November 2019

Trends in the Money Market in Japan

— Results of the Tokyo Money Market Survey (August 2019) —

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 2019)

■ Introduction ■

The Financial Markets Department of the Bank of Japan (the Bank) has conducted the Tokyo Money Market Survey since 2008 to understand developments in the Japanese money market. Initially, this series of surveys was conducted every other year. However, to observe market trends more precisely, the Bank decided to conduct the survey annually beginning with the 2013 survey. In August 2019, the tenth survey in the series was carried out (the survey was conducted as of the end of July 2019).

As with the previous surveys, this survey covers eligible counterparties in the Bank's market operations, as well as other major participants in the money market. The number of respondents in the survey was 302 (with a response rate of 100 percent).

The Bank intends to capture comprehensively and from various angles the situations and structural changes in the money market, utilizing the results of this survey as well as the results of the Bond Market Survey. The Bank will continue to enhance dialogue with market participants by taking advantage of the Meeting on Market Operations and the Bond Market Group to actively support the relevant parties in their efforts to enhance Japanese financial markets, including the money market. The Bank intends to contribute significantly to such endeavors in its capacity as Japan's central bank.

Number of Respondents in the Tokyo Money Market Survey

	2018 survey	2019 survey
Total respondents	303	302
Eligible counterparties in the Bank's market operations	276	274

Note: In addition to the eligible counterparties in the Bank's market operations, several major life insurance companies, general insurance companies, and asset management companies participated in the survey (with a response rate of 100 percent).

Overview

The amounts outstanding in the money market increased from the levels of the previous year on both the cash borrowing side and the cash lending side.¹

This was because, as arbitrage trading that took advantage of the three-tier system of financial institutions' current accounts at the Bank² became established, (1) cash borrowing needs increased in the money market due to the impact of the change in the size of the policy-rate balance³ decided at the Monetary Policy Meeting held at the end of July 2018, (2) cash lending for arbitrage purposes increased as the GC repo rate on many occasions exceeded the short-term policy interest rate of minus 0.1 percent, and (3) lending by investment trusts became more active due to an increase in surplus funds from increased cash borrowing through equity repo transactions.

By type of transaction, the amount outstanding of both call (uncollateralized and collateralized) and repo transactions increased significantly from the previous year.

With respect to the functioning of the money market, the share of respondents who answered that it had "declined" decreased from the previous year, and over 80 percent of all respondents answered that it remained "mostly unchanged."

The Bank intends to continue to closely monitor the developments in the money market through day-to-day monitoring activities, the implementation of the Tokyo Money Market Survey, and dialogue with market participants.

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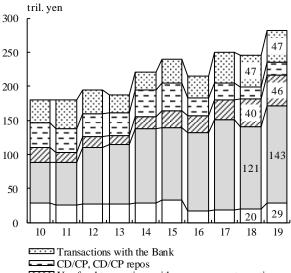
¹ The discrepancies between the figures on the cash lending side and borrowing side are due to constraints regarding the counterparties covered by this survey (e.g., non-residents are not included), and the fact that some types of transactions are recorded only on one side (e.g., transactions with the Bank are recorded only on the cash borrowing side, while treasury discount bills [T-Bills] are recorded only on the cash lending side).

² See BOX 1 for the stance on the management of current accounts at the Bank.

The Bank decided the following: "The Bank, under the condition that yield curve control can be conducted appropriately, will reduce the size of the Policy-Rate Balance in financial institutions' current account balances at the Bank -- to which a negative interest rate is applied -- from the current level of about 10 trillion yen on average. This Balance is calculated assuming that arbitrage transactions take place in full among financial institutions."

Amount Outstanding in the Money Market

Cash Borrowing Side

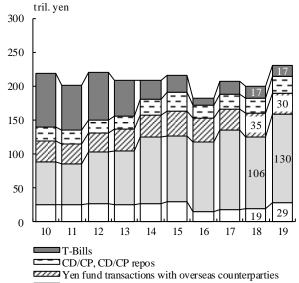


Yen fund transactions with overseas counterparties

 ☐ Repo transactions

☐ Call (collateralized/uncollateralized) transactions

Cash Lending Side



□ Repo transactions

□ Call (collateralized/uncollateralized) transactions

1. An Increase in GC Repo Transactions from the Previous Year

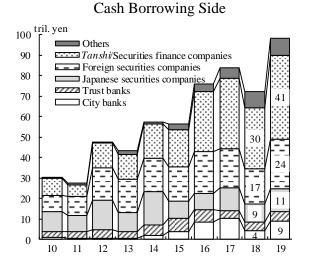
Of repo market⁴ transactions, the amount outstanding of general collateral (GC) repos⁵ increased from the previous year. The background for the increase includes the following.

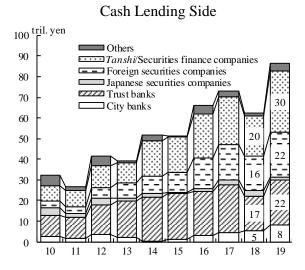
On the cash borrowing side, as arbitrage trading that took advantage of the three-tier system of financial institutions' current accounts at the Bank became established, it was pointed out that some city banks with unused macro add-on balances actively borrowed cash for arbitrage purposes due to the impact of the change in the size of the policy-rate balance decided at the Monetary Policy Meeting held at the end of July 2018.

On the cash lending side, it was pointed out that lending for the purpose of arbitrage was carried out by a wide range of entities as the GC repo rate on many occasions exceeded minus 0.1 percent, which is the interest rate applied to the policy-rate balance. Furthermore, it was also indicated that the amount outstanding of cash lending using GC repos which are conducted in combination with bond lending using SC repos increased at trust banks partly as progress was made in coping with the shortened JGB settlement cycle.

In addition, it was pointed out that the amount outstanding of transactions by securities companies (foreign securities companies) -- which, in many cases, perform market making for non-residents -- tended to increase, reflecting non-residents' growing need to trade JGBs once considering the FX-swap-implied yen rate from the U.S. dollar.

Amount Outstanding in the GC Repo Market by Investor Type





⁴ In this paper, the market for securities repurchase (*gensaki*) transactions and cash-collateralized securities lending (*gentan*) transactions is called the "repo market."

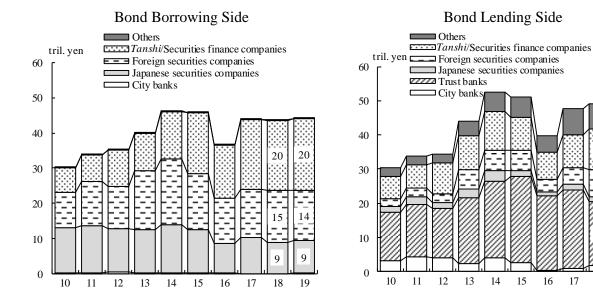
⁵ These are repo transactions in which the securities to be used as collateral are not specified.

