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Trends in the Money Market in Japan

— Results of the Tokyo Money Market Survey (August 2013) —

Financial Markets Department
Bank of Japan

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Trends in the Money Market in Japan

Results of the Tokyo Money Market Survey (August 2013)

■ Summary ■

Since the Bank of Japan's introduction of quantitative and qualitative monetary easing in April 2013, the current account balances at the Bank of Japan have increased significantly. However, there were no significant changes in the amount outstanding in the money market, credit lines established for uncollateralized transactions, or the administrative structures of market participants in repo and call transactions.

It appears that the amount outstanding in the money market was underpinned by factors such as the following: (1) arbitrage transactions across the money market and the complementary deposit facility; (2) transactions among some market participants aimed at maintaining medium- and long-term relationships with counterparties; (3) an increase in lending by investment trusts reflecting the rise in stock prices; and (4) active repo transactions by non-residents.

The Financial Markets Department of the Bank of Japan intends to continue to observe closely the developments in the money market through day-to-day monitoring activities and implementation of the Tokyo Money Market Survey.

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I. Overview of the Tokyo Money Market Survey

A. The Survey

In August 2013, the Financial Markets Department of the Bank of Japan (the Bank) conducted the fourth Tokyo Money Market Survey (August 2013) to recognize developments in the Japanese money market.

Since 2008, this series of surveys had been conducted every other year until 2012. However, to better meet the needs of market participants and observe market trends more precisely, the Bank decided to conduct the survey annually beginning with the 2013 survey. At the same time, it reviewed the items contained in the survey to streamline the questions asked of respondents. The survey includes a full range of questions in even-numbered years, but in odd-numbered years -- as was in 2013 -- the Bank intends to reduce the scope of items surveyed, barring major changes in the market environment.

The survey is based on data including the amount outstanding in the call and repo markets as of the end of July 2013. All previous surveys were conducted as of end July.

The survey covers all eligible counterparties in the Bank's money market operations, as well as other major participants in the money market. The number of respondents in the survey increased from the previous survey, from 234 to 284. This reflects the rise in the number of eligible counterparties in the Bank's money market operations (from 211 to 261).

▽ Number of Respondents in the Tokyo Money Market Survey (August 2013)

	2012 survey	2013 survey
Total respondents	234	284
Eligible counterparties in the Bank's money market operations	211	261

Note: In addition to the eligible counterparties in the Bank's money market operations, some of the major life insurance companies, general insurance companies and major asset management companies participated in the survey.

B. Overview of Results

Since the Bank's introduction in April 2013 of quantitative and qualitative monetary easing, the current account balances at the Bank have increased significantly. However, there were no significant changes in the amount outstanding in the money market, credit lines established for uncollateralized transactions, or the administrative structures of market participants in repo and call transactions.

It appears that the amount outstanding in the money market was underpinned by factors such as the following: (1) arbitrage transactions across the money market and the complementary deposit facility; (2) transactions among some market participants aimed at maintaining medium- and long-term relationships with counterparties; (3) an increase in lending by investment trusts reflecting the rise in stock prices; and (4) active repo transactions by non-residents.

In detail, the results of the survey showed that transactions expanded among financial institutions that were ineligible for the complementary deposit facility. It was also found that money market participants reviewed money market instruments, forms of contracts and the terms of their transactions.

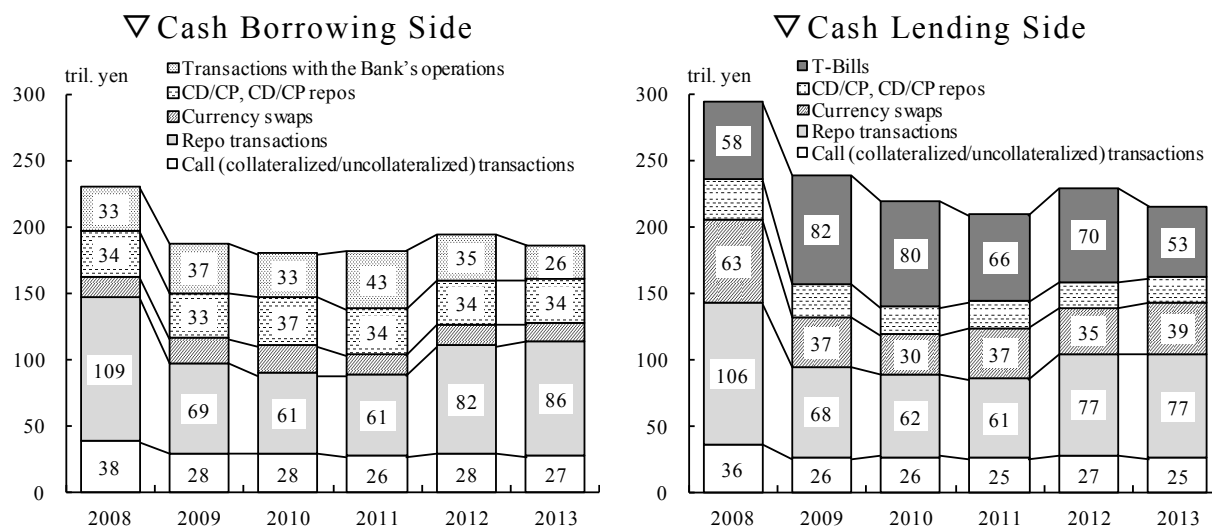
Summaries of money market transactions by market and type of financial institutions are presented below.

II. Transactions in the Money Market

A. Amount Outstanding in the Money Market

As part of its quantitative and qualitative monetary easing introduced in April 2013, the Bank has been providing ampler amounts of funds to the financial market. At the end of July 2013, the current account balances at the Bank totaled 85.1 trillion yen, more than double the 36.8 trillion yen held at the end of July 2012. Despite this massive provision of funds, the survey did not find major changes in the amount outstanding of transactions in the money market. Following a significant decrease after the Lehman shock, the amount outstanding has remained more or less flat. There were no significant changes before and after the introduction of quantitative and qualitative monetary easing (Chart 1).

Chart 1: Amount Outstanding in the Money Market



Note: Among call transactions, the figures for uncollateralized call transactions are calculated as total transactions through *tanshi* companies (money market broker) and direct dealing (DD) transactions¹. The source of data on transactions through *tanshi* companies is "Amount outstanding in the Call Money Market" by the Bank (the same applies hereafter.)

Transactions with the Bank's operations denote Funds-Supplying Operations against Pooled Collateral, Purchase/Sale of Japanese Government Securities with Repurchase Agreements, Purchases of CP with Repurchase Agreements, Funds-Supplying Operations to Support Financial Institutions in Disaster Areas, Fund-Provisioning Measure to Support Strengthening the Foundations for Economic Growth, Fund-Provisioning Measure to Stimulate Bank Lending.

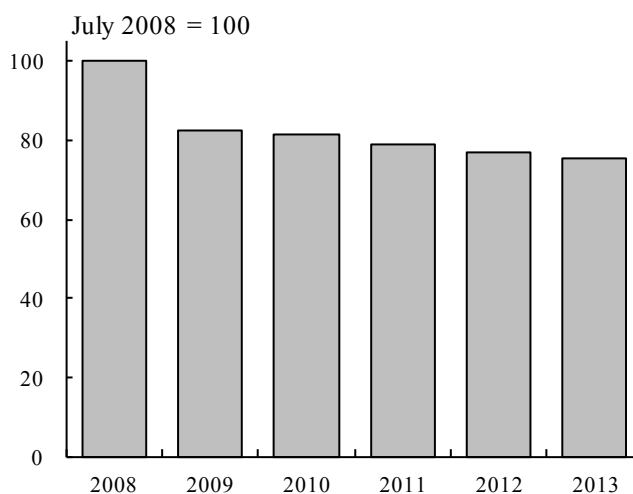
¹ In this paper, "direct dealing transactions" excludes transactions within the same financial group.

B. Market Participants' Attitudes toward Transactions

No significant changes were seen in credit lines established for uncollateralized transactions (uncollateralized call transactions, Euroyen transactions, etc.) or in the administrative structure of market participants before and after the introduction of quantitative and qualitative monetary easing.

Credit lines established for uncollateralized transactions continued to decrease at a very moderate pace after a sharp decline due to the surge in concerns over credit risks following the Lehman shock. Transactions in the uncollateralized call market did not increase noticeably after the Lehman shock, and against this backdrop it appears that financial institutions continued to adjust their credit lines, in accordance with their transaction records, by eliminating credit lines that were not being used. However, some respondents commented that they were "establishing new credit lines in order to secure borrowers." The pace of the decrease in credit lines decelerated on the whole (Chart 2).

