Money Market Operations in Fiscal 2005*

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Summary

For most of fiscal 2005, the Bank of Japan conducted money market operations with the target of maintaining the outstanding balance of current accounts at the Bank at around 30–35 trillion yen decided at the Monetary Policy Meeting (MPM) on January 19 and 20, 2004 (Chart 1). This target level significantly exceeded the required reserves, approximately 6 trillion yen, to be held by financial institutions at the Bank under the reserve requirement system and other requirements.[1] Meanwhile, it was decided at the MPM on May 19 and 20, 2005, against the backdrop of weaker bidding incentives by counterparties in the Bank's funds-supplying operations reflecting increased abundance of liquidity at financial institutions, to amend the proviso to add that there may be cases where the balance of current accounts fell short of the target when it was judged that liquidity demand was exceptionally weak considering such factors as responses of financial institutions to the Bank's funds-supplying operations.

Under the guideline for money market operations described above, the Bank continued to provide ample liquidity in fiscal 2005. Since summer 2005, circumstances in the financial markets for money market operations have begun to change. Up to July 2005, liquidity demand among financial institutions declined further and frequent "undersubscription" (aggregate bids falling short of offers) was observed in the Bank's funds-supplying operations, as it became more evident that concerns about financial system stability abated further with the full removal of the blanket deposit insurance in April 2005 (Chart 2). In this situation, in early June, end-July, and early August, the outstanding balance of current accounts temporarily fell below 30 trillion yen for a total of 6 business days, as the amendment to the proviso at the May 2005 MPM was applied. After August 2005, however, prospects of a rise in interest rates emerged reflecting heightened views that the monetary policy framework would be changed. Against this background, bidding by financial institutions to the funds-supplying operations gradually began to recover and the outstanding balance of current accounts was steadily maintained within the target range.

At the MPM held on March 8 and 9, 2006, the Bank decided to change the operating target of money market operations from the outstanding balance of current accounts at the Bank to the uncollateralized overnight call rate, and to encourage the

[1] The Japan Post is not subject to the reserve requirement system, but the Bank of Japan has a contract with the Japan Post in which the Japan Post is to maintain a designated minimum amount of balances, in the form of current account balances, with the Bank. Relevant figures in this report include those on deposits of the Japan Post.

uncollateralized overnight call rate to remain at effectively zero percent. At the same time, the Bank announced that the outstanding balance of current accounts at the Bank will be reduced towards a level in line with required reserves over a period of a few months.

After this change, up to the end of the fiscal 2005, the uncollateralized overnight call rate remained at an extremely low level, as the outstanding balance of current accounts was maintained at around 30 trillion yen. On the last business day of fiscal 2005, the uncollateralized overnight call rate was 0.004 percent, an extremely low rate for a fiscal year-end. Up to the end of April 2006, the call rate remained at effectively zero percent, even after the outstanding balance of current accounts began to be gradually reduced from the beginning of April.

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

For approximately 5 years between March 19, 2001 and March 9, 2006, the main operating target for the Bank's money market operations was the outstanding balance of current accounts at the Bank (the so-called "quantitative easing policy"). Under this framework, money market operations were undertaken to maintain the target range for current account balances decided at the MPMs by the Policy Board of the Bank. Specifically, in response to changes in current account balances, resulting from, for example, the issuance and redemption of banknotes and the receipts and payments of government funds (autonomous factors),[2] money market operations were undertaken to supply or to absorb funds to maintain current account balances at the target level.

It was decided at the March 8 and 9, 2006 MPM to change the operating target of money market operations from the outstanding amount of current accounts at the Bank to the uncollateralized overnight call rate, and to encourage the uncollateralized overnight call rate to remain at effectively zero percent. Under this new framework, the Bank has been guiding the uncollateralized overnight call rate to remain at effectively zero percent, while conducting money market operations to smooth fluctuations in the outstanding amount of the Bank's current account balances in response to developments in autonomous factors.

In fiscal 2005 (April 2005–March 2006), developments in autonomous factors, as was the case in fiscal 2004, led to decreases in the outstanding balance of current accounts. The extent of contribution was 12.4 trillion yen, down from the 27.2 trillion yen in fiscal 2004.[3] This owes mainly to the following developments (Chart 3). First, while the

[2] 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 withdrawals of banknotes from the Bank constitute sources of decrease. In the case of treasury funds, the issuance of Japanese government securities (JGSs) and payment of taxes constitute sources of decrease in current account balances, while the redemption of JGSs, pension payments, and other fiscal expenditures made from the treasury account to financial institutions' current account at the Bank constitute sources of increase.

Money market operations by the U.S. Federal Reserve System and the European Central Bank are similar to those by the Bank of Japan in which operations are conducted in response to autonomous factors such as developments in banknotes and treasury funds.

[3] Footnote 2 refers to "autonomous factors" as preconditions for the central bank's money market operations. However, among these factors, "treasury funds and others" may fluctuate in accordance with purchases/sales of treasury bills (TBs) and financing bills (FBs), one of the tools for money market operations. The reason is as follows. When the Bank purchases TBs/FBs from financial

pace of scaling up the amount of Japanese government bond (JGB) issuances decelerated in fiscal 2005, redemptions increased significantly, particularly in March 2006. Second, the amount of financing bills (FBs) issued in the market decreased. Third, the effects of the one-time factors that were relevant in fiscal 2004, which led to increases in the net issuance amount of banknotes, such as the issuance of the new series of banknotes and the full removal of the blanket deposit insurance, did not extend into fiscal 2005. Each item is discussed in detail below.

A. Banknotes

Net issuance of banknotes for fiscal 2005 totaled 0.3 trillion yen, a considerable decrease from the 3.3 trillion yen in fiscal 2004. This owes to the fact that the main contributing factors to the large increase of net issuances in fiscal 2004 did not extend into fiscal 2005. These included the issuance of new series of Bank of Japan notes in November 2004, and the increase in the level of cash on hand by financial institutions based on precautionary motives before the full removal of blanket deposit insurance in April 2005.

B. 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 excludes payments and receipts related to transactions of JGBs, foreign exchange (payments and receipts mainly related to foreign exchange intervention), and FBs. Net payments were 43.3 trillion yen, down from the 59.7 trillion yen in fiscal 2004. The decrease in net payments mainly reflects the fact that receipts of tax revenues and the Fiscal Loan Fund increased while payments for public works decreased.

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institutions and holds them to maturity, redemption funds that should have been deposited to 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 TBs/FBs held by the Bank are sold to financial institutions.)

In order to remove the effects of such TBs/FBs purchasing or selling operations and to grasp the movements of treasury funds accurately, it is assumed that, for the autonomous factors used in this paper, funds paid for the redemption of TBs/FBs purchased through money market operations are paid to the financial institutions involved. Similarly, funds paid for the redemption of TBs/FBs sold through money market operations are assumed to be paid to the Bank.

C. JGBs

"JGBs" includes issuance and redemption of interest-bearing JGBs (long-term JGBs) and treasury bills (TBs).[4] Issuance largely exceeded redemption, leading to net government receipts of 63.6 trillion yen. However, this was down from the net receipts of 82.0 trillion yen in fiscal 2004, mainly reflecting decreases in the amount underwritten by the postal savings funds and others of the Fiscal Investment and Loan Program Agency Bonds, as well as the start of large-scale redemptions of JGBs.

D. Foreign Exchange and Financing Bills

"Foreign exchange" transactions amounted to almost zero, as no foreign exchange intervention was undertaken.

Following net receipts of 2.6 trillion yen in fiscal 2004, financing bills (FBs) marked net payments of 8.3 trillion yen in fiscal 2005, as FBs issued for the market decreased against the background of increase in amounts underwritten by other accounts of treasury funds.[5]

Through the developments described above, the autonomous factors contributed to decreases in the current account balances, although the size of negative contribution was smaller than in fiscal 2004. As a result, the balance of short-term funds-supplying operations[6] required to maintain the target level of outstanding balance of current accounts remained at a high level exceeding that of fiscal 2004 (Chart 4).

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[4] The issuance and redemption of FBs are not included in "JGBs," and are shown under "FBs" (see Section I.D).

[5] Additional factors that affected the Bank's current account balance include yen deposits of overseas account holders. Based on prearranged agreements with foreign central banks and international organizations, the Bank provides a facility that manages their yen deposits at slightly below the prevailing rate in the market without individual instructions for each transaction. The outstanding amount of these yen deposits was virtually unchanged on an accumulative basis from the beginning of fiscal 2005 to the end. However, the outstanding amount of yen deposits fluctuated significantly during the fiscal year. That is, when FB rates declined considerably, the interest rates on the Bank's yen deposits became attractive compared to prevailing market rates, which led to large increases in the yen deposits at the Bank and contributed to a decrease in the outstanding amount of the Bank's current account balances. The situation changed after entering January 2006, as FB rates gradually rose and central banks deposits at the Bank decreased, which translated to increases in the Bank's current account balances.

[6] Short-term funds-supplying operations consist of operations that provide funds extending over less than 1 year such as outright purchases of bills, outright purchases of TBs and FBs, purchases of JGBs with repurchase agreements, and purchases of commercial paper (CPs) with repurchase agreements, and exclude outright purchases of JGBs.

Meanwhile, the government implemented a number of measures to manage government funds more efficiently in August 2005 (see Box 1). These measures, as described in Box 1, aim to minimize fluctuations in cash flows of government funding by matching the timing of payments and receipts of treasury funds. The introduction of such measures contributed to less fluctuation in the daily balances of treasury funds in many cases and thus lessened the need for the Bank to conduct money market operations. Monetary operations in response to significant fluctuations in treasury funds were still necessary against the background of increases in tax revenues and redemptions of JGBs. For example, on March 20, 2006, when a large amount of JGBs were redeemed, the autonomous factor of "treasury funds and others" caused an increase of 8.6 trillion yen compared to the previous day in the Bank's current account.[7]

Box 1 Measures to Strengthen Efficient Management of Cash in the National Treasury

Temporary shortages and excesses of funds in the national treasury occur because the schedule and amount of cash inflows to the government may not always match outflows, and vice versa. Cash inflows include tax revenues and JGS issuances, and outflows include pension payments, distribution of local allocation taxes, and JGS redemption. The government adjusts the outstanding amount in the national treasury via treasury deposits at the Bank and sales of JGBs with repurchasing agreements to the Bank, among other means. Fluctuations in the national treasury have increased in recent years reflecting increases in the receipts and payments to the government. In addition, the government has been front-loading the issuance of refunding bonds to prepare for redemptions of large volumes of JGBs that will reach maturity in the coming years, leading to increases in the national treasury funds managed in the Bank's accounts.

The Ministry of Finance has been making efforts to manage the cash in the national treasury efficiently by adjusting the balance. On August 26, 2005, the Ministry of Finance announced the following measures to enhance these efforts:

[7] Issuance and settlement of JGBs are conducted over several days of each month, whereas redemption on JGBs, excluding that on TBs, FBs and 2-year JGBs, is concentrated on the twentieth of March, June, September, and December. Under this practice, large treasury funds payments occur on these dates when the amount of JGB redeemed is large.

(1) Distribution of ordinary local allocation tax (granted in April, June, September, and November), to be made in principle on the second business day of the month (the day on which taxes and pension insurance premiums are received) instead of end of the month.

(2) Issuance of government bonds for individual investors (traditionally issued on the tenth of January, April, July, and October) and 2-year government bonds (traditionally issued on the twentieth of each month) are to be made in principle on the fifteenth day of the month (corresponding to the day on which pensions are paid in even numbered months).

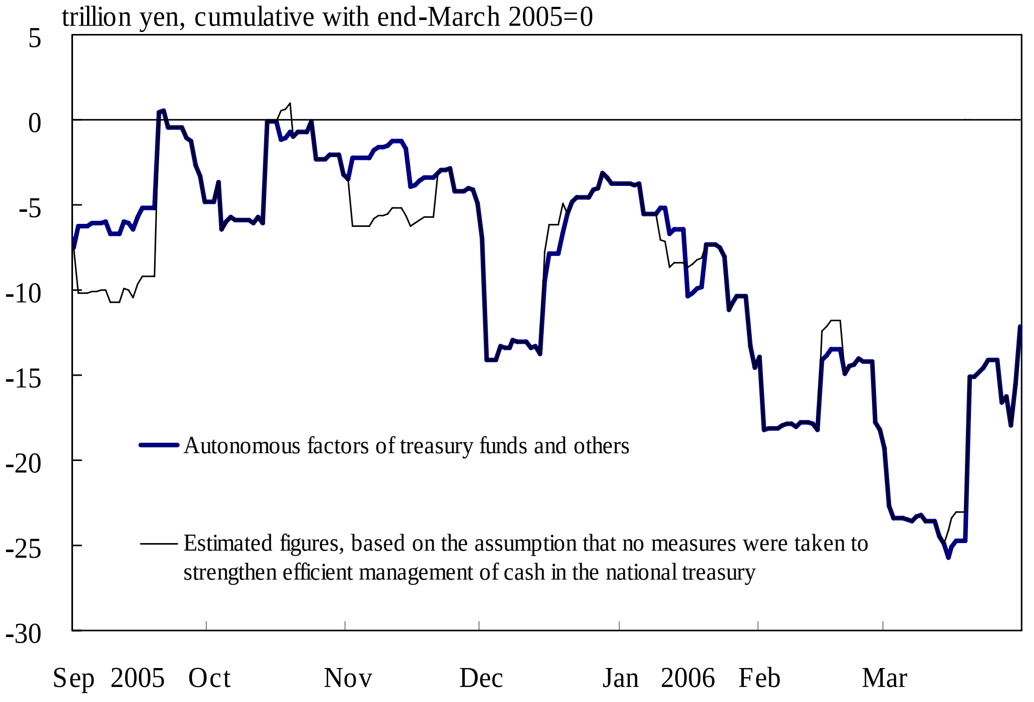
(3) Requesting national government bodies to cooperate by setting the payment date for annual expenditures for which no date of payment is stipulated by law to be the second business day of the month (the day on which taxes and pension insurance premiums are received in principle).

These measures have generally contributed to adjusting fluctuations in autonomous factors related to government activities, "treasury funds and others." For example, in September 2005, the date on which taxes were received and local allocation taxes were distributed coincided. As a result, the need to conduct large volume funds-supplying operations in money markets aimed at avoiding large shortages in the Bank's current account balances has been reduced.

However, there are instances where payments or receipts cannot fully offset fluctuations in "treasury funds and others."[8] In other instances, fluctuations in "treasury funds and others" have actually increased, reflecting increase in absolute amounts of taxes collected and JGBs redeemed. These cases call for adjustments through money market operations.

[8] For example, on the fifteenth of March, 2-year government bonds were issued, as changed from the twentieth. However, as March is an odd-numbered month, no pension payments occurred on this date to offset the inflow of funds to the treasury, thus prolonging the shortage of autonomous factors that had prevailed since the tax receipt day earlier that month. On the twentieth, the redemption of government bonds was not offset. As a result of these developments, autonomous factors stood at a surplus of 8.6 trillion yen on the twentieth, calling for adjustments of the current account balance through money market operations. Another example is when the fifteenth, the date for pension payments and 2-year government bond issuance, falls on a bank holiday. Pension payments are front-loaded, while government bond issuances are back-loaded, leading to mismatches in inflows and outflows.

Influences on the Bank's Current Accounts



Notes: 1. Adjusted for the effects of TB/FB purchasing/selling operations.

2. Estimated figures are based on the following:

(1) Distribution of ordinary local allocation tax made, not on the second business day after the end of the month, but on the twentieth (the following business day, when the twentieth is a bank holiday),

(2) Issuance of government bonds for individual investors and 2-year government bonds made, not on the fifteenth, but the twentieth (the following business day, when the twentieth is a bank holiday).

II. Developments in Money Market Operations

A. Money Market Operations Targeting the Outstanding Balance of Current Accounts at the Bank

1. April to Summer 2005: Decrease in Bidding in Funds-Supplying Operations

As the blanket deposit insurance was fully removed in April 2005 without market disruption, it became clear to market participants that concerns over the financial system stability had abated further. Accordingly, liquidity demand of financial institutions in view of concerns over the financial system stability decreased significantly, and bidding in the Bank's funds-supplying operations became lackluster. For this reason, when large shifts in funds from the private sector to the government sector such as tax payment were expected, maintaining the target for the Bank's current account balances became uncertain.

In light of this situation, it was decided at the MPM of May 19 and 20, 2005 to amend the proviso of the guidelines for money market operations. Specifically, it was agreed to maintain the basic framework of money market operations "aiming at the outstanding balance of current accounts held at the Bank at around 30 to 35 trillion yen," and to keep the proviso stating that "should there be a risk of financial market instability, such as a surge in liquidity demand, the Bank will provide more liquidity irrespective of the target." However, it was agreed to add a new sentence to the proviso specifying that "when it is judged that liquidity demand is exceptionally weak considering such factors as responses of financial institutions to the Bank's funds-supplying operations, there may be cases where the balance of current accounts temporarily falls short of the target."

Given the receding concerns over the financial system stability and clear decline in liquidity demand of financial institutions, the Bank has implemented a number of measures since the latter half of fiscal 2004 to achieve the target for current account balances at the Bank. Specifically, the maturities of funds-supplying operations were extended as a whole, as exemplified by bill purchasing offers extending over almost 11 months, and greater flexibility was exercised in the choice of operational tools for which relatively higher levels of bidding could be expected. However, these measures had side-effects, such as distortion of short-term interest rates and excessive substitution of the functioning of the market by the Bank's operations. The provision of ample liquidity contributed to stabilizing the market and to maintaining an accommodative financial environment, against the background of strong concerns over the financial system stability. However, as the creditworthiness of financial institutions had begun to recover, there was growing concern that the side-effects of the Bank's operations might outweigh the proper effects of such operations. As such, the amendment of the proviso was implemented with consideration to market functioning.

The Bank, after amending the proviso, continued to provide ample liquidity to the market. However, henceforth, due consideration was given to the impact on the functioning of money markets, with special attention paid to lengths of operations and management of operations exerting relatively large effects on certain markets.