2. SC Repo Transactions Remained Unchanged from the Previous Year

The amount outstanding of special collateral (SC) repos⁶ remained largely unchanged from the previous year.

On the bond lending side, it was pointed out that the amount outstanding of bond lending using SC repos which are conducted in combination with cash lending using GC repos increased. This was because the amount outstanding of managed securities trusts increased as trust banks, which are the main suppliers of bonds, made progress in coping with the shortened JGB settlement cycle. However, the amount outstanding decreased on the whole when excluding trust banks, as the SC repo rate on some occasions exceeded the previous year's level.

Amount Outstanding in the SC Repo Market by Investor Type



⁶ These are repo transactions in which the securities to be used as collateral are specified.

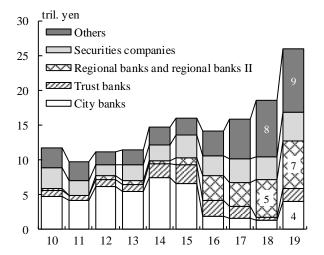
3. Uncollateralized Call Transactions Continued to Increase from the Previous Year

The amount outstanding of transactions in the uncollateralized call market continued to increase from the previous year.

As arbitrage trading that took advantage of the three-tier system of financial institutions' current accounts at the Bank became established, it was pointed out that some city banks, and regional banks and regional banks II with unused macro add-on balances actively borrowed cash for arbitrage purposes due to the impact of the change in the size of the policy-rate balance decided at the Monetary Policy Meeting held at the end of July 2018.

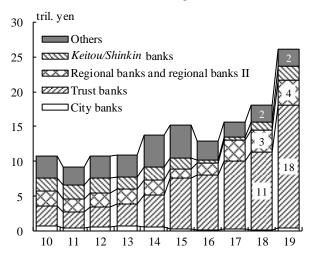
On the cash lending side, it was pointed out that investment trusts⁷ actively lent cash with surplus funds which remained abundant due to increased cash borrowing through equity repo transactions, and that cash lending by some regional banks and regional banks II, and *Keitou/Shinkin* banks increased, as some city banks, and regional banks and regional banks II with unused macro add-on balances actively borrowed cash for arbitrage purposes.

Amount Outstanding in the Uncollateralized Call Market by Investor Type



Cash Borrowing Side

Cash Lending Side



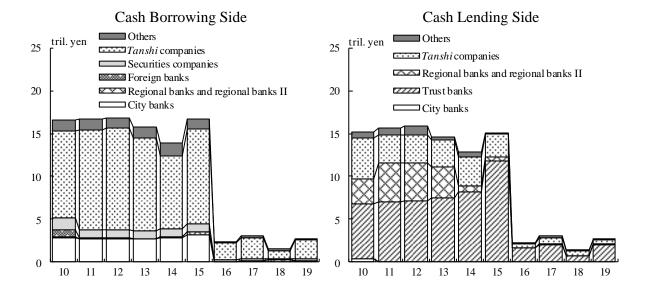
⁷ Included in "trust banks" in this survey.

4. Collateralized Call Transactions Remained at Low Levels

The amount outstanding of transactions in the collateralized call market fell to a significantly low level after the introduction of the negative interest rate policy and leveled off.

In comparison with the previous year, it was pointed out that the amount outstanding of cash lending by investment trusts increased due to an increase in cash borrowing through equity repo transactions. Furthermore, it was pointed out that it became easier to respond to transactions on the cash borrowing side because there were many occasions where the repo rate for GC repo transactions conducted in combination with collateralized call transactions to borrow bonds remained somewhat high.

Amount Outstanding in the Collateralized Call Market by Investor Type



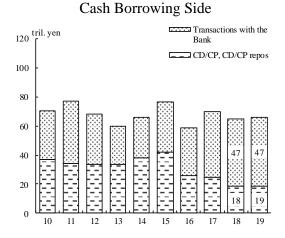
5. Investment in T-Bills Remained Unchanged and Investment in CPs Increased

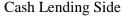
The amount outstanding of transactions with the Bank remained more or less unchanged from the previous year.

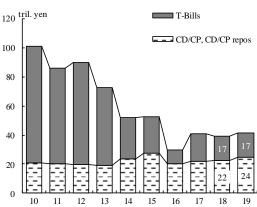
The amount outstanding of investment in T-Bills remained more or less unchanged from the previous year due to the need for T-Bills as collateral.

Financial institutions continued to constrain funding through CD/CPs, the issuance rates of which hovered at around 0 percent, amid the difficulties in investing money at positive rates. On the other hand, the amount outstanding of investment in CD/CPs remained unchanged as a whole. Specifically, the amount outstanding of investment in CPs increased, reflecting consistent needs to invest surplus funds in CPs as issuance by business companies, leasing companies, and non-banks increased.

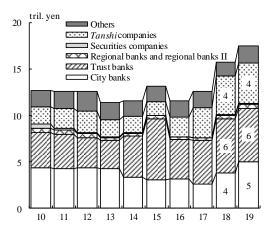
Amount Outstanding in Transactions with the Bank, CD/CP and T-Bill Transactions







Amount Outstanding of Financial Institutions' CP Holdings by Investor Type

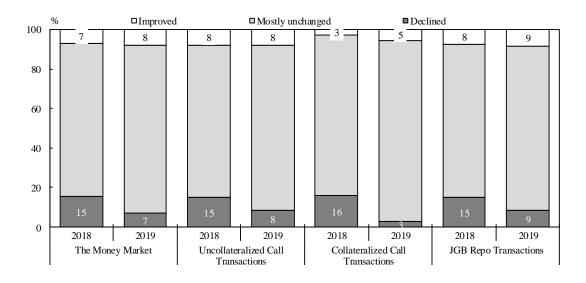


6. Perceptions of Market Participants on the Functioning of the Money Market

With respect to the functioning of the money market, the share of respondents who answered that it had "declined" decreased from the previous year, and over 80 percent of all respondents answered that it remained "mostly unchanged."

By type of transaction, the amount outstanding of both call (uncollateralized and collateralized) and repo transactions increased from the previous year, the share of respondents who answered that it had "declined" decreased, and over 80 percent of all respondents answered that it remained "mostly unchanged."

Perceptions of Market Participants on the Functioning of the Money Market

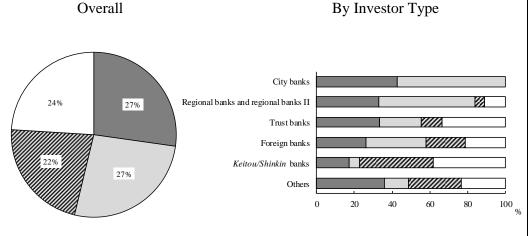


[BOX 1] Stance on the Management of Current Accounts at the Bank

It was pointed out that the amount outstanding of uncollateralized call and GC repo transactions increased from the previous year due to the increase in arbitrage trading that took advantage of the three-tier system of financial institutions' current accounts at the Bank. This box summarizes in two categories financial institutions' stance on the management of current accounts at the bank: (1) that on basic balances and/or macro add-on balances to which an interest rate of 0 percent or more is applied and (2) that on policy-rate balances to which an interest rate of minus 0.1 percent is applied.

