

November 2017

Trends in the Money Market in Japan

— Results of the Tokyo Money Market Survey (August 2017) —

Financial Markets Department
Bank of Japan

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Financial Markets Department, Bank of Japan

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Results of the Tokyo Money Market Survey (August 2017)

■ 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 2017, the eighth survey in the series was carried out (the survey was conducted as of the end of July 2017).

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 303 (with a response rate of 100 percent), up from 300 in the 2016 survey, mainly due to a rise in the number of eligible counterparties in the Bank's market operations.

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 the 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

	2016 survey	2017 survey
Total respondents	300	303
Eligible counterparties in the Bank's market operations	273	276

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

The amounts outstanding increased against the backdrop of an increase in arbitrage transactions that took advantage of the three-tier system of financial institutions' current accounts at the Bank. This can be attributed to the following reasons. First, the market had adjusted to trading at negative interest rates; IT systems had been adjusted to enable trading at negative interest rates and the number of market participants who trade at negative interest rates had increased after the elapse of considerable time since the introduction of the negative interest rate policy. Second, the funding needs of cash borrowers who were presented with greater arbitrage opportunities under the higher upper bound on macro add-on balances had grown. They borrowed cash at negative interest rates in the money market and piled it up in their current accounts at the Bank. Third, the investment needs of cash lenders had grown mainly due to the inflows of funds from the redemption of Japanese government bonds (JGBs). They were inclined to direct lending toward the money market to avoid the application of the policy rate.

By type of transaction, the amounts outstanding of repo transactions and call transactions increased, while transactions with the Bank and treasury discount bills (T-Bills) contributed to an increase on the cash borrowing side and the cash lending side, respectively.

With respect to the functioning of the money market, although the share of respondents who answered that it had "declined" decreased significantly from the previous year (61 percent in 2016 to 17 percent in 2017), it continued to exceed that of "improved" (9 percent in

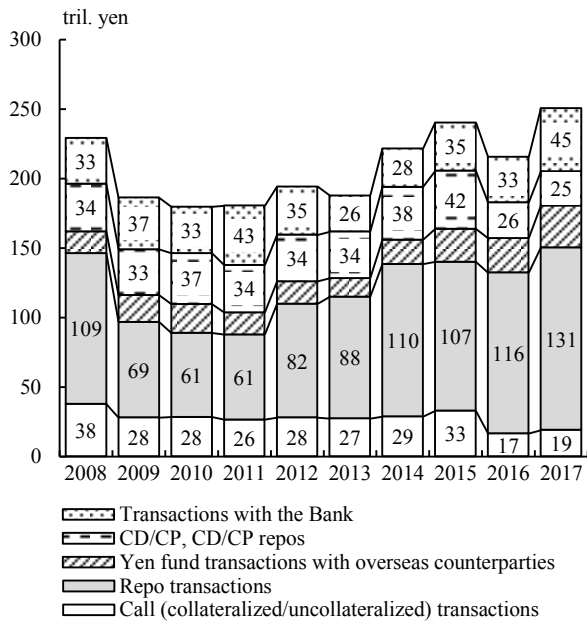
¹ The discrepancies between the figures on the cash lending side and borrowing side are due to the constraints regarding the counterparties covered by this survey (e.g., non-residents are not included), and the fact that some types of transactions are recorded only on one side (e.g., transactions with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

2017).

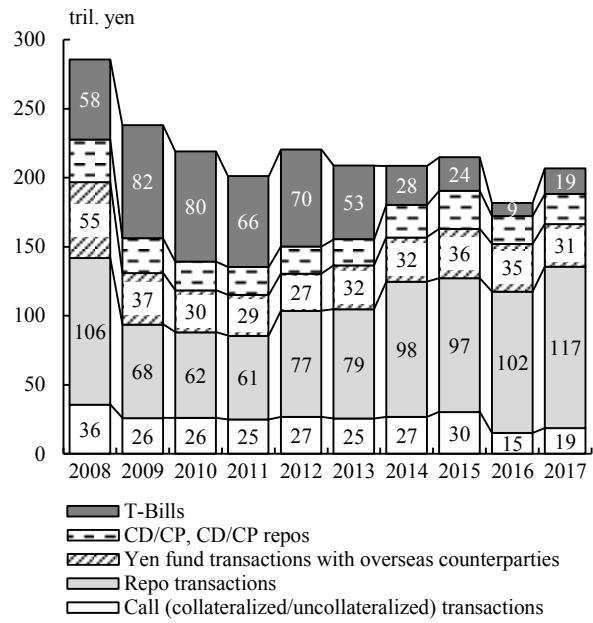
The Bank intends to continue to monitor closely the developments in the money market through day-to-day monitoring activities, the implementation of the Tokyo Money Market Survey, and dialogue with market participants.

Amount Outstanding in the Money Market

Cash Borrowing Side



Cash Lending Side



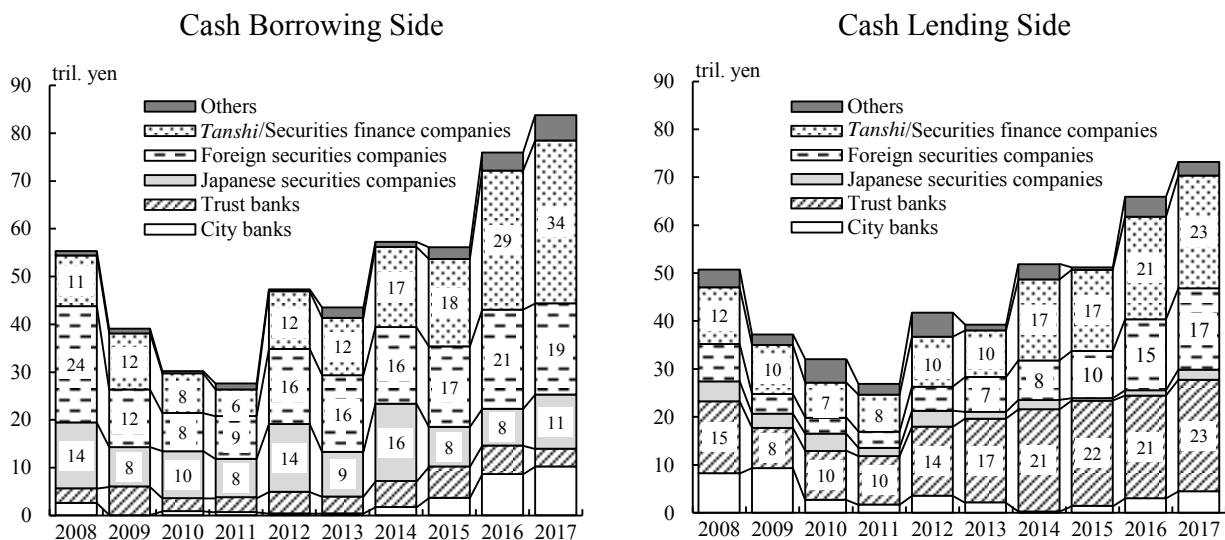
1. An Increase in GC Repo Transactions for the Second Consecutive Year

Of repo market² transactions, the amount outstanding of general collateral (GC) repos³ increased for the second consecutive year.

Amid the increase in arbitrage transactions that took advantage of the three-tier system of financial institutions' current accounts at the Bank, it was pointed out that GC repos were preferred because (1) on the cash borrowing side, GC repos were advantageous in terms of profitability since their interest rates were in the deeper negative territory compared to those in the call market; and (2) on the cash lending side, GC repos enabled financial institutions, including those with large-scale assets, to trade large volumes at once.

The increase in arbitrage transactions is attributable to the following reasons. First, the number of market participants who trade at negative interest rates had increased after the elapse of considerable time since the introduction of the negative interest rate policy. Second, the funding needs of cash borrowers who were presented with greater arbitrage opportunities under the higher upper bound on macro add-on balances had grown. They borrowed cash at negative interest rates in the money market and piled it up in their current accounts at the Bank. Third, the investment needs of cash lenders had grown mainly due to the inflows of funds from the redemption of Japanese government bonds (JGBs). They were inclined to direct lending toward the money market to avoid the application of the policy rate.

Amount Outstanding in GC Repo Transactions by Investor Type



² In this paper, the market for cash-collateralized securities lending transactions (the so-called *gentan* repo) and securities repurchase transactions (the so-called *gensaki* repo) is called the "repo market."

³ These are repo transactions in which the securities to be used as collateral are not specified.

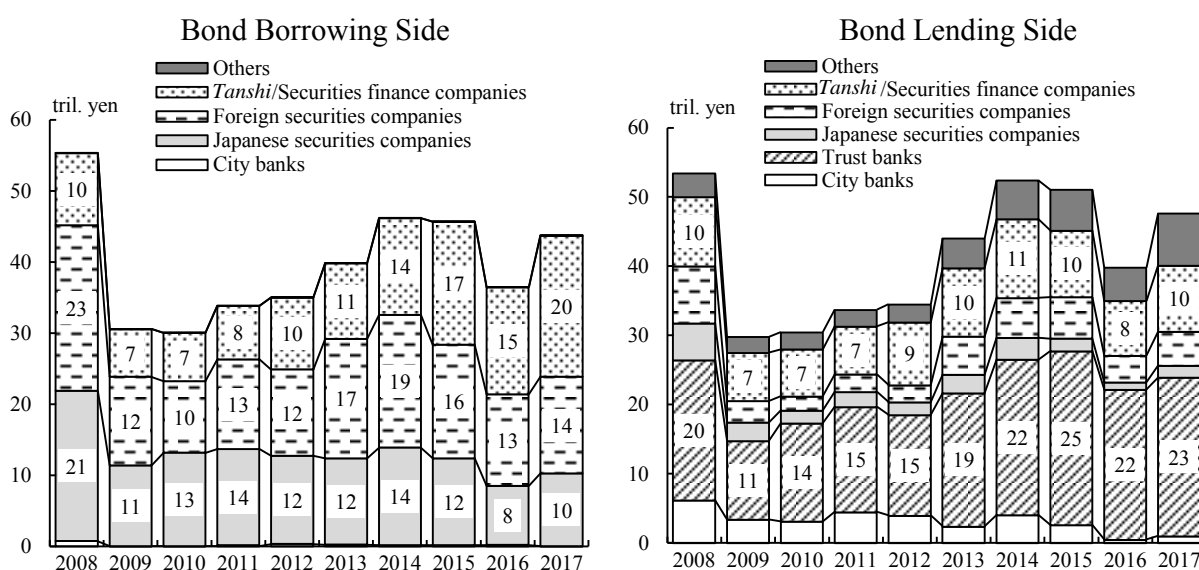
2. Although Having Had Increased from the Previous Year, SC Repo Transactions Remained Below the Level before the Introduction of the Negative Interest Rate Policy

Although the amount outstanding of special collateral (SC) repo⁴ transactions increased from the previous year, it remained below the level before the introduction of the negative interest rate policy.

On the bond borrowing side, some pointed out that SC repos to cover short positions increased somewhat from the previous year when the motivation of securities companies, which are the major bond borrowers in the market, to take short positions clearly declined under lower interest rates. However, it was also pointed out that issues to be traded were limited to on-the-run issues, and that it was hard to say that the SC repo market had become active as the supply and demand conditions for off-the-run issues tightened even further. In fact, the amount outstanding of SC repos fell below the level in the 2015 survey before the introduction of the negative interest rate policy.

On the bond lending side, some pointed out that regional financial institutions, mainly those with "unused allowances" in their macro add-on balances, contributed to the increase in the amount outstanding. This was because interest rates in SC repos were in deep negative territory and arbitrage transactions in which funds were piled up in current accounts at the Bank within the upper bound on macro add-on balances were highly profitable.

Amount Outstanding in SC Repo Transactions by Investor Type



⁴ These are repo transactions in which the securities to be used as collateral are specified.

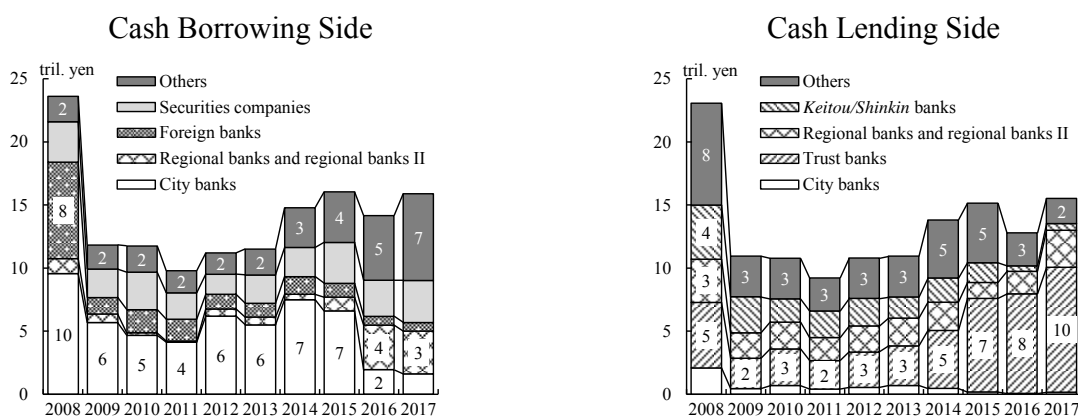
3. An Increase in Uncollateralized Call Transactions and their Recovery to the Level before the Introduction of the Negative Interest Rate Policy

The amount outstanding of transactions in the uncollateralized call market increased from the previous year, and recovered to the level in the 2015 survey before the introduction of the negative interest rate policy.

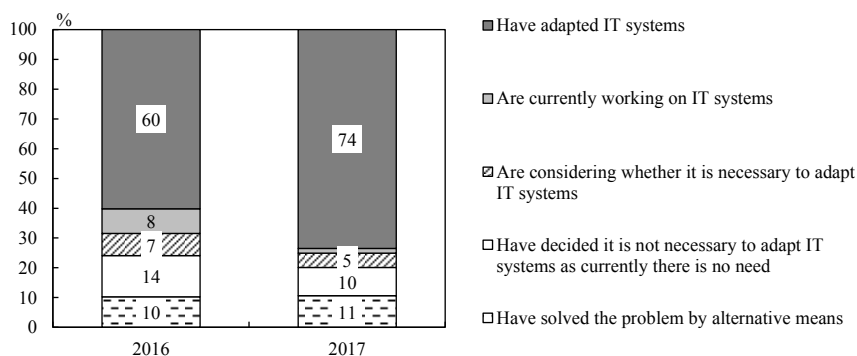
Factors pointed out to explain the increase were the IT systems adjustments to enable trading at negative interest rates and the new entry of investors who did not conduct uncollateralized call transactions at negative interest rates in the previous year. On this basis, a survey on the status of IT systems adjustments to negative interest rates in the uncollateralized call market shows that the share of respondents who answered that they "have adapted IT systems" increased from 60 percent in 2016 to 74 percent in 2017, demonstrating steady progress in IT systems adjustments.