Current account balances fluctuated within the target range for most of this period. Moreover, financial institutions' demand for bidding did not improve and undersubscription to funds-supplying operations became more frequent during the summer of 2005. As a result, the outstanding balance of current accounts temporarily fell below 30 trillion yen, or the lower bounds of the target range, on several occasions. This happened on 2 business days in early June and on 4 business days in late July to early August when a large shift of funds from the private sector to the government sector occurred when corporate taxes were collected or JGBs were issued.

2. August 2005 to March 2006: Recovery in Bidding in Funds-Supplying Operations

Beginning in August 2005, bidding in the Bank's funds-supplying operations gradually picked up, particularly for longer-term operations (Chart 5), and the outstanding balance of current accounts moved stably within the target range.

As described in "Money Market Operations in Fiscal 2004," demand for the Bank's funds-supplying operations can be categorized as follows according to purpose: (1) to secure liquidity in the form of current account balances; and (2) for purposes other than securing liquidity, such as to secure profits, prevent further losses, and to hedge risks. The first of these, demand to obtain liquidity through money market operations, was low up to and after summer 2005. Looking back at the situation from August 2005 to March 2006, shorter-term operations that correspond to immediate liquidity demand were subject to relatively weak bidding. Also, short-term liquidity demand indicators, such as uncollateralized overnight call rates and repo rates, generally stayed at around 0.001–0.002 percent, except for the end of the year and end of September (Chart 6). However, as economic recovery and bottoming out of prices gradually became evident, financial institutions gradually began to factor in potential changes in the monetary policy framework. They began to actively participate in bidding for longer-term funds-supplying operations to secure funds at the present low-interest rates, a move to fulfill the second of the two purposes for participating in funds-supplying operations as described above. Looking at interest rates on term instruments in the money market, such as FBs and TBs, interest rates up to 1-year TBs were all moving near zero percent until July 2005.[9] Since entering August, however, these rates gradually began to rise, especially for the relatively longer-end, reflecting upward changes in financial institutions' outlook on interest rates.

In view of the improvement in the bid-cover ratios in funds-supplying operations, maturities of funds-supplying operations, which had been extended from the beginning of 2005, were gradually shortened (Chart 7). The intention was, to the extent that the target for current account balances can be achieved steadily, to maintain as much flexibility in money market operations as possible and to minimize influences of the Bank's operations on money markets so as to avoid distorting short-term interest rates.[10] From this standpoint, the maturities of funds-supplying operations on outright bill purchases conducted at all offices of the Bank were shortened to 4-5 months from the previous 8-10 months, and those for outright bill purchases conducted at the Head Office were shortened to 3-4 months from 5-6 months (Chart 5).

B. Money Market Operations after Changes in the Monetary Policy Framework

It was decided at the MPM of March 8 and 9, 2006, that the operating target for money market operations would be changed from the outstanding balance of current accounts at the Bank to the uncollateralized overnight call rate, and that the Bank would guide the uncollateralized overnight call rate to remain effectively at zero percent.

The decision was made to gradually reduce the outstanding balance of current accounts at the Bank towards a level in line with required reserves at about 6 trillion yen over a period of a few months. In the course of this transition, full consideration would be

[9] This occurred particularly for FBs, where bidding at 100 yen, or zero percent in terms of yields, was frequently observed.

[10] Short-term funds-supplying operations by central banks of major economies are centered on much shorter-term instruments than those used by the Bank, with a view to maintaining flexibility in money market operations. In the case of the U.S. Federal Reserve System, the main instruments used in short-term funds-supplying operations are short-term repo transactions centered on overnight instruments and long-term repo transactions centered on 14-day instruments (in the past, 28-day instruments were used). In the case of the European Central Bank, the maturities of instruments are about 1 week (in the past, 2 weeks). Refer to Box 3 of the "Money Market Operations in Fiscal 2004" for more on this topic.

given to conditions in the short-term money market, given that financial institutions had managed liquidity against the backdrop of large amounts of current account balances and extensive funds-supplying operations by the Bank for a prolonged period since the adoption of the quantitative easing policy. The process was to be managed through short-term money market operations. With respect to the outright purchases of JGBs, purchases were to be continued at unchanged amounts and frequency, with due regard to future developments in the Bank's balance sheet. With regard to the complementary lending facility, the loan rate was to stay unchanged at 0.1 percent. The temporary waiver of add-on rates for frequent users of the facility, in effect since March 2003, was also maintained. These decisions on the complementary lending facility were expected to cap the uncollateralized overnight call rate at 0.1 percent.

From March 9, 2006, when the monetary policy framework was changed, to the month-end, the Bank's money market operations were conducted with due consideration to the stability of the short-term money market as the end of the fiscal year approached, aiming to maintain the Bank's current account balances at around 30 trillion yen. Uncollateralized overnight call rates, which rose somewhat on a couple of days, generally moved at substantially low rates that were virtually unchanged from the level under the quantitative easing policy. Uncollateralized overnight call rates rose to 0.004 percent on a weighted-average basis on the last business day of fiscal 2005. But it should be noted that this was historically the lowest rate measured against past rates for the last business day of the fiscal year and significantly lower than the lending rate of the complementary lending facility at 0.1 percent.

After the beginning of April 2006, the outstanding balance of current accounts has been gradually reduced by not rolling over the maturing funds-supplying operations, which implied absorption of funds (Chart 8). In the meantime, funds-supplying operations have continued to be conducted to some extent, with a view to maintaining the stability of the short-term money markets. Funds-absorbing operations, which have been conducted from the perspective of adjusting fluctuations in the Bank's current account balance caused by changes in autonomous factors, such as changes in treasury fund balances, are confined to very short-term operations undertaken in small amounts. As such, other factors in the Bank's balance sheet remaining unchanged, the outstanding amount of funds-supplying operations would probably be about 30 trillion yen when the outstanding balance of current accounts is finally reduced to 6 trillion yen in line with the required reserves. This follows from the fact that the outstanding amount of short-term funds-supplying operations stood at about 56 trillion yen as of end-March 2006.

In April 2006, despite gradual reduction of the Bank's current account balance, the uncollateralized overnight call rate stayed at around zero percent, with highs of 0.006 percent reached at the end of April just before entering the Golden Week holidays. It should be noted that although the outstanding balance of current accounts was being reduced in this period, it stood at 19 trillion yen at the end of April, an amount considerably higher than the required reserve amount of 6 trillion yen. In this connection, a review of the outstanding balance of the Bank's current accounts and the uncollateralized overnight call rate under the quantitative easing policy reveals that call rates were effectively zero percent to the extent that the outstanding balance of current accounts, excluding deposits of the Japan Post, exceeded 10 trillion yen (Chart 10). This stability in uncollateralized overnight call rates may also have been supported by preemptive moves of individual financial institutions whereby amounts held in the Bank's current accounts in excess of reserve requirements were reduced at an early stage and actively invested in other assets. These deliberate actions by financial institutions were taken with a view to adapting their fund management in preparation for the scheduled reduction of the Bank's current account balances to levels in line with required reserves. Specifically, a review of changes in the current account balance by type of financial institution shows that city banks were more active than others in reducing funds in the Bank's current account after the March 2006 change in the monetary policy framework (Chart 11). Some financial institutions seem to have even increased holdings in the Bank's current account while the total outstanding amount of the Bank's current account balances decreased, which implies that overall monetary condition remained easy.

Following changes to the monetary policy framework, the Bank changed the maximum bidding amounts of counterparties to the Bank's money market operations. Since January 2002, to attract bids under the quantitative easing policy, a single counterparty's maximum bidding amount to the Bank's funds-supplying operations, excluding such operations as outright purchases of JGBs and purchases of CPs with repurchase agreements, had been raised to the full amount of offer. After the March 2006 change in the monetary policy framework, the maximum bidding amount was changed to one-half the offer amount for all funds-supplying operations, with the aim of preventing the concentration of funds provision to any given counterparty and in view of conducting money market operations smoothly. At the same time, the maximum bidding amounts to the Bank's funds-absorbing operations, which had been limited to one-half the offer amount, were raised to the full amount of the offer for the time-being. This was done to encourage even distribution of funds among counterparties and thus to enable smooth money market operations, against the backdrop of gradual reductions in the Bank's current account balance.[11]

Box 2 Expansion of the Bank's Balance Sheet

The balance sheet of the Bank of Japan consists of such components as long-term JGBs and short-term funds-supplying operations on the asset side, and banknotes and current account deposits on the liability side (Chart 9).

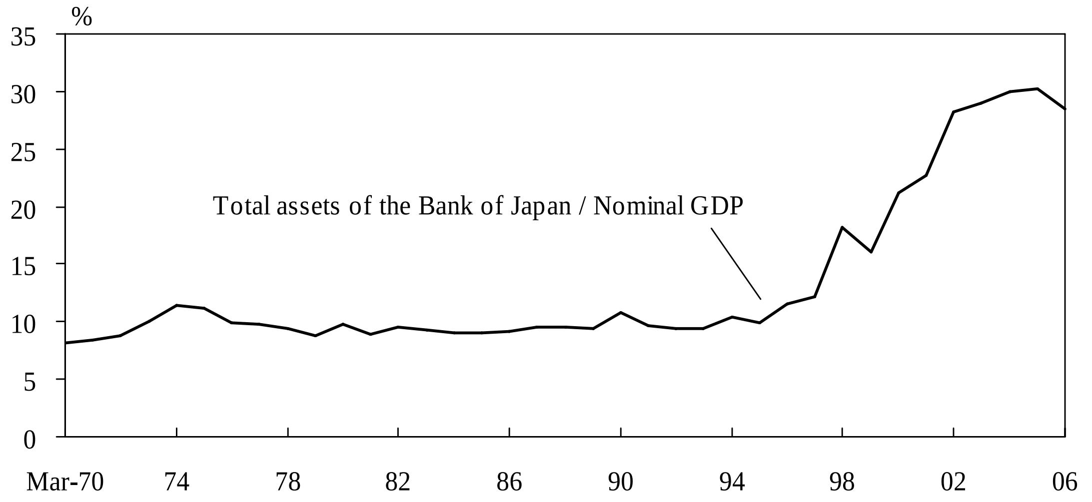
The Bank's balance sheet started to expand in the late-1990s as the Bank maintained its easy monetary policy for a prolonged period of time. The expansion of the Bank's balance sheet accelerated with the introduction of the quantitative easing policy in 2001. While assets in the Bank's balance sheet remained at approximately ten percent of nominal GDP for many years, this ratio began to climb in the mid-1990s. This ratio has reached about 30 percent since the end of fiscal 2000 when the quantitative easing policy was introduced.

The main contributing factors for the expansion of the Bank's balance sheet on the liability side include (1) increase in the issuances of banknotes reflecting the decrease in opportunity costs of holding cash due to the decrease in interest rates to near zero percent, and (2) increase in the amounts outstanding in the Bank's current accounts reflecting the increase in target levels of the Bank's current account balances. Corresponding to the increase in the Bank's liabilities, on the asset side, the outstanding amount of short-term funds-supplying operations increased considerably. The outstanding amount of long-term JGBs also increased reflecting the increase in outright purchases of JGBs.

In the long run, liabilities and, in line with this, assets in the Bank's balance sheet are expected to decrease.

[11] During May-July 2001, just after the introduction of the quantitative easing policy, the Bank, with a view to enhancing the provision of funds to financial institutions, lowered the minimum unit of bid rates in funds-supplying operations to 0.001 percent from 0.01 percent.

Size of Total Assets of the Bank of Japan against Nominal GDP



Note: To compare against end of fiscal year data, or end-March data, for total assets of the Bank of Japan, Q1 data, which includes end-March data, are used for Nominal GDP.

III. Developments in the Money Market

A. Call Market

The amounts outstanding in the call market[12] gradually increased in fiscal 2005, with the pace of increase picking up in the latter half of the fiscal year. Two main factors contributed to this increase. First, foreign banks were beginning to tap the call market for yen funding, as opportunities to fund yen at negative interest rates through such transactions as foreign exchange swaps with domestic banks gradually dried up reflecting the recovery in the creditworthiness of domestic banks.[13] Second, many financial institutions tried out procurement in the call market, with the primary aim of checking their credit line availability in the call market and seeking new counterparties in preparation for the change in the monetary policy framework. The amounts outstanding in the call market increased further after the change in the monetary policy framework, boosted by demand on both ends. On one end, financial institutions with demand to fill liquidity shortfalls increased activities in the call market reflecting Bank's less frequent funds-supplying operations. On the other end, financial institutions with excess funds began to lend more in the uncollateralized overnight call market, especially when rates rose reflecting the aforementioned increase in demand to procure funds in the call market. However, the average amounts outstanding in the uncollateralized call market in April 2006 at about 10 trillion yen were still low compared to the level before the introduction of the quantitative easing policy, such as 19 trillion yen in February 2001.

A review of lenders and borrowers in the uncollateralized call market by type of financial institution shows that borrowers consisted increasingly of foreign banks and securities firms in fiscal 2005 (Chart 12-1). Demand of foreign banks to borrow in the call market increased against the background of declining opportunities for them to procure funds at negative interest rates through foreign exchange swaps with domestic banks. Borrowing demand of securities firms for settlement purposes increased reflecting increased activities in the stock and bond markets. In addition, as prospects

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[12] In the call market, transactions are divided into uncollateralized and collateralized types. Both transactions are mainly intermediated by *tanshi* (money market brokers). Uncollateralized transactions consist mostly of transactions that are not recorded on *tanshi*'s accounts (so-called broking), while collateralized transactions consist mostly of underwriting and offer of funds that are recorded on the own accounts of *tanshi* (so-called dealing).

[13] Refer to "Money Market Operations in Fiscal 2003," and "*Tanki Kinyu-shijou ni okeru Mainasu Kinri Torihiki* (Transactions at Negative Interest Rates in the Money Market)" <available only in Japanese>.

for a change in the monetary policy framework and uncertainty of future cash management increased, foreign banks and securities firms moved early to procure funds for the end-of-year and the end-of-fiscal-year, mainly through term instruments. Such increased borrowing in the call market by foreign banks and securities firms consequently led to an increase in amounts outstanding in the call market. In February and March 2006, borrowing by regional banks and regional banks II also increased as they tapped the call market in order to check their credit line availability.

On the other hand, city banks, which in the past had been primary borrowers in the call markets, were less frequent borrowers and became lenders from time to time. Such changes in the pattern of city banks' borrowing/lending behavior in the call market were prompted by their active procurement through the Bank's funds-supplying operations under the quantitative easing policy and structural change in the funding environment where the outstanding amount of deposits at city banks exceeded loans. Following the change in the monetary policy framework, this pattern was not reversed. Instead, city banks, which had accumulated large amount of funds in the Bank's current accounts under the quantitative easing policy, lent funds in the call market more frequently while reducing their current account balances in consideration of required reserve amounts. Meanwhile, trust banks and investment trusts also stepped up lending in the call market.

The amounts outstanding in the collateralized call market[14] remained generally unchanged during fiscal 2005 (Chart 12-2). However, some changes were noted when examined by borrowers. *Tanshi* continued to be the main borrowers with most of their transactions being the acceptance of excess funds in the trust accounts of trust banks, but their share declined somewhat. Meanwhile, the share held by other borrowers increased to some extent. Particularly, the share held by securities firms increased against the background of greater liquidity demand for settlement purposes in stock and bond transactions.

[14] Most collateralized transactions in the call market are transactions where *tanshi* underwrite and offer funds recorded on their own accounts, so-called dealing. Here, the amount that is counted as borrowing by *tanshi* is not the whole amount underwritten, but the amount outstanding at the end of the period after the market offer.

B. Structural Changes in Money Markets and Points Requiring Attention in Money Market Operations

The quantitative easing policy continued for about 5 years from March 2001 to March 2006. During this time, the money markets underwent significant structural changes.[15]

First, as described above, the main borrowers and lenders in the money markets, especially in the call market, have changed. In the past, lenders in the call markets were regional banks, trust banks, and investment trusts that had more deposits than loans on their balance sheets, while primary borrowers were city banks that had more loans than deposits. This pattern remained unchanged for a long period of time. However, in recent years, foreign banks and securities firms have increased their presence as borrowers in the call market, while city banks that now have more deposits than loans have been lending funds more often in this market.

Second, city banks have been consolidated into mega-banks. The merger of city banks has led to a decrease in the number of market participants. At the same time, the actions of market participants have come to exert greater overall influence in the market reflecting the increase in each merged mega-bank's trading volume. In another significant development, Japan Post became eligible to use the current account service of the Bank in April 2003. Because it holds deposits far exceeding that of the mega-banks, the Japan Post has gained a large market presence.

Third, a prolonged period of financial system instability beginning in the late 1990s created heightened awareness of counterparty credit risk among market participants. This resulted in stricter evaluation of the creditworthiness of counterparties by market participants on both ends of trades, reflected in the adoption of tighter terms in credit lines.

Fourth, the payment and settlement systems trades have been enhanced. In January 2001, just before the shift to the quantitative easing policy, the Bank of Japan introduced the real-time gross settlement (RTGS) system for funds and JGSs. In January 2006, delivery versus payment (DVP) for dematerialized commercial paper (CPs) and bonds was started. These structural changes and the call-market practice of "prioritizing

[15] For more details on the structural changes in the money market and issues to be addressed, refer to " Financial Markets Report - Supplement - Issues regarding Money Markets after the conclusion of the Quantitative Easing Policy," August 9, 2006.

repayment over new lending"[16] have stimulated demand for temporary intraday liquidity. This has subsequently increased intraday fluctuations in the outstanding amount of the Bank's current account balances larger.

