

Financial Stability Report

April 2005



THE BANK OF KOREA

The Bank of Korea publishes 'Financial Stability Report' to encourage lively discussion among market participants on financial stability by providing comprehensive analysis and assessment of the current state of the domestic financial system and potential risk factors therein.

Since its initial release in April 2003, four issues of this report have been published in Korean. The current issue is the first one published in both Korean and English.

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I . Overview

1 The global economy has continued to expand, and the Korean economy is finally showing some indication of recovery from the protracted downturn of domestic demand.

With inflationary pressures gradually building up in the US as a result of soaring oil prices and other factors, the growth of the US economy may slow down if the Federal Reserve starts to accelerate the pace of its ratcheting up of the policy rate. The Chinese economy has been cooling down, but the pressure on the Chinese authorities to revalue the yuan is increasing. The economies of Japan and the euro-area are experiencing temporary weakness on their recovery paths.

In the international financial markets, the US dollar started 2005 slightly stronger, after having shown significant weakness in 2004; stock prices in major economies are rising; and long-term interest rates remain stable. The yield spread on corporate bonds has remained narrow as investors persisted in what is termed a 'search for yields' in the low interest rate environment, and financial institutions in major economies are reporting stronger profits and heightened soundness.

Even though the real GDP growth rate itself went up in 2004, the perceived strength of economic recovery still remained feeble. In 2005, however, domestic demand is showing signs of a modest recovery from its prolonged stagnation, with indicators such as the consumer confidence index rebounding.

Inflation remains subdued despite the run-up in oil prices and other factors, partly due

to the strength of the Korean won, and the current account continues to register a surplus.

2 Households' debt servicing capacity is showing signs of gradual improvement, suggesting that the current obstacles to a revival of private consumption in the form of the excessive overhang of household debt may be beginning to dissolve, but the weakening of the credit of vulnerable groups has persisted.

Households' financial liabilities has been rising at an annual rate of around 5% since 2003, representing a sharp decrease compared with their upward pace until 2002. In 2004, the personal savings ratio rose, and the ratio of interest payments to disposable income fell, which, put together, may indicate a partial improvement in households' debt servicing capacity. Even though the process of household debt restructuring is still underway, the forecast is that debt should weigh less and less heavily on consumer spending.

After peaking in April 2004, the number of "credit delinquents" has shifted to a mild downward trend, largely thanks to government initiatives to support them and help them rebuild their credit standing. However the weakening of the debt servicing capacity of low income families has been protracted by stubbornly high unemployment and the stagnation of the real incomes of low-income households.

3 The debt servicing capacity of the corporate sector improved, though corporate earnings have been showing signs of a slight decline from the second half of 2004 arising from the higher prices for raw materials and the appreciation of the Korean won against the US dollar.

With the improvements in profitability, financial soundness, and liquidity of companies listed on the Korea Stock Exchange and KOSDAQ and the fall in the number of companies categorized as high risk, the corporate sector as a whole is now evaluated to have improved its capacities to repay debt and cope with external shocks. Nevertheless, the rise in raw material prices and the strengthening of the Korean won have slightly dented corporate profits since the second half of 2004, and the possibility of a hike in interest rates means that additional reductions in financial expenses are unlikely, which in turn may have adverse effects on businesses' future debt servicing capacity.

4 Residential property prices have been stable since November 2003 despite increases in prices of apartments in some areas whereas land prices continue to rise.

Maintaining stability in the housing market naturally entails limiting the volatility in prices. Even more important in this regard is the question of whether there is a gap between the current housing prices and the fundamental market value of the assets and, if so, how big the gap is. The phase of stabilization of the housing market since the end of 2003 has not been significant enough in terms of its duration and amplitude compared with the phase of upswing in 2001-2003. The real prices of apartments in specific areas of Seoul such as Gangnam, furthermore, are still well above the peak of the long-term time series trend. In addition, the relatively high expected rate of return on residential real estate means that inflows of investment funds may well be renewed at any time which, taken together with the factors mentioned above, means that it would be overly hasty to conclude that an adequate level of stabilization had already been achieved.

Unlike housing prices, land prices maintained an upswing edging up again slightly in

2004. Further increases in land prices could bring about another run-up in housing prices, which might in turn increase the volatility of the real estate market as a whole.

5 In the lending market, corporate and household lending rose at a slower rate while the loan interest rates remained downwardly stable in 2004, before shifting to a pattern of mild increases in early 2005, with the increases most pronounced in the case of bank loans.

Lending by financial institutions, that of banks in particular, is rising at a slower pace, but it does not seem that there would be any major difficulties for them to meet the heavier future demand for funds arising from the economic recovery. Not only will financial institutions' ability to supply funds improve, but rising competition in the domestic banking industry is also causing banks to ease lending standards. There is some concern that the large volume of corporate and household debt falling due in 2005 could destabilise the lending market, but financial institutions should be able to roll over much of the debt seamlessly because the ratio of maturing loans to total loans denominated in Korean won remains stable, and banks seem to have already achieved substantial progress in restructuring their loan portfolios.

The insolvency and subsequent restructuring of the credit card companies in 2003 led to a credit crunch for households with low-income households worst affected. Business performances, however, have recently been improving in part for the credit card issuers as delinquency rates have been falling since the second half of 2004, and losses have been narrowing, raising hopes that a greater supply of funds will be gradually made available to households through the credit card sector.

6 The bond market experienced high volatility and temporary instability in the

beginning of 2005 with bond yields excessively declining toward the end of 2004, especially for long-term bonds, before rebounding sharply in 2005.

The high volatility in bond yields was a result of market-expectations of further rate cuts that caused investors to purchase a huge volume of long-term bonds in the weeks up until the end of 2004 and to reduce their bond positions substantially in early 2005 amid prospects of the increased supply of long-term bonds and economic recovery. The bond yield curve had become unusually flat in late 2004 , but has since begun to steepen again.

The low interest rates have been increasingly conducive to the issuance of corporate bonds, but the interest rate spread between Korea Treasury bonds and BBB grade corporate bonds is still wider than it was before the SK Networks and credit card debacles in 2003, and it is much wider than in other countries.

 The stock market has rallied since August 2004 on robust corporate earnings and mounting expectations of economic recovery, showing improvements in its liquidity and resilience.

The stability of the stock market is improving because falling yields on bonds and other financial instruments are luring investors into stocks, and the increasing capitalization of long-term investment funds such as installment-type funds is affording institutional investors longer time horizons for investment, which in turn has caused stock prices to mark a steady but gradual advance. Unlike in the 1990s, the expected returns from stock investment since the first half of 2000 have been higher than those on Korea Treasury bonds: the risk premiums of the stock market have reverted to positive.

The price differentiation between large-cap stocks and small- and mid-cap stocks has been narrowing, and financing conditions for small and medium enterprises have improved, since the fourth quarter of 2004, as foreign investors, who typically focus on large-caps, have been reducing their positions, resulting in comparatively high rates of increase in the prices of small- and mid-cap stocks. However, foreign investors still account for a relatively high share of total market capitalisation compared to other countries and institutional investors have a lower share, possibly attenuating the wealth effect of stock price increases and rendering the stock market more unstable.

8 In the foreign exchange market, the predominance of foreign currency supply in the interplay of supply and demand has continued owing to the constant widening of the current account surplus, and as the won-dollar exchange rate declined, volatility increased to the levels of the yen-dollar and dollar-euro rates.

The share of short-term debt in domestic banks' total external debt is falling as financial institutions prefer long-term borrowings to short or medium-term borrowings, and the maturity gap between the foreign-currency denominated assets and liabilities of domestic banks continues to demonstrate a pattern of long-term fund-raising and short-term operation of funds. This pattern seems to prove that banks are placing higher priority on securing liquidity in their management of foreign currency assets and liabilities.

The trend of the strengthening of the Korean won against the US dollar seems to have faltered somewhat in April 2005 and the pace of its appreciation against the

greenback over the medium to longer term is assessed to have been nearly in lockstep with that of the yen and the euro. The heightened volatility of the won-dollar exchange rate was largely attributable to herd behavior as to market expectations on the policy stance of the foreign exchange authorities and market participants' outlook on foreign exchange movements. It may also be ascribed to the relatively small scale of the Korean foreign exchange market and the order-driven transaction system.

9 Commercial banks recorded a net profit of 6.7 trillion won in 2004, a substantial rise from a year before and saw improvements in their BIS capital adequacy ratios, with improved financial soundness in a trend that is expected to continue on well into 2005.

Banks' credit risk in corporate lending is gradually declining as corporate debt servicing capacity has improved, and banks have reduced their exposure to high-risk businesses. Credit risk in the household sector is also declining step by step as well thanks to slower growth in exposures, the decline in credit card delinquency rates, and improved risk management in relation to more fragile segments of household sector. Nevertheless, the rising delinquency rates of SMEs in early 2005 and the lack of credibility of the basic statistics, such as credit information on individuals and SMEs, could work as a factor enhancing credit risk.

Banks' profits have greatly improved with increased income from fees and commissions, higher net profits from lending business, and reduced deficits on their credit card operations. However, potential valuation losses on marketable securities and the high volatility of their earnings from deposit and lending operations may have

a negative effect on their profitability. Consolidation in the banking industry has resulted in high-level concentration, so that the performance of the new mega-sized banks has a growing impact on the stability of the financial system as a whole.

Banks' capital adequacy improved in 2004 on stronger earnings and the slower growth of risk-weighted assets with the BIS capital ratio by the end of the year having increased to 11.29%. Given the high volatility of bank profits and their lower Tier 1 capital ratios relative to advanced foreign banks, however, they should continue to work for the stability of their net profits as well as the increase of their capital base through new issues of shares and the retention of a higher share of their earnings.

10 Non-bank lenders, such as mutual savings banks, credit unions and community credit cooperatives, that target households in relatively low-income brackets are losing ground in the financial industry: their competitiveness and profitability are declining.

Mutual savings banks suffered deficits on their operations in 2004, shifting from the surpluses recorded in previous years with massive losses reported by some and continuing high delinquency rates of over 20% since 2003. Their capital adequacy did not improve as large shareholders failed to subscribe additional capital, despite the steady decline in their average BIS capital ratio since 2002.

Credit unions and community credit cooperatives are heavily dependent on deposits for funding and have a low share of investments by their members. This situation threatens to undermine the stability of their funding and to discourage the exercise of

discipline through supervision and restraint by their members, which may ultimately lead to an increased likelihood of insolvency. In addition, credit unions and community credit cooperatives entrust one-fourth of their assets to their federations for management - a practice that can disperse the risks associated with asset management of individual firms, but may also increase systemic risk because the asset management skills of the federation will affect the business performance and credibility of all member institutions.

The demise of these financial service providers would restrict access to the organised financial system for a larger proportion of the population and weaken the structure of the financial system. Therefore, supervision over these institutions must be stepped up; disclosure requirements must be strengthened; and unnecessary or discriminatory regulations removed.

11 In relation to the payment and settlement system, the Bank of Korea conducted an extensive assessment of systematically important, or core, payment and settlement systems, secured a legal framework to guarantee settlement finality, and made efforts to reduce foreign exchange settlement risk substantially, laying a foundation to ensure the safe and efficient operation of the payment and settlement system.

Under the provisions of the revised Bank of Korea Act that entered into effect on January 1, 2004, the Bank of Korea appraised six core payment and settlement systems including BOK-Wire for their safety and efficiency in terms of international standards, such as the core principles of the BIS. Drawing on the findings of the assessment, the Bank of Korea directed operators of the systems in which

shortcomings were identified to make the necessary improvements. It also formulated business continuity plans in preparation for potential system failures or disasters in relation to the operations of BOK-Wire. Furthermore, the Bank of Korea successfully urged the insertion of a provision on settlement finality into the ‘Act concerning Bankruptcy and Debtor Rehabilitation’ in accordance with recommendations from international bodies such as the BIS. Not only does this ensure the effectiveness of the payment and settlement system, even in the event of the failure of financial institutions, but it has laid a firm legal foundation for the payment and settlement systems in compliance with global standards.

In order to avoid the foreign exchange settlement risk associated with time differences between financial institutions around the world involved in foreign exchange transactions, the Bank of Korea constructed, and brought into operation on December 6, 2004, a continuous linked foreign exchange settlement system linking BOK-Wire to the payment-versus-payment system of CLS Bank which specializes in the simultaneous settlement of international foreign exchange transactions.

12 With the global economy continuing to expand and the domestic economy showing signs of recovery, Korea’s overall financial system is considered to have shown an overall improvement in view of the heightened soundness of the banking sector and the consolidation of financial market stability.

Banks exhibited great progress in terms of net profits and financial soundness with credit risk in the corporate and household sectors on the decline. However, the banking sector has become a great deal more concentrated with the enlargement of

banks' scale as a result of a series of mergers and acquisitions.

Mutual savings banks, credit unions and community credit cooperatives, however, have become less competitive due partly to the slow pace of their restructuring. Their demise would deny adequate access to credit to a larger percentage of the population and hinder the development of a multilayered financial structure, ultimately posing greater systemic risk.

The financial market is more stable than before despite the greater volatility in the bond and foreign exchange markets as the stock market has become more liquid and resilient, the bond yield curve has regained a normal profile. However, the high credit premium demanded for high-risk (BBB grade) corporate bonds is weakening the liquidity and profitability of businesses burdened with low credit ratings.

II . Changes in the environment for financial stability

1. Economic outlook at home and abroad

(Global economy generally continues to grow)

The economies of the US and China are maintaining their expansionary trend while the economic growth of the euro-area and Japan has slowed somewhat.

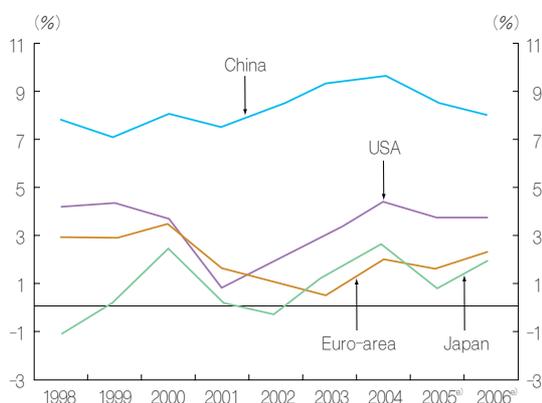
Economic activity in the US is expanding with GDP growth in the final quarter of 2004 revised upward to 3.8% from 3.1% and gains in nonfarm payrolls and housing starts registered in early 2005. However, the current growth momentum could be dampened if the Federal Reserve were to accelerate the pace of its monetary tightening in response to higher inflationary pressures created by a weak dollar, the run-up in oil prices and the slowdown of productivity growth.

After a modest increase in the first quarter, Japanese GDP growth stagnated in the remainder of 2004, raising concerns of its relapse into recession. While production and consumption indices improved slightly in 2005, it may take a while for the Japanese economy to get on the right recovery track. The euro-zone economy is softening slightly with tepid consumer spending and the flattening out of export growth.

The rapid growth of the Chinese economy is being maintained. There are signs, such as the blunting of the growth of imports, that the overheated economy has been reined in and the upward trend of prices has slackened. Nevertheless, there is still a high degree of

<Figure II -1>

Economic growth and outlook of selected economies

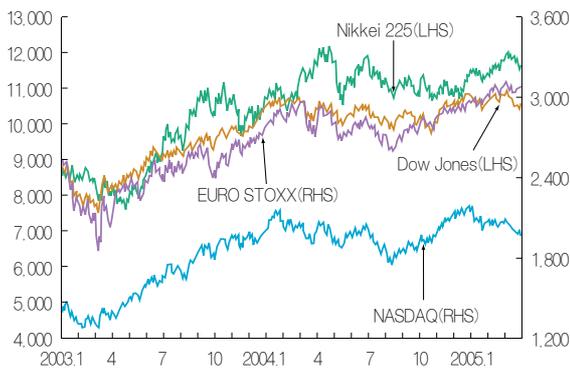


Source : IMF, World Economic Outlook (April, 2005)

concern over the possible bursting of the real estate market bubble and potentially destabilising effects of an appreciation of the yuan.

