

Financial Stability Report

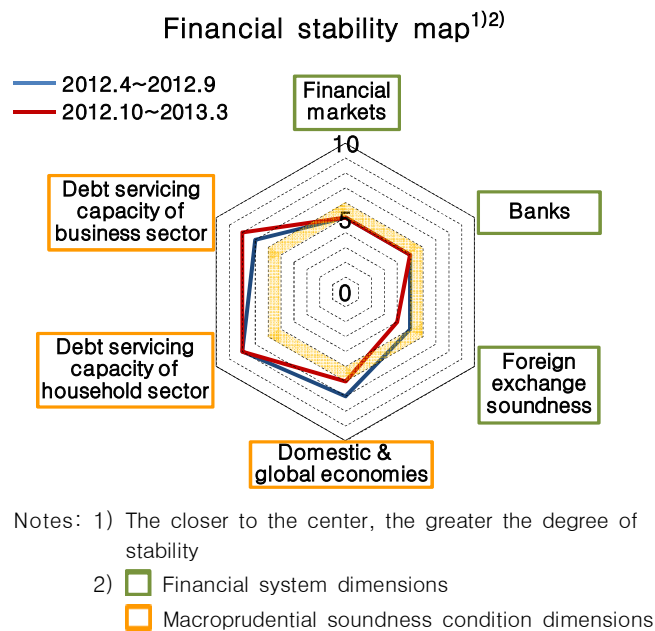
April 2013

The following is an English translation of the Overview in the April 2013 Financial Stability Report.

The Bank of Korea

■ Overview

The Korean financial system has generally been stable, despite the uncertainties concerning economic conditions domestically and abroad. External economic conditions have improved with the easing of international financial market unrest and declines in economic uncertainties in the United States and China since the second half of 2012. However, amid the domestic economic recovery being delayed the household debt servicing capacity has not improved, with the household debt-to-disposable income ratio increasing slightly for example. Corporations' financial soundness has also worsened, owing to declines in their profitability and increases in their loan-to-asset ratios. In the banking sector which is pivotal part of the financial system, the profitability has a little bit worsened and the credit risks related to the household and corporate loans have increased. However, its overall financial soundness has maintained a satisfactory level with for instance capital adequacy improving.



Note: 1) The Financial Stability Index is measured based on values from 0(min) to 100(max). The closer it gets to 100, the higher the level of instability.
 <During Asian financial crisis(Jan. 1998)=100>
 Source: The Bank of Korea

The volatility of financial market price variables has continued its stable movements at low levels as well, but shown a slight increase due to the recent reemergence of geopolitical risk. Foreign exchange soundness has sustained its favorable situation — due to continuation of the predominance of foreign exchange supply over demand with the current account surplus, to the heightening of the nation’ s external debt repayment capacity given the increase in its foreign reserve holdings, etc.

These changes in macroprudential soundness conditions and the stable state of the financial system are shown in the financial stability map¹⁾. The Financial Stability Index (FSI)²⁾ has meanwhile been sustaining a downward trend since August 2012, reflecting the recent improvements in macroprudential conditions.

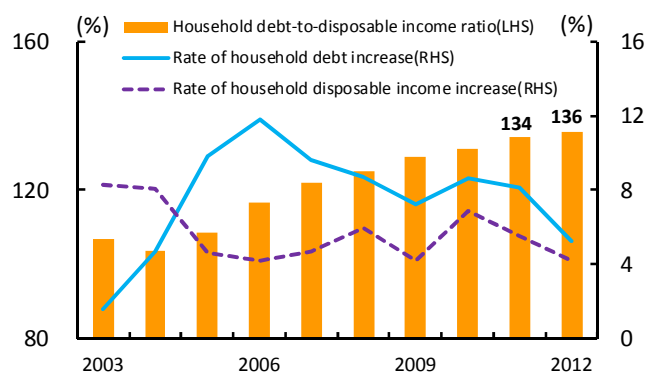
-
- 1) The financial stability map presents a comprehensive picture of stability in six dimensions — three concerning the financial system (the financial markets, banks and foreign exchange soundness) and three on macroprudential soundness conditions (the domestic and global economies, the debt servicing capacity of the household sector and the debt servicing capacity of the business sector). If the decile reading of a particular dimension is 5~6, this may be seen as a degree of stability in that dimension corresponding to its average levels in the past (since 1995).
 - 2) The Financial Stability Index (FSI) is an index created by converting a variety of different financial stability indicators into a single index, and can be used as one of the indicators for judging overall macroprudential conditions. For further details, please refer to the April 2012 *Financial Stability Report*, <Box IV-1> “Outline of Financial Stability Index (FSI).”

[Household and Corporate Financial Soundness]

1 With the domestic economic recovery being delayed and the housing market sluggishness continuing, households' financial soundness is not improving.

Household debt expanded by 5.2% in 2012, with its rate of increase slowing somewhat compared to 2011 (8.1%). However, as the rate of increase in household income fell short of this, the ratio of household debt to disposable income rose slightly (134% at end-2011 → 136% at end-2012).

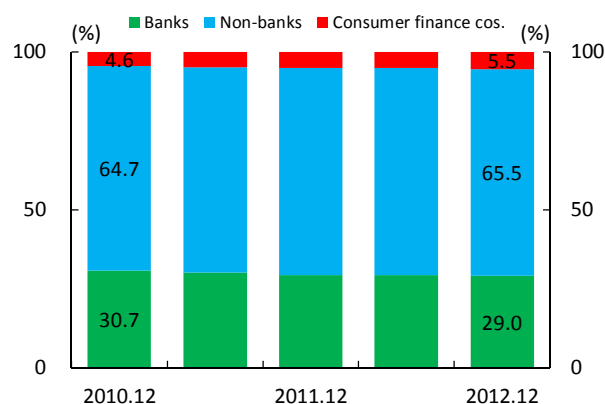
Rates of household debt¹⁾ and disposable income increase, and household debt-to-disposable income ratio



Note: 1) Based on household credit
Source: The Bank of Korea

While financial institutions have strengthened their risk management recently, a credit divide is in progress as low income borrowers such as those having low credits move to non-bank financial institutions or consumer finance companies dealing in high-interest rate loans.