Despite such significant structural changes in the money markets, because the Bank continued to provide ample liquidity to financial institutions, the impact of these changes was hardly felt by market participants. Consequently, market participants were not pressured to change their behavior. On the contrary, against the backdrop of a notable decline in market rates and a significant decline in the volume of trades conducted in the market under the Bank's quantitative easing policy, the market infrastructure underlying smooth functioning of markets may even have deteriorated somewhat. Indications of this deterioration include a downturn in credit line availability among financial institutions, and a cut back in the allocation of personnel and systems for cash management. Therefore, some time may be needed for market participants to adapt to changes in market structure and for smooth settlement of funds to be ensured in the money markets.

Taking into account the circumstances discussed above, the decrease in the outstanding balance of current accounts at the Bank after the March 2006 change in the monetary policy framework was to be conducted in gradual steps over a few months with due consideration given to developments in the money market. It should be noted that, despite ample provision of funds by the Bank to satisfy the liquidity needs of the market overall, there might be instances where market trades and interest rates become volatile, because, as a result of structural changes in the market as described above, funding needs of individual market participants may not be promptly fulfilled or concentration of intraday liquidity demand may lead to temporary shortages of funds in the market. The current process of reducing the outstanding balance of current accounts to a level in line with required reserves and money market operations after the current account balances have been reduced should be conducted while taking into full account money market conditions, and with special attention the following three points.

(1) Fluctuations in the uncollateralized overnight call rate

Given the structural changes in the market concurrent to reductions in the outstanding balance of current accounts to a level in line with required reserves, the market

[16] In the call market, the market practice is that, "in principle, borrowers make repayments to lenders by no later than 10 a.m." This practice is applied with a view to smooth cash settlement under RTGS.

infrastructure needed to support the smooth functioning of markets is likely to be established gradually. Such structural changes include a recovery in number of market trades, review of credit line management by market participants, and build up of expertise needed to adapt to the market environment. In the process, uncollateralized overnight call rates may rise in certain instances when funds are not appropriately allocated to individual market participants in need of liquidity. Furthermore, under certain circumstances, such problems may persist even if the flow of funds is improved. For example, fluctuations in uncollateralized overnight call rates may increase in terms of daily weighted averages as compared to before the quantitative easing policy, reflecting the structural changes in the market, such as heightened awareness of counterparty risk and changes in the borrowers in the market.

A comparison of fluctuations in uncollateralized overnight call rates among the United States, Europe, and Japan shows that fluctuations are large in the United States and Europe, with periods of significantly large fluctuations (Chart 13). Meanwhile, fluctuations in uncollateralized overnight call rates in Japan were quite small before the quantitative easing policy when the target for money market operations was the uncollateralized overnight call rate. In the March 2006 MPM, the target for money market operations was again changed to the uncollateralized overnight call rate. This does not necessarily imply that rates will move in the same tight range as before the introduction of quantitative easing policy. On the other hand, given the significant structural changes occurring in the market in recent years, rates will probably not fluctuate as much as in the United States or Europe.

(2) Level and changes in outstanding balance of current accounts

Under the current monetary policy framework with the target for money market operations being the uncollateralized overnight call rates, the outstanding balance of current accounts, after being reduced to about 6 trillion yen in line with the level of required reserves, will be maintained at around that level. Nevertheless, the outstanding balance of current accounts may move somewhat above the level of required reserves, especially in the early stages, if financial institutions take a cautious approach in cash management to leave more funds in the Bank’s current account balances than necessary to settle trades. In addition, certain financial institutions, such as the Japan Post, may hold large amount of funds in the Bank’s current account balances for short periods of time.

In daily money market operations, it is important to take into account such temporary fluctuations in the flow of funds in providing funds to the market so that fund shortages do not occur. Because the Bank conducts money market operations with this in mind, the outstanding amount of the Bank's current account balances may change significantly from day to day, even when liquidity is sufficiently supplied to meet the demands of financial institutions holding funds in the Bank's current account.

(3) Intraday liquidity demand

Changes in the settlement system, such as the introduction of new RTGS for funds and JGSs, lead to heightened intraday liquidity demand by financial institutions to settle trades. If the outstanding balance of current accounts falls significantly below present amounts, intraday liquidity demand may have an impact on rates and trading volume in the overnight call market.

The next few months will pose a challenge for the Bank's money market operations. As this will be the first time for the Bank to conduct money market operations targeting the uncollateralized overnight call rates after structural changes in settlement systems, such as the introduction of RTGS, the Bank will need to pay close attention to the influence of intraday liquidity demand on rates and trading volume in the overnight call market.

Box 3 Intraday Call Market

There is an intraday call market where financial institutions provide/receive intraday liquidity. Following the introduction of new RTGS for funds and JGSs, the intraday call market was introduced in 2001 to replace the half-day transactions that existed until then. The aim was to satisfy intraday liquidity demands that were not being met through intraday overdraft against eligible collateral with the Bank. Given the call-market practice of "prioritizing repayment over new lending and borrowing," repaying financial institutions with incentives to procure temporary funds have tapped the intraday call market. Under the quantitative easing policy, *tanshi* that received large amounts of funds from trust banks in the form of collateralized call transactions were the major participants in the intraday call market in procuring funds to repay trust banks.

Following the March 2006 change in monetary policy framework and subsequent gradual reductions in the outstanding amounts of the current account balance, intraday liquidity demand of *tanshi* is expected to decline, reflecting a reduction in transactions with trust banks in the collateralized call market as trust banks are likely to invest elsewhere. On the other hand, demand for use of the intraday call market is expected to mainly increase from financial institutions that have smaller capacity to procure funds through intraday overdrafts from the Bank due to tighter collateral constraints brought on by decreases in these financial institutions' holdings in the Bank's current accounts, which functioned as a buffer for cash management. An example of how financial institutions with less room to borrow through intraday overdraft may be more strongly inclined to use the intraday call market to procure temporary funds to be used in repayments is shown in the Box 3 Chart.

Intraday overdraft by the Bank is another means for financial institutions to procure intraday liquidity. As of the end of March 2006, the maximum amount that can be procured through intraday overdraft is about 45 trillion yen. This amount is calculated by subtracting the amount used for outright purchases of bills from the total amount of eligible collateral submitted to the bank, which stands at about 85 trillion yen. This means that, from a market-wide perspective, demand for intraday liquidity could be met through transactions with the Bank.

However, not all financial institutions may have sufficient pooled collateral to obtain funds from the Bank. Therefore, it is important to ensure that mechanisms for financial institutions with excess intraday liquidity to provide funds to those with shortages are in place. In this connection, some issues that must be addressed by financial institutions include ensuring that operational resources are sufficient for smooth intraday liquidity procurement and that credit lines for intraday call market transactions are appropriately set.

IV. Developments in Operations by Type of Tool

A. Money Market Operations by Type of Operational Tool

The following are the Bank's market operations conducted in fiscal 2005 by type of operational tool (Chart 14).

1. Funds-Supplying Operations

a. Outright purchases of JGBs

Outright purchases of JGBs are operations to purchase long-term JGBs. These operations are undertaken through conventional auction where bids are made based on spreads between yields offered by counterparties and benchmark yields determined by the Bank.[17] The amount of purchases has been set at 1.2 trillion yen per month since the October 30, 2002 MPM. In each operation, offered four times a month, the Bank purchases 0.3 trillion yen of JGBs. This was not modified in the March 2006 MPM in which the monetary policy framework was changed.

Under the quantitative easing policy, outright purchases of JGBs were used when the Bank determined that there was a need to do so in order to provide ample liquidity to the market. However, limits were placed on amounts of JGB purchases per month to keep the Bank's holding of long-term JGBs below the outstanding amount of banknotes issued. This was adopted to avoid fixing the assets held by the Bank and to ensure sufficient current and future flexibility in money market operations. In terms of the Bank's balance sheet, the capacity to conduct funds-supplying operations in the money market decreases when the share of the Bank's holding of long-term JGBs in total assets increases, other factors remaining unchanged (Chart 9, Box 2). Nevertheless, considering that daily fluctuations in autonomous factors are large, the Bank needs to reserve considerable flexibility in short-term funds-supplying operations in order to level out fluctuations in the flow of funds and to maintain stability in money markets.

The Bank of Japan's holding of long-term JGBs came to 60.5 trillion yen at the end of fiscal 2005. This was 14.5 trillion yen below the outstanding amount of banknotes issued, which stood at 75.0 trillion yen.

[17] Benchmark yields are derived from "Reference Price (Yields) Table for OTC Bond Transactions" of the Japan Securities Dealers Association (aggregated on the previous trading day).

b. Outright purchases of TBs and FBs

Outright purchases of TBs and FBs are operations to purchase TBs and FBs with residual maturity of about 2 months to 1 year. These operations are funds-supplying tools with relatively longer maturity.

Because of their relatively longer maturity, outright purchases of TBs and FBs were used to steadily supply necessary funds corresponding to medium-term fluctuations in autonomous factors, rather than to day-to-day fluctuations. Given the purpose of these operations and their propensity to impact supply and demand conditions in the TB and FB markets, the Bank had basically conducted these operations periodically at fixed amounts. However, in the second half of fiscal 2004, the amount and frequency of these operations were raised substantially in order to achieve the target level of current account balances. In fiscal 2005, the offer amount for each of these operations was reduced and the timing once again became more or less periodical.

More specifically, offers of outright purchases of TBs and FBs were made in amounts of about 500 billion yen per operation at frequencies of about once a week. These operations are less likely to be undersubscribed unless the benchmark yields (yields which the Bank respectively determines for each issue in consideration of market prices) reach almost zero percent (lower limit is 0.001 percent). This is because a multiple-price competitive auction is applied where counterparties bid yield spreads, which are calculated by subtracting the benchmark yields from the yield at which counterparties desire to sell securities to the Bank. In this type of auction, the Bank accepts bids starting with the highest yield spread and continues down until the total of accepted bids reaches the intended amount. However, in the first half of fiscal 2005, the issuance rates of FBs moved near zero percent. Against this background, incentives to bid in this type of operation for which the lower limit is 0.001 percent declined, and frequent undersubscription occurred. In the latter half of fiscal 2005, undersubscription became less frequent as financial institutions' bidding incentive in outright purchases of TBs and FBs recovered, partly supported by the rise in market rates of TBs and FBs against the background of heightened expectations over change in the Bank's monetary policy framework.

Since the monetary policy framework was changed in March 2006, these operations are being conducted more or less periodically at lower amounts per operation.

c. Outright purchases of bills

Outright purchases of bills are operations to purchase bills issued by counterparties with eligible assets submitted to the Bank as pooled collateral.[18] Pooled collateral includes not only public-sector debt such as JGSs, but also private-sector debt that the Bank deems eligible, such as corporate bonds and CPs. In terms of function, outright purchases of bills are collateralized funds transactions whose rate and price are determined by auction.

Outright purchases of bills are less strongly linked to any specific market compared to outright purchases of TBs/FBs and purchases of CPs with repurchase agreements. Also, the maturity of these operations can be set freely. Therefore, the Bank can conduct operations flexibly counteracting short-term fluctuations in autonomous factors. Meanwhile, this operation is highly convenient for counterparties as they can use various types of assets as collateral in the form of pooled collateral. Given these characteristics, the Bank uses outright purchases of bills as its primary tool in short-term funds-supplying operations.

Outright bill purchasing operations conducted at all offices of the Bank (outright bill purchases with counterparties under the jurisdiction of the Head Office and branches of the Bank) were conducted for the purposes of supplying funds with relatively longer maturity. On the other hand, outright bill purchasing operations conducted at the Head Office (outright bill purchases limited to counterparties under the jurisdiction of the Head Office of the Bank) were primarily used as operations with relatively shorter maturity. The Bank, in this way, made flexible use of different types of operations with various maturities with the aim of responding to financial institutions' diverse demand for operations.

As primary tools for funds-supplying operations, outright purchases of bills were used with higher frequency and well in advance of predicted events that create shortages in

[18] Pooled collateral refers to collateral that counterparties submit to the Bank based on the provisions of agreements pertaining to transactions with the Bank and other contracts. The Bank specifies eligible assets for the pooled collateral in the "Guidelines on Eligible Collateral." The assets most commonly submitted by counterparties to the Bank are government bonds, corporate and other bonds, and loans on deeds. Counterparty financial institutions can borrow from the Bank within the limit of the value of pooled collateral through bill purchasing operations, complementary lending facility, intraday overdraft, and other 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, 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's current account balances, such as JGB issuances and tax receipts by the government at the beginning of June, September, December, and March. Flexible modifications, such as extension of maturities, were made to these operations in order to stimulate and ensure enough bids from counterparty financial institutions, when, as a result of ample liquidity provision by the Bank through extensive use of outright purchases of bills, counterparties' demand for liquidity declined and undersubscription to funds-supplying operations became frequent. Meanwhile, taking into account developments in the money market, due consideration was given to the functioning of markets in conducting outright bill purchasing operations. Specifically, the frequency and maturity of these operations were limited so as not to disrupt the smooth functioning of markets. Since the fall of 2005, the bidding incentives of financial institutions in operations began to recover against the background of heightened expectations of change in the monetary policy framework. In light of this situation, the Bank shortened the maturity of outright bill purchasing operations.

After the March 2006 change in monetary policy framework, amidst gradual reductions in the outstanding amount of the Bank's current account balance, outright purchases of bills were conducted with the primary aim of adjusting short-term fluctuations in the Bank's current account balances. From this perspective, the frequency of these operations was lowered, and the maturity shortened to about 1 week to 2 months. Because the outright purchase of bills was the primary tool for funds-provision under the quantitative easing policy, reduction in the outstanding balance of current accounts translates directly into reductions in these operations.

d. Purchases of JGSs with repurchase agreements

Purchases of JGSs with repurchase agreements are operations to purchase JGSs for a determined period with an agreement to resell them at a later date. It is often used by securities companies to finance their JGS positions, and has been mainly used by the Bank to provide relatively short-term funds. Compared to bidding in the outright purchases of bills described earlier, bidding in this operation has been sluggish from time to time because JGSs are the only acceptable collateral in this operation. During fiscal 2005, undersubscription occurred more frequently for this operation than any other type of operation.

Against this backdrop, to clearly differentiate the frequency and maturity from that of outright bill purchasing operations, purchases of JGSs with repurchasing agreements were used to provide relatively short-term funds of about 1-2 months and were conducted periodically. These measures aimed to respond to diverse demands for operations and to contribute in any way possible to increasing the total outstanding balance of current account balances by encouraging active bidding in the Bank's funds-supplying operations. Since the summer of 2006, financial institutions' interest in this type of operation as a funding instrument was renewed because rates were persistently near the lower limit while successful bid rates for outright bill purchasing operations rose. Such active bidding to this type of instrument contributed to maintaining the outstanding balance of short-term funds-supplying operations.

After the March 2006 change in monetary policy framework, amidst the reduction in the outstanding balance of current accounts, purchases of JGSs with repurchasing agreements have been conducted with the primary aim of adjusting short-term fluctuations in the Bank's current account balances. The frequency has been reduced and the maturity has been shortened to about 1 month.

e. Purchases of CPs with repurchase agreements

Purchases of CPs with repurchase agreements are operations to purchase CPs (which includes commercial paper, dematerialized commercial paper issued by domestic corporations, dematerialized commercial paper issued by foreign corporations with guarantees, and dematerialized asset-backed commercial paper; hereafter CPs) for a determined period with an agreement to resell them at a later date. The amount outstanding of this type of operation is smaller than that of JGS-related operations and outright purchases of bills. This reflects the fact that the CP market is smaller than the JGS and other markets. As in fiscal 2004, purchases of CPs with repurchase agreements in fiscal 2005 were undertaken to maintain the amount outstanding at a steady level. This was mainly done by offering new operations to coincide with the maturity date of past operations, and by offering the same amount for each new operation. In fiscal 2004, there were phases in which the frequency of purchases of CPs with repurchase agreements was increased in order to maintain the target in the current account balance. In fiscal 2005, however, offers were made more or less periodically so as not to disrupt the smooth functioning of markets.

Bidding in purchases of CPs with repurchase agreements was generally sluggish in fiscal 2005. This was because strong demand by investors to invest excess cash in CPs reduced the need of financial institutions to rely on the Bank's purchases of CPs with repurchase agreements. Around the end of year 2005, CP issuance increased as more firms procured funds to pay bonuses and corporate taxes through CPs. Subsequently, CP issuance rates increased against the background of heightened concerns over the weakening of the supply-demand balance. Reflecting these developments, financial institution's demand to procure funds through the Bank's purchases of CPs with repurchasing agreements, which were attractive relative to funding in the market in terms of ease as well as rates, increased. Therefore, successful bid rates in purchases of CPs with repurchase agreements rose at the end of 2005. After entering 2006, undersubscription in purchases of CPs with repurchase agreements became frequent. This reflected a decline in the CPs held at financial institutions to be used in these operations, against the background of increase in demand for these assets from investors as market rates rose.

After the change in the monetary policy framework, the amount and frequency of offers have been decreased and the maturity has been shortened.

Some counterparties to the Bank's market operations have changed their procurement method for CP transactions from purchases of CPs with repurchase agreements to outright purchases of bills by submitting CPs as pooled collateral to the Bank. In this way, these financial institutions aim to alleviate their operational burden and temporary gap in timing of cash settlement on the start and end date of operations that are involved in purchases of CPs with repurchase agreements.

f. Outright purchases of asset-backed securities (ABSs)

In 2003, the Bank decided to introduce outright purchases of asset-backed securities (ABSs) in order to support the efforts of market participants to improve the infrastructure of the ABS market. The maximum amount outstanding of purchases was set at 1 trillion yen.

In fiscal 2005, the Bank conducted outright purchases of asset-backed CPs (ABCPs) about twice a month, with the maximum amount of each operation set at 100 billion yen. The bidding amount and successful bid amount decreased compared to fiscal 2004, against the backdrop of decrease in the demand to issue ABCPs combined with strong sales to investors.

