Financial System Report

Summary

April 2018

Bank of Japan

Executive summary

Financial intermediation and financial cycle

- Financial intermediation has remained well-functioned, supporting the moderate expansion of Japan's economy.
- The funding conditions for the non-bank private sector have been highly accommodative, but no particular signs of overheating are observed in the current phase of the financial cycle. Although FIs and firms have been expanding the size of their balance sheets, such size has not become excessive relative to GDP.

Stability of the financial system

- FIs have generally strong resilience in terms of both capital and liquidity in times of tail events. Thus, it can be judged that Japan's financial system has been maintaining stability on the whole.
- However, there is some heterogeneity in FIs' resilience against stress. Furthermore, the current sufficiency of their level of capital does not necessarily guarantee the future stability of the financial system, because FIs face chronic stress, such as the persistent decline in the population and the number of firms, which determine the secular demand for financial transactions.

Vulnerabilities due to FIs' credit risk taking

- FIs have actively extended loans at low interest rates, particularly to "middle-risk firms," against the backdrop of the effects of intensified lending competition under chronic stress and monetary easing. This reflects the fact that the potential loan demand by middle-risk firms will easily materialize in response to lower loan interest rates offered by FIs, as these firms hold a smaller amount of internal funds and are more sensitive to loan interest rates compared to financially sound firms.
- The ratio of FIs' loan-loss provisions for overall normal loans has remained at a historically low level that is below even that before the Lehman shock. However, in the event of negative shocks, such as an economic downturn or a rise in interest rates, firms -- especially middle-risk firms with low profitability and ability to repay their debt -- could be downgraded and credit costs could rise sharply.

Challenges for FIs from a macroprudential perspective

- Bearing in mind any future changes in the macroeconomic environment, FIs need to set appropriate interest rates reflecting the risks involved, and improve the effectiveness of credit risk management, including examining whether their loan-loss provisions are appropriate.
- At the same time, FIs should deepen relationships with client firms and thereby actively support these firms' efforts to raise productivity.

* FI stands for financial institution.

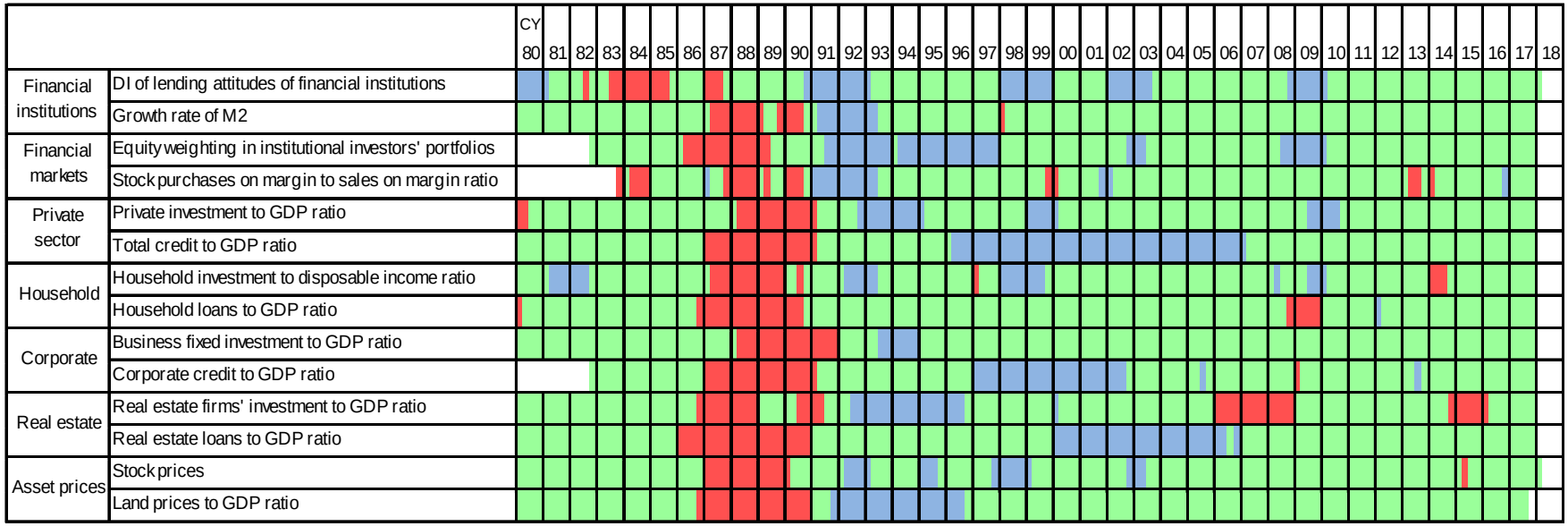
Part I. Financial cycle and the resilience of the financial system

- Assessment of the financial cycle
- Stress testing and assessment of FIs' profitability

Heat map

- While the funding conditions for firms and households have been highly accommodative, none of the indicators are "red," which would signal overheating, or "blue," which would signal excessive contraction.
  - The heat map shows, using colors, the deviation of various Financial Activity Indexes (FAIXs) from their trends in order to objectively assess whether there are any signs of overheating or contraction in the current phase of the financial cycle.

Chart III-5-1: Heat map



Financial gap

- Although FIs and firms have been expanding the size of their balance sheets, the total credit to GDP ratio has not deviated significantly from the trend.
- The financial gap is positive but remains below the level of +1, the threshold that would represent overheating. It has shown no significant imbalances recently.
  - The financial gap is an indicator that aggregates the various FAIXs included in the heat map into one indicator in order to quantitatively assess the phase of the financial cycle.
- However, the duration for which the financial gap has remained in positive territory is the longest since the burst of the bubble economy. If FIs as well as firms and households behave on the premise that the accommodative financial conditions will continue in the future, they could suffer unexpected losses in the event of a reversal in the macroeconomic environment.

Chart III-5-2: Total credit to GDP ratio

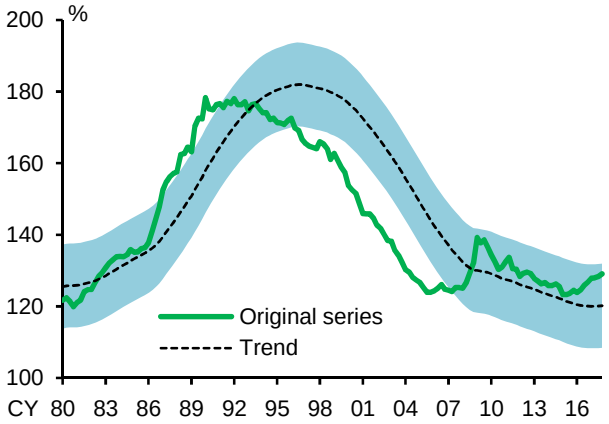


Chart III-5-3: Financial gap and output gap

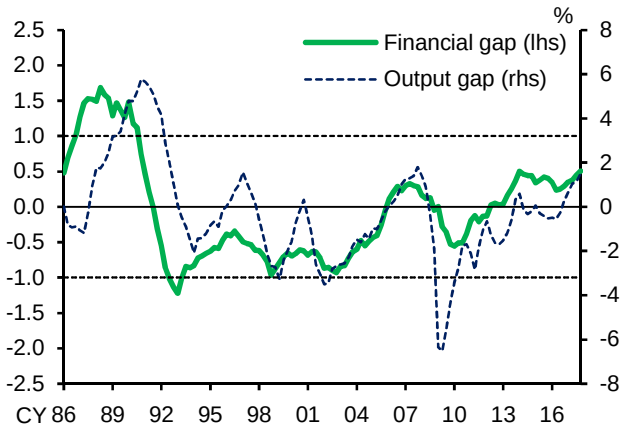
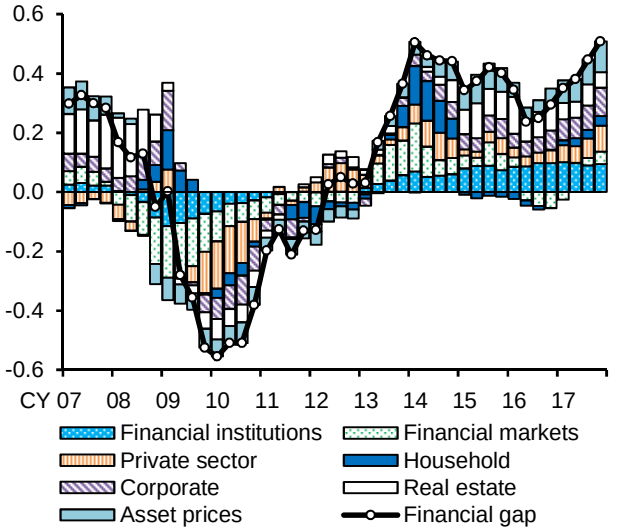


Chart III-5-4: Decomposition of financial gap



A few FAIXs that are close to "red" but in the "green" zone

- Stock prices do not show signs of significant overvaluation.
  - However, even after the large drop in February 2018, they are still close to "red" but in the "green" zone in the heat map, reflecting the rapid increase through the beginning of 2018.
- The real estate market shows no signs of overheating overall, while foreign investors have continued to execute transactions at lofty prices.
  - Although the real estate loans to GDP ratio has been increasing, a growing number of FIs have turned cautious over the risks associated with adjustments in the real estate market and credit concentration in the real estate industry, thus making their stance on real estate-related lending more restrictive. Concern over the risk of entrenched real estate valuations has been spreading among domestic investors.
- The DI of lending attitudes of FIs has remained at the highest level since the bubble period.
  - The active lending stance of banks serves as an important transmission channel of monetary easing and helps to improve business sentiment and business fixed investment, especially among small firms. However, if such accommodative financial conditions are expected to continue for excessively longer and competition among banks continues to be intensified, this could build up credit risk through the easing of loan standards, thereby undermining the stability of the financial system.

Chart III-5-6: Stock prices

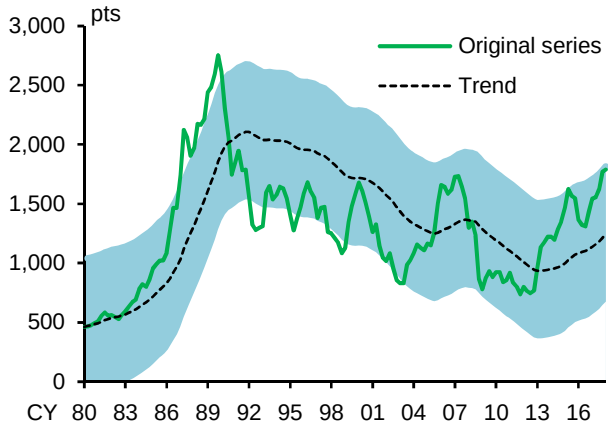


Chart III-5-8: Real estate loans to GDP ratio

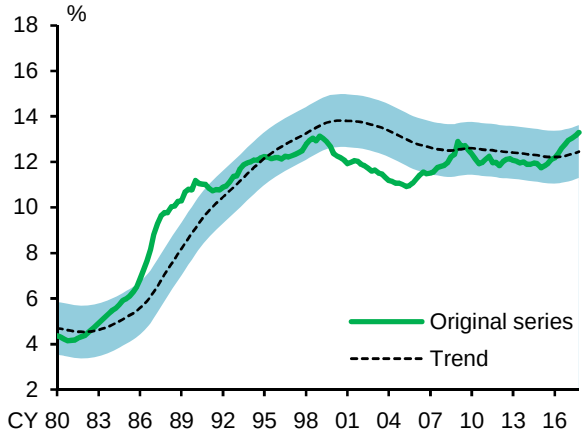
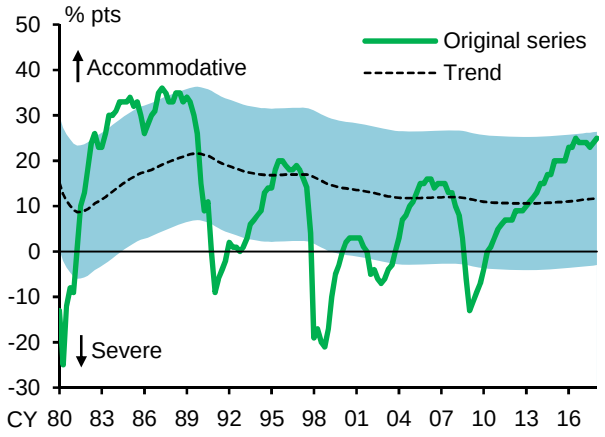


Chart III-5-7: DI of lending attitudes of FIs



Note: The latest data are as at the January-March quarter of 2018 in the left- and right-hand charts, and the October-December quarter of 2017 in the middle chart.