Chart 2: Number of Credit Lines Established

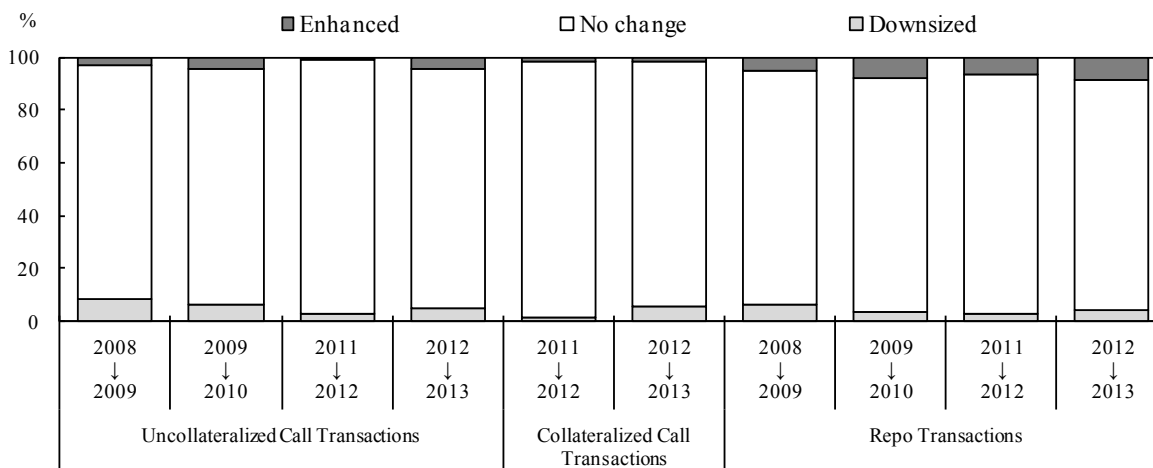


Note: Number of respondents whose total number of credit lines established could be confirmed for all years from 2008 to 2013. Adjusted for the effects of mergers, etc.

Overall, there were no significant changes in the administrative structure of market participants in the money market (Chart 3). A majority of respondents reported that there were "no changes" to the administrative structure for call and repo transactions. A closer examination revealed that

the financial institutions which scaled down their administrative structure for collateralized call transactions outnumbered those that reinforced them, while in repo transactions the opposite was the case.

Chart 3: Changes in Administrative Structures by Type of Transaction



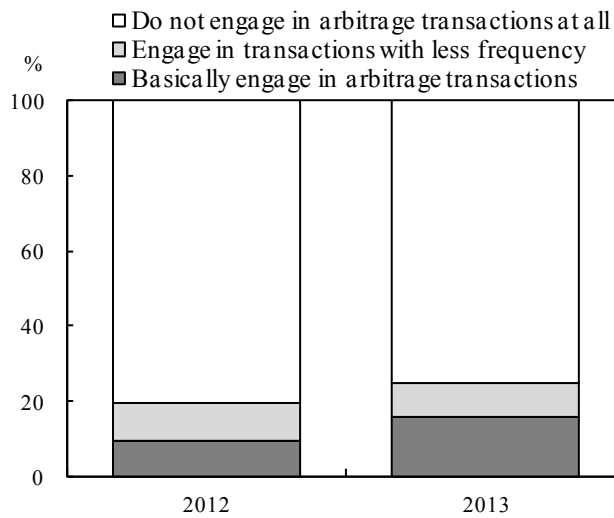
Note: Surveys regarding collateralized call transactions were not implemented at the end of 2009 (balance between 2008 and 2009) and 2010 (balance between 2009 and 2010).

Results also suggested that the complementary deposit facility² underpinned money market transactions. Several respondents commented, "Arbitrage transactions across the current account and the money market were triggered when market rates such as the uncollateralized call rate significantly diverged from the interest rate applied to the complementary deposit facility (i.e., 0.1 percent)."

The majority of respondents indicated that they did not engage in arbitrage transactions in the money market. On the other hand, those responding that they "basically engaged in arbitrage transactions" increased (Chart 4). It appeared that while ample funds have been provided to the money market under quantitative and qualitative monetary easing, some financial institutions continued to search for arbitrage opportunities in the money market.

² The Bank pays interest on excess reserve balances (balances held at the account with the Bank in excess of required reserves under the reserve deposit requirement system).

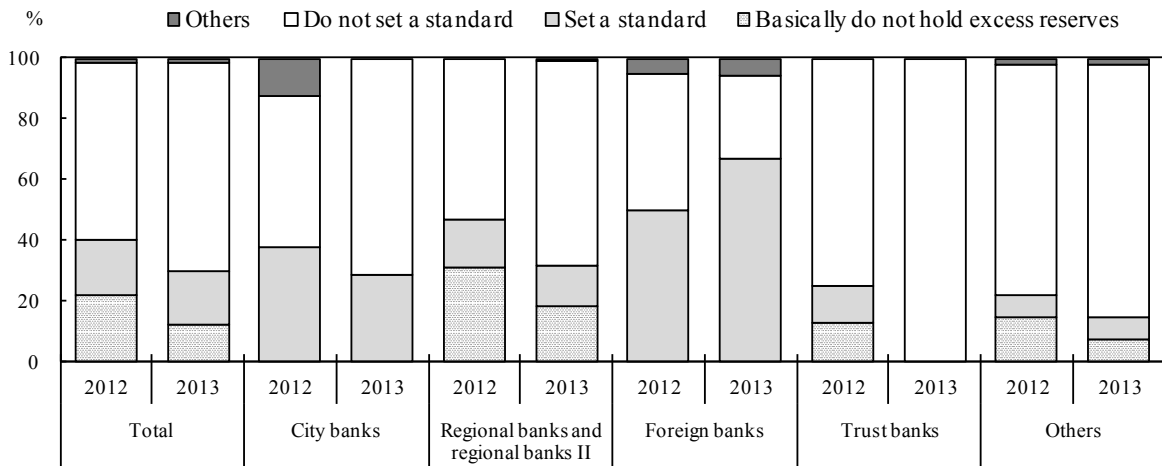
Chart 4: Stance on Arbitrage Transactions



Note: Respondents who were included in the surveys in both 2012 and 2013. Adjusted for the effects of mergers, etc.

Some financial institutions eligible for the complementary deposit facility seemed to have reviewed their stance of holding excess required reserves at the Bank. In particular, the proportion of regional banks and regional banks II responding that they "basically do not hold excess of required reserves" declined (Chart 5).

Chart 5: Stance toward Excess Reserves



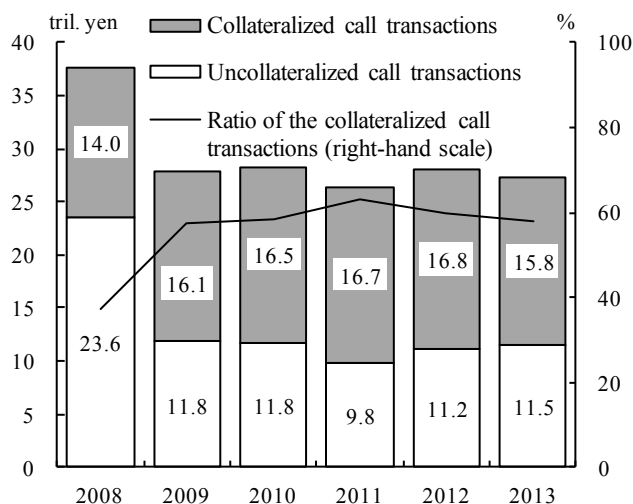
Note: Respondents are financial institutions eligible for the reserve deposit requirement system that were included in the surveys in both 2012 and 2013.

The following sections examine more closely the developments in individual markets, focusing on the call and repo markets.

C. Call Market

The amount outstanding in the call markets (uncollateralized and collateralized call markets) remained more or less flat before and after the introduction of quantitative and qualitative monetary easing.

Chart 6: Amount Outstanding in the Call Market and the Ratio of the Collateralized Transactions

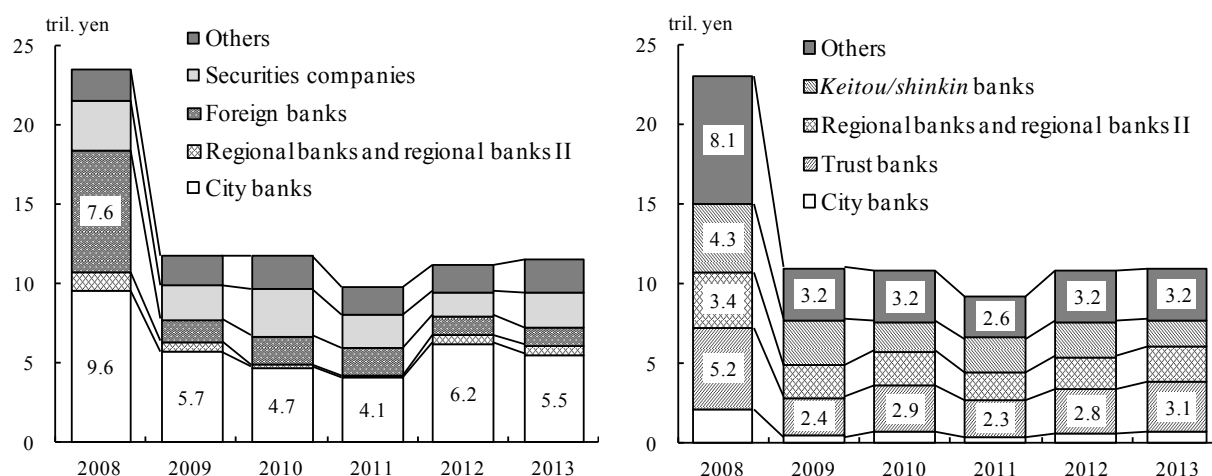


Note: Cash borrowing side.