At the MPM held on December 15 and 16, 2005, the Bank decided to terminate as scheduled the temporary measures relating to the purchase of ABSs and the relaxing of eligibility standards for accepting ABCPs in the Bank's market operations and pooled collateral at the end of March 2006. The Bank also announced that it would also take necessary transitional measures.[19] These decisions were made in light of the Bank's judgment that the aim of these temporary measures had been fulfilled. Specifically, the steady growth of the ABS market confirmed that the aim of encouraging the development of ABS market in its early stages had been satisfied. In addition, the corporate financing environment has improved considerably. Against this background and in accordance with the December 2005 decisions by the Bank, outright purchases of ABCPs were ended as of the end of fiscal 2005, as scheduled. The total amount outstanding since the first offer in August 2003 to the last in March 2006 stood at 3,287.7 billion yen. Meanwhile, the outright purchases of ABSs, which are based on applications submitted by counterparties, were also ended at the end of fiscal 2005 as scheduled.

2. Funds-Absorbing Operations

In funds-absorbing operations, funds are absorbed at the time of implementation and conversely supplied at maturity. As such, funds-absorbing operations are used as a tool to adjust short-term fluctuations in current account balances and to ensure the provision of ample funds. In fiscal 2005, funds-absorbing operations were conducted to ensure smooth funds absorption. The main tools were JGS sales with repurchase agreements and outright sales of bills, because the maturity of these operations can be flexibly set to correspond to the required duration of absorption. For absorption of funds with longer maturity, outright sales of TBs and FBs were used.[20] The maturity of these operations was mainly about 1-4 weeks.

After the change in monetary policy framework, funds-absorbing operations have been conducted in small amounts and with short-term maturities in order to smooth out fluctuations in current account balances in gradually reducing the outstanding balance of current accounts at the Bank.

[19] As a transitional measure, the Bank decided that any ABCPs deemed eligible under the current rules and purchased by March 31, 2006, with a repurchase agreement, will remain eligible until the day of repurchase.

[20] In outright sales of TBs and FBs, funds are absorbed on the date of sale. Conversely, the operation serves to supply funds at maturity as redemption funds are paid to financial institutions. Therefore, from the perspective of money market operations, this operation has the same effect as those of JGS sales with repurchase agreements and outright sales of bills, with the date of sale to redemption being the maturity.

B. Complementary Lending Facility

The complementary lending facility, introduced by the decision of the MPM on February 9, 2001, is a means by which the Bank lends funds to counterparties upon request. Lending is limited to the borrower's outstanding amount of pooled collateral that has been submitted. The basic loan rate is in general equal to the official discount rate, which is currently 0.1 percent. The facility is expected to function as a safety valve in funds procurement. The maximum number of days on which counterparties can use the facility at the basic loan rate during a reserve maintenance period is five days. In principle, counterparties that wish to use the facility beyond this maximum number of days must pay a higher rate of 2 percent plus the basic loan rate. As a temporary measure, the restriction on the maximum number of days has been suspended since March 2003, and the official discount rate is applied regardless of number of days used. At the MPM held on March 9, 2006, while the monetary policy framework was changed, the temporary waiver of add-on rates for frequent users of the facility was maintained.

In fiscal 2005, use of the complementary lending facility increased toward the end of the fiscal year. Most of this increase may have been trial use by financial institutions seeking to confirm administrative procedures against the background of heightened expectations of market participants about and the subsequent actual change in monetary policy framework in March 2006.

V. Measures to Revise Operational Tools and Facilities

In fiscal 2005, the Bank of Japan implemented the following measures to revise tools and facilities for money market operations.

A. Acceptance of Financial Institutions Entrusting the Operations Involved in Settlement of Securities to Other Financial Institutions as Eligible Counterparties in the Bank's Money Market Operations

A decision was made in the MPM held on May 19 and 20, 2005 to change the selection process for counterparties in outright purchase/sale of FBs and TBs and purchase/sale of JGSs with repurchase agreements and outright purchase/sale of JGBs. This was in response to moves among certain financial institutions to entrust the operations involved in settlement of JGSs to other financial institutions. This decision, effective May 24, 2005, was made so that financial institutions that entrusted other financial institutions with settlement of JGSs and funds accompanying money market operations conducted by the Bank could be included as counterparties. The change also extended to the selection process of counterparties in sale of JGSs with repurchase agreements, which are conducted to provide a temporary and secondary source of JGSs to the market.

In accordance with this change, the criteria for the selection of counterparties eligible in the Bank's operations was relaxed to allow as counterparties those financial institutions that entrusted other financial institutions with settlement of JGSs and funds accompanying money market operations conducted by the Bank (i.e., financial institutions that are not direct counterparties to the JGB book-entry system). Meanwhile, the criteria for financial institutions entrusted with the settlement operations to be eligible counterparties to the Bank's money market operations were set to only allow financial institutions conducting funds settlement business for customers and fulfilling all the selection criteria fulfilled by other counterparties to the Bank's money market operations.

Accordingly, delivery failure rules[21] for the Bank's JGS-related operations (outright purchases of JGBs, outright purchases of FBs and TBs, purchases of JGSs with repurchase agreements, sales of JGSs with repurchase agreements) were amended to

[21] The delivery failure rules are applied to cases in which a counterparty fails to deliver JGSs, in part or in whole, by the designated time (one hour before the end of the operating hours of the BOJ-NET JGB Services).

cover cases in which a counterparty entrusts its settlements to an eligible financial institution.

B. Study to Revise the Bill Purchasing Scheme

In the MPM held on September 7 and 8, 2005, with a view to facilitating efficient money market operations from the perspective of counterparties as well as the Bank, the Bank decided to conduct a study to revise the bill purchasing scheme in order to make operation-related transactions paperless.

In this connection, at the MPM of April 10 and 11, 2006, the Bank decided to prescribe the “Principle Terms and Conditions for Funds-Supplying Operations against Pooled Collateral” and “Principle Terms and Conditions for Selection of Counterparties in Funds-Supplying Operations against Pooled Collateral.” The newly introduced funds-supplying operations against pooled collateral were determined to substitute the current paper-based bill purchasing operations no later than July 31, 2006 (Chart 15). The first selection of the counterparties for the new funds-supplying operations against pooled collateral is to be conducted by the end of September 2006. Until then, eligible counterparties are to be selected from current counterparties to the bills purchasing operations that intend to participate in the new type of funds-supplying operations against pooled collateral and that meet the criteria set by the Bank.

C. Revision of Conditions for Including Bonds Whose Principal Balance May Decrease Due to Repayments before the Final Maturity Date in the Range of Eligible Collateral

At the MPM held on June 14 and 15, 2005, the Bank decided to include in the range of eligible collateral “bonds whose principal balance may decrease due to repayments before the final maturity date,” such as pass-through bonds, issued more than 5 years ago.

Of these, because market prices for residential mortgage-backed securities (RMBS) issued by the Government Housing Loan Corporation (GHLC) can be obtained steadily, it was decided (1) to calculate their collateral prices based on market prices, and (2) to set the margins based on historical market prices. Meanwhile, for other bonds than RMBS issued by GHLC whose principal balance may decrease due to repayments before the final maturity date, a different approach was taken because their market prices may not be obtained. For such bonds, from the perspective of being conservative in calculating collateral prices, estimated market prices are calculated on the assumption that the principal amount remaining will be redeemed in full on the last day of redemption, and margin calculations were to be made considering the type of bonds and remaining maturities.

This decision was made effective on June 30, 2005.

D. Amendment to Margin Tables for Eligible Collateral

At the MPM held on September 7 and 8, 2005, the Bank decided to amend margin tables used in accepting eligible collateral, with a view to maintaining the soundness of the Bank's assets and contributing to market participants' efficient use of collateral, taking into account recent developments in financial markets, such as the volatility of market rates.[22] This was made effective October 14, 2005. It was also decided that the Bank shall review margin tables about once a year and amend them when necessary.

E. Measures to Enhance the Use of Corporate Debt Obligations as Collateral for the Bank's Credit

On December 16, 2005, the Bank announced "Measures to Enhance the Use of Corporate Debt Obligations as Collateral for the Bank of Japan's Credit." This announcement was made with a view to continuing to support the sound development of the credit markets. Specifically, the following three measures were issued so that the use of corporate debt obligations may be enhanced. These were, (1) facilitating collateralization of corporate securities, (2) streamlining the procedure for accepting loans on deeds as collateral, and (3) improving the efficiency of internal credit ratings[23].

As a first step, on January 10, 2006, the Bank started to provide an online service to post or return corporate securities, other non-JGB bonds and dematerialized CPs as collateral for the Bank's credit to financial institutions. At the same time, the Bank speeded up the process of selecting corporate securities as eligible collateral among newly issued securities by increasing the frequency of selection from monthly to weekly.

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[22] In addition to margin tables used in accepting eligible collateral, the Bank amended margin tables used for calculating prices to purchase/sell JGSs in conducting repo operations, prices of margin collateral in conducting repo operations, and prices of margin collateral in the sale of JGSs with repurchase agreements to provide the markets with a secondary source of JGSs.

[23] Internal credit ratings are conducted by the Bank to assess the creditworthiness of corporations which are obligors of corporate debt obligations as a precondition to accept corporate debt obligations as eligible collateral.

On March 20, 2006, the Bank announced that it will enhance the internal credit ratings system and simplify the procedure for accepting loans on deeds as collateral as of April 3, 2006.[24,25]

[24] The Bank expanded the use of credit ratings given by rating agencies and other market information in order to conduct internal credit ratings more efficiently, promptly and transparently. For example, corporations that have obtained ratings of single A or higher from an eligible agency shall be admitted as eligible obligor of corporate debt obligations unless there is a special reason not to.

[25] For instance, by simplification of the procedure, a financial institution shall not need to submit official evidence that there exist no precedent registrations of assignment of, or pledge on, a loan on deed to be accepted as collateral by the Bank, on condition that it has appropriate internal controls on the operation of loans on deed.

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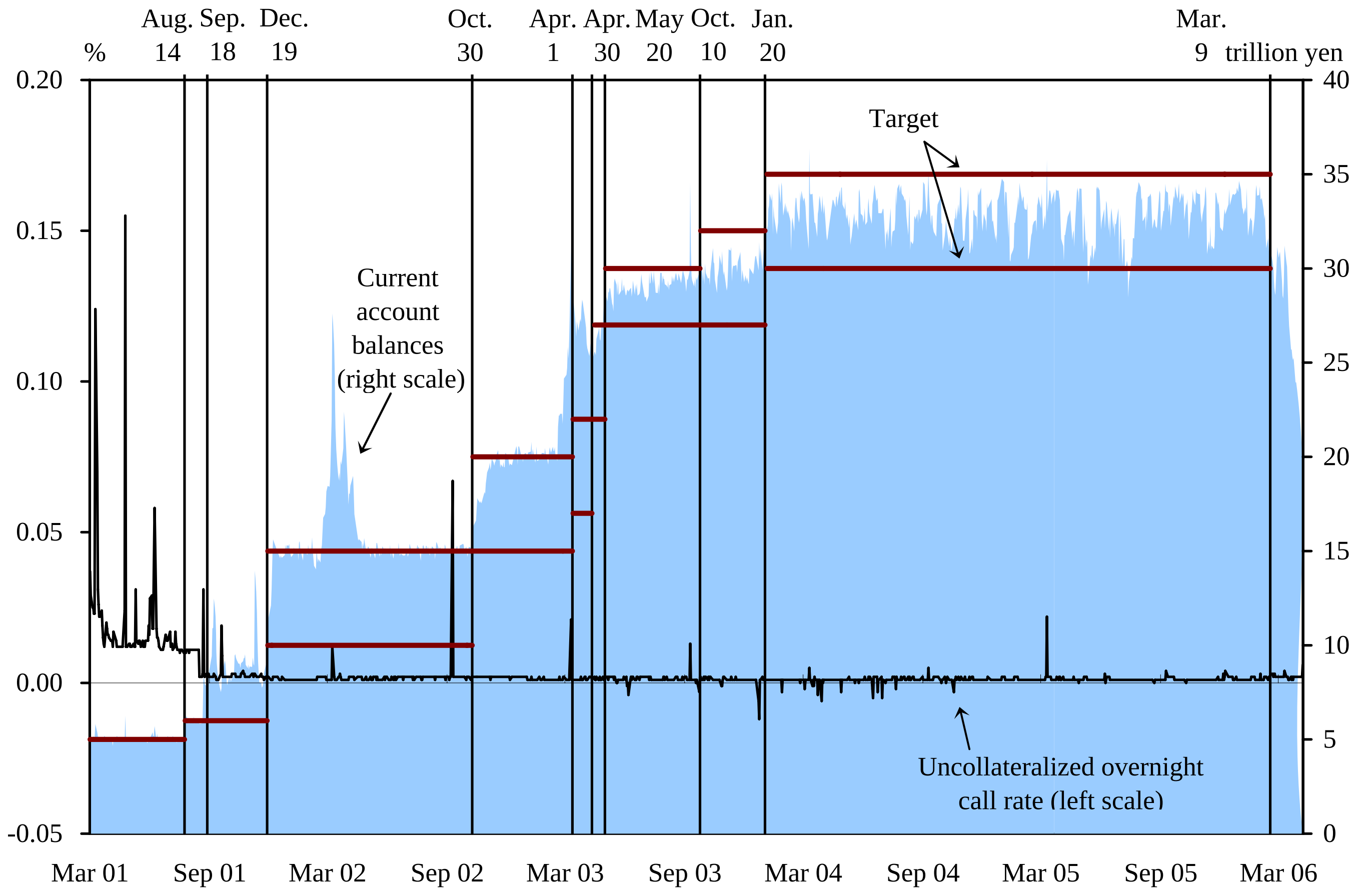
Maeda, Eiji, Bunya Fujiwara, Aiko Mineshima, and Ken Taniguchi, "Japan's Open Market Operations under the Quantitative Easing Policy," Bank of Japan Working Paper Series, No. 05-E-3, April 2005.

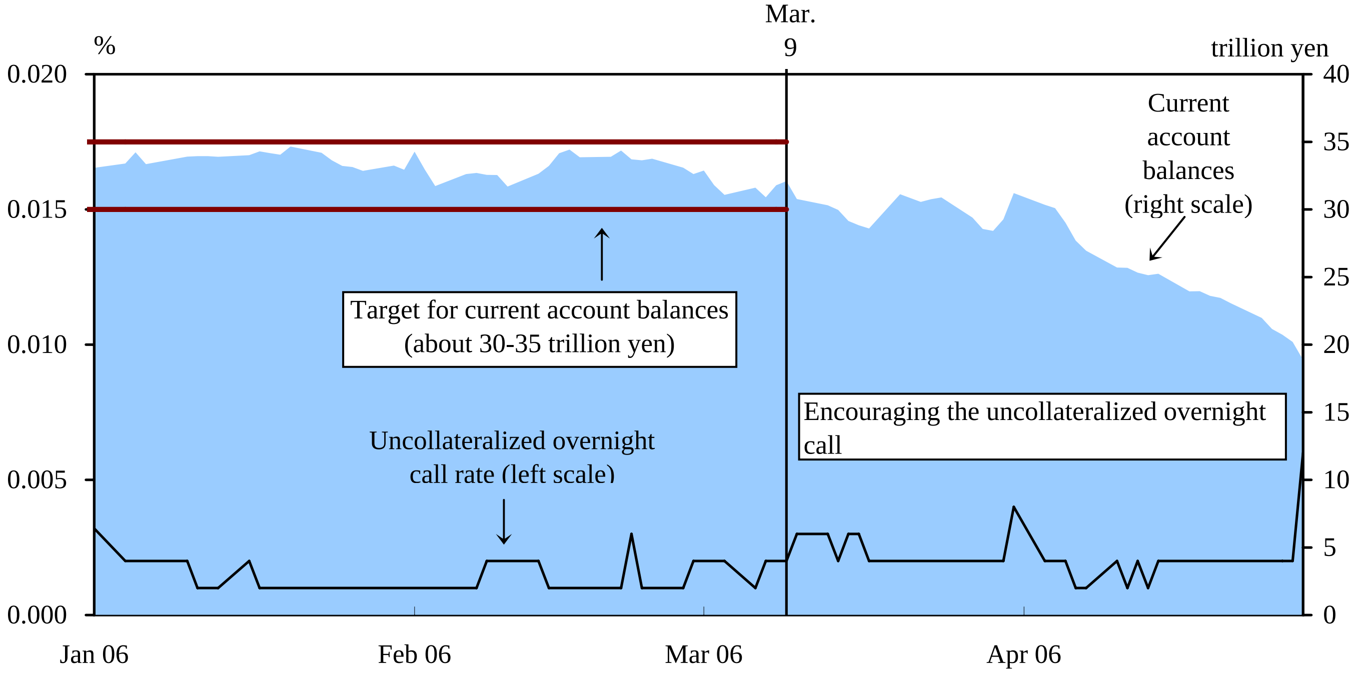
[26] Useful references for understanding the Bank of Japan's monetary policy can be accessed via the Bank's web site (http://www/boj.or.jp/en/index.htm) under "Monetary Policy." Research papers can be accessed under "Statistics, Research and Studies" or "Research Papers." The contents of speeches and statements made by the Bank's Governor, Deputy Governors, and members of the Policy Board can be accessed under "Communications" or "Speeches and Statements."
In addition, papers of the Bank for International Settlements and the Federal Reserve Bank of New York can be accessed at their respective web sites (http://www.bis.org/publ/bibpapers.htm and http://www.ny.frb.org/markets/annual_reports.html).