Weights of household loans to low credit borrowers¹⁾, by financial sector

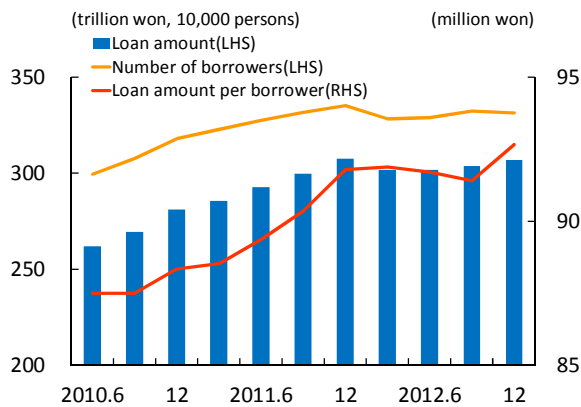


Note: 1) Grades 7 to 10 among the overall 10 credit ratings
Source: National Information & Credit Evaluation, Inc. (NICE)

In line with this, the level of quality of multiple loan borrower debt is also deteriorating. The number of multiple loan borrowers from consumer finance companies and their loan amounts are continuing to increase, and the household loan delinquency rate among these borrowers is also

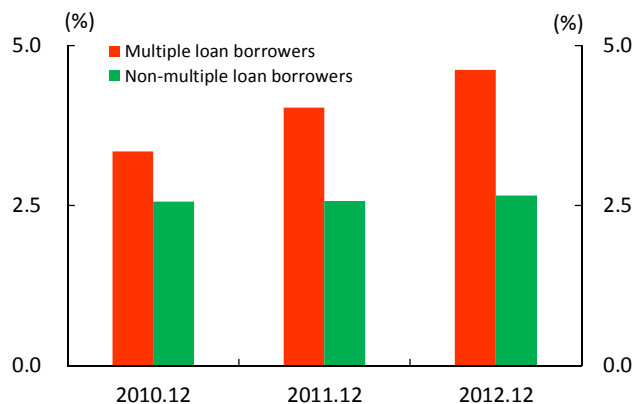
continually rising.

Multiple loan amount, number of multiple loan borrowers, and loan amount per multiple loan borrower



Source : NICE

Multiple and non-multiple loan borrowers' household loan delinquency rates

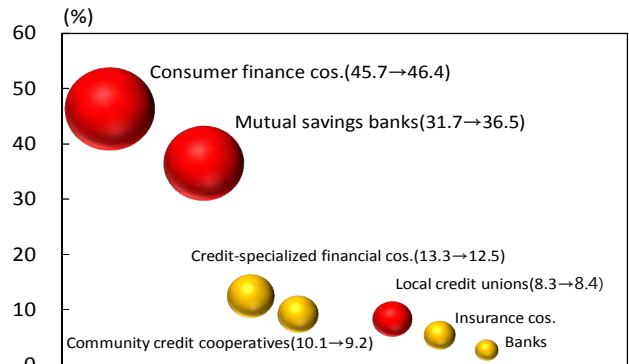


Source : NICE

In these circumstances, the share in total lending by consumer finance companies and mutual savings banks of loans extended to low credit delinquents is increasing, and default risk stemming from the credit divide is becoming concentrated in certain

areas of the financial sector.

Weights of low credit delinquent borrowers' loans in total household loan amounts of each financial sector¹⁾²⁾



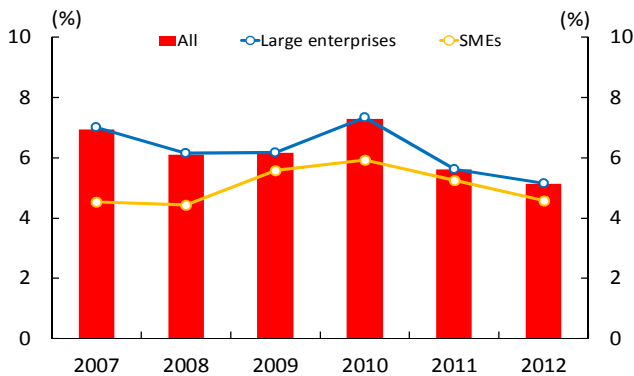
Note: 1) The red colors indicate cases in which the 2012 weights increased compared to 2011, as shown in the parentheses (end-2011 weight→end-2012 weight)

2) Low credit borrowers' (who have at least one delinquent loan in any sector) loans-to-total household loan amounts of each sector

Source: NICE

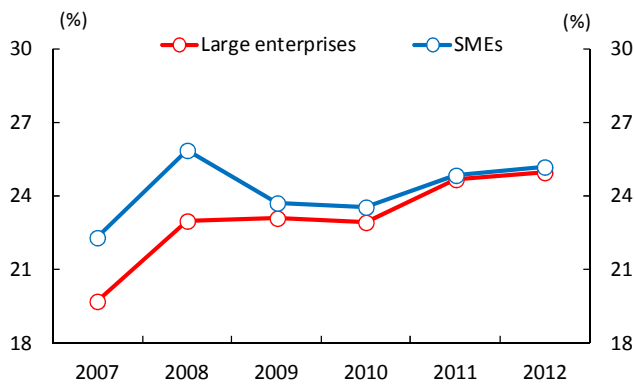
2 In the corporate sector, financial structure stability has also deteriorated, with the loan-to-asset ratios increasing amid declining profitability due for example to the delays in economic recovery at home and abroad.

Operating income-to-sales ratios, by company size



Source : KIS-Value

Loan-to-asset ratios, by company size



Source : KIS-Value

There are concerns about increases in defaults of companies in the shipbuilding, construction and shipping industries, whose business slumps are continuing. The deterioration in profitability is becoming significant among companies in the shipbuilding and construction industries, a considerable number of whose

operating incomes declined substantially or reversed into deficit in 2012. The financial soundness of shipping industry companies is being greatly threatened, given their reporting of two consecutive years of red ink.

Operating income-to-sales ratios¹⁾ of shipbuilding, construction and shipping companies

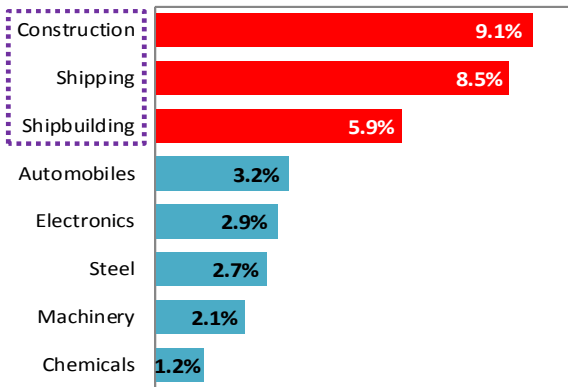


Note: 1) Operating income / Sales

Source: KIS-Value

Looking at the Expected Default Frequencies (EDF) in major industries as well, with the construction industry at 9.1%, the shipping industry at 8.5% and the shipbuilding industry at 5.9%, the possibilities of default in these industries appear very high compared to those in other industries.