Furthermore, on the cash lending side, it was pointed out that regional financial institutions and trust banks increased lending through uncollateralized call transactions to suppress policy-rate balances, mainly in response to an inflow of funds from the redemption of JGBs.

Amount Outstanding in the Uncollateralized Call Market by Investor Type



Status of IT Systems Adjustments to Negative Interest Rates in the Uncollateralized Call Market

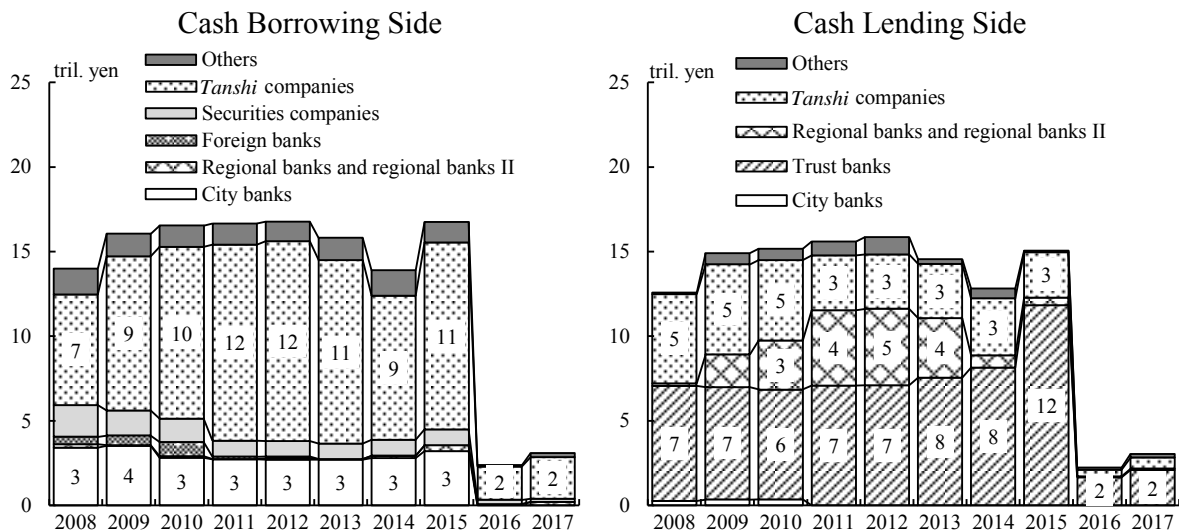


4. Collateralized Call Transactions Remained Unchanged at Low Levels

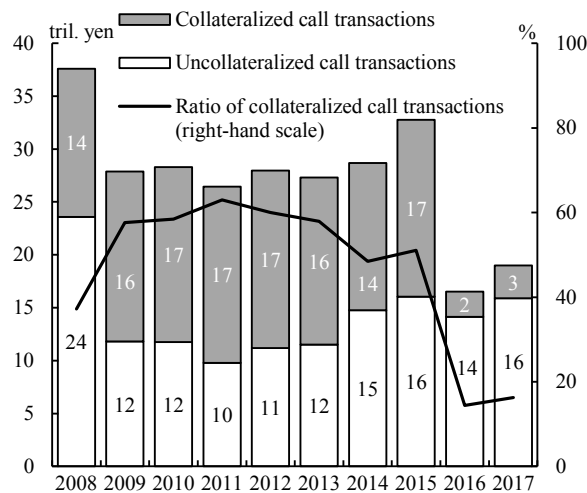
The amount outstanding of transactions in the collateralized call market remained largely unchanged from the previous year's level when the amount outstanding decreased significantly.

Conventionally, transactions between trust banks and investment trusts as lenders and *tanshi* companies as borrowers constituted the majority of collateralized call transactions. However, it has been difficult for the *tanshi* companies to offer the positive rates desired by trust banks and investment trusts in collateralized call transactions since the introduction of the negative interest rate policy.

Amount Outstanding in the Collateralized Call Market by Investor Type



Amount Outstanding in the Call Market and the Ratio of Collateralized Transactions



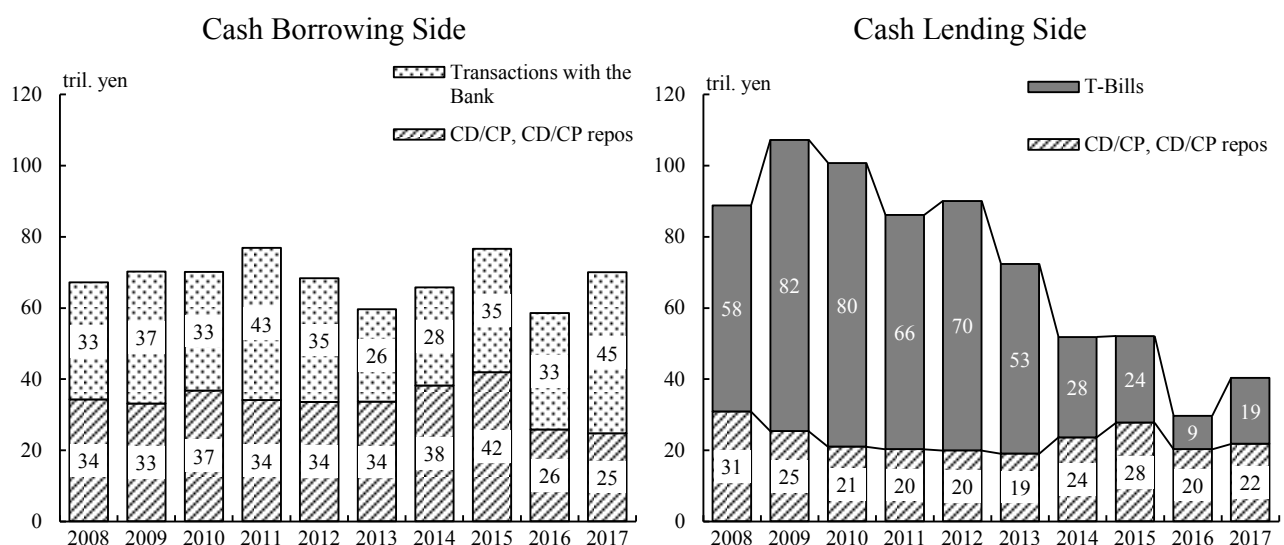
5. Increases in Cash Borrowing through Transactions with the Bank and Cash Lending through T-Bills

The amount outstanding of transactions with the Bank increased as a consequence of an increase in the use of the Loan Support Program. Some pointed out that the fact that a measure was implemented effective from March 31, 2016, whereby twice as much as the increase in the amount outstanding of financial institutions' borrowing would be included in their macro add-on balances also contributed to the increase in the use of the Loan Support Program. It was also pointed out that some of financial institutions that increased the use of the Loan Support Program increased arbitrage transactions in which they borrowed cash at negative interest rates and piled up in current accounts at the Bank utilizing the "unused allowances" in macro add-on balances.

The amount outstanding of investment in T-Bills increased due to T-Bill purchases for the purpose of suppressing policy-rate balances and of obtaining collateral. This is because T-Bill yields reduced its negative size from the previous year, and hovered at around minus 0.1 percent, which is the rate applied to the policy-rate balance.

Regarding CD/CPs whose issuance rates hovered at around 0 percent, amid the difficulties in investing money at positive rates, financial institutions continued to constrain funding through them. They were inclined to suppress their current account deposits at the Bank and avoid the policy-rate to be applied. On the other hand, the amount outstanding of investments in CD/CPs increased, albeit very slightly, due to an increase in issuance by business companies, leasing companies and non-banks.

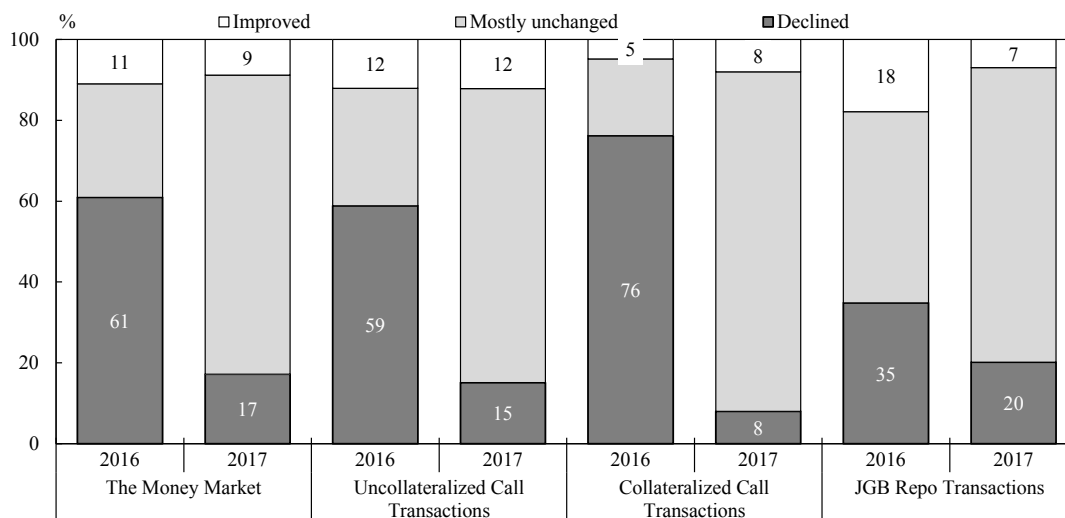
Amount Outstanding in Transactions with the Bank, CD/CP and T-Bill Transactions



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

Although the share of respondents who answered that the functioning of the money market had "declined" decreased significantly from the previous year (61 percent in 2016 to 17 percent in 2017), it continued to exceed that of "improved" (9 percent in 2017). Even for JGB repo market, where the amount outstanding continued to increase, the share of respondents who answered that the functioning of JGB repo transactions had "declined" (20 percent) exceeded that of "improved" (7 percent). Some pointed out that this reflected the decreases in the volume and the types of issues of JGBs in the secondary market.

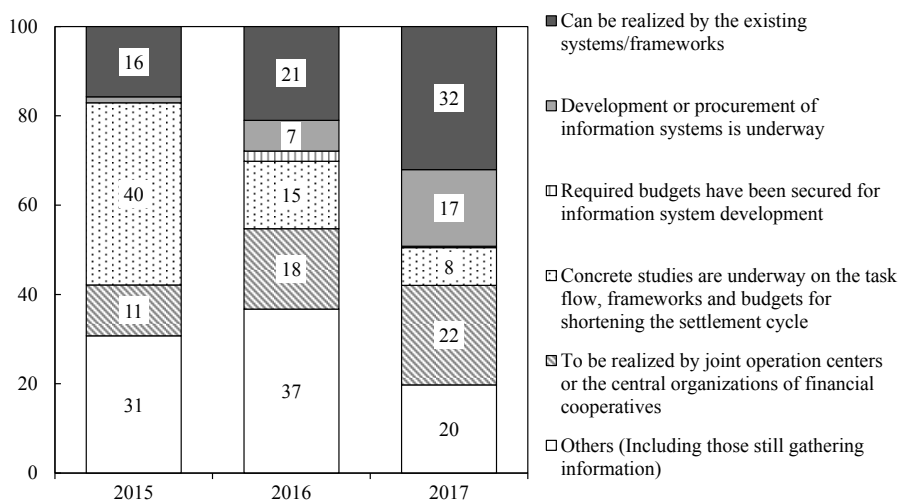
Perceptions of Market Participants on the Functioning of the Money Market



[BOX] Status of Initiatives to Shorten the Settlement Cycle of JGBs to T+1

When looking at the status of initiatives to shorten the settlement cycle of JGBs to T+1, which is scheduled to be implemented in May 2018, based on the number of counterparties, the shares of respondents who answered that the shortening of the settlement cycle "can be realized by the existing systems/frameworks" and "development or procurement of information systems is underway" both increased from the previous year.

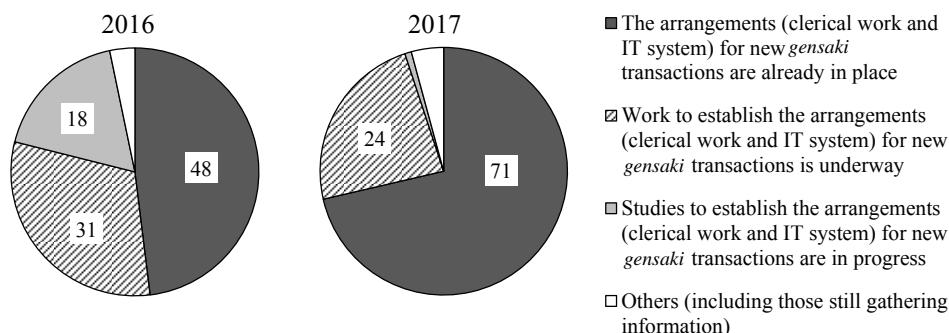
Status of Initiatives to Shorten the Settlement Cycle of JGBs (%)



Note: Responses were obtained from all counterparties covered by the survey.

Also, when looking at the status of the shift to new *gensaki* transactions, which is recommended along with the implementation of the T+1 cycle, based on the amount outstanding of transactions, respondents who answered that "the arrangements (clerical work and IT system) for new *gensaki* transactions are already in place" increased from the previous year, indicating that the shift to new *gensaki* transactions had progressed further. Meanwhile, some of the respondents who conduct repo transactions at a low frequency still showed an ambiguous stance toward shifting to new *gensaki* transactions.

Status of the Shift to New Gensaki Transactions (%)

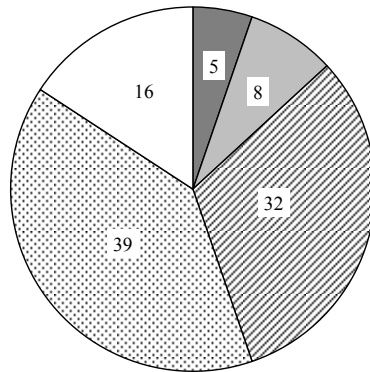


Note: Responses were obtained from 133 counterparties who were engaged in JGB repo transactions in July 2017. Note that the "amount outstanding of transactions" is based on the sum of the amount of cash lent and borrowed through GC repo transactions.

Furthermore, looking at the status of use of the new basic contract supporting the Subsequent Collateral Allocation Method GC Repo Transactions, respondents who indicated that they intend to conclude contracts using the new basic contract before the implementation of the T+1 cycle in May 2018 accounted for the majority, suggesting that preparations for shortening of the settlement cycle of JGBs to T+1 had steadily advanced.