<Figure II -2>

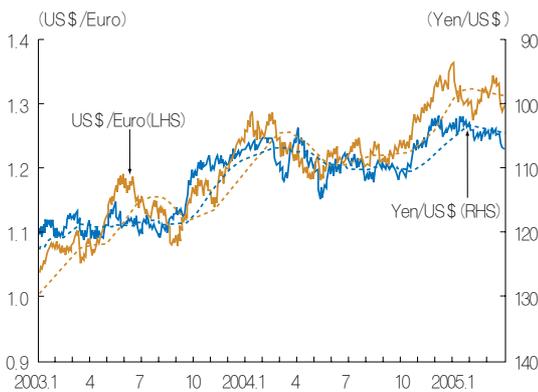
Stock price indices of selected industrial economies



Source : Bloomberg

<Figure II -3>

Selected foreign exchange rates



Notes : 1) Closing prices in the local market
 2) Dotted lines are 60-day moving average lines
 Source : Bloomberg

(Global financial markets continue stable)

Equity markets in major industrial economies have shown upward trends and long-term interest rates are generally steady with the US dollar turning slightly strong.

Apart from a brief period of correction in October 2004, stock prices in major nations have generally been moving higher¹⁾ since mid-August 2004, shrugging off the high level of oil prices and the upward adjustment of policy interest rates, notably in the US, thanks to optimism concerning the economic outlook and healthy corporate earnings.

The US dollar depreciated about 10% against the euro and the yen over the second half of 2004 as a result of the widening US fiscal and current account deficits and anticipations of the renminbi's appreciation. However, as 2005 opened, the exchange value of the dollar edged higher from its low levels recorded in the previous few months against the backdrop of a series of rate increases by the Federal Reserve and the relatively weak performance of the euro-area and Japanese economies.

Long-term market interest rates in major industrial economies have shown a somewhat exceptional

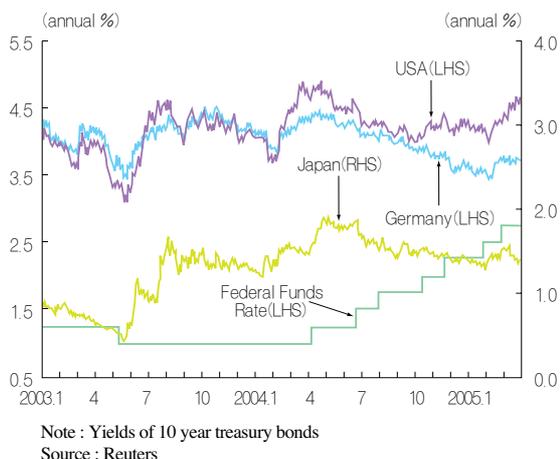
1) Increase in stock prices from their trough in August 2004 (as of April 1, 2005)

(%)			
Nikkei225	Dow Jones	EURO STOXX	NASDAQ
9.7	6.0	18.6	13.3
(2004.8.16)	(2004.8.12)	(2004.8.13)	(2004.8.12)

Note : Figures in parenthesis indicate the base-dates from which calculations are made.

<Figure II -4>

Long-term interest rates in selected industrial economies

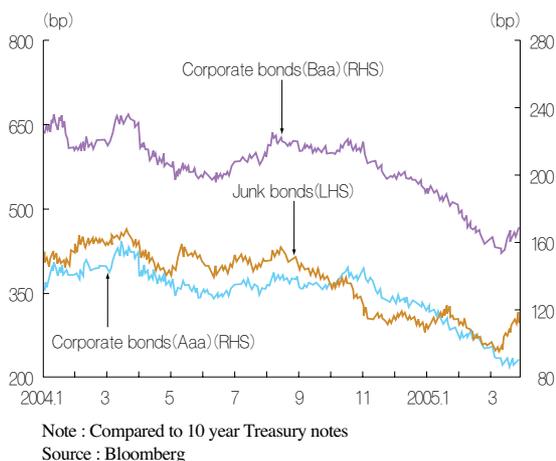


pattern, maintaining stable movements, despite the seven-step ratcheting-up of the US Federal Funds rate since June 2004. In February 2005, long-term interest rates in the major advanced economies did react by showing a shift to a mild upward trend but they have remained low²⁾, resulting in a substantial narrowing of the gap between short- and long-term interest rates³⁾.

The yield spread on corporate bonds had narrowed to their lowest since 1998 due to investors' search for yields in a low interest rate environment and to the swelling demand for high-risk paper caused by the rivalry between hedge funds for yields. They showed a corrective adjustment widening somewhat from late March 2005, with the acceleration of the upward adjustment of the US policy rate and mounting investor concerns over the corporate bonds issued by GM and certain other large firms.

<Figure II -5>

U.S. credit spreads



Financial institutions in major nations registered improvements in profitability and asset quality. The composite ROA of member banks of the Federal Deposit Insurance Corporation posted as high as 1.29%⁴⁾ in 2004 thanks to the increased lending and widened deposit-loan spreads. Japanese banks had low performance in terms of interest earnings given the sluggish demand for loans, but they shifted mildly into surplus for the first half of 2004 thanks to reduction in the non-performing loan ratio and the lightened burden

2) According to a BIS report (BIS, "BIS Quarterly Review", 2005.3), the long-term equilibrium interest rates of the US is estimated to be around 5.5%. But, current US long-term interest rates are around the 4.5% level.

3) Gap between short- and long-term interest rates in the U.S. (%p)

2002.12.31	2003.12.31	2004.12.31	2005.3.31
2.63	3.33	2.01	1.72

* Interest spread between 10-year Treasury note and 3-month Treasury bill.

4) Composite ROA for the last three years (1.38% in 2003, 1.30% in 2002) was much higher than the average of the years between 1998 and 2001 (1.18%).

of setting aside loan loss reserves. The composite ROA of euro-area banks remained at just 0.3% in 2003, squeezed by the volume of loans turning sour and high operating costs. But, large-scale commercial banks in the euro-area are deemed to have gradually improved their profitability as their restructuring efforts over the past few years start to pay off⁵⁾.

(Increasingly unstable oil and raw material prices)

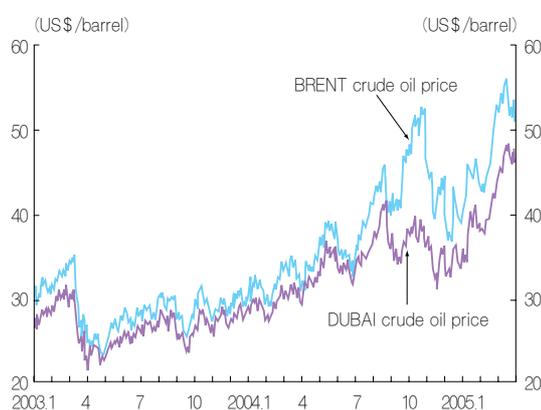
After reaching a peak at \$52.3 (Brent-crude basis) at the end of October 2004, international oil prices stabilized briefly, before rebounding early in the new year amid continued concerns over supply shortages, the severe cold wave in the Northeastern United States and heavy buying⁶⁾ of crude oil futures by speculative funds. Prices of raw materials including copper and metal ore are moving up, reflecting growing demand in China and declining inventories of nonferrous metals.

(Korean economy picks up gradually)

The Korean economy saw GDP growing at a rate of 4.6% in 2004, up from 3.1% a year earlier mainly thanks to export growth. However, the individual agents' perception of the economy was not good as the expansion of domestic economic activity was delayed amid lackluster consumer spending and construction investment. The labour market situation also deteriorated.

<Figure II -6>

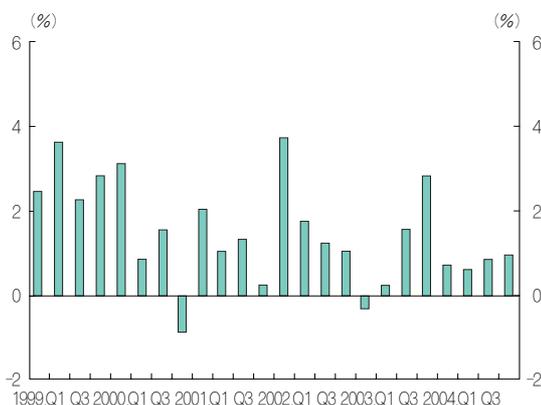
Global crude oil prices



Source : Bloomberg

<Figure II -7>

GDP growth in Korea



Note : Seasonally adjusted (real), year-on-year figures

Source : The Bank of Korea

5) According to an ECB survey (ECB, "Financial Stability Review", 2004.12), the ROE of the top 50 banks in the euro-area has risen, recording 6.1% in 2002, 6.7% in 2003 and 8.3% in the first half of 2004.

6) The relationship between the oil futures buying positions of speculative (hedge) funds and oil prices between January 2000 and December 2004 indicated a correlation coefficient of 0.72. (The Bank of Korea, "Foreign Economy Focus 2005-10 Issue", 2005.3)

Signs of recovery are, however, apparent including the shift to a gentle upturn of long depressed consumer spending in the course of the fourth quarter of 2004 and a pronounced improvement in consumer confidence⁷⁾ in early 2005. Nevertheless uncertainties remain given the sharp run-up in oil prices and the volatility of exchange rates.

Consumer price indices are generally stable. High oil prices and other cost factors are pushing up inflationary pressures, but low demand and a strong won⁸⁾ contributed to maintaining price stability. The current account accumulated a surplus of 27.6 billion won in 2004, 2.3 times that of 2003, and the underlying surplus trend was maintained on into the early months of 2005.

7) Findings of a recent Consumer Trend Analysis (The Bank of Korea)

	2002 ¹⁾	2003 ¹⁾	2004				2005
			Q1	Q2	Q3	Q4	Q1
Consumer confidence	108	96	97	91	89	87	108
Current living standard CSI	91	75	73	69	67	67	78
Living standard outlook CSI	90	85	84	80	80	77	100

Notes : 1) 4th quarter 2) Index base is 100

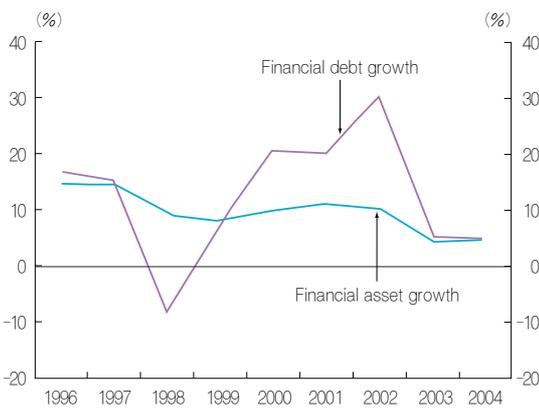
8) The appreciation of the Korean won against the US dollar is easing the inflationary pressures of higher import prices by increases in international prices for oil and other raw materials.

2. Household sector

(Growth of household financial assets and borrowings blunted)

<Figure II -8>

Household financial asset and debt growth¹⁾

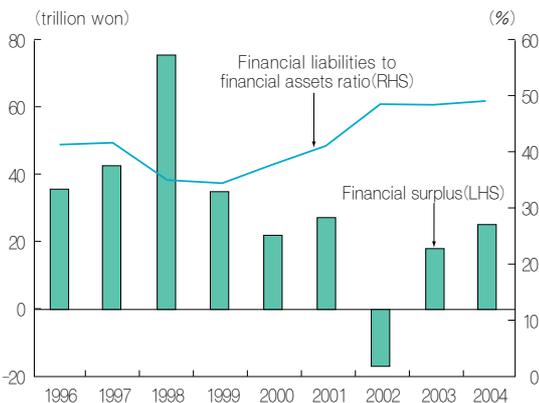


Notes : 1) Compared to the previous year end.
2) Financial assets and debts exclude non-interest earning assets and liabilities such as trade credits.

Source : The Bank of Korea

<Figure II -9>

Household financial surplus¹⁾ and financial liability ratio



Note : Financial surplus = increase in financial assets - increase in financial liabilities

Source : The Bank of Korea

The growth of households' financial debt⁹⁾ flattened out significantly after peaking in 2002 to register a 5.3% increase in 2004, as it had in 2003. This modest growth was the result of several factors: restraints on household debt imposed by the policy authorities; financial institutions' tightening of risk management; and households' debt restructuring efforts through the reining-in of consumption and real investment. The growth of households' financial assets had been greatly blunted in 2003 amid the slower growth of personal disposable incomes and a rising preference for real assets, but it staged a mild rally in 2004, spurred by an increase in the personal saving ratio.

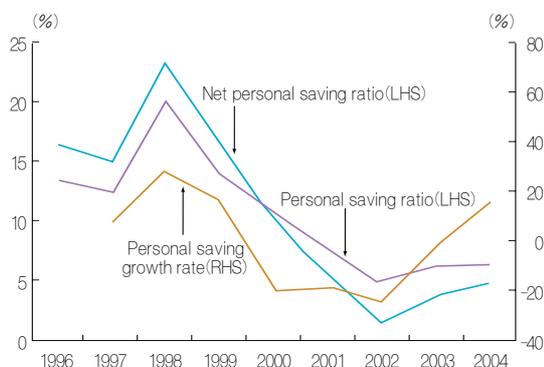
The capital gearing ratio, which measures the ratio of financial debts to financial assets, held steady, registering 48.6% in 2004 after reaching 48% in 2002. Korea's capital gearing ratio is substantially higher than the 25~30% posted by industrial nations such as the US, the UK, and Japan since financial asset accumulation levels are low due to the strong preference shown by Korean households for real assets to financial assets and household financial debts increased briskly in 2000~2002.

The financial balance of the household sector (increase in financial assets - increase in financial liabilities) shifted from deficit in 2002 into surplus in 2003 and this widened somewhat in the early months of 2004.

9) The household sector as defined in the flow of funds tables. It includes personal companies and private sector not-for-profit organizations.

<Figure II -10>

Household saving ratio and saving growth rate



Notes : 1) Personal saving ratio: personal saving/national disposable income × 100
 2) Net personal saving ratio: net personal saving/(net adjusted personal disposable income+increments in net household stake in pension funds) × 100
 3) Personal saving growth rate is two-year moving average
 Source : The Bank of Korea

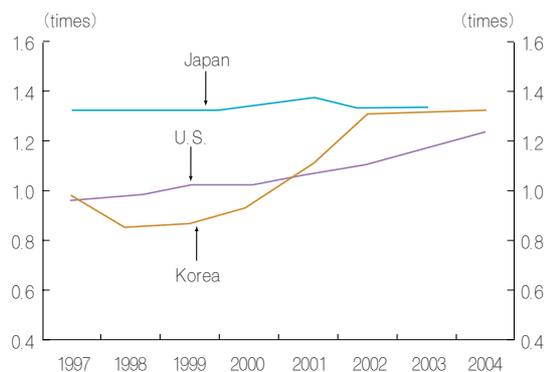
(Household debt servicing capacity picks up gradually)

The household sector’s capacity to meet repayments of debt principal and interest payments has been showing signs of a gradual increase since 2004.

The personal saving ratio (personal saving/gross national disposable income) moved up for two consecutive years to post 6.8% in 2004 after bottoming out in 2002, raising the likelihood of further improvements in the future debt servicing capacity. Nevertheless, the ratio still remains at a low level compared to its 1990’s average of 15.8%.

<Figure II -11>

Household debt/personal disposable income

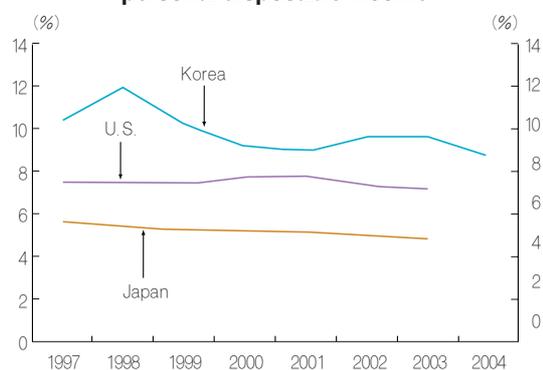


Source : Statistics of national accounts and flow of funds tables of each country

The debt to income ratio, which indicates households’ ability to service debt from disposable income, rose to 1.3 times in 2002, a sharp increase from 0.94 times in 2000, and has since remained virtually unchanged. Despite the stable debt-to-income ratio, the income gearing ratio - the ratio of debt interest payments to disposable income - a standard indicator of households’ ability to repay debt in terms of cash flow fell to 8.79% in 2004, down 0.74 percentage point from a year earlier.