Domestic loan market

- Loans to small firms -- especially for business fixed investment -- have continued to increase amid the prolonged economic expansion, while the growth in loans to large firms has decelerated recently.
- Regional banks have been increasing loans to local small firms, including middle-risk firms. They have continued to place emphasis on loans in prefectures neighboring their head offices for the purpose of maintaining and buttressing their own business bases.
  - The potential competitive pressure arising from loan supply by banks from outside the home prefecture has been strongly weighing on the loan market. No significant correlation can be observed between banks' share of loans within their home prefectures and their loan interest rates.

Chart III-1-5: Corporate loans outstanding (excl. real estate loans) by type of bank and loan

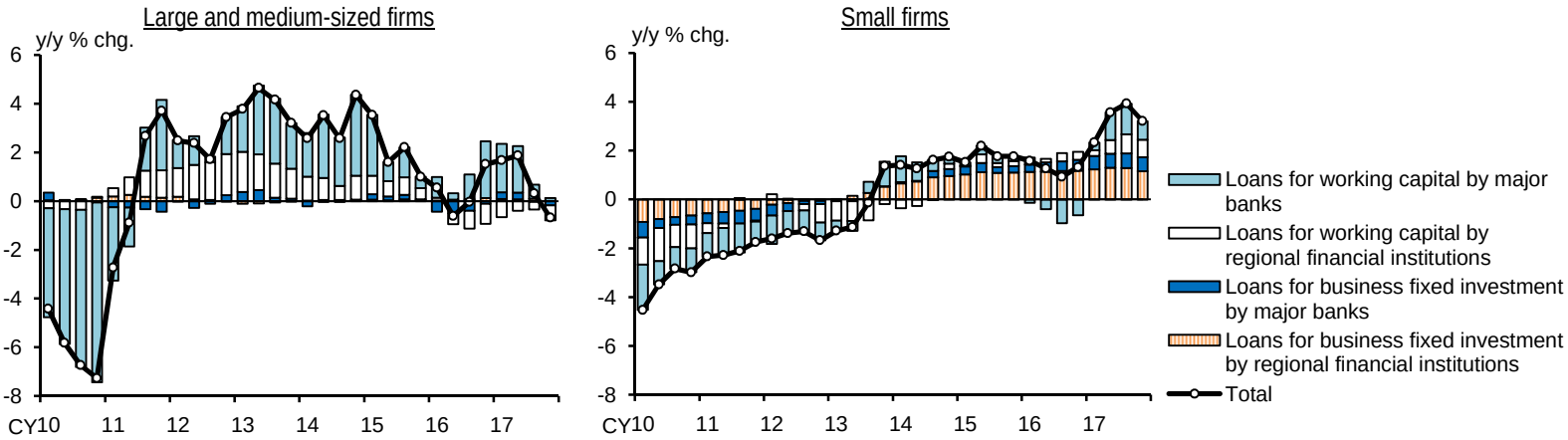


Chart III-1-12: Composition of loans among regional banks by region

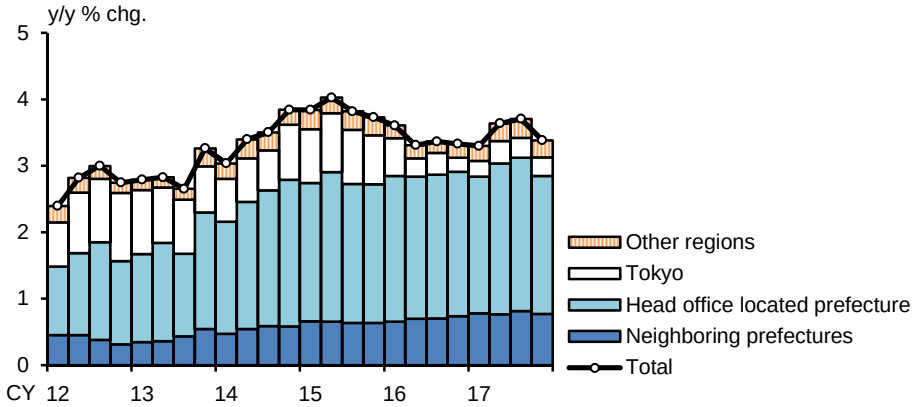
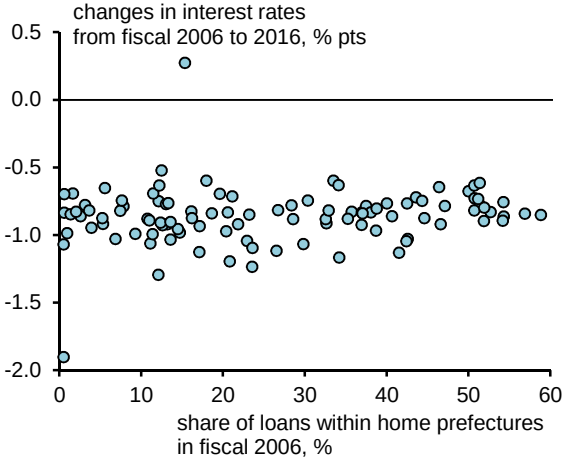


Chart III-1-13: Share of regional banks' loans within their home prefectures and changes in loan interest rates



Overseas credit market

- The FAIXs that make up the heat map and financial gap are selected to characterize Japan's bubble period in the second half of the 1980s and the subsequent collapse period. The financial cycle at that time was generated and developed in the domestic market. Even if Japanese FIs engage in excessive risk taking overseas, the associated vulnerabilities would not be detected by the heat map.
- In recent years, credit spreads on high yield bonds in the U.S. credit market have been extremely tight due to investors' search for yield. With regard to leveraged loans, the share of covenant-lite loans has been rising, and the issuance of CLOs incorporating such loans has also increased.

Chart II-1-12: Credit spreads on U.S. and European corporate bonds

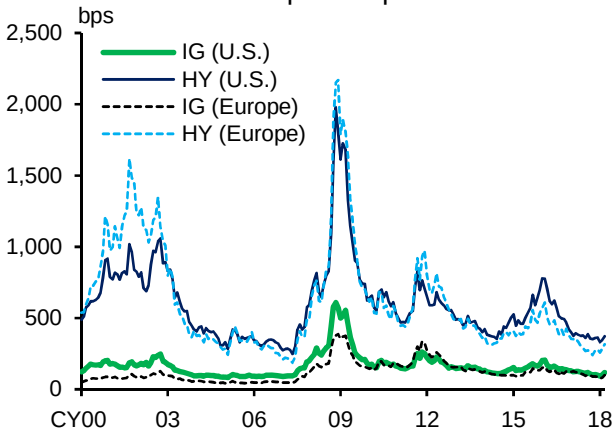


Chart II-1-13: U.S. CLO issuance

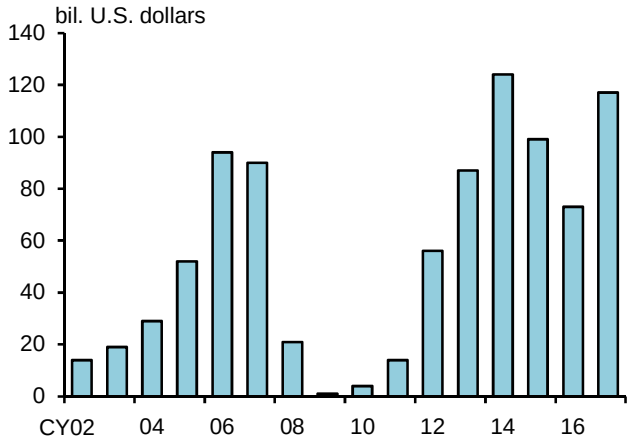
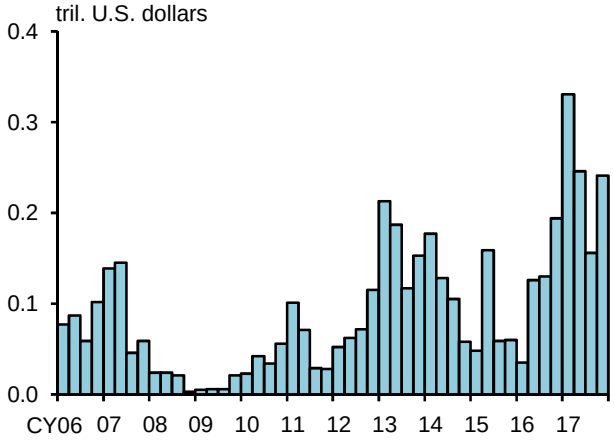


Chart II-1-14: Newly extended U.S. leveraged loans



Overseas exposure

- With the low interest rate environment continuing, Japanese FIs have increased investment in overseas credit products in addition to overseas loans. However, the associated credit risk has remained subdued.
  - More than 70% of large-scale credit is accounted for by investment grade loans, and the nonperforming loan ratios have hovered at low levels.
  - The number of FIs aiming to actively increase overseas credit investment is limited, and sufficient capital has been allocated against such kind of risk taking. With regard to securitized products such as CLOs, FIs have thoroughly screened their investments, and the share of first-lien loans in underlying assets has also been quite high.

Chart III-1-18: Share of overseas loans in total loans

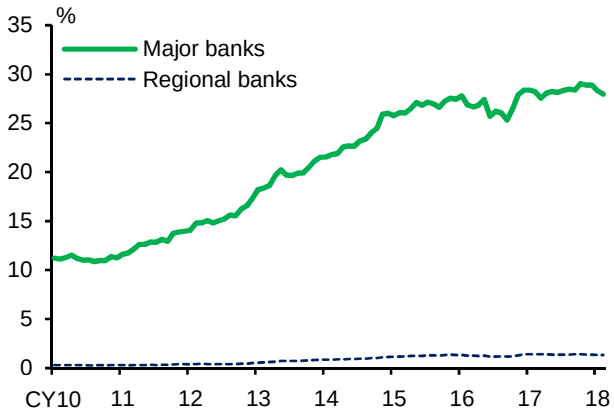


Chart III-5-17: Outstanding amount of overseas loans and credit product investment among FIs