Status of the Use of the New Basic Contract Supporting the Subsequent Collateral Allocation Method GC Repo Transactions (%)

- Have already concluded contracts using the new basic contract
- ▣ Plan to conclude contracts using the new basic contract by around December 2017
- ▤ Plan to conclude contracts using the new basic contract by around March 2018
- ▥ Plan to conclude contracts using the new basic contract by around May 2018
- Do not plan to use the new basic contract before the implementation of the shortening of the settlement cycle of JGBs

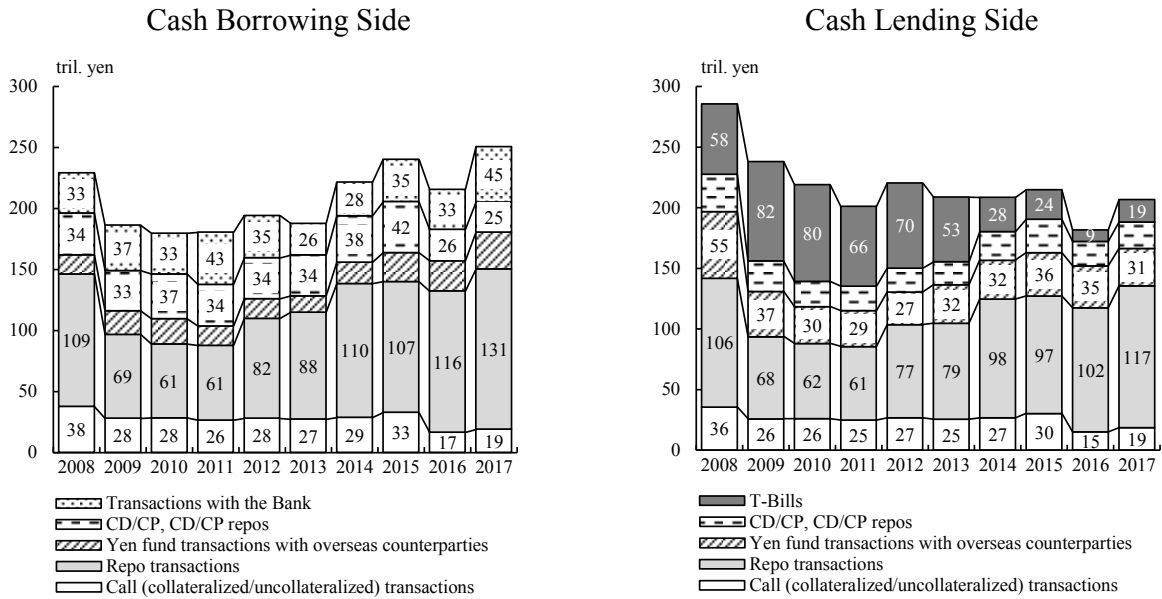


Note: Respondents are only those counterparties that executed GC repo transactions in July 2017, and also participate in JSCC's JGB clearing services or plan to participate by May 2018.

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Chart 1: Amount Outstanding in the Money Market



- 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 the 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 T-Bills are recorded only on the lending side).

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

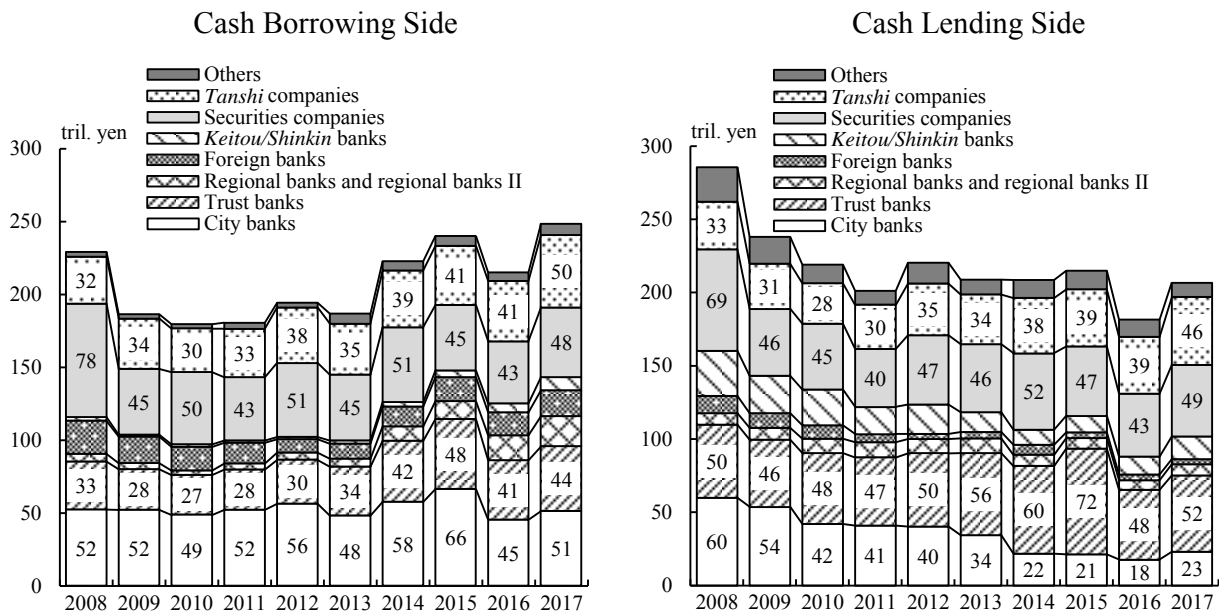


Chart 3: Amount Outstanding of Fund Lending by Institutions Eligible and Those Not Eligible for Remuneration

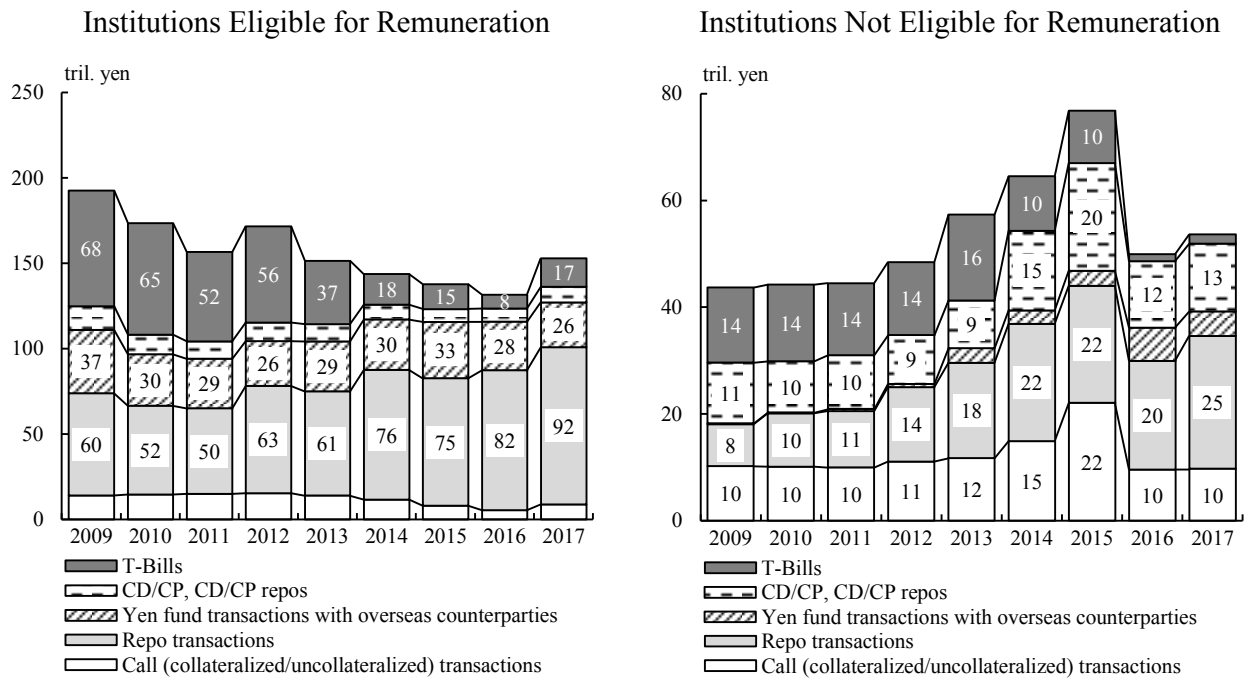
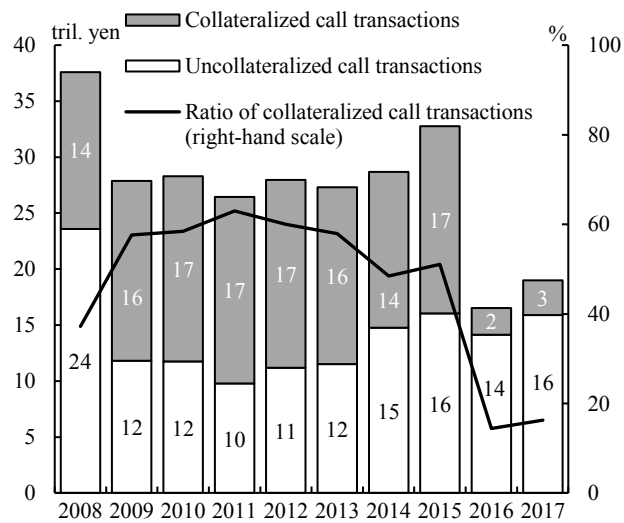


Chart 4: Amount Outstanding in the Call Market and the Ratio of Collateralized Transactions



Note: Cash borrowing side.

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

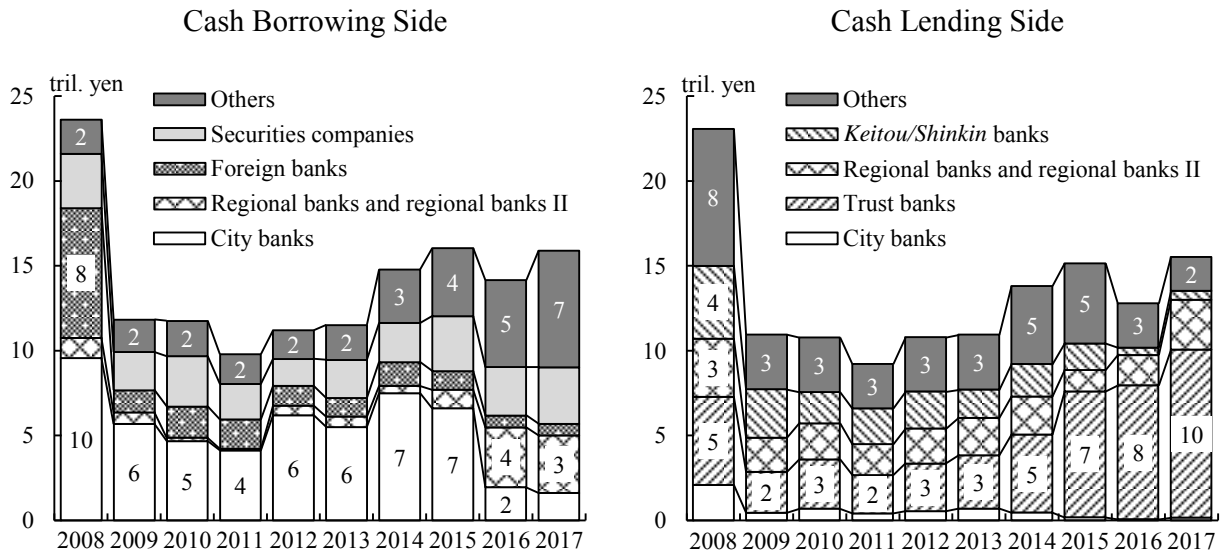
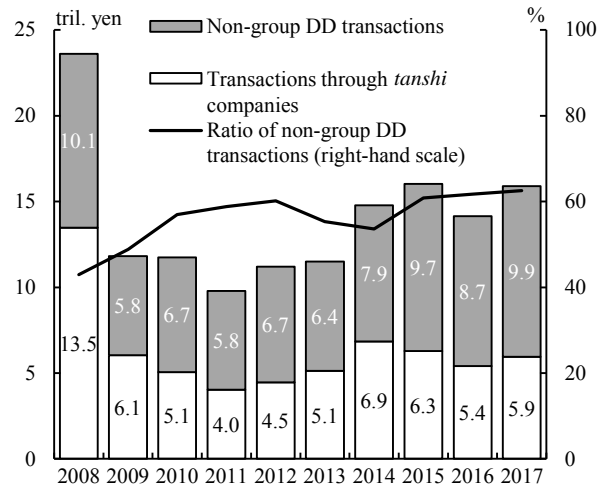


Chart 6: Amount Outstanding in the Uncollateralized Call Market and the Ratio of Non-Group Direct Dealing (DD) Transactions



Note: Cash borrowing side.