[Chart 1] Current Account Balances and the Uncollateralized Overnight Call Rate

(1) Under the Quantitative Easing Policy



(2) January-April 2006



Source: Bank of Japan

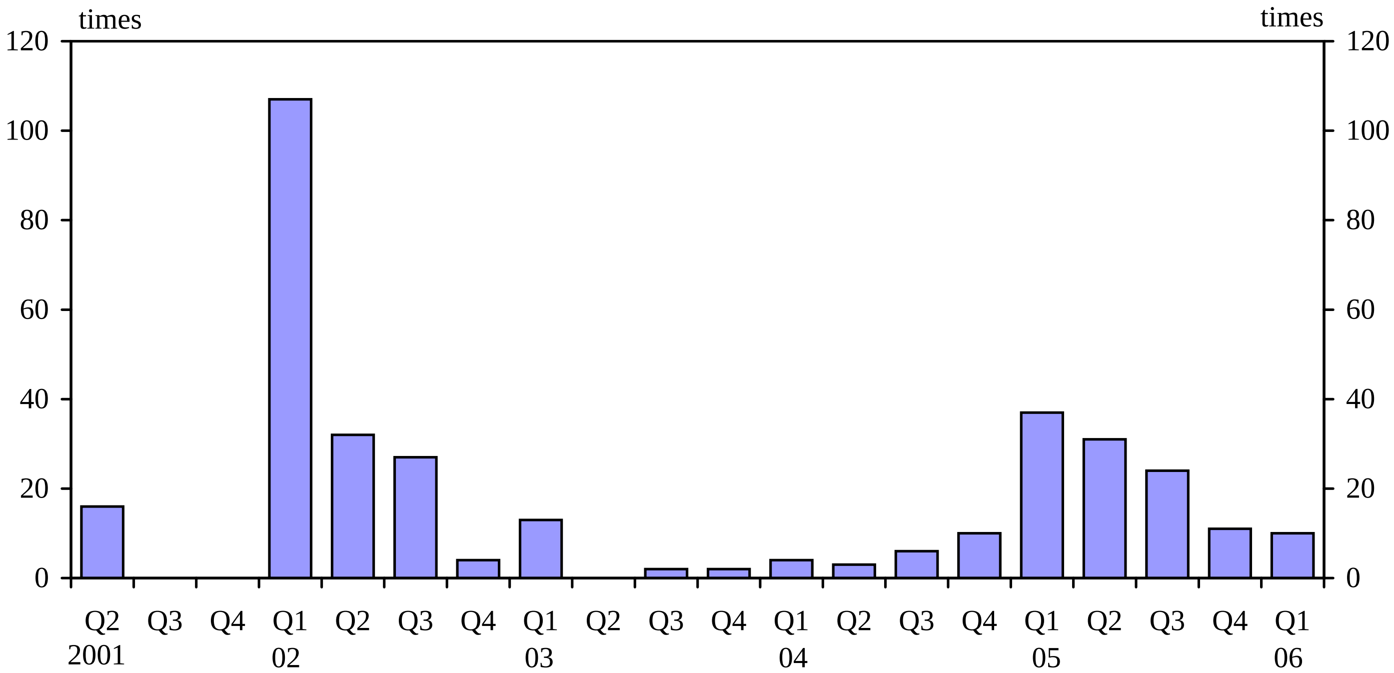
[Chart 2] Undersubscription in Funds-Supplying Operations

(1) Undersubscription in Funds-Supplying Operations in Fiscal 2004 and Fiscal 2005

	FY2004	FY2005	2005/Q2	2005/Q3	2005/Q4	2006/Q1
Bill purchases (all offices)	4	4	2	2	0	0
	(56)	(49)	(13)	(12)	(12)	(12)
Bill purchases (head office)	15	23	12	9	2	0
	(56)	(53)	(13)	(12)	(15)	(13)
CP purchases with repurchase agreements	15	13	5	3	0	5
	(53)	(51)	(12)	(13)	(14)	(12)
JGS repos	18	27	10	4	9	4
	(54)	(43)	(11)	(9)	(12)	(11)
TB/FB outright purchases	4	8	2	6	0	0
	(69)	(49)	(11)	(13)	(13)	(12)
JGB outright purchases	0	1	0	0	0	1
	(48)	(48)	(12)	(12)	(12)	(12)
Total	56	76	31	24	11	10
	(336)	(293)	(72)	(71)	(78)	(72)

Notes: 1. Numbers in parentheses show number of offers.
2. "JGS repos" is the sum of JGS purchases with repurchase agreements, JGB borrowings, and TB/FB purchases with repurchase agreements.

(2) Frequency of Undersubscription in Funds-Supplying Operations



Source: Bank of Japan

[Chart3] Changes in Autonomous Factors Affecting Current Account Balances (CABs) at the Bank

(Developments during Fiscal 2005)

trillion yen

		FY2004	FY2005	y/y % change
Banknotes		▲ 3.3	▲ 0.3	+3.0
Treasury funds and others		▲ 23.9	▲ 12.1	+11.8
	Fiscal payments	+59.7	+43.3	▲ 16.4
	JGBs	▲ 82.0	▲ 63.6	+18.4
	FBs	▲ 2.6	+8.3	+10.8
	Foreign exchange	▲ 0.0	+0.0	+0.0
	Others	+1.1	▲ 0.1	▲ 1.2
Autonomous factors		▲ 27.2	▲ 12.4	+14.7

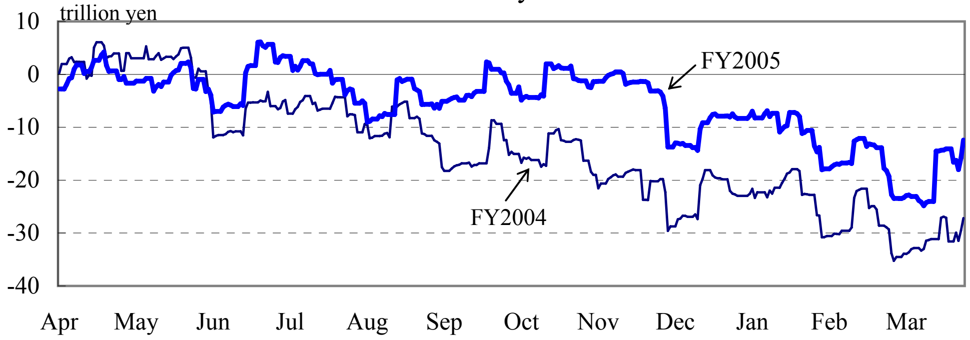
(Reference)

	FY2004	FY2005
Outstanding balance of banknotes	74.7	75.0

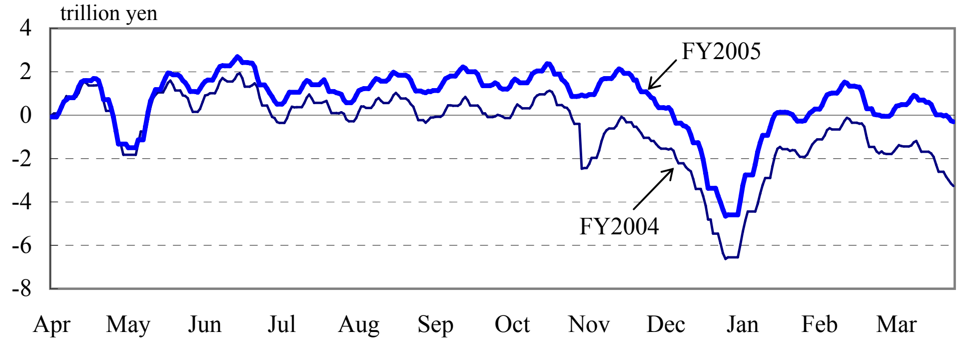
Notes: Banknotes: Negative figures show net issuance.
Treasury funds and others: Negative figures show net receipts, and positive figures show net payments.
Autonomous factors: Negative figures show decrease, and positive figures show increase.

(Daily Developments during Fiscal 2005)

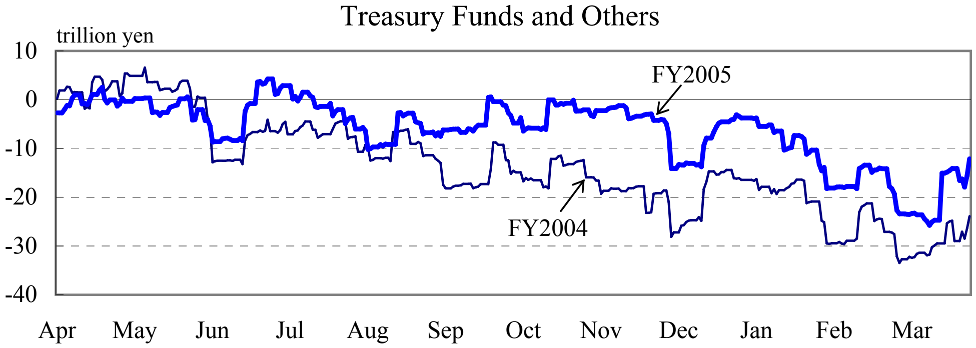
Bank notes + Treasury Funds and Others



Banknotes



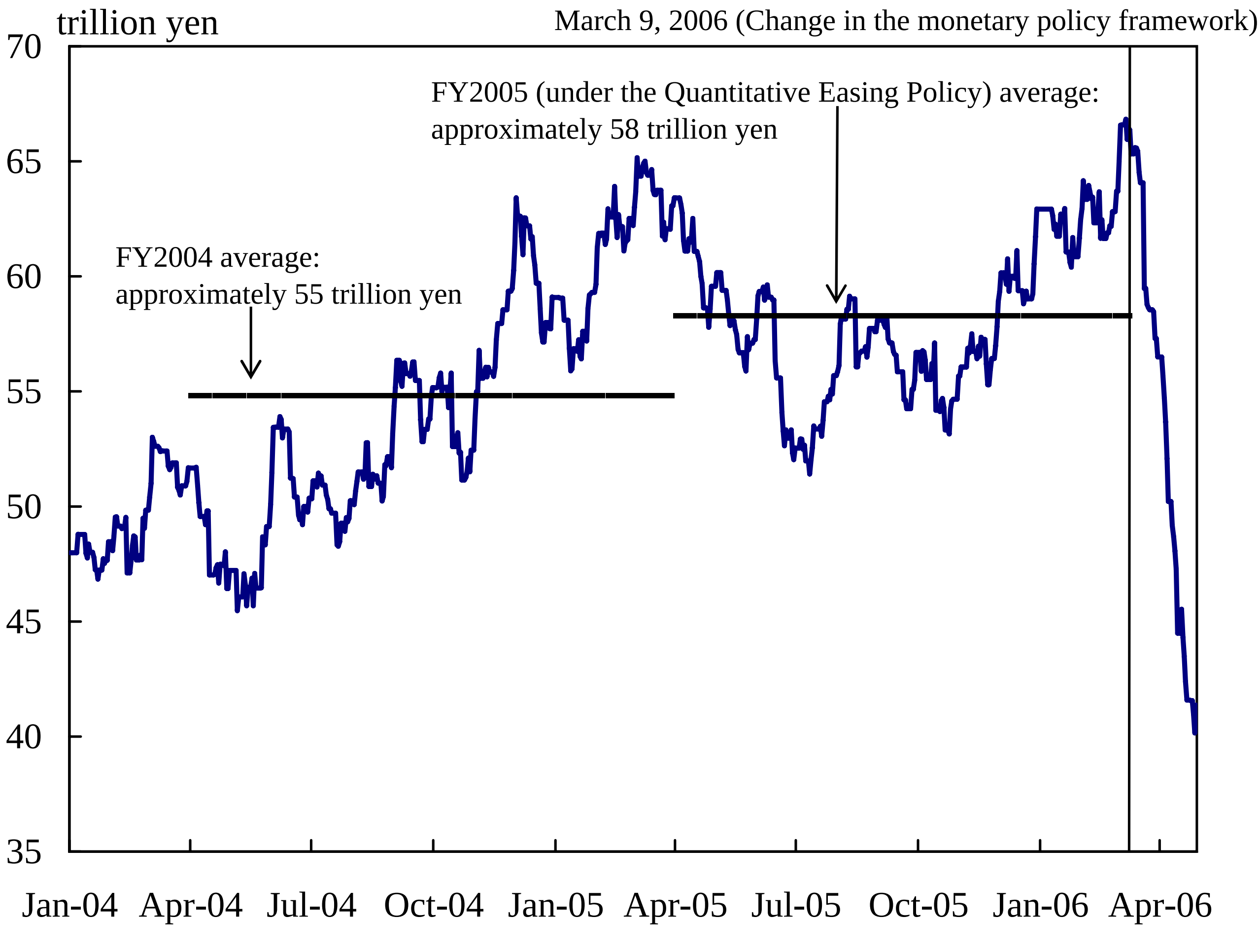
Treasury Funds and Others



Note: Cumulative figures for Fiscal 2005. Adjusted for the effects of TB/FB purchasing/selling operations.

Source: Bank of Japan

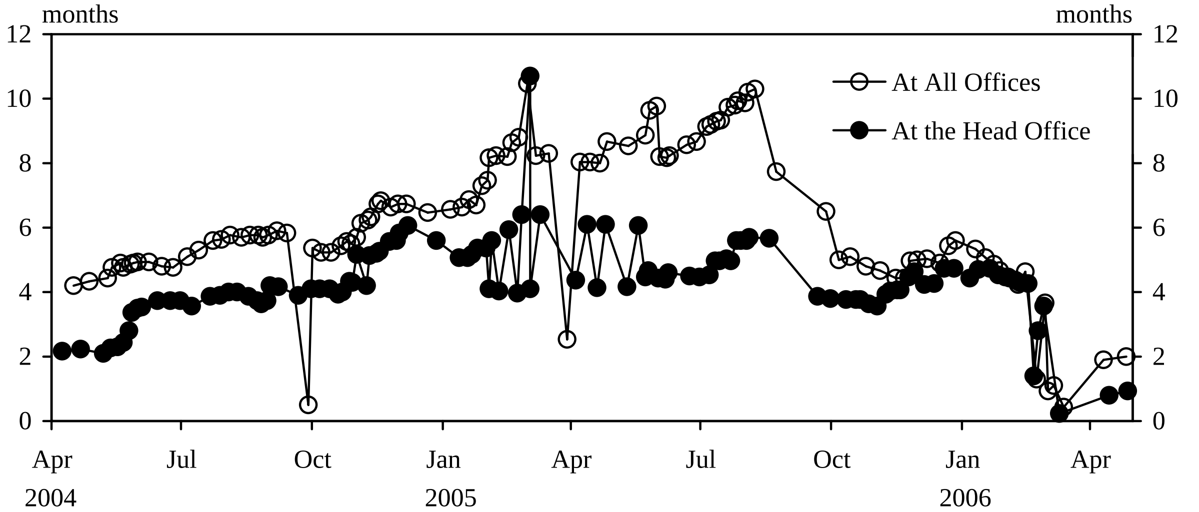
[Chart4] Amounts Outstanding of Short-Term Funds-Supplying Operations