With regard to the "unused allowances" in the basic balances and/or macro add-on balances (the amount obtained after deducting the actual balances from the upper bound), over 50 percent of all respondents answered that they "utilize all of their 'unused allowances' through arbitrage trading." By investor type, a relatively large share of city banks, regional banks and regional banks II answered that they "utilize all of their 'unused allowances' through arbitrage trading," while a considerable share of other investor types answered that they "do not engage in arbitrage trading."

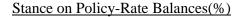
Stance on Unused Allowances in Basic Balances and/or Macro Add-on Balances (%)

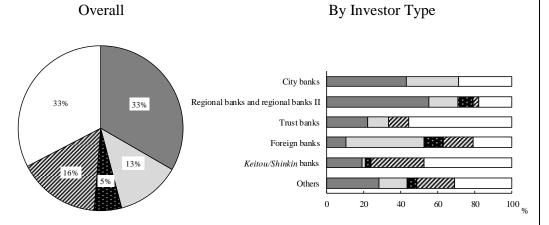


- $\blacksquare In \ principle, \ utilize \ all "unused \ allowances" \ through \ arbitrage \ trading$
- Utilize a part of "unused allowances" through arbitrage trading to the extent that administrative costs are balanced out (it is profitable)
- ■Do not engage in any arbitrage trading due to administrative or system constraints
- □Other (e.g., do not have "unused allowances" to begin with)

Note: Respondents are only those that have current accounts at the Bank. Respondents were asked to provide their stance on "unused allowances" in basic balances and/or macro add-on balances in borrowing and lending cash in the money market during the reserve maintenance periods from April to June 2019.

Furthermore, as for policy-rate balances, almost 50 percent of all respondents answered that they "adjust their policy-rate balances through arbitrage trading." By investor type, like the responses on "unused allowances," a relatively large share of city banks, and regional banks and regional banks II answered that they "adjust their policy-rate balances through arbitrage trading," while a considerable share of other investor types answered that they "do not engage in arbitrage trading."



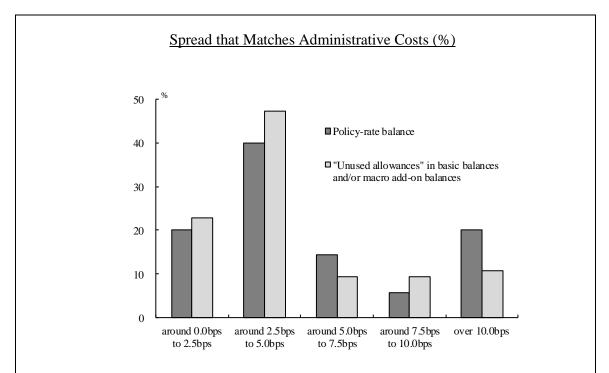


- Do not hold any policy-rate balances due to arbitrage trading
- ☐ Adjust policy-rate balances to the extent that administrative costs are balanced out
- Hold policy-rate balances to the extent that positive interest rates on basic balances offset negative interest rates on policy-rate balances
- Do not engage in arbitrage trading due to administrative or system constraints (do not reduce policy-rate balances)
- ☐ Other (e.g., do not have policy-rate balances to begin with)

Note: Respondents are only those that have current accounts at the bank. Respondents were asked to provide their stance on policy-rate balances in borrowing and lending cash in the money market during the reserve maintenance periods from April to June 2019.

When further broken down, respondents who engage in arbitrage trading can be categorized into (1) those who engage in arbitrage trading regardless of the spread between the rate on arbitrage trading and the interest rate applied according to their current account balances and (2) those who engage arbitrage trading only when the spread matches administrative costs.

The respondents who fall under (2) were surveyed on the size of the spread that they considered would match administrative costs on the "unused allowances" in the basic balances and/or macro add-on balances, and policy-rate balances, and the majority of respondents answered "around 2.5bps to 5.0bps." As there have recently been many occasions where the rate on arbitrage trading has exceeded this measure of rates, it is possible that arbitrage trading by these respondents has bolstered the amount outstanding in the money market.

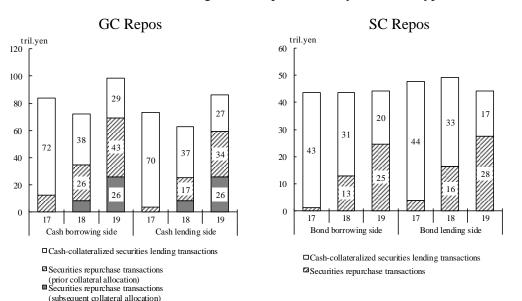


Note: Respondents are only those that answered that they "engage in arbitrage trading to the extent that administrative costs are balanced out."

[BOX 2] Trends after the Shortening of the JGB Settlement Cycle (to T+1)

This box observes trends after the shortening of the JGB settlement cycle (to T+1) in May 2018. Looking at the amount outstanding of repo transactions by contract type, the share of securities repurchase (*gensaki*) transactions increased further from the previous year, indicating that the transition to new *gensaki* transactions, which was recommended along with the implementation of the T+1 cycle, had been made. In addition, the amount outstanding of GC repos under the Subsequent Collateral Allocation Method, which were introduced along with the implementation of the T+1 cycle, increased.

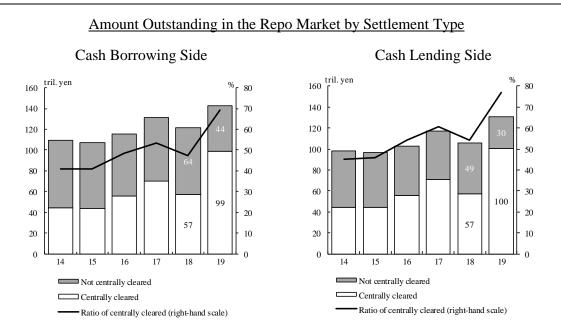
Amount Outstanding in the Repo Market by Contract Type



Furthermore, because the amount outstanding of GC repos under the Subsequent Collateral Allocation Method, which assumes parties' participation in the Japan Securities Clearing Corporation (JSCC), increased, the share of transactions via the JSCC also rose.