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

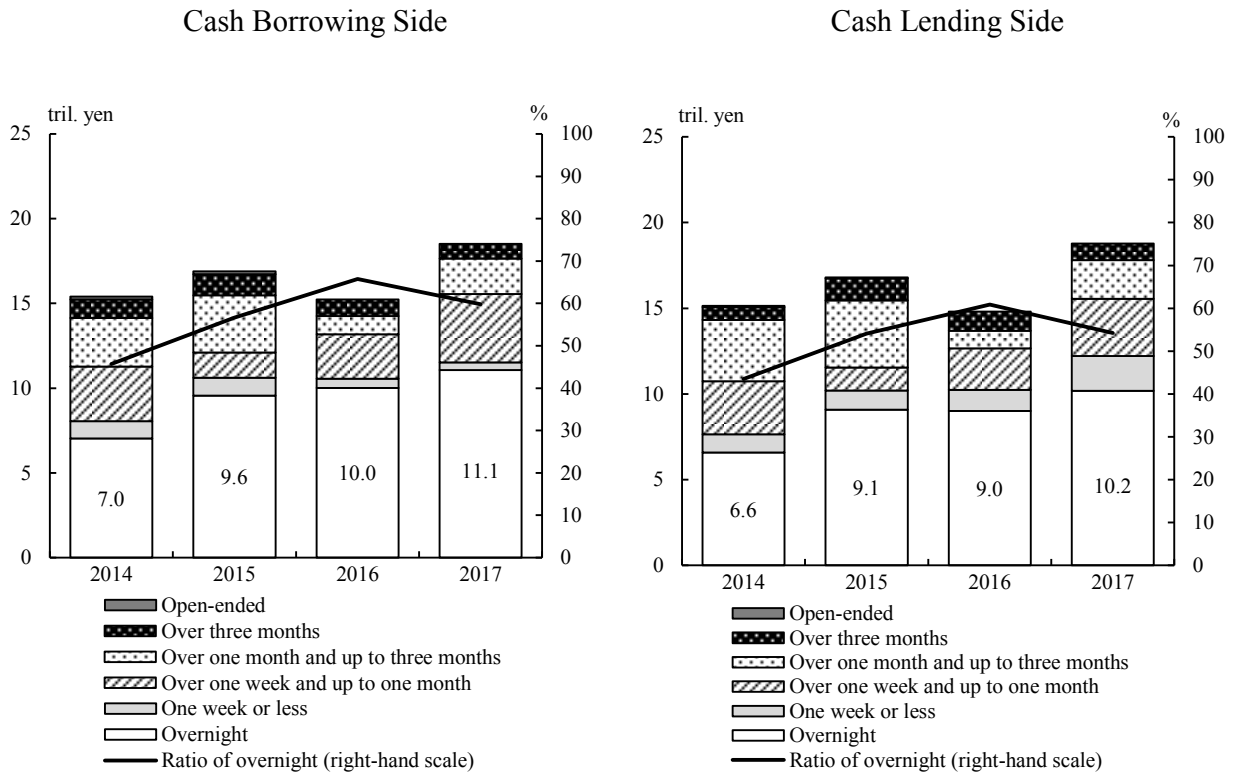
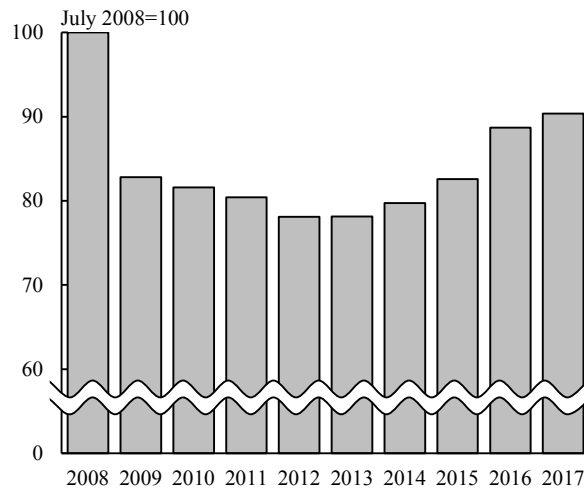
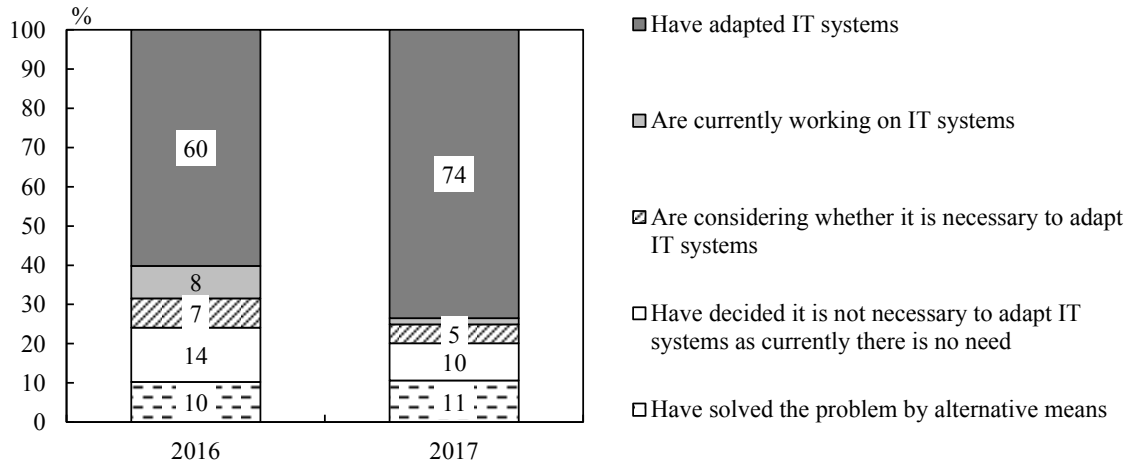


Chart 8: Number of Credit Lines Established



Note: Number of respondents whose total number of credit lines established could be confirmed for all years from 2008 to 2017. Adjusted for the effects of mergers and other factors.

Chart 9: Status of IT System Adjustments to Negative Interest Rates in the Uncollateralized Call Market



Note: Respondents are only those counterparties that executed uncollateralized call transactions in the year before the survey was conducted.

Chart 10: Amount Outstanding in the Collateralized Call Market by Investor Type

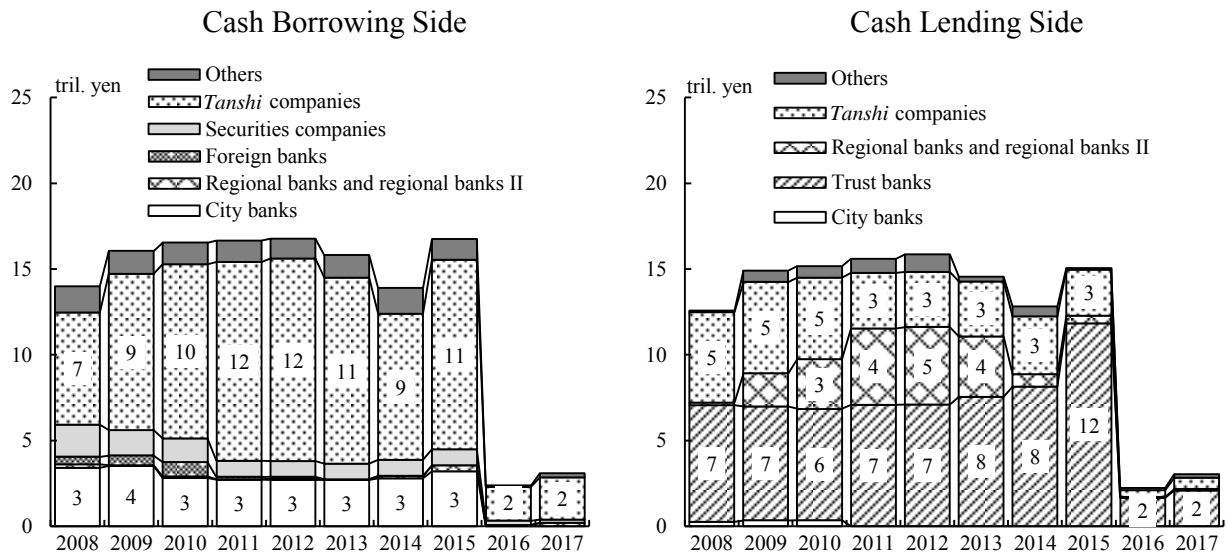
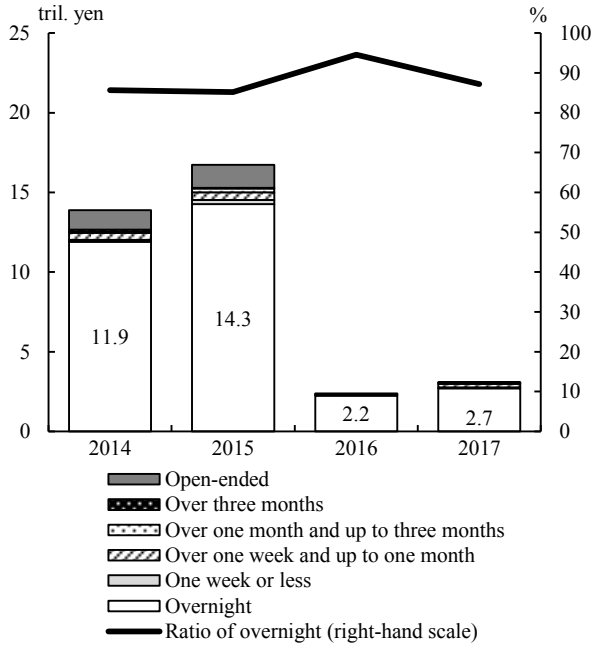


Chart 11: Amount Outstanding in the Collateralized Call Market by Term
Cash Borrowing Side



Cash Lending Side

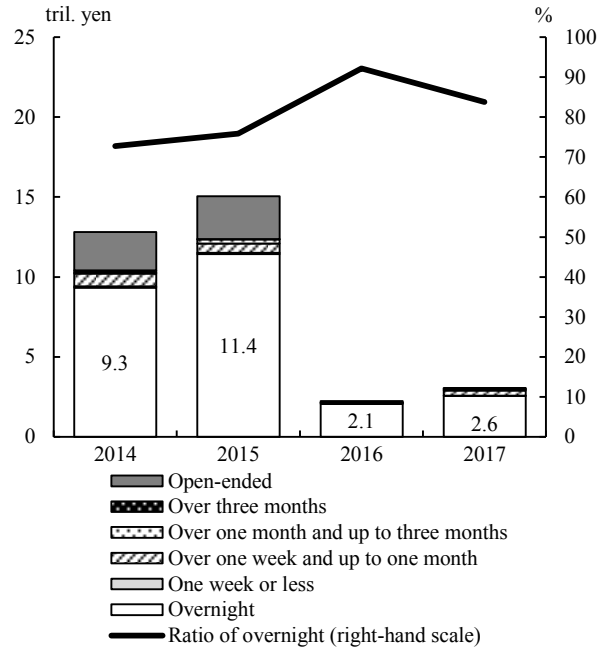


Chart 12: Frequency of Call Transactions

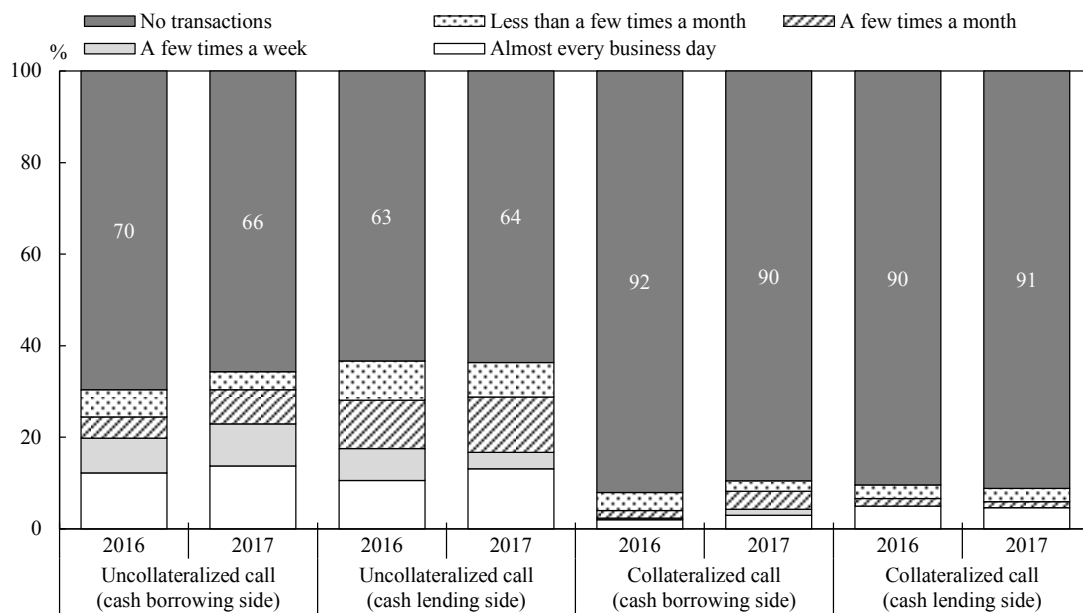
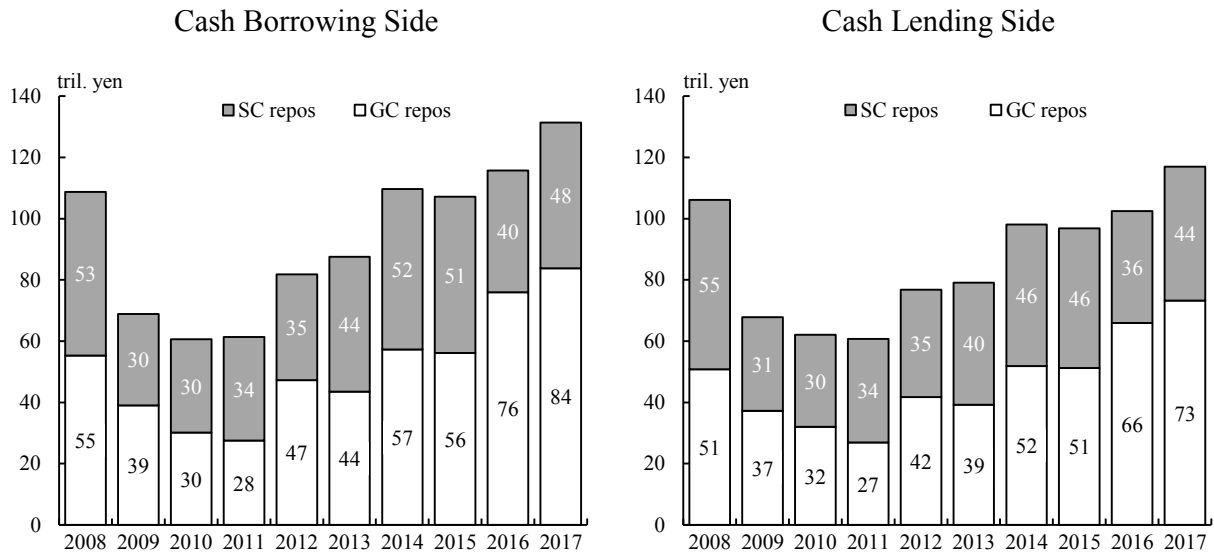
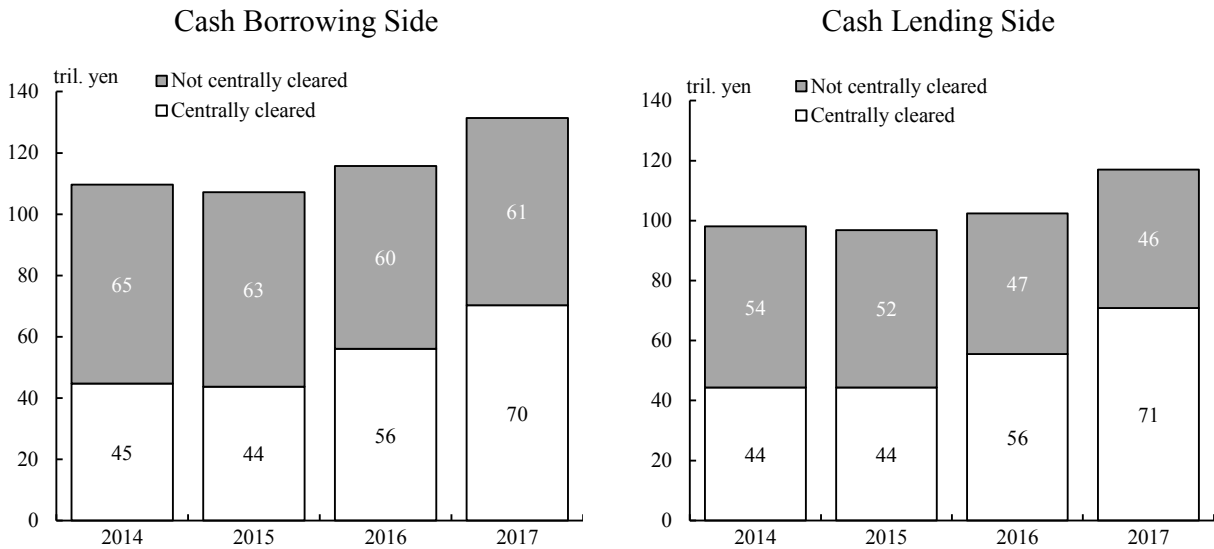


Chart 13: Amount Outstanding in the Repo Market
By Transaction Type



By Settlement Type



Note: Centrally cleared transactions refer to those cleared at the Japan Securities Clearing Corporation.