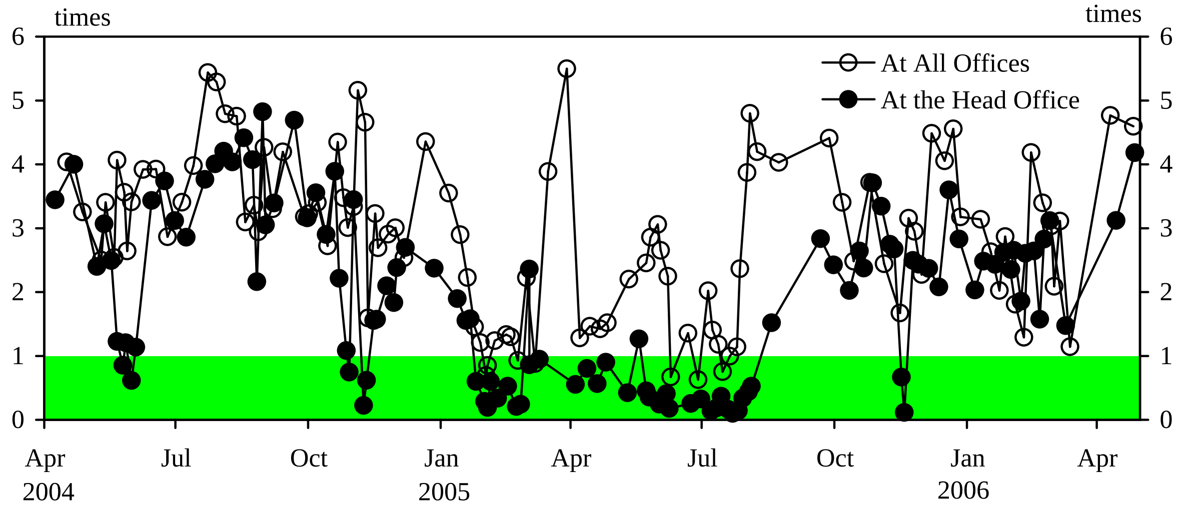
Source: Bank of Japan

[Chart5] Outright Purchases of Bills

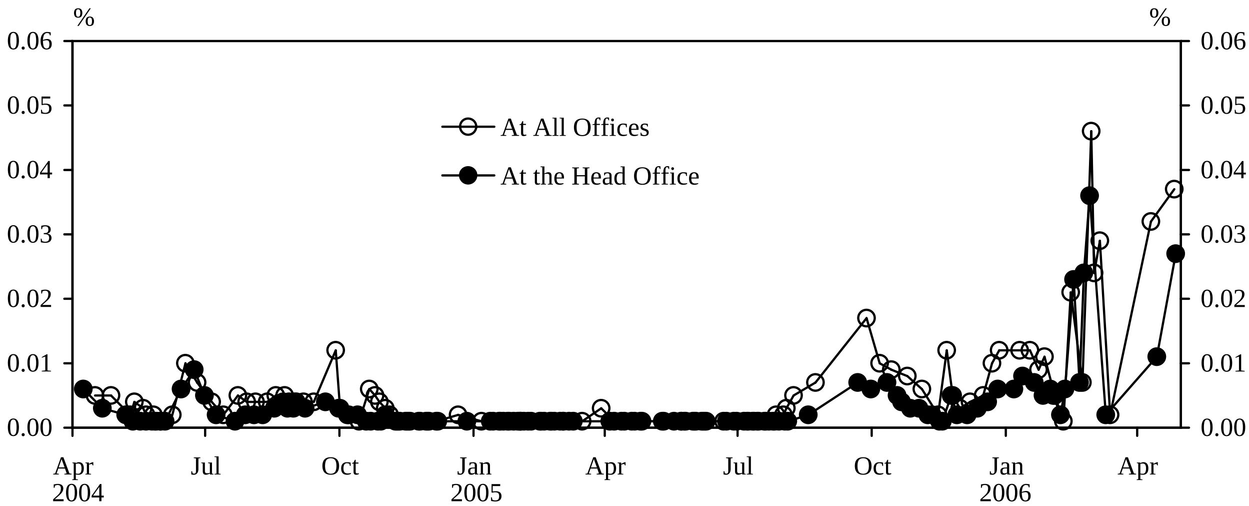
(1) Maturities



(2) Bid-Cover Ratio



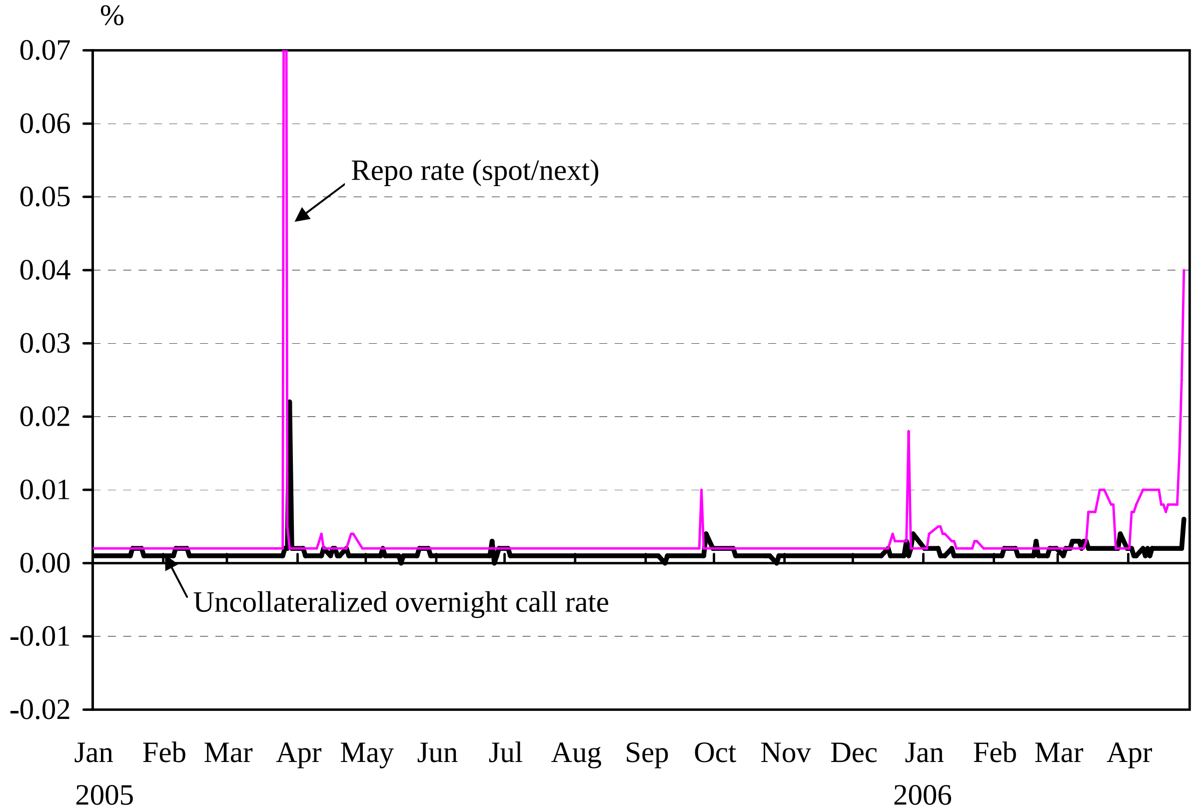
(3) Average Successful Bid Rate



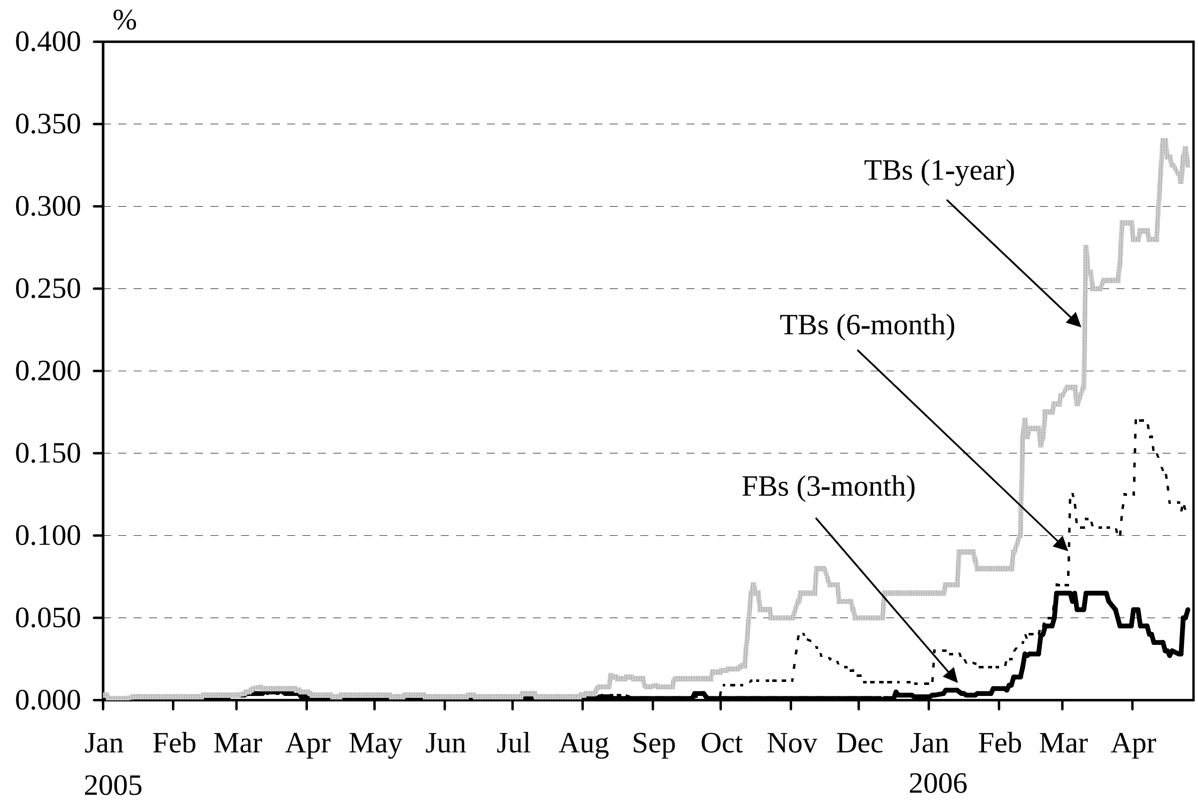
Note: Counted on dates of offer
Source: Bank of Japan

[Chart6] Short-Term Interest Rates

(1) Uncollateralized Overnight Call Rate and Repo Rate

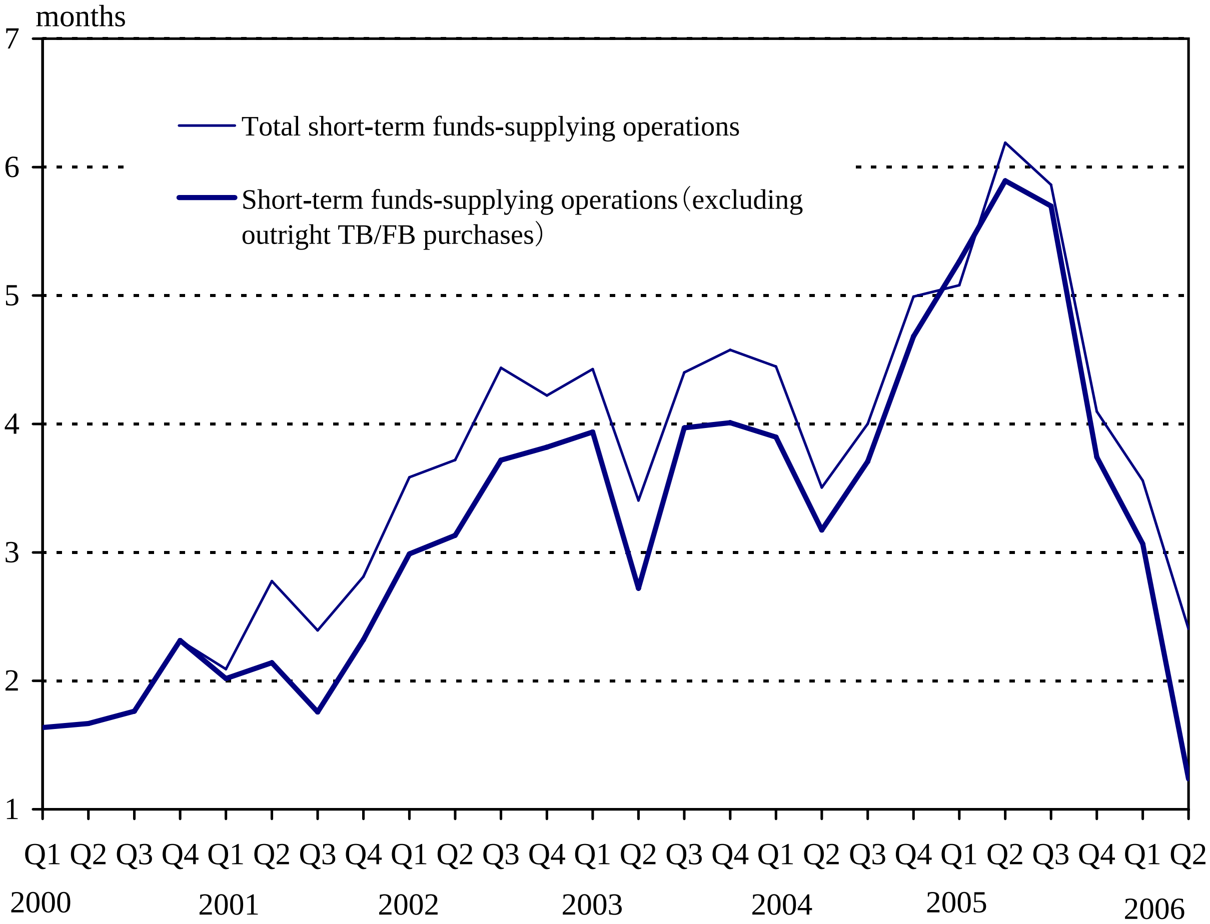


(2) Rates on TBs and FBs



Sources: Bank of Japan; Japan Bond Trading Co, Ltd.

[Chart7] Maturity of Short-Term Funds-Supplying Operations



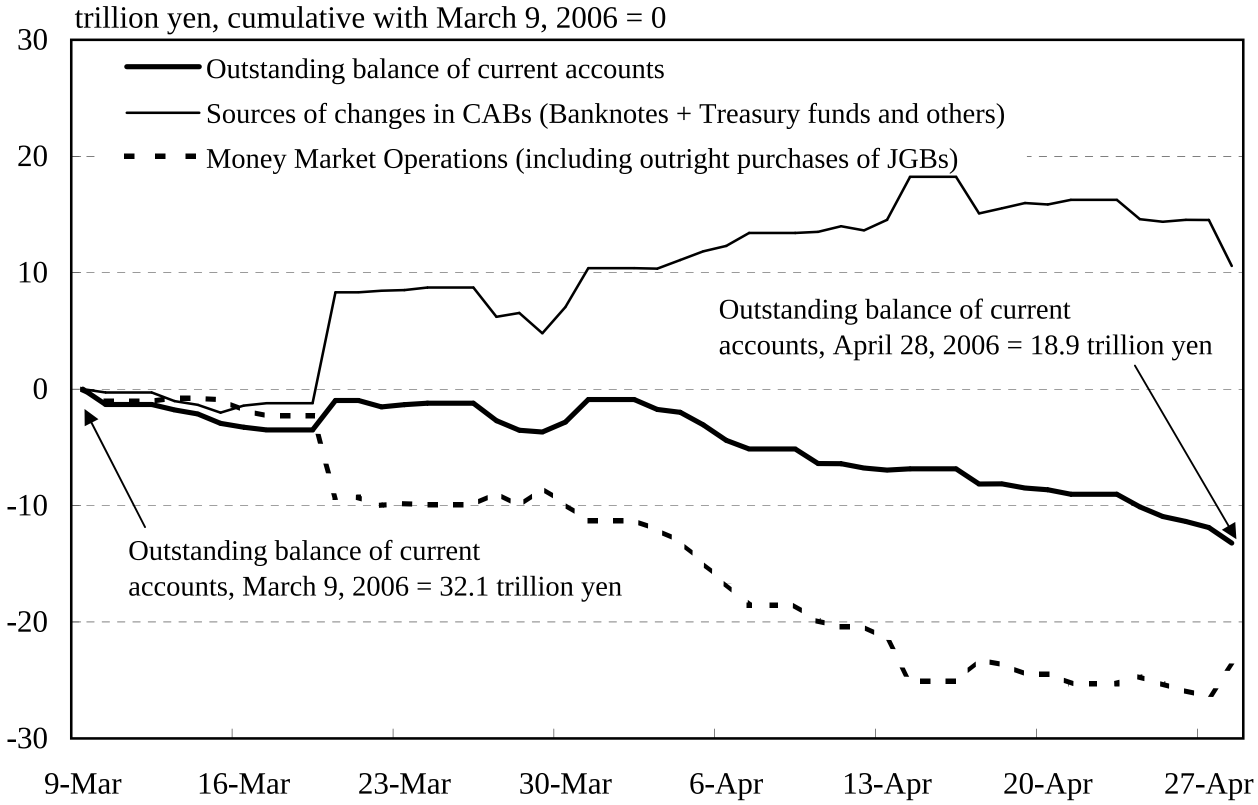
Notes 1. "Total short-term funds-supplying operations" is the weighted average amount of quarterly offerings of following operations: (1) the maturities of outright purchases of bills, JGS repo transactions (JGS purchases with repurchase agreements, JGS borrowings, and TB/FB purchases with repurchase agreements) and CP purchases with repurchase agreements, and (2) the remaining maturities of issues actually purchased in TB/FB operations.

2. "Short-term funds-supplying operations (excluding outright TB/FB purchases) is the weighted average amount of the operations listed in note 1, by maturities.

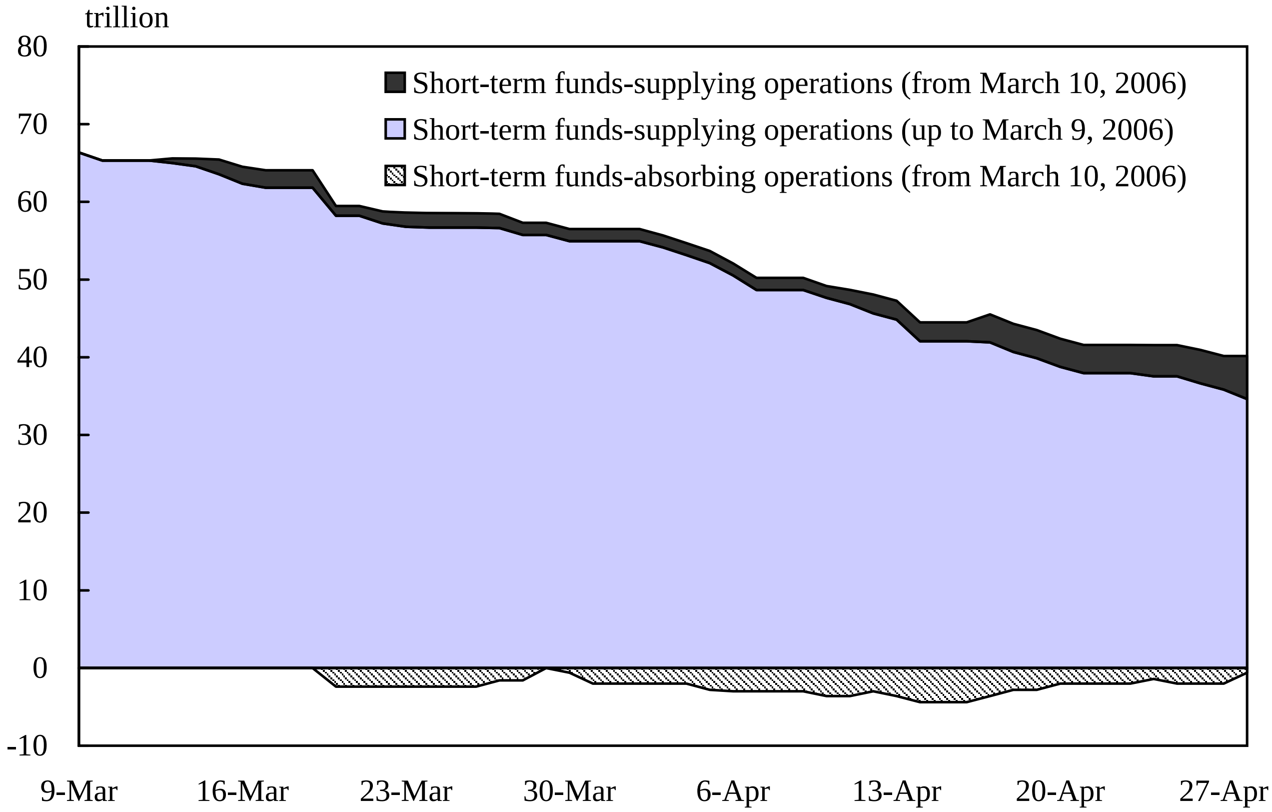
3. Q2 2006 data include those on operations offered as of April 28, 2006.

Source: Bank of Japan

[Chart8] Outstanding Balance of Current Accounts after the March 2006 Change in the Monetary Policy Framework



Note: Adjusted for the effect of TB/FB purchasing/selling operations.