The amount outstanding of uncollateralized call transactions increased from the previous year, while the collateralized call transactions decreased. As a result, the ratio of the collateralized call transactions to the total transactions in the call markets, which had trended upward after the Lehman shock until 2012, declined somewhat (Chart 6).

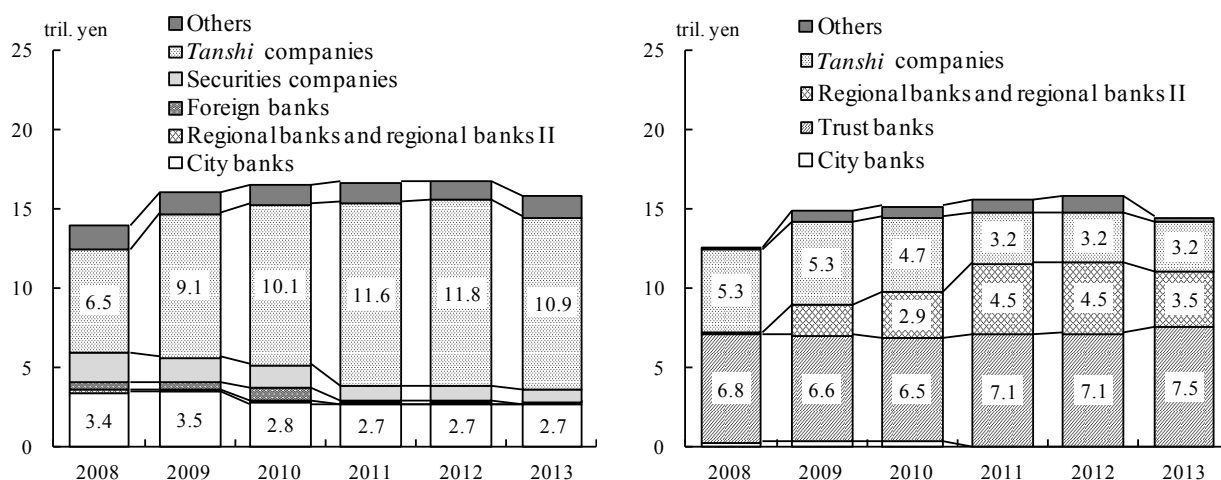
Regarding uncollateralized call transactions, some respondents commented, "Fund lending has increased because excess funds have increased in investment trusts reflecting rising stock prices." Other respondents stated, "Some counterparties had to shoulder the costs of rebuilding of transactions after shrinking transactions at the time of quantitative easing. From the viewpoint of maintaining long-term business relations with lenders and maintaining their administrative structure for call money borrowing, some financial institutions continued to borrow/raise money in the call market. This occurred even when they held large amounts of cash (on their balance sheets), and it has provided the underpinnings to the total amount outstanding" (Chart 7).

Chart 7: Amount Outstanding in the Uncollateralized Call Market
 ▽ Cash Borrowing Side ▽ Cash Lending Side



On the other hand, in regard to collateralized call transactions, decreases occurred in both lending by regional banks and regional banks II and borrowing by *tanshi* companies (money market brokers). At the same time, as perceptions of abundant liquidity remained strong, yields on Treasury discount bills (T-Bills) occasionally fell below the interest rate applied to the complementary deposit facility (0.1 percent) due to the demand for T-Bills as collateral and the demand from foreign investors. In this context, some respondents commented, "Collateralized call transactions need to be curtailed when yields on lending including T-Bills are lower than the borrowing funds rate" (Chart 8).

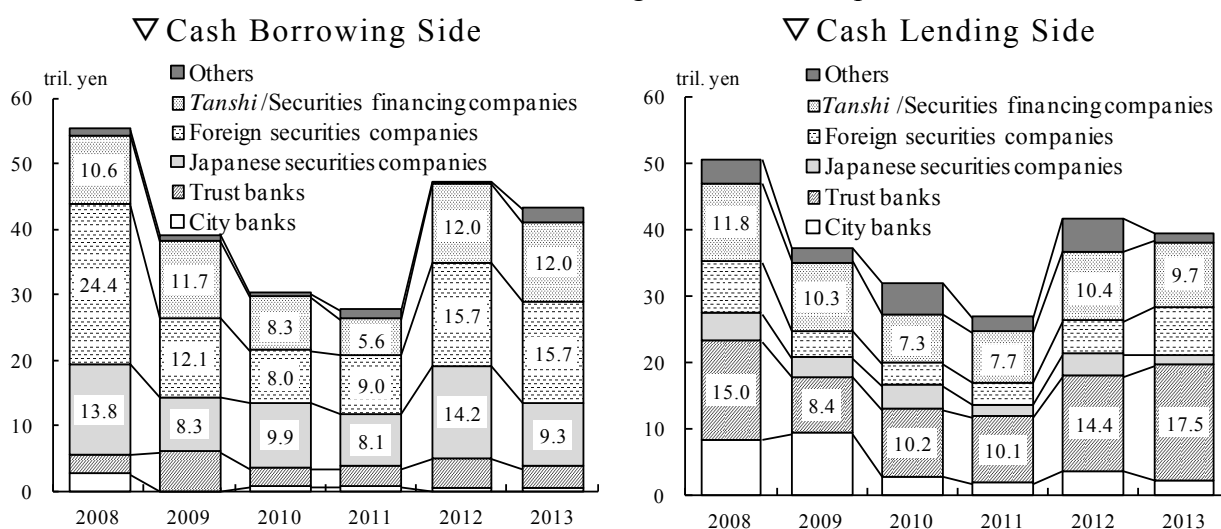
Chart 8: Amount Outstanding in the Collateralized Call Market
 ▽ Cash Borrowing Side ▽ Cash Lending Side



D. Repo Market³

The amount outstanding in the repo market (which comprises general collateral [GC] repo transactions⁴ and special collateral [SC] repo transactions⁵) remained more or less unchanged from the previous year as a whole (Chart 1). While the amount outstanding in the GC repo market decreased, that in the SC repo market increased.

Chart 9: Amount Outstanding in the GC Repo Market



A breakdown of the amount outstanding of GC repo transactions by sector on the cash borrowing side showed that while the amount outstanding of foreign securities companies remained more or less flat, that of Japanese securities companies declined (Chart 9).

Some respondents pointed out, "When the volatility of Japanese government bond (JGB) prices has increased, securities companies have reduced the amount outstanding of their JGB holdings to reduce their risks. Consequently, their needs for GC repo transactions have decreased." Although foreign securities companies generally face a similar situation, some commented, "As JGB transactions by non-residents have increased,

³ In this paper, the market for cash-collateralized securities lending transactions (so called *gentan* repo) and securities repurchase transactions (so called *gensaki* repo) is called the "repo market."

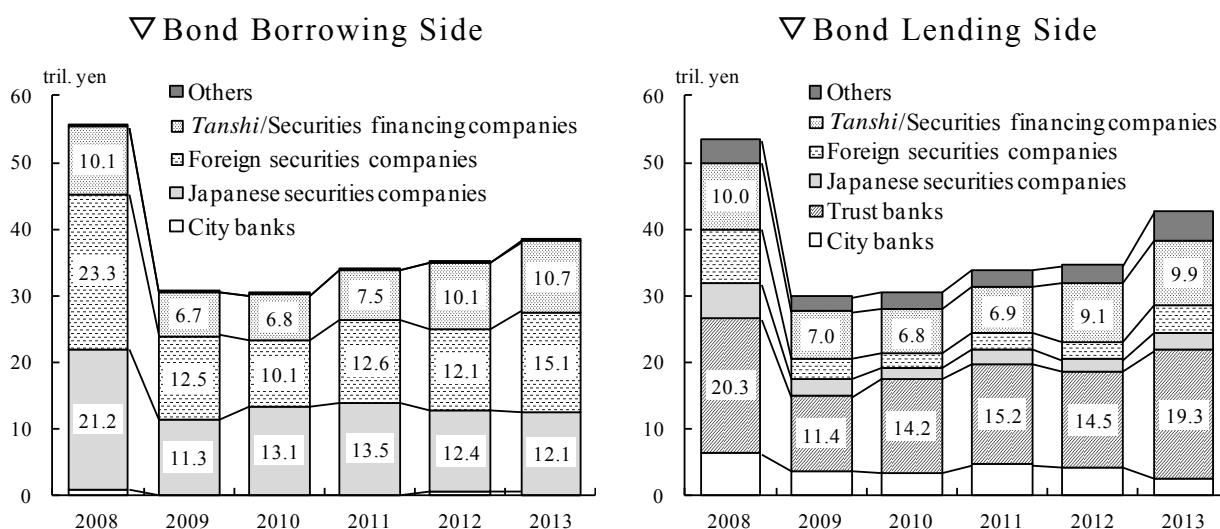
⁴ These are repo transactions in which the securities to be used as collateral are not specified.