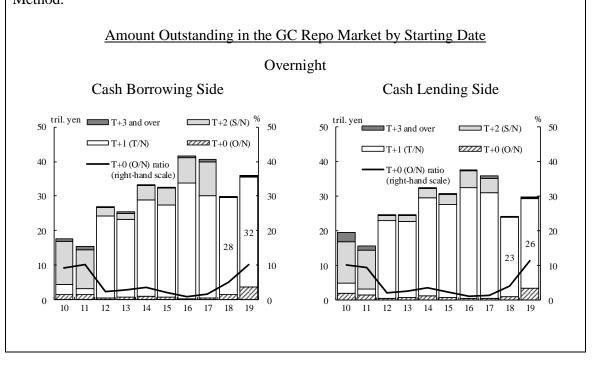
after the Shortening of the JGB Settlement Cycle (to T+1) -- particularly in the Repo Market" (http://www.boj.or.jp/research/brp/ron_2019/ron190530a.htm/) (available only in Japanese).

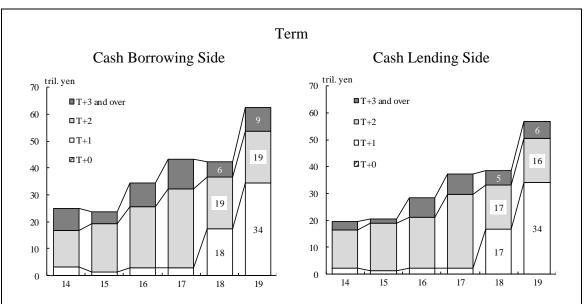
⁸ For trends after the implementation of the T+1 cycle, see also "Trends in Market Transactions of the Shortening of the ICP Settlement Cycle (to T+1) prortionally in the Pena Market"



Note: "Centrally cleared" transactions refer to those cleared by the JSCC.

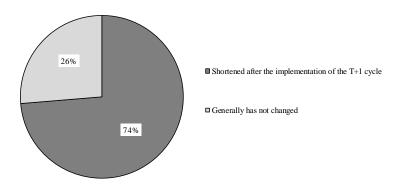
Additionally, looking at the amount outstanding of GC repos by starting date, overnight and term repos -- particularly those settled at T+1 -- increased from the previous year. Of these, with regard to overnight repos, the share of those settled at T+0 increased, due to the increase in GC repos under the Subsequent Collateral Allocation Method, which can be settled at T+0. As background to the increase in term repos, some respondents pointed out that term repos provide more stable funding than overnight repos, and others noted that parties do not need to be conscious of the administrative costs of collateral substitution due to the substitution mechanism of GC repos under the Subsequent Collateral Allocation Method.





Many respondents answered that the settlement cycle of non-resident transactions was also "shortened after the implementation of the T+1 cycle."

Settlement cycle of Non-resident Transactions



Note: Respondents are only those who were performing non-resident transactions at the time of the survey.

As described above, the implementation of the T+1 cycle and the introduction of GC repos under the Subsequent Collateral Allocation Method are thought to have brought about changes in the structure of transactions in the repo market, e.g., an increase in new *gensaki* transactions and an increase in overnight repos settled at T+0 in the GC repo market. Furthermore, the settlement cycle of non-resident transactions also seems to have been shortened.

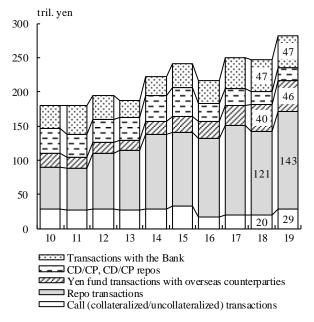
The Bank will continue to monitor such changes in market structure and the impact they have on market functions.

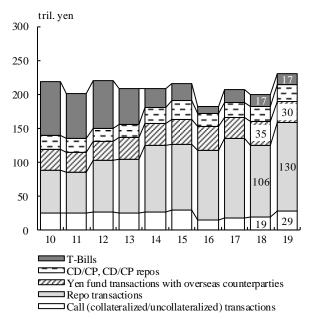
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Chart 1: Amount Outstanding in the Money Market

Cash Lending Side



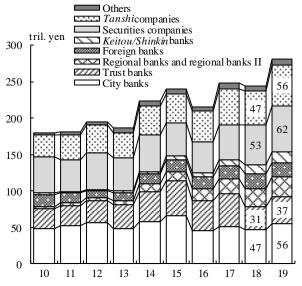


- Note: 1. Among call transactions, the figures for uncollateralized call transactions are calculated as total transactions through *tanshi* companies (money market brokers) and direct dealing (DD) transactions.
 - 2. Transactions with the Bank denote Funds-Supplying Operations against Pooled Collateral, 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, Funds-Supplying Operations to Support Financial Institutions in Disaster Areas of the 2016 Kumamoto Earthquake, Provisioning Measure to Support Strengthening the Foundations for Economic Growth, Fund-Provisioning Measure to Stimulate Bank Lending and Complementary Lending.
 - 3. The discrepancies between the figures on the cash lending side and borrowing side are due to constraints regarding the counterparties covered by this survey (e.g., non-residents are not included), and the fact that some types of transactions are recorded only on one side (e.g., transactions with the Bank are recorded only on the cash borrowing side, while treasury discount bills [T-Bills] are recorded only on the lending side).

Chart 2: Amount Outstanding in the Money Market by Investor Type

Cash Borrowing Side

Cash Lending Side



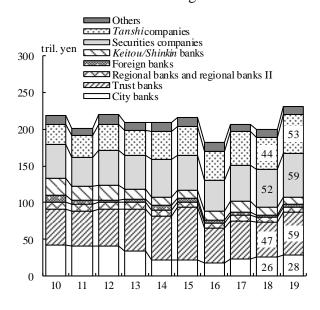
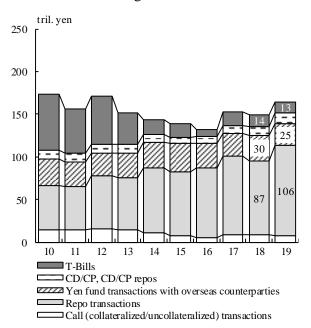


Chart 3: Amount Outstanding of Fund Lending by Institutions Eligible and Those Not Eligible for Remuneration

Institutions Eligible for Remuneration

Institutions Not Eligible for Remuneration



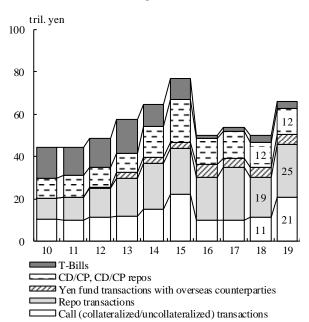
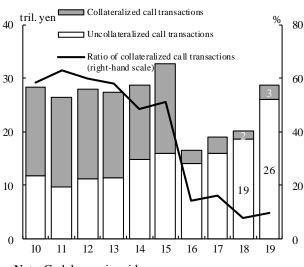


Chart 4: Amount Outstanding in the Call Market and the Ratio of Collateralized Transactions



Note: Cash borrowing side.