Expected default frequencies (EDFs)¹⁾ in main industries

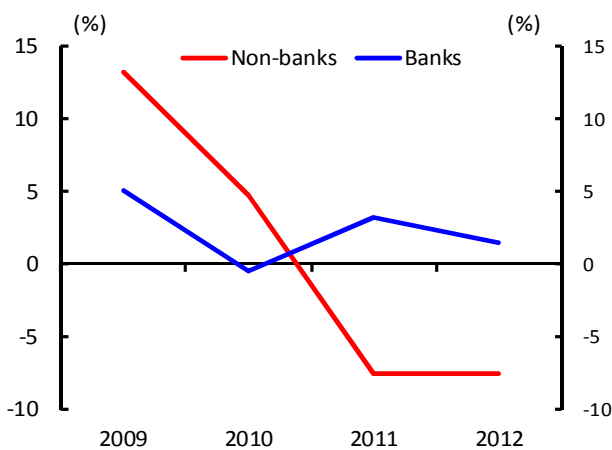


Note: 1) End-March 2013 basis

Source: KMV

The financial difficulties of small-sized enterprises are intensifying. Although banks' extensions of SME loans have been increasing recently, a large decline is being seen in SME loans by non-bank financial institutions, which smaller firms mainly use.

Rates of SME lending increase¹⁾

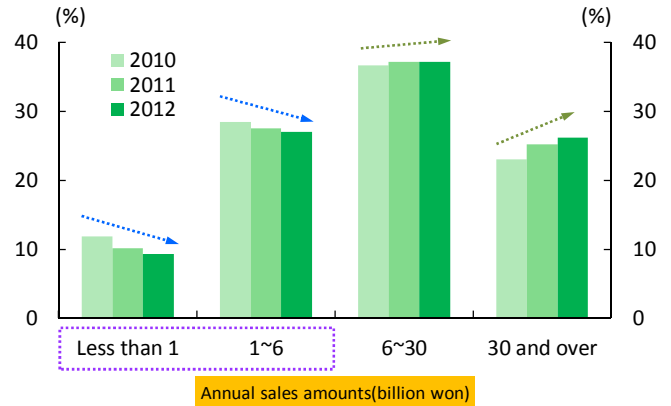


Notes: 1) Year-on-year

Source: The Bank of Korea, The Financial Supervisory Service

Further, a look at SME lending based on the company sales volumes shows the weight of the amount lent to enterprises with large sales volumes to be on the one hand increasing, while the share of loans to enterprises with small sales volume on the other hand continues to drop.

Weights¹⁾ of SME loans, by company sales amount



Notes: 1) In total financial sector SME lending

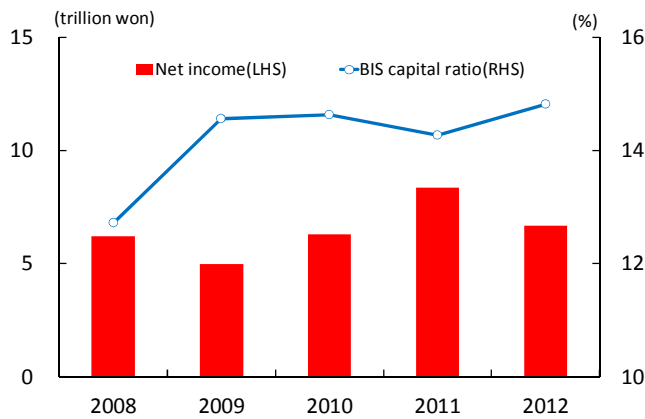
Source: NICE

[Financial System Soundness Assessment]

3 In the banking sector, profitability has worsened somewhat, due for example to the decline in the loan-to-deposit interest rate spread. Asset soundness has, however, continued at its 2011 level, thanks to

the efforts to dispose of bad assets, while capital adequacy is also maintaining a satisfactory level.

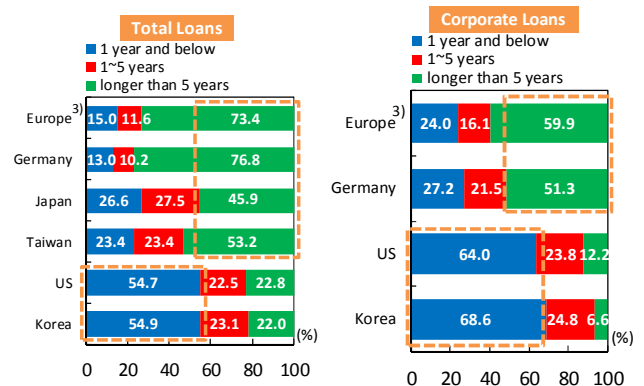
Commercial banks' net income and BIS capital ratio



Source: Commercial banks' business reports

Commercial banks' weakened financial intermediary function since the global financial crisis does not seem to be restoring. The share of banks' short-term loans in their total lending is at a very high level compared to those seen in major countries. The rate of increase in SME lending has slowed compared to the increase rate in large enterprises, and the collateral-oriented lending practice is not improving.

Loan maturity¹⁾²⁾ structures of major countries



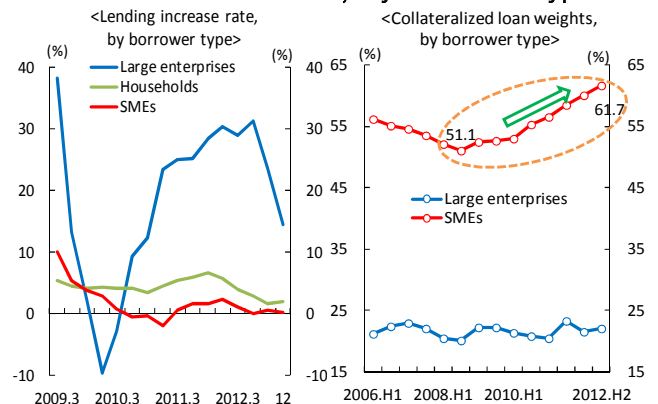
Notes: 1) End-2012 basis

2) Remaining maturity basis

3) Excluding Germany

Sources: Domestic banks' business reports; European, German and Taiwanese central banks; FDIC; four Japanese city banks

Loan increase rates¹⁾ and weights of collateralized loans²⁾, by borrower type



Notes: 1) Year-on-year

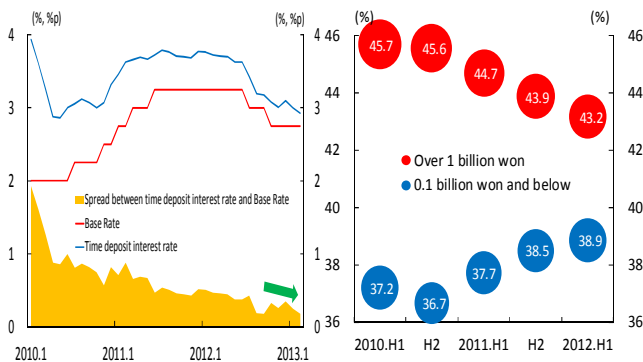
2) Including guaranteed loans

Source: Commercial banks' business reports

Amid a narrowing in the options for asset management due to the housing market slump and the rise in corporate credit risk, the spread between deposit interest rate and the

Bank of Korea Base Rate is tending to decrease owing to domestic banks' passive attitudes toward attracting deposits.