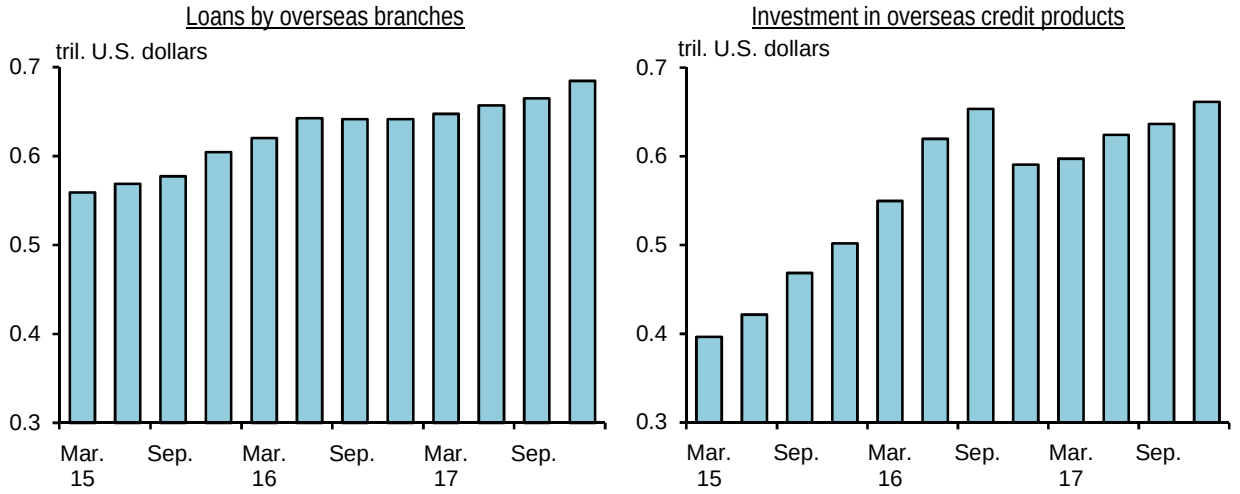


Chart IV-1-8: Composition of overseas large-scale loans by credit rating

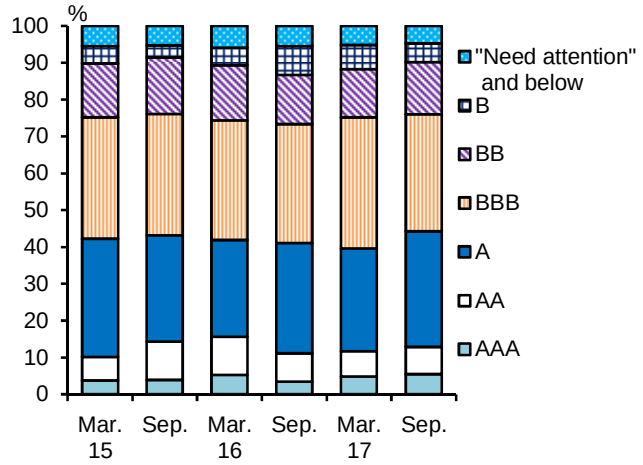
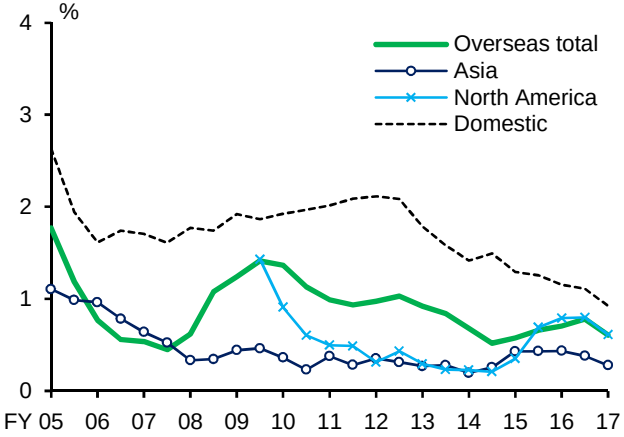


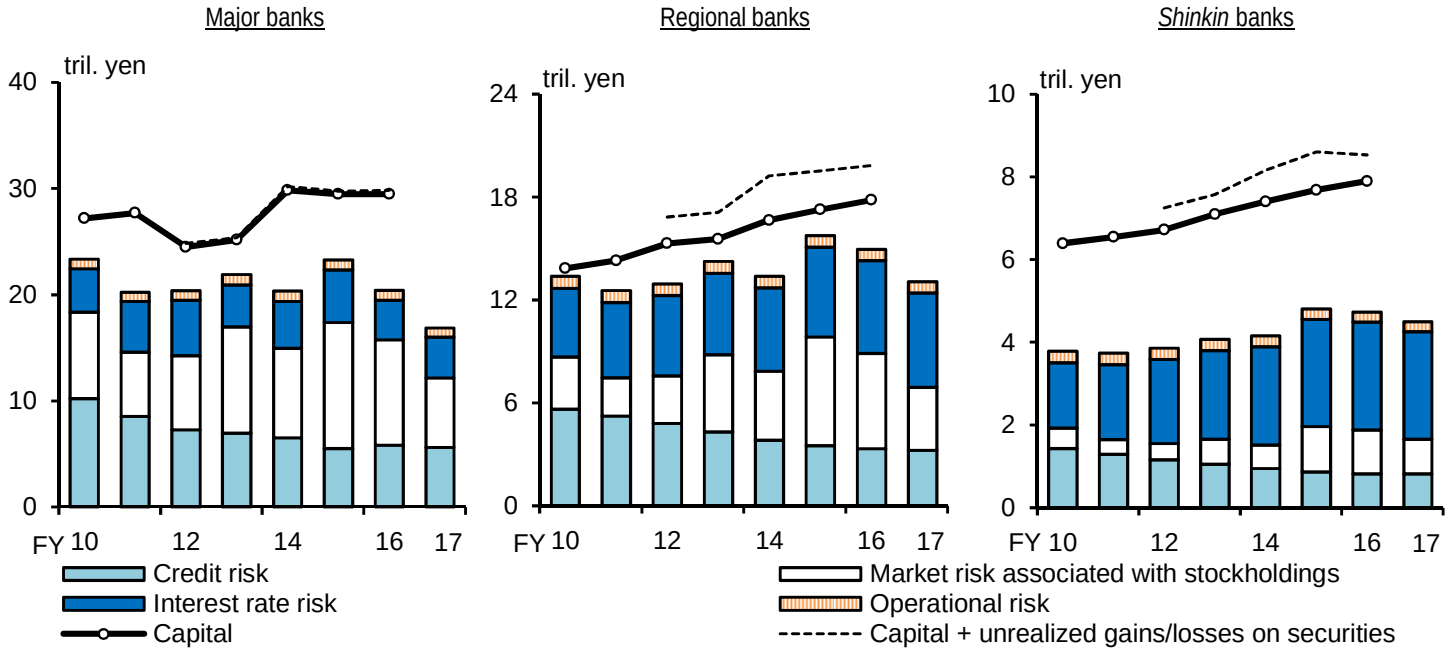
Chart IV-1-9: Nonperforming loan ratios for overseas loans



Capital adequacy

- FIs' capital levels have generally been adequate relative to the amount of the various types of risk they undertake, and FIs currently have sufficient capacity to absorb losses and take on risks.
- However, there are two caveats.
  - Since the measures of credit risk and market risk are calculated based on actual past data, if the economic recovery period becomes prolonged and volatility remains low, it is possible that those risk measures could underestimate the amount of potential risks FIs bear. In order to see whether FIs are sufficiently resilient to risk, it is desirable to examine their capacity to absorb losses under potential severe stress scenarios, regardless of the recent favorable macroeconomic environment.
  - Even if FIs currently have the capacity to absorb losses from acute stress such as the Lehman shock, their future capital may eventually be adversely affected if their core profitability continues to fall due to chronic stress, such as the persistent decline in the population and the number of firms, which determine the secular demand for financial transactions.

Chart IV-4-2: Risks borne and amount of capital by type of bank



Macro stress testing

- A stress test assumes a tail event comparable to the Lehman shock. The simulation confirms that, on average, Japan's FIs are generally resilient against acute stress.
  - For internationally active banks, the capital adequacy ratio falls due to a decrease in PPNR (excl. trading income) and an increase in unrealized losses on securities holdings. However, it remains above the regulatory requirement. For domestic banks, the capital adequacy ratio also declines, mainly due to an increase in credit costs and a decrease in PPNR (excl. trading income), but remains well above the regulatory requirement.
  - However, about 80% of FIs incur net losses. Furthermore, the capital adequacy ratio of about a quarter of domestic banks exceeds the regulatory requirement yet falls short of the stability benchmark of 8%.

Chart V-1-7: Decomposition of the CET1 capital ratio and the core capital ratio (FY2020)

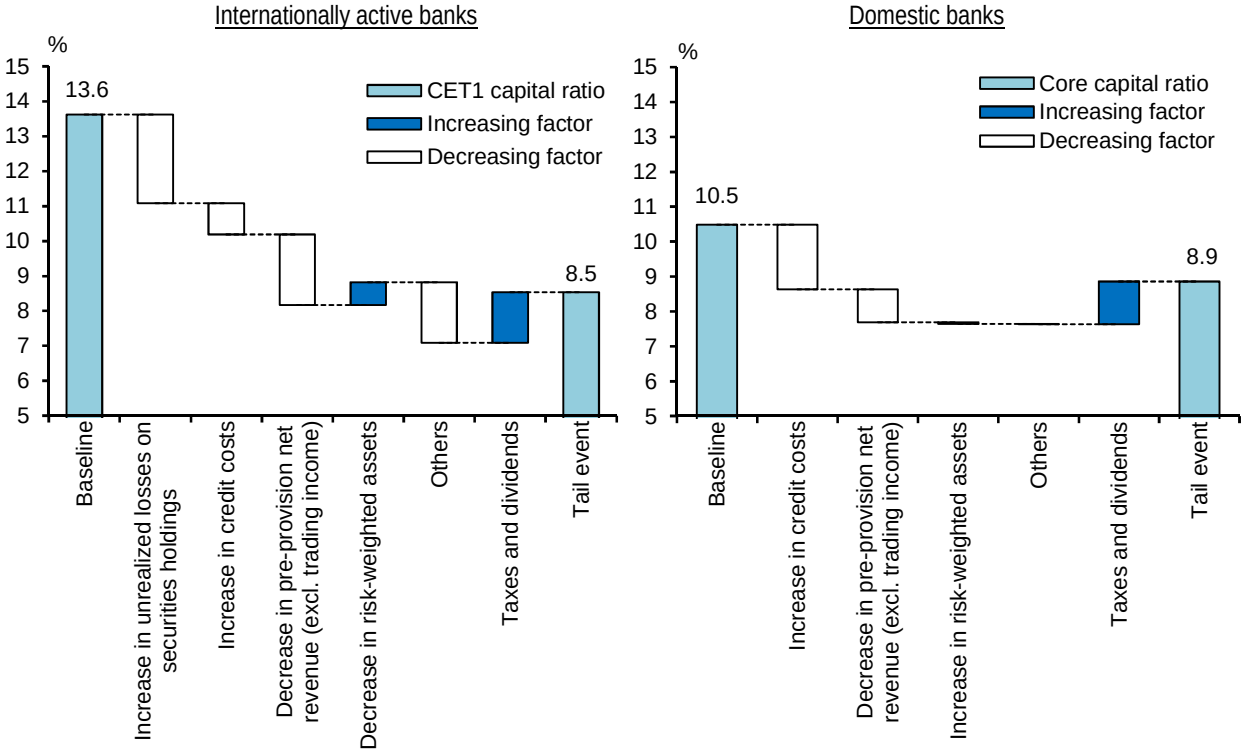


Chart V-1-8: Distribution of FIs' net income

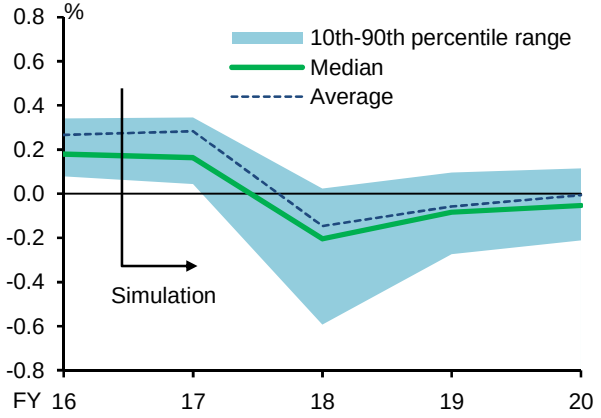
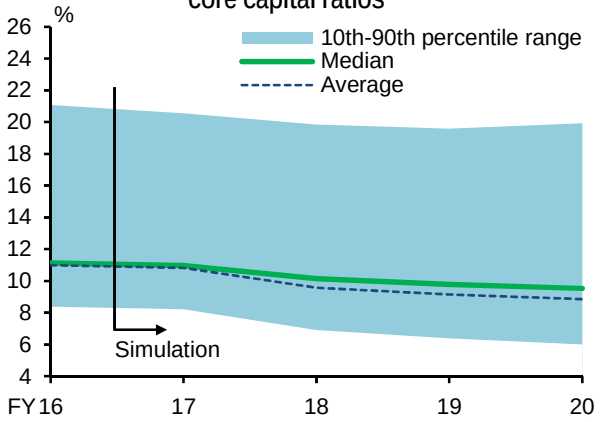


