Financial System Report

Visual Summary

March 2010

Bank of Japan

Outline of the Financial System Report

The global financial system has emerged from the critical situation that began in the autumn of 2008. It is now moving towards stabilization. Japan's financial system has remained stable as a whole. Recently, Japanese banks have taken measures to contribute to enhancing the stability of Japan's financial system, such as strengthening their capital bases through capital increase and reducing market risk associated with stockholdings.

However, the global financial system remains weak. In Japan, the loan quality has been deteriorating. Market risk associated with stockholdings is still high. Interest rate risk is looming as the result of increases in long-term investment. Japan's financial institutions need to make continuous efforts to improve their risk management and strengthen their capital bases, while properly assessing their risk-return balance.

Developments Surrounding Japan's Financial System [Chapter I]

<Current State of Global Financial System>

Major financial institutions register profits reflecting the recovery in investment banking. Some of them have repaid the public funds. The liquidity shortage in the U.S. dollar funding markets has been resolved. However, the move towards stabilization has largely been underpinned by various policy measures.

<Outlook for Global Financial System>

The balance-sheet adjustment notably in the household sector still continues. Bank lending has been declining. Concerns over sovereign risk have emerged in the international financial markets.

Financial Intermediation Function [Chapter II and III-D]

The financial intermediation function has been maintained while bank lending, depending on the situation, has partly complemented the role played by the financial markets.

The improvement in firms' funding is not only due to an improvement in sales but mainly due to the firms' retrenchment. The capacity utilization rate has not reached a level sufficiently above the break-even point. The improvement in funding conditions has been stagnant for smaller firms. As such, funding conditions remain tight for those firms.

Robustness of the Financial System [Chapter III-A, B, and C]

The robustness of Japan's financial system has been maintained on the whole.

1. Japanese banks' risks relative to Tier I capital have decreased somewhat as a whole since the beginning of FY2009.
2. Funding liquidity risk has been restrained in terms of not only yen currency but also foreign currencies against the backdrop of improving functioning in the global financial markets.
3. Banks' capital bases are not likely to decline substantially as a whole, under the severer macroeconomic conditions.

<Changes in banks' credit risk-taking behavior>

Under a situation where the robustness of Japan's financial system is maintained, the impact stemming from a decline in the financial intermediation function on the real economy is limited.

However, under the severer macroeconomic conditions, the cautious risk-taking behavior of banks could constrain real economic activity.

Some degree of weakness still remains.

1. The quality of loans is deteriorating, and the credit cost is likely to increase as a consequence.
2. Bank loans are decreasing and securities investments are increasing. As a result, interest rate risk is looming.
3. Under the severer macroeconomic conditions, the capital adequacy ratios might stay at low levels at banks whose profitability and capital strength are relatively weak.

Policy Responses [Chapter IV]

<International Regulatory Framework>

The Basel Committee on Banking Supervision released two consultative proposals:

- "Strengthening the resilience of the banking sector"
- "International framework for liquidity risk measurement, standards and monitoring"

<Bank of Japan's Measures>

Microprudential Perspective

1. To carry out on-site examination and off-site monitoring to gauge individual financial institutions' business conditions and their risk management, and to encourage improvement where necessary.

Macroprudential Perspective

2. To analyze/assess risks in the entire financial system.
   - Such analyses and assessment have been reflected in the on-site examinations and off-site monitoring, and in the activities of the Center for Advanced Financial Technology.
3. To incorporate such perspective in the conduct of policy measures.
   - Measures aimed at financial system stability.
   - Monetary policy (assessments of risk factors, including accumulation of financial imbalances).

Financial Institutions' Responses [Appendix]

<Challenges for Japan's Financial Institutions>

1) Securing stable profitability
2) Reduction in market risk associated with stockholdings
3) Towards strengthening capital bases
4) Performing autonomous financial intermediation function

<Structural issues in profitability>

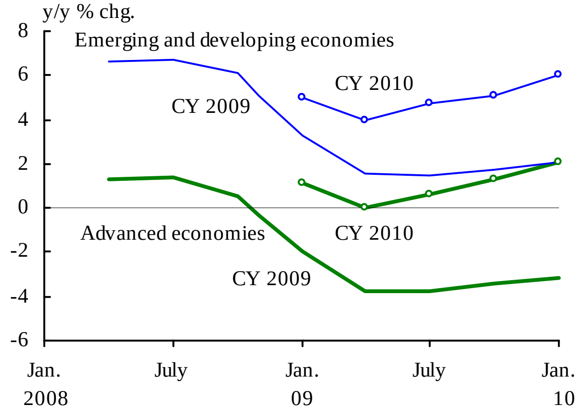
1. Profitability of Japanese banks remains far below that of the U.S. and European banks (markedly in the retail sector), mainly due to low interest margins on loans. Large fluctuations in banks' profits are attributable to changes in credit costs and realized gains/losses on stocks.
2. Profitability of Japanese firms is also far below that of their counterparts overseas. Banks' low profitability is thus paired with firms' low profitability.
3. Going forward, in the course of the Japanese economy's search for a new growth path, Japanese banks are expected to provide financial services depending on the characteristics of their client firms.
4. In the long run, the provision of such financial services will contribute to ensuring the stability of Japan's financial system.

Contents

Global financial system moving towards stabilization

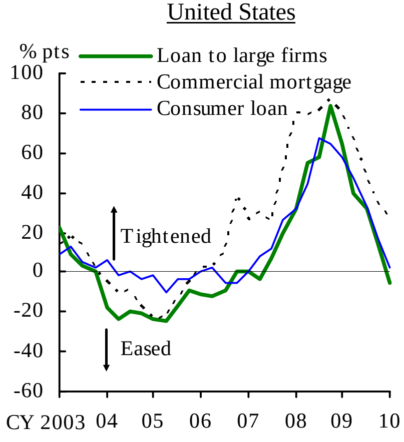
1. Since 2009, the outlook for global economic growth has been revised upward gradually as uncertainty about contraction in financial and economic activities has subsided. Funding liquidity constraints have been easing.
2. The tightening of lending stances by U.S. and European financial institutions has been coming to a halt. Bank loans have been declining.
3. There were periods of high uncertainty with respect to capital sufficiency of financial institutions in the United States and Europe. With the implementation of stress testing, however, uncertainty has declined. Some financial institutions have begun to raise capital from financial markets and repaid the public funds.

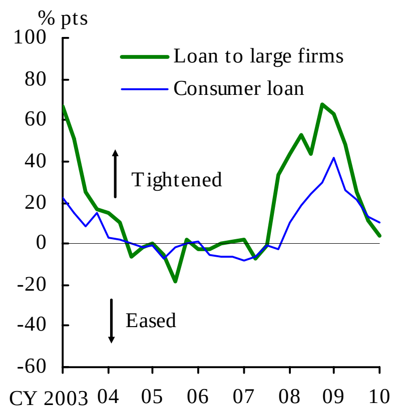
Chart 1-1: World Economic Outlook[1]



Note: *1*. Growth rate of real GDP.

Chart 1-5: Lending Attitude of Financial Institutions





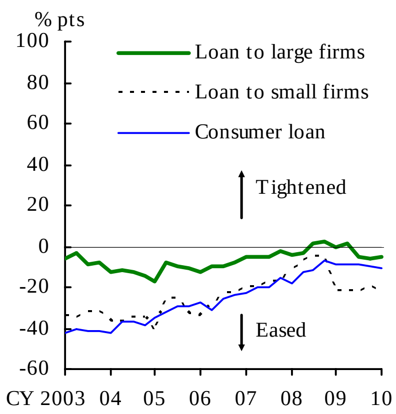
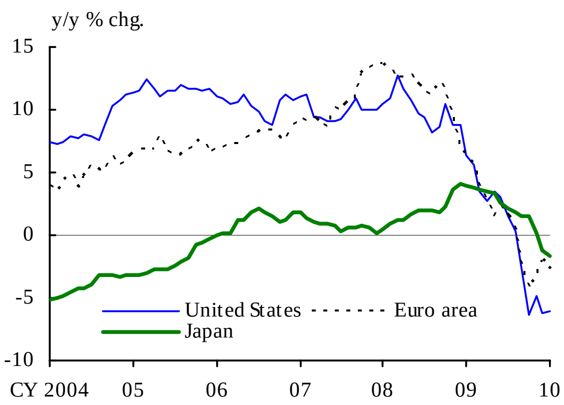