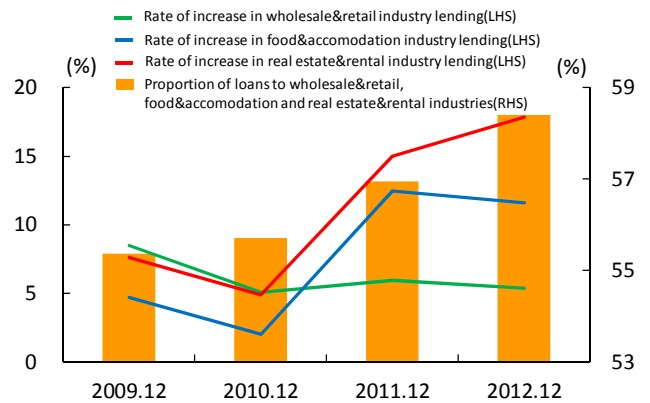
Spread between bank time deposit interest rate¹⁾ and the BOK Base Rate, and proportions of savings-type deposits by amount



Note: 1) New deposit basis
Source: The Bank of Korea

Loans to self-employed business owners, which have increased greatly since the second half of 2011, have become exposed to credit risk due to credit concentrations in some industries and collateral. Loans to the real estate & rental, wholesale & retail and food & accommodation industries, whose profitabilities are declining, account for close to 58% of total lending (as of end-2012).

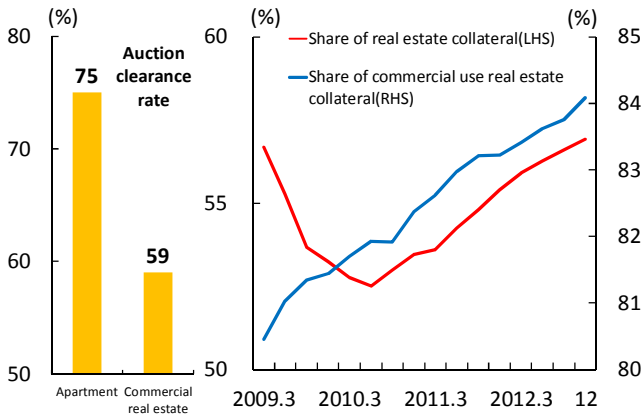
Rates of increase in and proportions of bank loans to self-employed business owners, by industry



Source: Domestic banks' business reports

In terms of collateral, among entire lending to self-employed business owners the proportion of real estate-collateralized loans amounts to 57%. Of this, the majority (84%) is based on commercial use real estate collateral such as shops with much lower auction clearance rate(59%) compared to apartments (75%), and this may cause a negative effect in debt collection.

Auction clearance rates and shares of self-employed business owner loan collateral types



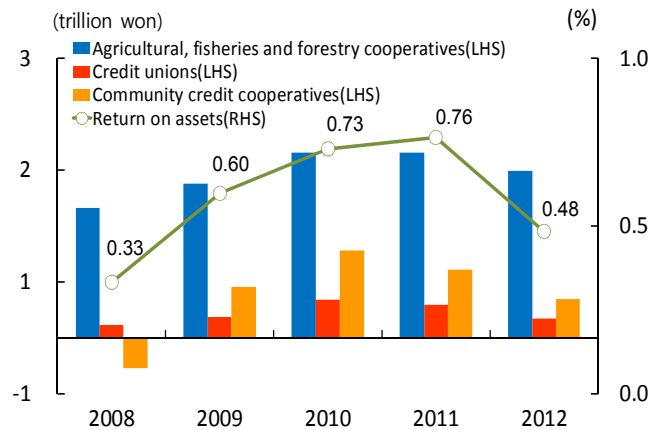
Source: Domestic banks' business reports

4 Financial soundness is deteriorating in some parts of the non-bank financial sector, amid poor business performances in the sector as a whole.

Even though their funding conditions improved in H2 2012, mutual credit cooperatives' profitability and asset soundness deteriorated in line for example with the limitations on asset management and the increase in borrower credit risk. Given the increase in default risk due to the delay in economic recovery, the possibility exists of financial soundness worsening further at some

cooperatives with insufficient loss absorption capacities.

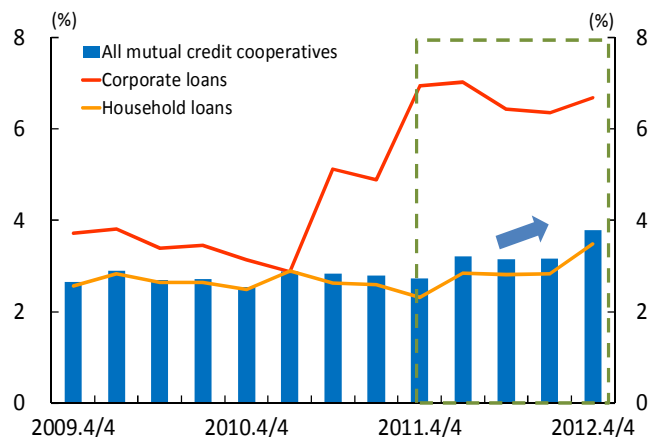
Mutual credit cooperatives' net income and ROA¹⁾



Note: 1) Net income / Total assets

Sources : Financial companies' business reports, the respective federations

Mutual credit cooperatives' precautionary loan ratios

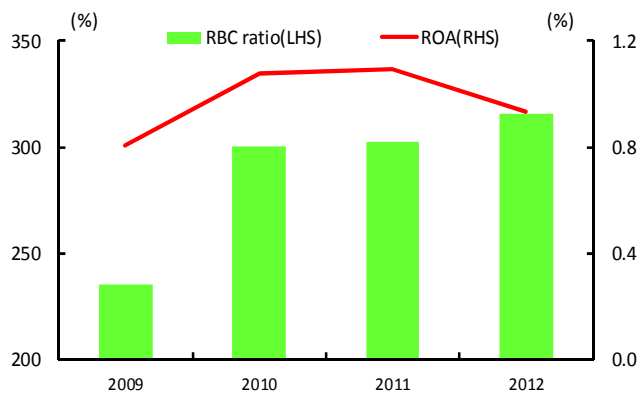


Sources : Financial companies' business reports, the respective federations

Insurance companies have shown high rates of growth in asset size, but the profitability has deteriorated as their interest margins have

contracted due to difficulties on the asset management stemming from the low interest rates. Their capital adequacy is maintaining generally satisfactory levels, however.