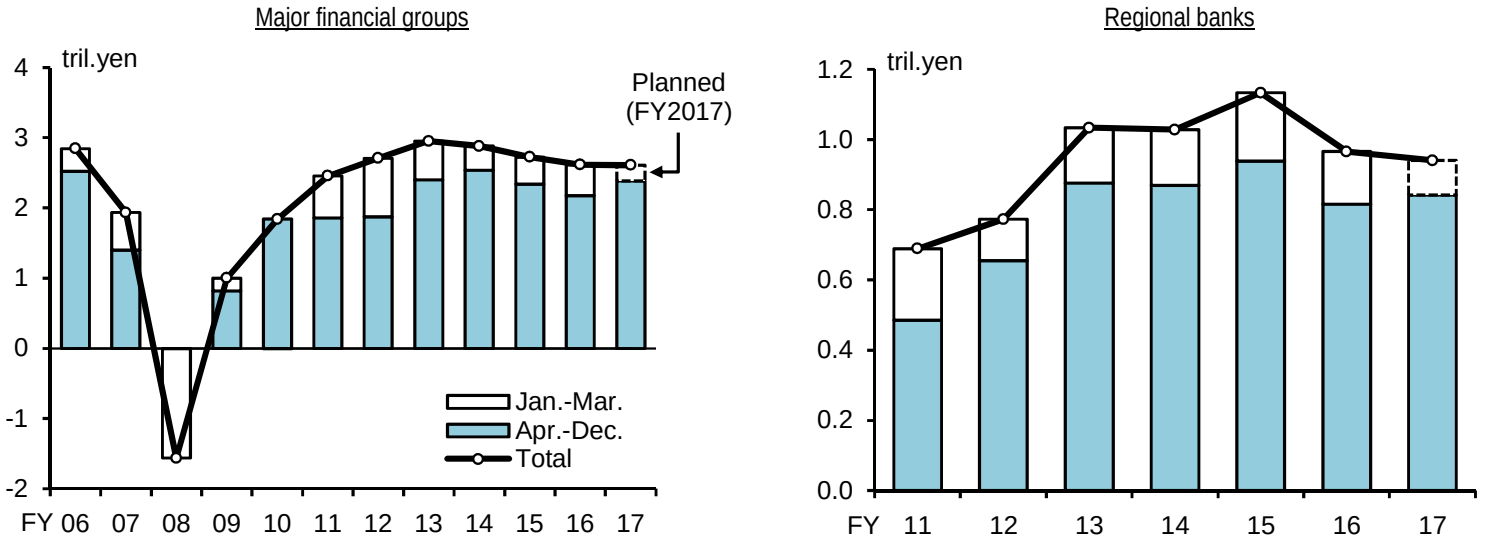
Chart V-1-9: Distribution of domestic banks' core capital ratios



FIs' profitability

- Although FIs' profits remain at a fairly high level, downward pressure on core profitability, especially in domestic deposit-taking and lending activities, has strengthened.
  - A major factor pushing down net interest income is the narrowing of deposit and lending margins under the continued low interest rate environment and the intensified competition among FIs, with the increase in loans being insufficient to offset the decline in interest margins. Given such severe profit environment, regional banks are making efforts to expand net non-interest income, for instance, by establishing securities subsidiaries and reviewing various fee structures, such as transfer and remittance fees.

Chart V-2-1: Net income



Gains on sales of securities and return to shareholders

- A considerable number of regional FIs have maintained net income levels by making up for the decline in their PPNR (excl. trading income) through the realization of large gains on sales of securities.
  - Among banks with a large share of foreign institutional shareholders, some have realized gains on sales of securities in order to maintain a higher dividend payout ratio. Continuing to unreasonably realize gains on sales of securities and pay dividends will reduce interest and dividend income on securities holdings and impair the capacity to absorb losses in the future.

Chart V-2-3: Distribution of ratio of realized gains/losses on securities holdings to net income

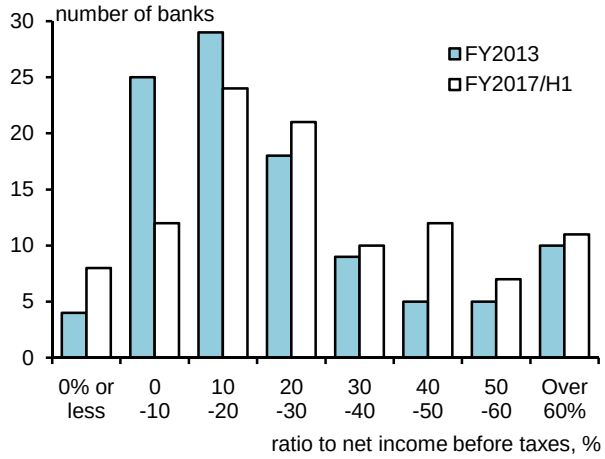


Chart V-2-4: Profits and dividends among FIs

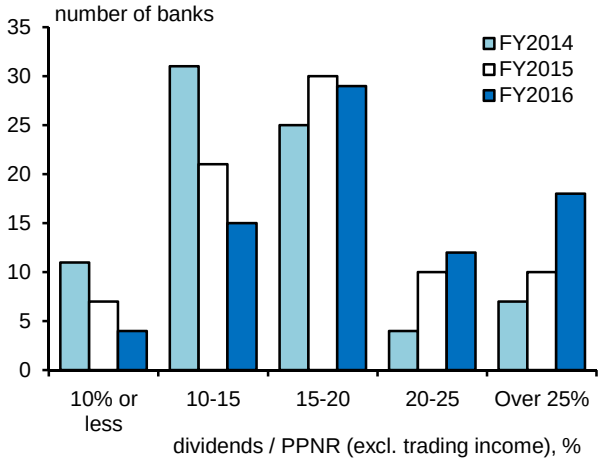


Chart B2-2: Proportion of foreign institutional investors in regional banks' shareholders

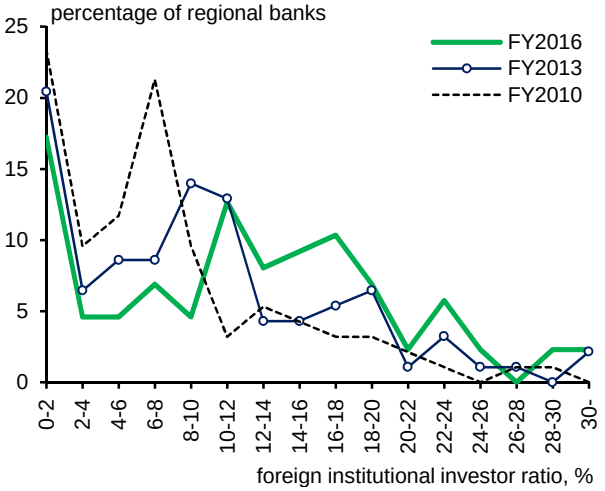
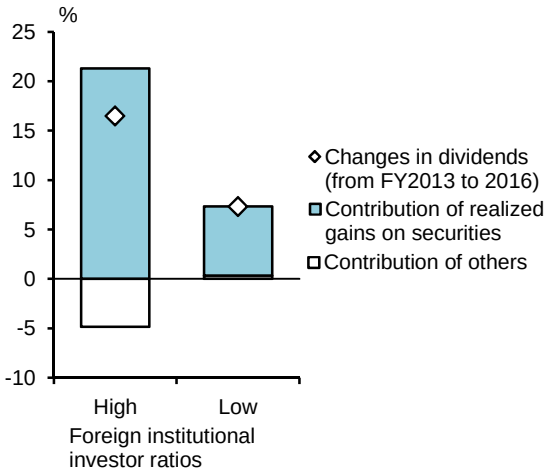


Chart B2-5: Changes in dividends and realized gains on securities



Part II. Potential vulnerabilities of the financial system

- Assessment/analysis of active lending to middle-risk firms and its impact

Firms' profitability and default rate

- FIs' credit costs have been at historically low levels. This reflects the fact that default rates have declined due to the improvement in firms' ability to pay interest, which has been driven by the drop in interest rates and the record-high level of corporate profits boosted by the prolonged economic expansion.
  - However, the improvement in corporate profits is not uniform but varies across firms.
  - Macro indicators such as the credit-to-GDP gap do not provide sufficient information on the quality of loans because they do not take into account the creditworthiness heterogeneity across borrowing firms. Thus, to examine potential vulnerabilities associated with credit risk taking in loan extension, an in-depth analysis and assessment are needed by utilizing granular microdata.

Chart VI-1-1: Ratios of operating profits to sales by firm size

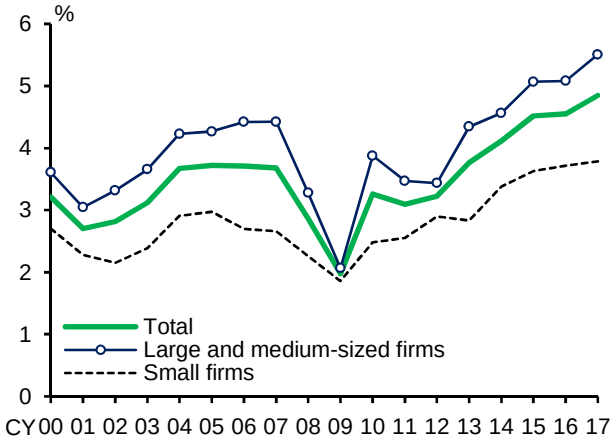


Chart VI-1-3: Distribution of small firms' ROA

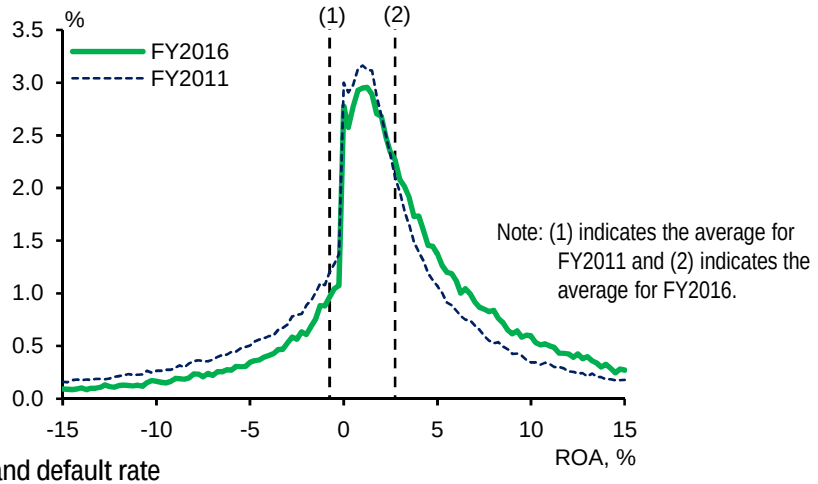
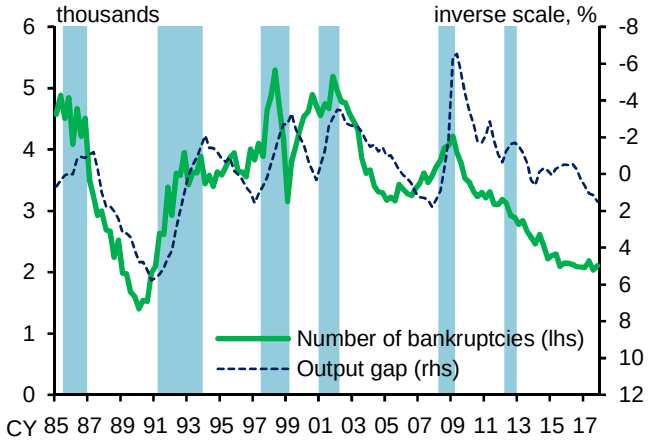