Source: Bank of Japan

[Chart9] Bank of Japan's Balance Sheet and Amounts Outstanding of Market Operations

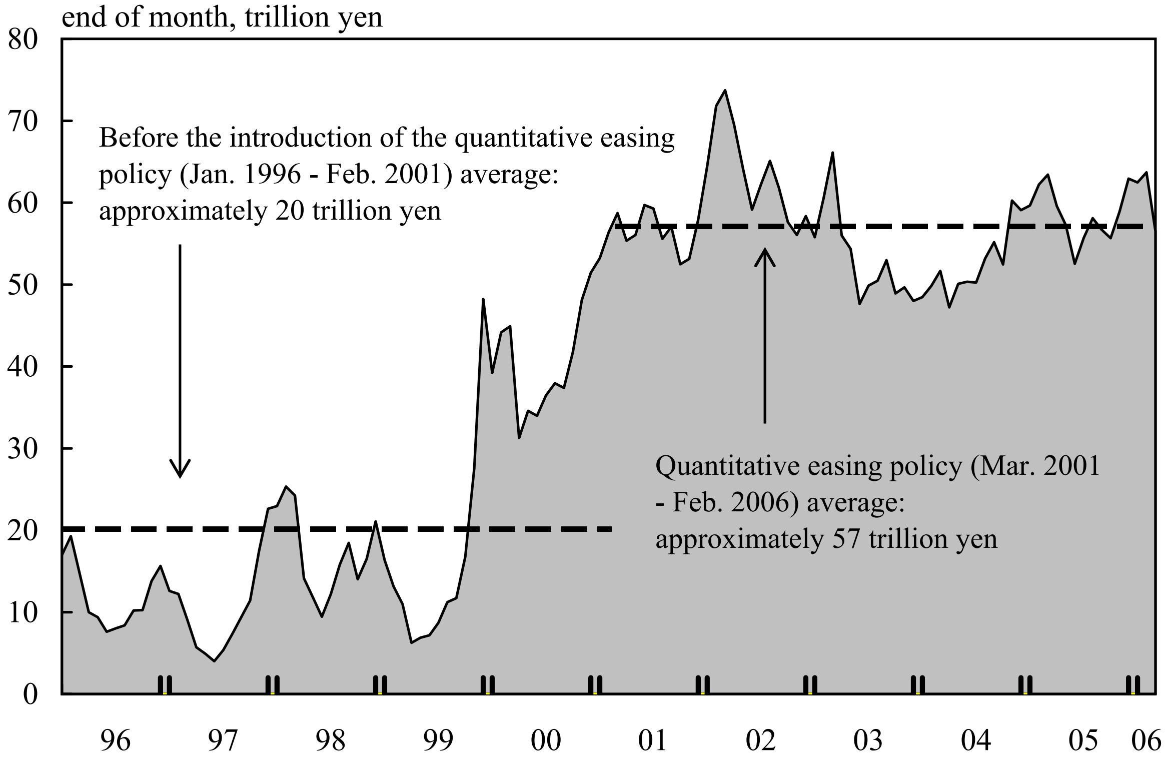
(1) Bank of Japan's Balance Sheet

Assets				Liabilities			
	End-March 2006 (a)	End-March 2005 (b)	Change (a-b)		End-March 2006 (a)	End-March 2005 (b)	Change (a-b)
Short-term funds-supplying operations	56.5	63.4	▲ 6.9	Short-term funds-absorbing operations	2.0	2.3	▲ 0.3
TBs/FBs underwritten by the Bank (excluding market operations)	19.5	15.6	+3.9	CABs	31.2	35.8	▲ 4.6
Long-term JGBs	60.5	65.3	▲ 4.8	Government deposits and other debt	27.3	29.8	▲ 2.5
Stocks held as trust property	1.9	2.0	▲ 0.1	Banknotes	75.0	74.7	+0.3

Notes: 1. Only core balance sheet items are shown.
2. "TBs/FBs underwritten by the Bank" includes FBs underwritten by the Bank to supply yen funding to foreign central banks and other overseas account holders and TBs underwritten by the Bank to roll over JGBs and TBs.

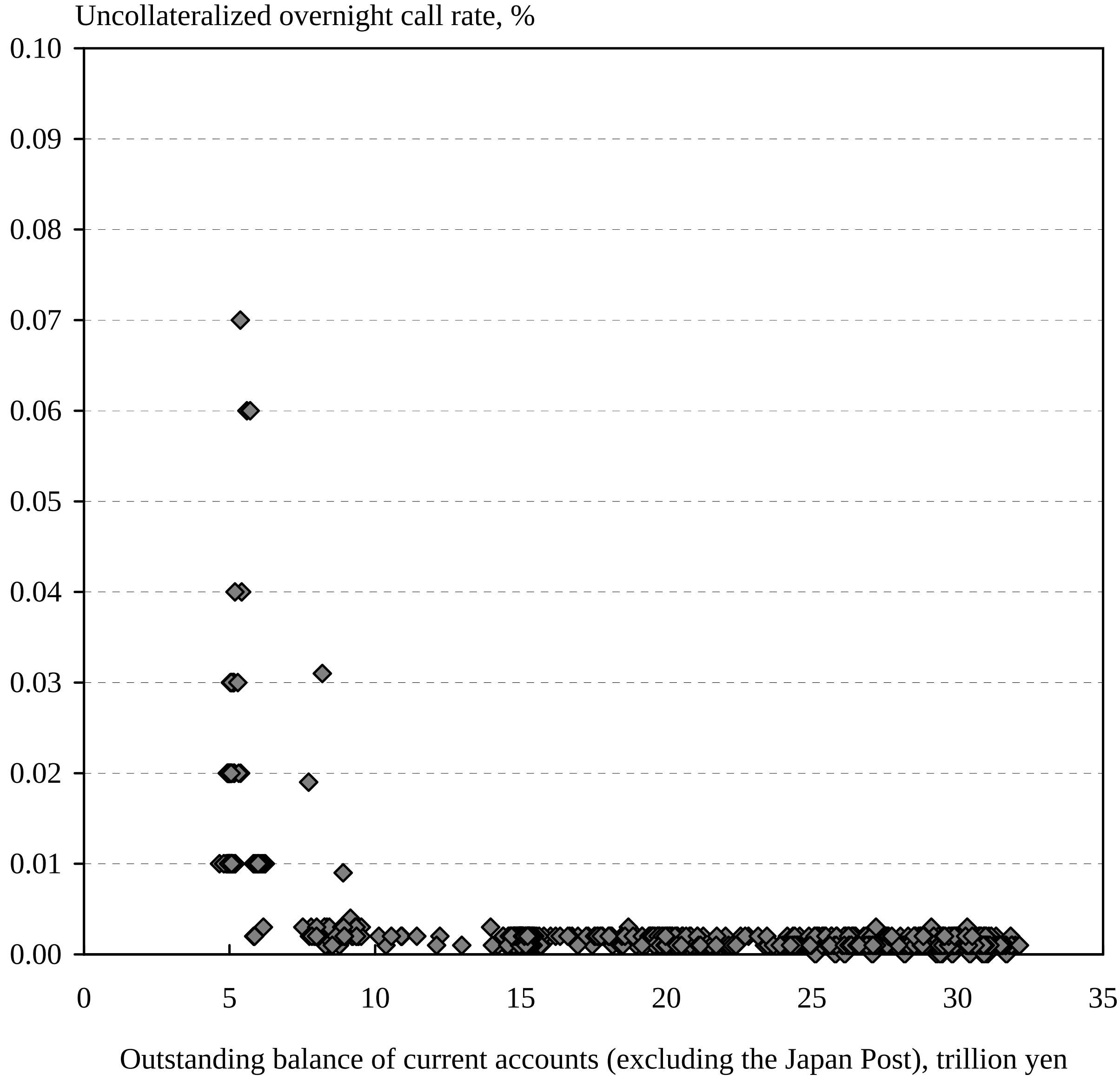
Source: Bank of Japan, "Monetary Base and the Bank of Japan's Transactions," "Bank of Japan's Transactions with the Government.'

(2) Amounts Outstanding of Short-Term Funds-Supplying Operations



Source: Bank of Japan

[Chart10] Uncollateralized Overnight Call Rates and the Outstanding Balance of the Bank's Current Accounts under the Quantitative Easing Policy

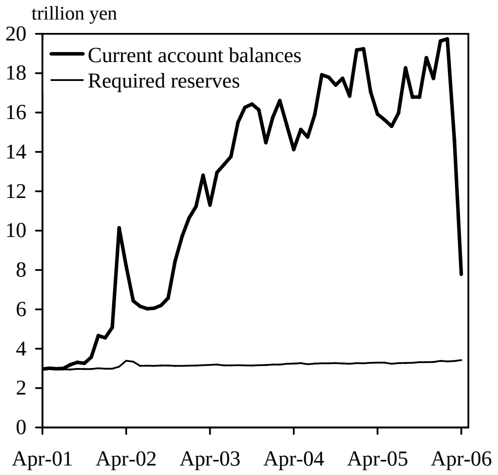


Notes: 1. Excludes data for end of year and end of fiscal year.
2. Excludes data for May 15, 2001 (outstanding balance of current accounts at 6.3 trillion yen; call rate at 0.16 percent).

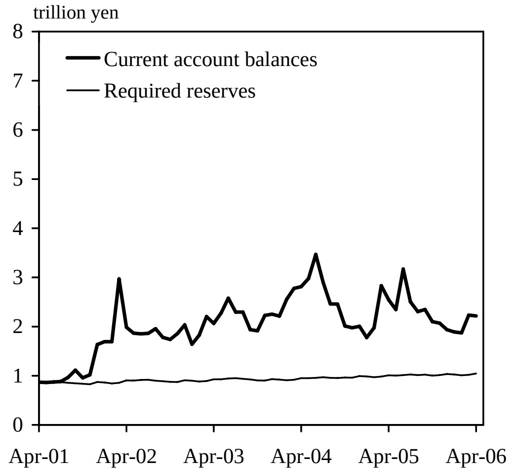
Source: Bank of Japan

[Chart11] Current Account Balances by Sector

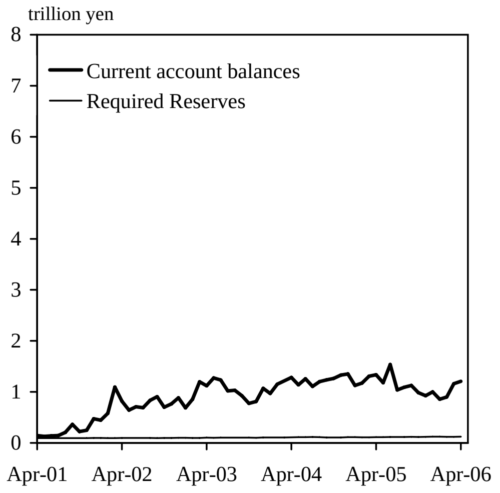
(1) City Banks



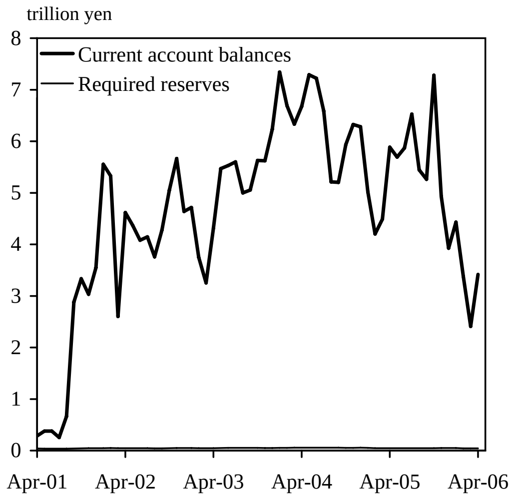
(2) Regional Banks



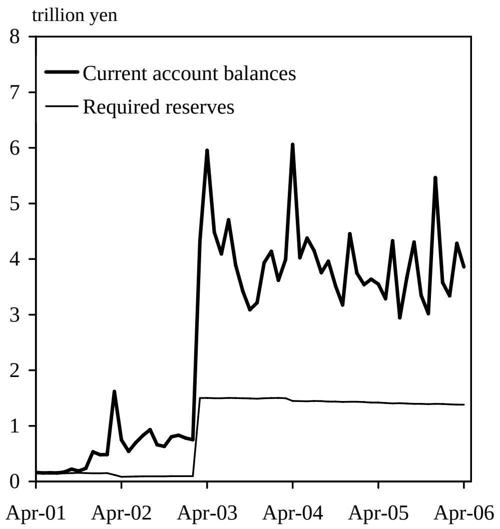
(3) Regional Banks II



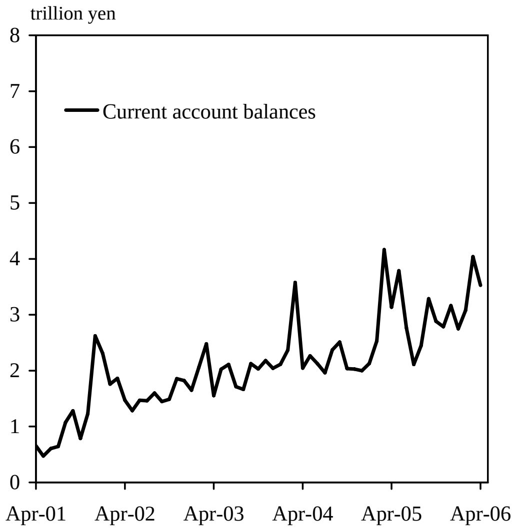
(4) Foreign Banks



(5) Other Institutions Subject to Reserve Requirements (Including the Japan Post)



(6) Institutions Not Subject to Reserve Requirements (Excluding the Japan Post)

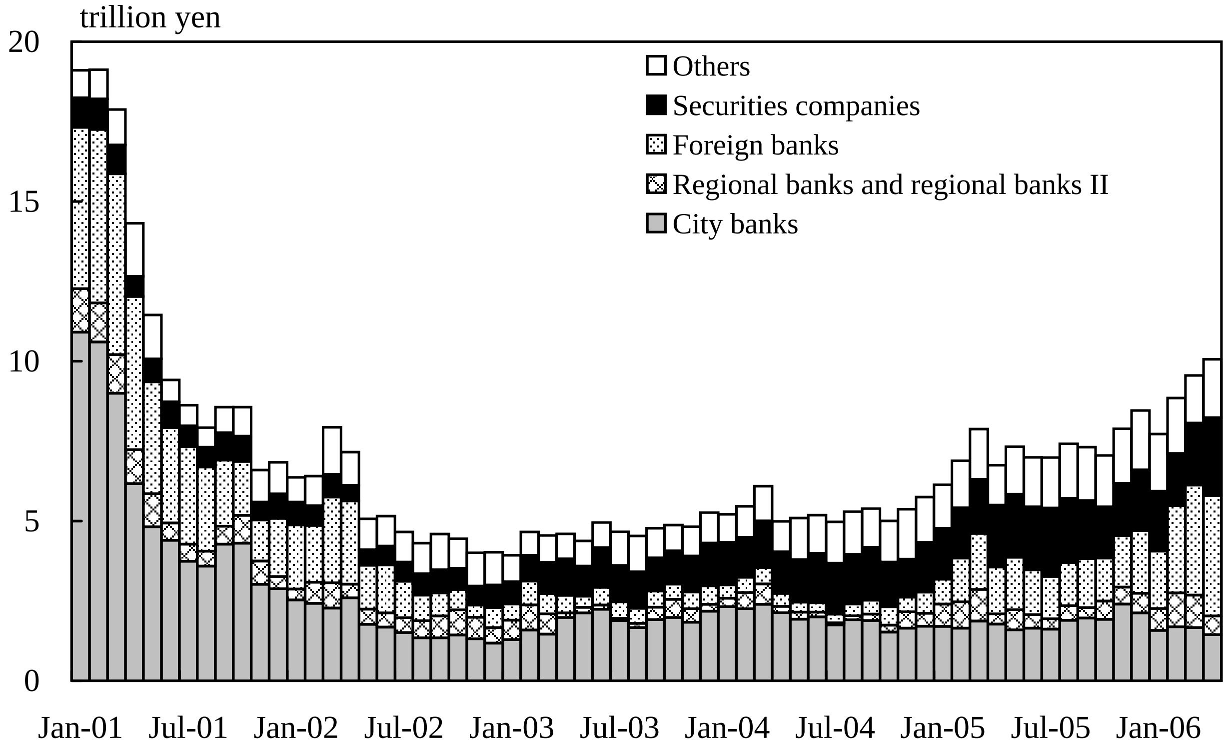


Notes: 1. Average amount outstanding in the reserve maintenance period.
2. "City banks" includes city banks, trust banks, and the Norinchukin Bank (28 institutions as of end -April 2006).
Source: Bank of Japan