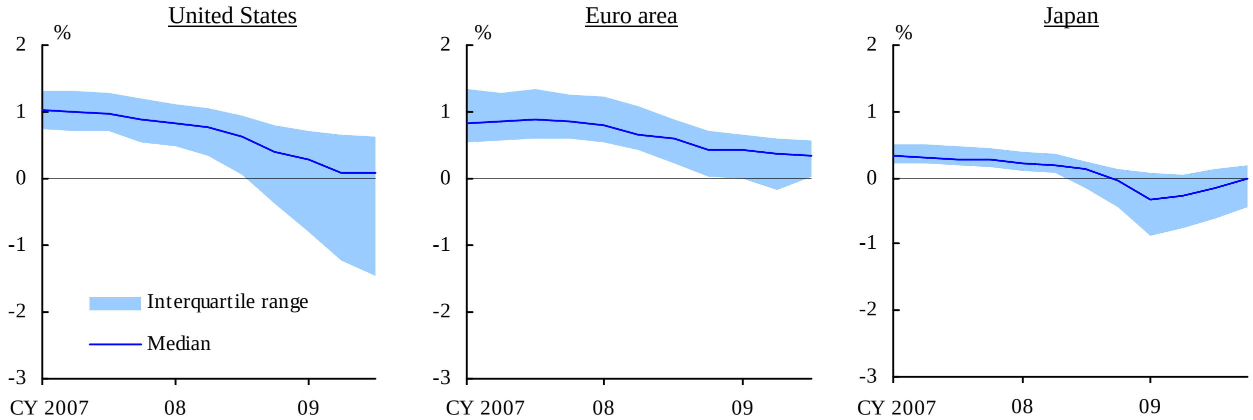
Chart 1-7: Loans Outstanding of Financial Institutions



Balance-sheet adjustments in the United States and Europe

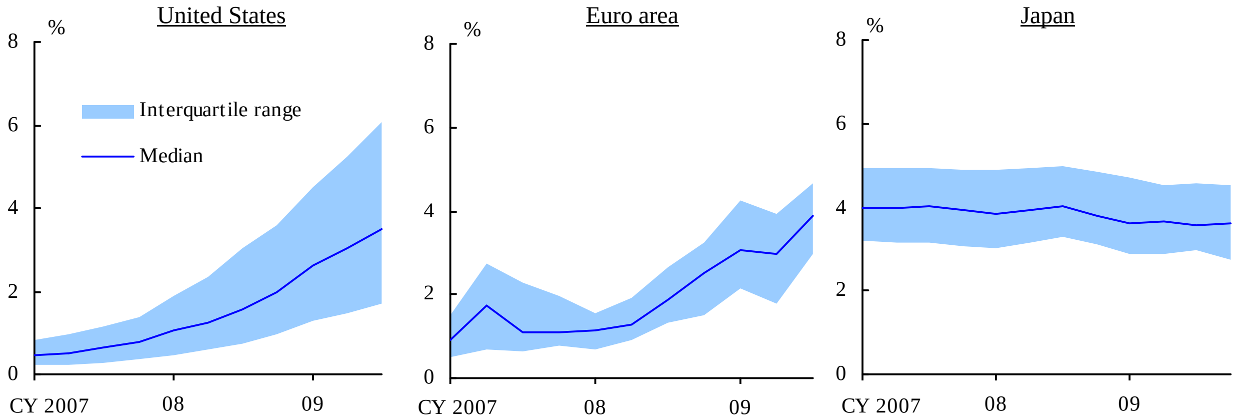
1. In the United States and Europe, banks' balance-sheet adjustment is likely to continue as long as debt reduction is under way in the private non-financial sector. Concerns over sovereign risk have emerged in the international financial markets.
   - ➢ In the United States, bipolarization of profitability has been in progress between local small and medium-sized financial institutions, and major financial institutions.
2. Owing to these developments, the global financial system remains weak.

Chart 1-13: ROA of Financial Institutions[1,2]



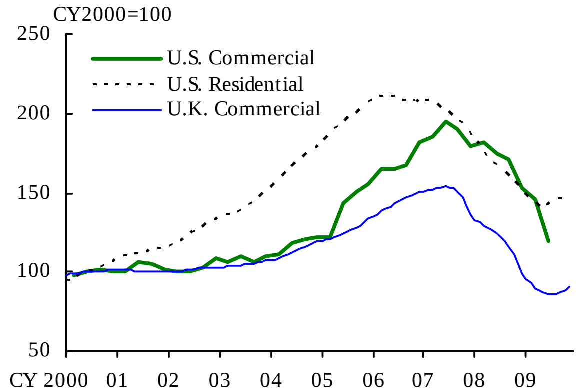
Notes: *1.* ROA is on a net income basis of listed financial institutions.
2. The latest data are as of July-September 2009 in the United States and the euro area and as of October-December 2009 in Japan.

Chart 1-14: NPL Ratio of Financial Institutions[1, 2]



Notes: *1.* NPL ratio of listed banks.
2. The latest data are as of July-September 2009 in the United States and the euro area and as of October-December 2009 in Japan.

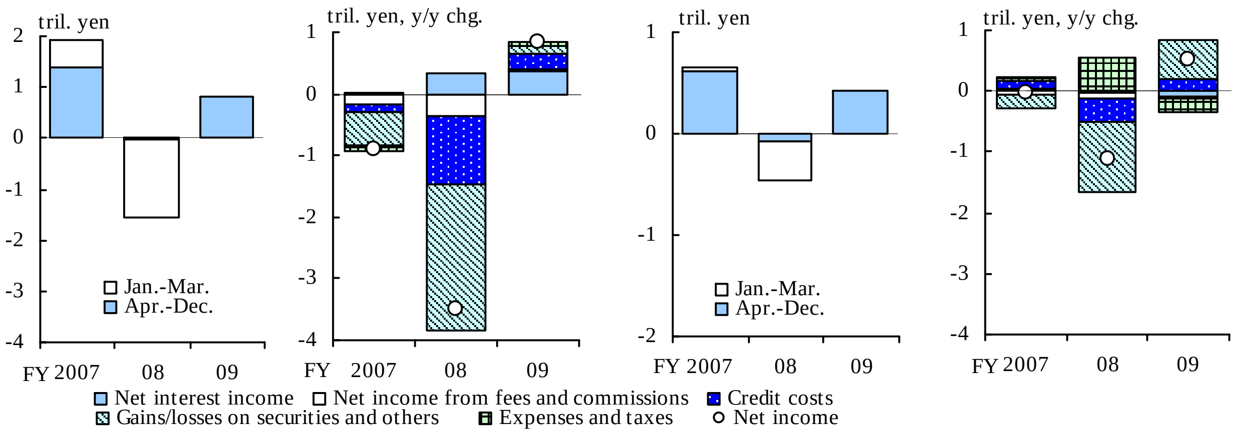
Chart 1-15: Real Estate Prices



Performance of Japanese financial institutions

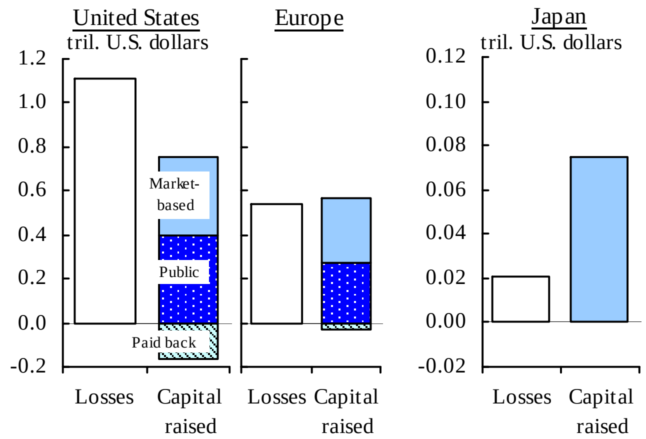
1. Net income of Japanese banks (April-December 2009) increased on a year-on-year basis, while they registered net losses for FY2008.
2. Japanese financial institutions raised capital with the aim to carry out the financial intermediation function smoothly while paying due attention to international discussions on capital adequacy requirements.

Chart 1-9: Net Income of Japanese Banks[1, 2]



Notes: *1.* Credit costs (disposal of nonperforming loans) and expenses (general and administrative) are on a non-consolidated basis.
2. The latest data are as of April-December of 2009.