Chart VI-1-2: Number of bankruptcies and default rate

Number of bankruptcies and output gap

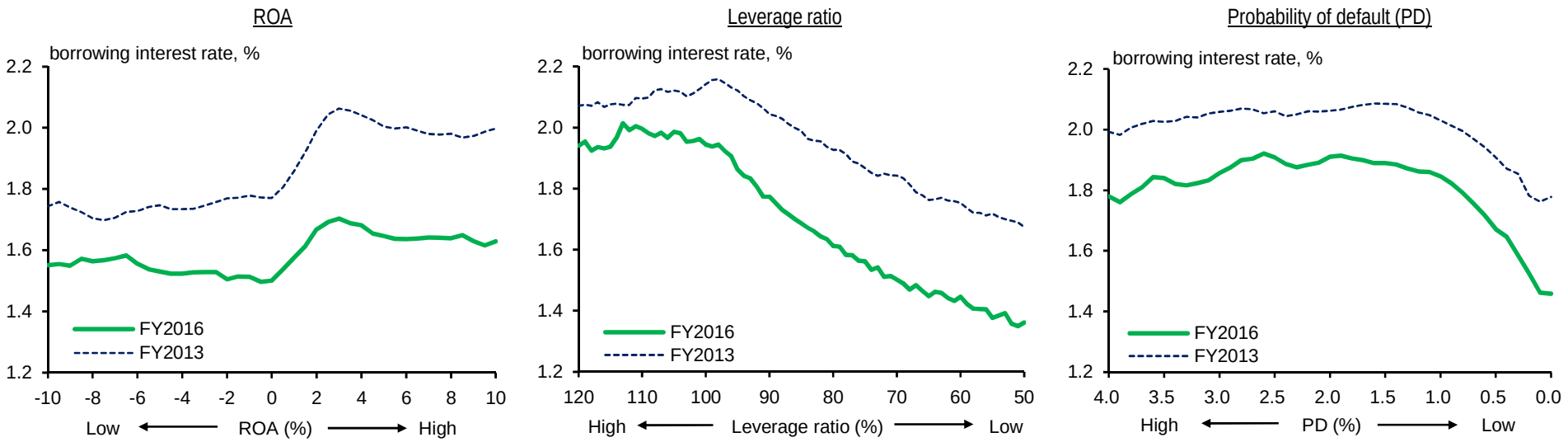


Default rate

Firms' financial condition and borrowing interest rates

- Looking at the relationship between firms' financial condition and loan interest rates, there are cases where loan interest rates do not match their credit risks.
  - Some loan interest rates are set relatively low compared to high credit risks judged based on firms' financial indicators.
  - It has long been the case that, at the request of a firm, FIs have set low contract interest rates on a new loan or agreed to lower the interest rate on an existing loan. In recent years, however, they may have been lowering loan interest rates relative to the borrower's credit risk on their own initiative to increase loans amid intensifying lending competition. In other words, by lowering loan interest rates, FIs may be trying to tap the funding needs of firms that are sensitive to interest rates.

Chart VI-1-4: Firms' financial condition and borrowing interest rates

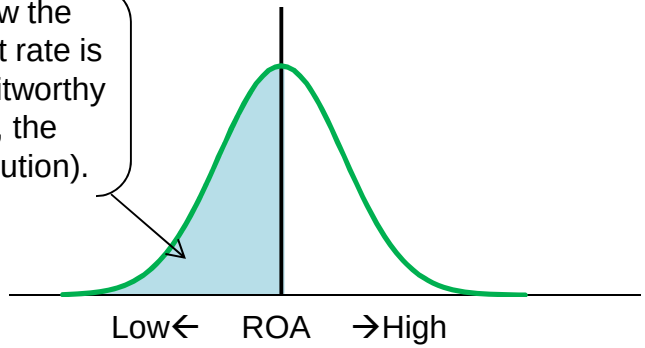


Definition of low-return borrowers

- A "low-return borrower" is defined as a borrowing firm that meets one of the two criteria in 2 consecutive years. The name is derived from the fact that loans to such firms have a low risk-adjusted return for the lender.
  - The definition is centered on the distributions of firms' financial indicators. The reason for this is that the "through-the-cycle" PDs of firms in the less creditworthy part of the distribution are higher than those in the other part of the distribution, implying that such firms' credit risks to FIs are relatively high.
  - The definition refers to firms' borrowing interest rate as well as financial indicators. This is to take into account whether the borrowing interest rate (which is the return to the lender) adequately reflects the credit risk of the borrower firm. "Low-return borrowers" are firms for which the return does not match the risk.

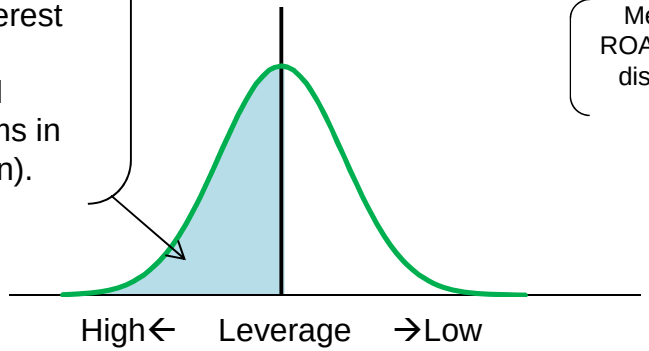
ROA criterion

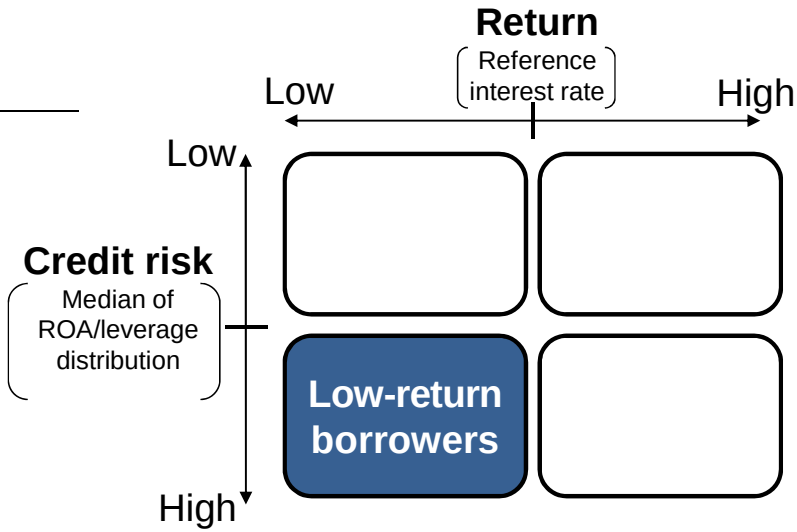
The firm's operating ROA is below the median, but its borrowing interest rate is lower than that for the most creditworthy firms in the ROA distribution (i.e., the firms in the top 10% in the distribution).



Leverage criterion

The firm's financial leverage is above the median, but its borrowing interest rate is lower than that for the creditworthy firms in the financial leverage distribution (i.e., the firms in the bottom 50% in the distribution).





Loans to low-return borrowers

- The low-return borrower share has been on a slight upward trend since the Lehman shock, albeit with some fluctuations.
- After declining until 2010, the loan share of low-return borrowers has been rising at a faster pace than the low-return borrower share. The most recent loan share is at more or less the same level as in the early 2000s, when FIs had to deal with nonperforming loan problems after the financial crisis in Japan.
- The share of loans to the "top group" of such borrowers (i.e., those in relatively favorable financial condition) has been increasing in recent years. This is in contrast to the developments observed during the early 2000s, when the share was high for loans to the "bottom group" (i.e., those with particularly low profitability and high leverage).
  - Low-return borrowers are classified into (1) the bottom group, consisting of those whose ROA fell into the bottom 25% of firms for 2 consecutive years or whose leverage ratio fell into the top 25% for 2 consecutive years, and (2) the top group, consisting of all other low-return borrowers.

Chart VI-1-6: Low-return borrower share

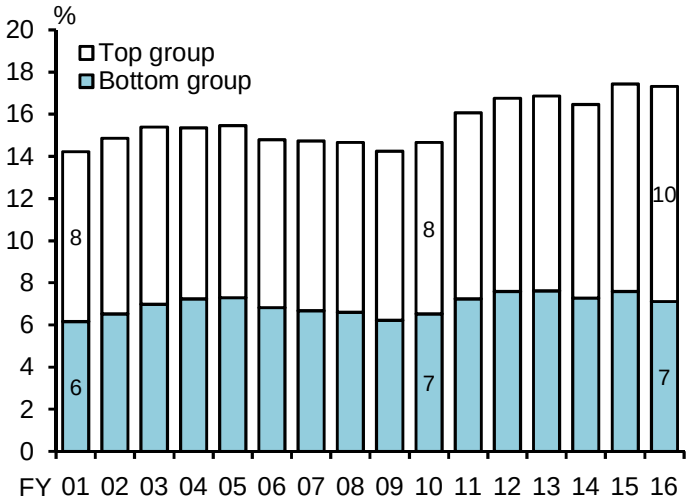
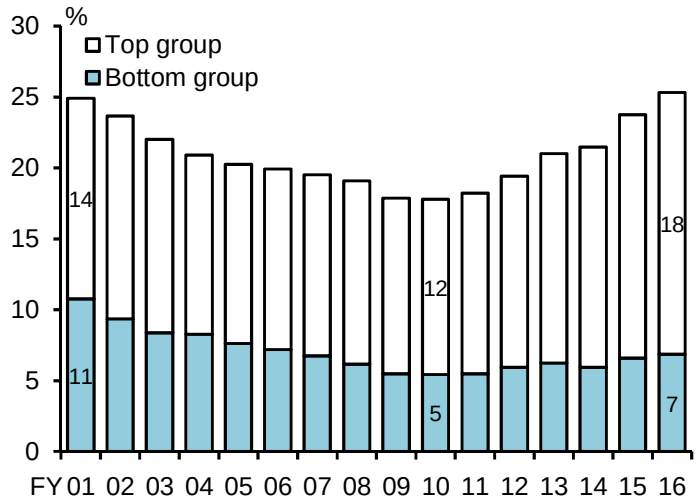


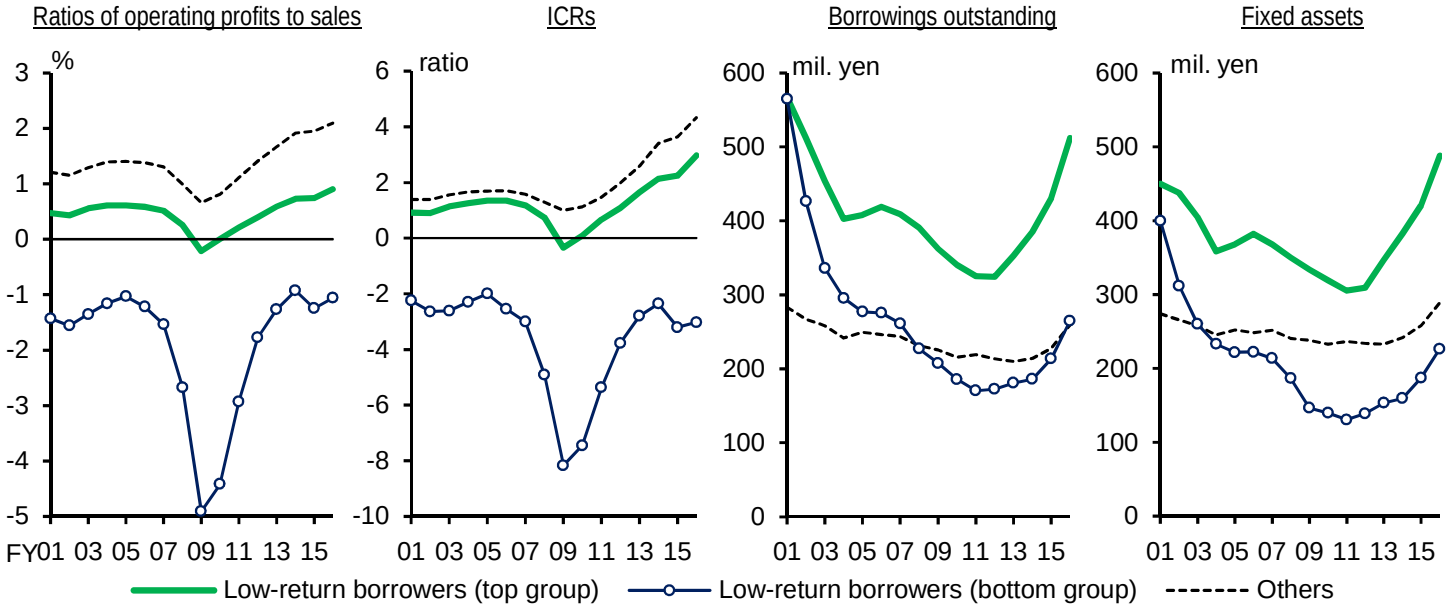
Chart VI-1-7: Loan share of low-return borrowers



Characteristics of low-return borrowers

- In the early 2000s, the amount of borrowings by the bottom group (and nonperforming assets financed by these loans) was massive. In contrast, the increase in borrowings by the top group (and equipment assets financed by these loans) has been pronounced in recent years.
- These observations suggest that the underlying mechanism for the recent increase in loans to low-return borrowers may be fundamentally different from the mechanism observed during Japan's past financial crisis.
  - Until the early 2000s, FIs seem to have increased so-called "forbearance lending" to high-risk firms to avoid incurring credit costs, amid concern over their possible capital shortages due to nonperforming loan problems.
  - In contrast, the recent increase in loans to low-return borrowers seems to reflect the fact that FIs, equipped with strong balance sheets, have been actively taking on credit risk mainly by extending loans to so-called "middle-risk firms." Such behavior has likely been driven by the stronger downward pressure on lending margins amid the intensified lending competition among FIs as well as the prolonged monetary easing.