Chart 5: Amount Outstanding in the Uncollateralized Call Market by Investor Type

Cash Lending Side

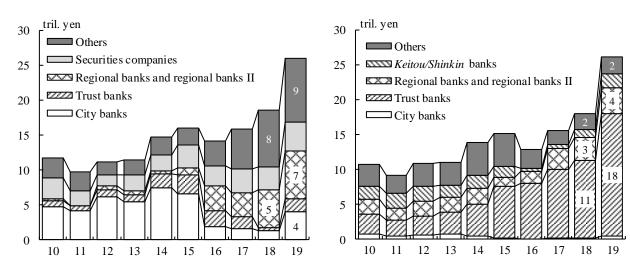


Chart 6: Amount Outstanding in the Uncollateralized Call Market and the Ratio of Non-Group Direct Dealing (DD) Transactions

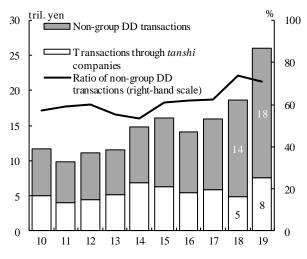
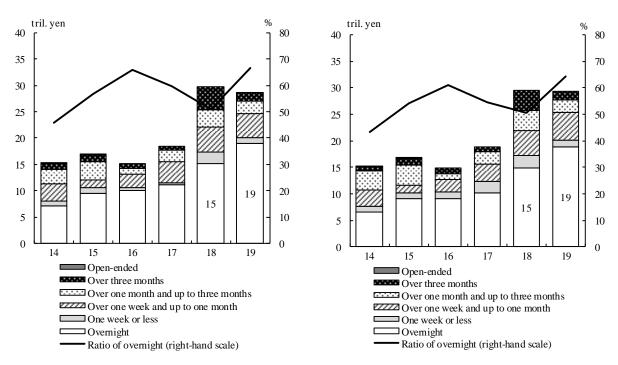


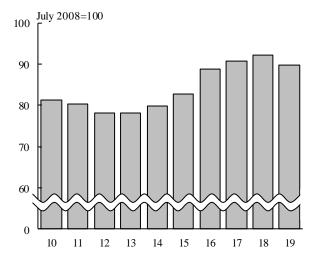
Chart 7: Amount Outstanding in the Uncollateralized Call Market by Term

Cash Lending Side



Note: Includes intra-group transactions.

Chart 8: 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 2019. Adjusted for the effects of mergers and other factors.

Chart 9: Amount Outstanding in the Collateralized Call Market by Investor Type

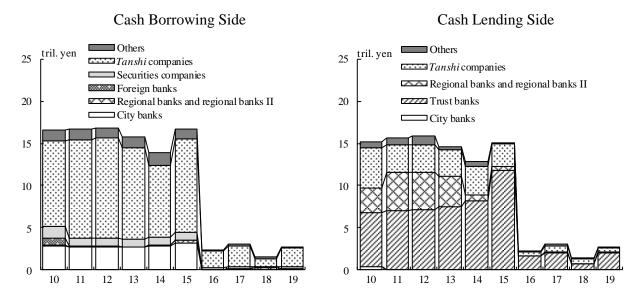


Chart 10: Amount Outstanding in the Collateralized Call Market by Term

Cash Borrowing Side

Cash Lending Side

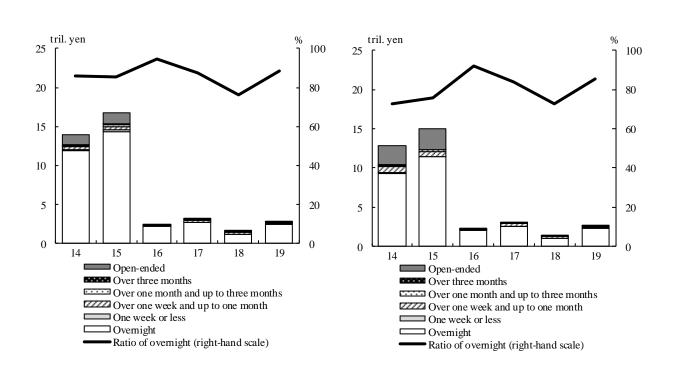


Chart 11: Frequency of Call Transactions

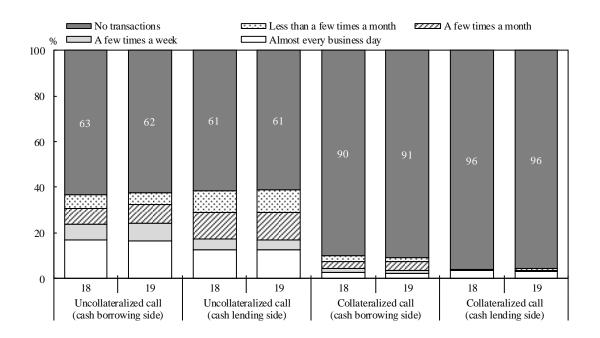
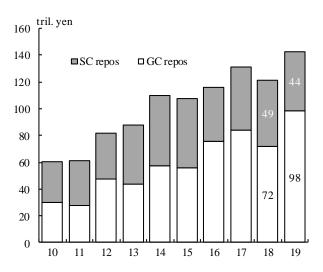
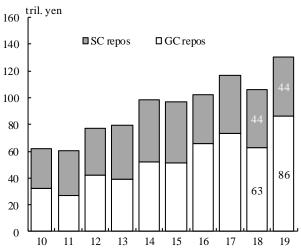


Chart 12: Amount Outstanding in the Repo Market By Transaction Type

Cash Lending Side





By Contract Type

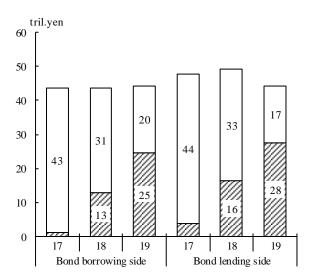
GC Repos

tril.yen 100 80 60 72 40 70 20 0 18 19 17 18 Cash borrowing side Cash lending side

- □ Cash-collateralized securities lending transactions
- Securities repurchase transactions
- (prior collateral allocation)

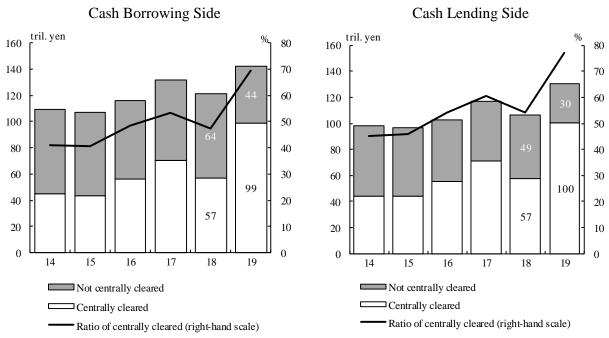
 Securities repurchase transactions (subsequent collateral allocation)

SC Repos



- □Cash-collateralized securities lending transactions
- Securities repurchase transactions

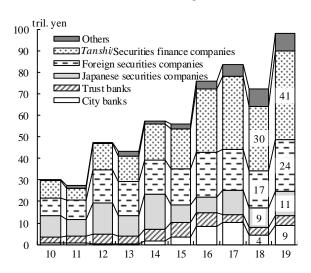
Chart 13: Amount Outstanding in the Repo Market by Settlement Type



Note: Centrally cleared transactions refer to those cleared by Japan Securities Clearing Corporation (JSCC).