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

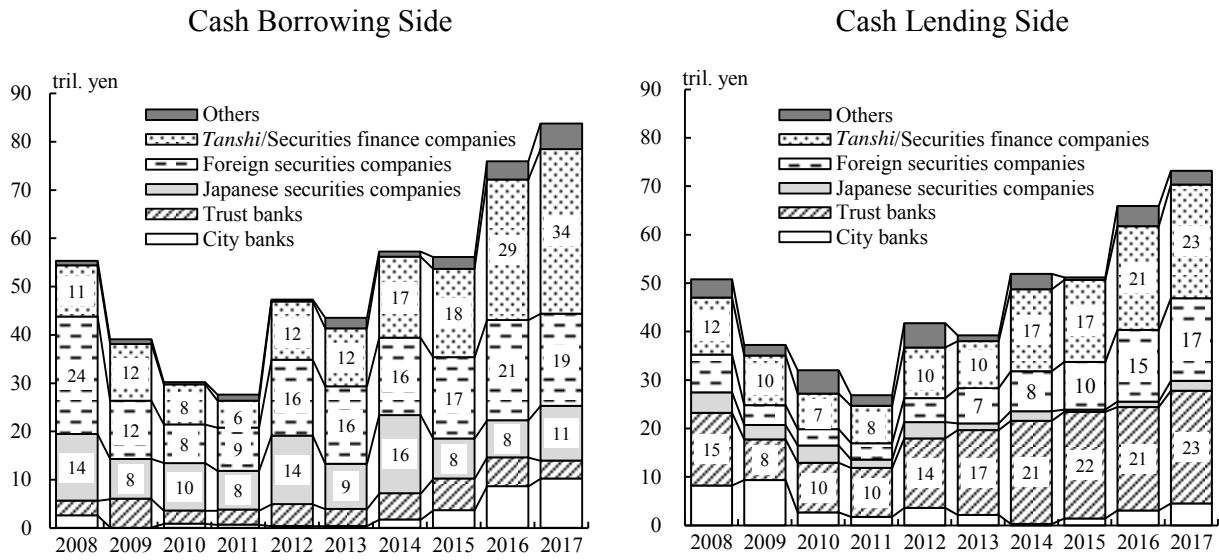


Chart 15: Amount Outstanding of GC Repo Transactions by Term

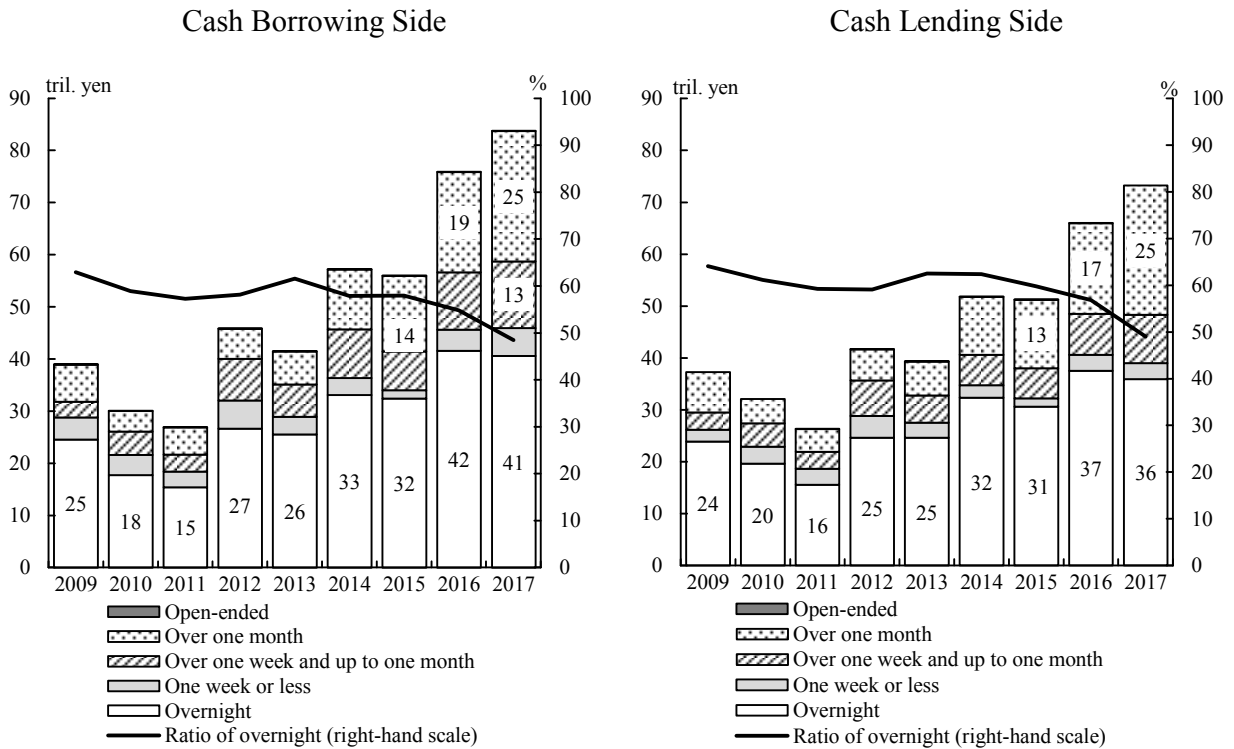
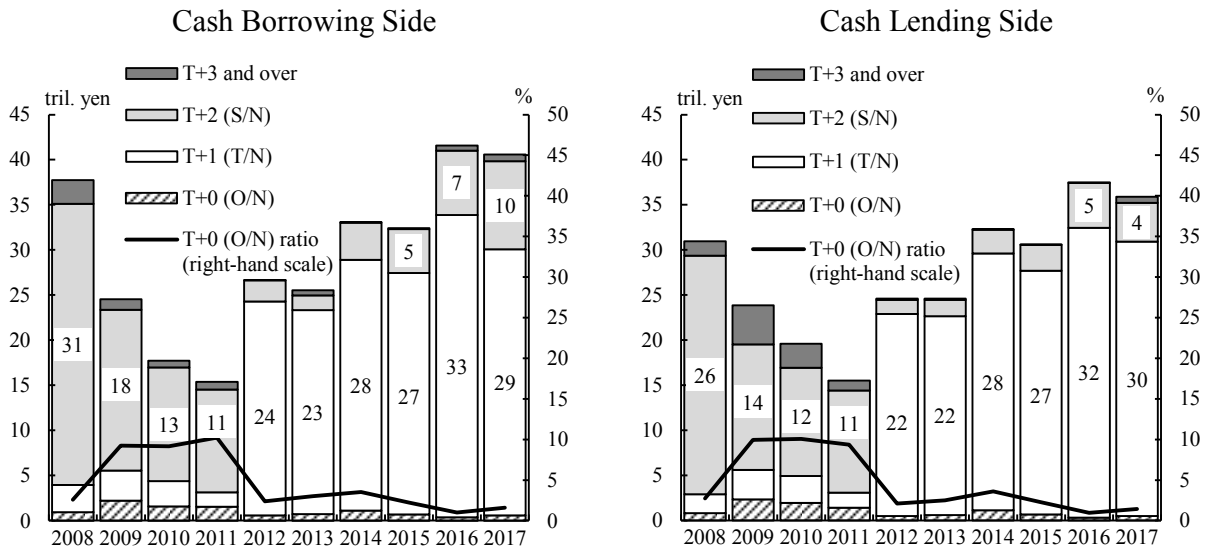


Chart 16: Amount Outstanding in the GC Repo Market by Starting Date

Overnight Transactions



Term Transactions

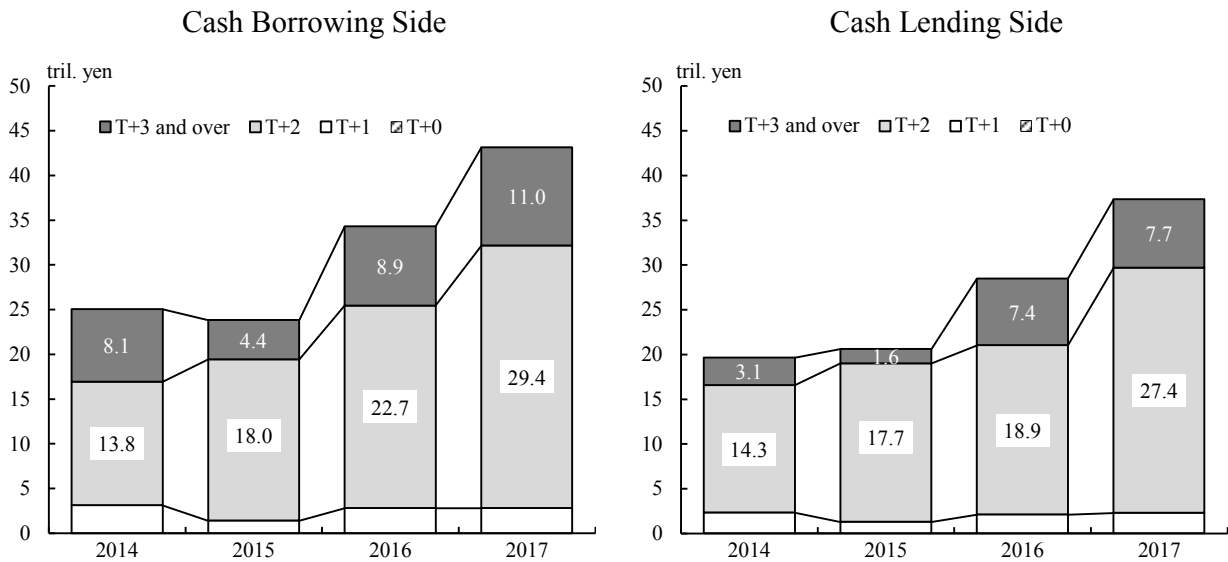


Chart 17: Amount Outstanding in the SC Repo Market by Investor Type

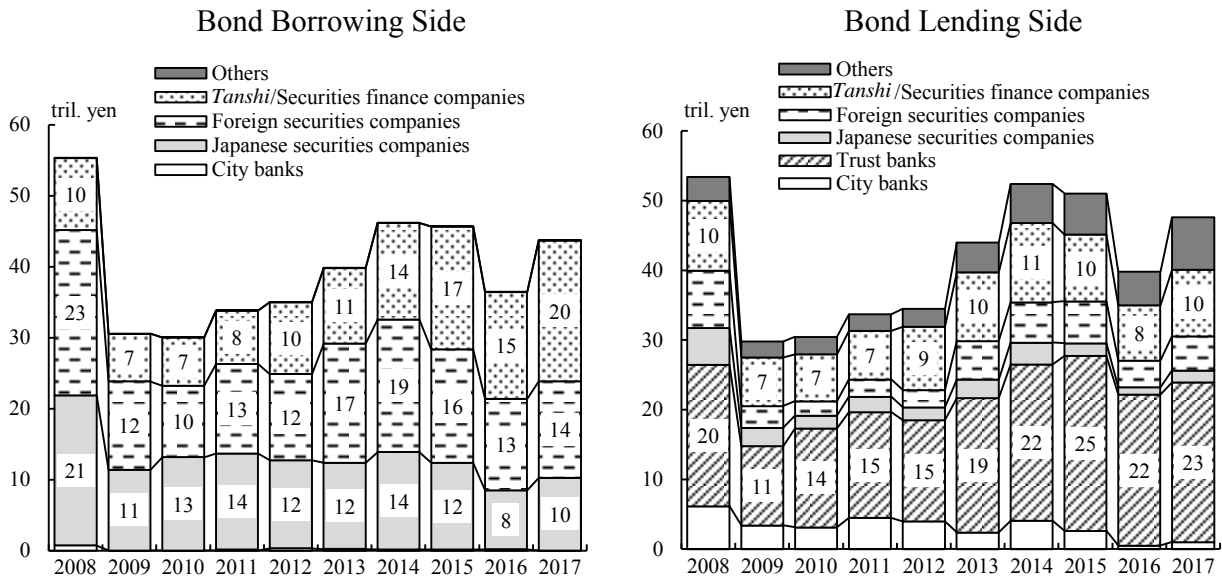
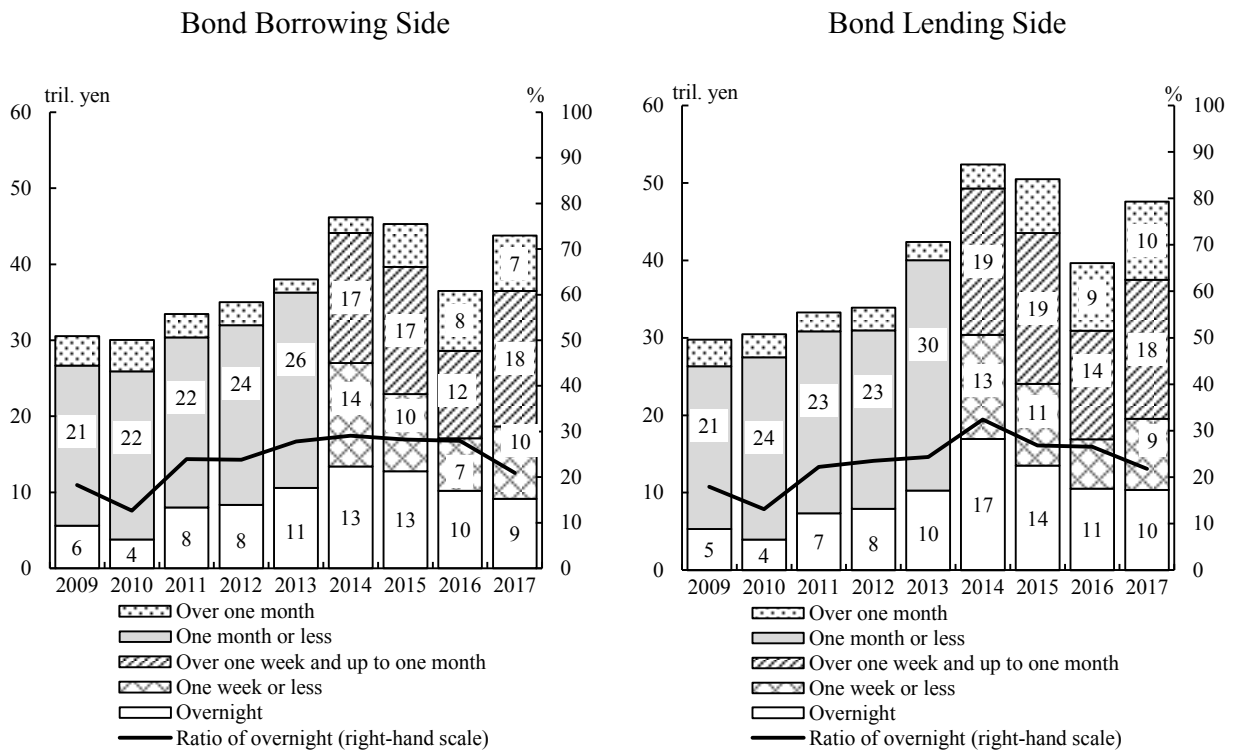


Chart 18: Amount Outstanding of SC Repo Transactions by Term



Note: From the 2014 survey, "one month or less" has been subdivided into "one week or less" and "over one week and up to one month."

