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Money Market Operations in Fiscal 2007

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Summary

Throughout fiscal 2007, the Bank of Japan conducted money market operations with the uncollateralized overnight call rate as the operating target. The target level for the uncollateralized overnight call rate remained at "around 0.5 percent" throughout all of fiscal 2007 (Chart 1). During this period, the basic loan rate applied to the complementary lending facility was 0.75 percent (Chart 1).

Beginning in August 2007, the U.S. and European money markets experienced turmoil arising from the subprime mortgage loan problems. The Japanese money market also showed tension mainly around the end of the calendar and fiscal years. Consequently, in the money market operations undertaken, more attention was paid than usual to ensuring the stability of the money market.

Specifically, the Bank maintained close contact with foreign central banks to gain an accurate grasp of developments in overseas markets, strengthened its monitoring of the domestic money market, and implemented flexible and finely tuned operations. For instance, to facilitate fund-raising by financial institutions, funds-supplying operations with maturities over the end of the calendar and fiscal years were started earlier than in the previous year. The Bank also used a variety of operational tools to flexibly supply funds in response to market conditions. Active funds-supplying operations and flexible funds-absorbing operations were implemented to respond to interest rate fluctuations observed on days such as ends of fiscal and semi-fiscal years and the last days of reserve maintenance periods.

Under these money market operations, the uncollateralized overnight call rate moved steadily around the target level throughout fiscal 2007, and relatively stable conditions were maintained in the domestic money market. During this period, current account balances at the Bank fluctuated mainly in the range of 7 - 10 trillion yen and excess reserves continued to decrease.

A number of revisions were made in the conduct of money market operations during fiscal 2007. In addition to the periodic review of collateral value of eligible collateral, the timing of the release of projections of daily reserve balances was moved up as part of an effort to improve the functioning of the money market.

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

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

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

During fiscal 2007 (April 2007 – March 2008), developments in autonomous factors worked in the direction of decreasing the outstanding balance of current accounts, as was the case in fiscal 2006. The contribution made by autonomous factors amounted to 20.4 trillion yen, up from 16.7 trillion yen in fiscal 2006. This was mainly due to the increase in issuance of financing bills (FBs) in the market and the increase in the yen deposits of overseas account holders, whereas the amount of Japanese government bonds (JGB)[2] issuance declined in fiscal 2007. The following section describes the developments of individual factors (Chart 2).

A. Banknotes

Net issuance of banknotes for fiscal 2007 was 0.6 trillion yen, a decrease from the 0.9 trillion yen in fiscal 2006. During fiscal 2007, the net issuance increased toward the end of the year, and the outstanding balance of banknotes exceeded 80 trillion yen. Thereafter, the outstanding balance declined due to net redemption.

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 is a concept encompassing all of the treasury payments and receipts except payments and receipts related to issuance and redemption of JGBs and FBs, as well as transactions of foreign exchange (payments and receipts mainly related to foreign exchange intervention). "Fiscal payments and revenues" resulted in a net payment of 40.6 trillion yen, slightly up from 39.6 trillion yen in fiscal 2006. The increase in net payments mainly reflects the increase in repayments of Fiscal Loan Fund deposits.

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

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

C. JGBs

"JGBs" include issuance and redemption of interest-bearing JGBs (long-term JGBs) and treasury bills (TBs).[3] Issuance continued to exceed redemption by a large margin, leading to net government receipts of 49.8 trillion yen. This was down slightly from net receipts of 51.8 trillion yen in fiscal 2006, reflecting the decrease in issuance of refunding bonds.

D. Financing Bills

Net receipts of "Financing bills" (FBs) was 9.7 trillion yen in fiscal 2007, an increase from 6.7 trillion yen in the previous year, reflecting an increase of issuance in the market.

E. Foreign Exchange and Others

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

"Others" made a negative contribution of 1.1 trillion yen to the outstanding balance of current accounts at the Bank as compared to a positive contribution of 3.2 trillion yen in fiscal 2006. This was primarily due to the increase in the yen deposits of overseas account holders.[4]

The developments of factors affecting current account balances as described above can be summarized as (i) changes in banknotes, (ii) changes in treasury funds and others, and (iii) "excess and shortage of funds" derived from the sum of the preceding two factors. Regarding these three items, the Bank compiles and releases the following; projections for the next business day, and preliminary and final figures for the day.[5] Furthermore, the Bank releases projections of the reserve balances of the day every morning.[6] The release of information by the Bank compares favorably with the information provided by central banks in other leading

[3] Footnote 1 refers to "autonomous factors" as preconditions for the central bank's money market operations. However, among those factors, "treasury funds and others" is actually influenced by the Bank's purchases/sales of 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 institutions and holds them to maturity, redemption funds that would have been deposited in current accounts of the financial institutions involved are paid to the Bank. This transaction results in a decline in treasury payments to current accounts. (The opposite occurs when 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, its 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 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.

[4] The Bank accepts yen deposits from foreign central banks and international organizations. An increase in the balance of such deposits would normally contribute as a decreasing factor in the outstanding balance of current accounts at the Bank, while a decrease would contribute as an increasing factor. 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.

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

[6] See Section VI. B.

countries.[7] The release of these projections provides market participants with useful information for predicting money market conditions and the Bank's money market operations of the day. This information may also be useful in making decisions on investment and fund-raising from the market.

A comparison of the daily projections of changes in the next day's current account balances at the Bank and the actual figures for fiscal 2007 indicates that, on average, projections of excesses and shortages of funds were accurate within a range of plus or minus 60 billion yen, roughly on par with the range of plus or minus 50 billion yen in fiscal 2006. The accuracy of these projections implies that projection error rarely exerted a significant impact on money market operations (Chart 3). However, on certain days, the projections were off the mark by several hundred billion yen. In such instances, it was occasionally necessary to additionally adjust the current account balances at the Bank through operations conducted on the same day. A review of the projection errors broken down into "banknotes" and "treasury funds and others" shows that the absolute size of the gap between projections and actual figures continues to be significantly larger for the autonomous factor of "treasury funds and others," reflecting the fact that payments and receipts of treasury funds significantly exceed banknote payments and receipts. Among factors in "treasury funds and others," daily fluctuations in yen deposits of overseas account holders have increased compared to the previous year. This development has acted to broaden the gap between projections and actual figures for excesses and shortages of funds.[8]

II. Developments in Money Market Operations

A. Developments During Fiscal 2007

Throughout fiscal 2007, the Bank of Japan conducted money market operations with the uncollateralized overnight call rate as the operating target with a target level of "around 0.5 percent." During this period, the basic loan rate applied to the complementary lending facility was 0.75 percent.

A review of the developments in Japan's money market during fiscal 2007 indicates that, beginning in August 2007, the market was affected by the turmoil in the U.S. and European money markets arising from the subprime mortgage loan problems. In particular, the domestic money market showed tension mainly around the end of the calendar and fiscal years. As a result of tighter supply and demand conditions, interest rates rose sharply on term transactions extending over the end of the calendar and fiscal years, and the overnight general collateral

[7] The U.S. Federal Reserve System does not release projections of reserve balances on a daily basis. The European Central Bank releases estimates of the daily average amount of autonomous factors for the period of approximately one week at the announcement and allotment of weekly main refinancing operations. These differences in practice may be due to such factors as availability of pertinent information, and differences in the range of fluctuations of excesses and shortages of funds (fluctuations in the U.S. and the Euro area are smaller than in Japan.)

[8] During fiscal 2006, after July 18 when the target level for the uncollateralized overnight call rate was raised, the estimated absolute size of fluctuations in the autonomous factor of yen deposits of overseas account holders averaged about 46 billion yen and standard deviation came to about 52 billion yen. In fiscal 2007, the average and standard deviation both came to about 64 billion yen.

(GC) repo rate[9] frequently showed upward movement. In the call market, fund-raising by foreign banks who are major borrowers in this market decreased during the second half of the fiscal year. On the other hand, lenders adopted a more cautious stance on lending toward the end of the fiscal year.

Against this backdrop, greater attention was paid to ensuring the stability of the markets in money market operations conducted after August. During this period, the uncollateralized overnight call rate moved steadily at the target level of “around 0.5 percent,” and use of the complementary lending facility remained at low levels compared to the previous year (Chart 4). Reflecting such developments, it is considered that relatively stable conditions were maintained in the domestic money market during fiscal 2007. On the other hand, some financial institutions were seen to increase fund-raising through the Bank’s operations.

In the remainder of this section, developments in money market operations are observed separately for the periods preceding and following the market turmoil, with a focus on the impact of the turmoil and the Bank’s operations and other responses.

[1] Period through July 2007

At the start of fiscal 2007, the Bank continued to enhance the market’s autonomous interest rate formulation as in the previous year in conducting its money market operations in line with the recovery of the functioning of the money market. Starting on April 16, the Bank moved up the time of its release of projections of reserve balances to around 8 a.m. This had the effect of reducing intra-day volatility in the uncollateralized overnight call rate. In this environment, the uncollateralized overnight call rate generally moved at the level of “around 0.5 percent.” Meanwhile, the uncollateralized overnight call rate rose to 0.605 percent on the last business day of June (June 29), which reflected the cautious stance taken by lenders as financial institutions tended to restrain their holdings of risk assets under the capital adequacy requirements.

[2] Period after August 2007

(From August to September)

During August, the turmoil in global financial markets arising from the subprime mortgages, and supply and demand conditions became increasingly tighter in the U.S. and European money markets. On August 9, the European Central Bank (ECB) responded to this situation by conducting fine tuning operations with full allotment at fixed rate. The U.S. Federal Reserve System (FRS) also acted to supply large volumes of funds through multiple over-the-weekend repo operations. Notwithstanding these actions, tightness in the supply and demand for funds persisted. This led the ECB to increase the volume of its main refinancing operations (one-week transactions) and to conduct supplementary 3-month longer-term refinancing operations. The FRS also began to arrange repo operations of one-week maturity more routinely.

Tight supply and demand conditions in the U.S. and European money markets affected Japan’s money market by exerting upward pressure on interest rates. To suppress the rise in interest

[9] The general collateral repo rate applies to transactions where the JGS issues to be used in the lending/selling transactions are not specified. By contrast, the special collateral repo rate applies to transactions where the JGS issues to be used in the lending/selling transactions are specified.

rates, the Bank responded on August 10 by undertaking a one trillion yen funds-supplying operation on an overnight basis. Further action was taken on August 13 with one-week funds-supplying operations on a same-day start basis. Because these actions were taken toward the end of the July reserve maintenance period, they resulted in large decrease in remaining required reserve balances and substantially eased supply and demand conditions on August 14 and 15. At this point, although the Bank conducted large-scale funds-absorbing operations, the uncollateralized overnight call rate fell sharply, to 0.235 percent on August 14 and 0.330 percent on August 15.

With the start of the August reserve maintenance period, the uncollateralized overnight call rate again moved upward, reflecting the rise in the GC repo rate as well as the frontloading of the accumulation of reserve balances by some financial institutions on growing expectations of a rise in the target level of the uncollateralized overnight call rate. The Bank responded by adopting a flexible stance in supplying funds in late August. Specifically, same-day funds-supplying operations were conducted on four consecutive business days and JGS purchasing operations with repurchase agreements were conducted very frequently, almost on a daily basis. Use of the complementary lending facility was also seen during this period (Chart 4).

As the end of the semi-fiscal year approached in the end of September, interest rates on term transactions remained high (Chart 5). The Bank moved to ensure an ample supply of funds with maturity over the end of the semi-fiscal year by conducting funds-supplying operations against pooled collateral, JGS purchases with repurchase agreements and CP purchases with repurchase agreements. On September 28, the last business day of the semi-fiscal year, lenders in the uncollateralized call markets generally adopted a more cautious stance as financial institutions moved to reduce their risk asset holdings. At the same time, some financial institutions exhibited strong fund-raising needs. The Bank responded to this situation by making two offers of overnight funds-supplying operations totaling 1.8 trillion yen. At this juncture, the uncollateralized overnight call rate rose to 0.675 percent, but the complementary lending facility remained unused.

As described above, during this period, the Bank was able to continue its money market operations without making any changes in its operational framework or tools. On the other hand, beginning in August, the Bank maintained closer contact with foreign central banks to carefully monitor developments in overseas markets. The Bank also strengthened its monitoring of the domestic money market and paid greater attention to maintaining market stability.

(Approaching the End of the Calendar Year)

By the second half of November, growing losses reported by U.S. and European financial institutions triggered fears of credit contraction in the U.S. and European financial markets. This led to increasing uncertainty on access to adequate funds to extend over the end of the calendar year. As a result, dollar and euro interbank interest rates, especially the rates on term transactions extending over the end of the year rose, and there was a sharp widening in the LIBOR-OIS spread (Chart 6). Responding to the growing pressures on fund-raising in the money markets, the U.S. and European central banks announced the implementation of active funds-supplying operations to extend over the end of the year. Furthermore, on December 12, five central banks announced a series of new measures for supplying liquidity to the markets (see Box).[10] On December 17, the ECB acted to meet fund-raising needs by conducting a funds-supplying operation maturing over the end of the year with commitment to satisfy all bids over a specified rate. As a result of these central banks actions, the U.S. and European money markets ended the year with severe tensions alleviated.

In light of the developments in overseas markets during this period, the Bank utilized various funds-supplying operational tools and adopted greater flexibility in setting the maturity of its operations. The Bank also conducted money market operations in a deliberate manner to match the conditions in the market (Chart 7). For instance, responding to the elevated term interest rates, the Bank began to offer funds-supplying operations with maturity extending over the end of the year in early October, which was about one month earlier than in the previous year (Charts 5 and 8). When rising GC repo rates exerted upward pressure on the call rate in the second half of December, the Bank conducted JGS purchasing operations with repurchase agreements extending over the end of the year on five consecutive business days. On the last business day of the year (December 28), GC repo rates remained high and some financial institutions exhibited strong fund-raising needs. At this juncture, the Bank acted to restrain the rise in interest rates by undertaking an 800 billion yen same-day funds-supplying operation. As a result, the uncollateralized overnight call rate reached 0.459 percent and relatively small use was made of the complementary lending facility.

Moving into January, growing downward pressure on the call rate emerged due to the large-scale frontloading in the accumulation of reserve balances. Consequently, the Bank conducted funds-absorbing operations on four consecutive business days to restrain the decline in interest rates.

(Approaching the End of the Fiscal Year)

After the start of the new calendar year, the LIBOR-OIS spread narrowed in the U.S. and European money markets as end-year factors were played out. However, the spread again widened in February (Chart 6). In early March, liquidity again became tight in the U.S. and European money markets due to additional losses and growing funding concerns affecting U.S. and European financial institutions and investment funds. To respond to this situation, on March 11, five central banks announced a further series of measures for joint action to ease pressure on fund-raising (see Box).[11] However, the U.S. and European money markets thereafter experienced considerable turmoil as an U.S. securities firm came to face funding problems. U.S. and European central banks responded to this development by announcing additional measures, including the introduction of a lending facility for primary dealers by FRS.

During this period, the Japanese money market exhibited considerable tension. After interest rates on term transactions traced a flat line, LIBOR began to rise significantly as the end of term transactions extended over the end of the fiscal year (Chart 5). Against this backdrop, the Bank endeavored to facilitate fund-raising by financial institutions by beginning to supply funds extending over the end of the fiscal year at an earlier timing than in the previous year (Chart 8).

[10] Following the December 12 announcement of new measures by five central banks (FRS, ECB, Bank of Canada [BOC], Bank of England [BOE], Swiss National Bank [SNB]), the Bank released a statement welcoming the measures and committing itself to maintaining market stability (Chart 1).
[11] Following the March 11 announcement of further measures by five central banks, the Bank released a statement welcoming the measures and committing itself to maintaining market stability (Chart 1).

[BOX] Measures Adopted by Five Central Banks

(Announced on December 12)

	Measures Announced
FRS (USA)	· Introduction of Term Auction Facility (TAF) - Eligible counterparties: users of primary credit facility - Eligible collateral: eligible collateral for primary credit facility - Maturity: one month · Swap agreements with ECB and SNB
ECB (Euro area)	· Implementation of dollar funds-supplying operations - Dollar funds: procured through above swap agreement - Bidding dates and maturity: same as TAF
SNB (Switzerland)	· Implementation of dollar funds-supplying operations - Dollar funds: procured through above swap agreement - Bidding dates and maturity: same as TAF
BOE (UK)	· Increase in volume of 3-month pound funds-supplying operations · Extension of range of eligible collateral for those operations
BOC (Canada)	· Implementation of term Canadian dollar funds-supplying operations - Maturity: two weeks and one month

(Announced on March 11)

	Measures Announced
FRS	· Introduction of Term Securities Lending Facility - U.S. bonds lending with longer maturity (28 days), up to $200 billion - Eligible collateral: U.S. bonds, federal agency bonds, federal agency MBS, RMBS[12] with AAA rating · Increase in ceiling amounts in swap agreements with ECB and SNB
ECB	· Implementation of dollar funds-supplying operations
SNB	· Implementation of dollar funds-supplying operations
BOE	· Continuation of 3-month pound funds-supplying operations
BOC	· Implementation of term Canadian dollar funds-supplying operations

[12] On March 20, the FRS announced that federal agency CMOs and CMBSs with AAA rating would be added to eligible collateral.

In the latter half of March, the funding problems of an U.S. securities firm prompted lenders in the uncollateralized call market to adopt a more cautious stance. As liquidity in the foreign exchange swap market temporarily declined, some financial institutions, such as foreign banks that had been reducing their short positions by funding through foreign exchange swaps, increased fund-raising in the call market. During this period, the GC repo rate rose significantly, reflecting an increase in the inventory funding burdens of securities companies due to deterioration in the supply and demand conditions for TBs and FBs, and to market fluctuations responding to a significant unwinding of JGB positions by investors such as hedge funds.[13] The GC repo rate remained high through the end of the fiscal year, and upward pressure on the uncollateralized overnight call rate increased.

Responding to these developments, after the start of the March reserve maintenance period, the Bank conducted same-day funds-supplying operations on six consecutive business days and JGS purchasing operations with repurchase agreements on eight consecutive business days. Additionally, the Bank conducted money market operations in a deliberate manner through operations with a variety of maturity, mainly to supply ample funds to extend over the end of the fiscal year.

On the final business day of fiscal 2007 (March 31, 2008), lenders in the uncollateralized call market adopted a more cautious stance as a keener awareness of counterparty risks spread in the market and financial institutions restrained their holdings of risk assets. On the side of borrowers, some financial institutions exhibited strong demand for fund-raising as the GC repo rate remained at a high level. In response to this situation, the Bank conducted two large-amount same-day funds-supplying operations totaling 3 trillion yen. As a result, the uncollateralized overnight call rate moved to 0.641 percent, while the use of the complementary lending facility remained at a relatively low level.

On the last days of the January and February reserve maintenance periods, the Bank offered same-day funds-absorbing operations at non-regular hours to prevent a sharp decline in the call rate late in the afternoon (weighted averages were 0.505 percent on February 15 and 0.483 percent on March 14).