Chart 1-10: Losses and Capital of Financial Institutions[1]



Note: *1.* Cumulative amount of losses and capital raised from July 2007.

Firms' sluggish demand for funds

1. Japanese firms -- irrespective of their size and industrial type -- have reduced costs, mainly by cutting personnel expenses, at a pace faster than laid out in their business plans. As a result, firms have managed to post profits.
2. They have been striving to secure on-hand liquidity by restraining outlays on, for example, business fixed investment. Overall, demand for funds is unlikely to increase.

Chart 2-1: Firms' Current Profits[1]

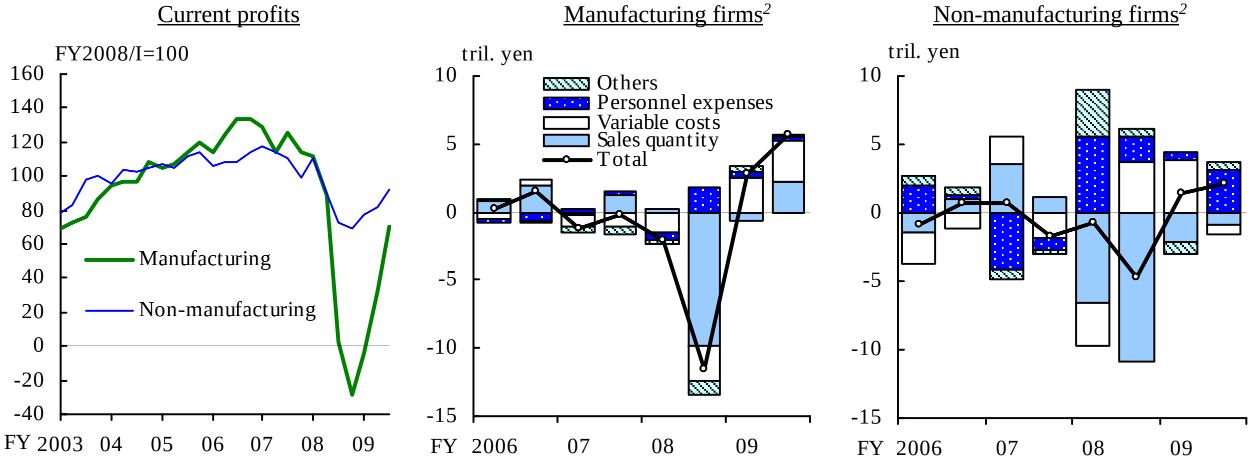
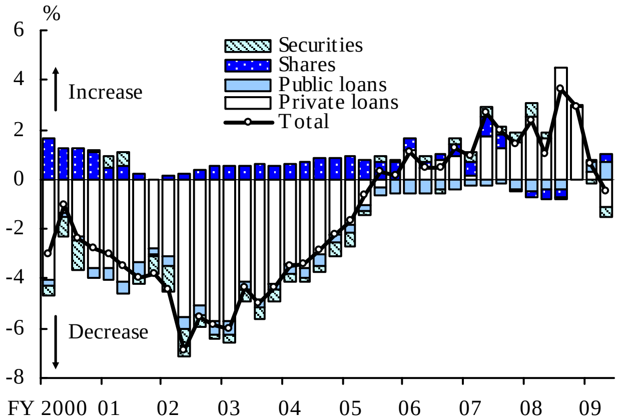


Chart 2-5: Firms' Funding[1, 2]



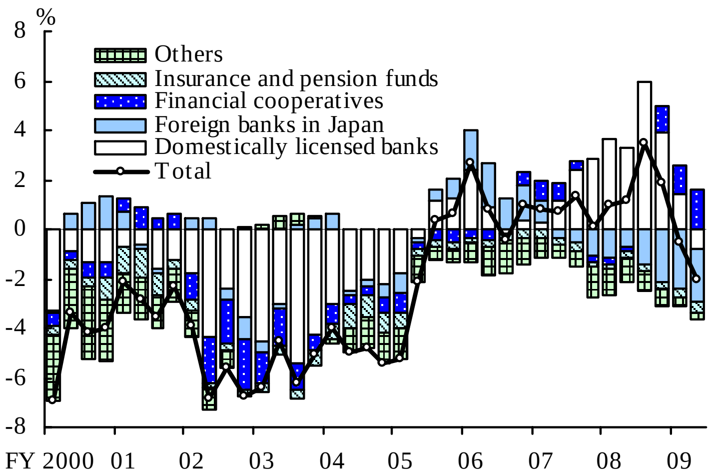
Notes: *1*. Sample adjusted and seasonally adjusted. The latest data are as of October-December 2009.
2. Difference from the previous half year is plotted.

Notes: *1*. Ratios to nominal GDP (four-term moving average).
2. Trade credits are excluded.

Declining bank loans and loan rates

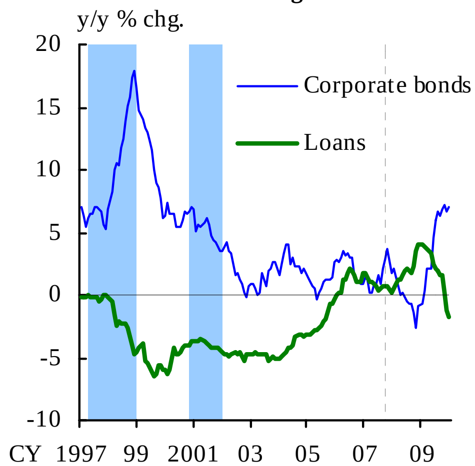
1. Overall corporate loans declined. It was attributable to a decline in demand for funds due to a cutback in business fixed investment, and firms' shift of their funding source from banks to financial markets.
2. Loan rates have been on a declining trend, and recently the share of loans with relatively lower interest rates has been increasing.
   - Behind this are a) loan base rates have been declining, b) banks have supported their ailing borrowers, and c) increases in loans with public guarantee might have contained the increase in the spreads relative to credit risk.
3. On the whole, the financial intermediation function of Japan's financial system has been maintained while bank lending, depending on the situation, has partly complemented the role played by the financial markets.

Chart 2-6: Corporate Loans by Type of Intermediary[1, 2]



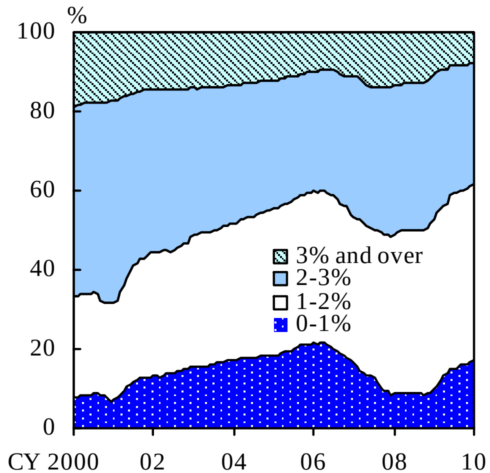
Notes: *1*. Ratios to nominal GDP (four-term moving average).
2. Loans to governments are included.

Chart 2-10: Loans and Corporate Bonds Outstanding[1]



Note: *1*. Shadows show the economic downturns, and vertical line indicates the latest economic peak.