Chart 14: Amount Outstanding in the GC Repo Market by Investor Type

Cash Lending Side



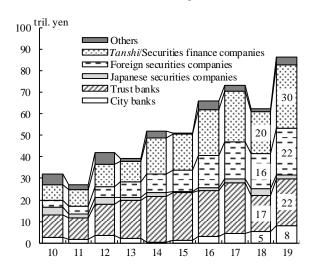
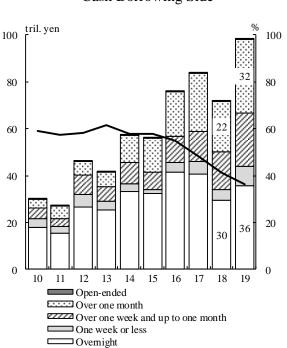


Chart 15: Amount Outstanding in the GC Repo Market by Term

Cash Borrowing Side

Cash Lending Side



Ratio of overnight (right-hand scale)

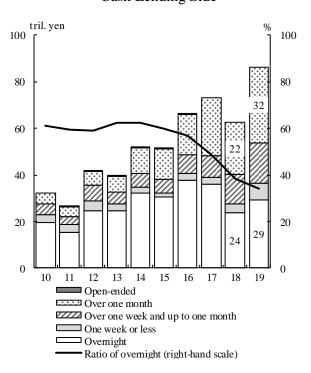
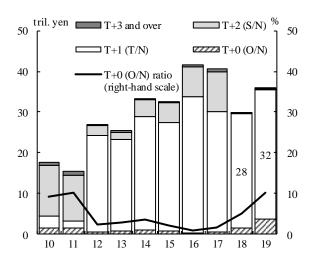


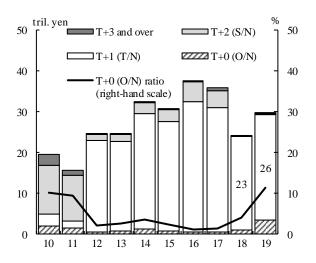
Chart 16: Amount Outstanding in the GC Repo Market by Starting Date

Overnight Transactions

Cash Borrowing Side

Cash Lending Side

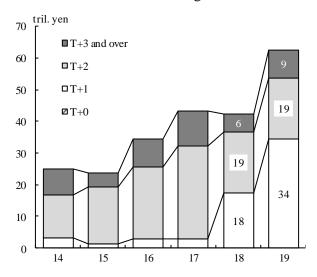




Term Transactions

Cash Borrowing Side

Cash Lending Side



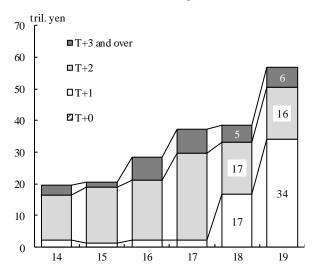


Chart 17: Amount Outstanding in the SC Repo Market by Investor Type

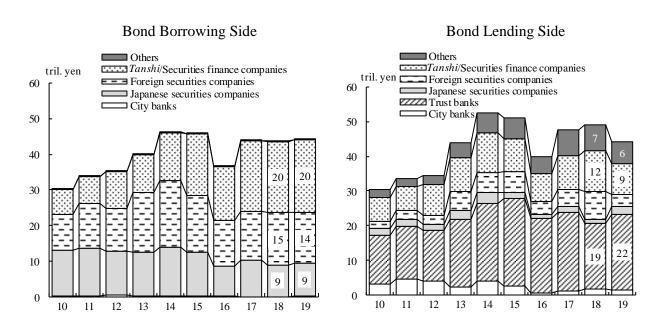


Chart 18: Amount Outstanding in the SC Repo Market by Term

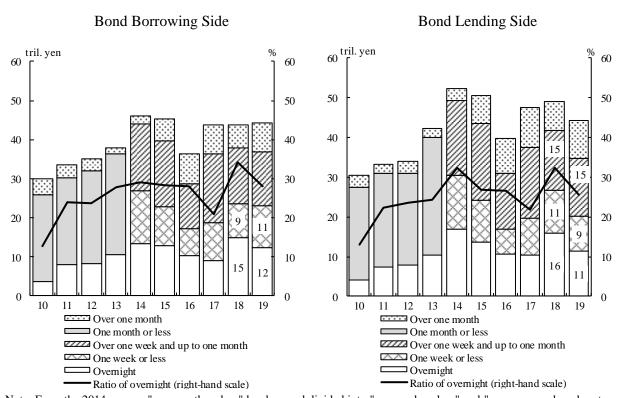


Chart 19: Frequency of Repo Transactions

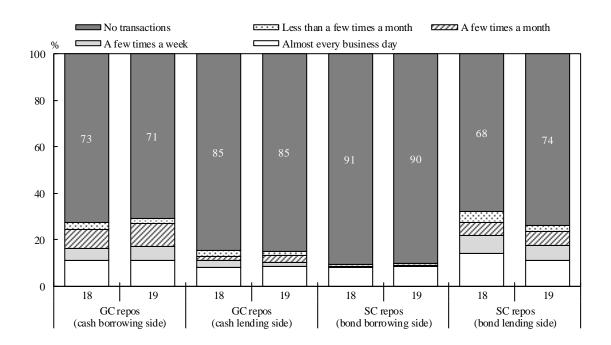


Chart 20: Amount Outstanding of Repo Transactions in Managed Securities Trusts by Term

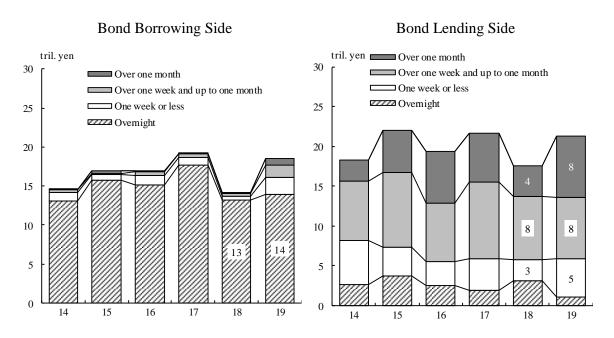


Chart 21: Amount Outstanding of Financial Institutions' CP Holdings by Investor Type