<Figure II -12>

Household debt interest payments/ personal disposable income



Source : Statistics of national accounts of each country

Fundamental indicators of households’ debt servicing capacity have shown signs of a partial recovery since early 2004, with the personal saving ratio turning upward and the income gearing ratio falling. However, the income gearing ratio is still higher by 2~4 percentage point than those of the US or Japan and so is the capital gearing ratio. Therefore it will take some time before the household sector achieves the adequate improvement of its debt servicing capacity.

(Further weakening of credit standing of vulnerable households)

<Figure II -13>

Part-time employment and job search give-ups by discouraged workers



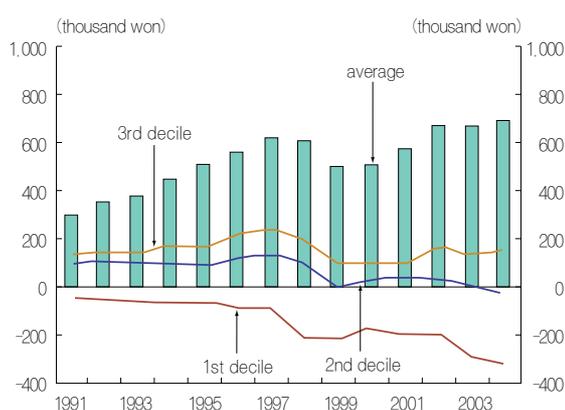
Notes : 1) Part timers are those working 1-17 hours and involuntary part timers are part timers wanting more hours of work
 2) Involuntary part timers ratio = involuntary part timers to total part timers ratio
 Source : The National Statistics Office

Households' debt servicing capacity has risen on average, but the financial position of more vulnerable households has worsened.

Despite a 1.5 percentage point rise in the GDP growth rate in 2004, the unemployment rate moved up by 0.1 of a percentage point, a sign of the weakening relationship between economic growth and hiring. Unemployment among the young rose on average, by 0.05 of a percentage point per month during the period between February 2002 and February 2005. In terms of the quality of employment, among those working less than 18 hours per week, the number wanting more hours of work has increased rapidly and the number of so called "discouraged workers" such as those who have given up searching for a job in despair has not declined since the second quarter of 2003.

<Figure II -14>

Household balance by income bracket



Note : Households of urban workers
 Source : The National Statistics Office

The broad picture of household financial balance sheets (urban workers) is one of modest surplus in 2004 thanks to the improvement in the level of economic activities, albeit limited. On the other side of the picture, the balance sheets of low-income households have worsened continually. This is particularly true for those households in the 1st and 2nd deciles (two lowest deciles), whose deficits widened or shifted from a surplus to a small deficit, as there is no scope for further cuts in spending while real incomes shrank¹⁰⁾.

10) Real income¹⁾ growth of urban worker households (year-on-year, %)

	2001	2002	2003	2004
Average	5.88	3.67	1.69	2.30
1st decile ²⁾	6.77	7.11	-9.61	-2.48
2nd decile ²⁾	4.91	4.72	3.97	-0.69
3rd decile ²⁾	4.43	5.41	5.91	0.44

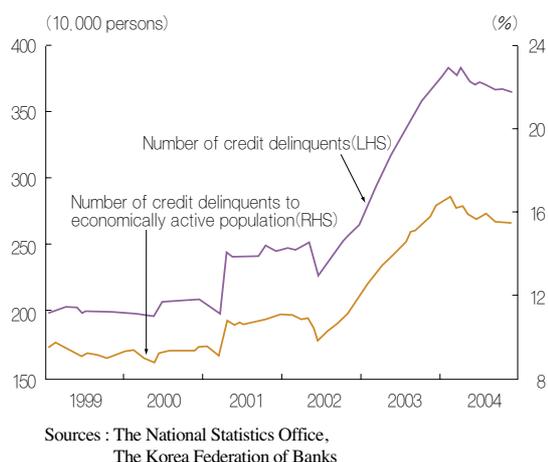
Notes : 1) Real income = monthly average of nominal income/CPI
 2) Income brackets, 1st decile = bottom 0~10%, 2nd decile = bottom 10~20%, 3rd decile = bottom 20~30%

Source : The National Statistics Office

The surpluses of the households in the third lowest decile in 2004 widened slightly from a year earlier owing to the reining in of consumption expenditures¹¹⁾ but remained smaller than they had been in 2002.

<Figure II -15>

Credit delinquents trends

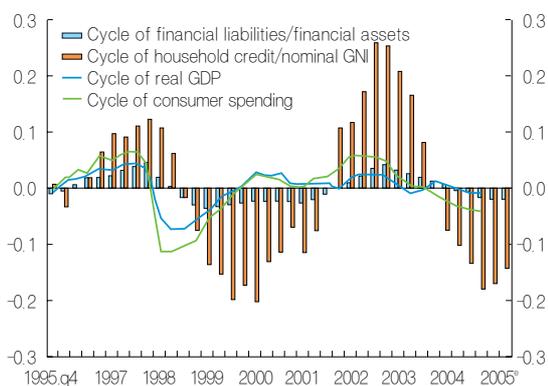


The number of people blacklisted as “credit delinquents” shifted to a downward trend after peaking in April 2004, thanks to various credit recovery programs operated by the Credit Recovery Committee, the Bad Bank and support programs for people branded as credit delinquents who had borrowed money to pay for basic living expenses. However, those listed as credit delinquents still number 3.6 million, accounting for 16% of the economically active population. Despite various support initiatives, it will be long before present and former credit delinquents can resume a normal pattern of financial transactions.

(Household debt is easing its hold on consumer spending)

<Figure II -16>

Household debt restructuring and consumer spending



Notes : 1) cycle = log variable - HP filtered trend (lamda=1600)
 2) Financial assets and liabilities are based on flow of funds tables
 3) Estimates are calculated using AR(p) with a linear trend and the lag structure has been determined by a stepwise approach
 Source : The Bank of Korea

The impact of household debt on consumer spending is two-fold in terms of the time horizon: in the short term, increased fund availability lead to more consumption; in the longer term, worsening household financial position dampens consumer spending. In 2000~2002 household debt boosted consumer spending, but since 2003 the opposite effect of the dramatic decrease in the growth of household indebtedness caused by deleveraging has been dwarfing this effect¹²⁾.

11) Real income of the 3rd decile households rose 0.4% in 2004 while their real spending fell 0.9%.

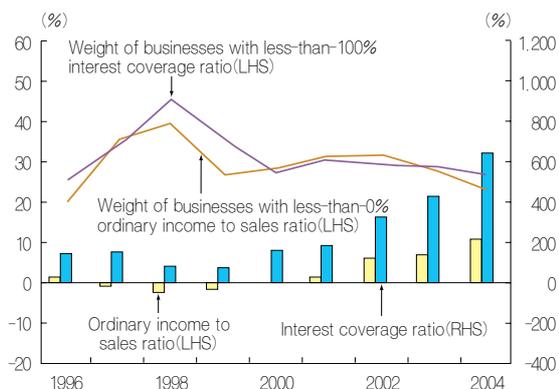
12) According to a simple regression analysis of the relationship between consumer spending and household debt, the positive impact of household debt growth has rapidly disappeared while the negative impact of the interest payment burden has persisted since 2003.

Overall, household debt restructuring is still underway, but it is expected to bottom out¹³⁾. Therefore, it is foreseen that the constraints on consumer spending imposed by the burden of household debt will ease gradually.

13) A times series analysis shows household credit/nominal GNI and financial debt/financial asset ratios (cycle or cyclical component) hit their trough in fourth quarter of 2004 and second quarter of 2005 respectively and are expected to bounce back.

<Figure II -17>

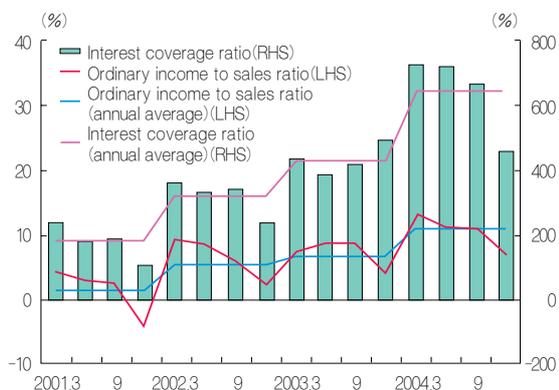
Profitability indicators



Source : The Bank of Korea

<Figure II -18>

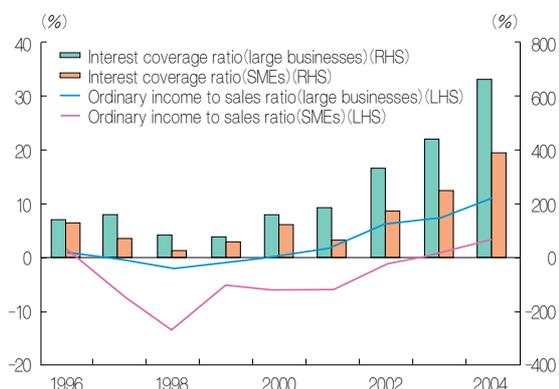
Profitability indicators by quarter



Source : The Bank of Korea

<Figure II -19>

Profitability indicators by business size



Source : The Bank of Korea

3. Business sector

(Businesses are generally more profitable)

Export growth and the reduction of financial expenses contributed to a sharp rise from the previous year in ordinary income to sales ratio of the business sector¹⁴⁾ in 2004 with overall gains in corporate profitability. The interest coverage ratio (ICR)¹⁵⁾ rose as well with advances in operating incomes and falls in debt and interest rates. Businesses that cannot cover financial expenses from operating income and interest revenue (ICR of less than 100%) as a share of the total business population fell to 26.5% from the previous year's figure of 28.7% and the proportion of businesses that recorded negative ordinary incomes narrowed to 23.3%, from 27.7% a year ago, bringing about the narrowing of the weight of the least-well performing businesses in the total business population.

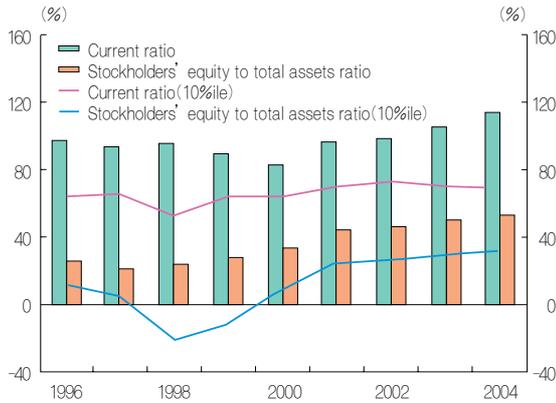
After reaching their highest levels in the first quarter of 2004, corporate profitability indicators including the ordinary income to sales ratio gradually declined in the second and third quarter of 2004, and fell dramatically in the fourth quarter of 2004. It is notable that, in contrast to the experience in 2003, robust sales growth was not translated into operating income growth in the final quarter of 2004. In the final quarter, operating

14) Businesses listed on the Korea Stock Exchange or KOSDAQ (December closing), excluding financial firms.

15) Interest coverage ratio = (operating income + interest revenue)/financial expenses. ICR is a measure that complements traditional measures: conventional interest coverage ratio indicator (operating income/financial expenses) fails to capture accurately the debt servicing capacity of the business sector as interest revenue, reaching 36.8% of financial expenses (manufacturing, 2004) is not reflected; the net interest coverage ratio indicator (operating income/(financial expenses - interest revenue)) has limitations in interpretation for businesses that record an operating loss with interest revenue greater than financial expenses.

<Figure II -20>

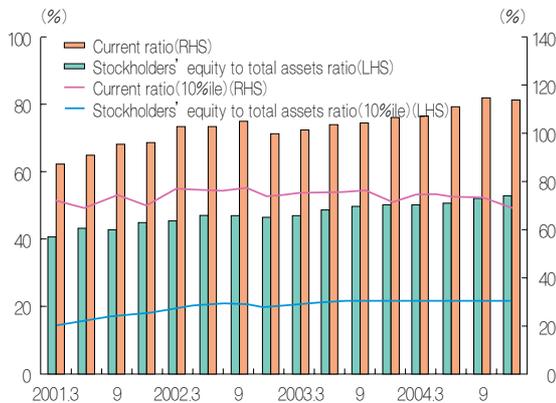
Stockholders' equity to total assets and current ratios



Source : The Bank of Korea

<Figure II -21>

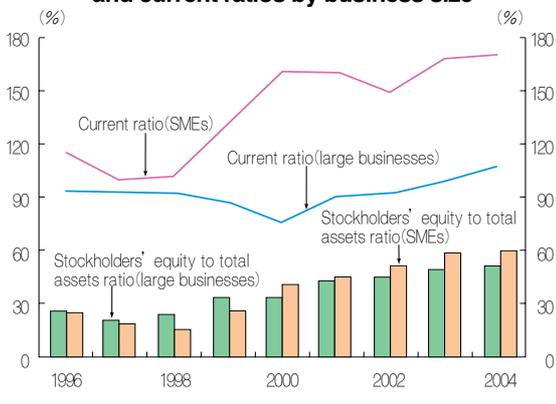
Stockholders' equity to total assets and current ratios by quarter



Source : The Bank of Korea

<Figure II -22>

Stockholders' equity to total assets and current ratios by business size



Source : The Bank of Korea

income fell by 29.4% from the previous quarter and 22.7% year-on-year. Rising raw material prices¹⁶⁾ together with a strong won and falling IT product prices led to a fall in operating incomes, showing that the worsening of firms' profitability is gradually becoming tangible.

(Favourable financial soundness and cash flow)

As of the end of 2004, the stockholders' equity to total assets ratio¹⁷⁾ rose by 2.9 percentage points from a year earlier to stand at 52.9%, owing to gains in profitability and declines in debt and investments. A stockholders' equity to total assets ratio of 52.9% is equivalent to a debt-to-equity ratio of 89.0%, lower than that of 150% in the US, Japan and other advanced nations¹⁸⁾.

Businesses in general are financially sound with slight improvement in the stockholders' equity to total assets ratio of the 10th percentile business.

The current ratio¹⁹⁾ rose by 7.7 percentage points to 112.8% and has remained stable. However, this ratio fell slightly for the 10th percentile firm in the second half of 2004 partly because of the constant tightening of risk management by lenders and the subsequent worsening of the fund-raising environment for the least-well performing firms.

Overall improvements in the financial health and liquidity of the business sector are a mixed blessing: it is good because businesses are less vulnerable; it is bad because the gains are partly attributable to lackluster

16) Korean won-based import prices rose a mere 1.8% in 2003 but by 10.2% in 2004

17) Stockholders' equity to total assets ratio = stockholders' equity / total assets)

18) The numbers for manufacturers in the US and Japan are 155%(2003) and 145% (2003), respectively.

19) Current ratio = current assets/current liabilities

corporate investment, which in turn may undermine growth potential and competitiveness.

(Reduction in firms' credit risk)

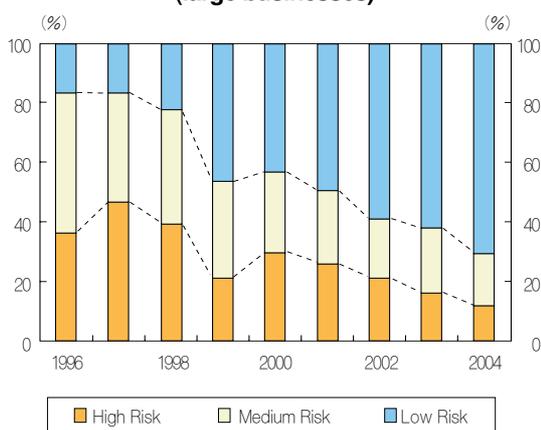
Gains in indicators of profitability and financial soundness in 2004 changed the picture of business breakdown by credit risk. The share of high-risk businesses²⁰⁾ shrank both for large businesses and small and medium enterprises (SMEs), demonstrating the effective lowering of credit risk. However, the percentage of high risk businesses among small and medium enterprises is double that among large businesses.