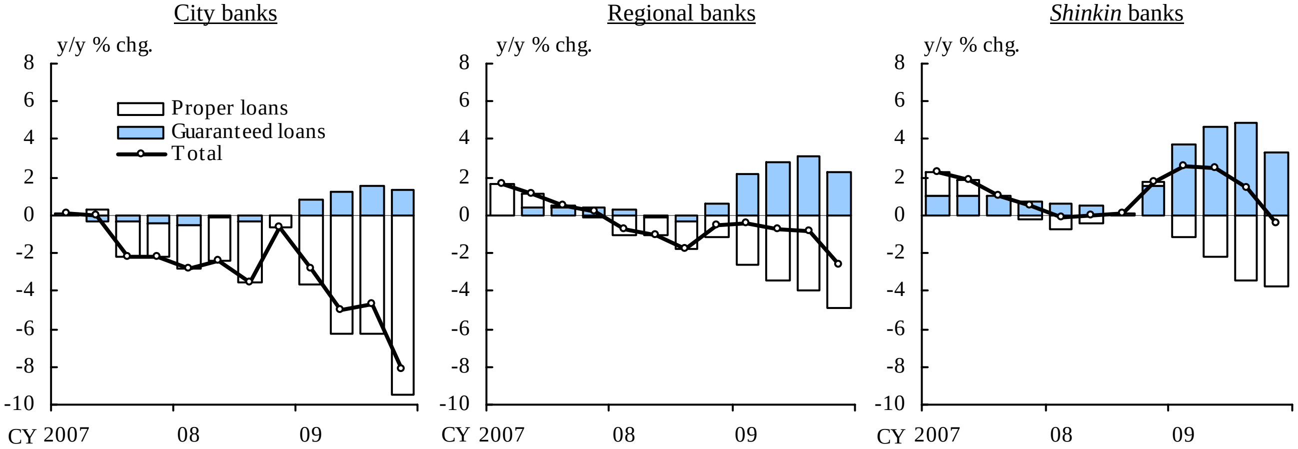
Chart 2-9: Loan Share by Interest Rate



Continued negative growth of bank loans to SMEs

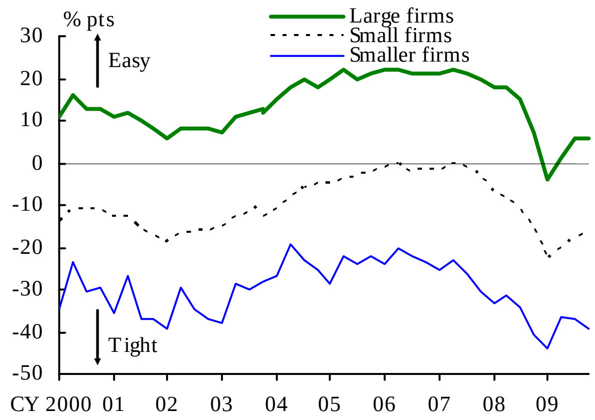
1. Public guarantees have stabilized the funding of SMEs. Recently, the rate of decline in loans has accelerated, reflecting a decline in demand for funds.
2. In particular, some smaller firms show little improvement in their debt repayment capacity, and face tight funding conditions.

Chart 2-13: Loans to Small and Medium-sized Firms



Sources: National Federation of Credit Guarantee Corporations; BOJ, "Loans and Discounts Outstanding by Sector."

Chart 2-4: D.I. for Financial Positions by Firm Size[1]

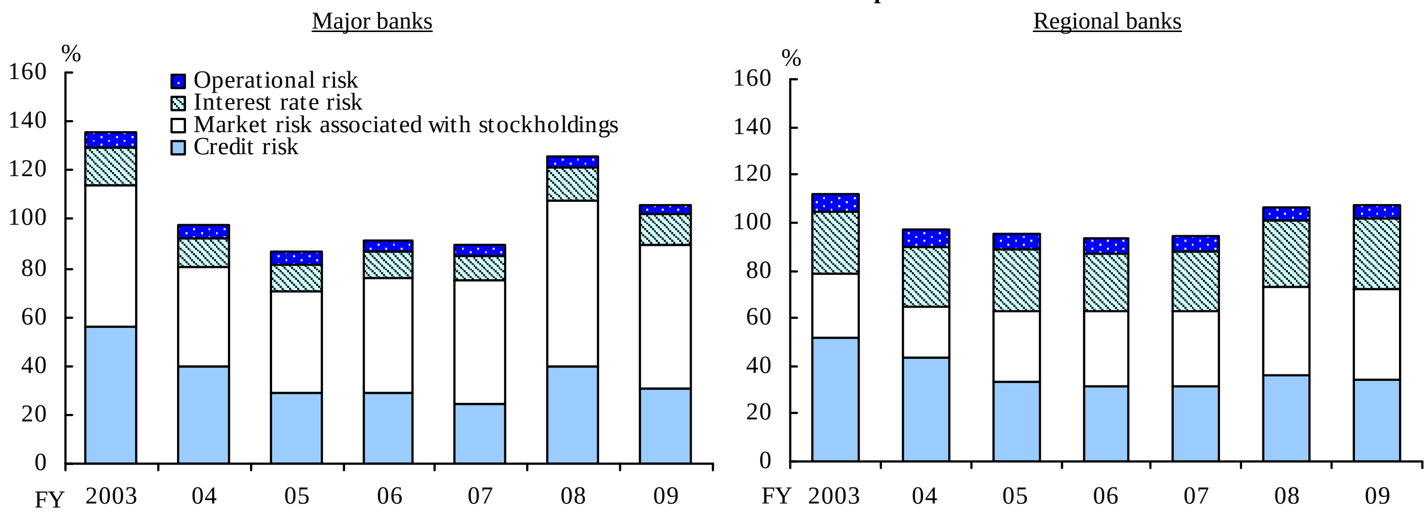


Note: *1*. D.I. for smaller firms is "easier" - "tighter."

Decreasing Risks

1. The risk factor that might jeopardize the stability of Japan's financial system has been largely contained. Japanese banks' risks relative to Tier I capital have decreased somewhat as a whole since the beginning of FY2009.
   - Firms' business conditions have been improving and it appears unlikely that the surge in credit costs impairs the robustness of the financial system.
   - The disposal of securitized products was largely completed in FY2008. Now the risk inherent in those products has become marginal as the market condition has been improving in FY2009.
   - Market risk associated with stockholdings is still high. Many Japanese banks have started taking concrete steps to reduce market risk associated with stockholdings, as it has become their priority to reduce such risk.

Chart 3-1: Risks Relative to Tier I Capital[1, 2]

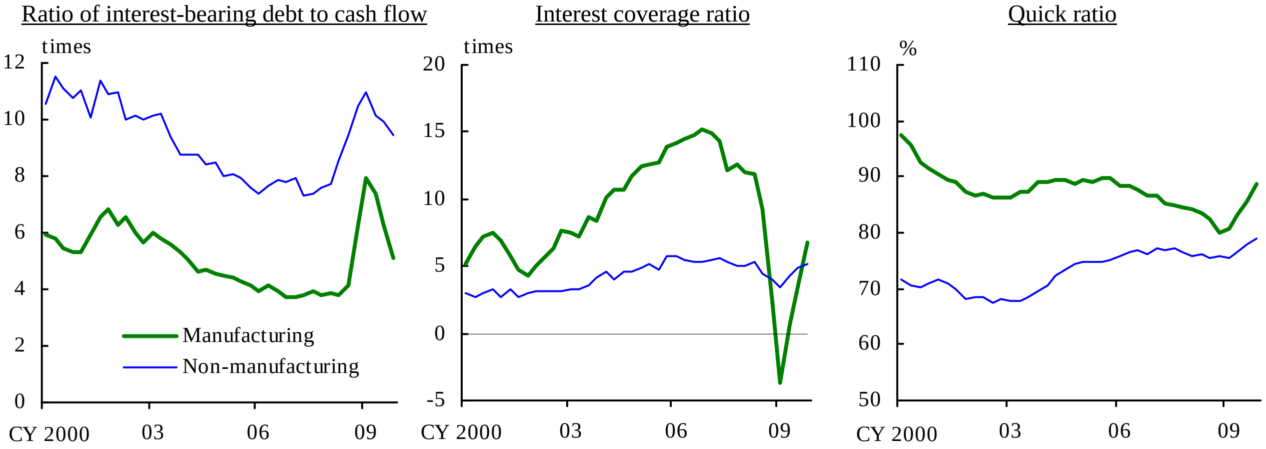


Notes: *1.* Credit risk: unexpected loss with a 99 percent confidence level; Market risk associated with stockholdings: value at risk with a 99 percent confidence level and 1-year holding; Interest rate risk: 100 basis point value; and Operational risk: 15 percent of gross profits.
2. The latest data are as of the 1st half of fiscal 2009.