Insurance companies' ROA¹⁾ and RBC ratio²⁾

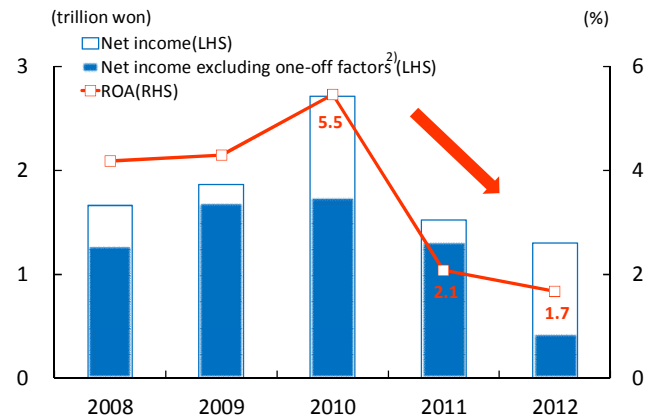


Notes: 1) Net income / Total assets
2) Total available capital / RBC-required capital
Source: Financial companies' business reports

The growth and profitability of credit card companies is declining, influenced by the delay in economic recovery, by the authorities' strengthening of regulations, and so on. The default rate on card loans has been rising recently, in concert with the economic slump. The proportion of long-term delinquencies in total overdue card loans has risen significantly, from 11.8% as of year-end 2011 to 20.8% at

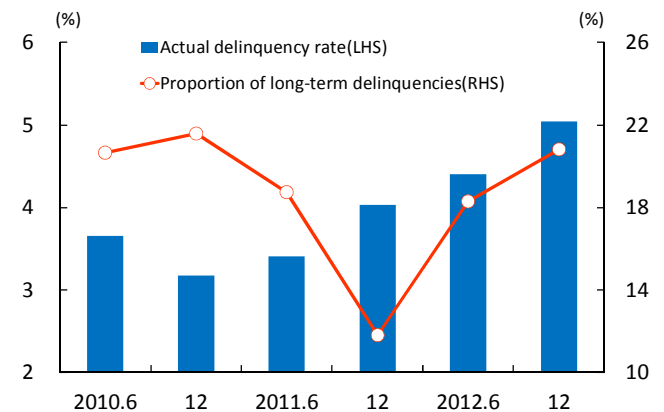
end-2012.

Credit card companies' net income and ROA¹⁾



Notes: 1) Net income / Total assets
2) Gains on sales of stock, corporate tax refunds, etc.
Source: Financial companies' business reports

Card loan actual delinquency rate¹⁾ and proportion of long-term delinquencies²⁾

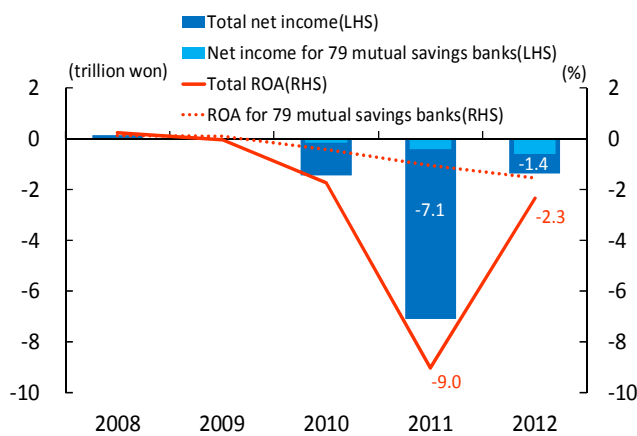


Notes: 1) Before sales and write-offs
2) Amount delinquent 6 month or longer / Amount delinquent 1 month or longer
Source: Financial companies' business reports

Mutual savings banks recorded a net loss in 2012, continuing on from 2011, as their lending and deposit-taking activities contracted

with their ongoing restructuring and the weakening of their bases for operation. Moreover, the unsecured household loan delinquency rate and ratio of substandard-and-below loan are increasing.

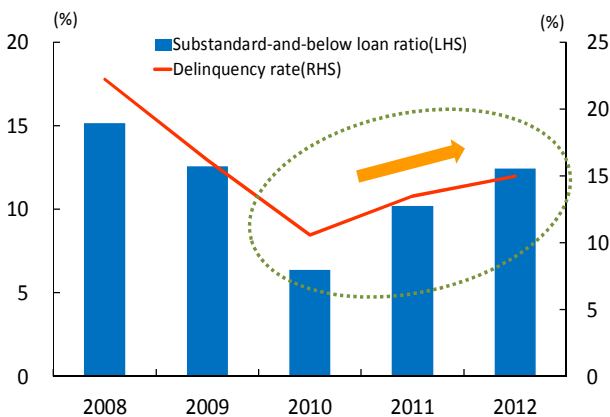
Mutual savings banks' net income and ROA¹⁾



Note: 1) Net income / Total assets

Source: Financial companies' business reports

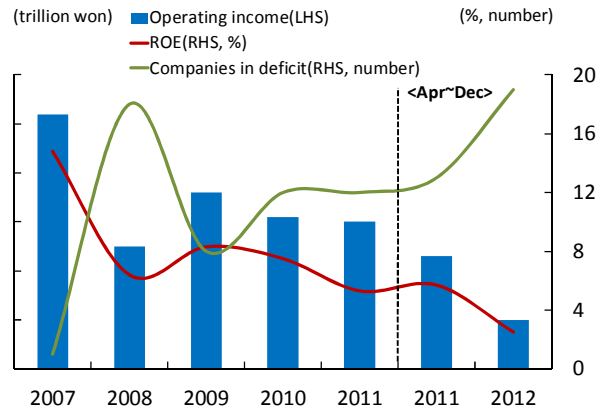
Mutual savings banks' unsecured household loan delinquency rate and substandard-and-below loan ratio



Source: Financial companies' business reports

Securities company profitability is worsening, in line with the deepening of fee competition since the global financial crisis, the increase in online stock trading, and so on. Notably, with profitability having declined markedly since 2012, reductions in branch office numbers, sales/liquidations of small and medium-sized companies, and so on are being carried out.