Chart VI-2-1: Financial indicators of low-return borrowers (2)



Impact of competition among FIs

- Competition among FI branches has further intensified in recent years. Under these circumstances, small firms have transacted with more FIs, and this is particularly evident for low-return borrowers.
- The presence of government FIs seems to have contributed to the intensification of lending competition.
  - There have been no signs of a decline in the share of firms that transact with both private and government FIs, despite the recent economic expansion. Firms that transact with government FIs have experienced a larger decline in interest rates than firms that transact only with private FIs. There is a possibility that competition to lower loan interest rates, including that with government FIs, has been further intensifying.

Chart VI-2-2: Degree of branch competition among FIs

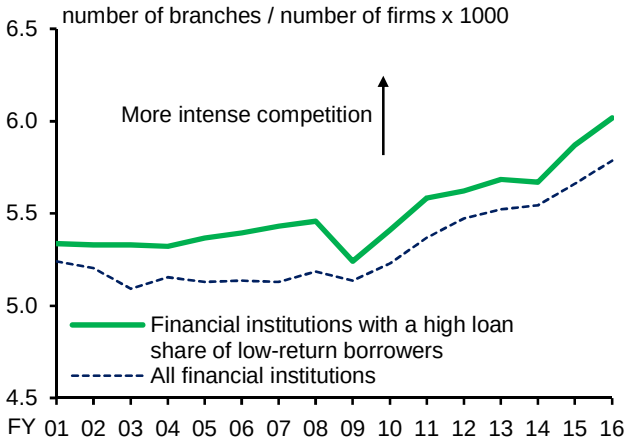


Chart VI-2-3: Number of FIs that each small firm transacts with

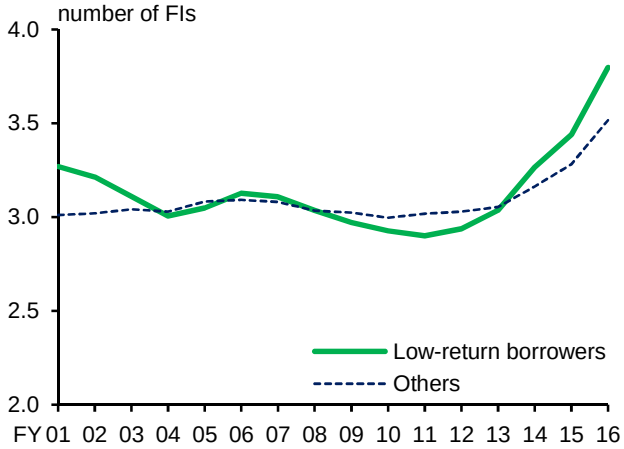


Chart VI-2-5: Share of firms that have transactions with both private and government FIs

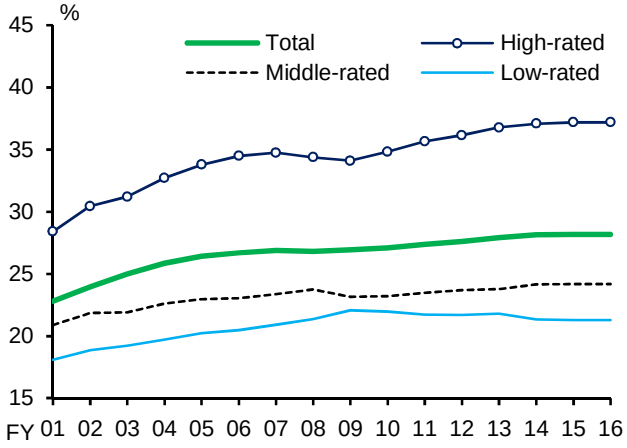
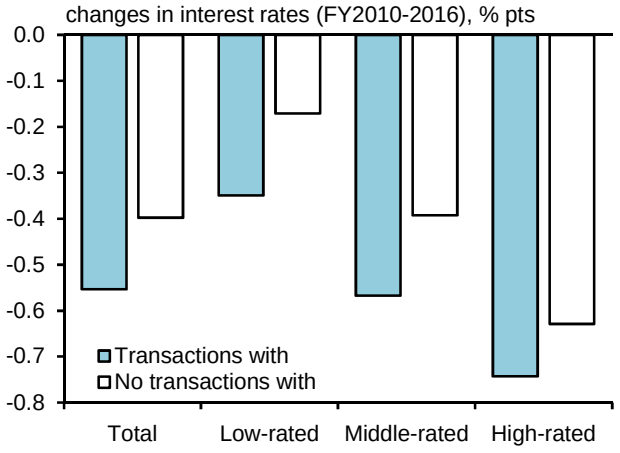


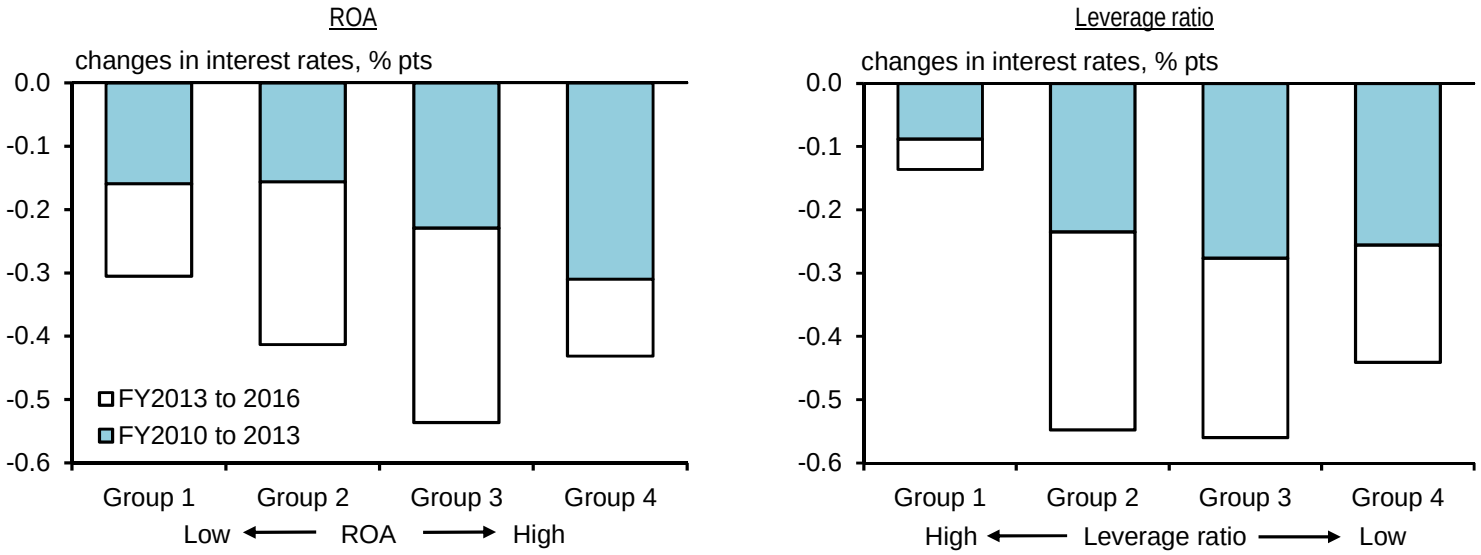
Chart VI-2-6: Transactions with government FIs and declines in borrowing interest rates



Effects of monetary easing

- The prolonged monetary easing has also likely helped boost lending to low-return borrowers, particularly middle-risk firms, through the portfolio rebalancing channel.
  - Until around 2013, the decline in loan interest rates for firms in more favorable financial condition was relatively large. This means that the effects of monetary easing initially materialized in the relatively low risk zone. Subsequently, as monetary easing continued, the decline in loan interest rates in the low risk zone gradually became smaller, while the decline in the middle risk zone became larger.
  - Unlike financially sound firms with abundant internal funds, middle-risk firms, which hold a smaller amount of internal funds, are highly sensitive to borrowing interest rates, and their potential demand for loans will easily materialize if FIs offer lower loan interest rates.

Chart VI-2-8: Declines in loan interest rates by firm group



Impact of the prolonged economic expansion

- It seems that, because low-return borrowers are short of internal funds, in the process of increasing their input of production factors under the prolonged economic expansion, they have increased their demand for loans for working capital and business fixed investment.
  - Low-return borrowers lag behind others in terms of labor productivity, implying that more labor input is required to produce one unit of value added at these firms. Therefore, they seem to have absorbed more of the labor force than others under the prolonged economic recovery.
  - During Japan's financial crisis in the early 2000s and following the Lehman shock, business fixed investment by low-return borrowers decreased substantially. In the current economic expansion, however, business fixed investment demand, such as pent-up investment demand and investment demand to save labor inputs, likely has been materializing more recently.

Chart VI-2-9: Number of employees per small firm

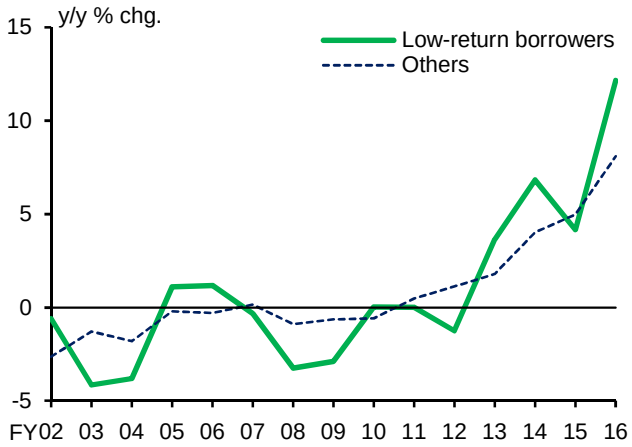


Chart VI-2-10: Labor productivity in a small firm

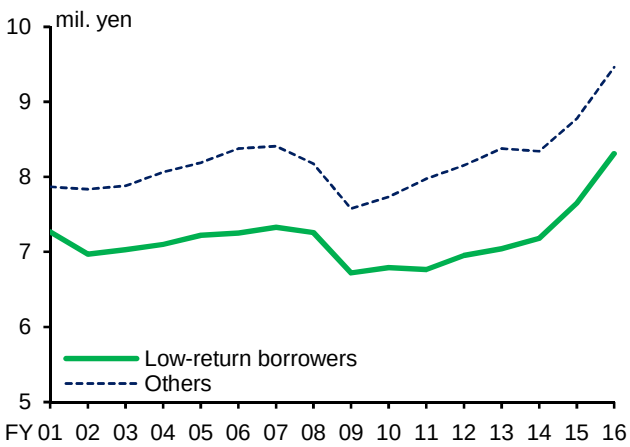
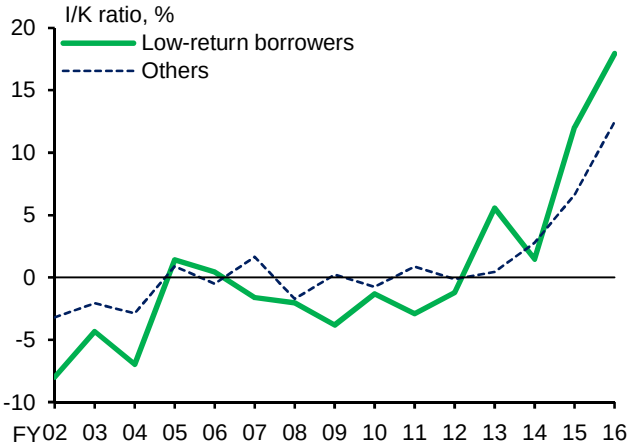