Improvement in firms' financial conditions through cost reduction

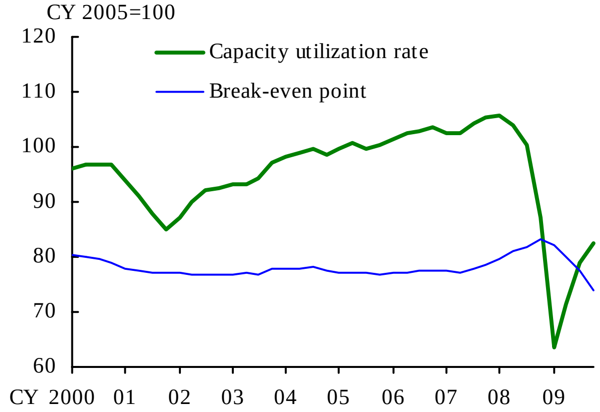
1. Firms have succeeded in recording profits owing to cost-cutting efforts. More recently, an improvement in sales is also taking place.
2. However, the cost reduction such as a cut in personnel expenses does not necessarily lead to a sustainable recovery of firms' profitability. The capacity utilization rate of the manufacturing sector, while it has been rising, has not reached a level sufficiently above the break-even point.

Chart 3-4: Firms' Repayment Capacity[1]



Note: *1*. Sample adjusted and seasonally adjusted.

Chart 3-11: Rates of Manufacturing Capacity Utilization[1,2]



Notes: *1*. Sample adjusted and seasonally adjusted.
2. Break-even point is four-term moving average.

Containing credit costs

Two risks with respect to future credit costs:

1) Would expansion of lending size per borrower lead to a surge in banks' credit risk?

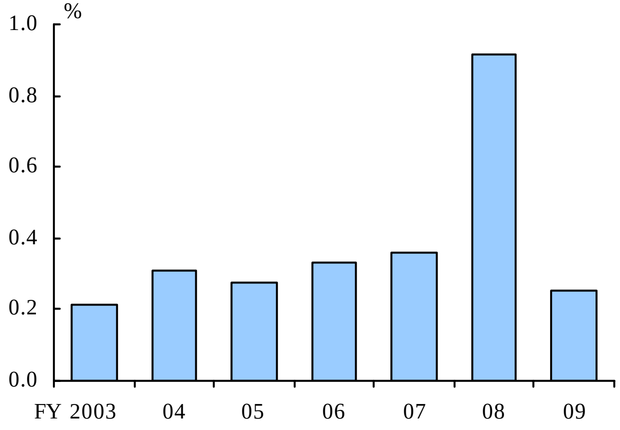
→Firms' repayment capacity has been improving, and their downward transition in banks' self assessment from "normal" to "in danger of bankruptcy" or lower (i.e., a downgrade of two notches or more including a sudden default) declined to a level below the previous average.

2) Has the pace of deterioration in banks' loan quality moderated?

→On an actual basis, the pace of deterioration has moderated somewhat. This was attributable to an expansion of the definition of loans that are not treated as NPLs following relaxation of the requirement for restructured loans, and the credit guarantee corporations' outstanding guarantee.

→The share of "normal" loans continues to decline, while that of "need attention" loans increases. This suggests that the quality of loans is deteriorating.

Chart 3-5: Downgrade from "Normal" to "In Danger of Bankruptcy" or Lower[1, 2]



Notes: *1.* Ratio to total loans outstanding.
2. The latest ratio is as of the 1st half of fiscal 2009.

Chart 3-6: NPL Ratios and Downgrade Ratios to NPLs

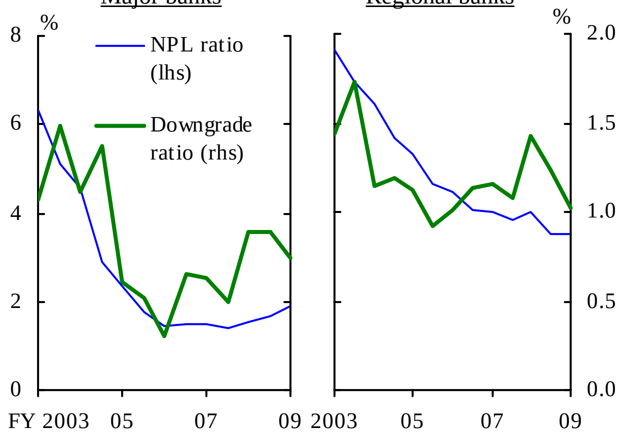
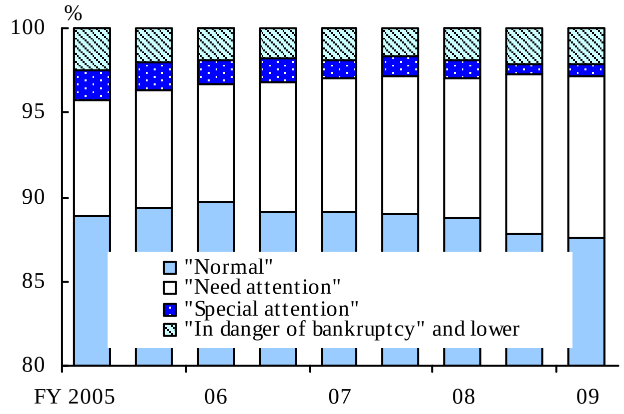


Chart 3-10: Loans Outstanding by Borrower Classification

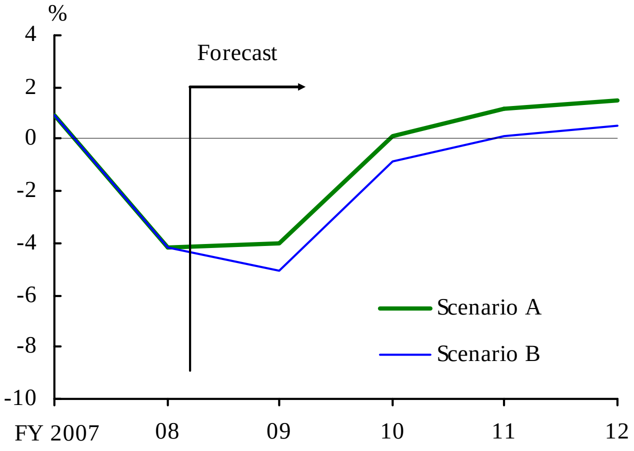


Robustness against macroeconomic shock

1. Scenario A: The credit cost ratio during the simulation periods (from 2nd half of FY2009 to FY2012) is lower than that in the previous *Report*. Until FY2011, when the economic recovery becomes evident, credit costs for the major banks and the regional banks could rise to levels comparable to FY2008, when there were successive large-scale bankruptcies.
2. Scenario B: The credit cost ratio could nearly double from that in FY2008 for the major banks and the regional banks.

Scenario:

Nominal GDP Growth Rate



Firms' Financial Conditions

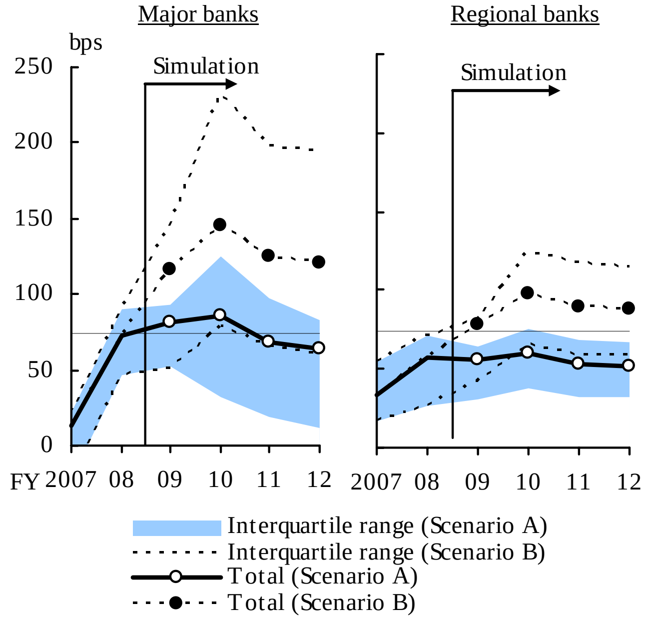
Scenario A: Quick ratio and ICR to change in accordance with changes in the economy.

Scenario B: Quick ratio to decline 5%pt, ICR to decline 100%pt below those in Scenario A.

Stock Prices

TOPIX to remain at 700 points (the lowest level after the bubble economy period).