B. Features of Money Market Operations

Money market operations during fiscal 2007 had the following features.

First, the Bank set the term of funds-supplying operations more flexibly (Chart 7). Between September and December, the longest term of funds-supplying operations was extended beyond three months to nearly four months. This mainly reflected the Bank's decision to facilitate fund-raising of financial institutions by starting funds-supplying operations with maturity extending over the end of the calendar and fiscal years at an earlier date than in the previous year. The adoption of longer terms was also designed to efficiently maintain high levels of the outstanding balance of short-term funds-supplying operation[14] in periods when autonomous factors were contributing to a decrease in current account balances. For operations with shorter terms, the ratio of operations with terms of two weeks or less was sharply increased in periods

[13] "Securities companies" constitute "first financial instruments businesses" engaged in securities transactions as provided under the Financial Instruments and Exchange Law.
[14] Short-term funds-supplying operations refers to funds-supplying operations with terms of one year or less, and includes operations involving outright purchase of TBs and FBs, operations against pooled collateral, and purchases of JGSs with repurchase agreements. Outright purchases of JGBs are not included.

when financial institutions showed strong demand for funds, such as before the end of the semi-fiscal and fiscal year. Greater flexibility in setting the terms of operations allowed the Bank to fine tune its response to the diverse fund-raising needs of financial institutions.[15] As a result of these flexible adjustments of terms, after September, the average residual maturity of operations ranged between 1 and 1.5 months (Chart 9).

Second, future-dated funds-supplying operations were shifted to center on T+1 operations.[16] Among future-dated funds-supplying operations, with the exception of outright purchases of JGBs and outright purchases of TBs and FBs, T+2 operations accounted for the bulk of operations conducted until August. However, beginning in September, major operations were shifted to T+1 operations (Chart 10). This shift to T+1 was useful in fine-tuning of the level of reserve balances.[17] The advantage of T+1 operations is that more updated information on market conditions and sources of changes in current account balances at the Bank can be taken into account, making it easier to adjust the level of the next day's reserve balances to appropriate levels. The shift in shorter-term future-dated operations to a T+1 basis also appears to have had the effect of increasing T+1 (T/N[18]) GC repo transactions (see Section IV).

Third, on the last day of reserve maintenance periods, funds-absorbing operations were also conducted at non-regular hours for the following reason. When the supply of funds is considered to well exceed the demand on days such as the last day of reserve maintenance periods, lending of funds at low interest rates tends to occur in the afternoon, causing the weighted average of the uncollateralized overnight call rate to move below the target level. In particular, this is likely to occur when closing balances of current accounts at the Bank on the last day of the reserve maintenance period become those at the start of the next reserve maintenance period due to calendar factors such as weekends. In such instances, sizeable volumes of transactions are contracted at extremely low rates, leading to sharp declines in the weighted average of the uncollateralized overnight call rate.[19] To restrain such declines in the call rate, on the last days of the January and February reserve maintenance periods, the Bank conducted same-day funds-absorbing operations after the regular offer time in the afternoon.

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[15] Due attention must be paid to the possibility that excessive flexibility in the setting of maturity may obstruct market functions.

[16] Transactions where funds are delivered one business day (+1) after the contract date (T). Thus, T+2 operation would refer to transactions where funds are delivered two business days after the contract date.

[17] Refers to the reserve balances of counterparties subject to the reserve requirement system, which excludes the reserve balances of the Japan Post Bank (referred to as required deposits under the Japan Post Public Corporation). Unless otherwise stated, the above applies to all figures on reserve balances.

[18] Abbreviation for "tomorrow/next." These are overnight transactions where the funds are delivered one business day after the contract date.

[19] For instance, assume the last day of the reserve maintenance period (15th of the month) falls on a Saturday. In this case, current account balances at the Bank as of the end of business on the 14th become the balance for the 15th as well as for the 16th (Sunday), which is the first day of the next reserve maintenance period. Any balances held in excess of required reserves on the 14th cannot be used in the current reserve maintenance period, but do constitute usable reserve balances for the 16th. For example, if the excess reserve amount can be borrowed at 0.16%, the total fund-raising cost for the 3-day period (excess amount x 0.16% x 3) will be lower than the cost for procuring the same amount for only one day on the 16th at 0.5%. On the other hand, for financial institutions holding excess reserves, lending the excess funds at 0.17% on the 14th will yield a larger return than lending the funds for only one day on the 16th at 0.5%. Transactions at such very low interest rates do occur in the market because transactions are made on the basis of profitability as well as projections of interest rates. Even when the volume of such transactions is small, this can significantly reduce the weighted average of the uncollateralized overnight call rate.

Anticipating these operations on the last days of the reserve maintenance periods, market participants were seen to raise funds at earlier hours on such days.

III. Developments in Uncollateralized Overnight Call Rate

A. Uncollateralized Overnight Call Rate

A review of the movements in the uncollateralized overnight call rate, the Bank's operating target, shows that the daily weighted average generally remained in line with the target level throughout fiscal 2007 (Chart 11). The call rate fell significantly around the last day of the July reserve maintenance period, reaching 0.235 percent on August 14 and 0.330 percent on August 15. On the other hand, the call rate rose on the last days of the semi-fiscal and fiscal years, reaching 0.675 percent on September 28 and 0.641 percent on March 31.

An analysis of the developments in the daily weighted average during fiscal 2007 shows that the average for individual reserve maintenance periods exceeded 0.5 percent until the June reserve maintenance period, but frequently fell below 0.5 percent beginning in the July reserve maintenance period (Chart 12). This was due to the following factors. First, foreign banks seemed to adopt a more conservative stance and therefore reduced their overnight fund-raising in the call market. Second, responding to the turmoil in the U.S. and European money markets, the Bank actively conducted funds-supplying operations to counter the upward pressure on interest rates.

The gap between the daily weighted average of the uncollateralized overnight call rate and the target level increased somewhat in the July reserve maintenance period when the turmoil in the U.S. and European money markets began. However, the gap remained small after the August reserve maintenance period, with the exception of the reserve maintenance periods that included the semi-fiscal and fiscal year-ends (Chart 12).

The uncollateralized overnight call rate showed less volatility than that of U.S. and European overnight rates, which indicated that relatively stable conditions were maintained in the Japanese money market (Chart 13).

It was frequently observed from intraday fluctuations[20] in overnight rates that the maximum and minimum rates were about 0.6 percent and 0.4 percent, respectively (Chart 11). On the final days of the quarter-fiscal year, the maximum rate tended to approach the basic loan rate applied to the complementary lending facility. On the other hand, the minimum rates frequently decreased significantly on the last days of the reserve maintenance periods.

[20] Intraday movements in the rates tend to trace the following pattern. During the morning hours, fund-raising begins at a relatively high rate. Thereafter, the rate moves gradually downward. However, rates observed in the course of the day may rise or fall sharply in response to progress in settlements of funds and securities during the day, or changes in the fund-raising stance of borrowers and the investment stance of lenders.

B. Current Account Balances at the Bank of Japan and Amounts Outstanding of Short-Term Funds-Supplying Operations

Under the conduct of money market operations described above, current account balances at the Bank generally ranged between 7 - 10 trillion yen throughout fiscal 2007 (Chart 14). During this period, as previously mentioned, active funds-supplying operations were conducted on the final days of the quarter-fiscal year. This had the effect of pushing current account balances at the Bank to high levels. Current account balances also tended to be at relatively high levels on days of JGBs issuance and redemption. On the last day of fiscal 2007, the current account balances at the Bank came to 14.2 trillion yen, which was 2.6 trillion yen higher than at the end of fiscal 2006.

Reserve balances, a component of current account balances at the Bank, generally moved in the range of 4 - 6 trillion yen during fiscal 2007 (reserve balances amounted to 9.0 trillion yen at the end of fiscal 2007 due to fiscal year-end factors). This reflected the fact that with required reserves staying at around 4.8 trillion yen throughout fiscal 2007, institutions subject to the reserve requirement system reduced their excess reserves (i.e., the amounts of current account balances held in excess of required reserves). During fiscal 2007, reserve balances were accumulated at a steadier pace than in fiscal 2006 (Chart 15).

A review of excess reserves held by sector indicates that the city banks continued to hold a low levels of excess reserves, while regional banks, regional banks II, trust banks, and other institutions subject to the reserve requirement system tended to reduce their excess reserves (Chart 16). This is thought to reflect efforts of financial institutions to minimize their excess reserves, being aware of the opportunity cost of holding current account balances at the Bank.

During fiscal 2007, the outstanding balance of short-term funds-supplying operations increased (Charts 17 and 18). While the outstanding balance decreased during the first quarter, it began to increase after the second quarter as the sources of changes in current account balances at the Bank moved in a negative direction. At the end of fiscal 2007, the outstanding balance of short-term funds-supplying operations stood at 46.4 trillion yen, an increase of 11.8 trillion yen from the end of fiscal 2006.

IV. Developments in the Money Market and Impact on Money Market Operations

Transactions in Japan's money market continued to be more active throughout fiscal 2007, resulting in increases in amounts outstanding in the call and the GC repo markets. Meanwhile, domestic and overseas markets became more closely linked, leading to frequent situations where yen interest rates were affected by developments in overseas short-term interest rates and transactions in the foreign exchange swap market. Developments in these markets and the impact on money market operations are summarized below.

(Call Market)

Amounts outstanding in the call market generally traced a moderate upward trend throughout fiscal 2007 (Charts 19 and 20). This increase was mainly attributed to the uncollateralized call market where transactions intermediated by *tanshi* (money market brokers) marked record highs in December and January since the conclusion of the quantitative easing policy. On the other hand, amounts outstanding of the so-called direct deal (DD) transactions, which are not intermediated by *tanshi*, seemed to remain generally unchanged (Chart 20).

The increase in the balance of the uncollateralized call market toward the end of the calendar year owes mainly to the increase in term transactions. While financial institutions such as major domestic banks increased their lending toward the end of the year, foreign banks exhibited strong fund-raising demand to extend over the end of the year. As a result, transactions with terms of one to three months increased (Chart 21). Since some of the term transactions extending over the end of the year were not rolled over, the outstanding balance of call market transactions decreased somewhat after January. Term transactions extending over the end of the fiscal year did not increase as much as transactions extending over the end of the calendar year. This reflected a more cautious stance adopted by lenders as financial institutions restrained their holdings of risk assets and a keener awareness of counterparty risks spread in the market.

During fiscal 2007, amounts outstanding in the uncollateralized overnight call market were somewhat lower during the second half of the fiscal year than in the first half. This can be attributed to foreign banks reducing their fund-raising through overnight call transactions with the more conservative funding stance, following the emergence of subprime mortgage loan problems. This seemed to contribute to stabilizing the uncollateralized overnight call rate.[21]

The amounts outstanding in the collateralized call market remained generally unchanged during this period (Chart 19-2). Regarding collateral used in collateralized call market transactions, JGB margin tables were revised in March 2008, following a similar revision made in March 2007, to further improve collateral efficiency.[22]

(GC Repo Market)

GC repo transactions, on the fund-raising side, are frequently used by securities companies to finance their JGB positions. On the fund-investing side, when T+2, T+3, overnight and S/N[23] GC repo rates exceed the uncollateralized overnight call rate, major banks frequently engaged in arbitrage transactions involving future-dated GC repo lending funded by borrowing through uncollateralized call transactions.

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[21] Some foreign banks have little room for increasing or decreasing their overnight fund-raising by controlling the pace of accumulating their reserve balances, because their funding needs for daily settlement significantly exceed their required reserves. As a whole, financial institutions subject to the reserve requirement system will reduce their overnight fund-raising (current account balances at the Bank) when overnight interest rates are high in order to delay the accumulation of reserve balances. On the other hand, when interest rates are low, they will increase fund-raising (current account balances at the Bank) in order to advance the accumulation of reserve balances. It seems that this averaging function of the reserve requirement system worked better when some foreign banks reduced fund-raising.

[22] See Tanshi Association, "Revision of Margin Tables for Collateralized Call Transactions" (March 19, 2007, in Japanese). The following rules apply under the new capitalization requirements that went into effect at the end of March 2007 in Japan (so-called "Basel II"). When the value of collateral submitted (mark-to-market value) in collateralized call transactions exceeds the amount of funds borrowed, the borrower must recognize the excess portion of the collateral as a credit risk exposure. The revision of the margin tables in March 2007 made it possible to reduce the excess portion of collateral value submitted taking into account the mark-to-market value of JGBs. The JGB margin tables were again revised in March 2008.

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

During fiscal 2007, amounts outstanding in the repo markets increased (Chart 22). While GC repo transactions continued to be centered on T+3 and T+2 transactions, T+1 transactions appeared to be more active than in fiscal 2006. Beginning in the summer, more securities companies seemed to raise funds through T/N transactions as T+1 funds-supplying operations against pooled collateral at the Bank's Head Office were constantly offered with terms of one to three weeks. T+0 GC repo transactions, which are mostly used by securities companies, also gradually increased. This was partly because major banks used this transaction in fund-raising when the T+0 GC repo rate was close to the uncollateralized overnight call rate.

It is thought that these changes facilitate the efficient formulation of overnight rates. However, since the roster of lenders in GC repo transactions remained limited, securities companies occasionally had to carry funding positions to cover T+0 transactions. This happened when lenders adopted a more cautious stance, such as at the end of the fiscal year and the last day of the reserve maintenance period. In such situations, the GC repo rate tended to remain high.

On October 29, 2007, the Bank began calculating and publishing the Tokyo Repo Rate (reference institutions average), which covers rates on overnight to one-year transactions as of 11 a.m. everyday (Chart 23).

(Euro-yen and Foreign Exchange Swap Markets)

Euro-yen and foreign exchange swap transactions (yen conversion and yen placement) are widely undertaken in domestic and overseas markets where they are used by major foreign banks and major Japanese banks to invest or to raise yen and dollar funds. While the euro-yen rate and yen-conversion costs generally move in tandem due to arbitrage, yen-conversion costs (T/N) tend to show some fluctuation (Chart 24). The bulk of these transactions are undertaken between late afternoon Tokyo time and closing time of the London markets, and the level of the T/N rate is closely linked to changes in the amounts needed by foreign banks to cover in the next business day's uncollateralized call market.

In the euro-yen market, it is broadly observed that domestic institutions, such as major Japanese banks, are extending their lending to foreign banks, and that major Japanese banks are conducting transactions among themselves involving their overseas offices. A review of the volume of transactions during fiscal 2007 shows that transaction volumes, centered on overnight transactions, began to decrease in August (Chart 25). This seemed to reflect a decrease in fund-raising in yen by foreign banks and a shift in funding source from euro-yen to yen-conversion. The volume of term transactions increased in December as foreign banks actively raised funds extending over the end of the year.

In the foreign exchange swap market, Japanese and foreign financial institutions engage in yen-placement for dollar fund-raising, while foreign banks engage in yen-conversion for yen fund-raising. Needs for dollar fund-raising began to increase in the fall of 2007, as a result of which yen-conversion costs (T/N) moved below 0.5 percent. At such times some foreign banks increased their fund-raising through yen-conversion (T/N) while reducing their overnight fund-raising in the uncollateralized call market. Through these fund-raising activities of foreign banks, developments in the foreign exchange swap market affected the formulation of the uncollateralized overnight call rate, particularly during the second half of the fiscal year.

V. Developments in Operations by Type of Tool

A. Money Market Operations by Type of Operational Tool[24]

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.[25] The amount of purchases has been set at 1.2 trillion yen per month since the Monetary Policy Meeting (MPM) of October 30, 2002. During fiscal 2007, the Bank maintained the principle of purchasing 0.3 trillion yen of JGBs in each operation offered four times a month.

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. As in the outright purchase of JGBs, operations are undertaken through conventional auction based on yield spreads.

Outright purchases of TBs and FBs have relatively longer maturities among short-term funds-supplying operations. In consideration of the impact on supply and demand conditions in the TB/FB markets, changes were not made in the amount and frequencies of operations during fiscal 2007. Thus, the frequency and amount offered of operations remained at about once a week and about 400 billion yen per operation.

c. Funds-supplying operations against pooled collateral[26]

Funds-supplying operations against pooled collateral[27] consist of loans made by the Bank to counterparties and secured by pooled collateral submitted to the Bank by counterparties. Operations are undertaken through conventional auction based on lending rate.

Funds-supplying operations against pooled collateral consist of two categories; operations conducted at all offices of the Bank (lending to a wide range of counterparties that have transactions with the Head Office and branches of the Bank), and operations conducted at the

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[24] See Chart 18 for amounts outstanding by operational tool.

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

[26] "Funds-supplying operations against pooled collateral" was introduced in April 2006 through revisions made in the transaction method of outright purchases of bills. The first offer was made in June 2006.

[27] 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 funds-supplying operations against pooled collateral, 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, for certain borrowings, financial institutions have been permitted to meet collateral requirements by submitting assets eligible for pooled collateral equal to or exceeding the total amount of collateral required by all the outstanding agreements and contracts.

Head Office (lending solely to counterparties that have transactions with the Head Office of the Bank). Operations at all offices have been conducted for purposes of providing stable supplies of funds with relatively longer maturity. Meanwhile, operations at the Head Office have covered a diverse scope of terms ranging from very short-term funds-supplying overnight operations offered on a same-day basis to relatively longer-term operations. This is being used as the primary tool among the short-term funds-supplying operational tools available to the Bank. During fiscal 2007, both operations at all offices of the Bank and longer term operations at the Head Office were offered on a T+2 basis. Other operations at the Head Office, as previously mentioned, were basically shifted to be offered on a T+1 basis (Chart 10).

In addition to government bonds and other public liabilities, pooled collateral includes corporate bonds, CPs, and other private securities deemed eligible by the Bank. Pooled collateral is highly convenient for counterparties in operations since a wide range of assets are eligible, allowing counterparties' room to select collateral from their assets and to easily substitute between collateral. A review of the asset structure of pooled collateral shows that there has been no major change in the structure from the previous year, and JGSs continue to account for a large portion of submitted collateral (Chart 26).

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 the end of that period. It is often used by securities companies to finance their JGS positions.