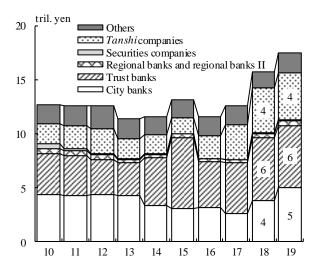
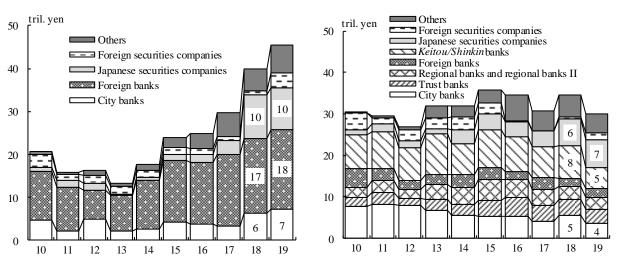


Chart 22: Amount Outstanding of Japanese Yen Fund Transactions with Overseas Counterparties by Investor Type

Japanese Yen Borrowing Side

Japanese Yen Lending Side

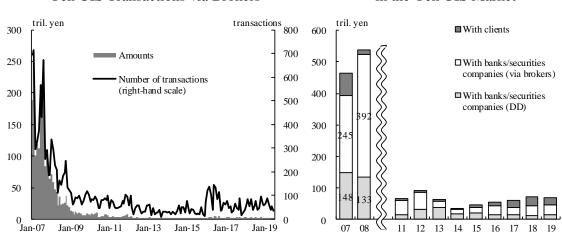


Note: The total of yen lending/borrowing through FX swaps, euroyen transactions, and with overseas branches and overseas group companies of financial institutions. Excludes transactions with institutional investors and business companies, and other linked transactions.

Chart 23: Yen Overnight Index Swap Market

Volume and Number of Yen OIS Transactions via Brokers

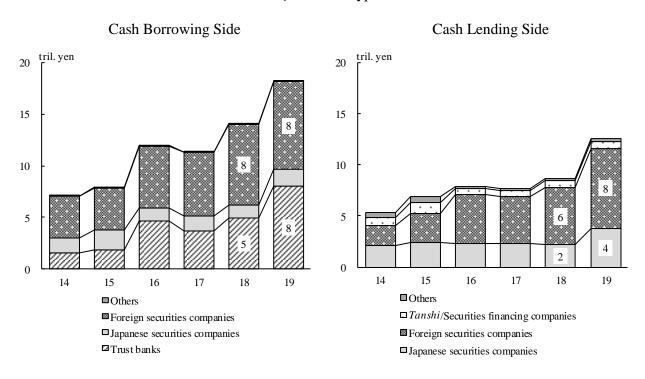
Amount Outstanding in the Yen OIS Market



Source: Money Brokers Association.

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

Chart 24: Amount Outstanding in the Equity Repo Market
By Investor Type



Note: Excludes the institutional credit trading, general margin trading, and equity lending between a financial instruments business operator and a securities finance company. The same applies to the next chart.

By Settlement Type

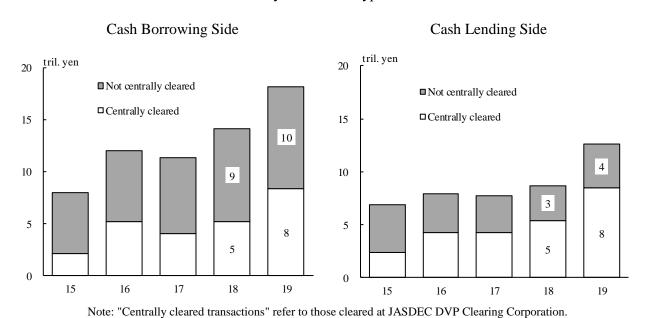
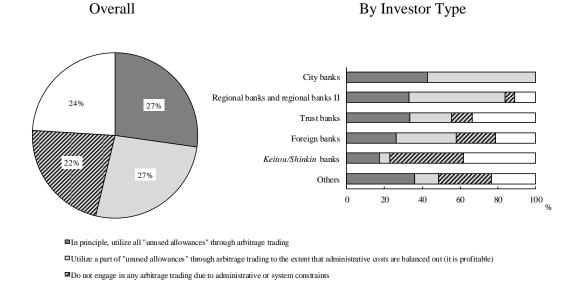


Chart 25: Stance on the Management of Current Accounts at the Bank

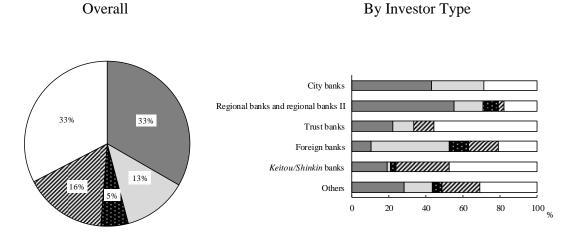
Stance on "Unused Allowances" in Basic Balances and/or Macro Add-on Balances(%)



Note: Respondents are only those that have current accounts at the Bank. Respondents were asked to provide their stance on "unused allowances" in basic balances and/or macro add-on balances in borrowing and lending cash in the money market during the reserve maintenance periods from April to June 2019.

□Other (e.g., do not have "unused allowances" to begin with)

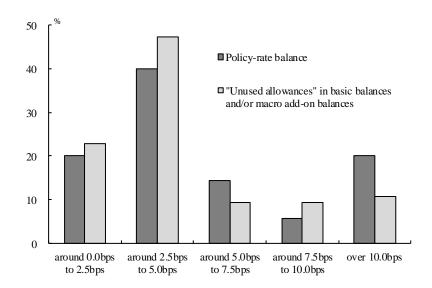
Stance on Policy-Rate Balances (%)



- Do not hold any policy-rate balances due to arbitrage trading
- □ Adjust policy-rate balances to the extent that administrative costs are balanced out
- Hold policy-rate balances to the extent that positive interest rates on basic balances offset negative interest rates on policy-rate balances
- Do not engage in arbitrage trading due to administrative or system constraints (do not reduce policy-rate balances)
- □ Other (e.g., do not have policy-rate balances to begin with)

Note: Respondents are only those that have current accounts at the bank. Respondents were asked to provide their stance on policy-rate balances in borrowing and lending cash in the money market during the reserve maintenance periods from April to June 2019.