A transition matrix of corporate credit risk ratings in 2003-2004 shows variance in performance improvements by business size. While a high proportion of large businesses shifted from medium or high risk groups to the low risk group, many small and medium businesses remained in the high risk group over the period. This divergence has a lot to do with the expansion of exports as against the sluggishness of domestic demand exhibited in 2004. Large businesses, a big portion of whose revenues are derived from exports, did better than small and medium businesses, which are as a whole more dependent on domestic demand.

All these improvements in profitability, asset quality and liquidity combined to heighten businesses' debt servicing capacity. However, there is no shortage of negative factors. Rising raw material prices and a strong won have brought about a mild weakening of corporate profitability since the second half of 2004. It is also difficult to anticipate any enlargement of the

<Figure II -23>

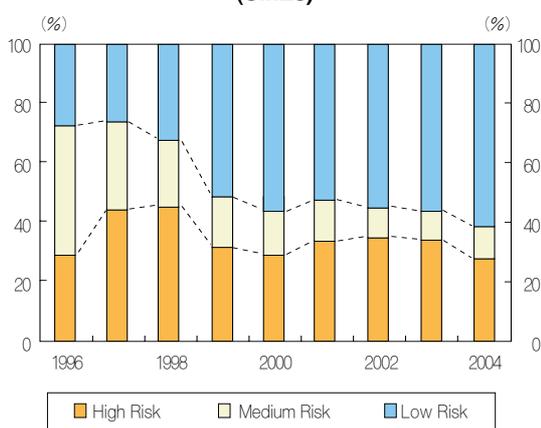
Distribution of businesses by credit risk rating (large businesses)



Source : The Bank of Korea

<Figure II -24>

Distribution of businesses by credit risk rating (SMEs)



Source : The Bank of Korea

20) Classification method of the Bank of Norway was used.

<Table II -1>

Transition matrix by credit risk rating

(Large businesses) (%)

2003 \ 2004	Low risk	Medium risk	High risk	Total
Low risk	70.4	18.0	11.6	100(267)
Medium risk	77.0	9.5	13.5	100(74)
High risk	69.3	26.7	4.0	100(75)

(SMEs)

2003 \ 2004	Low risk	Medium risk	High risk	Total
Low risk	79.4	5.4	15.2	100(428)
Medium risk	38.5	35.9	25.6	100(78)
High risk	29.6	9.7	60.7	100(206)

Note : Figures in parenthesis indicate the number of businesses

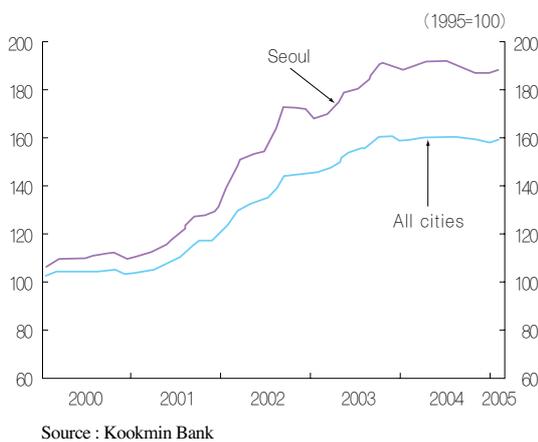
effect of the reduction of financial expenses, which had greatly contributed to corporate profitability for some time, owing to the possibility of an increase in market interest rates, and this will impose a burden on a further improvement of their debt servicing capacity.

4. Real estate market

(Housing market remains stable)

<Figure II -25>

Apartment transaction price index



Housing prices rallied partially in the early weeks of 2005, particularly for apartments scheduled for redevelopment in Gangnam and apartments in areas around Pangyo New City. These upward price movements were dampened to some degree, though, by the government initiative announced on February 17, 2005 aimed at stabilizing the housing market in the Seoul Metropolitan Area, so that, by and large, the housing market has remained stable since November 2003.

<Figure II -26>

Real price¹⁾ of apartment

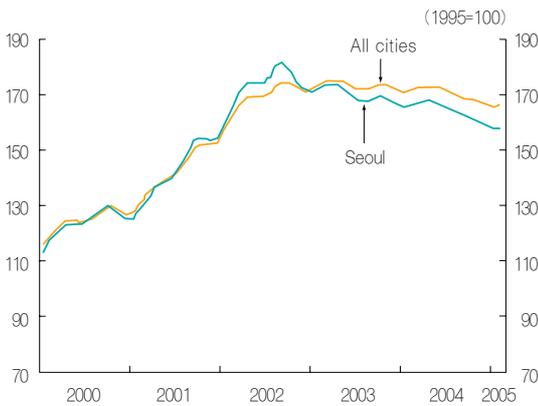


Looking at volatility of asset prices is important in assessing the level of stability of residential property or other asset classes, but even more important in this regard is the question of whether there is a gap between the current housing prices and the fundamental market value of the assets and, if so, how big the gap is²¹⁾. The phase of stabilization of the housing market since the end of 2003 has not been significant enough in terms of its duration and amplitude compared with the phase of upswing in 2001-2003. Furthermore, with real prices of apartments in Gangnam (Gangnam-gu, Seocho-gu and Songpa-gu) and Seoul still well above the peak of the long-term time series trend or slightly lower than the trend, it would be overly hasty to conclude that an adequate level of stabilization had already been achieved.

21) It is quite hard to estimate the fundamental market value of housing prices and directly compare them with actual prices, but an indirect evaluation of current housing prices is possible using the data for real housing prices and for housing prices to income levels. (Financial Stability Report, the 2nd issue, pp.35~37)

<Figure II -27>

Apartment rent index



Source : Kookmin Bank

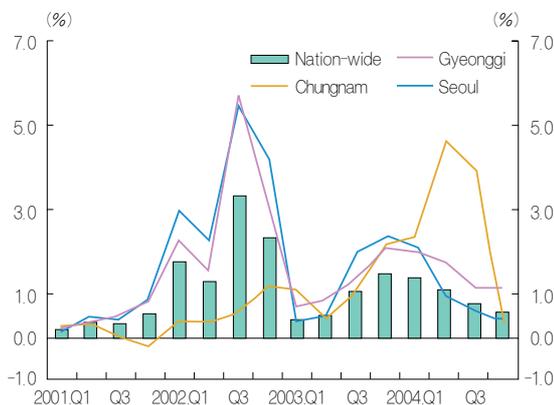
In addition, with the fall in the yield on financial investments driven by continued low interest rates and a lack of high-yielding investment opportunities that can substitute for investment in residential real estate, there still exists the possibility of massive inflows of funds into the housing market. Bringing stability to the housing market would require keeping the current trend of stable prices to be maintained for a considerable period of time.

Housing rents have shown downward stability for over two years since the fourth quarter of 2002. They declined rapidly from May 2004 with the expiration of leases signed in 2002 at record high levels, but showed a short-lived tentative rise in February 2005 at the start of the period favoured for moving house. On the supply side, more newly-built rental apartments have become available in 2005 and the rents for other types of housing, such as detached houses and multi-family dwellings, that are alternatives to apartments are also on the decline, so that the stability of housing rents is seen to continue.

(Land prices continue to rise)

<Figure II -28>

Land price fluctuations by region

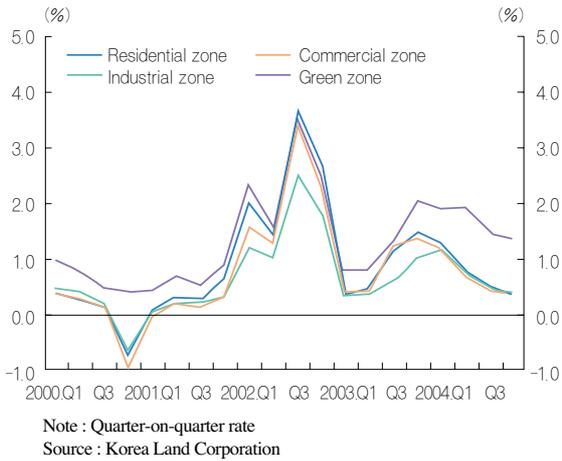


Note : Quarter-on-quarter rate
Source : Korea Land Corporation

While the increase in land prices flattened out in the second half of 2004, overall land prices rose by a further 3.9% in 2004 after their 3.4% rise in 2003. In general, housing prices and land prices move in parallel, with the former leading the latter. Since 2004, though, land prices have risen while housing prices have stabilized, reflecting the unveiling of a number of government measures to keep real estate prices under control that have mainly targeted the housing market and a series of regional development plans. In addition, changes in land prices are calculated on the basis of the appraisal values of 45,000 sample plots. The results may be lower than the actual figures as

<Figure II -29>

Land price fluctuations by zone

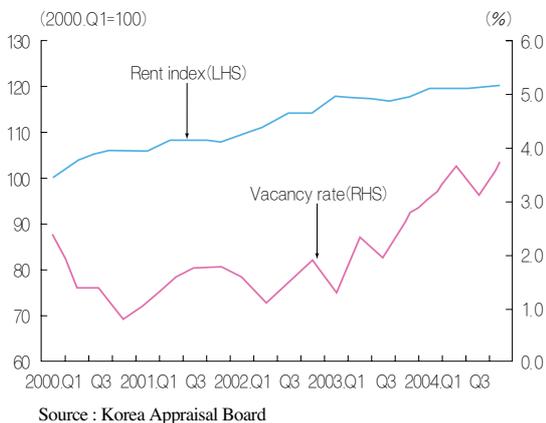


they may not incorporate sharp price increases for land areas not included in the sample or actual transaction prices.

The greatest change was seen in Chungchung Province where the growth of land prices slowed substantially in the fourth quarter of 2004 following the ruling of the Constitutional Court that the proposed building of an administrative capital city there was unconstitutional, but rebounded²²⁾ in 2005 with the governmental announcement to build a “Multifunctional Administrative City”. Gyeonggi Province also experienced a substantial rise in land prices amid high expectations of regional development projects. Despite the slowing of the growth of land prices in other areas, the rise in land prices in the green zone remains high, a sign that land prices continue to be affected by speculative factors. The continued growth of land prices not just threatens the stability of the real estate market for land, but may act as a factor detracting from the stability of the real estate market as a whole by acting to push up housing prices.

<Figure II -30>

Office rent index and vacancy rate in Seoul



In the commercial real estate sector, office rents in Seoul remain stable. The vacancy rate started to rise from the end of 2003 and reached 3.7% in December 2004 due to the reduced demand for office space brought about by the delayed recovery of the economy and corporate restructuring.

Vacancy rates show a trend of bi-polarization by size as the rate for small buildings with a total floor space of less than 5,000 pyung was 6.36% in December 2004, higher than the natural vacancy rate (3~5%), whereas

22) Land prices in Chungnam rose 1.0% (an annualized rate of 6.1%) during January and February 2005 from the levels as of the end of 2004 on the promotion of a special act to build a Multifunctional Administrative City in Chungnam.

<Table II -2>

Rents and vacancy rate by size

(Thousand won/pyung, %)

		less than 5,000 pyung	5,000~ 10,000 pyung	10,000~ 15,000 pyung	more than 15,000 pyung
2003	Rents	4,496	4,982	5,640	7,795
	Vacancy rate	4.97	2.81	1.73	2.52
2004	Rents	4,523	5,111	5,751	7,976
	Vacancy rate	6.36	4.05	3.20	2.80

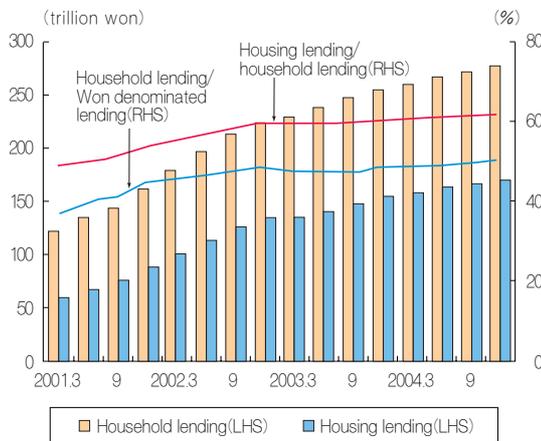
Source : Korea Appraisal Board

that for large-sized buildings with a total floor space of over 15,000 pyung was as low as 2.8%. Enterprises renting their offices in small buildings are usually short of money and thus more affected by the business cycle. Furthermore small buildings are at a disadvantage in location and services compared to larger buildings. Therefore, it will take time for small buildings to find more tenants even after the economy picks up.

(Loans against housing collateral maintain modest growth)

<Figure II -31>

Housing lending of commercial and specialized banks



Source : The Bank of Korea

The growth of mortgage loans and other loans against housing collateral had flattened out considerably since 2003, but still maintained an increase in 2004. This was attributable to the aggressive marketing of loans against housing collateral by financial institutions concerned about the souring of their SMEs and SOHO (small office and home office entrepreneurs) credits, and was only partially offset by the reduction of loan to value ratios (LTV) and various measures taken to stabilize the housing market.

Loans against housing collateral account for over 30% of all outstanding loans denominated in Korean won and thus have a great impact on bank performance. The majority of these housing loans are at floating rates, carry three-year maturities and call for the repayment of the principal at maturity (annual roll over for a further year at maturity).

The preference for the short term in the provision of loans against housing collateral improves the liquidity of banks' operation of their funds, but it also weakens their profitability and stability. What is more, it may act as a factor destabilising the housing market in that it imposes the burden of maturity extension on households. In addition, the high weight of loans

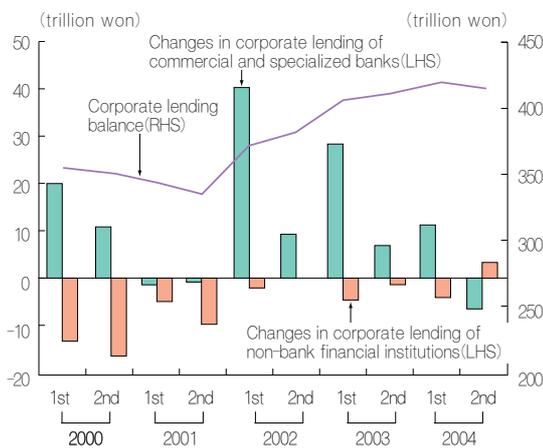
against housing collateral at floating rates may weaken the borrowers' debt servicing capacity in the event of an increase in interest rates, which may in turn increase the possibilities of such loans going into default. As it is found that delinquency rates have a greater impact than the fall in the value of the housing collateral on the financial performance of a bank, a weakening of borrowers' debt repayment capacity could substantially worsen the profitability of banks' loans against housing collateral.

III . Stability of the financial market

1. Lending market

<Figure III -1>

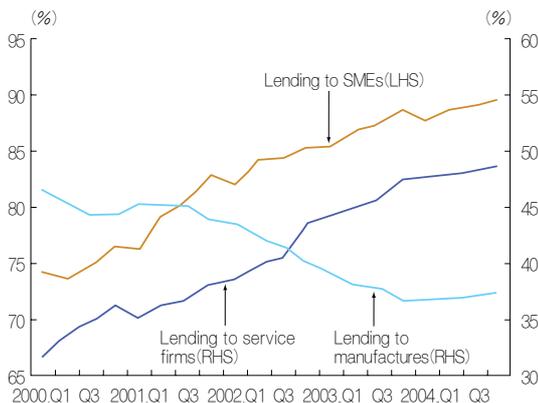
Corporate lending



Source : The Bank of Korea

<Figure III -2>

Distribution of loans
- SMEs, service firms, manufacturers



Note : Shares of total corporate lending of commercial and specialized banks

Source : The Bank of Korea

(Growth of corporate lending blunted substantially)

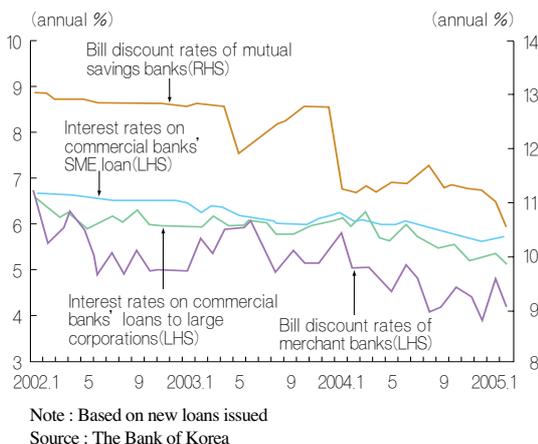
Corporate lending grew 4.2 trillion won in 2004, a sharp fall in growth from its 29.8 trillion won increase a year earlier. The corporate lending of non-bank financial institutions including mutual savings banks declined 0.6 trillion won for the year 2004 as a whole, despite growth of 3.3 trillion won in the second half. Meanwhile, the growth of banks' corporate lending eased substantially to sustain a rise of no more than 4.8 trillion won.