Chart 3-9: Credit Cost Ratios and Break-Even Point[1]



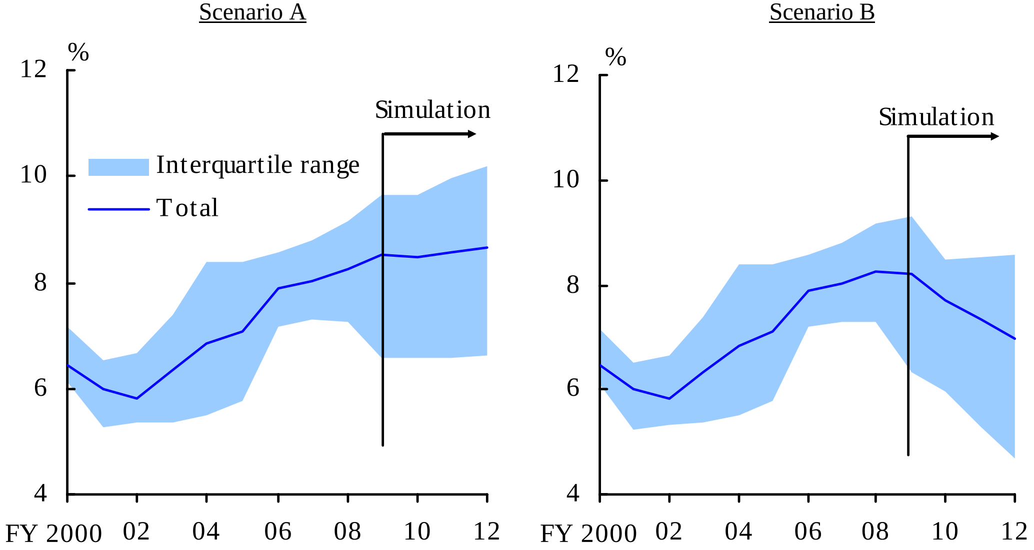
Note: *1.* The horizontal line represents the break-even point as of the 1st half of fiscal 2009.

Note: The scenario analysis does not aim to project the future of the financial system. Rather, it aims to a) clarify the risk characteristics faced by banks, b) assess the robustness of the financial system, and c) see the feedback effect arising from the robustness analysis to the financial intermediation function. The estimates are thus based on assumptions and should be treated with care.

Robustness of the capital base

1. Scenario A: Since the credit cost ratio hovers around a break-even point, the decline in capital is limited, but the capital ratio does not increase. The Tier I capital ratio is maintained at a level equivalent to that of FY2008.
2. Scenario B: The number of banks whose credit cost ratios exceed break-even points will increase even after FY2011 when the economic recovery becomes clear. Banks' Tier I capital will decline over the simulation period. While banks' capital bases are not likely to decline substantially, the capital adequacy ratios might stay at low levels at banks whose profitability and capital strength are relatively weak.

Chart 3-12: Tier I Capital Ratios[1]

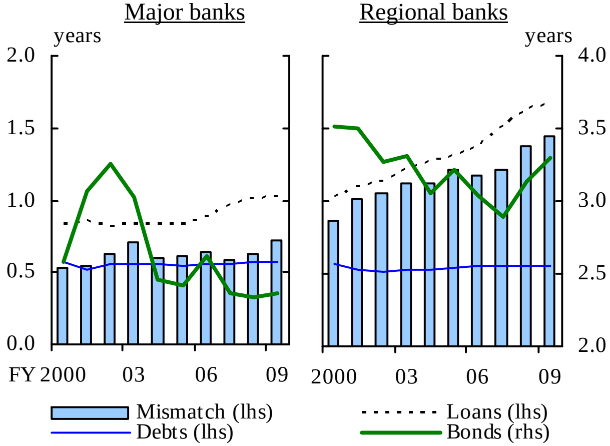


Note: *1*. The dispersion is weighted by each bank's loan ratio to total bank loans.

Lengthening investment period

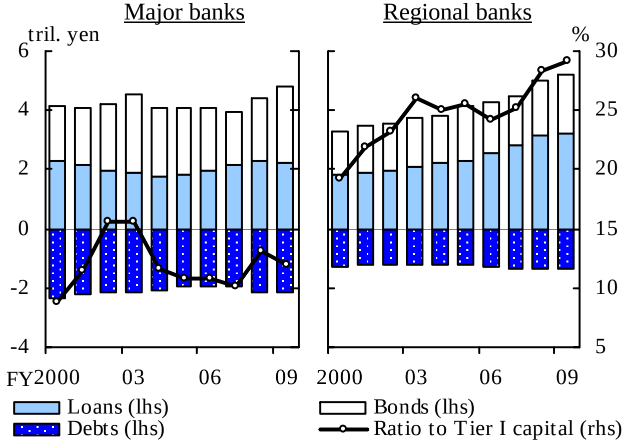
1. On the investment side, the average time until the renewal of the interest rate has steadily lengthened. The ratio of interest rate risk (100bpv) relative to Tier I capital is 10-15% for the major banks and about 30% for the regional banks.
2. The outstanding balance of bondholdings exceeded the level during the period of quantitative easing policy, when banks invested heavily in government bonds. The grid point sensitivity of interest rate risk associated with bondholdings reached a peak range, due mainly to increased risk a) in the short to medium-term range for the major banks and b) in the long-term range for the regional banks.
3. On the lending front, the loan period tended to lengthen, due to a) firms shifting their funding from short-term to long-term borrowing, b) active provision of publicly guaranteed loans to SMEs, and c) increasing proportion of relatively long-term loans such as mortgage loans and loans to local governments.

Chart 3-14: Average Maturity[1]



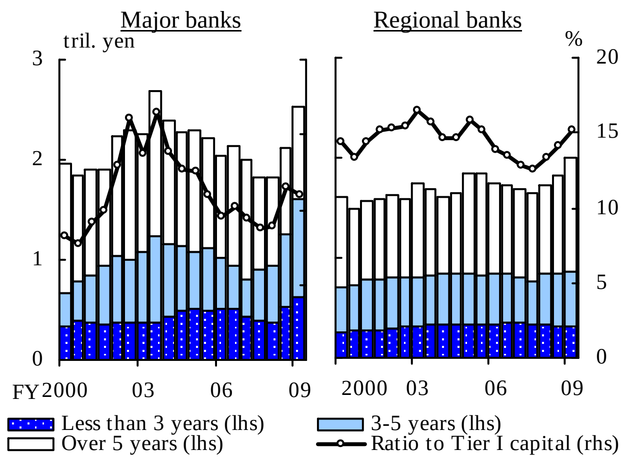
Note: *1*. The latest data are as of the 1st half of fiscal 2009.

Chart 3-15: Interest Rate Risk (100 bpv)[1]



Note: *1*. The latest data are as of the 1st half of fiscal 2009.

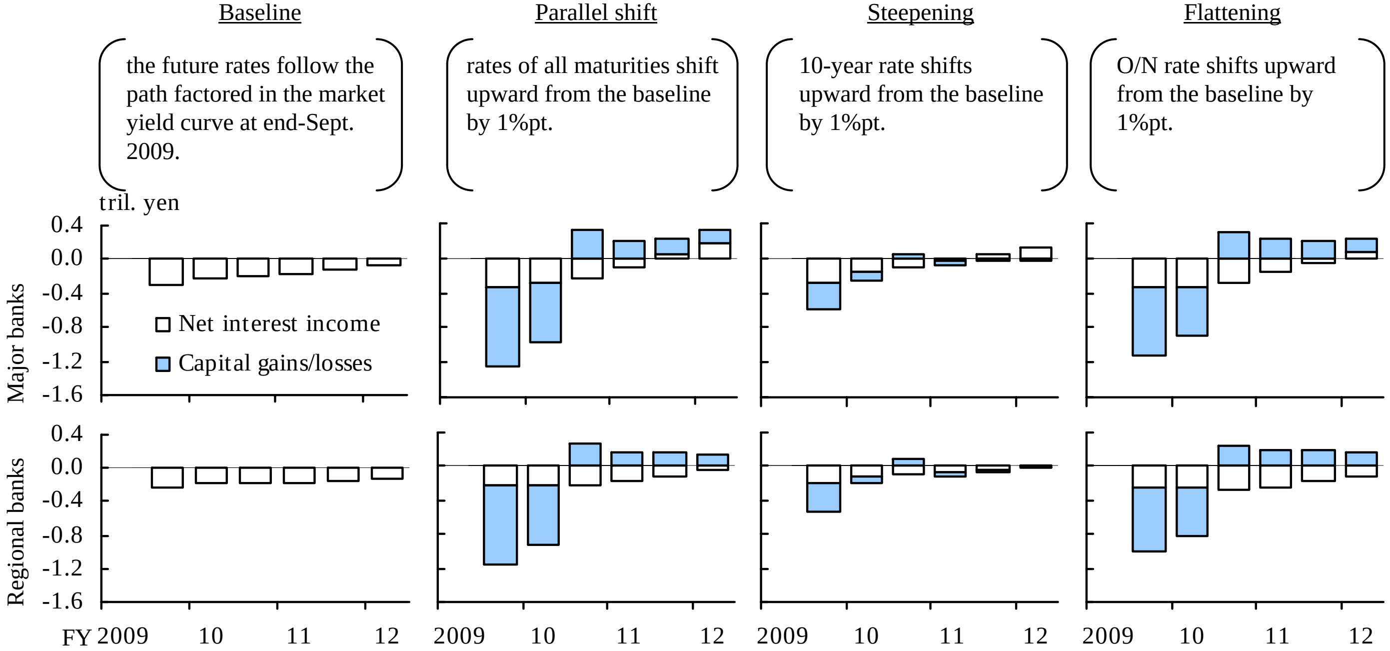
Chart 3-17: Grid Point Sensitivity of Bondholdings