⁵ These are repo transactions in which the securities to be used as collateral are specified.

foreign securities companies have been meeting the needs for repo transactions of their overseas clients. These transactions have kept the amount outstanding of their total transactions more or less unchanged."

Some commented on the cash lending side, "As the GC repo rates have been falling, we do not lend funds in GC repos actively." However, an increase occurred in lending through GC repo transactions by trust banks⁶, which are the principal lenders. On this point, some respondents commented, "As SC repo transactions have been expanding, the presence of the matching of GC and SC repo transactions has provided the underpinnings to the amount outstanding of GC repo transactions." (See Box 1.)

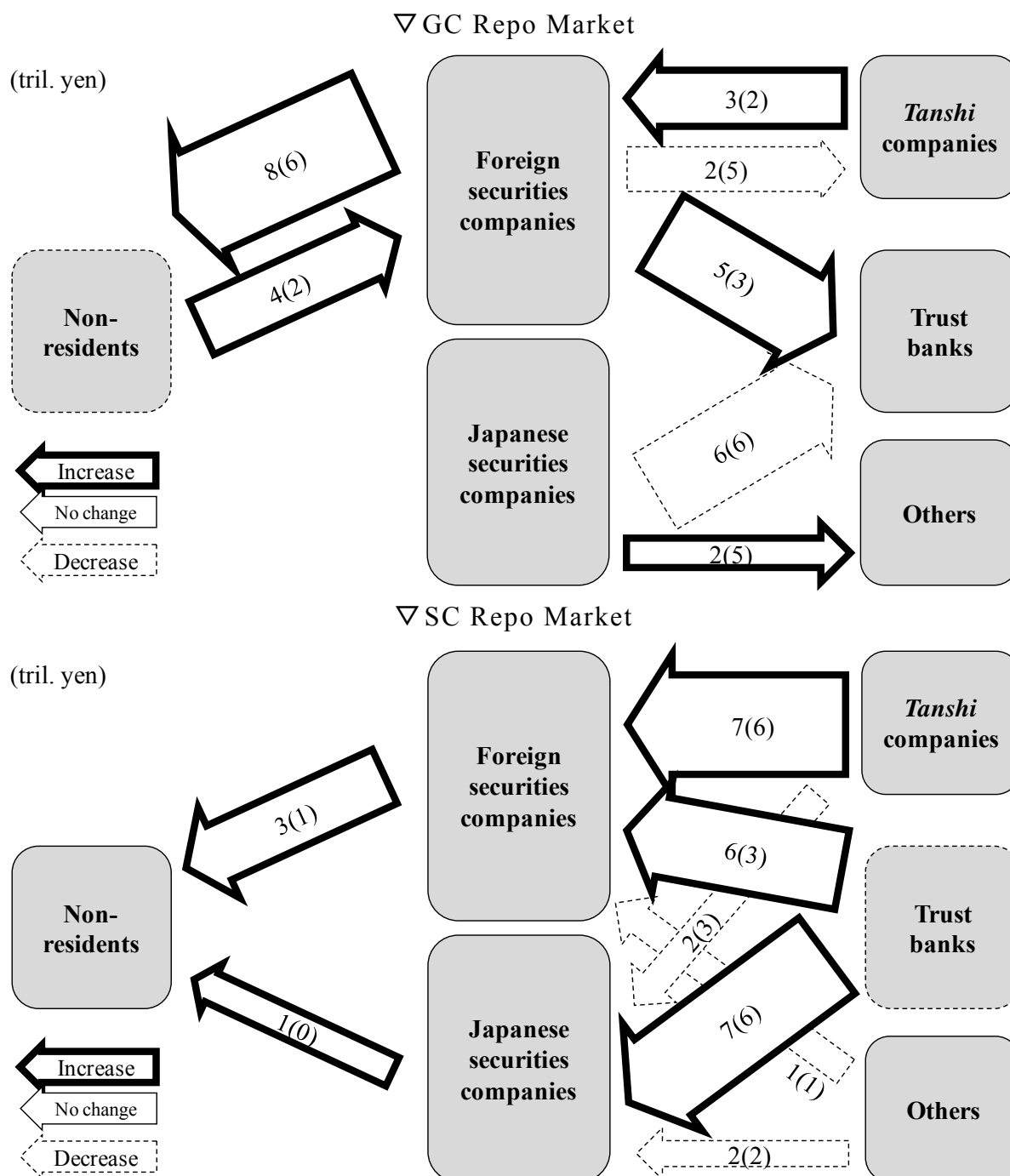
Chart 10: Amount Outstanding in the SC Repo Market



The amount outstanding in the SC repo market by sector on the bond borrowing side showed that while the amount outstanding of Japanese securities companies remained more or less flat, that of foreign securities companies and others increased (Chart 10).

⁶ In this paper, "trust bank" comprises the total of trust accounts and banking accounts unless otherwise specified.

Chart 11: Structure of Repo Transactions with Non-Residents



Note: Includes only the major transactions among relevant sectors. The arrows show the direction of flows of bonds. Numbers in parentheses show the results in 2012.

As the background to these developments, some respondents commented, "While securities companies temporarily scaled down the amount outstanding of holding bonds as their inventories, they have increasingly used SC repo transactions for short covering." It was also pointed out that foreign securities companies in particular increasingly used SC repo

transactions to meet the demand for JGBs from non-residents.

Increased repo transaction activity by non-residents could be confirmed also from cross-sector transactions in the repo markets. Both GC and SC repos by non-residents increased from the previous year. Transactions by non-residents pushed up the amount outstanding of repo transactions by foreign securities companies, which had large numbers of non-resident clients (Chart 11).

Several foreign securities companies commented, "There is robust demand for transactions in JGBs from hedge funds as well as overseas central banks, foreign banks and others. In addition to their purchases of specific issues of JGBs, the use of repo transactions has increased as a form of short-term lending."

E. CP Market

The amount outstanding of CP holdings fell from the previous year. Some respondents commented, "Holdings of CP are becoming less attractive since the issuing rates of CP sometimes drop lower than the funding cost -- the CP repo rates." At the same time, the decrease in the amount outstanding of issued CP was also cited as a background factor. On this point, it was commented, "Responding to lower funding costs in bank borrowing or issuing corporate bonds reflecting the accommodative monetary environment, corporations have increased their bank borrowing and corporate bond issues rather than issuing CP. This has led to a decrease in the amount outstanding of issued CP" (Charts 12 and 13).

Chart 12: Amount Outstanding of Financial Institutions' CP Holdings

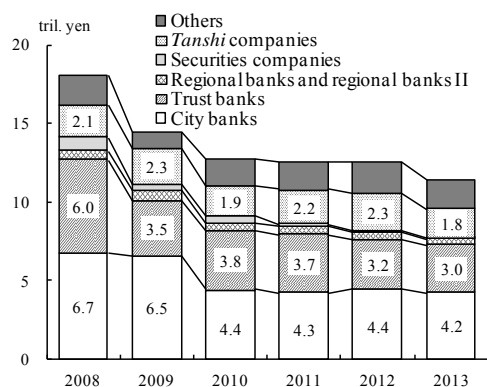
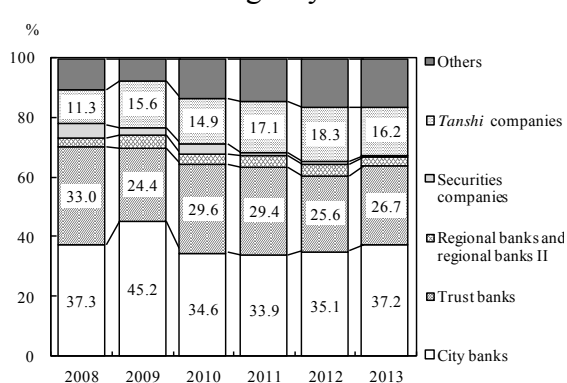