By type of borrower, lending to SMEs registered modest growth of 6.3 trillion won with the redemption of loans by financially sound-mainstream SMEs and reduced SOHO lending. The weight of lending to SMEs in total corporate loans inched up to 89.7% in 2004 from 88.7% a year earlier, largely due to reduced lending to large businesses. In the meantime, the growth of loans to service businesses shrank significantly as a result of tightened credit risk management by lenders while the growth of loans to manufacturers fell slightly, leading the weight of loans to manufacturers in total corporate lending to stand at 37.3% as of the end of 2004, a slight increase from a year before.

Interest rates on corporate lending (newly-extended basis) have been edging up in 2005 after a dip to 5.62% in December 2004 under the impact of the reduction of the call rate target undertaken in November 2004.

<Figure III -3>

Interest rates on corporate lending

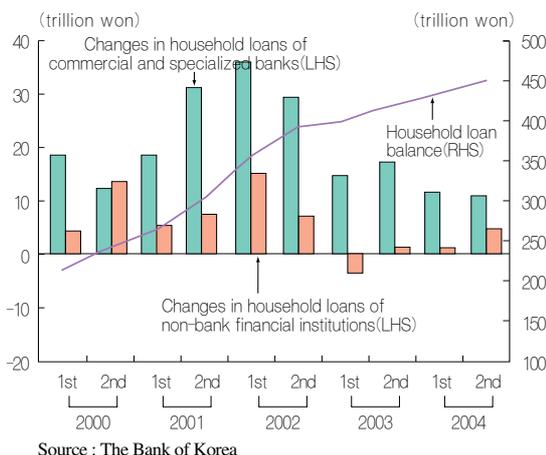


Recent increases in market interest rates have been directly translated into higher lending rates because an increasing share of corporate lending is at floating rates linked to market interest rates¹⁾. The bill discount rates of merchant banks, which are the most sensitive of the non-bank financial institutions to changes in market rates, increased in the first few weeks of 2005 while those of mutual savings banks fell.

The supply of funds by banks will be sufficient to absorb a future increase in corporate demand driven by the recovery of economic activity, as the improvement of their BIS capital adequacy ratios has expanded their capacity to take on risk²⁾ and they have upgraded their assessment of the credit risks posed by SMEs. However, faced with requirements for tighter risk management and the BASEL II capital adequacy framework, banks will continue to differentiate among borrowers according to credit standing, imposing harsher loan conditions to small businesses with problematic credit ratings.

<Figure III -4>

Household lending



(Growth of household lending softens)

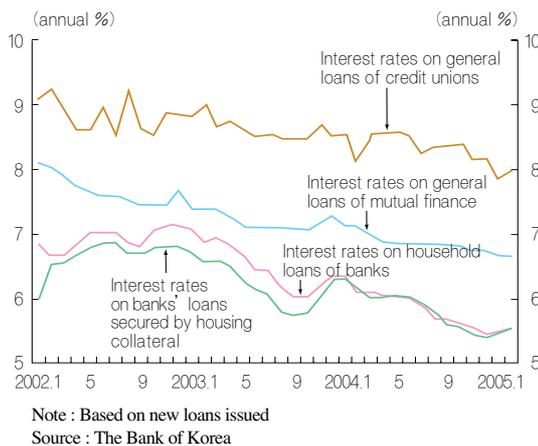
Household lending grew 28.5 trillion won in 2004, 12.8 trillion won in the first half and 15.6 trillion won in the second half, showing a slower pace than in 2003. The growth of household lending by commercial and specialized banks decelerated while household lending by non-bank lender started to increase in the second half of 2003 with credit card issuers lowering the scale

1) According to the trend of weighted average interest rates of financial institutions in February 2005, the weight of corporate lending linked to market interest rates (new loans extended by deposit money banks) increased to 29.6~31.7% in January-February 2005, from 24.8% as of December 2003.
2) The result of a survey on the lending behavior of financial institutions in February 2005 indicates that growth of banks' credit risk for the loans to SMEs is blunting significantly largely driven by the adjustment of high risk exposures.

of their reductions of lending (credit lines) and Korea Housing Finance Corporation increasing mortgage loans.

<Figure III -5>

Interest rates on household lending

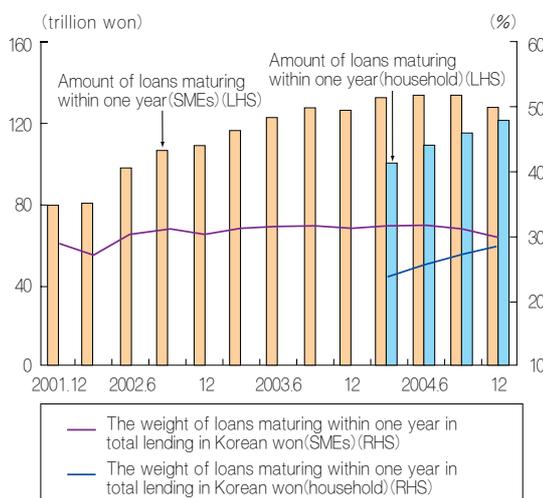


Household lending interest rates of non-bank lenders remained low and stable while those of banks shifted to a slight increase in 2005. This is because banks' interest rates on household borrowings, a high proportion of which are at floating rates³⁾, are more easily affected by increases in market interest rates such as those on CDs or financial debentures.

Banks have more funds on hand and are less negative about lending, which will make access to loans easier for households. Efforts by foreign banks to expand their presence⁴⁾ in the lending market will further increase fund availability for households. However, the growth in household borrowings will be limited as it is difficult to envisage any great improvement in households' debt servicing capacity while growth in their demand for loan is constrained by the series of measures taken to bring stability to the housing market.

<Figure III -6>

Weight of loans maturing within a year



There is some concern that loans to SMEs and households maturing during 2005 to the tune of 126.1 trillion won and 120.1 trillion won, respectively, pose a threat to stability in the lending market. However, given the fact that the share of SME loans denominated in Korean won maturing within a year remains at around the 30% level and the share of household lending has risen slightly, but is still lower than that of

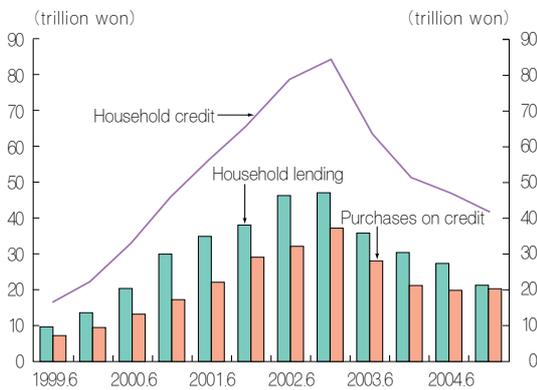
3) According to the trend of weighted average interest rates of financial institutions in February 2005, the weight of household lending linked to market interest rates (new loans issued by deposit banks) increased to 63.7~70.2% in January-February 2005, from 54.9% as of December 2003.

4) Since the start of 2005 foreign banks in Korea have increased deposit rates to reflect the rise in market interest rates, but they have reduced lending rates with offerings of differentiated premiums and special interest cuts.

SME loans, the extension of the maturity (roll over) of the loans will not impose a big burden on banks. Furthermore banks are not likely to press very hard for the calling in of such loans, which would restrict their business base, it being difficult for them to identify new borrowers, as they are comfortable with the current loan portfolio that reflects the results of the strengthened risk management applied in 2004 .

<Figure III -7>

Household credit¹⁾ of credit card business



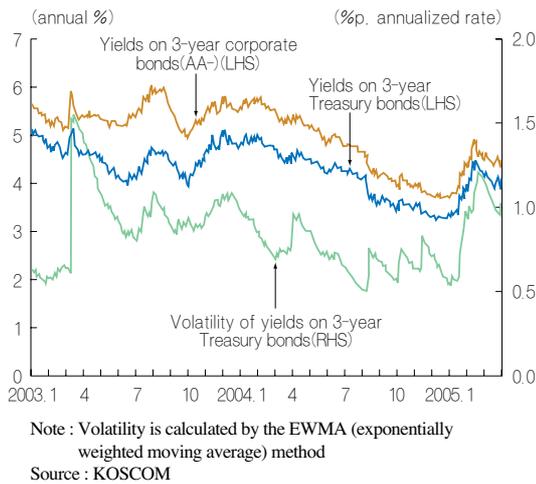
Notes : 1) Household credit = household lending + purchases on credit
 2) Household lending = cash advances + card loans
 Source : The Bank of Korea

Insolvencies among credit card issuers that hit the financial industry in 2003 and their subsequent efforts for financial restructuring were the main factors underlying the weakened credit standing of the household sector, particularly in low-income brackets. However, credit card issuers are performing better with the scale of their losses declining from the second half of 2004 and the delinquency rate dropping to 4.1% at the end of 2004 from 10.1% a year earlier, meaning that their supply of funds to the household sector can increase gradually. But, on the negative side, the arrears rate when refinanced loans are included is as high as 11% and this will act to curb their expansion of credit.

2. Bond market

<Figure III -8>

Bond yields and volatility

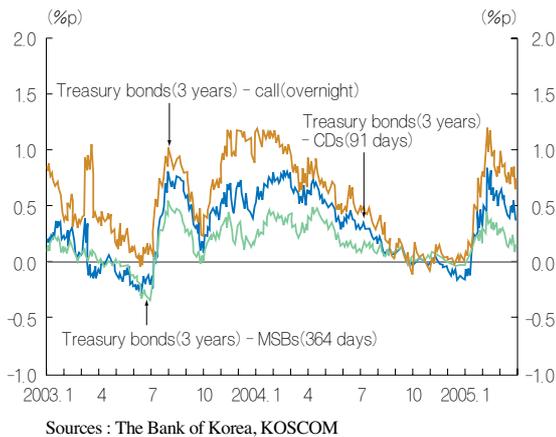


(Brief sharp rally of bond yields amid greater volatility)

Yields on bonds had continued to fall up until the end of 2004 due to the delayed recovery of the economy, the reductions in the call rate target undertaken in August and November of 2004 and expectations of additional cuts. However, as 2005 opened bonds yields rebounded sharply, rising by more than 100bp (3-year Treasury bonds) from their year-end figure by early February, and subsequently showing a mild decline. Accordingly, the bond market exhibited an unstable pattern for a while such as sharply expanded volatility.

<Figure III -9>

Interest rate spreads between long-term and short-term bonds



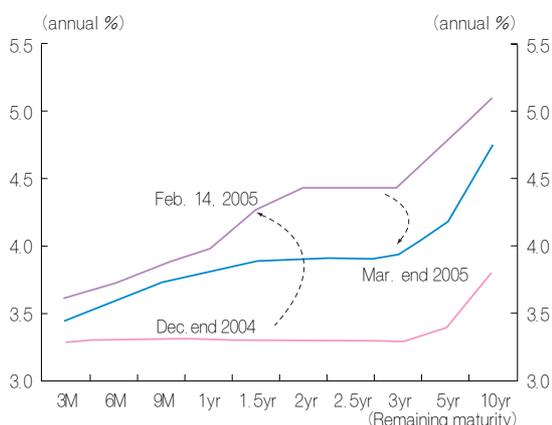
The sharp run-up of bond yields in January~February of 2005 can be interpreted as a natural reaction to their steep fall over the second half of 2004. It seems that supply factors such as the announcement on January 3, 2005 of expansion of the volume of long-term government bonds issued and prospects for further expansion with the aim of foreign exchange market stabilization, coupled with expectations of interest rate increases (fall of bond prices), caused the overshooting of the scale of the rebound of bond yields.

In addition, the herd behavior of bond investors who increased their long-term bond purchases to an excessive level by the end of 2004 before simultaneously reducing their positions substantially in 2005 was one of the significant factors behind the market instability. This herd behavior is attributable not only to the holding of similar expectations as to the market outlook and employment of risk management technologies such as loss-cut but also to performance incentive schemes for bond managers. Incentive

systems focusing on short-term performance cause bond managers to pursue a high risk/high return strategy, which may result in herd behavior⁵⁾. To ensure stability in the bond market, it is imperative to improve the performance related compensation systems for bond managers; for example RAPM (Risk Adjusted Performance Measure)⁶⁾ could be actively adopted.

<Figure III -10>

Yield curves of Treasury bonds



Note : Yields based on valuation at market prices

<Table III -1>

Changes in weight of investment by type of bond¹⁾

(as of year-end 2002 → March 10, 2005)

	Monetary Stabilization Bonds/Financial Debentures	Corporate Bonds	Special Law Bonds/Government Bonds
Investment Trust	49.7 → 61.1	35.9 → 17.3	14.2 → 21.2
Securities companies	26.3 → 32.0	38.4 → 34.7	30.4 → 30.1
Banks	35.9 → 45.4	11.8 → 8.0	51.5 → 45.7
Insurers	15.3 → 21.4	22.7 → 16.5	56.4 → 57.1
Pension funds	23.4 → 27.2	26.4 → 7.2	50.0 → 65.6

Notes : 1) Weight of investment by type of bond = value of the specific type of bond/total value of the bonds held

2) Average duration by type of bond was (as of March 10, 2005) 1.06 for MSBs, 1.10 for financial debentures, 2.05 for corporate bonds, 2.72 for special law bonds and 3.37 for government bonds.

Sources : The Korea Securities Depository, Korea Bond Pricing

(Yield curve steepens with differentiation of returns among institutional investors)

The spread between long-term and short-term interest rates turned briefly negative in December 2004, but widened to as much as 119bp in February 2005 before a slight correction. Accordingly the yield curve steepened, moving upward, and then shifted back to a smoother pattern.

In this process, the investors who engaged in excessive purchases of long term bonds without hedging in a bid to maximize returns would have incurred substantial losses. Hardest hit must have been investment trust companies and securities firms, a large portion of whose asset portfolio consists of bonds for trading or bonds available for sale which are carried at market value.

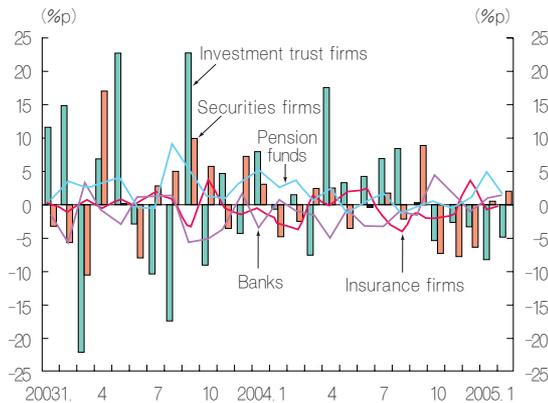
Pension funds and insurance firms suffered evaluation losses, but on the other hand there were good opportunities to buy long-term bonds at low prices. In addition as the liabilities of these firms are of long duration, purchasing long-term bonds narrows the

5) For example, i) Regulation on loss limit alone can not control aggressive fund management behavior created by a lopsided compensation scheme that rewards fund managers only based on returns with little responsibility for losses. ii) Even with average duration limit regulation alone in place, fund managers can pursue high returns by increasing both long-term and short-term debt positions to meet the average duration limit.