Purchases of JGSs with repurchase agreements tend to have lower subscription rates than funds-supplying operations against pooled collateral. This is due to the following factors. First, this operation is subject to a maximum bidding limit equal to one-fourth the offer amount (the maximum bidding limit in operations other than purchases of JGSs with repurchase agreements is normally equal to one-half the offer amount). Second, purchases of JGSs with repurchase agreements require management of sales and repurchase prices, and collateral used for margin adjustment. Third, this is a type of funds-supplying operation that can only be secured by JGSs. During fiscal 2007, purchases of JGSs with repurchase agreements were primarily offered with shorter terms to start on JGS issuance dates. In addition, offers were actively made toward the end of each fiscal quarter. Starting days were, in principle, set on two days after offer dates (T+2), but operations to start on the next day to offer dates (T+1) were also increased.

e. Purchases of CPs with repurchase agreements

Purchases of CPs with repurchase agreements are operations to purchase CPs and short-term corporate bonds (dematerialized commercial paper) for a determined period with an agreement to resell them at the end of that period. During fiscal 2007, in light of the conditions surrounding CP issuance and repurchase rates, the amount offered per operation was set at about 300 billion yen with a frequency of once every two to three months. The subscription rate for these operations remained lower than that for other operations.

f. Funds-absorbing operations

Funds-absorbing operations primarily consist of outright sales of bills issued by the Bank and sales of JGSs with repurchase agreements. Funds-absorbing operations were primarily conducted with overnight or other very short maturities when the uncollateralized overnight call rate showed indications of deviating below the target level due to excess in supply of funds. In addition to this, during fiscal 2007, overnight outright sales of bills were conducted at non-regular hours on the last days of reserve maintenance periods, as previously explained, to prevent a sharp decline in the call rate in the late afternoon on such days. Outright sales of bills were frequently used in overnight funds-absorbing operations. In addition, when fund-raising demand for JGS settlement was expected to be strong on the next day, JGS selling operations were offered with repurchase agreements where settlement time could be earlier on end dates.[28] On the other hand, term operations were used as funds-supplying tools by setting the end dates of the operations to coincide with days when significant fund shortages were expected. When term operations extending over the end of the semi-fiscal and fiscal years were used for funds-absorbing, although those operations were rarely conducted, they had the effect of facilitating the distribution of funds.

Funds-absorbing operations were less frequently offered than funds-supplying operations since autonomous factors continued to contribute in decreasing the current account balances at the Bank.

In addition to the above, sales of JGS with repurchase agreements to provide the markets with a secondary source of JGSs[29] were conducted on three occasions during fiscal 2007.

B. Complementary Lending Facility

The complementary lending facility is a means by which the Bank lends funds to counterparties upon request. Lending is limited by the borrower's outstanding amount of pooled collateral that has been submitted. As a rule, these loans are subject to the basic loan rate (0.75 percent during fiscal 2007) and are repayable on the following business day. The facility is expected to function to mark the upper limit on the overnight interest rate.[30] The basic rule is that the maximum number of days on which counterparties can use the facility at the basic loan rate is five business days per reserve maintenance period. 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. However, the restriction on the maximum number of days has been suspended since March 2003 and the basic loan rate has been applied regardless of the number of days used. This measure continues to be maintained.

Developments in the use of the complementary lending facility during fiscal 2007 were as follows. Amounts totaling around 100 billion yen were drawn from the complementary lending facility in mid-August when lenders adopted a more cautious stance and on the last day of the fiscal year (Chart 4). Amounts drawn on the last day of the quarter-fiscal year were significantly smaller than in fiscal 2006, reflecting the supply of ample funds by the Bank.

[28] Settlements of outright bill-selling operations on end dates are undertaken around 1 p.m. or 3 p.m. on a simultaneous gross-settlement basis. On the other hand, settlements of JGS selling operations with repurchase agreements are undertaken on a real-time gross settlement basis (counterparties can determine the timing of settlement), so that settlement can be conducted from the morning.

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

[30] Standing lending facilities similar to the Bank's complementary lending facility exist at the central banks of the United States, the Euro area, and the United Kingdom. In all three cases, the differential between the policy rate and the loan rate on the standing lending facility stood at 1 percentage point. In the case of the United States, the differential was reduced to 0.5 percent on August 17, 2007 and to 0.25 percent on March 16, 2008.

Transactions in the uncollateralized call market (O/N) and GC repo market (T+0) were seldom undertaken at rates exceeding the basic loan rate, and there was no stigma particularly observed in using the complementary lending facility.

VI. Revisions in Operational Tools and Procedures

A. Periodic Review of Collateral Value of Eligible Collateral

Since fiscal 2005, the Bank is to verify, the need to review the collateral value of eligible collateral and other related matters,[31] in principle, at a frequency of about once a year. Subsequent to this verification based on developments in financial markets up to this point in time, collateral value and other related matters were revised in the MPM of October 10 and 11, 2007. Additionally, decisions were made on the following three matters.

[1] Revision of margin tables for 40-year JGBs following their acceptance as collateral (effective October 25, 2007)

Following the start of issuance of 40-year JGBs and their acceptance as eligible collateral and margin collateral in JGB purchases with repurchase agreements, the classification of margin ratio for JGBs with residual maturity of “20 years or more” was subdivided into two classifications of JGBs with residual maturity of “more than 20 years to 30 years” and “more than 30 years.”

[2] Review of method of establishing margin ratios on loans on deeds (effective January 24, 2008)

Margin ratios on loans on deeds were previously determined according to “original maturity.” The Bank decided to change the criterion for margin ratios to “residual maturity.”

[3] Establishment of margin tables for floating rate JGBs and inflation-indexed JGBs following their acceptance as margin adjustment collateral in JGB operations with repurchase agreements (effective March 25, 2008)

Margin tables were established for floating rate JGBs and inflation-indexed JGBs following their acceptance as margin collateral in JGB purchase with repurchase agreements.

B. Earlier Release of Projections of Reserve Balances for the Day

Projections of reserve balances for the day were previously announced through information companies at around 9:20 a.m. of every business day. Beginning on April 16, 2007, the timing of the release was moved up to around 8 a.m. as part of the “Measures for Improving the

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

Functioning of the Money Markets."[32] Additionally, rounding of the projected figures was changed from the nearest 200 billion yen to 100 billion yen. These measures contributed to the stability of the uncollateralized overnight call rate by improving the predictability of money market conditions and the Bank's operations by market participants.

C. Release of "Current Account Balances by Sector"

As part of the "Measures for Improving the Functioning of the Money Markets," the release of data for current account balances by sector was started on June 18, 2007, beginning with data for May 2007 (data for the previous year was also released at this time). The announcements are made on the business day following the last day of a reserve maintenance period, and include average outstanding amounts of current account balances, required reserves, excess reserve amounts for the reserve maintenance period, and outstanding amount of the current account balances as of the end of the previous month.

D. Changes in the Format of "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations"

Japan Post was dissolved as of October 1, 2007, at which time the Japan Post Bank commenced operations[33] and became an institution subject to the reserve requirement system. Thereupon, necessary changes were made in the format of "Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations." In the course of these changes, the decision was made to exclude, for the time being, data pertaining to the reserve balances of the Japan Post Bank from certain statistical components of reserve balances.[34] This measure was implemented with an intent to help market participants gain a more accurate grasp of actual excesses and shortages of funds in the market.

E. Revision of Maximum Bidding Amounts in Operations

During fiscal 2006, maximum bidding amounts in operations were basically fixed for each type of operation (one-half the offer amount in operations other than JGS purchasing operations with repurchase agreement, and one-fourth the offer amount for JGS purchasing operations with repurchase agreement). As opposed to this, during fiscal 2007, maximum bidding amounts were modified as needed. For instance, when offering large amounts of same-day funds-supplying operations, the maximum bidding amount was set at lower levels than normal when it was deemed appropriate to prevent the concentration of funds provision to any particular counterparty. On the other hand, when offering same-day funds-absorbing operations at times when uneven distribution of excess funds was expected, no maximum bidding amount was applied when it was deemed appropriate to absorb as much excess funds as possible.

[32] Beginning on October 1, 2007, announcements of projections of reserve balances for the day have excluded the reserve balances of the Japan Post Bank. This measure is intended to provide a more accurate picture of actual fund excesses and shortages in the market, and will remain in effect for the time being.
[33] The Japan Post Bank took over certain functions of the postal saving business of Japan Post upon dissolution of the latter. The decision was made in the MPM of August 22 and 23, 2007 to terminate the contract with Japan Post relating to its maintenance of a designated minimum balance with the Bank and to take necessary measures for the Japan Post Bank to take over some of the contractual obligations of the Japan Post. For details see, "Termination of the Contract with Japan Post Relating to its Maintenance of a Designated Minimum Balance with the Bank of Japan" posted on the Bank's website (August 23, 2007).
[34] For details, see "Changes in the Format of 'Sources of Changes in Current Account Balances at the Bank of Japan and Market Operations and Other relevant Items'" posted on the Bank's website (September 21, 2007).

References[35]

Bank of Japan, Financial Markets Department, "Money Market Operations of the Bank of Japan," (forthcoming).

______, Financial Markets Department, "Money Market Operations in Fiscal 2006," July 2007

______, Financial Markets Department, "Financial Markets Report - Developments during the First Half of 2007," October 3, 2007.

______, Financial Markets Department, "Financial Markets Report - Developments during the Second Half of 2007," March 26, 2008.

Federal Reserve Bank of New York, "Domestic Open Market Operations During 2007," February 2008.

European Central Bank, "The implementation of monetary policy in the euro area," September 2006.

[35] Useful references for understanding the Bank of Japan's monetary policy can be accessed via the Bank's website (http://www/boj.or.jp/en/index.htm) under "Monetary Policy." Research papers can be accessed under "Statistics, Research and Studies" or "Research Papers."

In addition, papers of the Federal Reserve Bank of New York and the European Central Bank can be accessed at their respective websites (http://www.ny.frb.org/markets/annual_reports.html and http://www.ecb.int/pub/html/index.en.html).

[Chart 1] Developments in Guidelines for Money Market Operations

Official Announcement of February 21, 2007 (excerpts)

1. At the Monetary Policy Meeting held today, the Bank of Japan decided … to change the guideline for money market operations for the intermeeting period as stated below….

The Bank of Japan will encourage the uncollateralized overnight call rate to remain at around 0.5 percent.

2. With respect to the complementary lending facility, the Bank decided … to change the basic loan rate applicable under the facility to 0.75 percent….

(Reference)
Announcements of the Bank of Japan Concerning the Measures Announced by Five Central Banks

Official Announcement of December 12, 2007

Today, the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, and the Swiss National Bank are announcing measures designed to address elevated pressures in short-term funding markets.

The Bank of Japan welcomes these measures and hopes that they will contribute to maintaining the functioning of the international financial markets. Meanwhile, Japan's money markets function well and the Bank will continue to conduct money market operations so appropriately as to maintain market stability, including supplying sufficient fund over the year-end.

Official Announcement of March 11, 2008

Since the coordinated actions taken in December 2007, the G-10 central banks have continued to work together closely and to consult regularly on liquidity pressures in funding markets. Pressures in some of these markets have recently increased again. We all continue to work together and will take appropriate steps to address those liquidity pressures.

To that end, today the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve, and the Swiss National Bank are announcing specific measures.

The Bank of Japan welcomes these measures and hopes that they will contribute to maintaining the functioning of the international financial markets. Amidst the turmoil in international financial markets, Japan's money markets continue to function relatively well thus far. The Bank will continue to conduct money market operations so appropriately as to maintain market stability, including supplying sufficient fund over the fiscal year-end.

[Chart 2] Changes in Autonomous Factors Affecting Current Account Balances (CABs) at the Bank

(Developments during Fiscal 2007)

trillion yen

	FY2006	FY2007	y/y change
Banknotes	- 0.9	- 0.6	+ 0.3
Treasury funds and others	- 15.8	- 19.9	- 4.1
Fiscal payments	+ 39.6	+ 40.6	+ 1.0
JGBs	- 51.8	- 49.8	+ 2.1
FBs	- 6.7	- 9.7	- 2.9
Foreign exchange	+ 0.0	+ 0.0	+ 0.0
Others	+ 3.2	- 1.1	- 4.2
Excess/shortage of funds	- 16.7	- 20.4	- 3.7

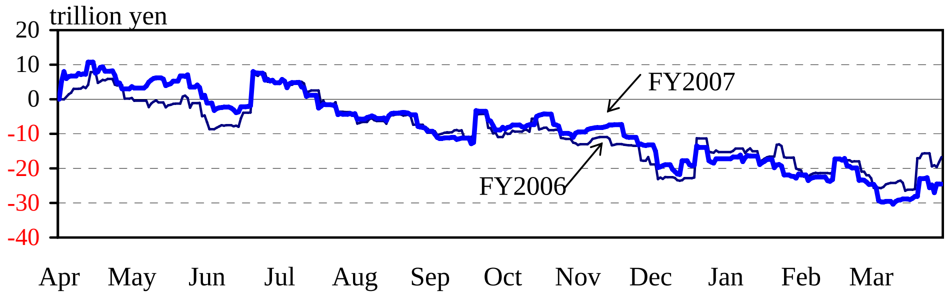
(Reference)

	FY2006	FY2007
Outstanding balance of banknotes	75.0	76.5

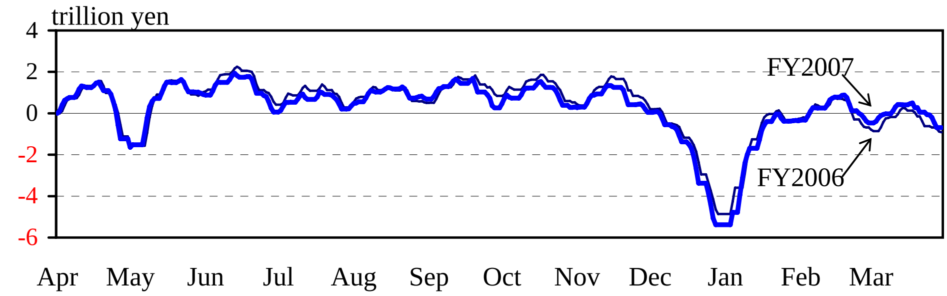
Notes: Banknotes: Negative figures show net issuance.
Treasury funds and others: Negative figures show net receipts, and positive figures show net payments (adjusted for effects of TB/FB purchasing/selling operations).
Excess/shortage of funds: Negative figures show decrease, and positive figures show increase, to the CABs (adjusted for effects of TB/FB purchasing/selling operations).

(Daily Developments during Fiscal 2007)

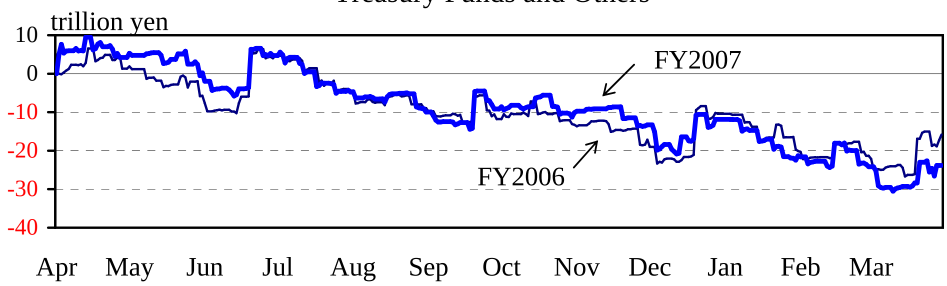
Excess/Shortage of Funds (Banknotes + Treasury Funds and Others)



Banknotes



Treasury Funds and Others



Note: Cumulative figures for fiscal 2007. Adjusted for effects of TB/FB purchasing/selling operations.
Source: Bank of Japan

[Chart 3] Accuracy of Projections of Autonomous Factors

Excess/Shortage of Funds (Banknotes + Treasury Funds and Others)

100 mil yen

		Actual average	Average error	Maximum error	Minimum error
FY2007		9,913 (9,570)	586 (524)	3,260 (4,593)	6 (1)
	Apr	14,721	505	1,201	18
	May	8,271	396	1,152	28
	Jun	10,831	489	2,382	10
	Jul	9,025	349	1,396	22
	Aug	5,508	409	1,589	6
	Sep	11,137	796	2,014	6
	Oct	7,425	627	2,214	27
	Nov	4,736	573	1,977	10
	Dec	15,107	838	1,959	66
	Jan	9,925	754	3,260	73
	Feb	10,535	564	2,013	26
	Mar	13,371	829	2,804	73

Banknotes

100 mil yen

		Actual average	Average error	Maximum error	Minimum error
FY2007		1,663 (1,673)	179 (199)	1,106 (1,192)	0 (3)
	Apr	2,195	279	1,106	31
	May	2,130	244	702	14
	Jun	1,465	130	354	3
	Jul	1,189	154	449	21
	Aug	865	139	421	0
	Sep	1,567	154	522	20
	Oct	1,288	168	455	4
	Nov	1,183	110	380	1
	Dec	2,886	160	403	2
	Jan	3,035	258	597	22
	Feb	1,314	184	623	8
	Mar	1,155	182	564	7

Treasury Funds and Others

100 mil yen

		Actual average	Average error	Maximum error	Minimum error
FY2007		9,768 (9,536)	550 (469)	2,878 (4,436)	1 (2)
	Apr	14,245	402	1,251	1
	May	7,970	333	979	31
	Jun	10,918	438	2,174	35
	Jul	9,168	335	1,354	13
	Aug	4,994	392	1,702	1
	Sep	11,272	761	2,105	38
	Oct	7,213	615	2,248	60
	Nov	4,292	566	1,972	4
	Dec	15,551	803	2,057	88
	Jan	9,244	716	2,878	16
	Feb	10,318	552	2,123	1
	Mar	13,748	771	2,596	33

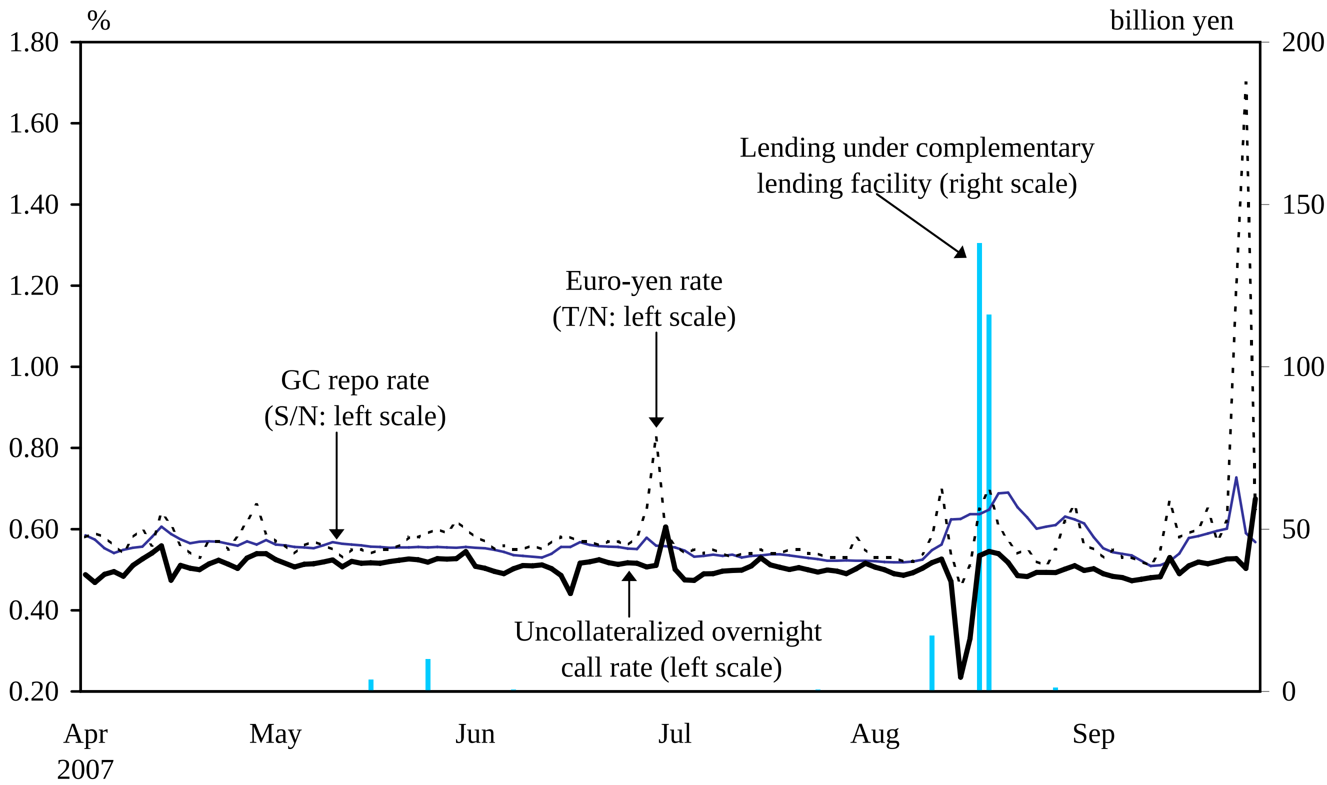
Notes:

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

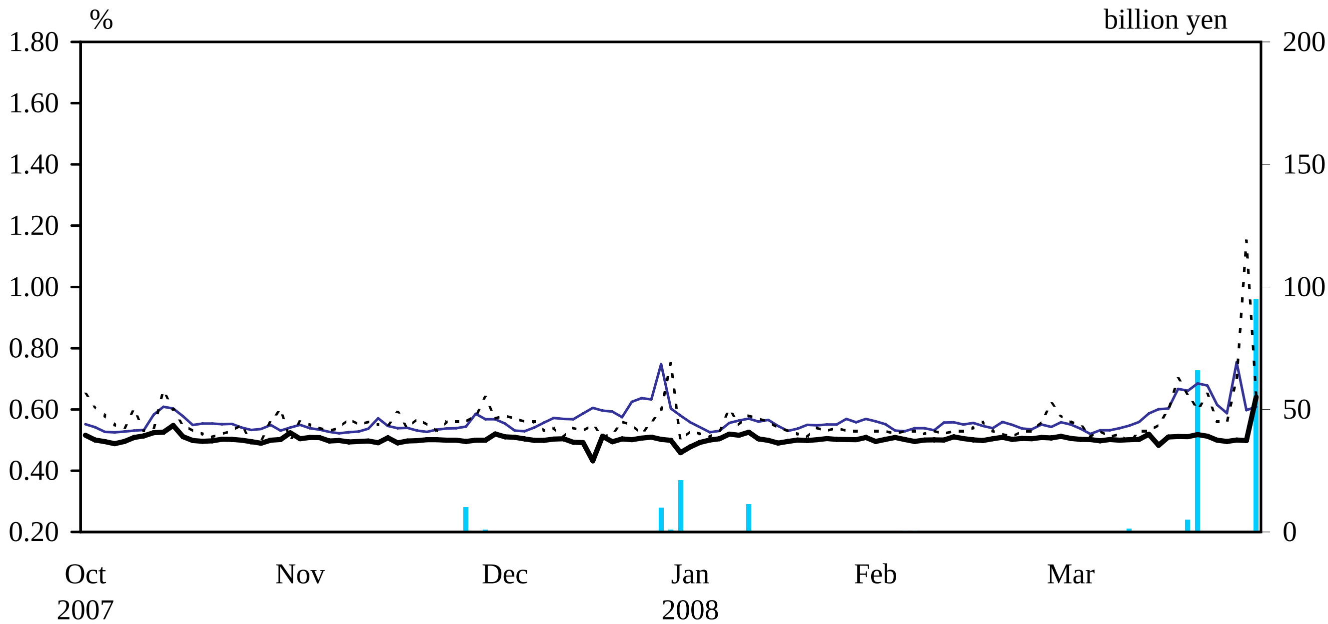
Source: Bank of Japan

[Chart 4] Money Market Rates and Lending under Complementary Lending Facility

(1) April 2, 2007 - September 28, 2007



(2) October 1, 2007 - March 31, 2008

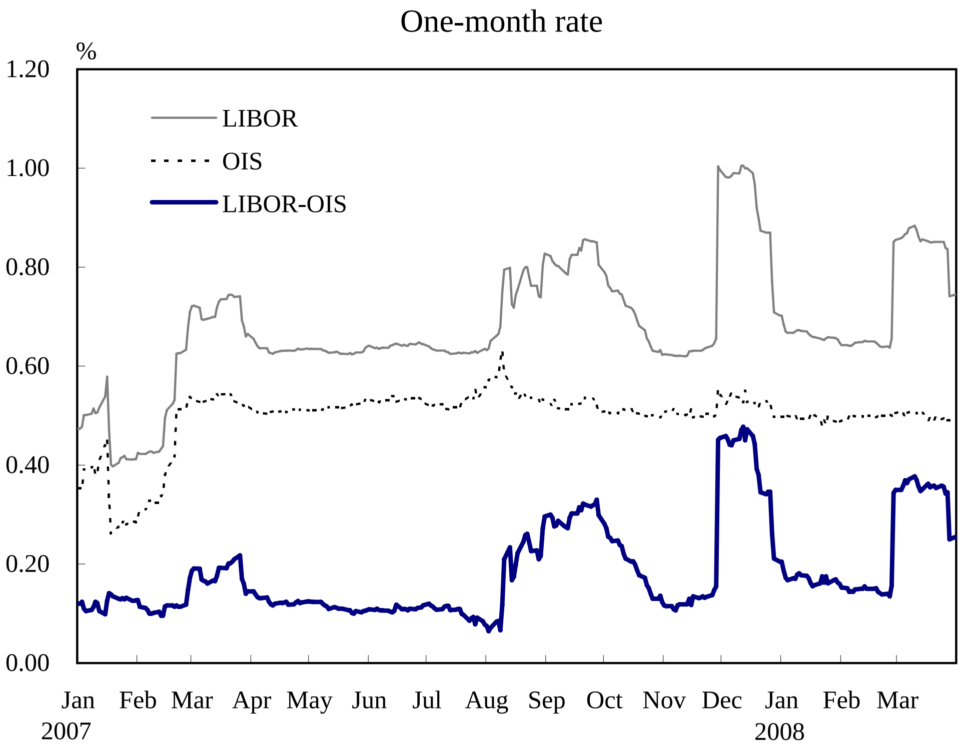


Notes:

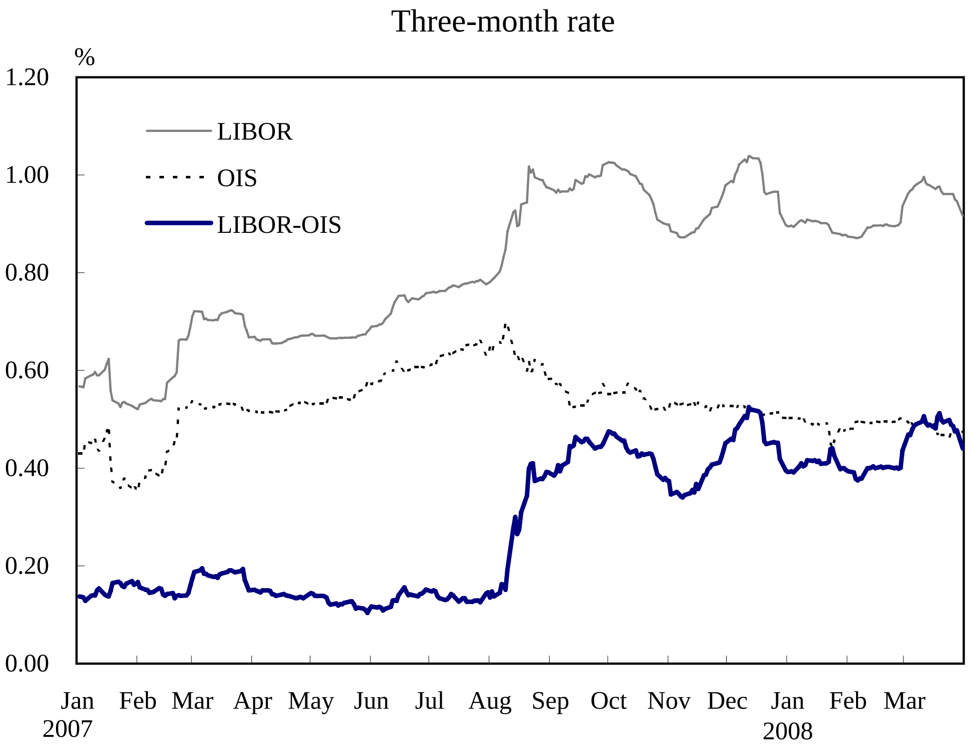
1. Contract data basis
2. GC repo rate (S/N) is the repo rate (indication, aggregated) through October 26, and the Tokyo repo rate (reference institutions average) beginning on October 29.

Source: QUICK, Bank of Japan

[Chart 5] Yen Term Rates



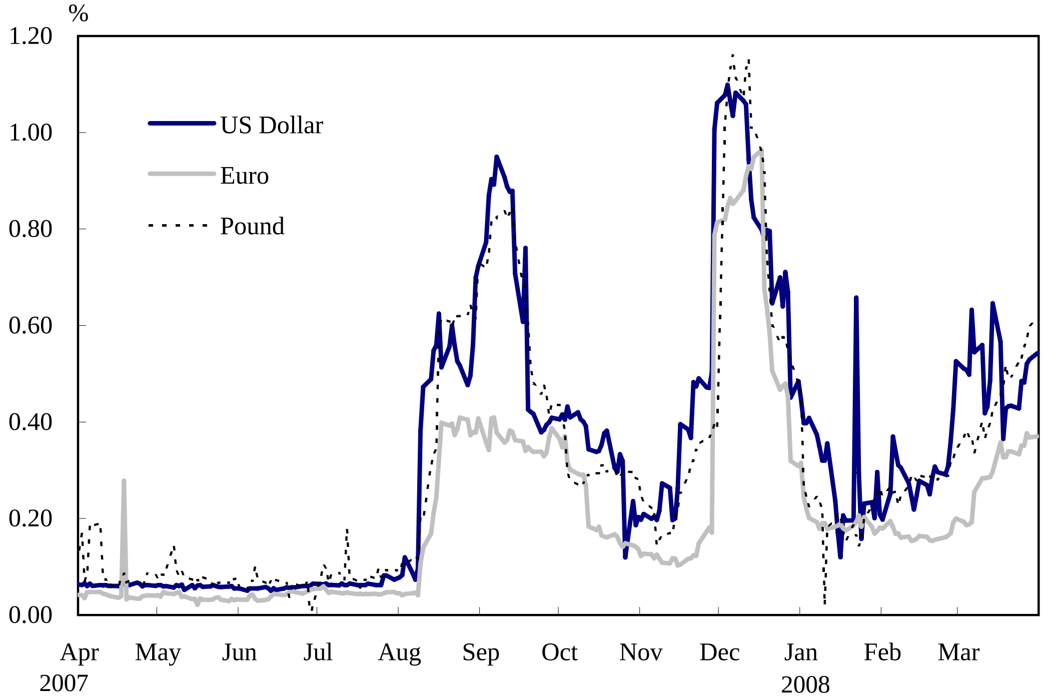
Source: Bloomberg, Reuters, Meitan Tradition



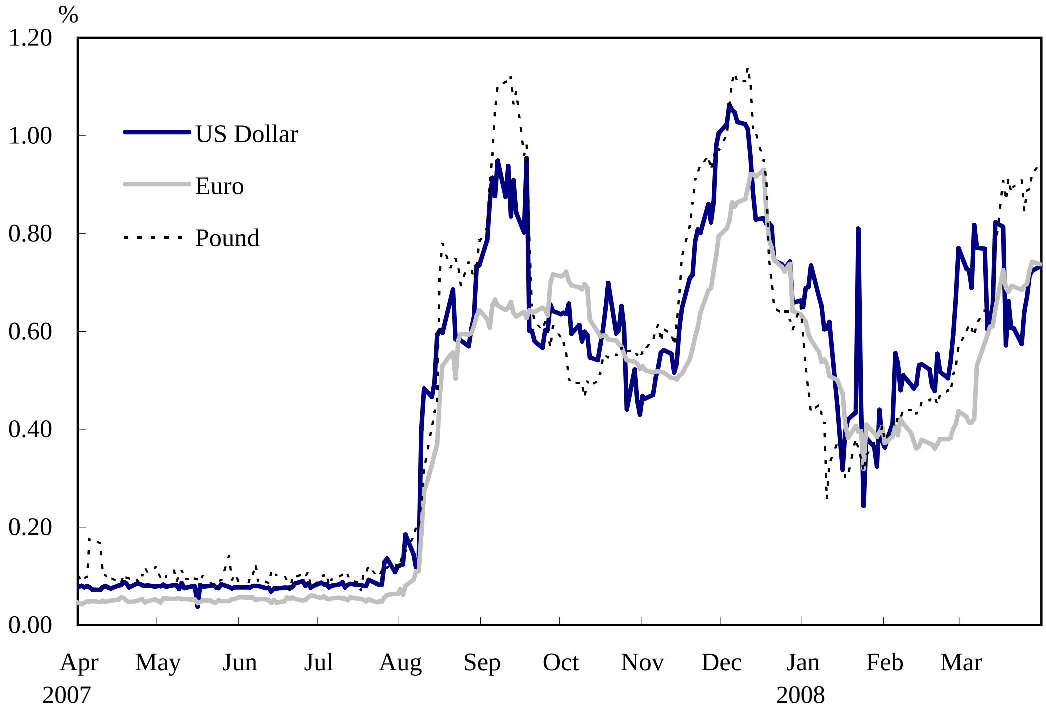
Source: Bloomberg, Reuters, Meitan Tradition

[Chart 6] LIBOR-OIS Spreads for US Dollar, Euro, and Pound

One month

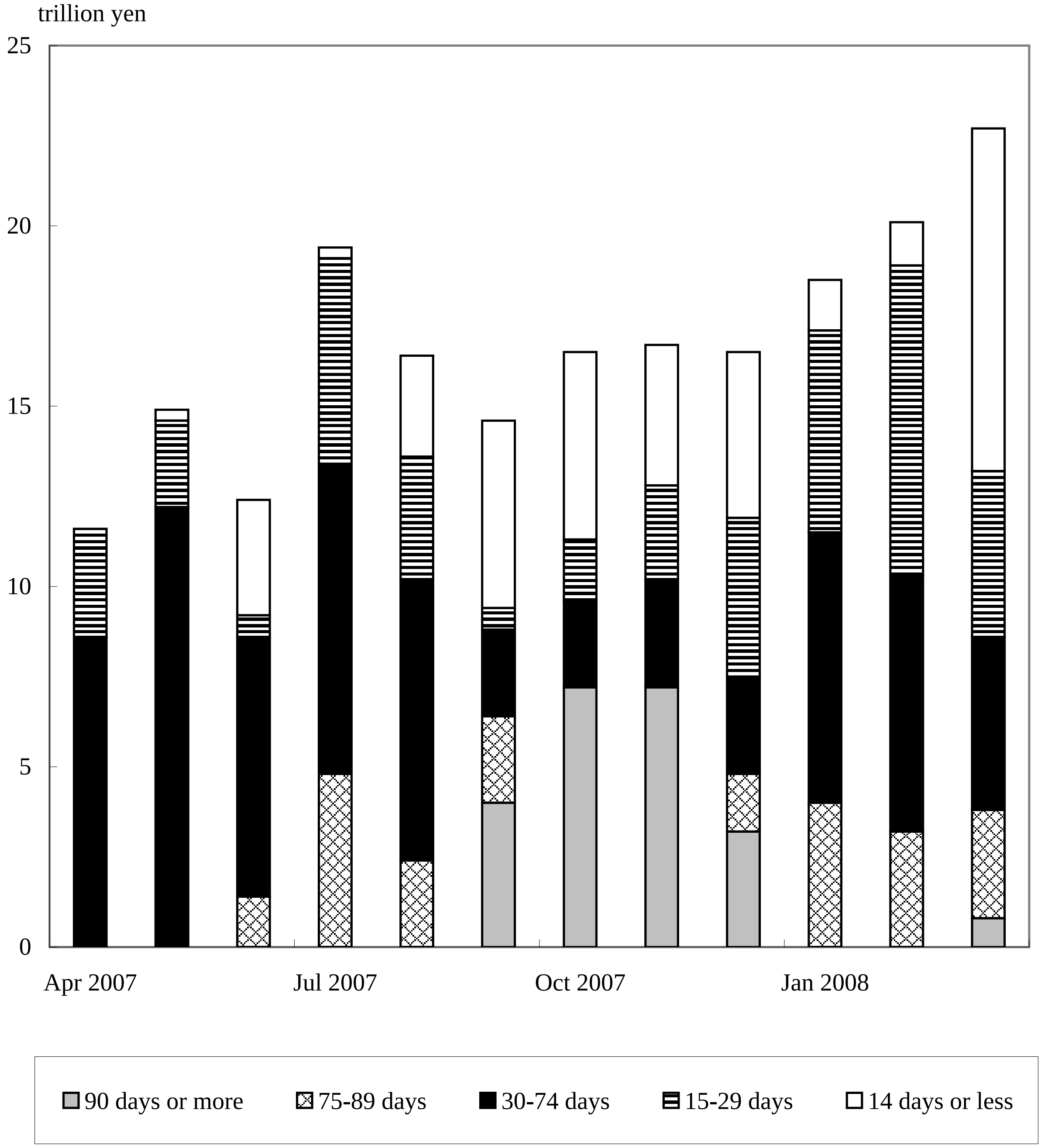


Three month



Source: Bloomberg

[Chart 7] Offer Amounts by Term of Money Market Operations



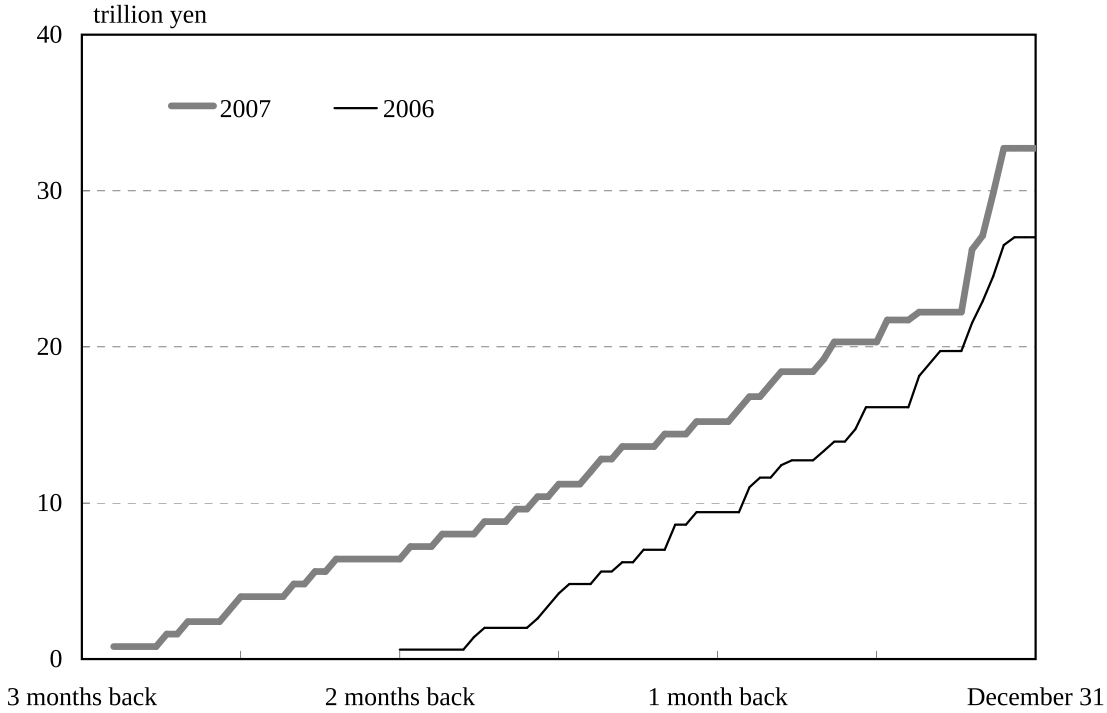
Notes:

1. Offer date basis
2. Amounts are sum of future-dated funds-supplying operations against pooled collateral.

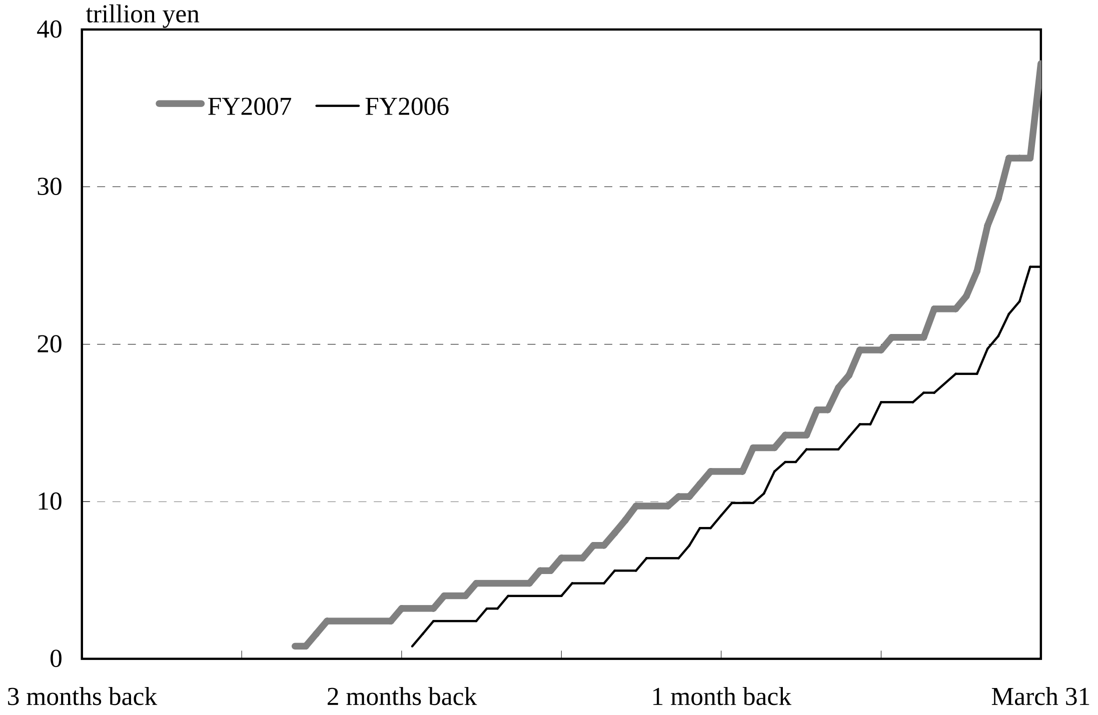
Source: Bank of Japan

[Chart 8] Funds-Supplying in Operations Carrying over the Calender and Fiscal Year-Ends

(1) Calender Year-End

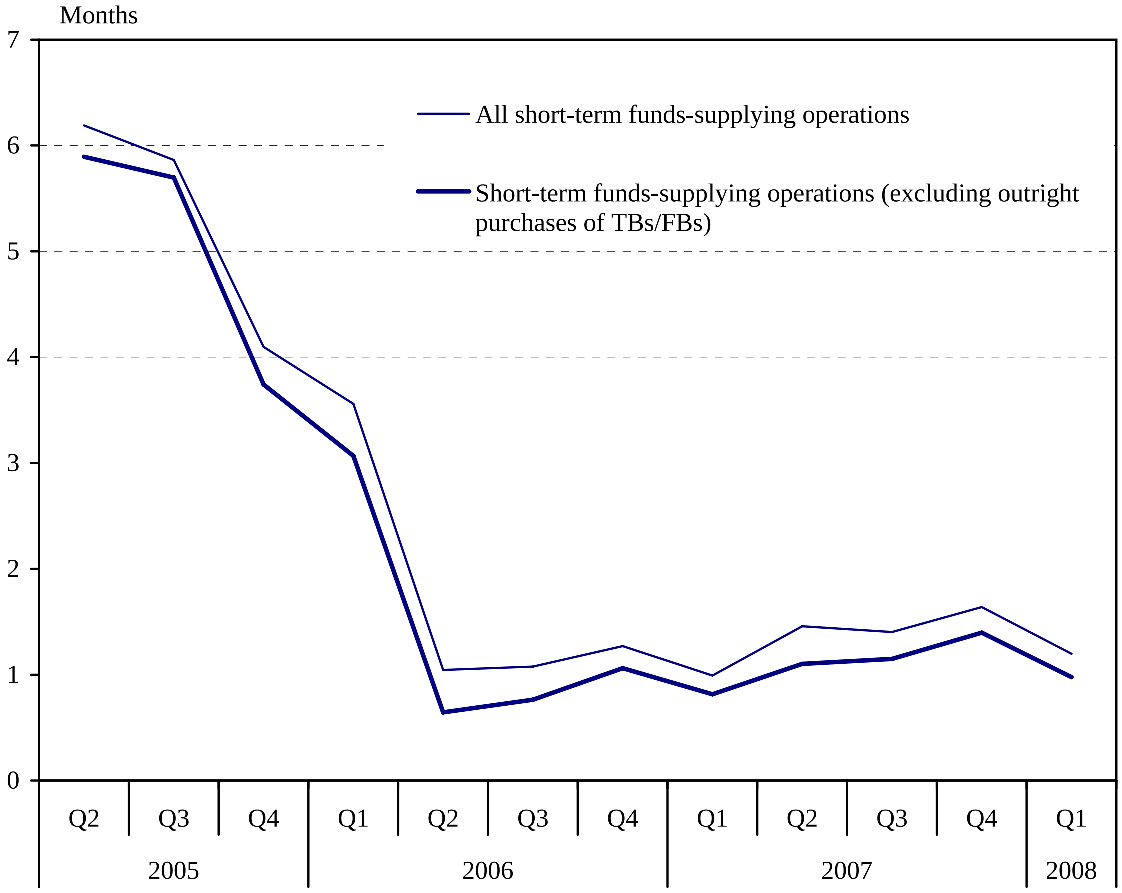


(2) Fiscal Year-End



Note: Start-date basis
Source: Bank of Japan

[Chart 9] Average Length of Short-Term Funds-Supplying Operations



Notes:

1. "All short-term funds-supplying operations" is the weighted average of [1] the length of funds-supplying operations against pooled collateral, outright purchases of bills, purchases of JGSs with repurchase agreements and purchases of CPs with repurchase agreements (including operations on a same-day basis), and [2] the residual maturity of TBs/FBs purchased in outright purchases of TBs/FBs, weighted by the allotment amount.
2. "Short-term funds-supplying operations (excluding outright purchases of TBs/FBs)" is the weighted average of [1] above, weighted by the allotment amount.

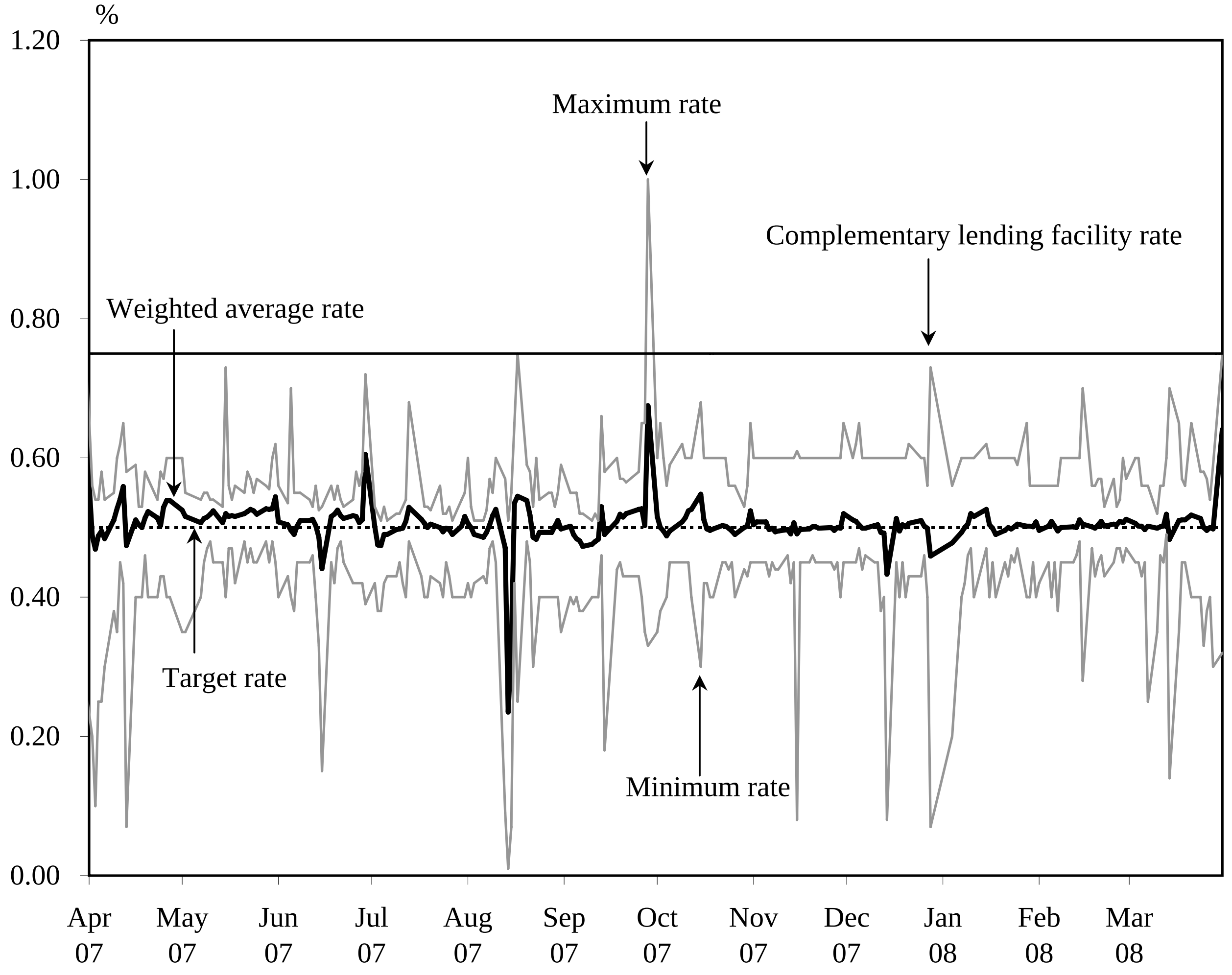
Source: Bank of Japan

[Chart 10] Number of Operations Offered

	Short-term funds-supplying operations						Short-term funds-absorbing operations				
		T+0 (same day)	Future-dated					T+0 (same day)	Future-dated		
				T+1	T+2	T+3				T+1	T+2
Apr 06	8	0	8	2	6	0	6	0	6	4	2
May 06	26	3	23	6	14	3	4	0	4	3	1
Jun 06	45	5	40	5	32	3	1	1	0	0	0
Jul 06	56	12	44	5	32	7	5	5	0	0	0
Aug 06	43	5	38	6	29	3	10	10	0	0	0
Sep 06	43	3	40	10	30	0	5	5	0	0	0
Oct 06	41	2	39	7	32	0	7	7	0	0	0
Nov 06	44	5	39	2	37	0	8	4	4	3	1
Dec 06	36	4	32	4	28	0	8	8	0	0	0
Jan 07	46	7	39	4	35	0	3	3	0	0	0
Feb 07	50	13	37	2	35	0	5	4	1	1	0
Mar 07	39	6	33	2	30	1	10	10	0	0	0
Total FY 06	477	65	412	55	340	17	72	57	15	11	4
Average per business day	1.9	0.3	1.7	0.2	1.4	0.1	0.3	0.2	0.1	0.0	0.0
Apr 07	30	3	27	0	27	0	7	6	1	1	0
May 07	39	6	33	2	31	0	3	1	2	2	0
Jun 07	30	7	23	6	17	0	2	2	0	0	0
Jul 07	35	5	30	3	27	0	6	3	3	3	0
Aug 07	38	8	30	8	22	0	7	7	0	0	0
Sep 07	35	7	28	13	15	0	6	4	2	2	0
Oct 07	31	2	29	17	12	0	4	4	0	0	0
Nov 07	33	0	33	19	14	0	4	1	3	3	0
Dec 07	38	2	36	21	15	0	1	1	0	0	0
Jan 08	40	2	38	25	13	0	6	6	0	0	0
Feb 08	41	5	36	22	14	0	3	3	0	0	0
Mar 08	54	12	42	27	15	0	3	2	1	1	0
Total FY 07	444	59	385	163	222	0	52	40	12	12	0
Average per business day	1.8	0.2	1.6	0.7	0.9	-	0.2	0.2	0.0	0.0	-

Note: Outright purchases of JGBs, outright purchases/sales of TBs/FBs, and sales of JGSs with repurchase agreements to provide the markets with a secondary source of JGSs are not included.
Offer date basis
Source: Bank of Japan

[Chart 11] Daily Developments in the Uncollateralized Overnight Call Rate



Source: Bank of Japan

[Chart 12] Deviation of the Uncollateralized Overnight Call Rate from the Target

Reserve maintenance period	Number of business days (days)	Target (A) (%)	Deviation from target (B) (%)	Relative deviation (B)/(A)	Range of daily weighted average of uncollateralized overnight call rate (%)	Average for reserve maintenance period
July 2006	(21)	0.25	0.02	0.07	0.216 - 0.302	0.255
August 2006	(23)	0.25	0.01	0.04	0.239 - 0.280	0.255
September 2006	(18)	0.25	0.02	0.10	0.239 - 0.339	0.263
October 2006	(22)	0.25	0.01	0.04	0.241 - 0.282	0.252
November 2006	(21)	0.25	0.01	0.06	0.226 - 0.283	0.256
December 2006	(17)	0.25	0.02	0.07	0.226 - 0.296	0.258
January 2007	(22)	0.25	0.03	0.11	0.236 - 0.343	0.262
February 2007	(4)	0.25	0.12	0.48	0.354 - 0.402	0.367
FY 2006 (Target: "around 0.25 percent")	(148)	0.25	0.03	0.11	0.216 - 0.402	0.260
February 2007	(16)	0.50	0.04	0.09	0.431 - 0.589	0.514
March 2007	(20)	0.50	0.05	0.11	0.469 - 0.715	0.517
FY 2006 (Target: "around 0.50 percent")	(36)	0.50	0.05	0.10	0.431 - 0.715	0.516
April 2007	(19)	0.50	0.02	0.04	0.500 - 0.539	0.520
May 2007	(23)	0.50	0.02	0.04	0.441 - 0.544	0.511
June 2007	(20)	0.50	0.03	0.06	0.474 - 0.605	0.512
July 2007	(22)	0.50	0.07	0.14	0.235 - 0.526	0.488
August 2007	(22)	0.50	0.02	0.04	0.473 - 0.545	0.500
September 2007	(18)	0.50	0.05	0.09	0.488 - 0.675	0.528
October 2007	(23)	0.50	0.01	0.02	0.490 - 0.524	0.500
November 2007	(20)	0.50	0.02	0.03	0.433 - 0.520	0.497
December 2007	(16)	0.50	0.02	0.03	0.459 - 0.526	0.491
January 2008	(22)	0.50	0.00	0.01	0.490 - 0.511	0.500
February 2008	(20)	0.50	0.01	0.02	0.483 - 0.519	0.503
March 2008	(21)	0.50	0.03	0.06	0.496 - 0.641	0.510
FY 2007	(246)	0.50	0.03	0.06	0.235 - 0.675	0.505

Notes:

1. Deviation from the target is defined as follows:

$$\text{Deviation} = \sqrt{\frac{\sum(\text{weighted average rate} - \text{target rate})^2}{\text{number of business days}}}$$

2. "Average for reserve maintenance period" is the simple average of the weighted average rate for the reserve maintenance period (previous business day's rate is applied to non-business days).