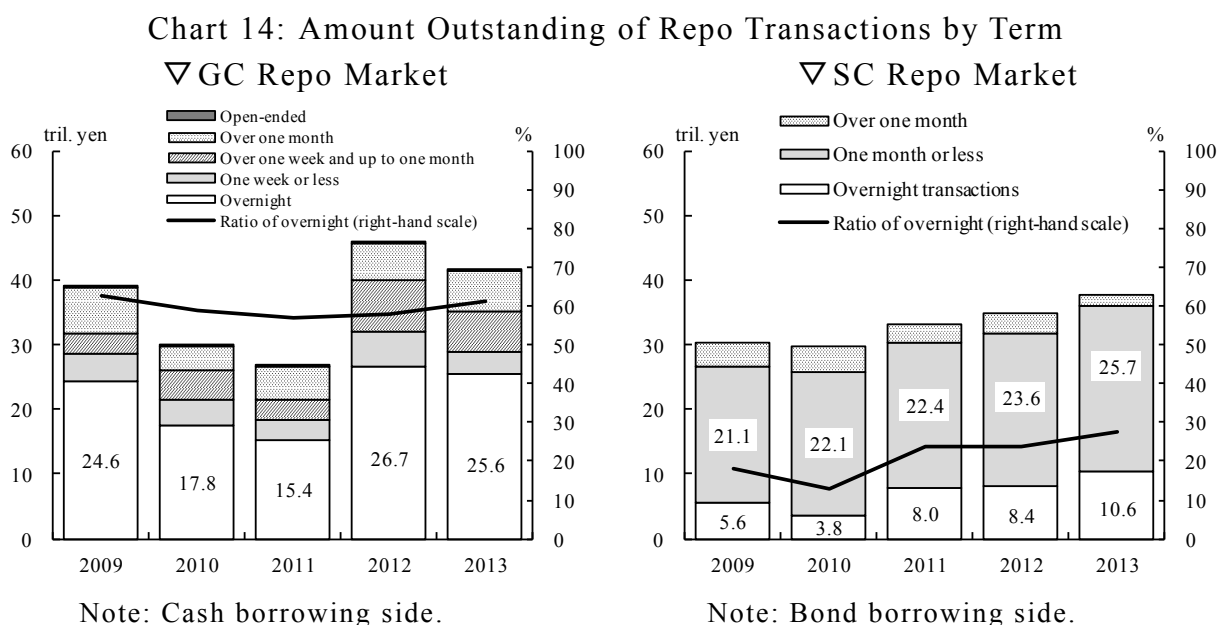
Chart 13: Share of the Amount Outstanding of CP Holdings by Sector



Box 1: Recent Developments in the Repo Markets

Because they hold a wide variety of bonds due to the nature of their business, trust banks provide counterparties with specific issues of bonds through SC repo transactions. At the same time, they lend the funds received from the counterparties using GC repo transactions matching their terms with SC repo transactions. These series of transactions allow them to fix their profit margin on interest rates.

In the survey, however, while the increase in the demand for SC repo transactions was cited, some respondents also commented, "Because securities companies are reducing their holdings of JGBs as inventories, it has become difficult to find counterparties for GC repo transactions that are to be matched with the SC repo transactions." In this context, it was also said, "Some trust banks are matching their SC repo transactions with not term but overnight GC repo transactions, or attempting to lend their funds through means other than GC repo transactions." In terms of transaction volumes, while the SC repo market increased particularly for term transactions, the GC repo market decreased both for term and overnight transactions (Chart 14).

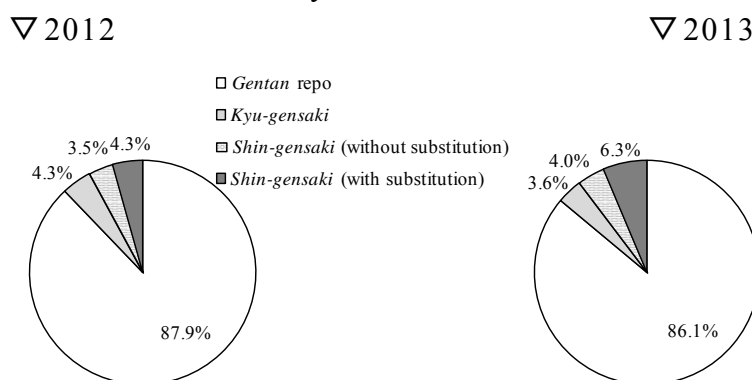


Repo transactions by forms of contract showed that *shin-gensaki*⁷ contracts accounted for only about 10 percent of the total, while the

⁷ A "*shin-gensaki*" contract is a repo transaction under the "Master Agreement on the Transaction with Repurchase Agreement of the Bonds, etc." as revised in 2001. In this paper, any repo transaction under the master agreement before this revision is called a "*kyu-gensaki*."

majority of transactions consisted of *gentan* repos (in the form of cash-collateralized securities lending). Nevertheless, the share of *shin-gensaki* contracts (especially those that allow substitution) in the amount outstanding increased from the previous year. As a background factor to this rise, the growing amount of repo transactions by non-residents resulted in a preference for contracts that allowed substitution, which was more in line with the global practice in repo transactions (Chart 15).

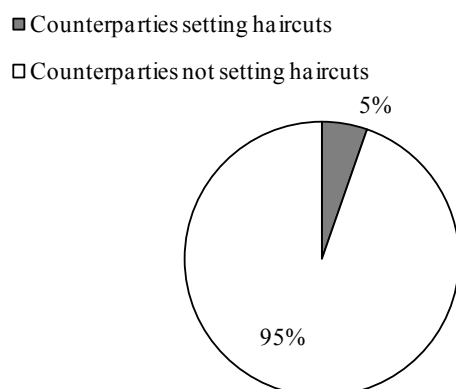
Chart 15: Percentage of the Amount Outstanding of Repo Transactions by Form of Contract



Note: Total of cash borrowing and lending.

No significant change was found in the implementation of haircuts (the assessment rates for collateral). No haircut was set for most of the repo transactions secured by JGBs, which accounted for more than 99 percent of domestic repo transactions. The results also showed that haircuts were mostly limited to transactions with overseas counterparties and that even in these cases the level of haircut was at 2 percent or less. In contrast, for repo transactions collateralized by bonds other than JGBs, relatively high levels of haircuts were applied (Charts 16 and 17).

**Chart 16: Implementation of Haircuts
(Repo Transactions Secured by JGBs)**



Note: Respondents are those with an amount outstanding of JGB repo transactions (combined total of borrowing and lending). "Counterparties setting haircuts" denotes those setting haircut levels other than zero for some or all of their JGB transactions.

Chart 17: Haircut Setting Level

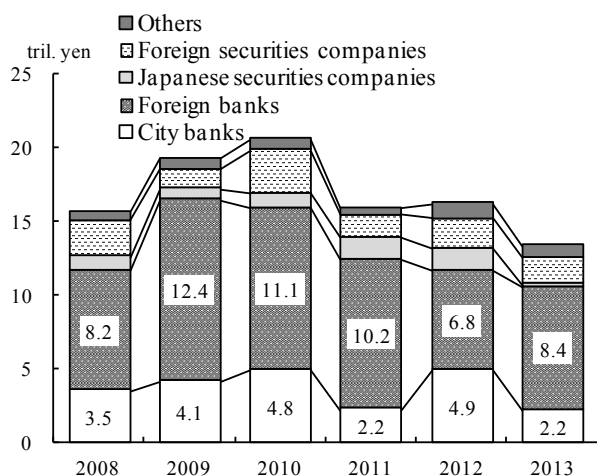
Fixed-rate coupon-bearing bonds	0~2.0%
Treasury discount bills (T-Bills)	0~2.0%
Inflation-indexed government bonds	0~1.5%
Floating-rate government bonds	0~1.5%
Corporate bonds	3.0~15.0%

F. Yen Funding Activities with Foreign Investors

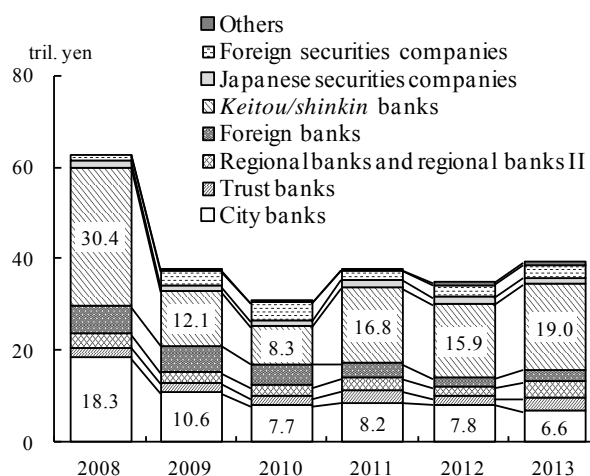
The amount outstanding of yen funding transactions with overseas counterparties (which are the total of conversion into yen/conversion into foreign currencies, Euroyen transactions, and yen lending/borrowing transactions with the overseas offices of financial institutions) showed that while trades executed to raise yen funds from overseas -- such as by yen conversion -- decreased below the levels of the previous year, those executed to invest yen funds -- such as by conversion into foreign currencies -- increased from the levels of the previous year. Some respondents attributed this phenomenon to "further depreciation of the yen's value as well as an increase in demand to convert the yen funds raised through the issue of samurai bonds into the U.S. dollar" (Chart 18).