Chart VI-2-11: Business fixed investment per small firm



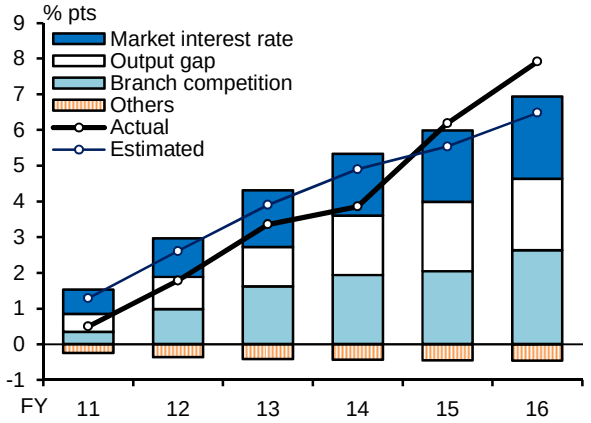
Determinants of the loan share of low-return borrowers

- In order to quantitatively examine the extent to which the following factors have contributed to the increase in loans to low-return borrowers, a panel estimation (Model 1) is conducted.
  - In the estimation, the loan share of low-return borrowers at each FI is regressed on (1) the market interest rate (the 5-year JGB yield), (2) the indicator for the degree of lending competition among FI branches, and (3) the output gap.
- Coefficients have the expected signs and are statistically significant. The decomposition of cumulative changes in the loan share of low-return borrowers suggests that the decline in the market rate, the intensified competition among FIs, and the improvement in the output gap have all contributed to the increase in the loan share of low-return borrowers.

Chart B4-1: Estimates: determinants of loans to low-return borrowers

		Dependent variables: loan share of low-return borrowers [%]			
		Model 1		Model 2	
		Dynamic panel	Fixed effect	Dynamic panel	Fixed effect
Explanatory variables	Degree of branch competition [# of branches per thousand firms]	3.709*** (1.105)	4.773*** (1.184)	—	—
	Core ROA [%]	—	—	-3.125*** (1.197)	-1.774*** (0.576)
	Low capital dummy × core ROA [%]	—	—	2.220** (1.064)	3.209*** (0.339)
	Capital adequacy ratio [%]	—	—	0.118* (0.0652)	0.111*** (0.0399)
	Output gap [%]	0.350*** (0.0652)	0.574*** (0.0743)	0.396*** (0.0506)	0.737*** (0.0210)
	5-year JGB yield [%]	-1.830*** (0.436)	-2.185*** (0.495)	-2.099*** (0.303)	-3.577*** (0.176)
	Lagged dependent variable	0.461*** (0.0700)	—	0.665*** (0.0600)	—
S. E.		4.99	6.97	3.81	6.36

Chart B4-2: Decomposition of the loan share of low-return borrowers



FIs that have increased loans to low-return borrowers (1)

- First, with respect to the characteristics of banks with risk-taking incentive, banks with a larger decline in core profitability have increased loans to low-return borrowers. Second, with respect to the characteristics of banks with risk-taking ability, banks with a higher capital adequacy ratio have increased loans to low-return borrowers.
  - The increase in loans to low-return borrowers in recent years is fundamentally different in nature from the "forbearance lending" observed in Japan until the early 2000s and in some European countries during the European sovereign debt crisis. That is, "forbearance lending" was lending by FIs with a weak capital base to firms with a high PD that would likely default without financial support such as interest rate reductions or exemptions. The purpose of such lending appears to have been to avoid further adversely affecting these FIs' capital base through the incurrence of credit costs and provide them some time to wait for the economy to recover.
  - In contrast, what is currently happening is that FIs that have abundant capital bases and plenty of risk-taking ability are becoming increasingly active in risk taking in the middle risk zone. The purpose for this seems to be to counter the downward pressure on profits that arises from the intensified lending competition and prolonged monetary easing.

Chart VI-2-13: Decrease in core ROA and changes in the loan share of low-return borrowers

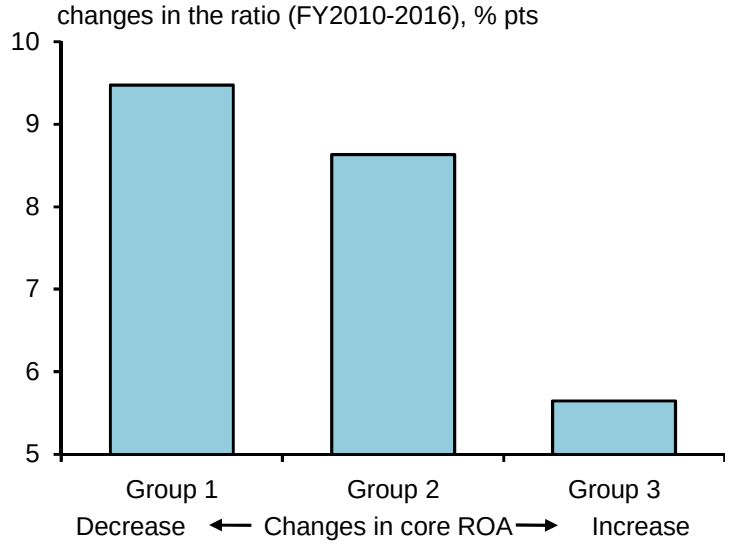
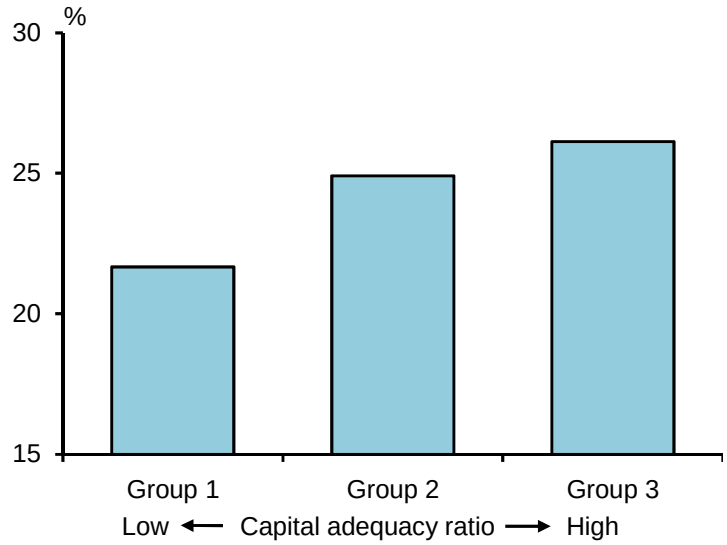


Chart VI-2-14: Capital adequacy ratio and the loan share of low-return borrowers



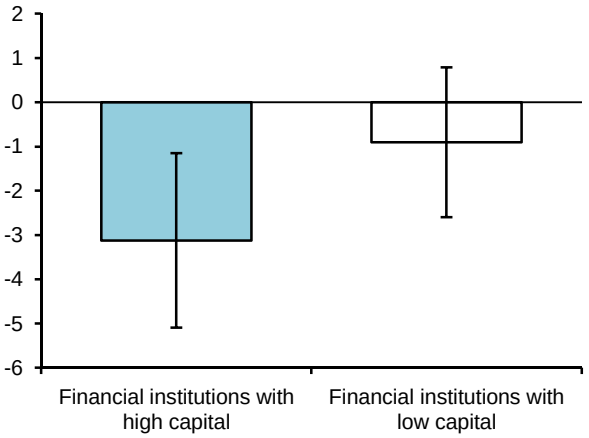
FIs that have increased loans to low-return borrowers (2)

- The weaker FIs' profitability, the stronger their incentive becomes to increase loans to low-return borrowers to maintain profit levels. The extent to which FIs actually increase loans to low-return borrowers likely depends on their risk-taking ability, which can be represented by their capital adequacy ratio.
- As shown in the estimation result, whereas FIs with a sufficient capital base tend to be more active in extending loans to low-return borrowers in response to downward pressure on their core profitability, FIs with a relatively weak capital base do not change their lending behavior even when their core profitability declines.

Chart B4-1: Estimates: determinants of loans to low-return borrowers

		Dependent variables: loan share of low-return borrowers [%]			
		Model 1		Model 2	
		Dynamic panel	Fixed effect	Dynamic panel	Fixed effect
Explanatory variables	Degree of branch competition [# of branches per thousand firms]	3.709*** (1.105)	4.773*** (1.184)	—	—
	Core ROA [%]	—	—	-3.125*** (1.197)	-1.774*** (0.576)
	Low capital dummy × core ROA [%]	—	—	2.220** (1.064)	3.209*** (0.339)
	Capital adequacy ratio [%]	—	—	0.118* (0.0652)	0.111*** (0.0399)
	Output gap [%]	0.350*** (0.0652)	0.574*** (0.0743)	0.396*** (0.0506)	0.737*** (0.0210)
	5-year JGB yield [%]	-1.830*** (0.436)	-2.185*** (0.495)	-2.099*** (0.303)	-3.577*** (0.176)
	Lagged dependent variable	0.461*** (0.0700)	—	0.665*** (0.0600)	—
S. E.		4.99	6.97	3.81	6.36

Chart B4-3: Sensitivity of the loan share of low-return borrowers with respect to core ROA



Note: The error bar indicates a 90 percent confidence interval.

Credit risk of loans to low-return borrowers

- While FIs have been actively taking on credit risk focusing mainly on middle-risk firms, credit costs at this point are at historically low levels, reflecting the decline in defaults due to the economic expansion and low interest rates.
- However, in the event of negative shocks, such as an economic downturn or a rise in interest rates, many low-return borrowers could be downgraded and credit costs could rise sharply.
  - The PD shows a non-linear response to changes in firms' financial condition and the business environment. Under a given macroeconomic environment, the PD of firms with favorable financial condition, i.e., firms that are located at the bottom of the S-shaped curve, hardly increases even in the event of a negative shock. However, low-return borrowers in weak financial condition, i.e., firms that are located along the steep part of the S-shaped curve, would see a substantial increase in their PD if a negative shock occurred.

Chart IV-1-3: Credit cost ratios among FIs

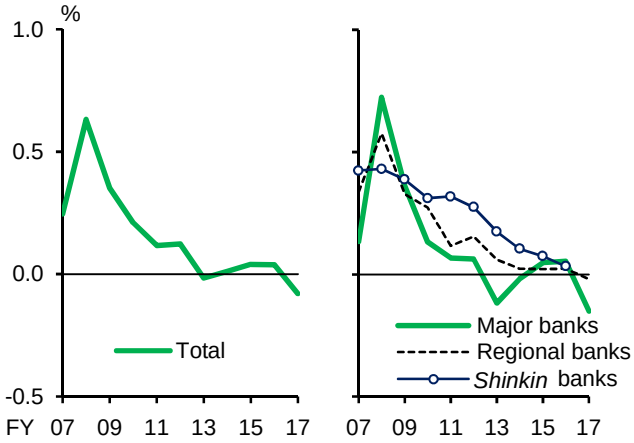
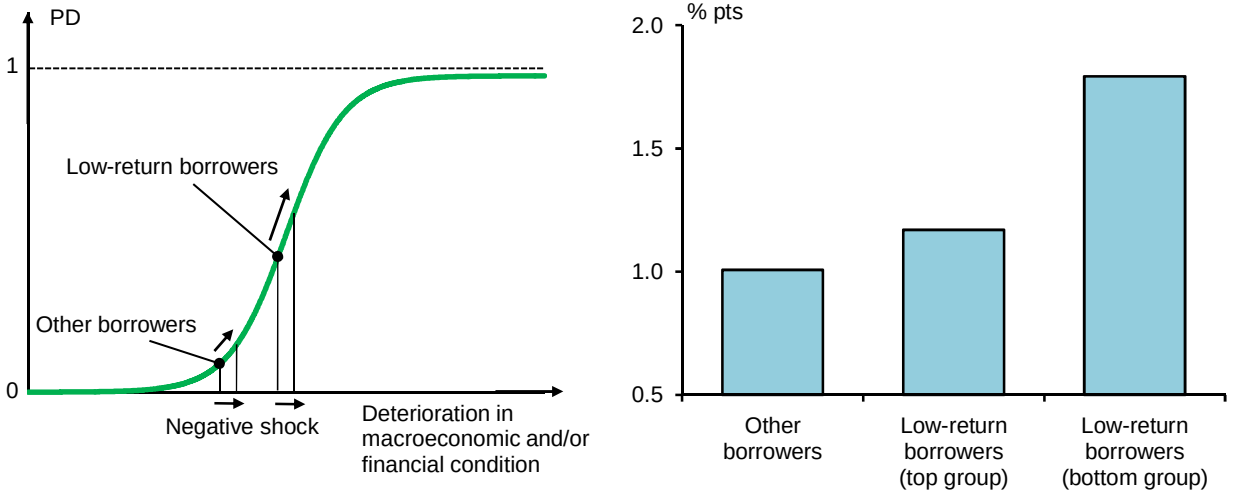