Source: Bank of Japan

[Chart 13] Developments in Overnight Rates in Japan, United States, and Euro Area

%

	United States		Euro Area		Japan	
Overnight rates	FF rate		EONIA rate		Uncollateralized overnight call rate	
	(average)	(Standard deviation)	(average)	(Standard deviation)	(average)	(Standard deviation)
Apr 07 - Jul 07	5.254	0.03	-		0.512	0.03
Apr 1- Jun 5	-		3.803	0.07	-	
Jun 6 - Jul 31			4.070	0.02		
	(average)	(Standard deviation)	(average)	(Standard deviation)	(average)	(Standard deviation)
Aug 07 - Mar 08	-		4.000	0.14	0.502	0.03
Aug 1 - Sep 17	5.042	0.21	-		-	
Sep 18 - Oct 30	4.759	0.09				
Oct 31 - Dec 10	4.489	0.11				
Dec 11 - Jan 21	4.145	0.26				
Jan 22 - Jan 29	3.544	0.09				
Jan 30 - Mar 17	2.985	0.10				
Mar 18 - Mar 31	2.182	0.14				

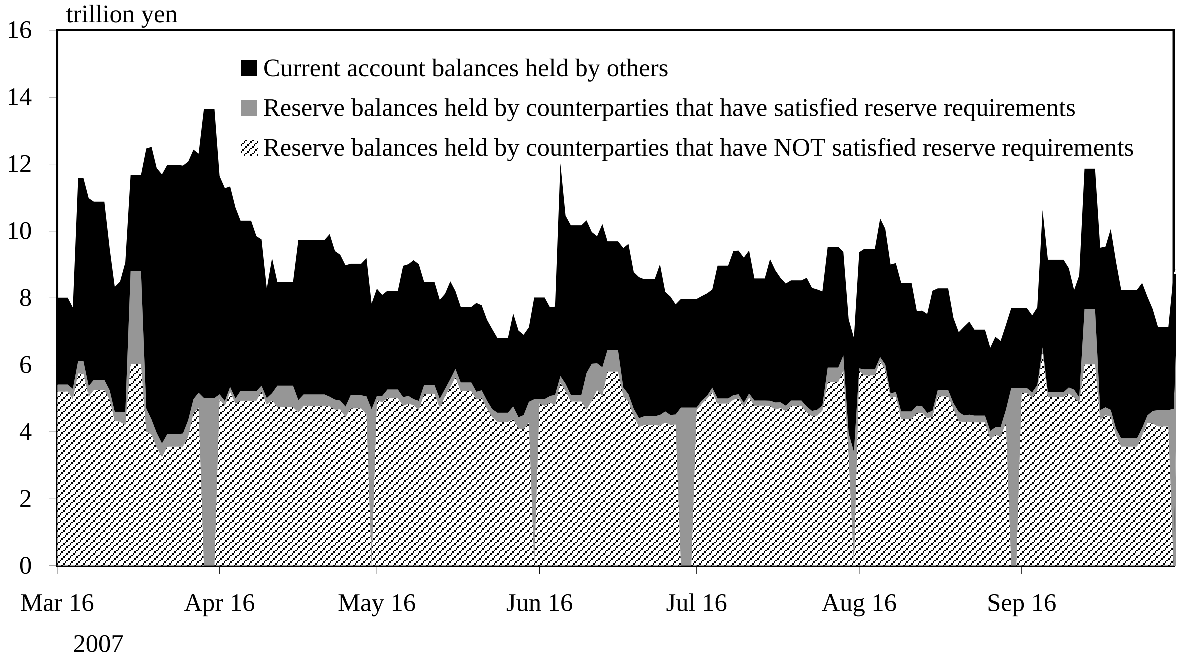
Notes:

1. Average and standard deviation of overnight rates are computed for each period during which a given target rate is maintained.
2. The previous business day's rate is applied to non-business days.
3. FOMC target rate: 5.25% (Apr 1 - Sep 17), 4.75% (Sep 18 - Oct 30), 4.50% (Oct 31 - Dec 10), 4.25% (Dec 11 - Jan 21), 3.50% (Jan 22 - Jan 29), 3.00% (Jan 30 - Mar 17), 2.25% (Mar 18 - Mar 31).
   ECB operating target rate (minimum bid rate in main refinancing operations [one-week operations]): 3.75% (Apr 1 - Jun 12), 4.00% (Jun 13 - Mar 31).
   BOJ target rate: 0.50% (Apr 1 - Mar 31).

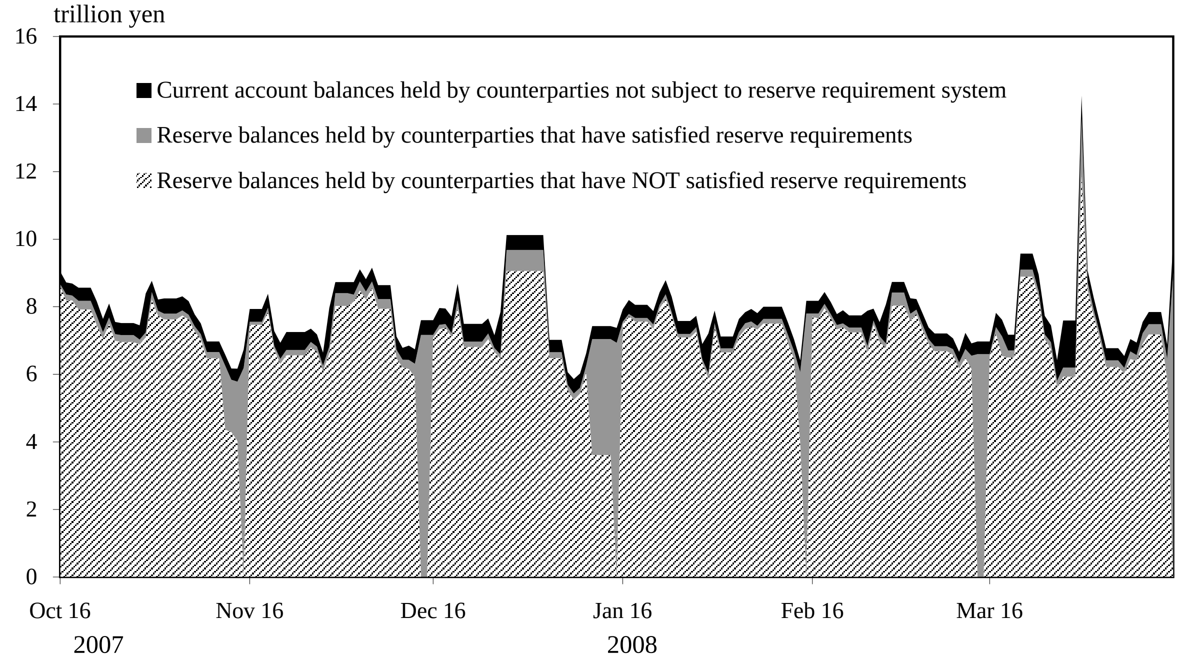
Source: FRB, Bloomberg, Bank of Japan

[Chart 14] Current Account Balances and Reserve Balances

(1) March 2007 reserve maintenance period - September 2007 reserve maintenance period (March 16 - October 15, 2007)



(2) October 2007 reserve maintenance period - March 2008 reserve maintenance period (October 16, 2007 - April 15, 2008)

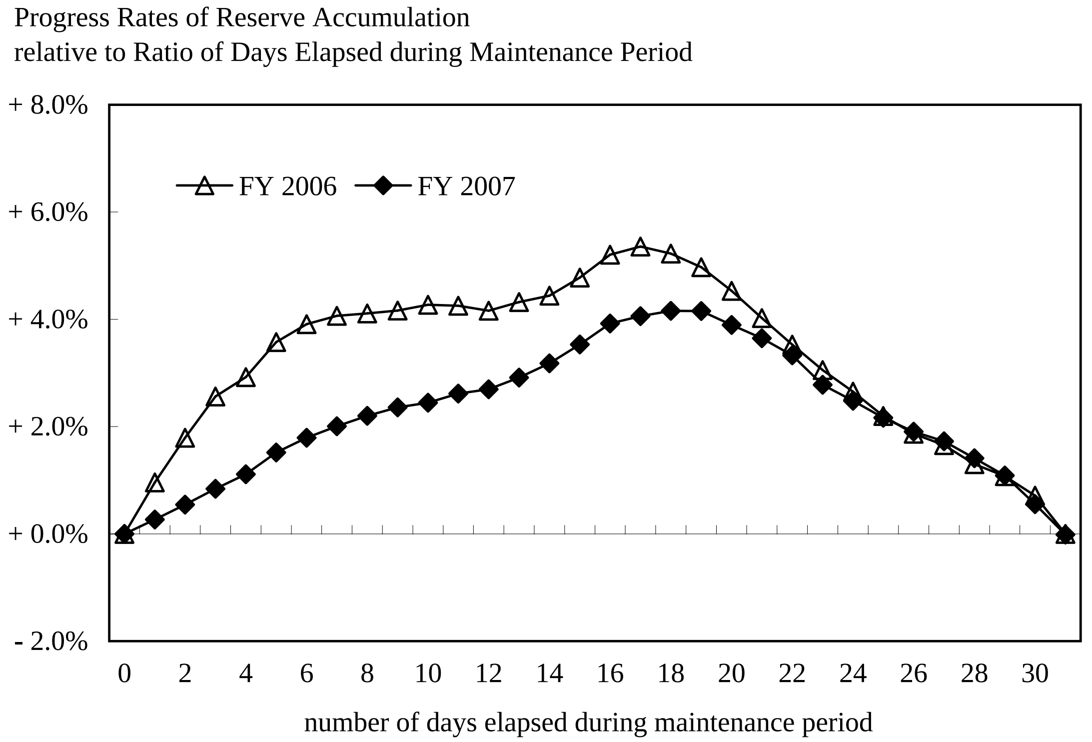


Notes:

1. "Counterparties that have NOT satisfied reserve requirements" are counterparties subject to reserve requirements that have not completed the accumulation of reserves required for the current reserve maintenance period as of the end of the day (does not include figures for the Japan Post Bank for Oct 1 - Oct 15).
2. "Counterparties that have satisfied reserve requirements" are counterparties subject to reserve requirements that have completed the accumulation of reserves required for the current reserve maintenance period as of the end of the day (does not include figures for the Japan Post Bank for Oct 1 - Oct 15).
3. "Others" are counterparties not subject to reserve requirements (includes figures for Japan Post Public Corporation and the Japan Post bank for Oct 1 - Oct 15).

Source: Bank of Japan

[Chart 15] Progress of Accumulation of Reserves



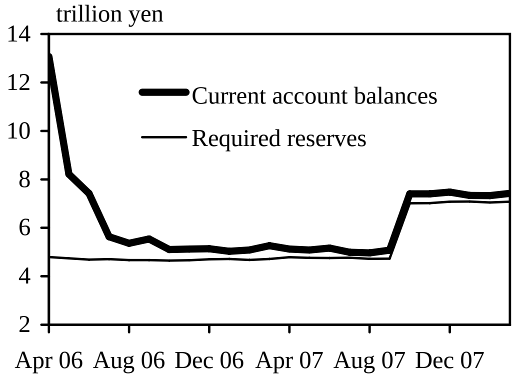
Notes:

1."Progress Rates of Reserve Accumulation" on a particular date during a maintenance period can be derived by dividing the cumulative reserve balance maintained by financial institions from the start of the reserve maintenance period to the date, by cumulative total required reserves for the maintenance period (the Progress Rates for each year are calculated by averaging the Progress Rates vis-à-vis number of days elapesed over a year).
2. "Ratio of Days Elapsed during Maintenance Period" is the ratio of days elapsed since the start of the reseve maintenance period to the total number of days in the reserve maintenance period (the Ratio for each year is calculated by averaging the Ratio vis-à-vis number of days elapsed over a year).
3. "Progress Rates of Reserve Accumulation relative to Ratio of Days Elapsed during Maintenance Periods" is the difference between Progress rate of Reserve Accumulation and Ratio of Days Elapesd during Maintenance Periods. When reserve balances are accumulated at a steady pace, this figure tends to be small for each day.
4. The period of coverage for fiscal 2006 is the period between the July 2006 and March 2007 reserve maintenance periods (target rate was raised from "effectively zero percent" to "around 0.25 percent"). The period of coverage for fiscal 2007 is the period between the April 2007 and March 2008 reserve maintenance periods.
5. The figures for the Japan Post Bank (Japan Post Public Corporation through September 2007) are not included in reserve balances.

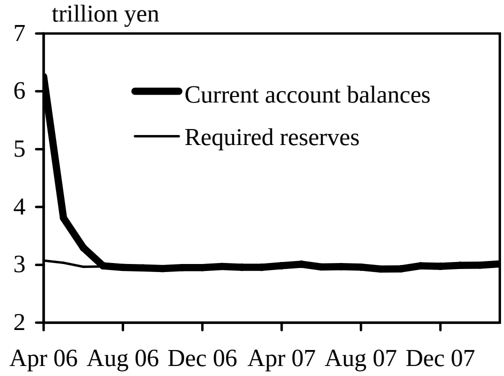
Source: Bank of Japan

[Chart 16] Current Account Balances by Sector

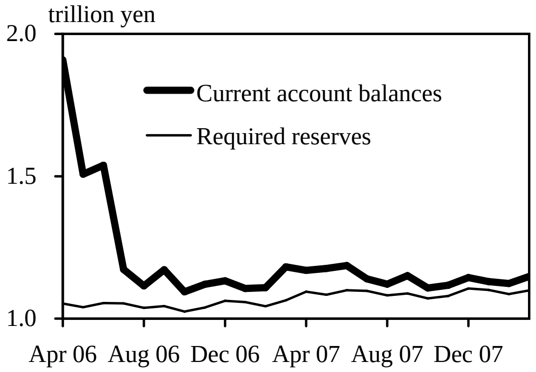
(1) Total for Institutions Subject to the Reserve Requirement System



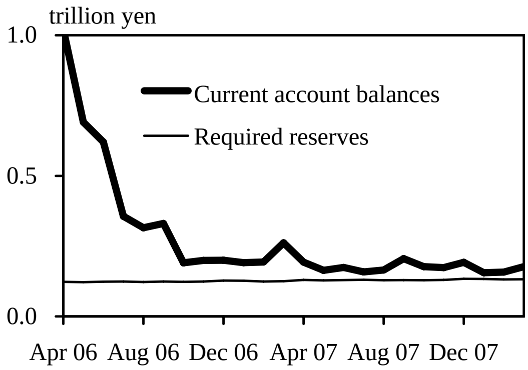
(1) – [1] City Banks



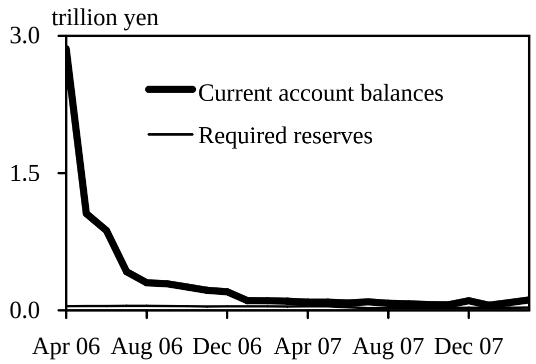
(1) – [2] Regional Banks



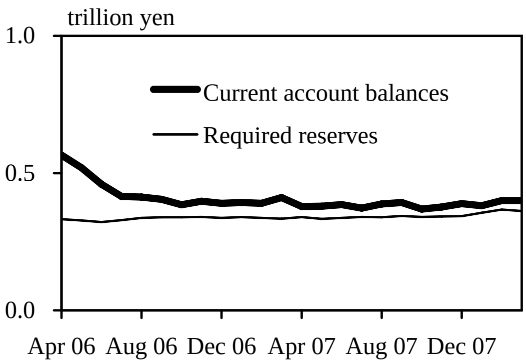
(1) – [3] Regional Banks II



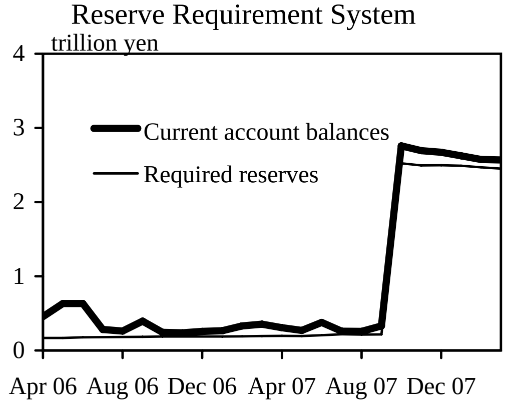
(1) – [4] Foreign Banks



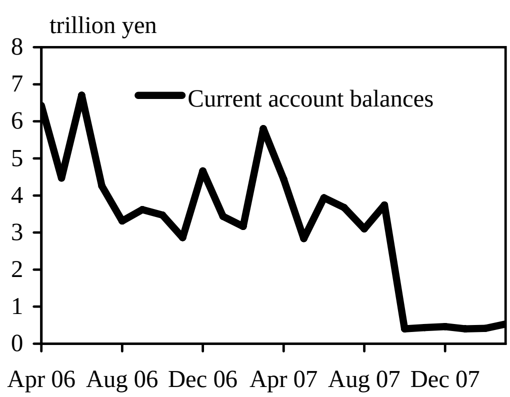
(1) – [5] Trust Banks



(1) – [6] Other Institutions Subject to the Reserve Requirement System



(2) Other Institutions



Notes:

1. Average amount outstanding for each reserve maintenance period. Figures for Japan Post Public Corporation and the Japan Post Bank for the period of October 1 - October 15 are included in "Other Institutions." Beginning with the October 2007 reserve maintenance period, figures for the Japan Post Bank are included in "Other Institutions Subject to the Reserve Requirement System."
2. Figures for the March 2008 reserve maintenance period are provisional.

Source: Bank of Japan, "Current Account Balances by Sector"

[Chart 17] Bank of Japan's Balance Sheet and Amounts Outstanding of Short-Term Funds-Supplying Operations

(1) Bank of Japan's Balance Sheet

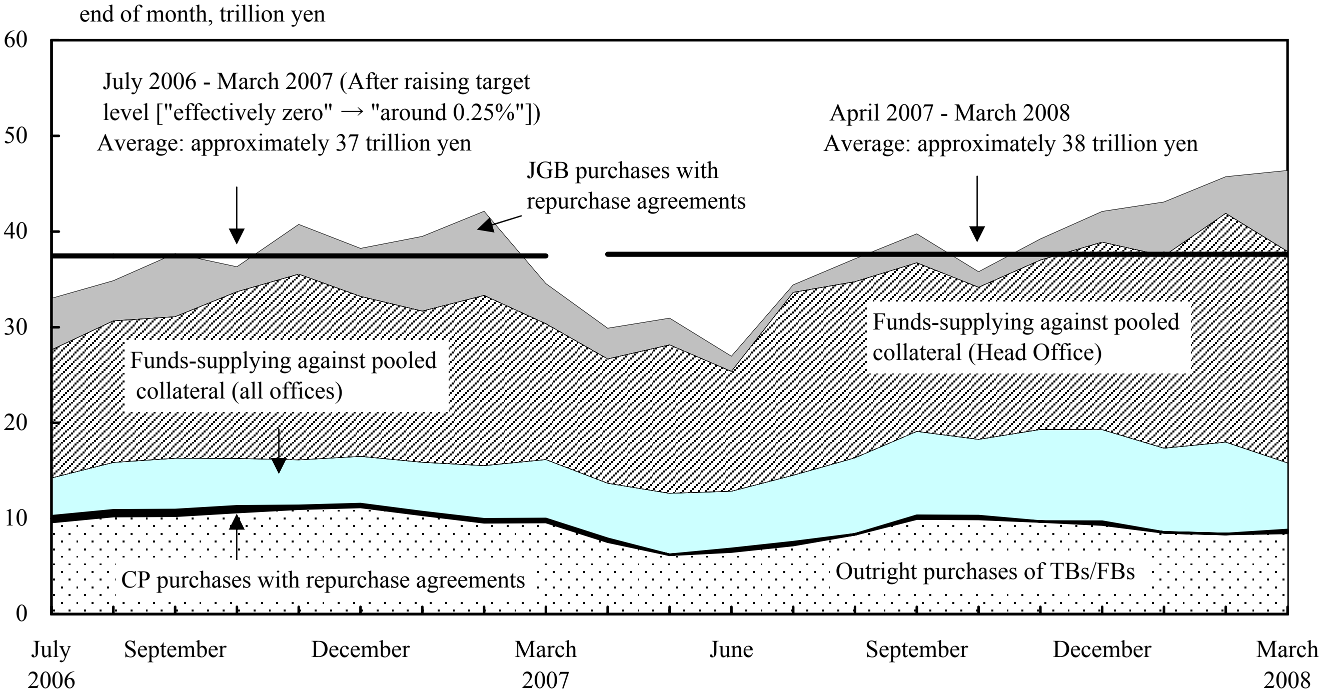
trillion yen

Assets				Liabilities			
	End-March 2008 (a)	End-March 2007 (b)	Change (a-b)		End-March 2008 (a)	End-March 2007 (b)	Change (a-b)
Short-term funds-supplying operations	46.4	34.6	+11.8	Short-term funds-absorbing operations	0.6	0.0	+0.6
TBs/FBs underwritten by the Bank (excluding market operations)	12.0	17.6	▲ 5.6	CABs	14.2	11.7	+2.6
Long-term JGBs	46.9	49.2	▲ 2.4	Government deposits and other debt	13.7	17.7	▲ 4.1
Stocks held as trust property	1.5	1.8	▲ 0.3	Banknotes	76.5	75.9	+0.6

Notes: 1. Only core balance sheet items are shown. Figures for end-March 2008 are provisional.
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.