Robustness against rise in interest rates

1. In the baseline scenario, operating profits from core business are estimated to decline by about 10% for the major banks and about 20% for the regional banks.
2. Downward pressure on interest income becomes more conspicuous for the regional banks with a larger maturity mismatch than the major banks.
3. Downward pressure on market value of bondholdings is more apparent in the parallel shift and flattening scenarios than the steepening scenario.
4. Each bank should continue to properly manage interest rate risk.

Chart 3-19: Net Interest Income and Capital Gains/Losses on Bondholdings[1]



Note: *1.* Figures for net interest income are changes from the actual level in the 1st half of fiscal 2009.
Those for capital gains/losses on bondholdings are changes from the baseline scenario.

Waning funding liquidity risk

Yen funding

1. The decline in firms' demand for funds has had the effect of containing banks' funding liquidity risk by mitigating banks' funding pressure and reducing uncertainty about banks' investment-funding position. Firms' cash on hand flowed into banks in the form of deposits.

Foreign currency funding

2. Given that the extent of excess lending has been decreasing and the U.S. dollar funding environment has been improving, funding liquidity risk has been contained. However, Japanese banks' investments in U.S. dollars have recently been increasing again, and most of the investment positions are covered by market funding.
3. To prepare for future anomalies in the markets, it is inevitable to further diversify counterparts and instruments for funding as well as to control the maturity mismatch between investment and funding at an appropriate level.

Chart 3-21: Outstanding Deposits by Type of Depositor

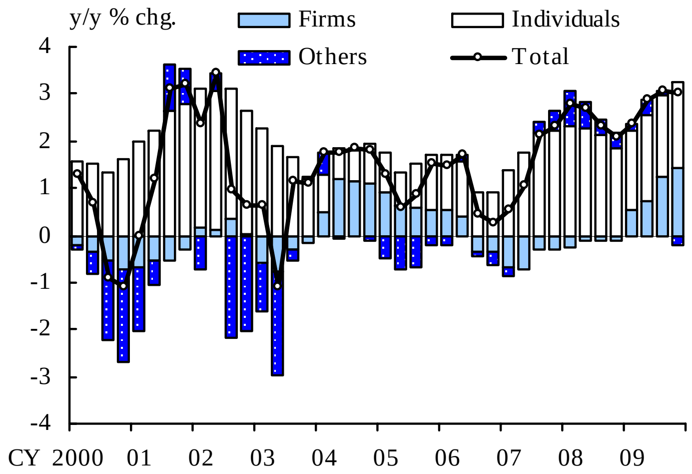
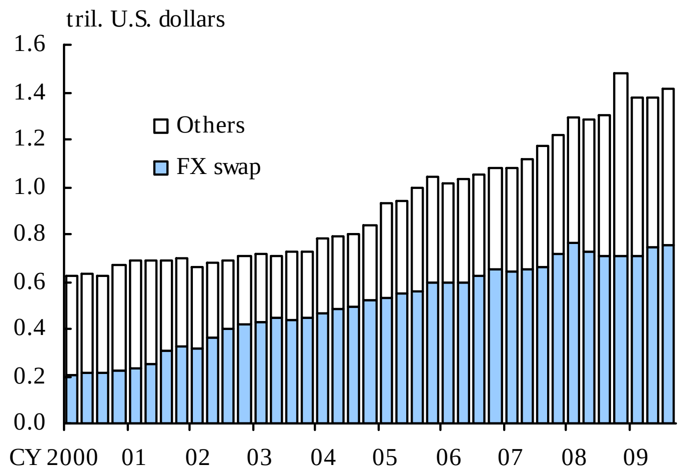


Chart 3-26: U.S. Dollar Funding Position



Feedback to the financial intermediation function

1. If the capital adequacy ratio gap widens in a negative direction, the bank will try to close the gap by reducing risk assets or fortifying capital.
2. In Scenario A, financial constraints against the real economic growth have weakened. However, in the severer Scenario B, banks' cautious stance in their risk-taking could constrain real economic activity.

a) To estimate the capital adequacy ratio gap (i.e., disparity between "actual ratio" and "appropriate ratio").

b) To estimate the linkage between the gap and the bank's behavior.

c) Scenario analysis based on the robustness assessment.

Chart 3-27: Capital Adequacy Ratio Gap

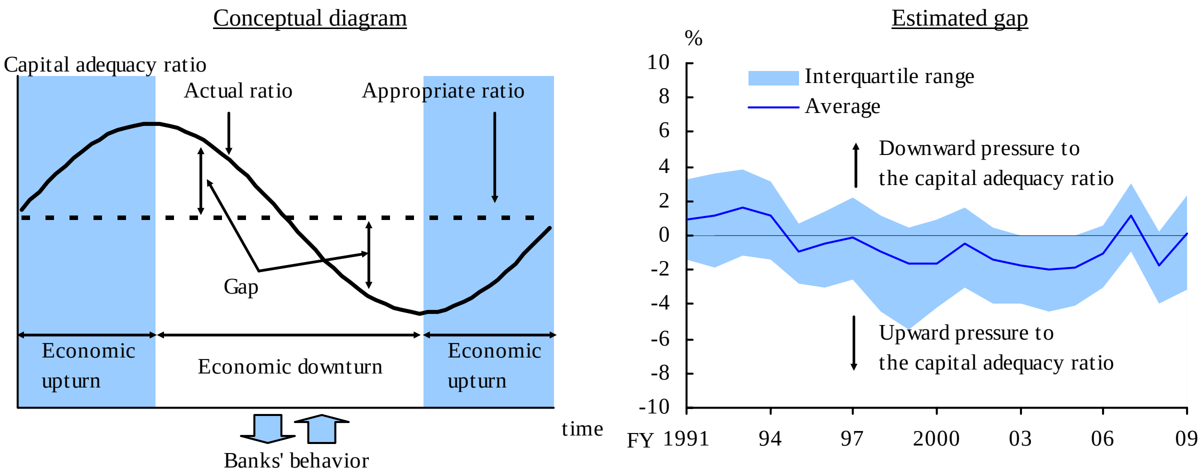
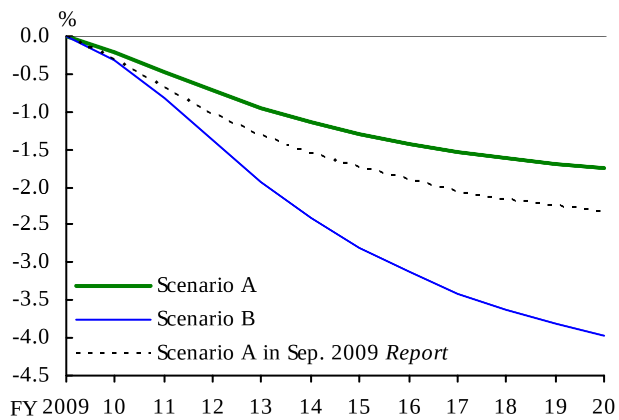


Chart 3-28: Pressure to Reduce Risk Assets[1]

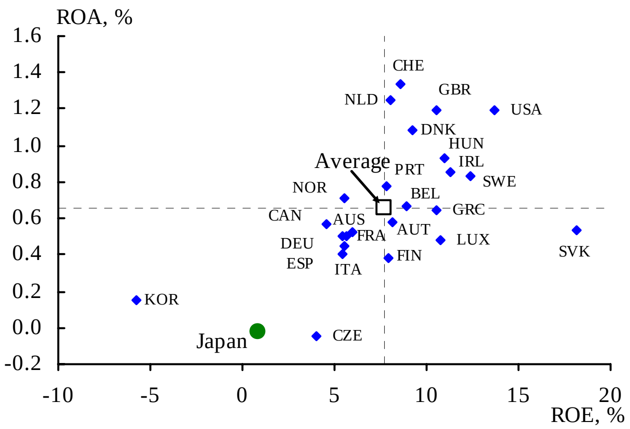


Note: *1*. Cumulative effects are plotted.