Chart 19: Frequency of Repo Transactions

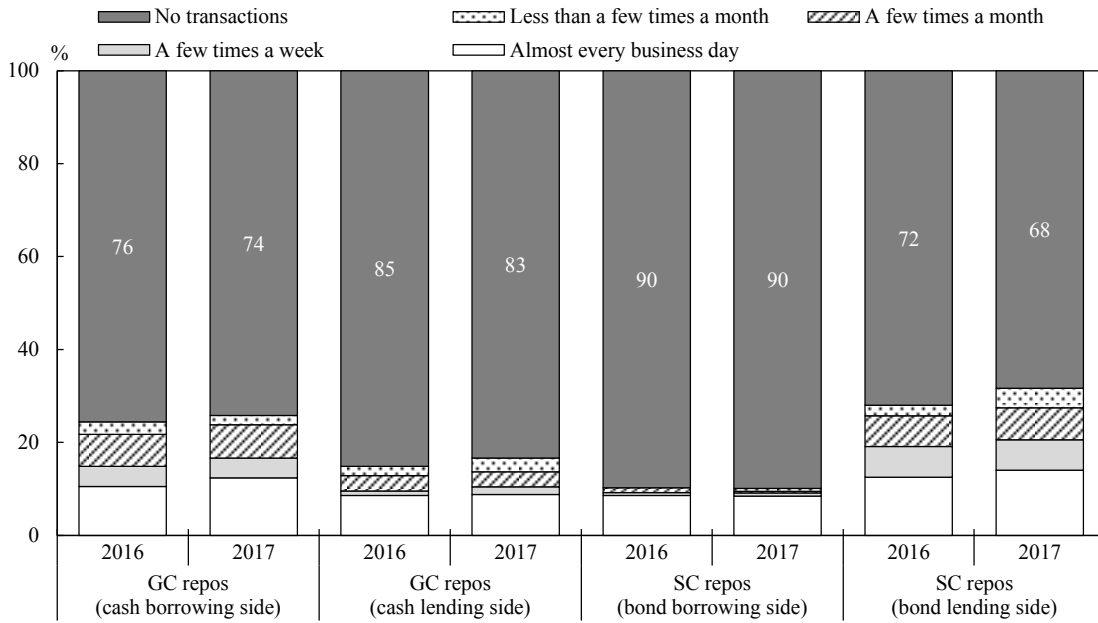


Chart 20: Breakdown of Amount Outstanding in the Repo Market by Type of Collateral

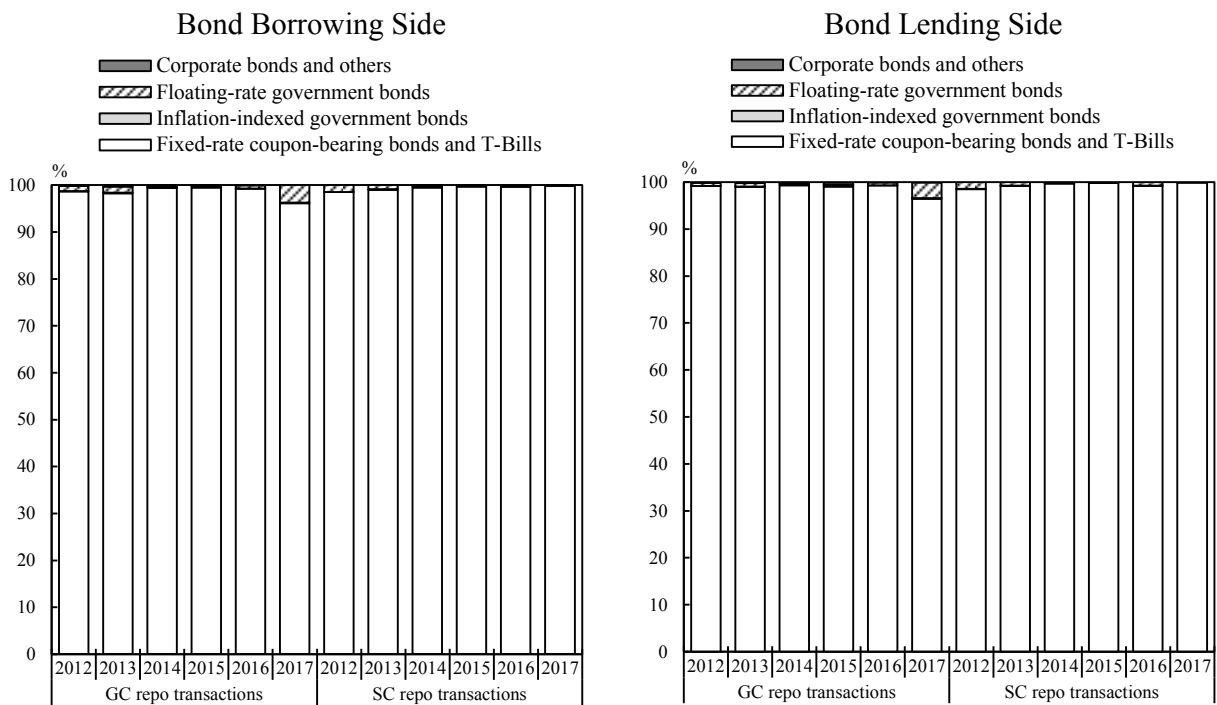


Chart 21: Amount Outstanding of Repo Transactions in Managed Securities Trusts by Term

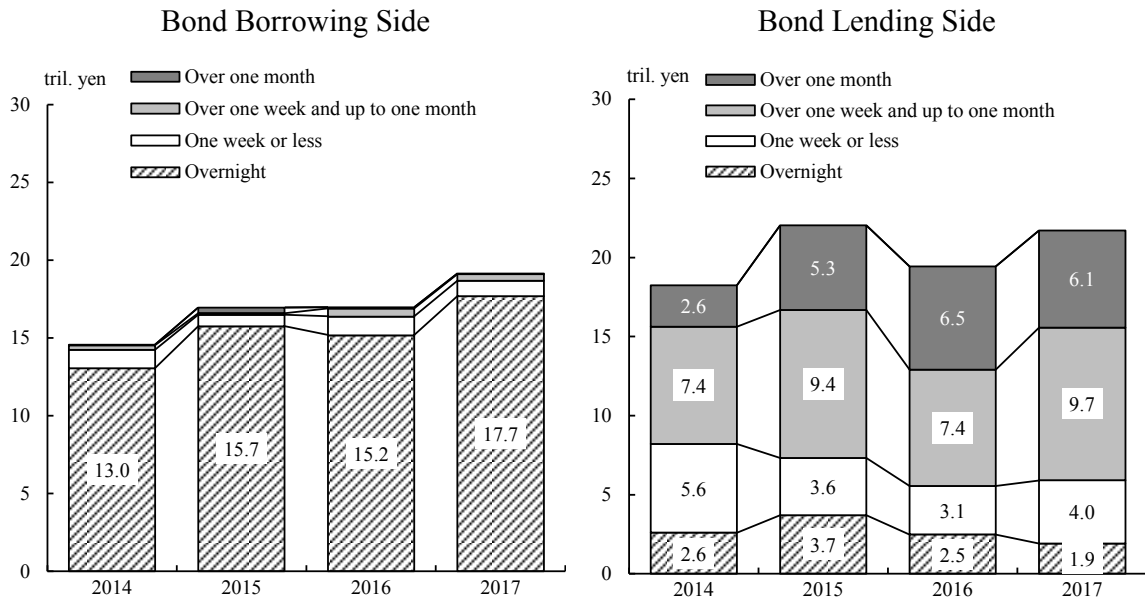
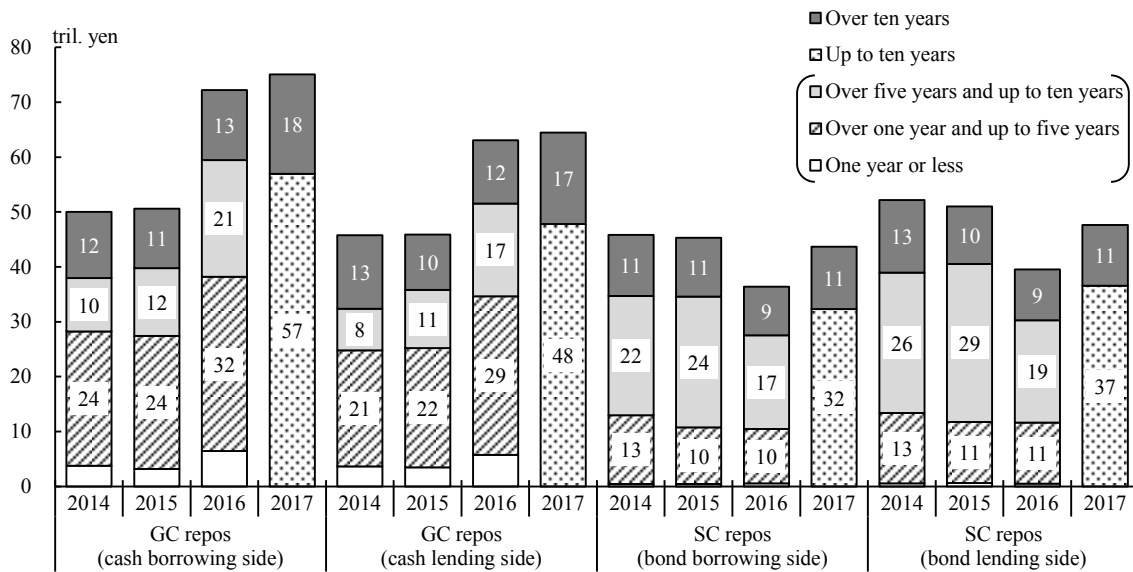
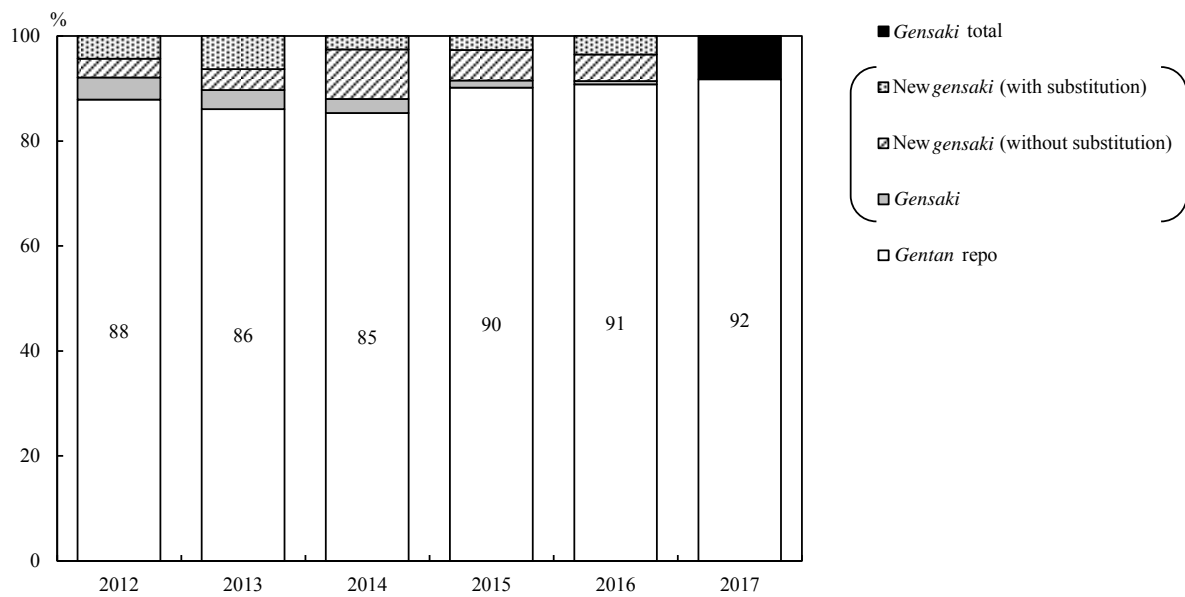


Chart 22: Amount Outstanding of Repo Transactions by Collateral Maturity



Note: Repo transactions with fixed-rate coupon-bearing bonds as collateral. From the 2017 survey, "over five years and up to ten years," "over one year and up to five years," and "one year or less" have been combined into "up to ten years."

Chart 23: Breakdown of the Amount Outstanding of Repo Transactions by Form of Contract



Note: Total of cash borrowed and lent. From the 2017 survey, "New gensaki (with substitution)," "New gensaki (without substitution)," and "Gensaki" have been combined into "Gensaki total."

