition to collateral value of eligible collateral, matters to be reviewed include the margin ratios of JGSs used in JGS purchases with repurchase agreements; the collateral value of margin collateral; and, margin ratios of JGSs used in sales of JGSs with repurchase agreements to provide the markets with a secondary source of JGSs.

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[41] References for understanding the Bank's monetary policy can be accessed via the Bank's web site (http://www/boj.or.jp/en/index.htm) under "Monetary Policy." Research papers can be accessed under "Research and Studies." In addition, papers of the Federal Reserve Bank of New York can be accessed at its web site (http://www.ny.frb.org/markets/annual_reports.html).