Chart 18: Amount Outstanding of Yen Funds Transactions with Overseas

▽ Yen Borrowing from Overseas



▽ Yen Lending to Overseas

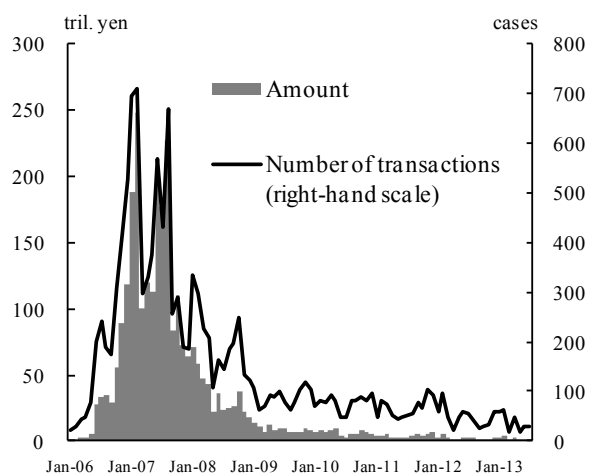


Note: The total of conversion into yen/conversion into foreign currencies (those with a term of one year or less), Euroyen transactions, and yen lending/borrowing transactions with the overseas offices of financial institutions.

G. Yen Overnight Index Swap Market

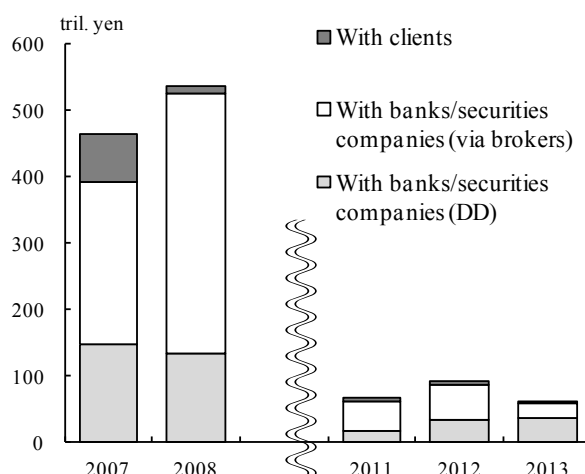
The amount outstanding of yen overnight index swap (OIS) transactions remained at low levels (Charts 19 and 20).

Chart 19: Volume and Number of Yen OIS Transactions via Brokers



Source: Money Brokers Association.

Chart 20: Amount Outstanding in the Yen OIS Market



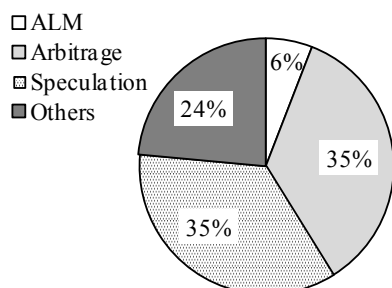
Note: Includes transactions by overseas offices of financial institutions. On the basis of notional amounts.

Box 2: Present Status of the Yen OIS Market

A major objective of yen OIS transactions for those who were relatively heavy users of these transactions was "arbitrage" or "speculation" (Chart 21). Some respondents pointed out that transactions based on forecasts of future changes in interest rates decreased somewhat from the previous year. They also pointed out that the decrease in arbitrage and speculation might have been due to the prevailing view that short-term interest rates would remain stable at extremely low levels under the Bank's large-scale monetary easing.

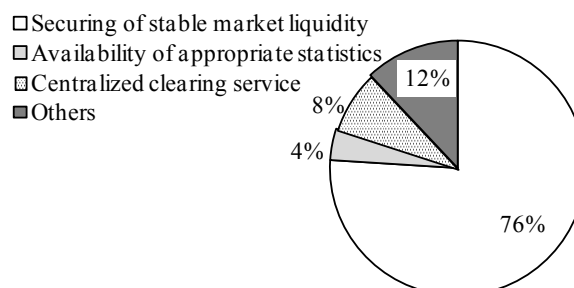
Nevertheless, market participants showed a relatively high level of interest in yen OIS transactions. Even among firms that did not engage in yen OIS transactions, a large number of financial institutions including city banks, trust banks, securities companies, and foreign banks showed interest in them (Chart 23). In response to a survey question as to what were the necessary elements for future expansion of the yen OIS market, those engaging in yen OIS transactions mentioned "securing of stable market liquidity" as well as "providing centralized clearing service" and "providing available appropriate statistics" (Chart 22).

Chart 21: Major Objectives of Yen OIS Transactions



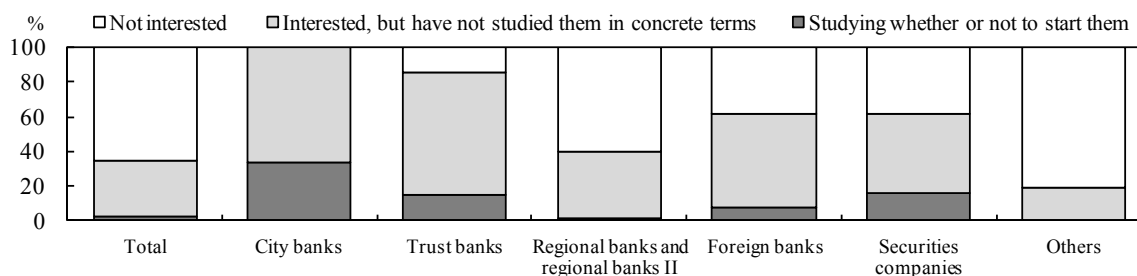
Note: Respondents are counterparties whose amount outstanding of notional amounts of yen OIS transactions is 1 trillion yen or more.

Chart 22: Changes Needed to Expand Yen OIS Transactions



Note: Respondents are counterparties who reported they "were engaged in yen OIS transactions".

Chart 23: Degree of Interest in Yen OIS Transactions



Note: Respondents are counterparties who reported they were "not engaged in yen OIS transactions."

Concurrently, some market participants -- particularly foreign banks, securities companies, and city banks -- gradually adopt the OIS rate to assess the fair value of their derivative contracts instead of other reference rates such as the London Inter-Bank Offered Rate (LIBOR). Some respondents pointed out that when the Japan Securities Clearing Corporation (JSCC) inaugurated the clearing service for interest rate swaps in October 2012, the adoption of the yen OIS rate by the JSCC as the discount rate for calculating variation margins was also a factor behind the increasing interest in yen OIS transactions.

However, some counterparties commented that their "systems need to be changed in order to use the yen OIS rate" or that "the potential need to explain to the clients the effects of a switch-over of the discount rate is a constraint in adopting the yen OIS rate."

III. Developments in the Money Market

Even after the introduction of quantitative and qualitative monetary easing, no significant changes were observed in the amount outstanding of money market transactions, administrative structure of market participants, or the attitudes of market participants. This suggests that the functions of the money market were generally maintained.

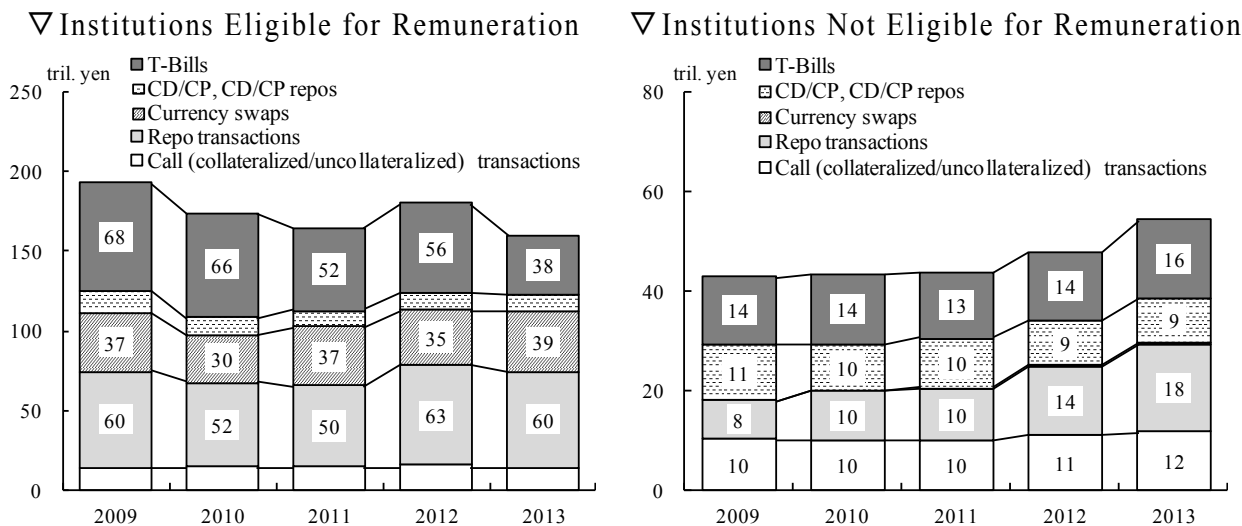
However, the results of the survey also suggested that the following developments took place.

A. Presence of Financial Institutions Not Eligible for the Complementary Deposit Facility

While financial institutions eligible for the complementary deposit facility (institutions eligible for remuneration) reduced their funds lending in T-Bills and GC repo transactions, those not eligible (institutions not eligible for remuneration) increased it. As a result, the relative presence of the latter expanded in the money market. This was because -- since complementary current deposits served as an alternative instrument for funds lending for the former -- these financial institutions shifted part of their money market funds lending operations into increasing their excess reserves at the Bank. With regard to the latter, funds lending operations by investment trusts and others rose reflecting rising stock prices. In addition,

trust banks (trust accounts) acted as the final counterparties in repo transactions by non-residents. It was likely that these contributed to the increase in the amount outstanding of transactions by the latter (Chart 24).