Securities companies' profitability¹⁾



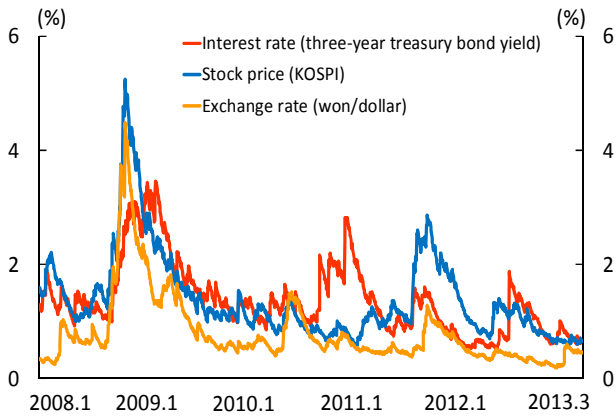
Note: 1) Fiscal year basis; figures for 2011 and 2012

April to September basis

Sources: Financial companies' business reports, Financial Supervisory Service

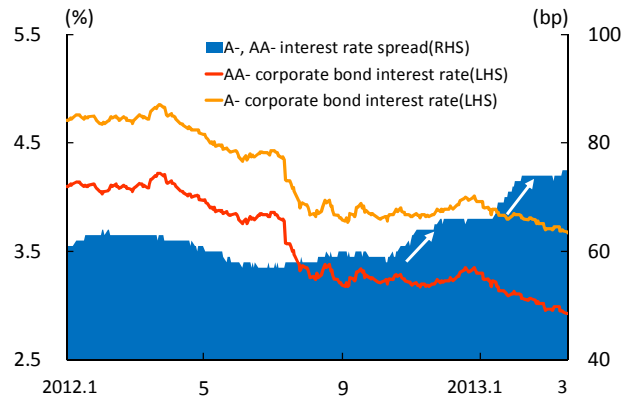
5 The domestic financial markets have shown stable movements, in line with the decreasing volatility of price variables owing to the decline in international financial market unrest since the second half of 2012.

Interest rate, stock price and FX volatility¹⁾



Note: 1) Daily volatility calculated using exponential weighted moving average (EWMA) method
Sources: The Bank of Korea

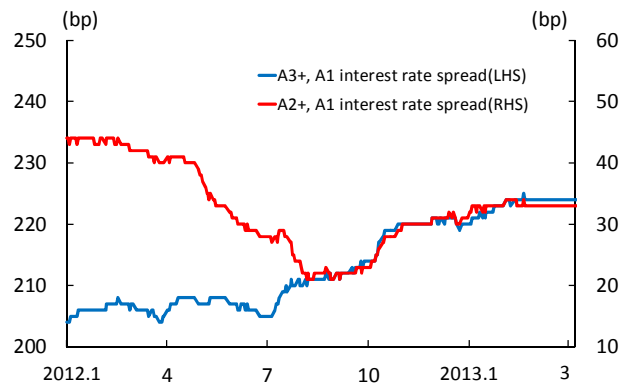
Corporate bond interest rate spreads¹⁾, by credit rating



Note: 1) 3-year bond basis
Sources: Korea Financial Investment Association, Bloomberg

Since the application for corporate rehabilitation proceedings by Woongjin Holdings in September 2012, the phenomenon of credit differentiation in the corporate bond and CP markets has been intensifying, while funding conditions for less-than-blue-chip companies have deteriorated.

CP interest spreads, by credit rating¹⁾

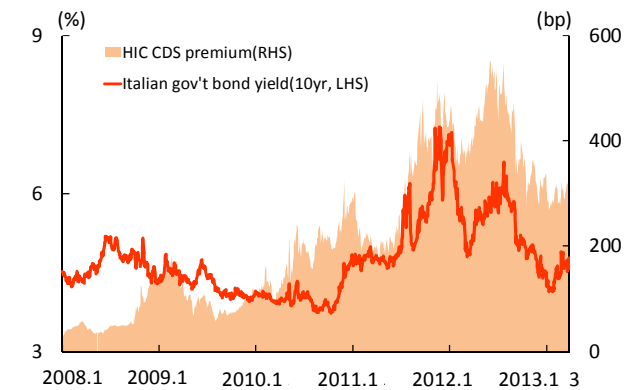


Note: 1) 3-year bond basis
Source: Korea Financial Investment Association, Bloomberg

With the financial unrest in Cyprus, the implementation of large scale quantitative easing by Japan, the North Korea-related geopolitical risks and so on, partial signs of unrest in the domestic and foreign financial markets have been appearing

recently. Reflecting this, the Korean CDS premium has been rising, and stock prices have been showing a downward trend.

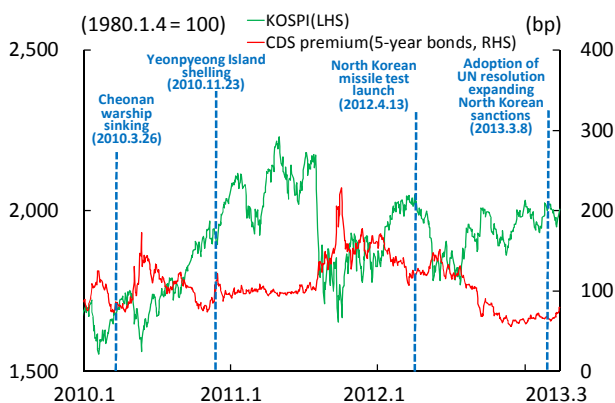
Highly-indebted countries' CDS premium¹⁾ and Italian government bond yield



Note: 1) Average CDS premium on Spanish and Italian government bonds (10-yr)