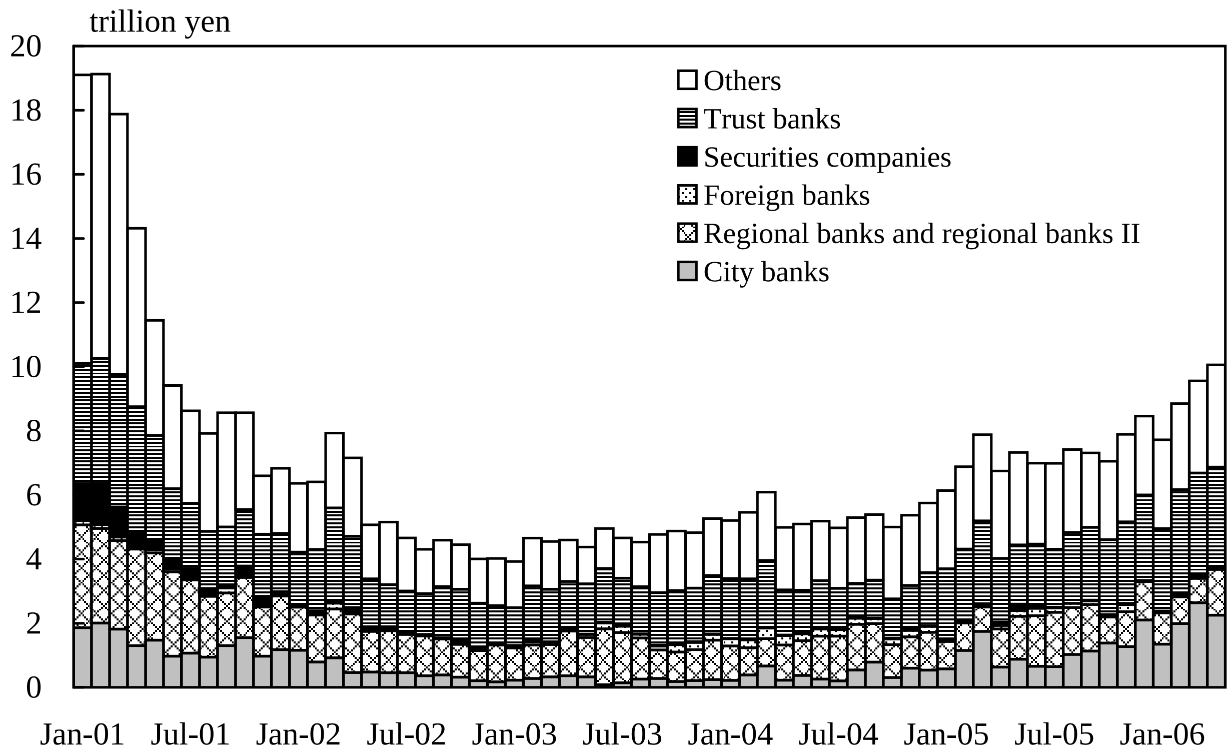
[Chart12-1] Amounts Outstanding in the Call Market: By Sector of Participants

(1) Uncollateralized Call Market

By Borrower



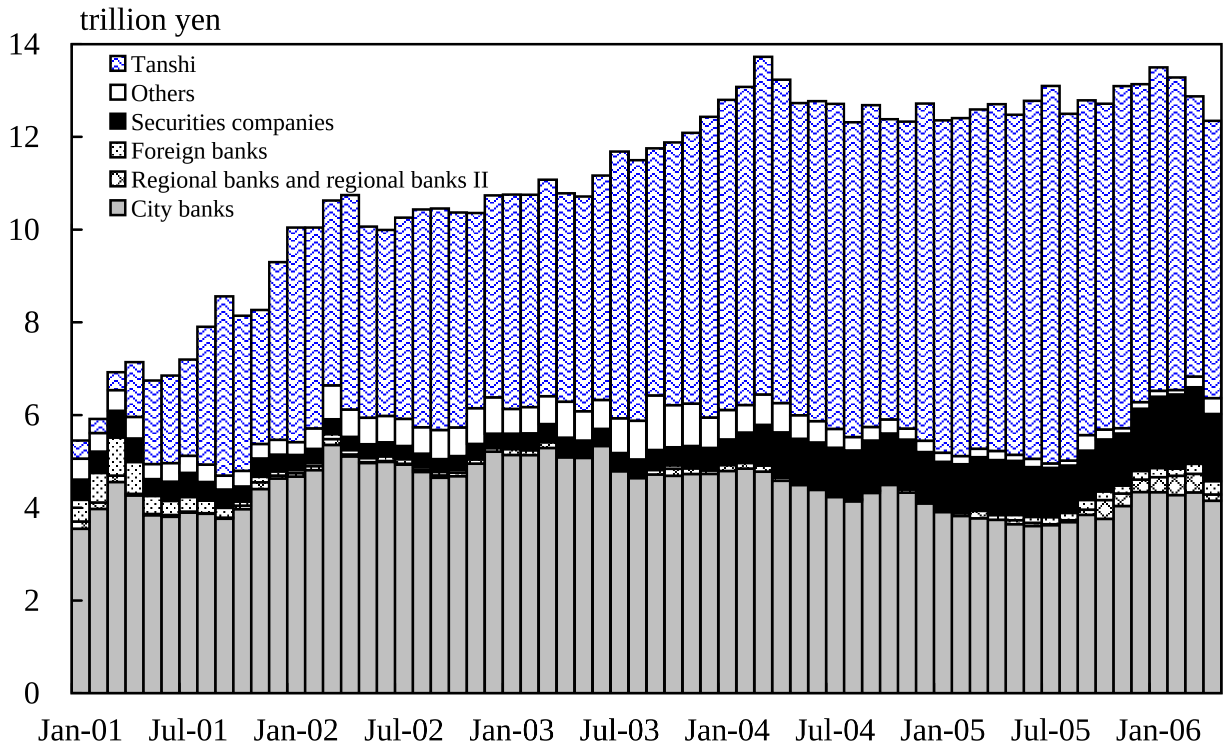
By Lender



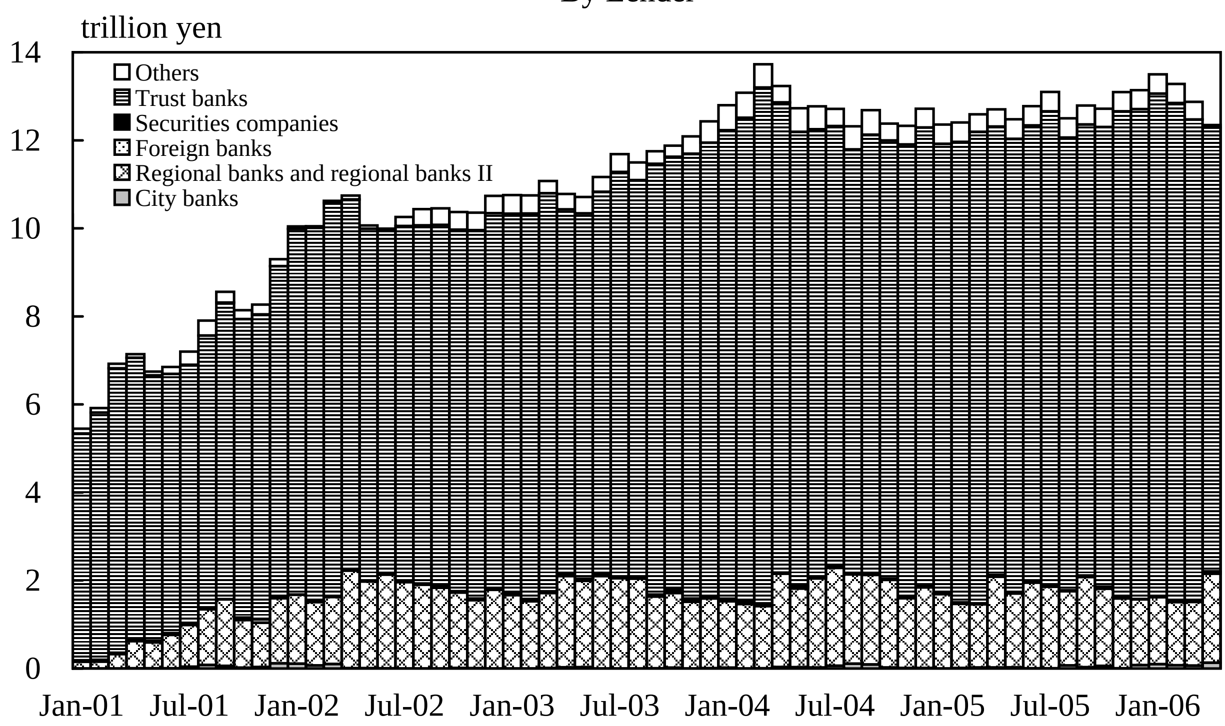
[Chart12-2] Amounts Outstanding in the Call Market:
By Sector of Participants

(2) Collateralized Call Market

By Borrower



By Lender



Notes: "City banks" includes city banks, Shinsei Bank, and Aozora Bank.
"Securities companies" includes securities companies and securities finance companies.

Source: Bank of Japan

[Chart13] Short-Term Interest Rate Movements in Japan, the United States, and the Euro Area

%

	the United States	Euro Area	Japan
Overnight rates	FF	EONIA	Uncollateralized overnight call
Average standard deviation (1)	0.15	0.14	0.03
Maximum standard deviation (2)	0.71 [3.00]	0.32 [3.75]	0.06 [1.00]
Minimum standard deviation (3)	0.04 [1.25]	0.03 [2.50]	0.01 [0.15]

Notes: 1. "Average standard deviation" shows the average standard deviation for uncollateralized overnight rates for each period where certain policy rate is applied within the periods specified in note 2(1). Within the periods specified in note 2(1), "maximum standard deviation" shows that for the periods specified in note 2(2), which are periods where standard deviation is largest; "minimum standard deviation" shows that for the periods specified in note 2(3), which are periods where the standard deviation is smallest.

2. Figures in parentheses [ ] show the monetary policy rates for the period. Each item described in note 1 corresponds to the following period:

(1) the United States: Jan. 1995 to end-April 2006; Euro area: Jan. 1999 to end-April 2006; Japan: Jan.1995 to Mar. 2001

(2) the United States: Sep.18, 2001 to Oct. 2, 2001; Euro area: Sep. 18, 2001 to Nov. 8, 2001; Japan: Jul. 7, 1995 to Sep. 7, 1995

(3) the United States: Nov. 7, 2002 to Jun. 25, 2003; Euro area: Mar. 8, 2006 to Apr. 28, 2006; Japan: Mar. 1, 2001 to Mar. 19, 2001

Sources: Bloomberg, Bank of Japan

[Chart14] Amounts Outstanding of Market Operations

trillion yen

	end-Mar. 2005	end-Sep. 2005	end-Mar. 2006	end-Apr. 2006
Net amounts outstanding of short-term funds-supplying operations	61.1	55.3	54.5	40.8
Short-term funds-supplying operations	63.4	56.3	56.5	41.4
Purchases of JGSs with repurchase agreements	2.7	2.1	2.8	0.4
Outright purchases of bills	37.6	37.0	37.8	28.0
At the Head Office	12.9	8.0	14.2	11.6
At all offices	24.8	29.1	23.6	16.4
Purchases of CPs with repurchase agreements	2.5	2.6	2.4	1.2
Outright purchases of TBs/FBs	20.5	14.5	13.4	11.7
Outright purchases of ABSs	0.1	0.1	0.1	0.1
Short-term funds-absorbing operations	2.3	1.0	2.0	0.6
Outright sales of bills	1.8	0.6	1.4	0.6
Sales of JGSs with repurchase agreements	0.5	0.0	0.6	0.0
Outright sales of TBs/FBs	0.0	0.4	0.0	0.0
Outright purchases of long-term JGBs	65.3	62.4	60.5	60.6

Note: "Outright purchases of long-term JGBs" is the amount of outright purchases of JGBs and that of JGBs rolled over at maturity and underwritten by the Bank.

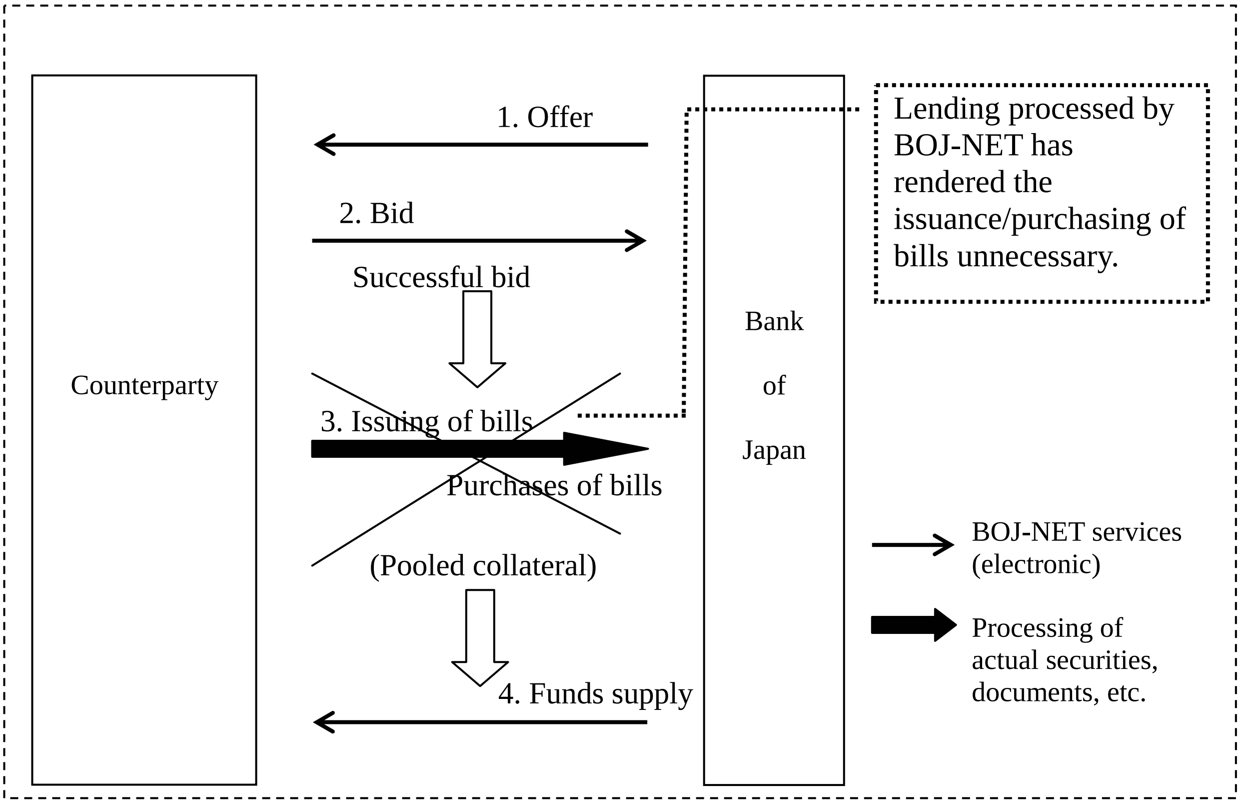
Source: Bank of Japan, "Monetary Base and the Bank of Japan's Transactions," "Sources of Changes in Current Account Balances at the Bank and Market Operations."

[Chart15] General Description of Funds-Supplying Operations against pooled collateral

(1) Comparison with Outright Purchases of Bills (currently invalid)

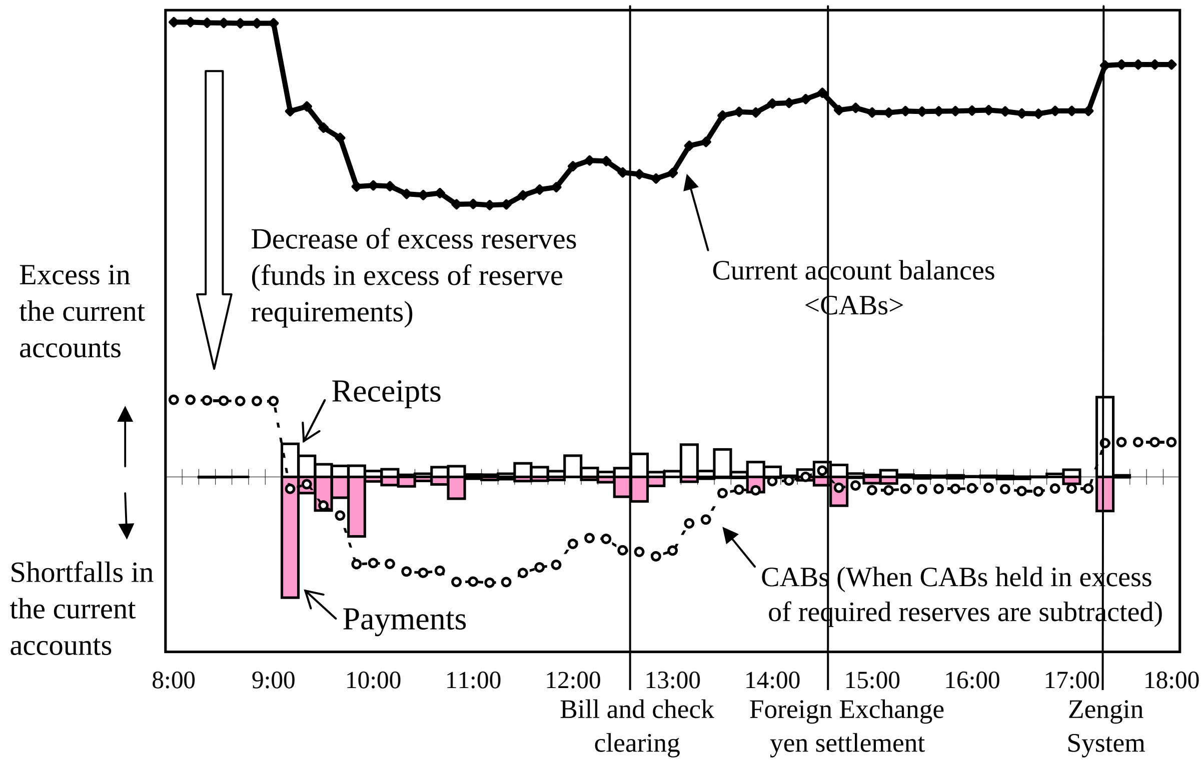
	Funds-supplying operations against pooled collateral	(Reference) Outright purchases of bills
Form of transactions	Collateralized loans to financial institutions	Purchases of bills issued by financial institutions
Location of operations	The Bank's Head Office (Operations Department) or its branches.	
Eligible counterparties	Selected from applying financial institutions , securities companies, securities finance companies and *tanshi* companies	
Term	Within 1 year	
Interest rate	The lending rate is determined by multiple-rate competitive auction.	The rate of discount is determined by multiple-rate competitive auction.
Collection of interest	After maturity	Upfront
Collateral	"Guideline on Eligible Collateral" shall apply (pooled collateral).	

(2) Scheme of Market Operations Based on Pooled Collateral



[Box3 Chart] Intra-day Movements in the Financial Institutions' Current Account Balances at the Bank (Sample Case)

(1) Financial Institutions that Repay Lenders by 10 a.m.



(2) Financial Institutions that Receive Repayments by 10 a.m.