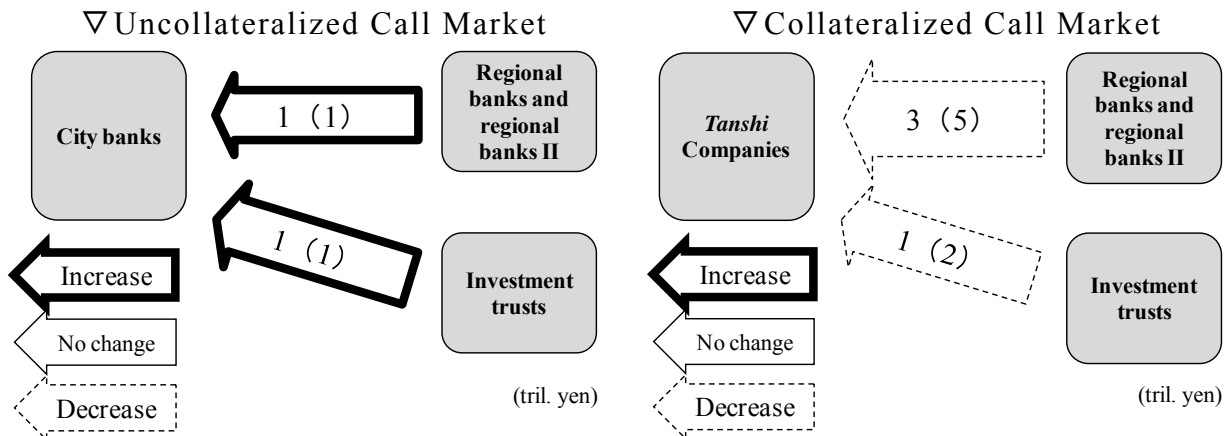
Chart 24: Amount Outstanding of Funds Lending by Institutions Eligible for Remuneration and Those Not Eligible



B. Money Market Instruments, Forms of Contracts and the Terms of Transactions

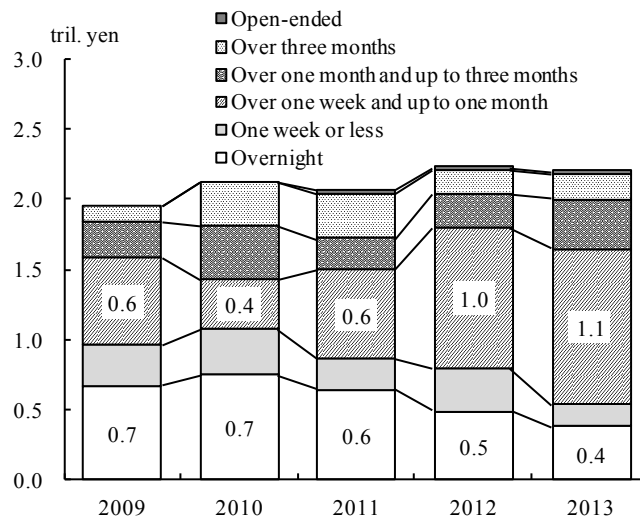
In the call markets, in an effort to increase their yields, lenders of funds -- such as regional banks, regional banks II and investment trusts -- partially shifted their funds lending from the collateralized call market to the uncollateralized call market, or from overnight transactions to the term transactions in the uncollateralized call market. Regarding the use of term transactions instead of overnight transactions, it was also pointed out on the funds borrowing side that it was useful to maintain and strengthen relationships with lenders. In addition, because each transaction incurred administrative costs associated with contracts and repayments -- as if they were "fixed costs" -- term transactions were also chosen to reduce the average administrative cost for funding (Charts 25 and 26).

Chart 25: Changes in Call Market Transactions



Note: Includes only the major transactions among relevant sectors. The arrows show the direction of flow of funds. Numbers in parentheses show the results in 2012.

Chart 26: Amount Outstanding in the Uncollateralized Call Market by Term (Regional Banks and Regional Banks II)

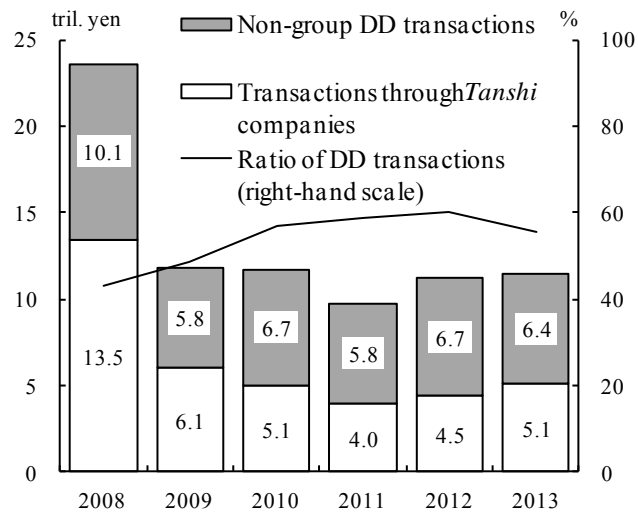


Note: Cash lending side.

At the same time, in the uncollateralized call market, small changes were observable in transaction types. While uncollateralized call transactions through *tanshi* companies increased, direct dealing (DD) transactions decreased. Some market participants pointed out that while DD transactions offered an advantage in maintaining business relationships with specific counterparties, they tended to fix transaction interest rates and amounts. Lending and borrowing interest rates in the money market generally trended downward amid ample provision of funds. In this context, it was said that steps were being taken to review transactions which did not meet

borrower/lender needs in terms of interest rate levels or amounts of borrowing/lending even in DD transactions with such benefits (Chart 27).

Chart 27: Amount Outstanding in the Uncollateralized Call Market and the Ratio of DD Transactions

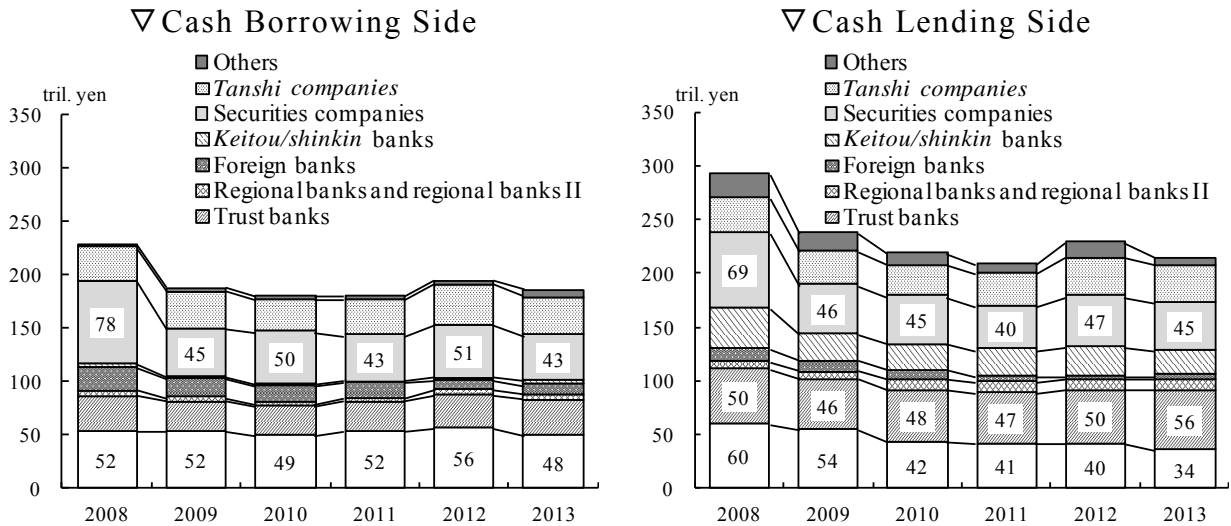


Note: Cash borrowing side.