Source: Bloomberg

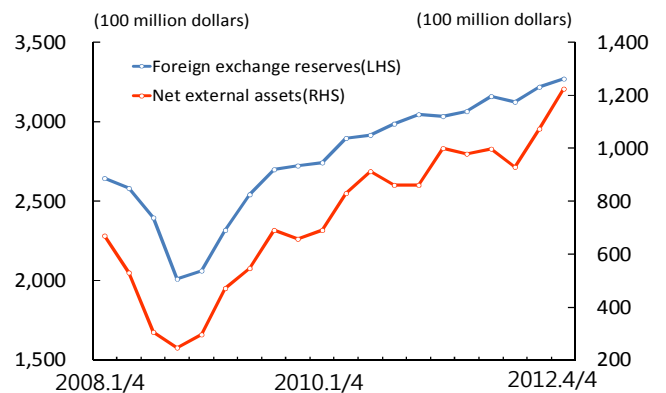
Korean CDS premium and stock price



Sources: Korea Financial Investment Association, Bloomberg

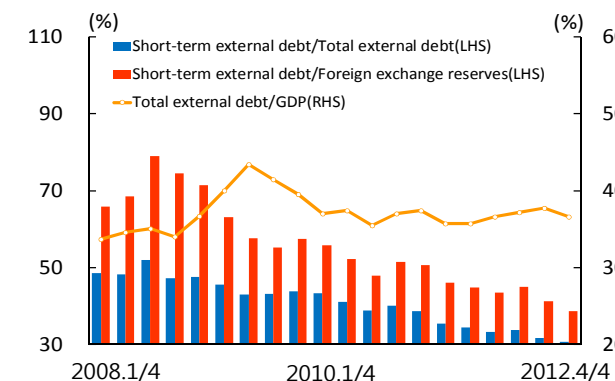
6 Foreign exchange soundness is sustaining its favorable conditions, with increases in foreign reserve holdings and net external assets and a rise in the external debt repayment capacity as well, on top of the improved external conditions with the easing of international financial market unrest and the upgrade of Korea's sovereign credit rating.

Foreign exchange reserves and net external assets



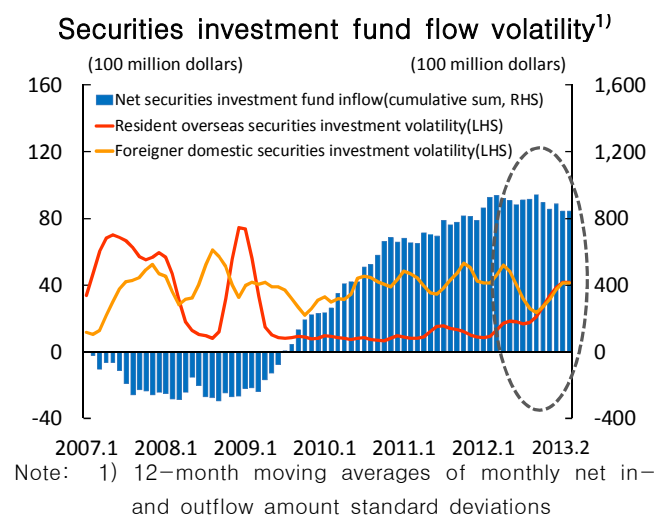
Source: The Bank of Korea

External debt repayment capacity and liquidity indicators



Source: The Bank of Korea

The expanded global liquidity supplied through the quantitative easing by major countries can react sensitively to a possibility of changes in major country monetary policy stances, and it is possible that the volatility of foreign investor funds will increase.



Source: The Bank of Korea

[Policy Response Efforts and Future Challenges]

7 The Bank of Korea has been devoting substantial policy efforts to maintaining financial system stability by improving the macroprudential soundness conditions. The BOK has closely monitored changes in domestic and overseas financial and foreign exchange market conditions, and to deal with the occurrence of market–destabilizing factors such as North Korea–related geopolitical risk, the BOK has tried to ease financial market unrest by putting an emergency response system into immediate operation involving for example a Monetary Response Measures Team.

To expand financial inclusion for the vulnerable classes, the BOK established a new “Special Support Ceiling for Small Business Owners” through increasing its Aggregate Credit Ceiling Loan by 1.5 trillion won in October 2012. Based

on this, it launched small business owner conversion loans on November 12, 2012. On March 29, 2013, to ensure that financial institutions' supply of conversion loans can be expanded to respond the launch of the People's Happiness Fund, it then temporarily extended the range of small business owners covered.³⁾

In April 2013, the BOK reorganized the Aggregate Credit Ceiling Loan system with an emphasis on enhancement of the potential growth and expansion of employment creation capacity through the cultivation of “creative SMEs” in the early stages of their establishment.

First, to support enterprises possessing exceptional technology and in operation for seven years or less, the Aggregate Credit Ceiling Loan was increased (9 → 12 trillion won) by new establishment of the Technology-based Startup Support Ceiling (3 trillion won). Along with

this, in consideration of the great difficulties of exporting SMEs owing to the recent weakening of the Japanese yen, the existing trade finance ceiling was raised (0.75 → 1.5 trillion won), and to ease SMEs' financing costs the interest rate on Aggregate Credit Ceiling Loan was cut from an annual 1.25% to 0.5~1.25% per year.

The Bank of Korea has made efforts to closely examine and analyze systemic risk factors in the financial sector, for example through joint examinations, and has worked to reflect the results in its policies. Between July 2012 and March 2013, it conducted periodic comprehensive examinations, jointly with the Financial Supervisory Service, of six banks including Kookmin Bank, Shinhan Bank and the Industrial Bank of Korea. Together with this, it conducted periodic comprehensive examinations of Shinhan Investment

3) The range of small business owners eligible for Bank of Korea Aggregate Credit Loan ceiling support was changed from those with annual incomes of 45 million won and below and credit ratings from 6 to 10 previously, to all those in that income group regardless of credit rating – temporarily for six months (from April 1 to September 30, 2013).

Co. and Korea Investment Co., to check their settlement risk management statuses and compliance with funds transfer regulations.

In December 2012 the Bank of Korea and the government improved the system for reporting of securities investment fund flows of foreigners, by for example having foreign exchange banks separate and report these fund flows in accordance with the investment products concerned – stocks, bonds, derivatives, etc. In situations of occurrence of external uncertainties, large amounts of Treasury bonds reaching maturity, and so on, this is expected to be usefully applied to analyze the movements of standby funds and their influences on the financial and foreign exchange markets.

Heightening of foreign exchange soundness was promoted by flexibly operating the macroprudential policy measures for the foreign exchange sector.

In response to the possibility of expanding volatility of foreign capital flows following the additional quantitative easing by advanced countries, the ceilings on forward FX positions of foreign exchange banks were tightened⁴⁾ in December 2012. In January 2013, the “Korea–China Currency Swap Fund Trade Settlement Support System”⁵⁾ was introduced, to alleviate constraints in the process of trade settlement between firms of the two countries due to the settlement currencies by ensuring that the two countries’ central banks can provide support with funds from their won/yuan currency swaps.

4) The ceilings on banks’ forward FX positions were tightened from December 1, 2012 – from 40% to 30% of capital in the cases of domestic banks and from 200% to 150% for the branches of foreign banks.