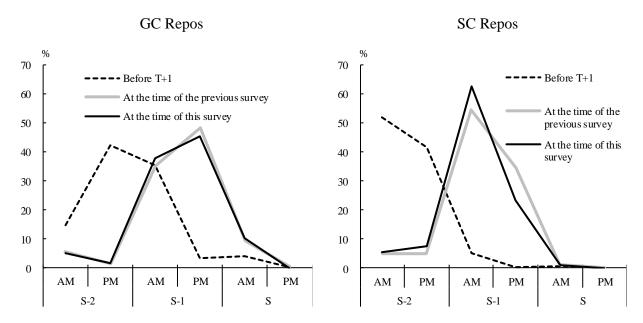
Spread that Matches Administrative Costs (%)



Note: Respondents are only those that answered that they "engage in arbitrage trading to the extent that administrative costs are balanced out."

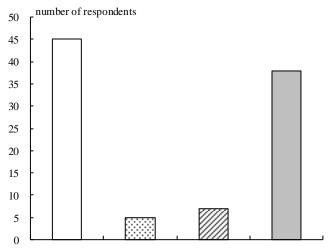
Chart 26: Topics in the Money Market

Change in the Contract Timing of Repos before and after the Implementation of the T+1 Cycle



Note: Respondents that engaged in repo contracts at each point in time were asked to indicate any perceived changes in the contract timing of repos. The results are weighted averages of the amount outstanding of transactions as of the end of July 2018 for "Before T+1" and "At the time of the previous survey," and as of the end of July 2019 for "At the time of this survey."

Background for the Relatively Small Amount of GC Repo Transactions on S



 $\ \square$ Due to administrative constraints concering transactions on S

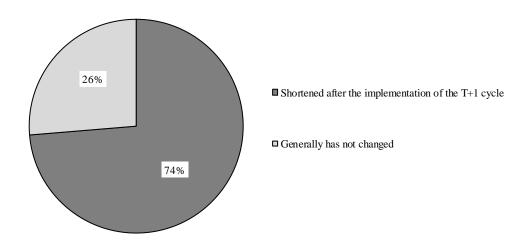
Others

Note: Multiple responses allowed. Respondents are only those that answered that they engaged in GC repos more so on S-1 than on S.

[☐] Because outright and SC repo transactions are carried out under the assumption that GC repos under the Subsequent Collateral Allocation Method are contracted with the first collateral allocation

Because transactions on S of issues for which the coupon payment date falls on the next business day is not feasible for GC repos under the Subsequent Collateral Allocation Method

Settlement Cycle of Non-resident Transactions



Note: Respondents are only those who were performing non-resident transactions at the time of the survey.

Back-Up Facility and Market-Level Business Continuity Planning (BCP)

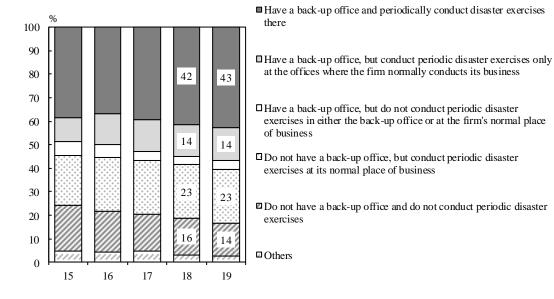
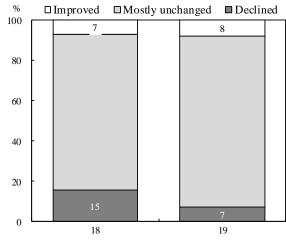


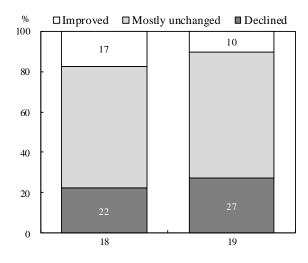
Chart 27: Perceptions of Market Participants on Money Market Transactions

Money Market

[Functioning]

[Profitability]





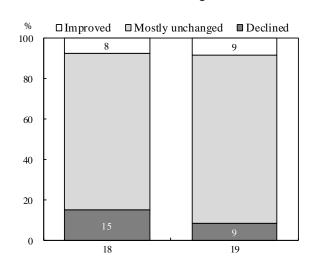
Note:

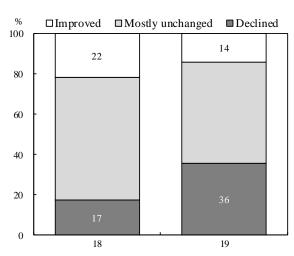
- 1. Responses were obtained only from those counterparties that were engaged in call money transactions or JGB repo transactions, or in both of them.
- 2. The question on "Functioning" was designed to find the perceptions of market participants on the change in the functioning of the money market from the previous year, mainly taking into account whether respondents were able to make transactions with intended rates, prices, terms, and counterparties. The same applies to the following results.
- 3. The question on "Profitability" was designed to find the perceptions of market participants on the change in profitability in the money market from the previous year, mainly taking into account investment yield, funding cost, transaction amounts, and fixed cost. Responses also include those from counterparties who posted losses in their total money market transactions. It is considered that they answered "improved (declined)" when their losses shrank (or expanded) from the previous year. The same applies to the results that follow.

JGB Repo Transactions

[Functioning]

[Profitability]



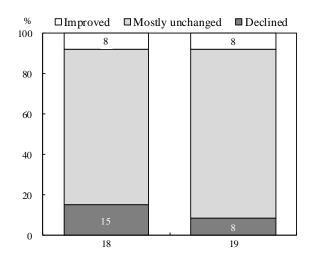


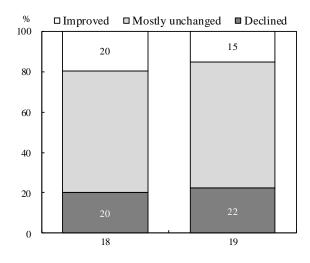
Note: Reponses were obtained only from those that were engaged in JGB repo transactions.

Uncollateralized Call Transactions

[Functioning]

[Profitability]



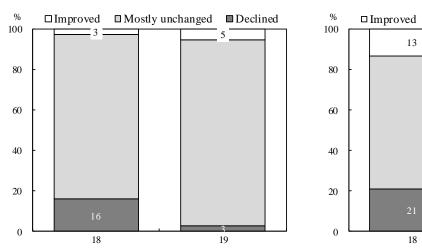


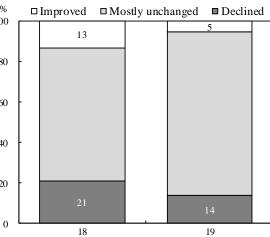
Note: Reponses were obtained only from those that were engaged in uncollateralized call transactions.

Collateralized Call Transactions

[Functioning]

[Profitability]





Note: Reponses were obtained only from those that were engaged in collateralized call transactions.

Chart 28: Degree of Concentration in Each Market

50%

Call Market: Cash Borrowing Side

100%
80%
40%
2019 Uncollateralized calls
------ 2018 Uncollateralized calls
20%
2019 Collateralized calls
2018 Collateralized calls

20%

Percentage of respondents

30%

40%

0%

10%