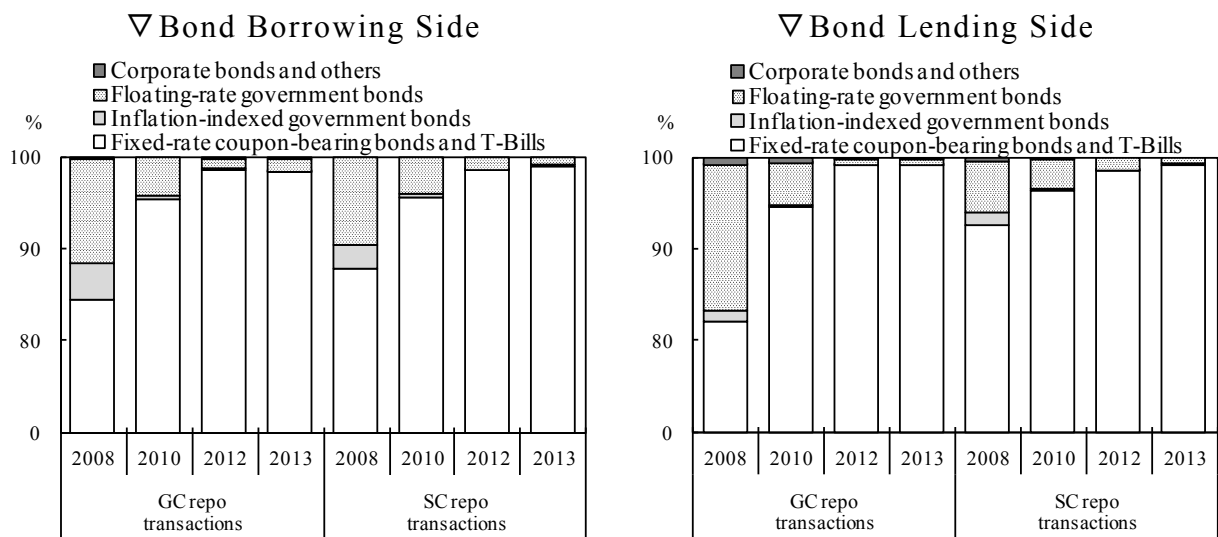
The Financial Markets Department of the Bank intends to continue to observe closely the developments in the money market through day-to-day monitoring activities and implementation of the Tokyo Money Market Survey.

< Charts for Reference >

Reference Chart 1: Amount Outstanding in the Money Market by Category

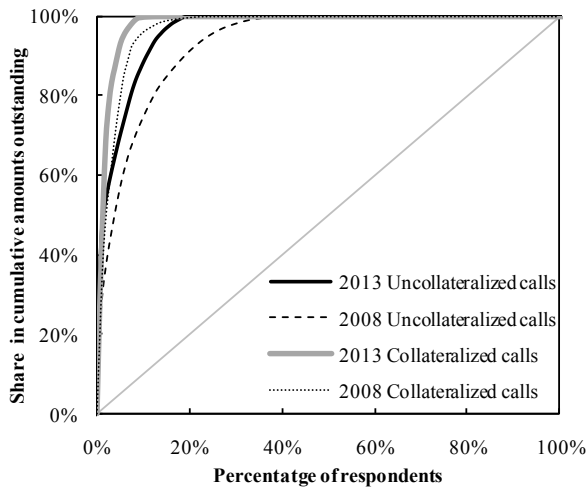


Reference Chart 2: Share of Amount Outstanding in the Repo Market by Type of Collateral Bond

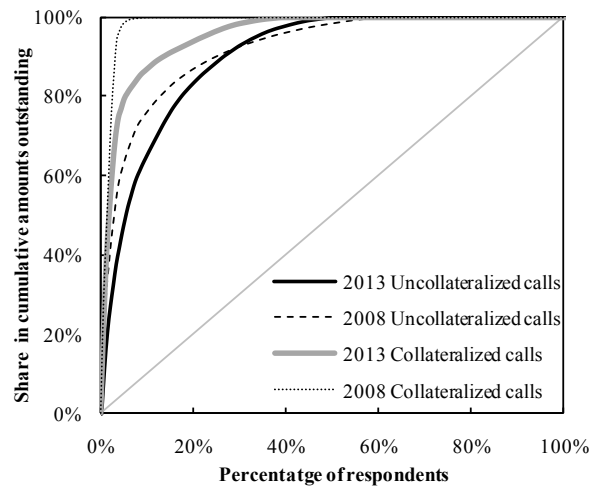


Reference Chart 3: Degree of Concentration in Each Market

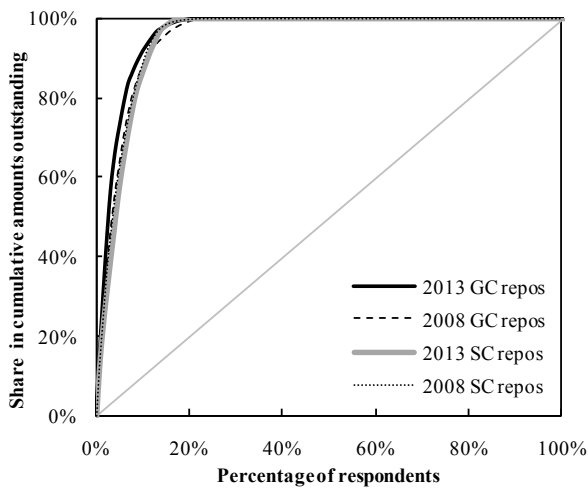
▽ Call Market: Cash Borrowing Side



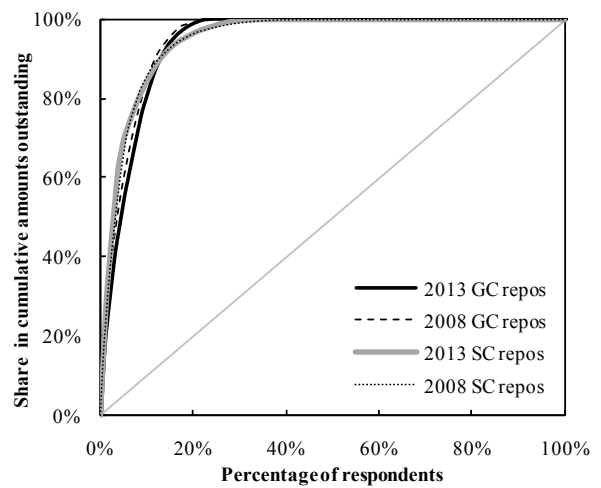
▽ Call Market: Cash Lending Side



▽ Repo Market: Bond Borrowing Side

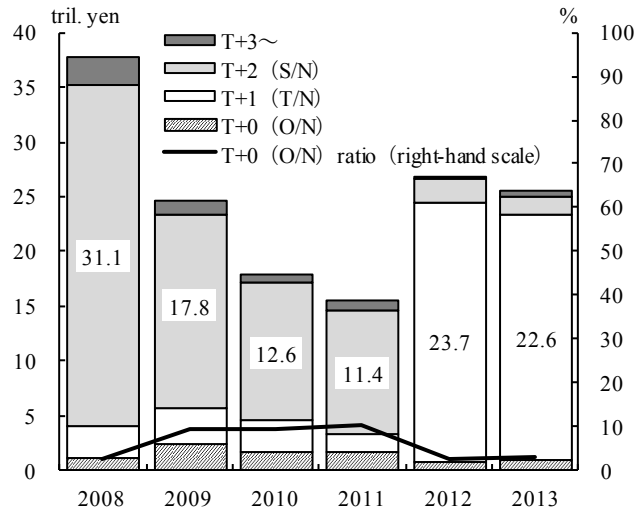


▽ Repo Market: Bond Lending Side



Note: Respondents those were included in every survey in this series since 2008.
Adjusted for the effects of mergers, etc.

Reference Chart 4: Amount Outstanding in the GC Repo Market by the Starting Date of Overnight Transactions

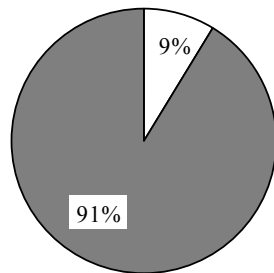


Note : Cash borrowing side.

Reference Chart 5: Results of the Survey Questionnaire on Yen OIS Transactions

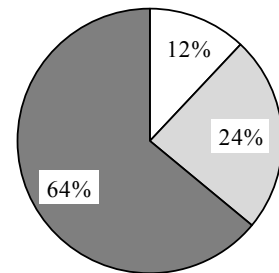
(a) Use of Yen OIS Transactions

- Engages in yen OIS transactions
- Does not engage in yen OIS transactions



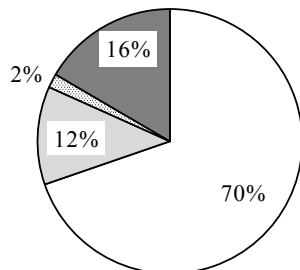
(b) Frequency of Transactions

- A few times a week
- ▨ A few times a month
- Less frequently



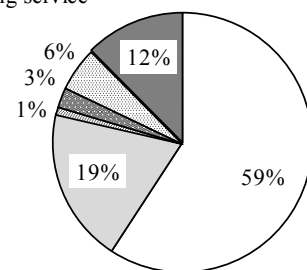
(c) Reasons for Engaging in Yen OIS Transactions

- ALM
- ▨ Arbitrage
- ▨ Speculation
- Others



(d) Impediments to Engaging in Yen OIS Transactions

- Human resources, expertise
- ▨ System preparation
- ▨ Availability of appropriate statistics
- ▨ Centralized clearing service
- ▨ In-house rules
- Others



Note: Those responding that they “engaged in yen OIS transactions” to question (a) were asked question (b), while those responding that they “did not engage in yen OIS transactions” were asked questions (c) and (d).