5) The transactions subject to Bank of Korea yuan currency swap fund support are transactions for Chinese yuan currency import settlement in which domestic banks provide domestic importers fixed-term loans, or transactions in which domestic banks provide yuan currency export payments to domestic exporters in advance. The support interest rate applied is the Shanghai Interbank Offered Rate (SHIBOR), and the period of support is either three or six months. In addition, to boost system use convenience, domestic banks are accepting applications for yuan currency support at any time, and early repayment of the support funds is also permitted in accordance with domestic firms’ actual trade settlement periods.

The BOK's efforts to boost the safety and efficiency of the payment and settlement systems were also sustained. Support was given to the related institutions to ensure that the Principles for Financial Market Infrastructures (PFMIs)⁶⁾ issued in April 2012 were smoothly implemented in Korea. In October 2012 a financial microSD standard was enacted, to heighten mobile financial service stability and improve users' convenience.

8 The domestic and overseas financial markets have been stable, in line with the easing of external uncertainties and upgrades of Korea's sovereign credit rating since the second half of 2012, and foreign exchange soundness is sustaining a satisfactory picture as well. Amid the delay in the domestic economic recovery, however, there is

a likelihood of household and corporate financial soundness worsening due to external factors such as the trend of Japanese yen weakening. There is also scope for financial stability to be impeded — due to the possibility of expansion in capital flow volatility following any changes in monetary policy stances of major advanced countries, to economic actors' pursuit of high returns owing to the low interest rates, and so on. Policy efforts will thus have to be strengthened going forward as well, as follows:

9 To secure financial system stability, the Bank of Korea will operate its monetary and macroprudential policies harmoniously.

First of all, while ensuring that consumer price inflation is maintained within the inflation target over a medium-term horizon, the

6) Following the raising as issues since the global financial crisis of expansion of the over-the-counter derivatives market infrastructure and the need for modification of international standards related to the operation of financial market infrastructures, the BIS Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) established and announced consolidation of the three existing sets of international standards related to the payment and settlement systems.

Bank will conduct its monetary policy with an emphasis on supporting recovery of the Korean economy's growth. In addition, to prepare against the possibility of any expansion in volatility of foreigners' portfolio investment fund flows, the BOK will operate its macroprudential policy measures in the foreign exchange sector flexibly, in consultation with the government and the supervisory authorities as necessary. The government will meanwhile also have to sustain its efforts to establish the fiscal discipline to secure mid-term fiscal soundness.

10 Efforts to prevent the household debt problem from changing into a systemic risk must be strengthened.

While on the one hand continuing to push ahead with inducement of a lengthening of home mortgage loan

maturities⁷⁾, to gradually stabilize the household debt-to-income ratio, there is a need to push on as well with such things as the expansion of employment opportunities through cultivation of promising future industries, restoration of the balance between corporate and household incomes, etc. Housing market stabilization must be promoted by focusing on the revitalization of housing transactions and, through this, the easing of expectations of housing price decline.

11 With regard to the construction, shipbuilding and shipping industries, which are experiencing difficulties due to overinvestment, business slumps, etc., it is necessary to thoroughly investigate the survival capacities of these industries on the criteria of their growth. Based on this, decisive restructuring of firms

7) It is necessary to push ahead according to plan on increasing the conversion of existing home mortgage loans into Korea Housing Finance Corporation securitization conforming loans, and on the introduction of a covered bond system.

deficient in growth and insolvent should then be carried out, so that any spread of financial market anxieties related to credit risks of companies in these industries can be controlled in advance. In addition, with regard to firms in other industries as well, restructuring must be continuously carried out in accordance with their earnings structures, growth, and so on.

12 Given the limits on SME access to the corporate bond and CP markets, the situation of almost complete SME reliance on financial institution loans for their funding continues. In line with this, the possibility is high of SME financial difficulties intensifying sharply in any case of occurrence of credit crunch due to domestic or external shocks. There is a need to normalize the CP market, which was used as a valuable source for funding by SMEs in the past, and to increase the accessibility to SMEs of the

corporate bond market as well. To this end the financial infrastructure must be developed, through for example improvement of the credit rating capacities of the credit rating agencies and boosting of SMEs' accounting transparency. There is a need in addition to consider measures supporting corporate bond and CP issuance by firms suffering financial difficulties owing to the deepening of credit differentiation, for example through revitalization of the primary–CBO system in the short term.

13 Banks' loss absorption capacities must be strengthened, in preparation against the possibilities of household and corporate loan defaults. For this purpose asset soundness will have to be maintained at satisfactory levels through the sales and write–offs of bad loans, and provision coverage ratios will also have to be maintained at sufficient levels.

14 Financial institutions must devote efforts to strengthening their abilities to evaluate companies' and households' credit, and to ensuring that funds can be supplied to borrowers with low to medium-level credit ratings as well, within the ranges of their repayment capacities.

Long-term corporate funding stability, and through this an expansion in facilities investment, will also have to be supported, by expanding the financial intermediary function through the lengthening of loan maturities and so on. In addition, to ensure that the regional concentration of financial intermediation can be eased, measures need to be taken for the financial institutions domiciled in the local areas to search for actively local sources of revenue.

15 In line with the low interest rates, market funds are moving to the relatively high yield products offered by non-bank financial institutions.

Should these funds become concentrated in high risk-high return assets they could act as a factor causing systemic risk going forward, and the monitoring of non-bank financial institutions including shadow banking must therefore be strengthened. There is a need as well to reinforce examination related to the possibility of defaults on assets of mutual credit cooperatives, credit card companies, etc., whose management soundnesses have recently been deteriorating.

16 Support policies for the vulnerable groups must be reinforced, for example by the expansion of financial inclusion. For the vulnerable groups, for whom normal economic activities are difficult due to their lack of household debt servicing capacities, there is a need to push ahead with interest payment burden reductions and maturity extensions, debt payment rescheduling, etc. Related to this, efficient operation of

the People's Happiness Fund launched on March 29, 2013 will have to be promoted. Especially, to ensure that debtors' moral hazard can be minimized, rigorous follow-up management measures must be achieved such as the imposition of penalties for unqualified borrowers' benefits.

Policy efforts will have to be pushed ahead with as soon as possible to strengthen the support system that can deal with the decline in financial soundness of small self-employed business owners. With the retirement

of the Baby Boom generation the establishment of self-employed businesses is increasing, competition in the business will deepen even more, and due to this there is a possibility of bankruptcies and business closures occurring en masse. In connection with this, there are many difficulties in accurate analysis of self-employed business operators, through statistics about bank loan to them or household

finance surveys. To ensure that small self-employed business owners' statuses can be effectively grasped, efforts for expanding the related statistics will thus first need to be strengthened.