Sources: Bank of Japan, "Monetary Base and the Bank of Japan's Transactions"

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



Note: Figures for end-March 2008 are provisional.

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

[Chart 18] Amounts Outstanding of Money Market Operations

trillion yen

	End-Mar 2007	End-Sep 2007	End-Mar 2008
Net amounts outstanding of short-term funds-supplying operations	34.6	39.2	45.8
Short-term funds-supplying operations	34.6	39.8	46.4
Purchases of JGSs with repurchase agreements	4.2	3.0	8.5
Funds-supplying operations against pooled collateral	20.4	26.5	29.1
At the Head Office	14.2	17.6	22.1
At all offices	6.2	8.8	7.0
Purchases of CPs with repurchase agreements	0.3	0.3	0.3
Outright purchases of TBs/FBs	9.6	10.0	8.5
Short-term funds-absorbing operations	0.0	0.6	0.6
Outright sales of bills	0.0	0.6	0.6
Sales of JGSs with repurchase agreements	0.0	0.0	0.0
Outright sales of TBs/FBs	0.0	0.0	0.0
Outright purchases of long-term JGBs	49.2	49.1	46.9

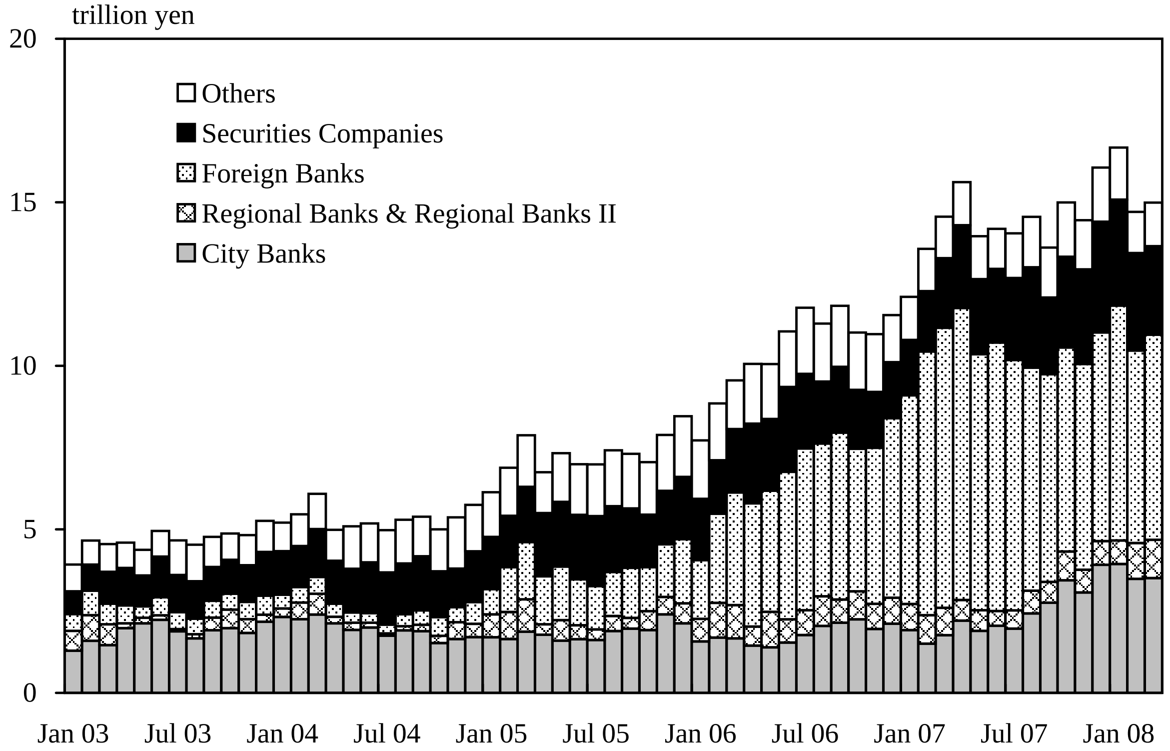
Note: "Outright purchases of long-term JGBs" is the total amount of outright purchases of JGBs and JGSs rolled over and underwritten by the Bank at maturity.

Source: Bank of Japan

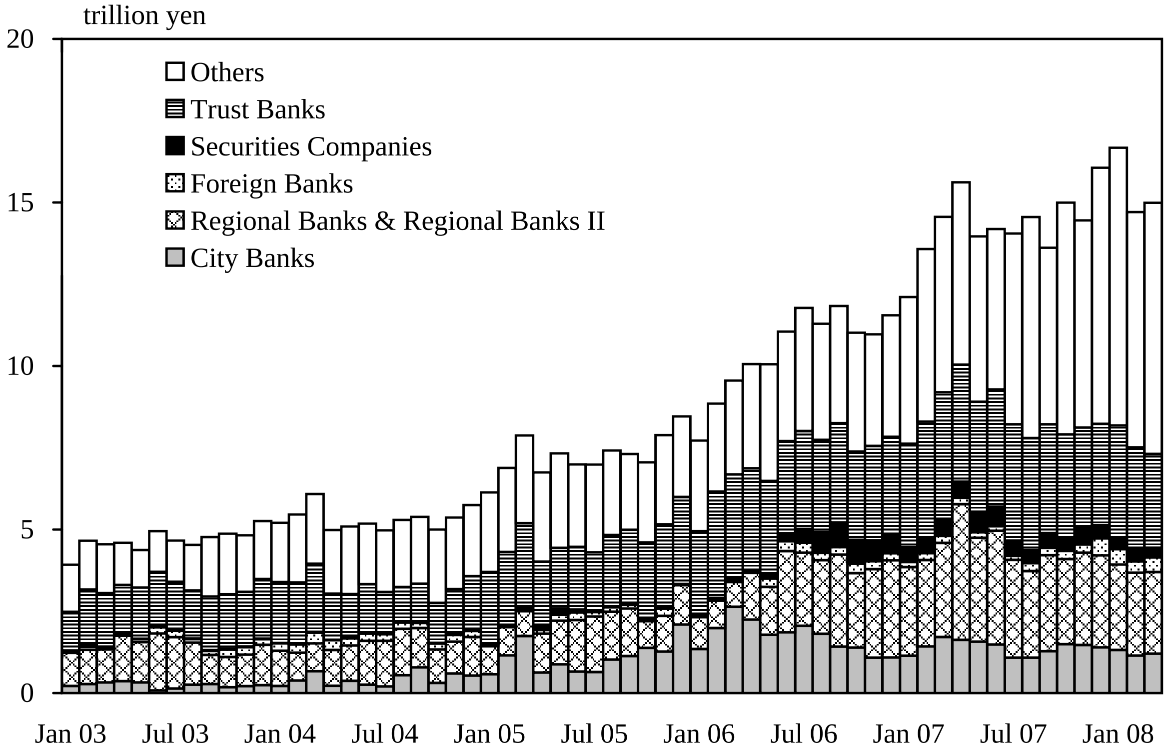
[Chart 19-1] Amounts Outstanding in the Call Market: By Sector of Participants

(1) Uncollateralized Call Market

By Borrower



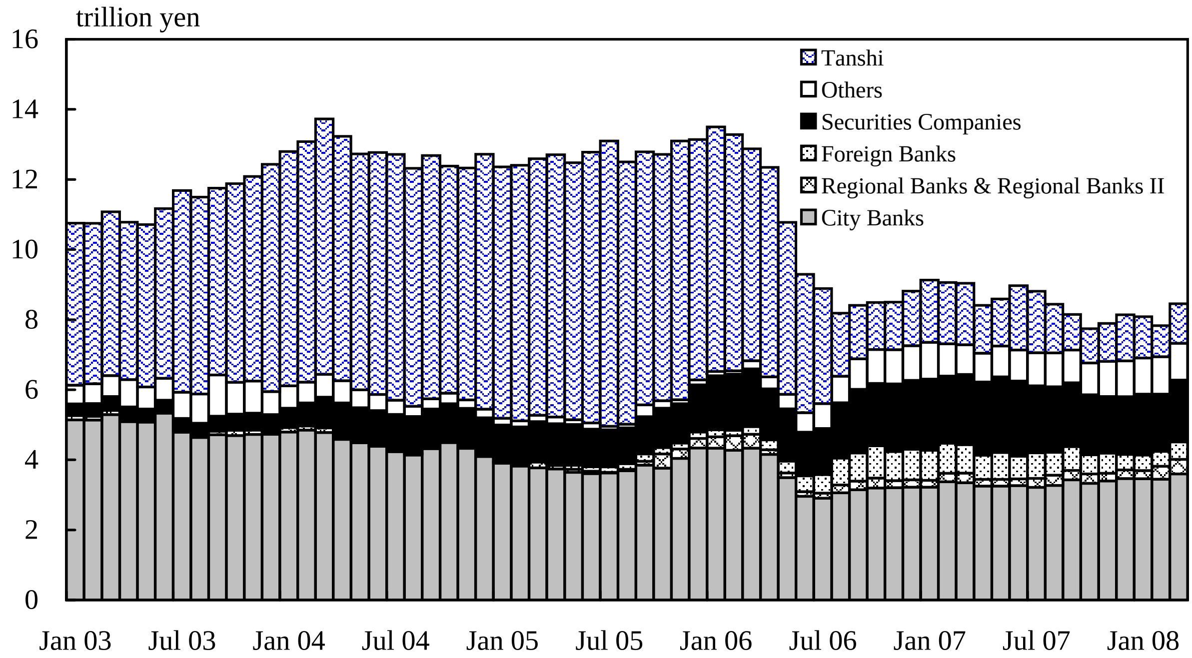
By Lender



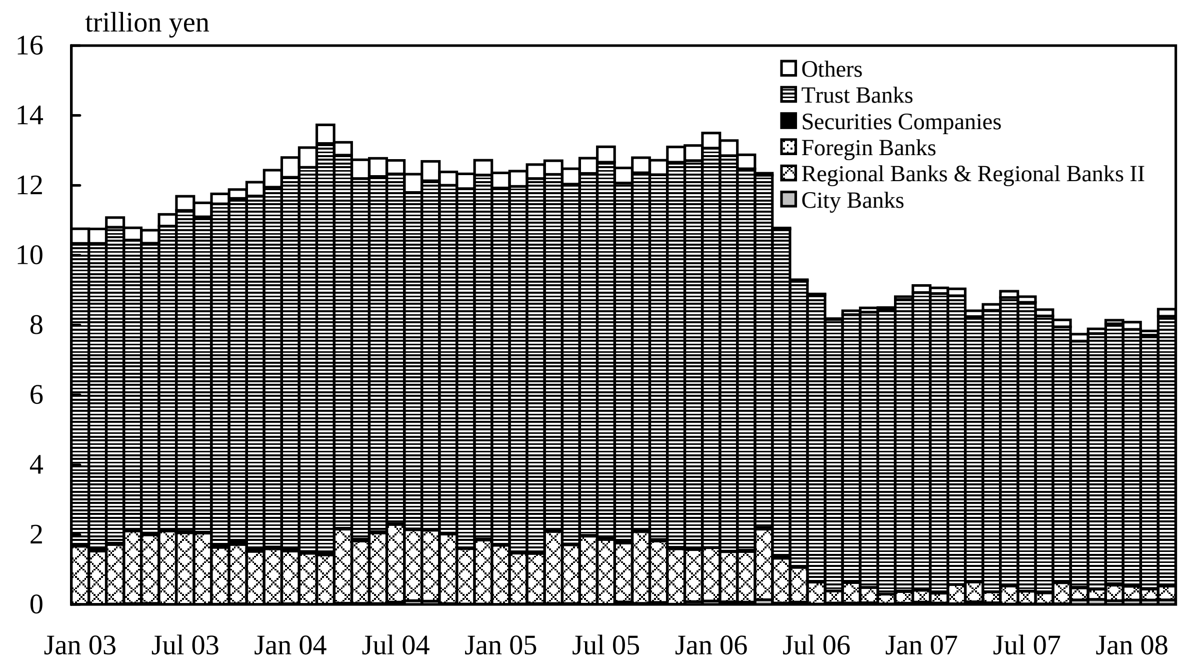
[Chart 19-2] Amounts Outstanding in the Call Market: By Sector of Participants

(2) Collateralized Call Market

By Borrower



By Lender

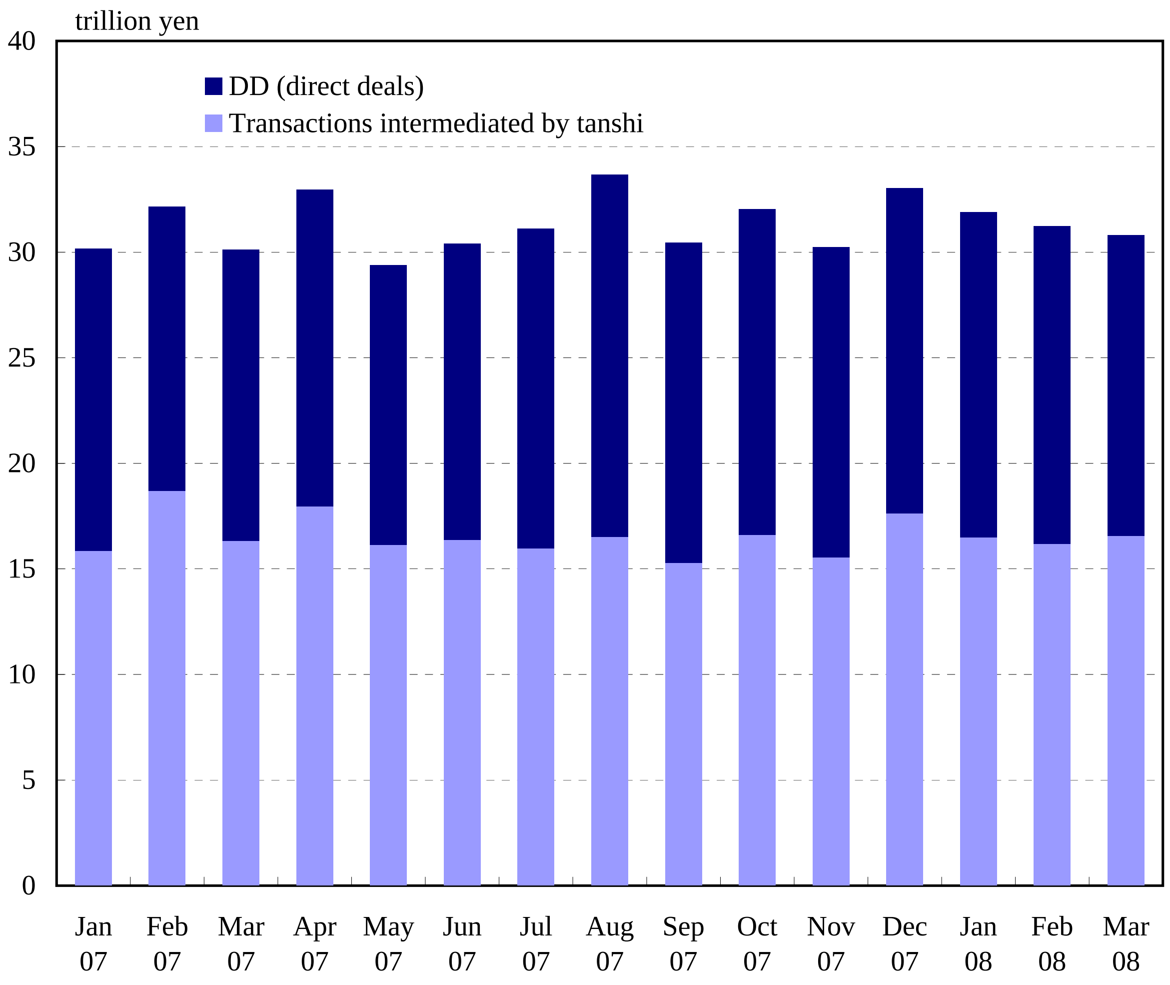


Notes:

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

Source: Bank of Japan

[Chart 20] Outstanding Balances of Call Transactions
(DD and intermediated by *tanshi*)