Profitability of Japanese banks in a global context

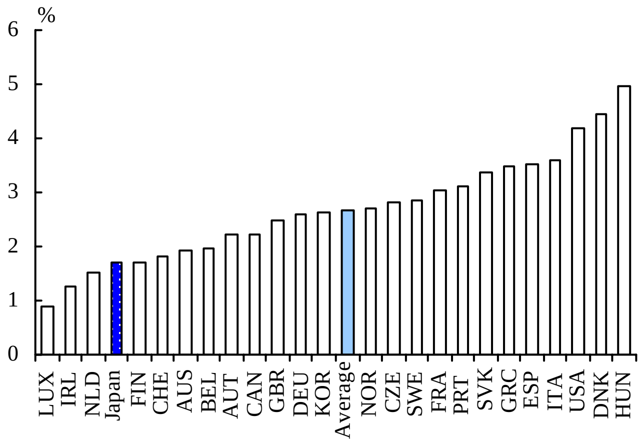
1. The profitability of the Japanese banking sector is substantially below the average of major countries both in terms of ROA and ROE.
2. Japan's interest rate margin on loans is significantly below the major countries' average.
3. Japanese major banks have markedly low profitability in the retail sector which targets individuals and SMEs, compared with major banks in the United States and Europe.

Chart A-1: Profitability of Banks[1]



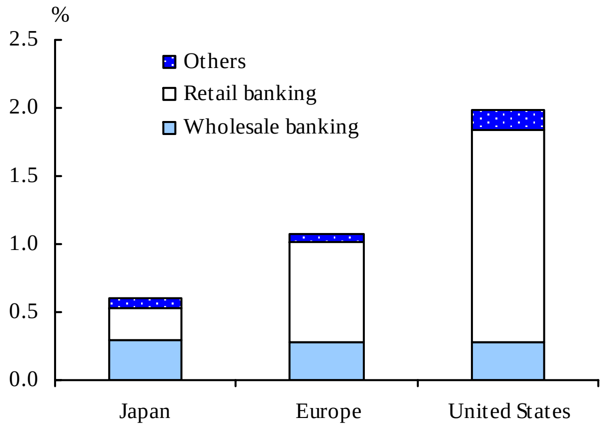
Note: *1.* Averaged on a net income basis for the past 20 years.

Chart A-2: Interest Margins in Major Countries[1]



Note: *1.* Averages for the past 20 years.

Chart A-4: Major Financial Institutions' ROA by Segment[1]

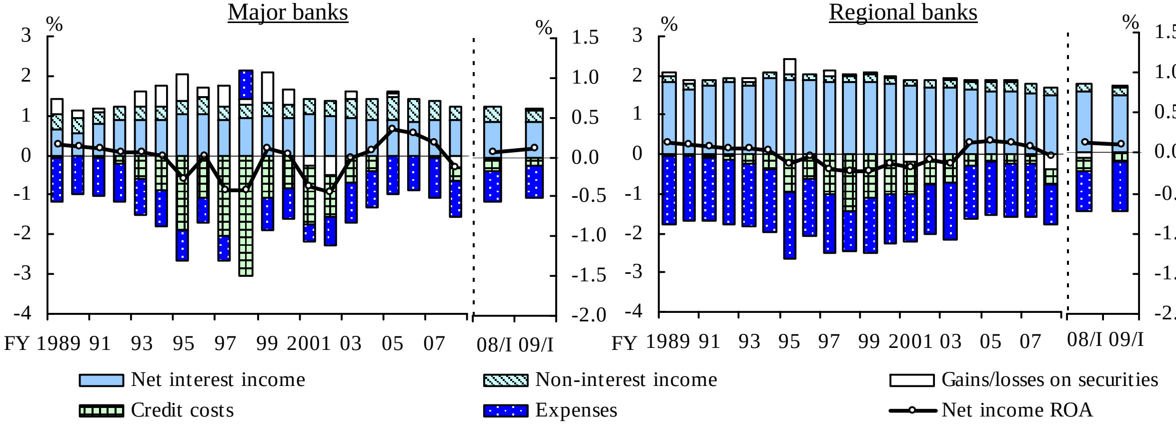


Note: *1.* Averaged on operating profit basis from 2006 to 2008. Japan covers two financial groups listed on NYSE. Europe and the United States cover 6 and 3 financial groups, respectively.

Characteristics of Japanese banks' profits

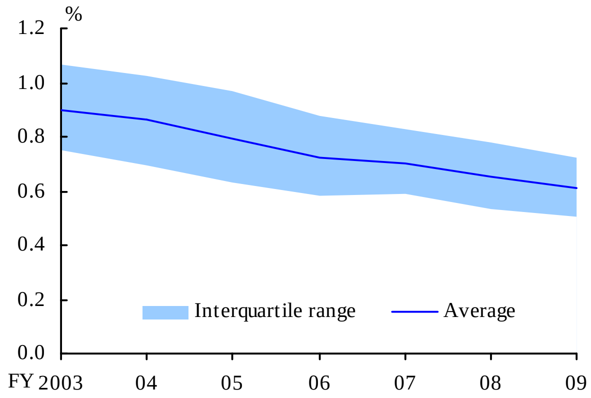
1. The banks' average profitability remains at a low level and it shows large fluctuations. This is due to significant fluctuations in realized losses on stocks and credit costs amid low profitability.
2. The core profitability of Japanese banks appears to indicate a further decline, and the profitability of domestic loan businesses is low as well.
3. Profitability of both the banking sector and the corporate sector is relatively low as against that in other major countries. Banks' low profitability is thus paired with firms' low profitability.

Chart A-5: Net Income ROA[1]



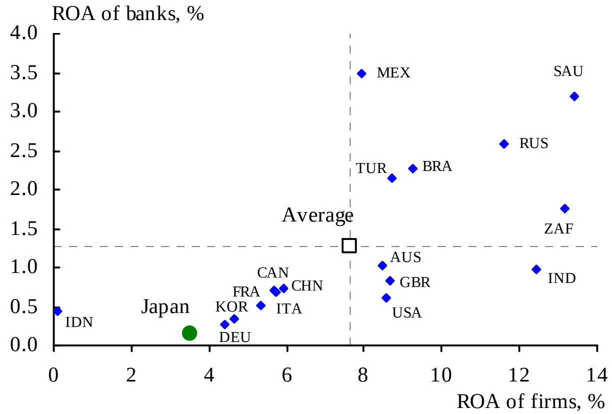
Note: *1.* "Expenses" include general expenses and tax.

Chart A-10: Interest Margins Excluding Expense Ratio[1, 2]



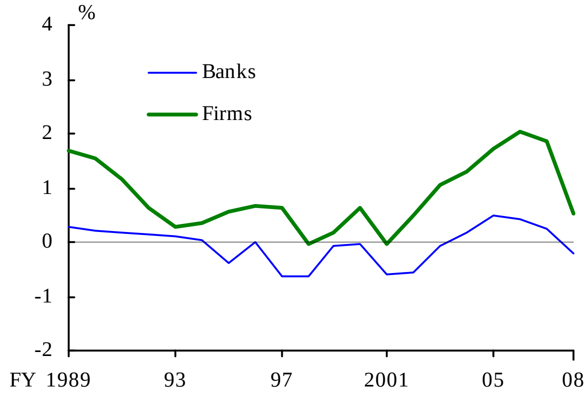
Notes: *1.* The latest data are as of the 1st half of fiscal 2009.
2. Expense represents general and administrative expenses.

Chart A-13: International Comparison of ROA[1]



Note: *1.* Averaged on a net income basis for the past 10 years.

Chart A-15: Time-Series Comparison of ROA[1]



Note: *1.* On a net income basis.