Chart 24: Amount Outstanding of Financial Institutions' CP Holdings by Investor Type

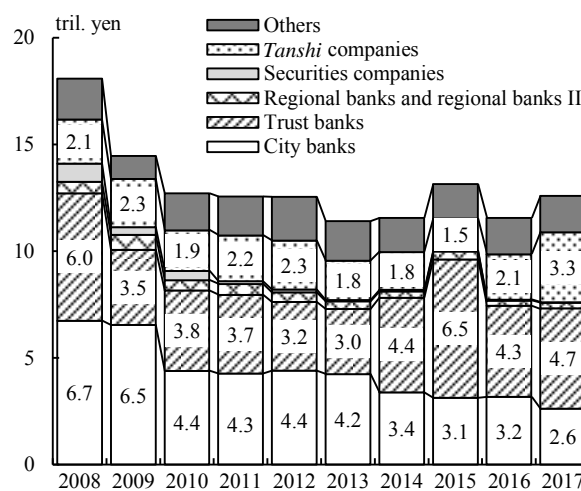
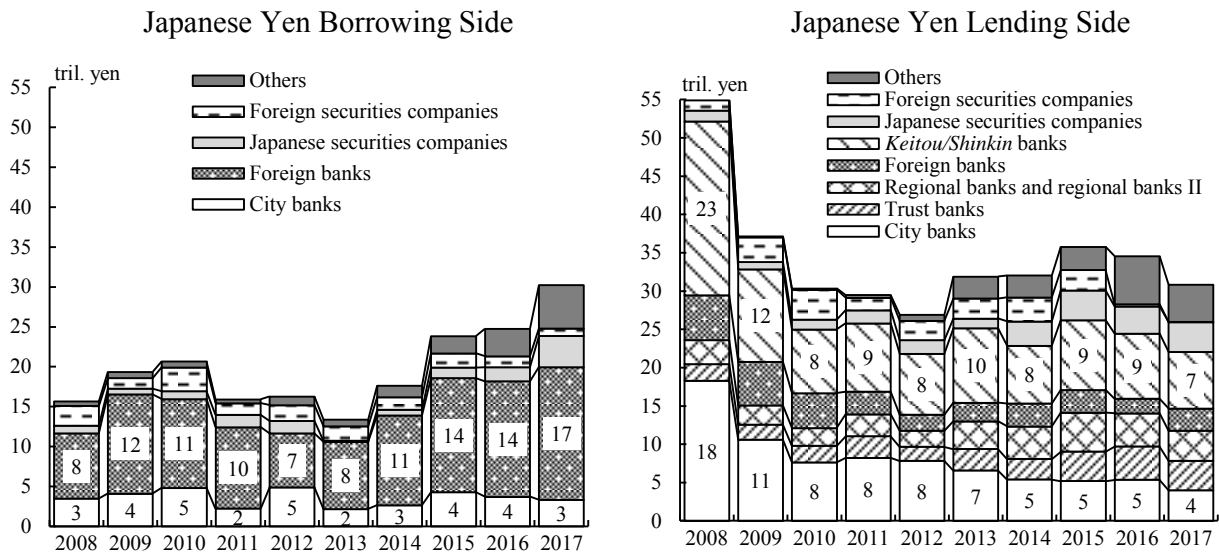


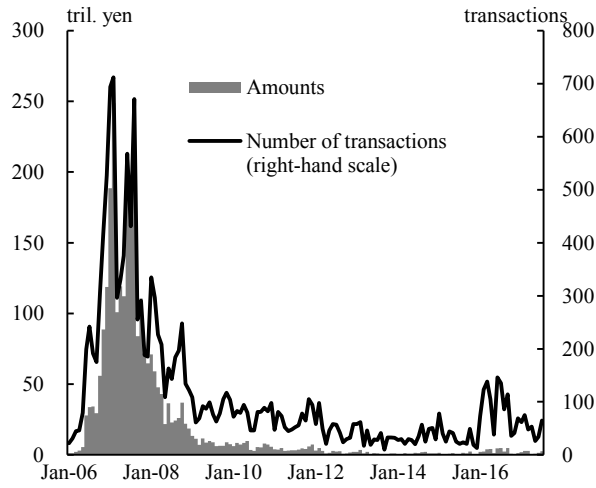
Chart 25: Amount Outstanding of Yen Fund Transactions with Overseas Counterparties by Investor Type



Note: The total of yen lending/funding through the FX swap market (those with a term of one year or less), euroyen transactions, and yen lending/borrowing transactions with the overseas offices of financial institutions.

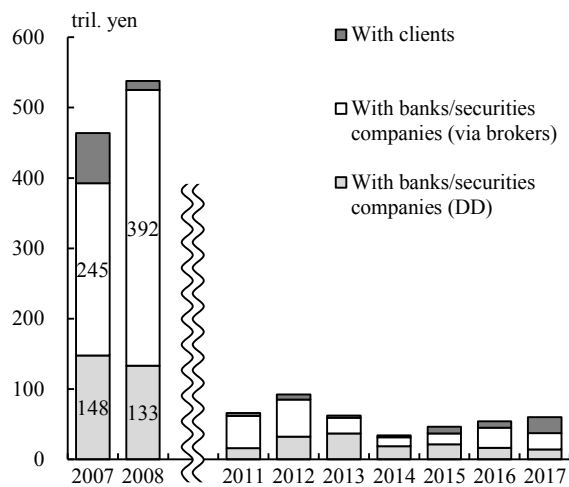
Chart 26: Yen Overnight Index Swap Market

Volume and Number of Yen OIS Transactions via Brokers



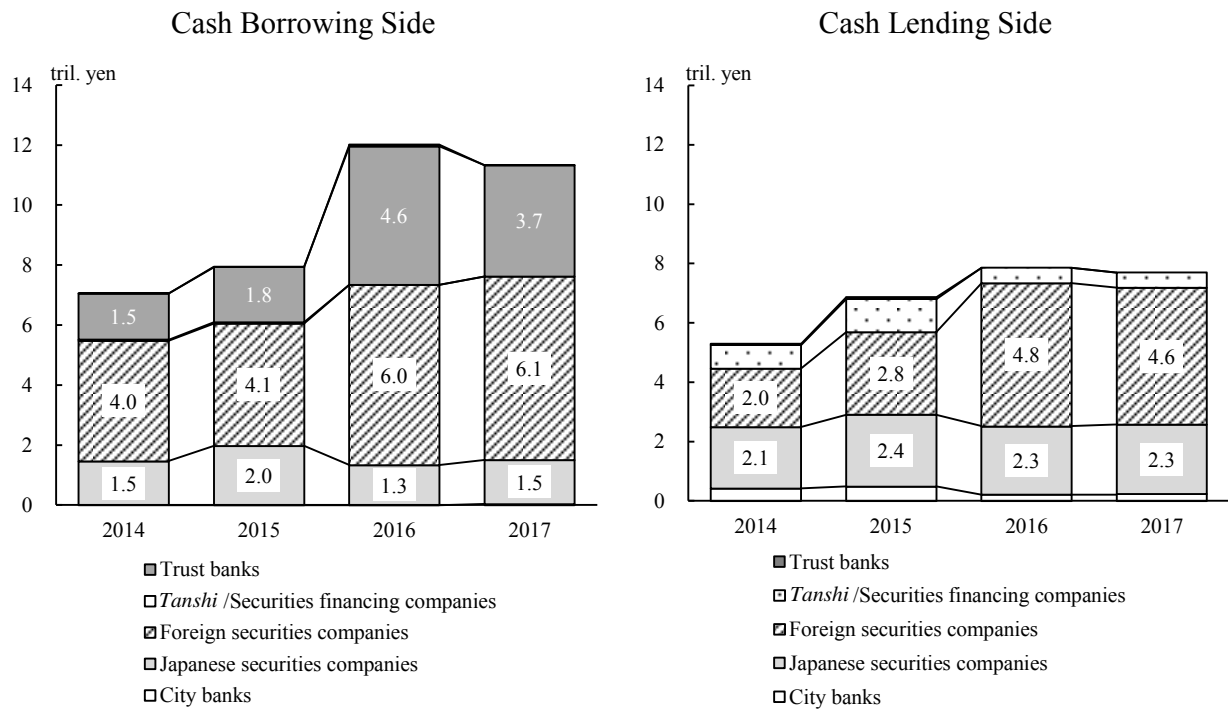
Source: Money Brokers Association.

Amount Outstanding in the Yen OIS Market



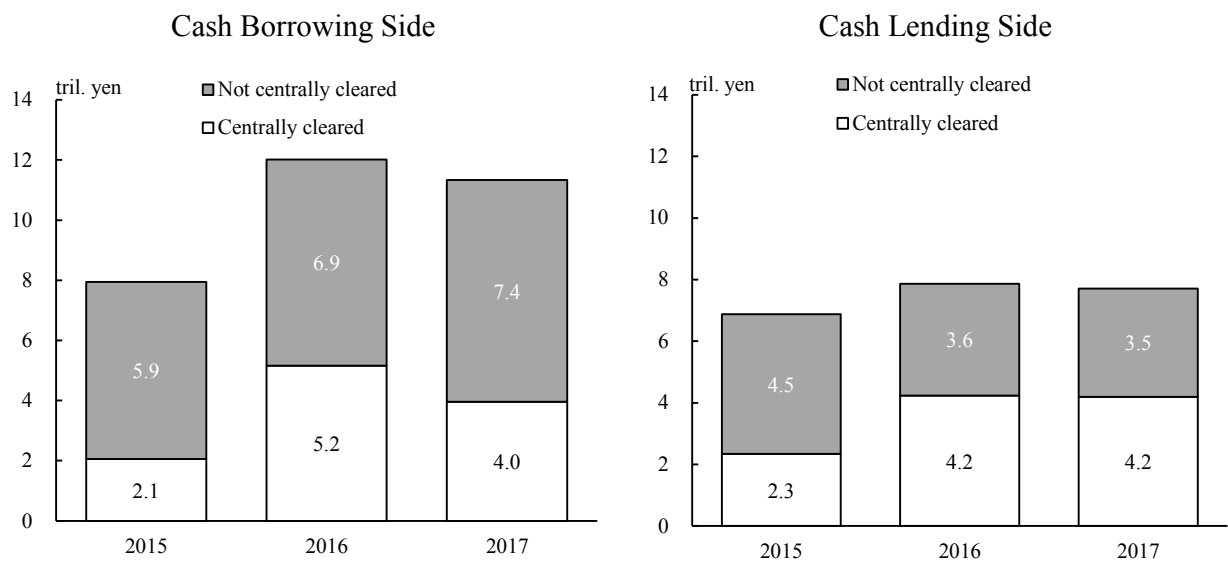
Note: Includes transactions by overseas offices of financial institutions. On the basis of notional amounts.

Chart 27: 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



Note: "Centrally cleared transactions" refer to those cleared at JASDEC DVP Clearing Corporation.

Chart 28: Stance on Arbitrage Transactions that Take Advantage of the Three-Tier System of Financial Institutions' Current Accounts at the Bank

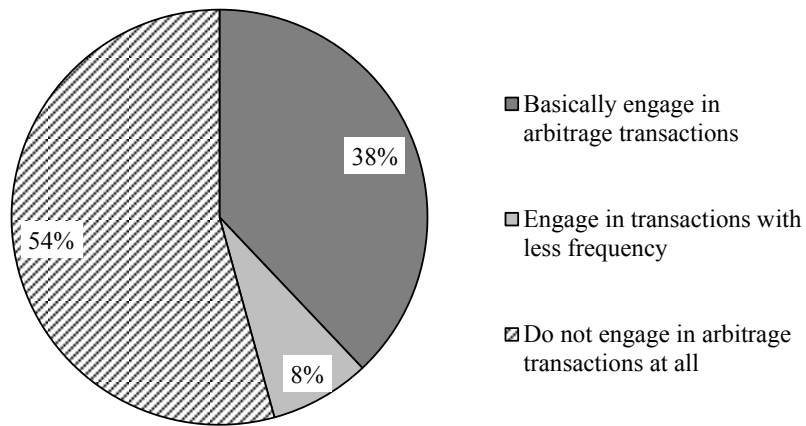
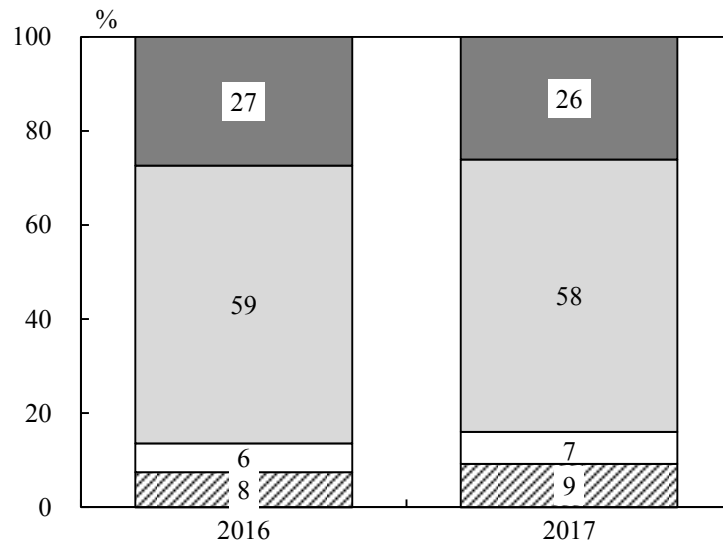


Chart 29: Stance on the Management of Current Account Deposits at the Bank

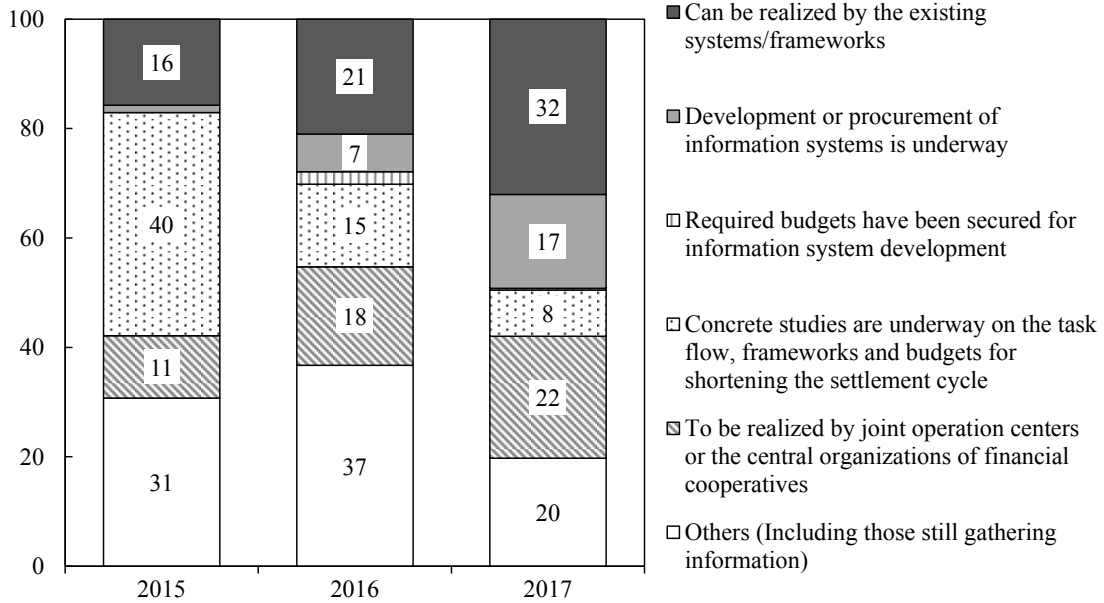
- Adjust the balance so that only the positive interest rate is applied
- Adjust the balance so that only the positive or the zero interest rate is applied
- Have other standards
- ▨ Do not have standards



Note: Respondents are only those who have current account deposits at the Bank.

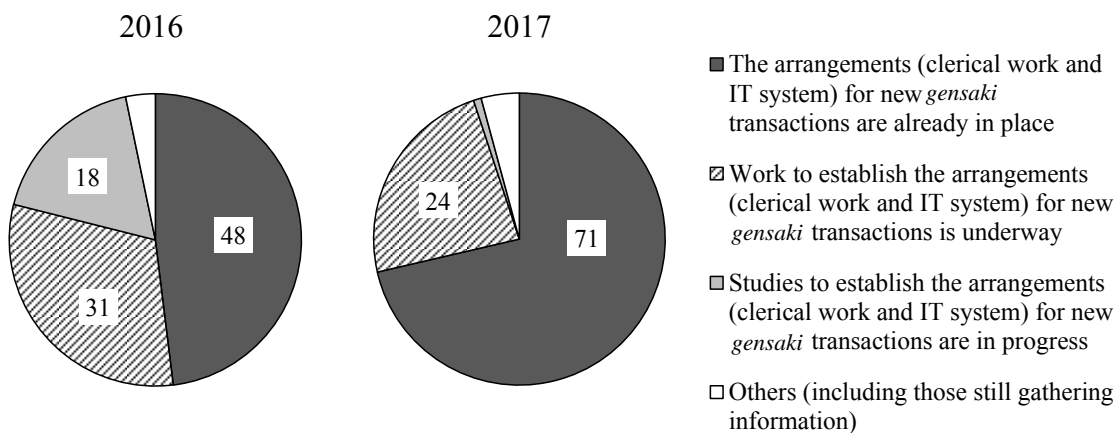
Chart 30: Topics in the Money Market

Status of Initiatives to Shortening the Settlement Cycle of JGBs



Note: Conducted a survey on the status of initiatives to shorten the settlement cycle of JGBs to T+1, which is scheduled to be implemented in May 2018.