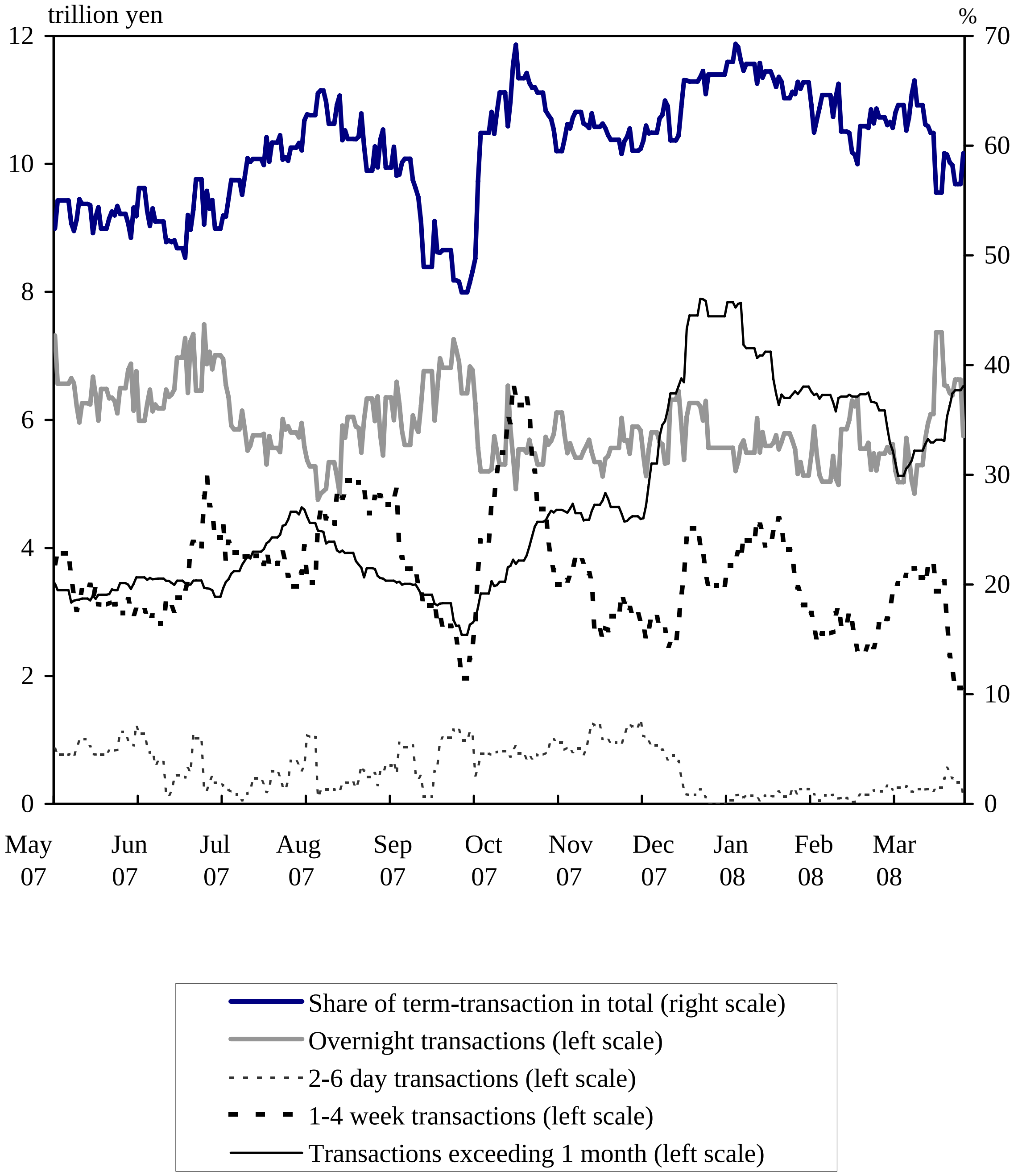


Notes:

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

Source: Bank of Japan

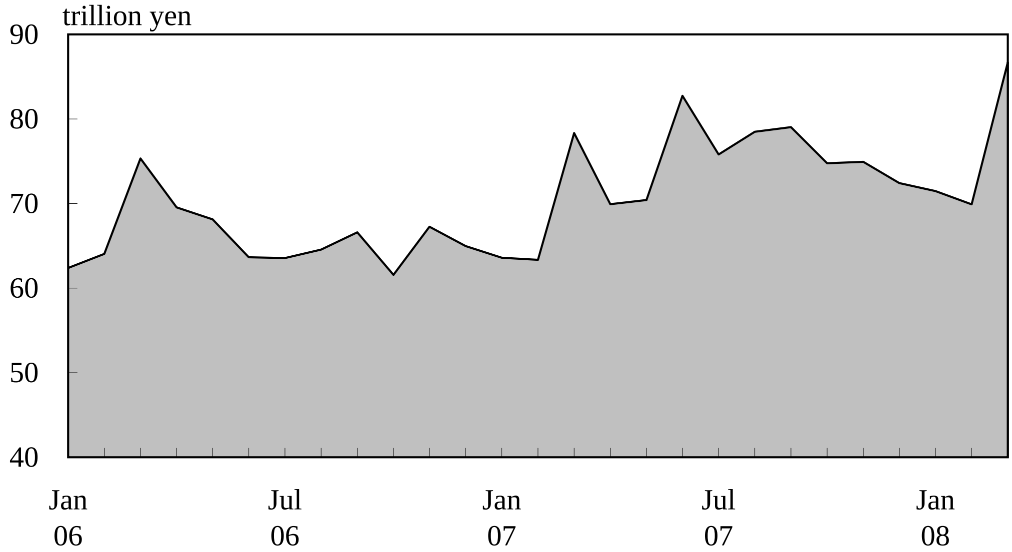
[Chart 21] Amounts Outstanding in the Call Market: By Term



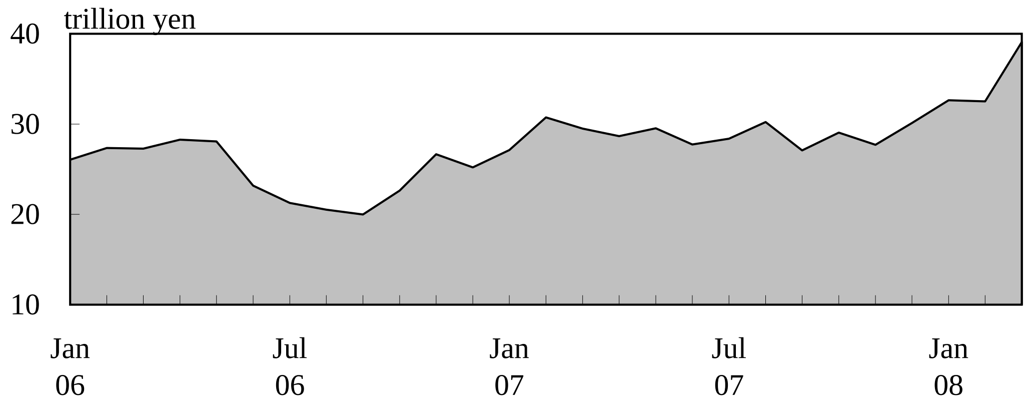
Source: Bank of Japan

[Chart 22] Outstanding Balances in Repo Market

(1) Outstanding balances of securities lending with cash collateral
(fund raising, securities lending)



(2) Outstanding balances of securities sales with repurchase agreements
(fund raising, securities selling)



Notes:

1. Selling transactions with repurchase agreements conducted by the Bank of Japan, government, local public organizations, and government agencies (Government) are excluded. Purchasing transactions with repurchase agreements with the Bank of Japan and Government are deducted .
2. Broadly defined, repo transactions consist of securities lending with cash collateral and securities sales with repurchase agreements. The total outstanding balances of the two types of transactions are given here. However, GC and SC are not differentiated.
   According to a survey of counterparties conducted by the Bank of Japan, outstanding balances of GC and SC as of the end of October 2006 amounted to 32.6 trillion yen and 53.5 trillion yen, respectively (see Bank of Japan, Financial Markets Department, "Financial Markets Report – Supplement – Changes observed in Money Markets after the Rise in the Policy Interest Rate in July 2006," April 19, 2007).

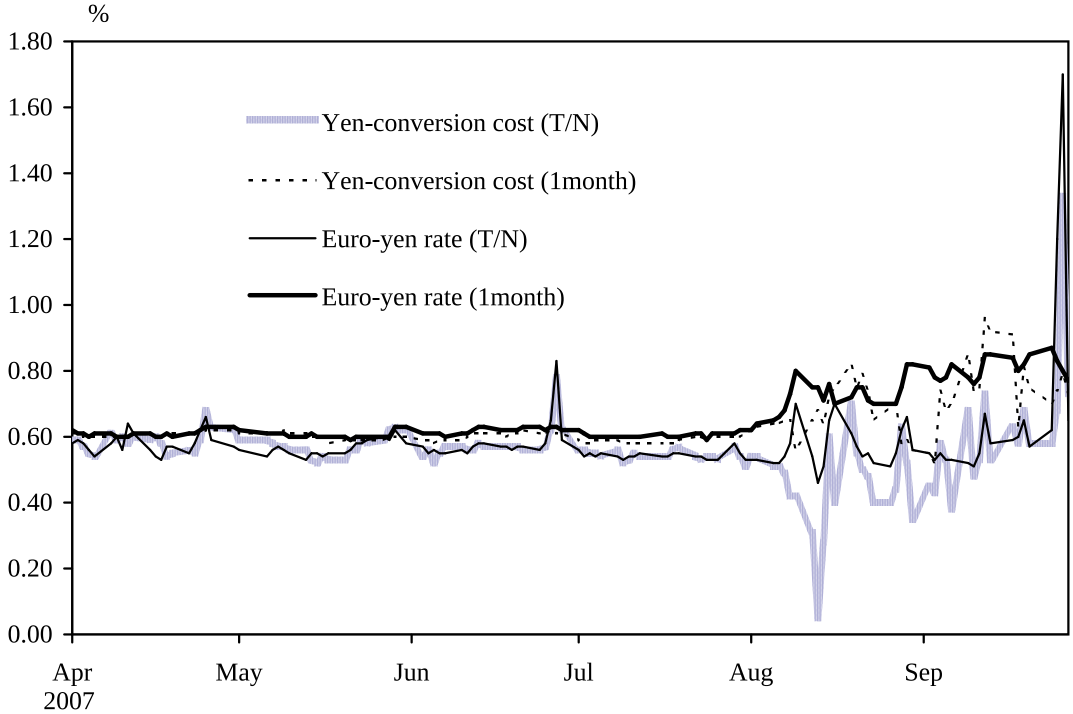
Source: Japan Securities Dealers Association

[Chart 23] Outline of the Tokyo Repo Rate

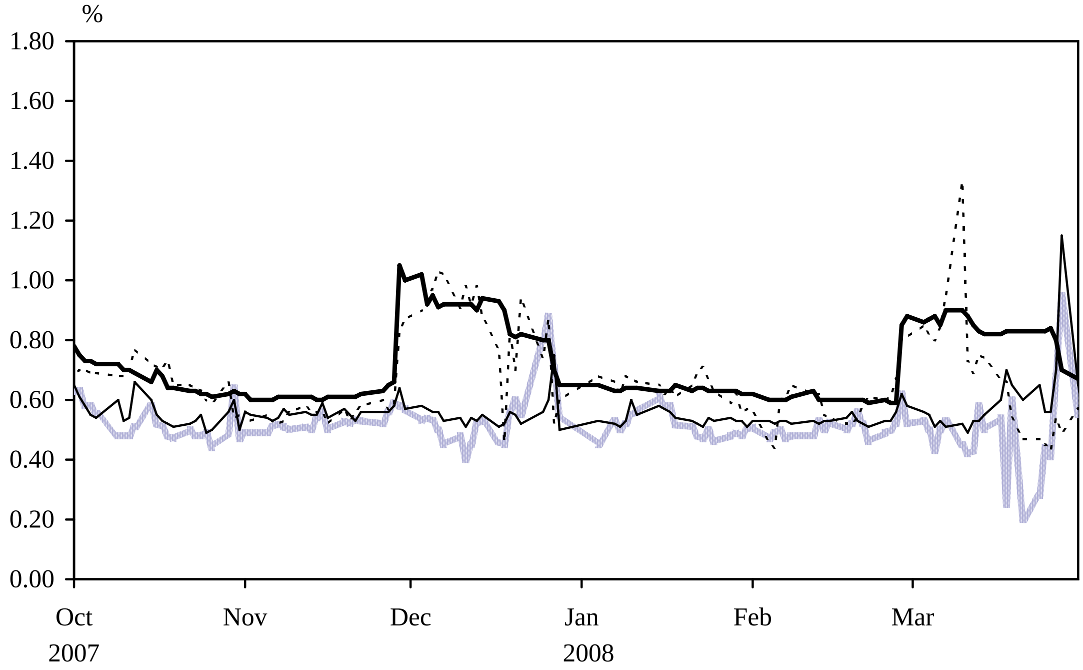
Calculation method	･Reference method ([as of March 2008] 23 major market participants report the rates that they consider as the prevalent markets rates at a designated points in time. The highest and lowest three reported rates are excluded, and a simple average is computed for the remaining figures).
Relevant Transactions	･Transactions under repurchase agreements and securities lending with cash collateral are covered together. ･GC (General Collateral) repo transactions.
Reported rate	･Mid rates of offer and bid rates.
Maturity	･Overnight (T+0, T+1, S/N [T+2]), 1 week, 2 weeks, 3 weeks, 1 month, 3 months, 6 months, and 1 year.
Designated time, Reporting time and Release time	･Rates as of 11:00 a.m. should be reported by 11:45 a.m. ･The Tokyo Repo rate, with the rates reported by each reference financial institution, is released at around 12:30 p.m through the financial information providers designated by the Bank. ･The Tokyo Repo Rate is also available on the Bank’s website.
Publisher	･For time being, Bank of Japan will calculate and release the rate.

[Chart 24] Yen-Conversion Costs and Euro-Yen Rate

(1) April 2, 2007 - September 28, 2007



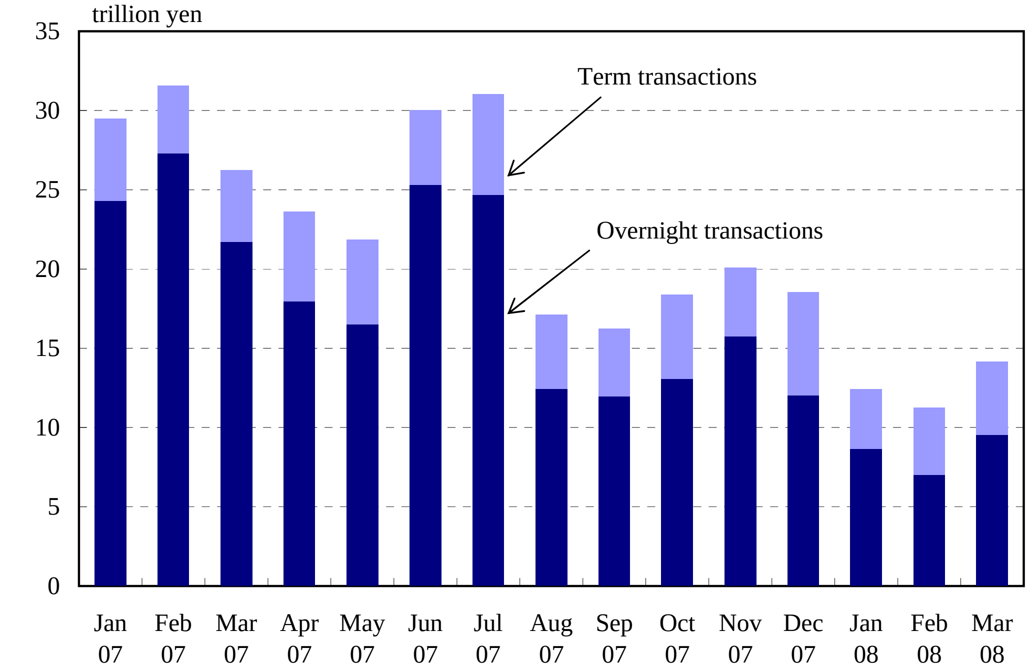
(2) Octorber 1, 2007 - March 31, 2008



Source: QUICK, Meitan Tradition, Bank of Japan

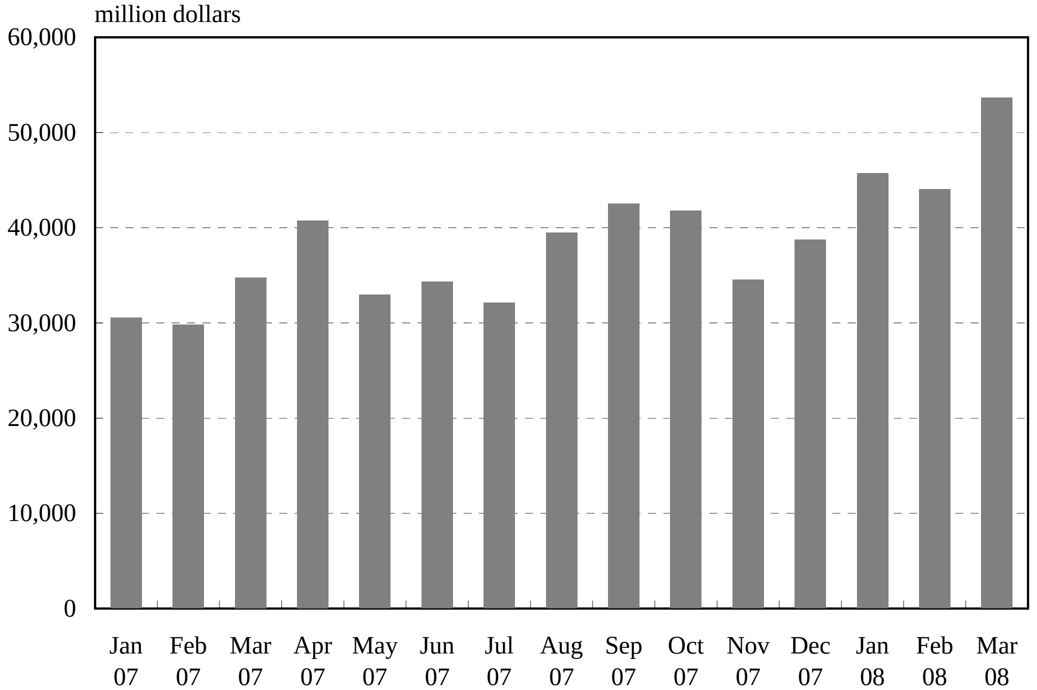
[Chart 25] Amounts of Euro-Yen and Foreign Exchange Swap Transactions

Euro-Yen Transaction Amounts (Tokyo Offshore Market)



Note: Cumulative monthly transactions related to "Offshore Accounts"
Source: Bank of Japan

Foreign Exchange Swap Transaction Amounts
(USD/JPY transactions, average per business day)



Source: Monery Brokers Association

[Chart 26] Amounts of Pooled Collateral Submitted to the Bank

trillion yen

Type of collateral	End-Mar 2007		End-Mar 2008	
	Collateral value	Share in total	Collateral value	Share in total
Total	75.9	100.0%	79.9	100.0%
JGSs	49.6	65.4%	52.0	65.0%
Interest-bearing JGBs [1]	37.9	49.9%	37.8	47.3%
TBs/FBs	11.7	15.5%	14.2	17.7%
Corporate bonds	0.3	0.5%	0.7	0.9%
Other bonds	4.5	6.0%	7.0	8.7%
Short-term corporate bonds	2.0	2.6%	2.5	3.1%
Bills	0.2	0.3%	0.2	0.2%
CPs	0.0	0.0%	0.0	0.0%
Loans on deeds	21.2	27.9%	20.1	25.2%
To Corporations	0.3	0.4%	0.3	0.4%
To Local allocation taxes special account, etc. [2]	20.8	27.5%	19.8	24.8%
Of which, private liabilities	2.9	3.8%	3.7	4.6%

Notes:
1. Consists of interest-bearing bonds, discount bonds, converted bonds and STRIPS.
2. Consists of Loans to Local Allocation Tax and Grant Tax Special Account, and assets of Deposit Insurance Corporation of Japan, Industrial Revitalization Corporation of Japan, and Bank's Shareholding Purchase Corporation. Note that figures for end-March 2008 do not include loans on deeds to Industrial Revitalization Corporation of Japan, which was dissolved.

Source: Bank of Japan