Chart VI-3-1: Relationship between firms' financial condition and the probability of default (PD)

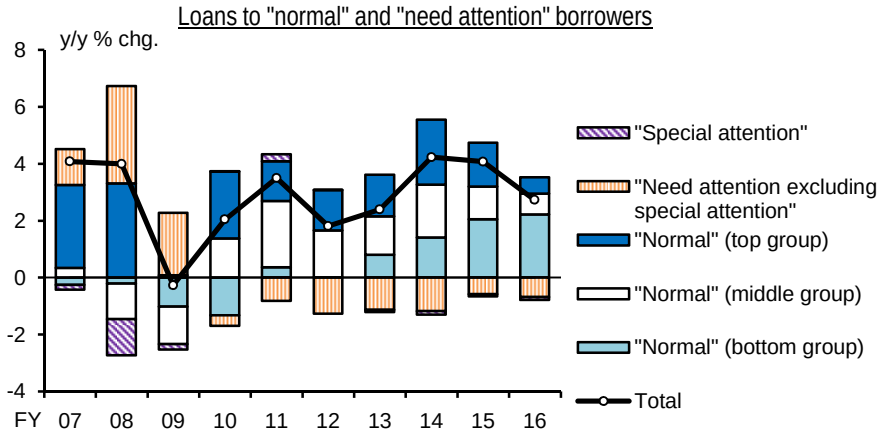


Note: A rise in the PD for each firm group is calculated by assuming a shock that raises the PD of "Other borrowers" by 1 percentage point.

Credit risk management

- A large proportion of the middle-risk firms seems to be classified into the bottom group of the "normal" classification. The ratio of loan-loss provisions for normal loans has remained at a historically low level.
  - The decline in the ratio seems to be observed for FIs whose loan-loss provision ratios are based on shorter calculation periods, which cause provisions to more strongly reflect the long-standing economic recovery and prolonged low interest rate environment in recent years.
- If loan-loss provision ratios for normal loans rose to levels similar to those observed at the time of the Lehman shock, some regional FIs would incur credit costs amounting to more than 50% of the current PPNR (excl. trading income) from the additional loan-loss provisions for normal loans alone.

Chart VI-3-2: Composition of loans by borrower classification among regional banks



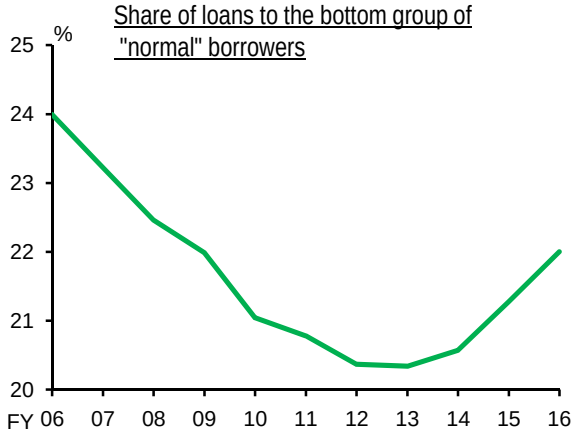


Chart IV-1-4: Ratios of loan-loss provisions to normal loans

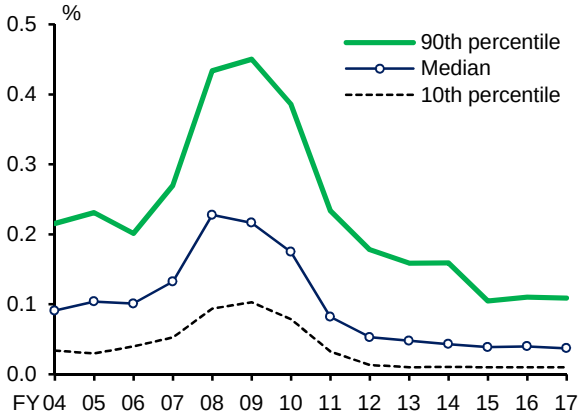
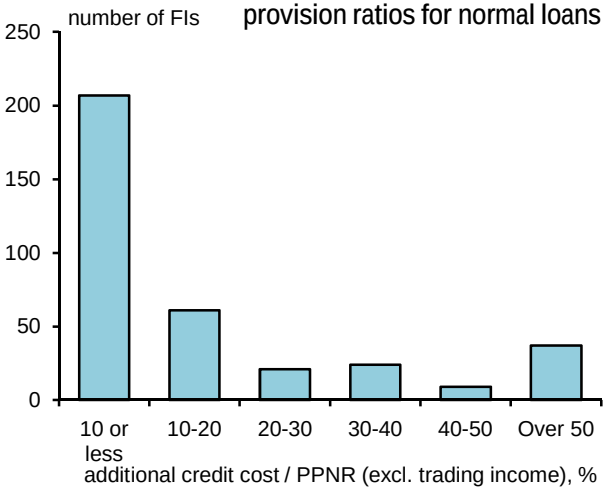


Chart VI-3-4: Impact on profits of a rise in loan-loss provision ratios for normal loans



Loan-loss provision ratios

- FIs should carefully examine their methods for calculating loan-loss provisions based on accounting rules, by appropriately smoothing out cyclical fluctuations from a medium- to long-term perspective so that the provisions are not excessively affected by the current favorable macroeconomic environment.
  - FIs have been lengthening lending durations to ensure profit margins. This trend is evident for loans to low-return borrowers, especially to middle-risk firms. These observations suggest that it has become more important to assess credit risks through the cycle.
  - Some regional FIs as well as major banks have lengthened calculation periods for loan-loss provisions for normal loans, but quite a large number of FIs still set short calculation periods. It is desirable for FIs to further improve their method for calculating loan-loss provisions, taking into account their lending business models and effective lending periods and keeping in mind the possible changes in the future macroeconomic environment.

Chart VI-3-3: Calculation periods for loan-loss provision ratios

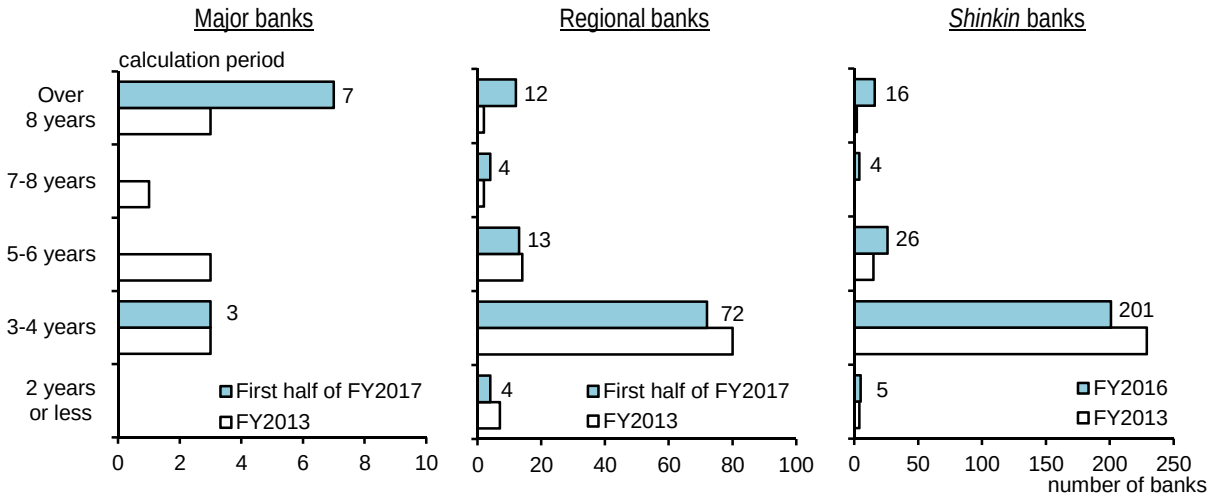
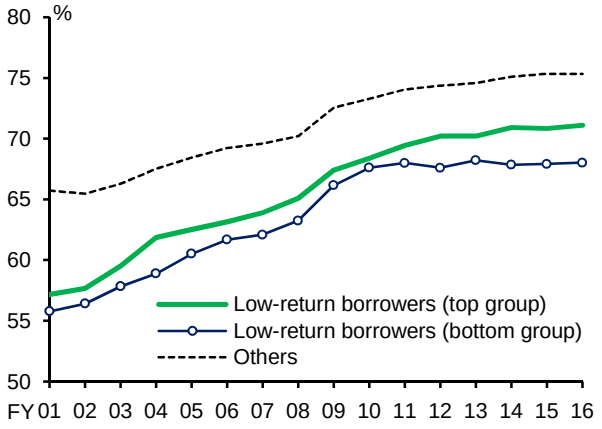


Chart VI-3-5: Small firms' long-term borrowing ratio



Debt governance

- The probability that firms that have once been identified as low-return borrowers will remain in such classification has gradually increased in recent years. This suggests that banks have thus far been unable to reset loan interest rates toward an appropriate level that reflects the associated credit risk, because low-return borrowers' financial condition has not necessarily been improving in a steady manner.
- If interest rates rise in the future, FIs could possibly face either of the following problems: (1) an increase in credit costs due to the default of low-return borrowers or (2) a profit margin squeeze caused by refraining from a rise in loan interest rates or making interest rate reductions or exemptions in order to avoid default.
- In order to avoid facing such problems, FIs are expected to closely monitor client firms and to actively provide advisory support to resolve challenges for the management of client firms.
  - FIs with a large loan share of low-return borrowers have to deal with the significant challenge of improving credit risk management and enhancing their support for borrowing firms through debt governance. If low-return borrowers make efforts to raise productivity and efficiency in business processes based on support from FIs, the efficiency of resource allocation in the regions will improve over the longer term. This in turn could contribute to bottoming up the growth potential of the economy as a whole in spite of the fact that it faces a labor shortage problem.

Chart VI-3-6: Transition probability of low-return borrowers

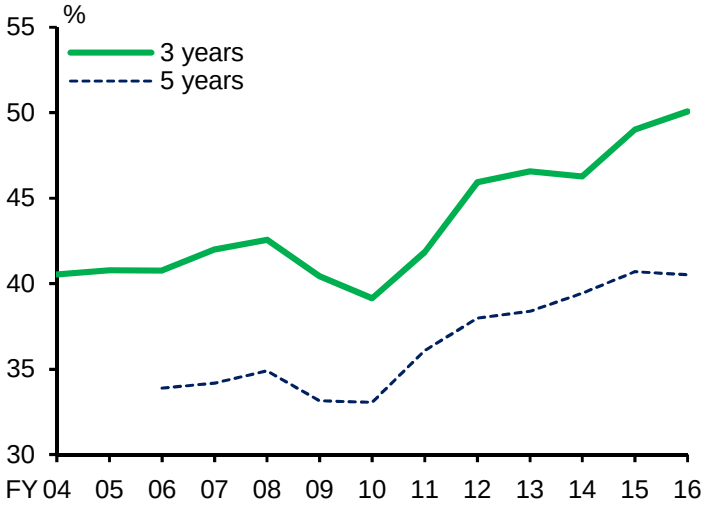


Chart VI-3-7: Distribution of FIs' loan shares of low-return borrowers