6) RAPM can deter the excesses of fund managers' pursuit of a high risk/high return strategy by adjusting returns for risk.

<Figure III -11>

Changes in Treasury bonds holdings by type of institutional investor¹⁾



Note : 1) Rate of changes in holdings of a type of institutional investor less rate of changes in the total outstanding Treasury bonds
Source : Korea Securities Depository

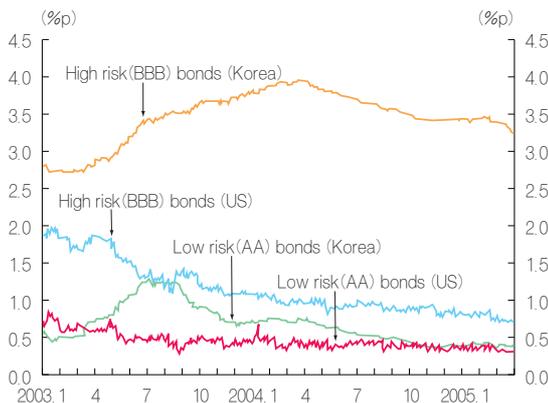
duration gap between their assets and liabilities, reducing repricing risk. Overall, the impact should have been more positive than negative.

A fund run on the beneficiary certificates of investment trust firms, the threat of which had been a destabilising factor in the bond market, did not occur in this recent period of interest rate increases. This is a result of the improvements in the MMF system⁷⁾ and the heightened awareness of investors on performance-based financial instruments, which have experienced several fund runs. But, the weight of MMFs in the bond-type beneficiary certificates of investment trust firms reached as much as 51.0% as of March 10, 2005, as against its 44.1% in December 2004, which means that the overall duration of market funds is shortening – a phenomenon that is unfavorable to the stability of the financial markets.

(Wide credit spread on BBB grade bonds)

<Figure III -12>

Corporate bonds spreads over Treasury bonds



Notes : 1) Bonds with 3-year remaining maturities
2) Treasury bonds are Treasury bonds for Korea and Treasury Notes for US
Sources : The Korea Securities Dealers Association, Bloomberg

With corporate bonds showing net redemption since 2004 and sustained low interest rates, the demand for corporate bonds promising high returns has risen, gradually improving the environment for the issue of BBB-rated corporate bonds. However, the credit spread on BBB grade bonds is still wider than before the melt-down generated by the insolvencies involving SK Networks and credit card companies' paper. From the second half of 2004 and onwards, the spread on AA bonds over Treasuries has fallen to the levels it showed in early 2003, but even in the first weeks of 2005, that on BBB bonds remained 50bp up from the levels of early 2003.

7) Reduction of the maximum remaining maturity(120 → 90days), tightened credit rating(BBB- and above → AA and above) of securities included in MMFs(money market funds) and more rigorous requirements for diversified investment were put in place from April 20, 2004.

<Table III -2>

Three-year cumulative issuer-weighted default rates by credit rating¹⁾

	KISINFO	Korea Ratings	NICE	Average	Moody's
AAA	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.10
A	0.44	0.00	0.00	0.15	0.30
BBB	0.24	1.11	0.91	0.75	1.10
BB	9.53	9.12	8.99	9.21	7.20
B and lower	13.07	19.44	20.41	17.64	20.10
Investment grades	0.26	0.60	0.46	0.44	0.60 ²⁾
Speculative grades	10.05	11.81	11.81	11.22	16.50
Total	3.87	4.47	4.29	4.21	6.50

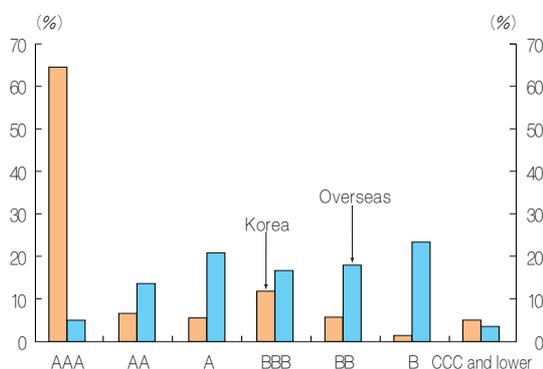
Notes : 1) 1998-2004 for Korea, 1985-2004 for Moody's (North America)

2) B grade. Caa and lower are 44.70%.

Source : Data from the four credit ratings agencies

<Figure III -13>

Distribution of issuers by credit rating



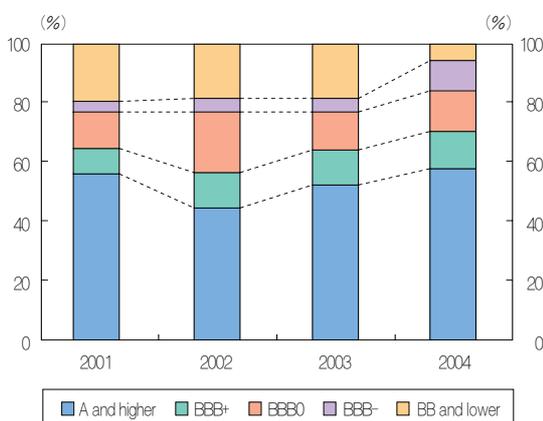
Notes : 1) Korea includes the firms that have ratings of three major credit rating agencies as at March-end 2005

2) Overseas reflects the Moody's data on new rated issuers in 1970-2004

Sources : KOSCOM, Moody's

<Figure III -14>

Newly issued corporate bonds by credit rating



Note : Non-guaranteed corporate bonds
Source : FnGuide

Furthermore, while the premiums on AA bonds are approaching the levels of similar grade bonds of the US, those on BBB bonds are about 250bp higher than those on BBB bonds of the US. Despite the wide spread, the likelihood of BBB grade firms going bankrupt (three year cumulative figures) is 0.75%, lower than the 1.10% of their North American peers. This means Korea's BBB grade firms are paying a relatively high risk premiums even when the credibility of the data used is factored in.

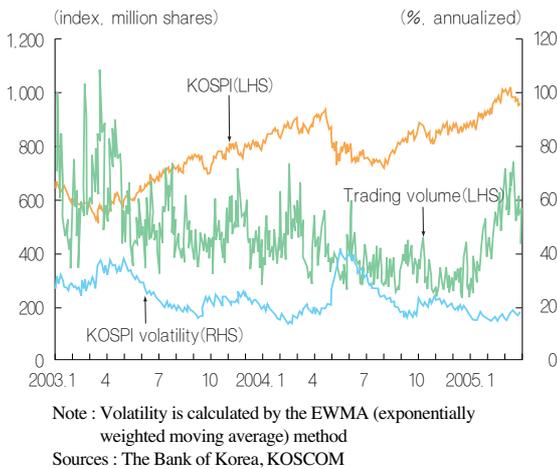
The fact that the investors are substantially more sensitive to risks after having experienced a series of credit debacles contributed to the relatively high spread on BBB bonds, but the underdevelopment of the secondary-tier (including speculative grade) market is another important cause of the situation. As financial firms set high standards for credit grades that can be invested in without screening (e.g.: at least A grade) and the supply of government and public bonds is increasing rapidly⁸⁾, this acts as a factor in restricting the appetite for sub-prime bonds.

The share of corporate bonds rated BBB+ to BBB-, and speculative grade dropped to 41.6% and 5.3%, respectively in 2004 from the 49.1% and 19.0% recorded in 2000~2002. If this situation persists, businesses with no credits standing will continue to experience difficulties in meeting their funding requirements by the issue of bonds or will have to pay higher interest rates, which will further worsen their liquidity and profitability. To break this vicious circle, the credibility of the valuation of sub-prime corporate bonds needs to be raised and the issue of high yield funds and CBOs (collateralized bond obligation) needs to be pursued more actively.

8) The weight of public sector bonds (Treasury bonds+municipal bonds+monetary stabilization bonds) of total bonds increased to 49.0% as of the March 11, 2005, from 31.5% as of the end of 2002.

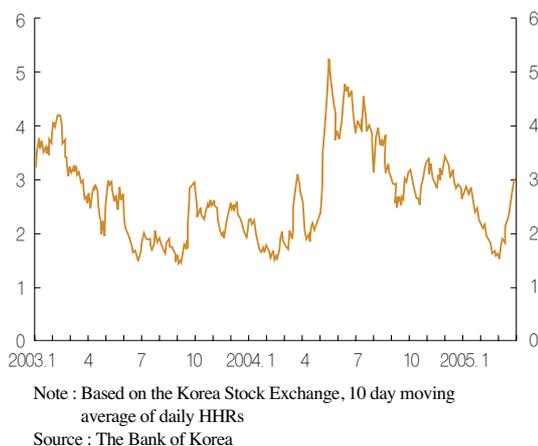
<Figure III -15>

Stock prices and volatility



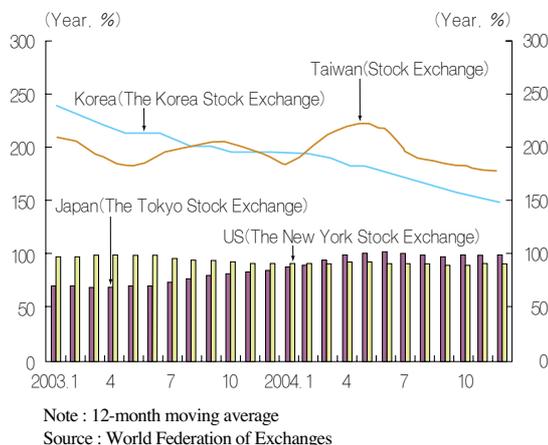
<Figure III -16>

HHR of stock market



<Figure III -17>

Stock turnover velocity



3. Stock market

(Stock market becomes more stable)

Stock prices have risen since August of 2004 on robust corporate earnings and high expectations of economic recovery. The stock market experienced a series of temporary adjustments amid the rise in oil prices and the strengthening of the Korean won, but overall stability and liquidity have improved and transaction volume has increased.

The HHR (Hui-Heubel ratio)⁹⁾, an indicator of the resilience of the stock market, declined, meaning the Korean equity market does not overreact to external shocks and rebounds quicker than it did before. The gains in resilience have a lot to do with the relatively stable movements in stock prices. Falling yields on real estate, bonds, and other financial instruments are luring investors into stocks, and the increasing capitalization of long-term investment funds such as installment-type funds¹⁰⁾ is affording institutional investors longer time horizons for investment, contributing to the stable movements in stock prices.

Korea's stock turnover velocity (12-month moving average) is still higher than in the US and Japan. But the turnover velocity fell to 140% in 2004 after recording an annual rate of 190% as the weight of foreign and institutional investors, who usually prefer long-term investments, rose to 59.6% at the end of 2004, up from the previous year's 56.8% and total

9) $HHR = \frac{\text{highest price} - \text{lowest price}}{\text{lowest price}} \div \frac{\text{trading volume}}{\text{total market capitalization}}$

10) Installment-type funds swelled by 114.7% (2.5 trillion won) during the three quarters from the third quarter of 2004 to the first quarter of 2005.

market capitalization increased¹¹⁾. The fall in stock trading turnover can reduce liquidity and subsequently render the stock market less resilient. To ensure the stability of the stock market, an environment needs to be prepared that is conducive to a reduction of share price volatility, including the heightening of market transparency and the consolidation of the financial soundness¹²⁾ of the corporate sector.

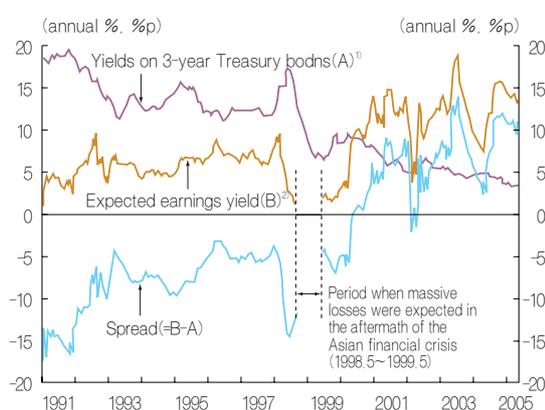
(Expected returns on equities rise)

In the 1990s yields on equities continued to be lower than those on Treasury bonds. This phenomenon was dubbed the equity discount puzzle¹³⁾ as it defied explanation by the financial economics theory that yields on equities, which are risky assets, must be higher than yields on risk-free bonds by risk premium.

However, expected returns on stocks¹⁴⁾ started to exceed yields on Treasury bonds, zero risk assets¹⁵⁾, from the first half of 2000, and the risk premium of the stock market turned positive. This is attributable to the improvement in financial conditions and profitability in the business sector and the continued fall in interest rates.

<Figure III -18>

The gap between earnings yields on stocks and yields on Treasury bonds



Notes : 1) January 1991~April 1995 : yields on 3 year KDB-bonds

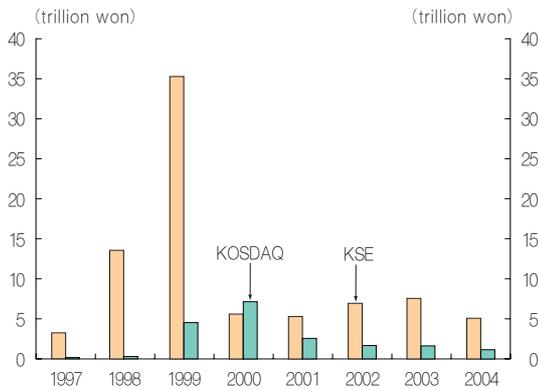
2) Expected earnings yield = the reverse figure of expected PER

Sources : The Bank of Korea, Thomson IBES

- 11) Market capitalization totalled 469.4 trillion won at the end of February 2005, up 32.1% from 355.4 trillion won at the end of the year 2003.
- 12) It is known that the higher the debt-to-equity ratio, the higher are the risk of yields on equity capital, namely the stock price volatility. (Modigliani-Miller's second proposition (1958), Christie (1982), Ku Bon Il (2000))
- 13) This is analogous to the 'equity premium puzzle' (in 1985, Mehra and Prescott), a term used to explain excess yields on stocks relative to bond yields. ("A study of relative yields and absolute values of stocks" (KDI, December of 2001, Kang Dong Soo))
- 14) Expected returns calculated on the basis of analysts' outlook on future corporate earnings were used.
- 15) The yield comparison is usually made between stocks and over 10-year Treasury bonds, but bonds with remaining maturities of three years were used because of data availability.

<Figure III -19>

Stock market financing



Source : The Financial Supervisory Service

(Financing conditions in the stock market improve for SMEs)

Corporate financing through the stock market, both the Korea Stock Exchange and KOSDAQ, fell 32.5% in 2004 from a year earlier, largely due to slow economic activity. The stock market environment was more unfavorable to SMEs. They accounted for only 21.4% of total funds raised through the Korea Stock Exchange whereas their share was 51.7% on average for the past five years.

<Figure III -20>

Stock price index by business size



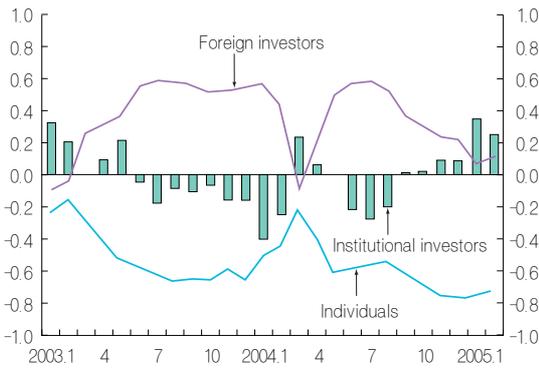
Note : December 30 of 2003=100
Source : KOSCOM

However, with stock prices rising gradually, the gap in price performance between large-cap stocks and small- and mid-cap stocks has been narrowing since the final quarter of 2004. Government plans to provide greater financial support and tax benefits for venture firms announced on December 23, 2004 boosted the KOSDAQ index. As a result, financing conditions for small and medium enterprises seem to be improving. This is particularly true for small- and mid-sized startups involving heavy risks who have been denied bank loans. It will help increase the growth potential of the economy and the stability of the financial system.