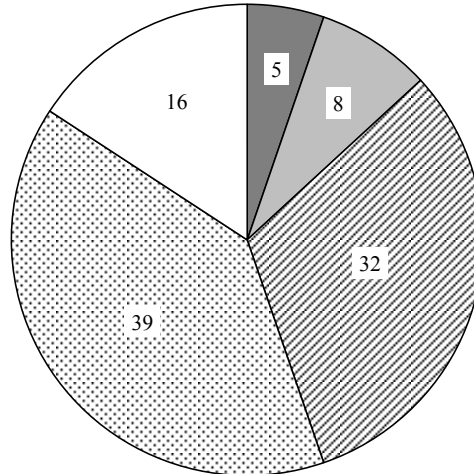
Status of the Shift to New *Gensaki* Transactions (%)



Note: Based on the sum of the amount of cash lent and borrowed through GC repo transactions. Responses were obtained from 133 counterparties who executed JGB repo transactions in July 2017.

Status of the Use of the New Basic Contract Supporting the Subsequent Collateral Allocation Method GC Repo Transactions (%)

- Have already concluded contracts using the new basic contract
- ▣ Plan to conclude contracts using the new basic contract by around December 2017
- ▣ Plan to conclude contracts using the new basic contract by around March 2018
- ▣ Plan to conclude contracts using the new basic contract by around May 2018
- Do not plan to use the new basic contract by the time the settlement cycle of JGBs is shortened



Note: Respondents are only those counterparties that executed GC repo transactions in July 2017, and also participate in JSCC's JGB clearing services or plan to participate by May 2018.

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

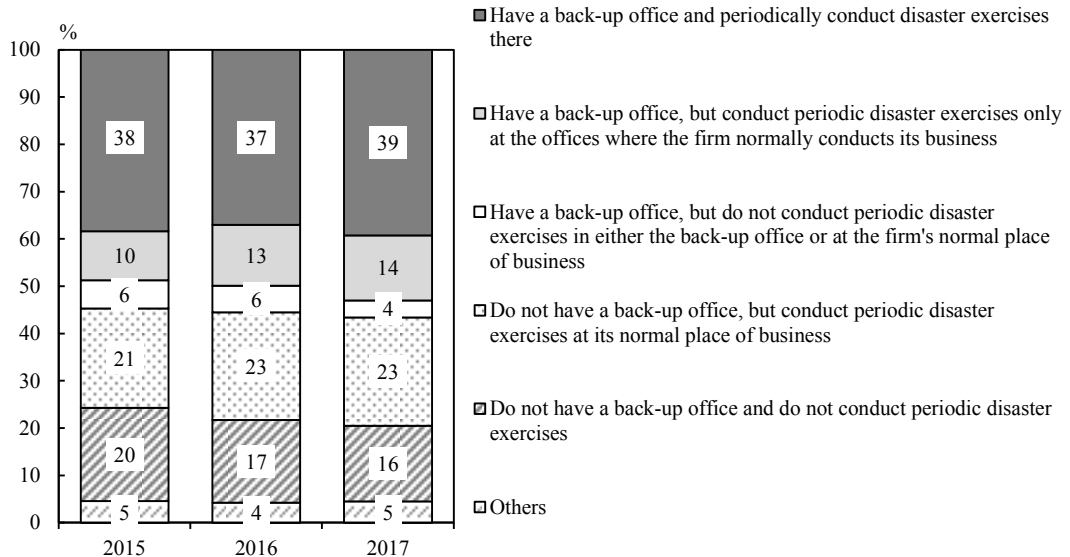
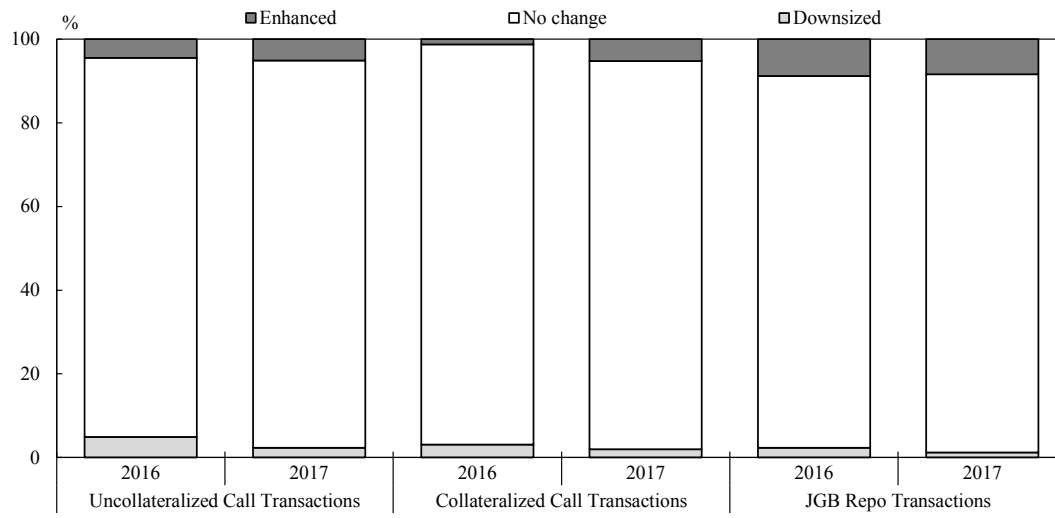
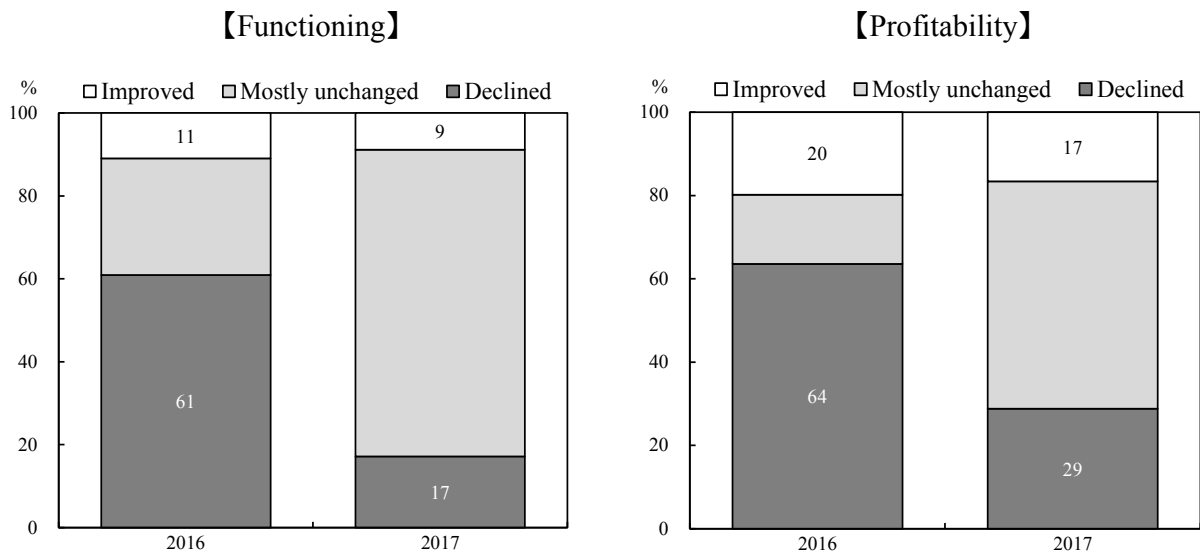


Chart 31: Changes in Administrative Structures



Note: Changes from the previous year.

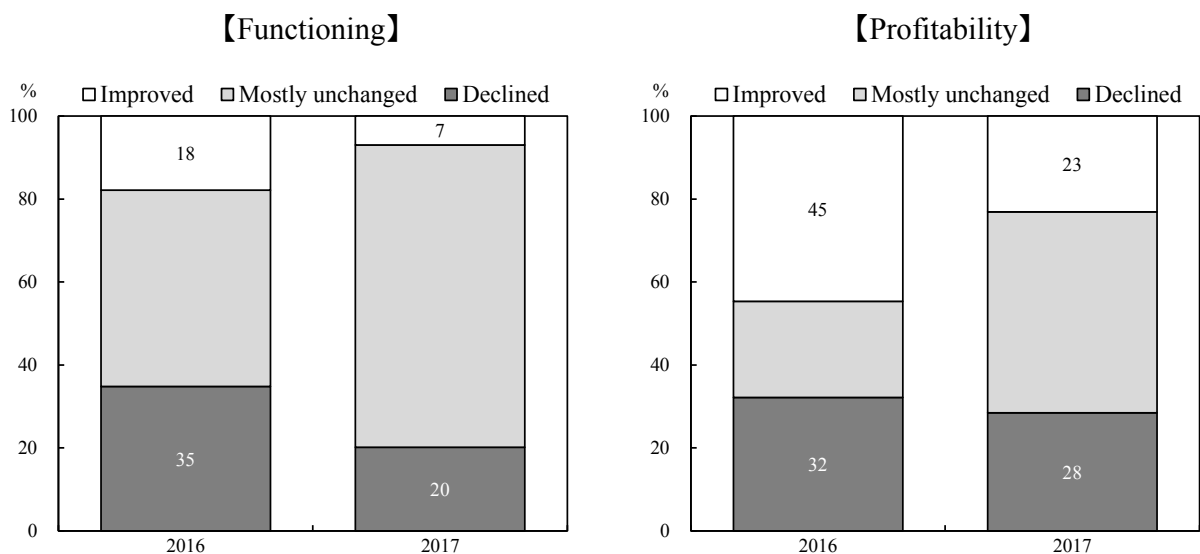
Chart 32: Perceptions of Market Participants on Money Market Transactions



Note:

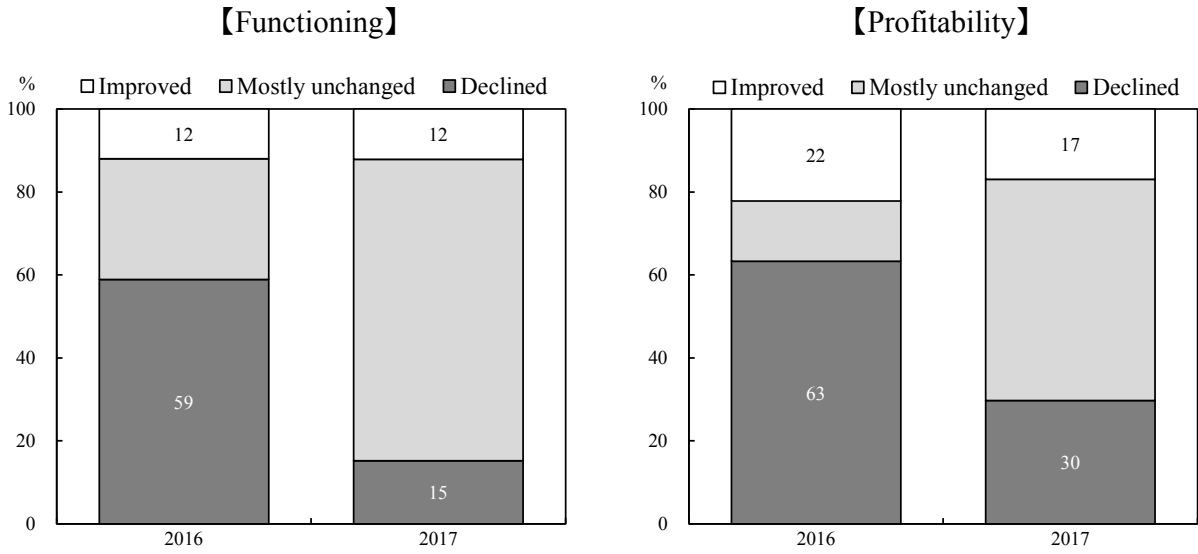
1. Responses were obtained only from those counterparties that were engaged in call money transactions or JGB repo transactions, or in both of them.
2. The question on "Functioning" was designed to find the perceptions of market participants on the change in the functioning of the money market from the 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



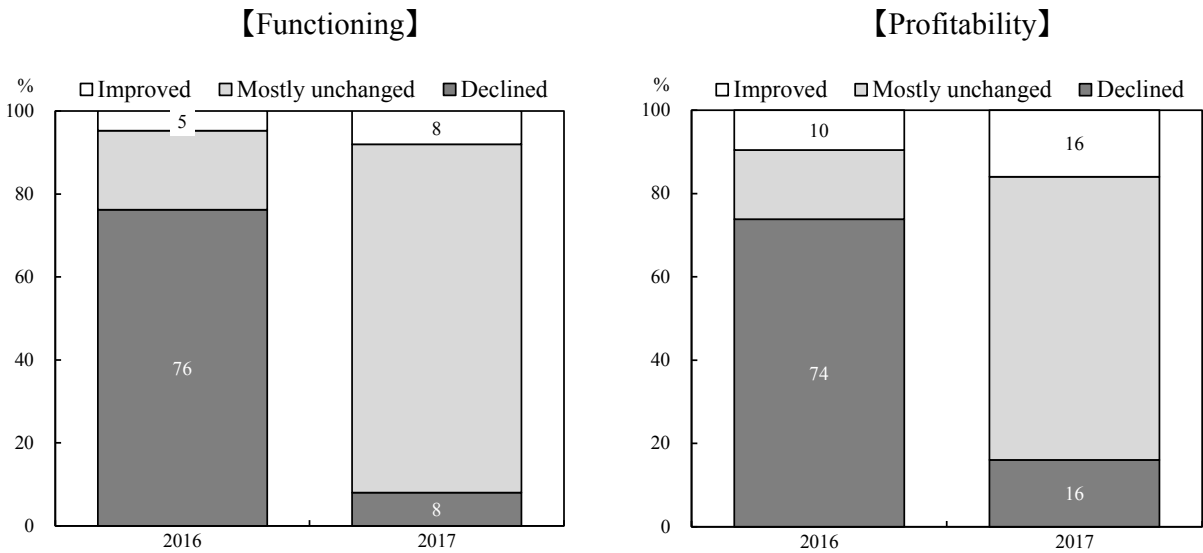
Note: Responses were obtained only from those that were engaged in JGB repo transactions.

Uncollateralized Call Transactions



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

Collateralized Call Transactions



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

Chart 33: Degree of Concentration in Each Market