The trading behavior of foreign investors has greatly contributed to the narrowing of the stock price performance gap between large businesses and SMEs. The share of foreign investors in total stock holding fell to 42.0% by the end of December of 2004 after posting 43.9% at the end of July in the same year, causing a relatively small increase in prices for the large-cap blue chips preferred by foreign investors.

<Figure III -21>

Coefficient of correlation between stock price growth¹⁾ and net stock purchase by investor category²⁾



Notes : 1) Monthly stock price growth rate
 2) 12-month moving correlation coefficient
 Sources : KOSCOM, FnGuide

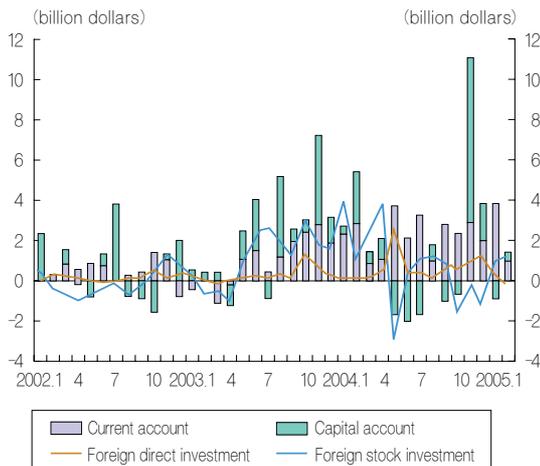
Despite a recent fall in their share of the market, foreign investors still account for a relatively high proportion of total stock holding compared to other countries while domestic institutional investors have a lower share¹⁶⁾, possibly attenuating the wealth effect of stock price increases and rendering the stock market more unstable.

16) The proportion of total market capitalization (the Korea Stock Exchange and KOSDAQ) by investor group was 40.1% for foreign investors, 20.8% for individuals, 18.0% for businesses, 17.0% for institutional investors and 4.2% for government offices and state-run businesses at the end of the year 2004.

4. Foreign exchange market

<Figure III -22>

Current account and capital account



Source : The Bank of Korea

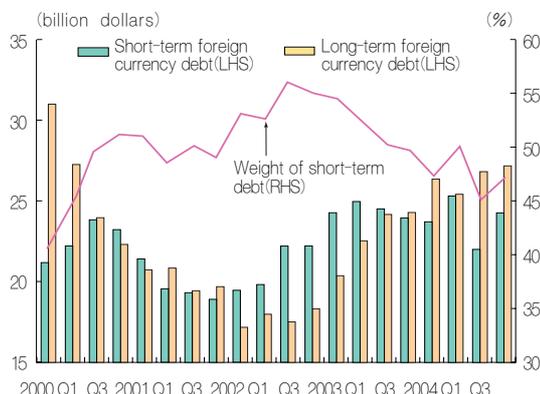
(Predominance of supply in the interplay of foreign exchange supply and demand continues)

With surpluses on both the current and capital accounts, the predominance of supply in the interplay of supply and demand continued. The current account registered 27.6 billion dollars in the black in 2004, more than double the scale of the previous year and the surplus trend continued particularly with the goods account surplus. Although it was in deficit for several months, for the year as a whole the capital account recorded a surplus of 8.3 billion dollars in 2004, driven by inflows of foreign capital into the stock market and the increase in financial institutions' issue of medium- and long-term debt securities in international markets. Accordingly, the foreign exchange reserves showed an increasing trend.

Premiums on Foreign Exchange Stabilization Fund bonds had continued a slow downward path since the latter half of 2004, but rebounded from late March 2005 on concerns over an exodus of funds from emerging markets spurred by the Federal Reserve's interest rate hikes.

<Figure III -23>

Short- and long-term debt of domestic banks denominated in foreign currencies



Source : The Bank of Korea

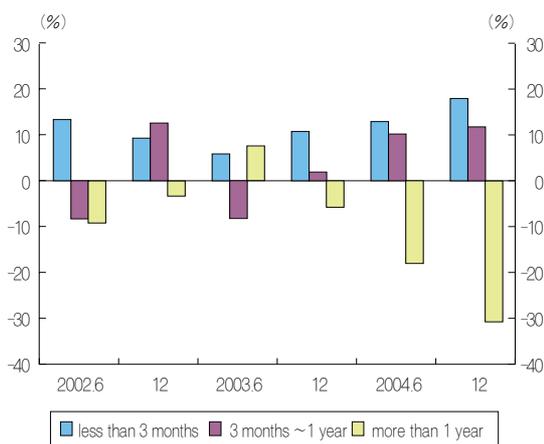
(Continued pattern of long-term sourcing and short-term use of foreign currency funds)

According to the trend of foreign currency-denominated borrowings by domestic banks in 2004, improvements in foreign currency liquidity brought about by strong export growth contributed to the decline in short- and medium-term borrowings while long term borrowings increased helped by the pre-emptive issue of long-term bonds ahead of possible hikes in international interest

rates and the issue of subordinated debt to improve BIS capital adequacy ratios. Accordingly, the share of short-term out of total external debt of domestic banks has held to a steady downward path since the third quarter of 2002.

<Figure III -24>

Maturity gaps between foreign currency-denominated assets and liabilities of domestic banks



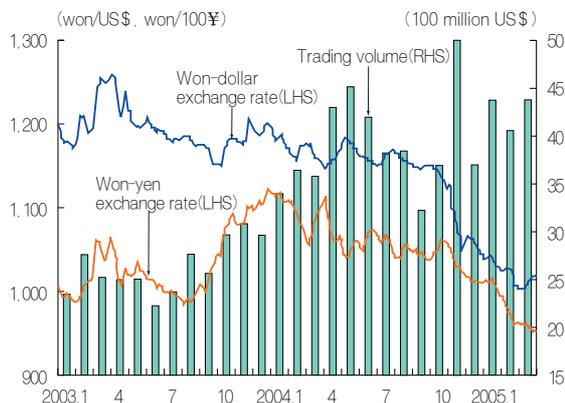
Note : Banking accounts (commercial banks, specialized banks, development institutions)
Source : Banks' call reports

The maturity gap between the assets and liabilities of domestic banks denominated in foreign currencies has since the end of 2003 been following an expansionary pattern of an asset surplus for less-than-three-month remaining maturities and a liability surplus for remaining maturities of at least one year. This pattern is seen to have been formed by the banks' pursuit of liquidity in the management of their foreign currency-denominated assets and liabilities. However, this liquidity-oriented management of foreign currency assets and liabilities may hamper their profits structure once the scale of their foreign currency assets expands.

(Won-dollar exchange rate falls at a rapid pace)

<Figure III -25>

Won-dollar, won-yen exchange rates and foreign exchange trading volume

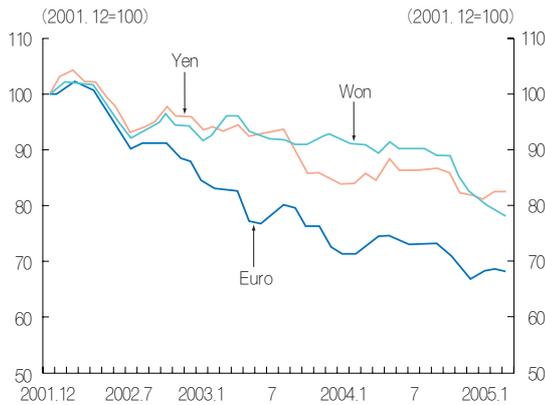


Note : Trading volume is based on foreign exchange transactions made between banks (daily average)
Sources : The Bank of Korea, KOSCOM

The won-dollar exchange rate had stabilized up until mid-October of 2004 around the 1,150 won per dollar mark, but fell steeply by about 10% in a very short period of time between late October and late November of the same year propelled by the fall in the yen-dollar exchange rate, the expansion of the conversion of the foreign-currency proceeds of Korean businesses' exports into Korean won and the slower increase in import-settlement demand. The strengthening trend of the Korean won continued into December of 2004 and onwards at a slow pace, but has faltered since March of 2005. The won-yen exchange rate had remained at the 1,050 won per 100 yen level for quite a long period since May 2004, but the faster pace of the won's appreciation against the dollar compared to that of the yen since November of the same year resulted in a

<Figure III -26>

Trend of exchange rates of won, yen and euro against US dollar



Notes : 1) Exchange rates of each currency are indexed to a base of 100 as of December 2001
 2) The figures of the exchange rate of the euro are reversed from their normal order (dollar-euro)

Source : The Bank of Korea

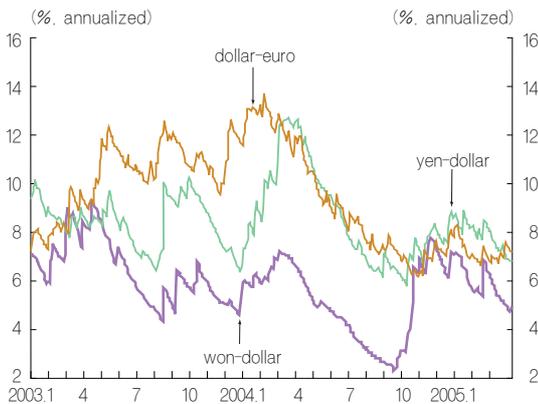
steep fall in the won-yen rate to a range of 950~960 won.

Over the 40 months since January 2002, when the dollar's weakness commenced, the total appreciation of the won against the greenback has reached 21.9%, which is higher than the yen's 17.3% against the greenback but substantially lower than the 32.3% of euro's rise. From a medium and long-term standpoint, the current strong won trend does not represent a substantial deviation from the prevailing international foreign exchange market trends given the trends of a strong yen and euro against the US dollar.

(Foreign exchange volatility increases)

<Figure III -27>

Volatilities of the won-dollar, yen-dollar, and dollar-euro exchange rates



Note : Volatility is calculated by the EWMA (exponentially weighted moving average) method

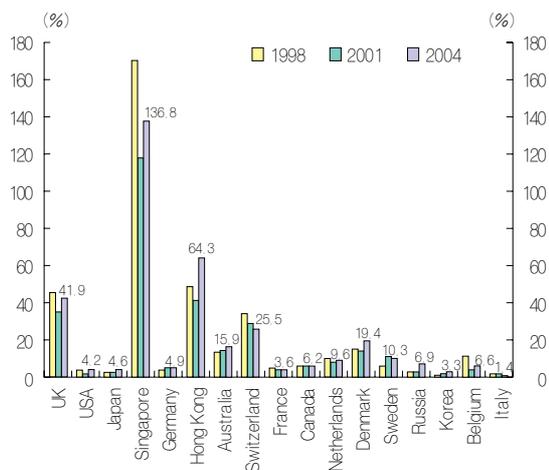
Source : The Bank of Korea

The volatility of the won-dollar exchange rate has expanded since November 2004 to match that of the yen-dollar and dollar-euro rates. The increased volatility can be ascribed to herd behavior as to market expectations on the policy stance of the foreign exchange authorities and market participants' outlook on foreign exchange movements. Moreover, the volume and transaction model of the Korean foreign exchange market is judged to have served as a factor increasing the volatility.

The daily transaction volume of the Korean foreign exchange market is small relative to the scale of the economy, causing the transaction behavior of a handful of large-volume traders to be emulated by other market participants, generating herd behavior which, in turn, may bring about sharp swings in the exchange rate.

<Figure III -28>

Foreign currency trading volume by country



Notes : 1) Daily average trading value to nominal GDP
 2) Traditional foreign currency trading (spot, forward, swap)
 3) Data labels are of 2004
 Sources : BIS, The Bank of Korea

In addition, the transaction model of the foreign exchange market is not quote-driven by market makers¹⁷⁾ as in major economies, but order-driven and thus by the nature of the structure, temporary imbalances in the interplay of the foreign exchange supply and demand are reflected in prices without bid-offer spread buffers.

17) Financial markets may be divided into quote-driven dealer markets and order-driven auctioneer markets by type of transaction. Under the quote-driven structure, dealers consider the supply-demand conditions of the market, set the prices of financial instruments and absorb (as market-makers) the orders of market participants based on the pre-notified buy and sell quotes. Under the order-driven structure, auctioneers only act as intermediaries while market participants directly quote their prices or buy or sell products in the market at quoted prices. Generally it is considered that the quote-driven structure outperforms in terms of immediacy and the order-driven market in terms of efficiency; and many foreign exchange markets have an over-the-counter quote-driven model. (BIS, “Market Liquidity: Research Findings and Selected Policy Implications”, 1999.5)

IV. Soundness of financial institutions

1. Soundness of banks

A. Credit risk

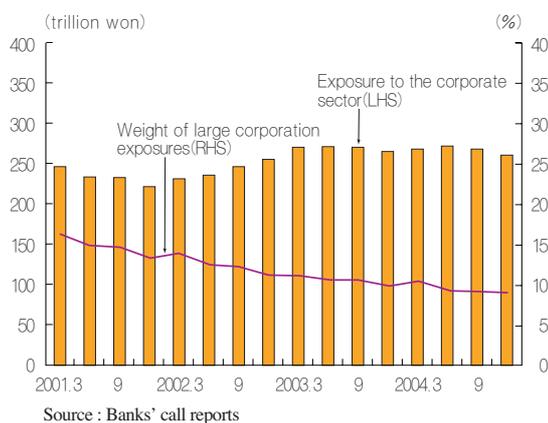
(Corporate credit risk reduced)

Banks' exposure to the corporate sector¹⁾ at the end of 2004 fell back to its level at the end of 2002, despite the expansion of economic scale. This is attributable to the reduction in the demand for funds by businesses brought about by lackluster investment, but it also comes in response to banks' strengthening of their risk management, their aversion to corporate lending, which involves a relatively higher degree of risk than household lending.

Strikingly, corporate lending maintained an expansionary trend between 2002 and the third quarter of 2003 but, on the other hand, since 2002 the weight of lower-tier businesses in total debt held publicly has fallen at a significantly faster pace than their weight in terms of the number of businesses. This means banks have increased loans to businesses with good credit records while rapidly curtailing exposures to lower-tier firms that carry high credit risk.

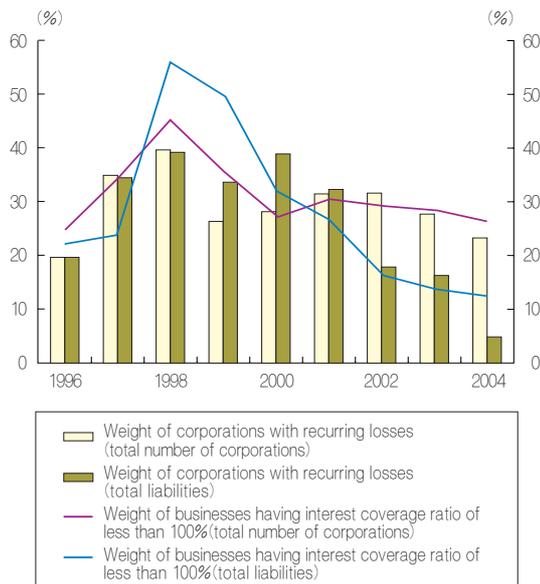
<Figure IV-1>

Banks' exposure to the corporate sector



<Figure IV-2>

Shares of low-ranking corporations¹⁾ of listed firms²⁾



Notes : 1) Corporations with interest coverage ratio of less than 100% and recurring losses

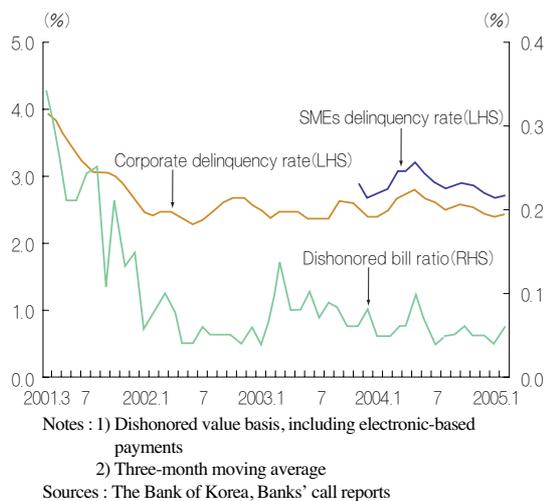
2) Corporations listed on the KSE or KOSDAQ (December closing)

Source : The Bank of Korea

1) Exposures include debts (lending in domestic and foreign currencies, payments for customers on guarantees, bills bought in foreign currency, credit card debt, private equity debt), CP (including guaranteed notes), confirmed payment guarantees, trust account credit, and merchant bank account credit.

<Figure IV-3>

Dishonored bill ratio¹⁾ and corporate delinquency rates²⁾



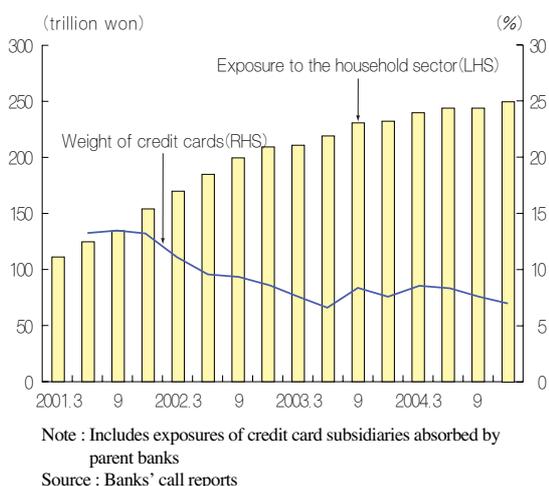
Given the increased profitability and financial soundness of businesses, particularly listed businesses, in line with the falls in delinquency rates in the corporate sector and the ratio of credits classified as substandard or lower, banks' credit risk in the corporate sector appears to be decreasing.

Nevertheless, the ratio of substandard and below loans extended to consumption-oriented businesses²⁾ was two to three times that for businesses as a whole, a sign that the credit risk of small-scale SMEs remains high. In addition, the slightness of the fall in the delinquency rate of SMEs in spite of the massive write-offs carried out in 2004, and the lack of reliable credit data, which hinders credit risk management, may add to the credit risk.

(Progressive reduction in credit risk of the household sector)

<Figure IV-4>

Exposure to the household sector



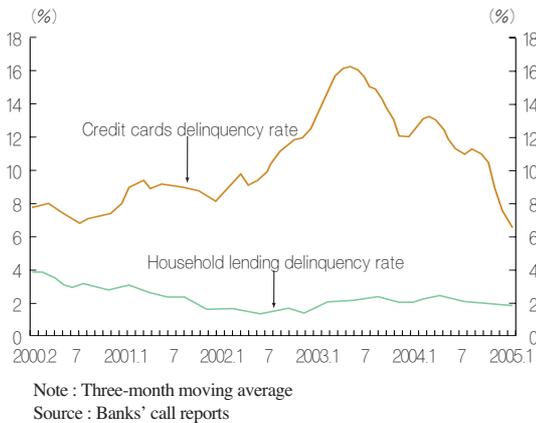
Credit risk in the household sector seems to be falling gradually, helped by the blunting of exposure growth, the fall in the rate of substandard and below loans and rigorous risk management of customer segments with low debt servicing capacity including those branded as "credit delinquents". The delinquency rate in the credit card sector, which was the major factor in the worsening of bank profitability during 2003, fell substantially, and the weight of credit card in total household exposure declined despite the merger of three credit card subsidiaries³⁾ with their parent banks, which greatly lightened the impact of credit cards on overall household credit risk.

2) The figure for lodging facilities and restaurants was 3.73% and that for other service business (barber shops, beauty parlors, public sauna facilities, public bathrooms, dry cleaners, etc.) was 6.34%.

3) Kookmin Credit Card was merged into Kookmin Bank (September 2003), KEB Credit Service into Korea Exchange Bank (February 2004) and Woori Credit Card into Woori Bank (March 2004).

<Figure IV-5>

Household delinquency rates



However, as the improvements in the insolvency indicators of the household sector were largely driven by write-offs and the sale of non-performing loans by banks while the rise in households' debt servicing capacity is still limited, the pace at which retail credit risk falls is seen to be only slow.

(Banks' overall asset quality improved)

The scale of substandard and below loans of commercial banks shrank in 2004 owing to the fall in new NPLs, the increase in write-offs and the upward adjustment of SK Networks' debt classification (substandard → precautionary). Subsequently the ratio of substandard and below loans fell 0.78 of a percentage point from the previous year to stand at 1.97% as of the end of 2004. The ratios of loans classified substandard and below in the corporate and household sectors were 2.06% and 1.91%, down 0.88 percentage points and 0.67 percentage points, respectively, from a year earlier.

<Figure IV-6>

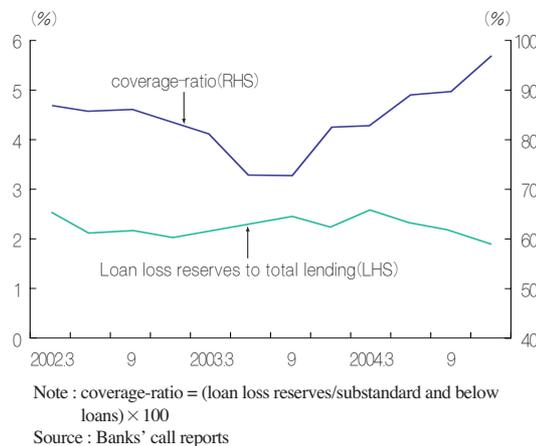
Substandard and below loans ratio



In the meantime, the decrease of substandard and below loans and the expansion of loan-loss provisioning combined to raise the coverage ratio - the ratio of loan loss reserves to substandard and below loans - to 96.4% as of the end of 2004, up 14.2 percentage points from the previous year-end. This was the highest level since 1994 when data collection started and the ability of banks to absorb the insolvency of a counter-party is evaluated as having improved to a certain degree.

<Figure IV-7>

Loan loss provisions



While the coverage ratio of domestic banks is significantly lower than the 174.6% of commercial banks in the US, the ratio of loan loss reserves to total loans, which stands at 1.90% is higher than the 1.50% of commercial banks in the US. This seems to be

attributable to the fact that domestic banks' ratios of loan loss and substandard and below loans are higher than those of their US peers.

However, it is hard to evaluate whether the current level of loan-loss provisioning is sufficient to cover expected losses. This is partly because of the low credibility of the data on probabilities of default by borrower and rate of loss given at default by loan created by the risk management systems of banks, which hinders the implementation of loan-loss provisioning based on expected loss, while the scale of NPLs and loan loss reserves are sometimes affected by strategical perspectives of top management.

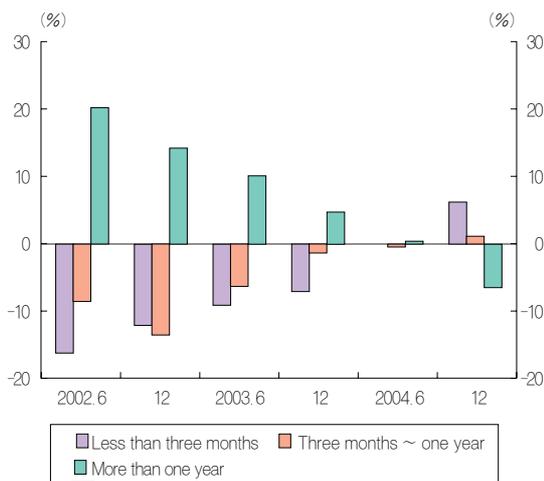
B. Interest rate risk and market risk

(Interest rate risk builds a structure where falling rates bring losses and rising rates bring profits)

The maturity mismatch between the assets and liabilities of commercial banks widened with surpluses of short-term assets and of long-term liabilities as the end of 2004. This is attributable to the fact that the maturities of bank assets have shortened as the huge volumes of housing-backed and SME loans extended in 2002 and 2003 fall due while the decline in deposit interest rates reduced the volume of savings deposits, and particularly short-term deposits⁴). Accordingly, banks' short-term liquidity conditions are assessed as having improved.

<Figure IV-8>

Maturity gap¹⁾ between assets and liabilities²⁾ in Korean won

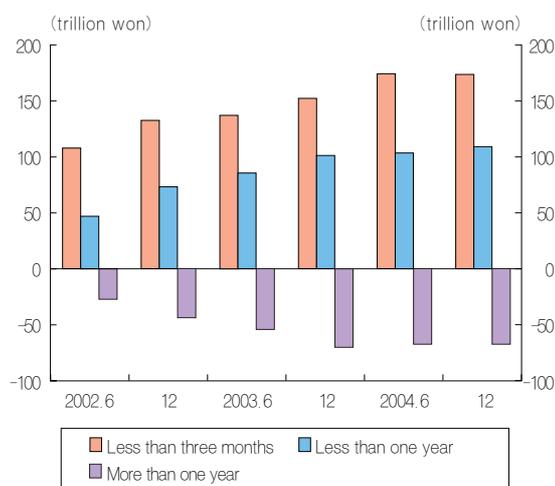


Notes : 1) (Assets-liabilities)/assets
 2) Bank account & trust account
 Source : Banks' call reports

4) Time deposits (commercial and specialized banks) for maturities of less than six months declined 33.1% from the levels as of the end of 2003 and those with maturities of over three years rose 2.5%.

<Figure IV-9>

Rate sensitive gap between assets and liabilities in Korean won



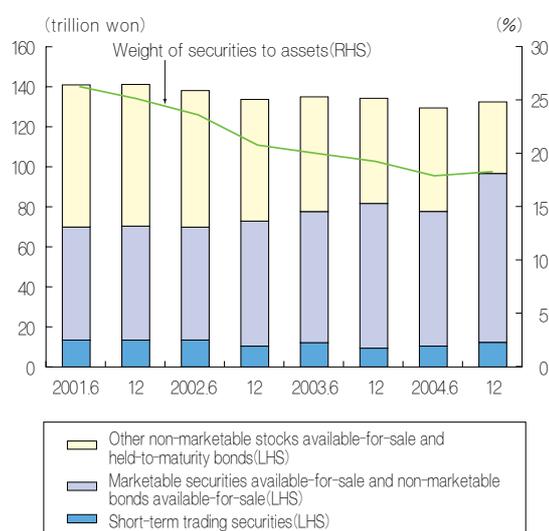
Notes : 1) Less than one year assets and liabilities include less than three month assets and liabilities
 2) Rate sensitive assets - rate sensitive liabilities
 Source : Banks' call reports

The maturity gap between outstanding assets and liabilities based on remaining maturities widened, but the rate-sensitive gap⁵⁾ based on the interest rate repricing cycle has not expanded further since June 2004. What is notable is that rate sensitive liabilities including short-term time deposits with maturities of less than three months declined, but rate sensitive assets fell even more in response to tightened risk management, prompting the asset-surplus rate sensitive gap to narrow, although only slightly, as compared to the end of June 2004.

Despite a slight fall in the rate sensitive gap, the scale of the asset-surplus rate sensitive gap for maturities of less than a year still remains high owing to the increased weight of floating rate loans and other factors, leading to an interest risk structure in which banks may incur losses if interest rates fall and make profits if they increase. Under these circumstances the upward movement of market rates witnessed in early 2005 may raise commercial banks' interest margins, but it could also work as a factor adding to the debt burden of the corporate and household sectors by the passing-through to borrowers of the burden of higher interest rates.

<Figure IV-10>

Investment in marketable securities



Note : Bank account. Closing balance.
 Source : Banks' call reports

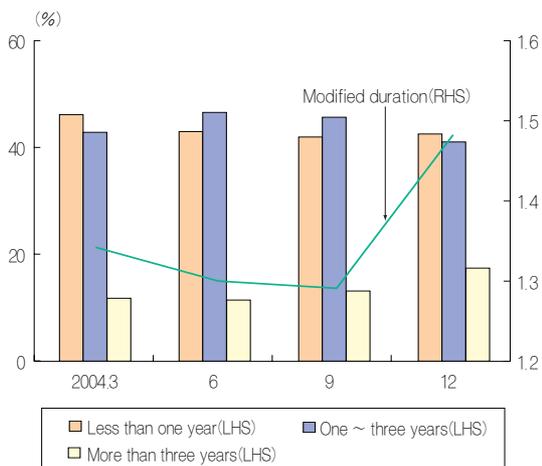
(Market risk of bonds and equities rose)

Securities accounted for 18.3% of total assets of banks as of the end of 2004, down 0.8 of a percentage point from a year earlier, but the volumes of short-term trading securities and marketable securities available for sale expanded to 96.7 trillion won as of the end of 2004, up from 76.5 trillion won as of the end of 2003.

5) Assets and liabilities are classified into rate sensitive assets and liabilities in accordance with the interest rate repricing cycle and assets are netted against liabilities by repricing cycle.

<Figure IV-11>

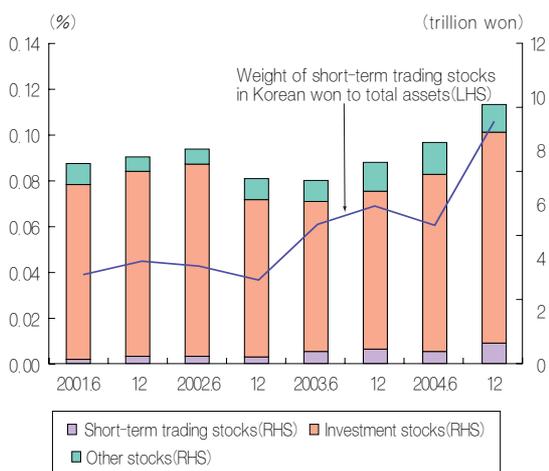
Duration of local currency bonds and maturity distribution



Sources : The Bank of Korea, Banks' call reports

<Figure IV-12>

Investments in equities



Source : Banks' call reports

Accordingly, exposure to market risk is seen to have increased greatly.

Market risk from bonds is on the rise with increasing exposures, the greater volatility of bond yields and the longer duration of bonds held. In particular, an increasingly high weight of long-term bonds with maturities of at least three years may lead to greater evaluation losses in the event of a rise in bond yields. The management of investment loss ceilings using loss-cut (stop loss) trading strategies and the extended use of quantitative risk management techniques such as VaR (Value at Risk)⁶⁾ may act as a factor lowering market risk of the bonds.

Given the fact that the volume of stocks held for short-term trading rose to 762.1 billion won as of the end of 2004, up 279.6 billion won from the end of 2003, while their weight in total assets remained insignificant at levels of around 0.11%, it is estimated that market risk from shares did not increase substantially. However, share holdings for investment purposes including those in subsidiaries and those resulting from debt-equity swaps were on a large-scale, standing at 7.9 trillion won as of the end of 2004 and this may act as a potential risk factor. What is more, stock holdings for investment purposes need to be reduced incrementally as they can impair capital adequacy ratios by substantially increasing risk weights when the New Basel Capital Accord takes effect⁷⁾.

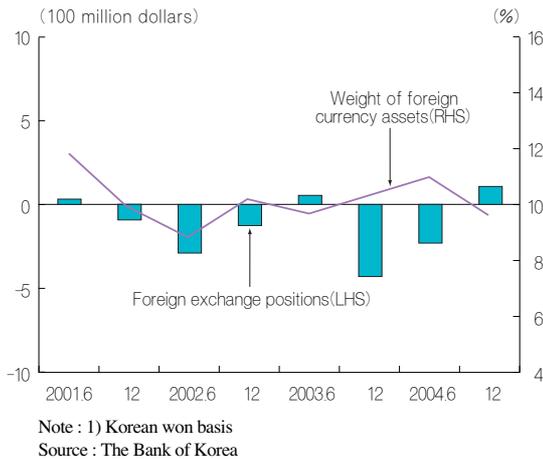
6) Maximum amount of loss that may be incurred within a certain period of holding at a given confidence level under a normal market situation.

7) Risk weights of 100% may be applied to stocks held up until the official entry into effect of Basel II for up to 10 years, but in the longer term, the application of the market standard method may raise risk weights to 300~400% and to as much as 1,250% when using PD/LGD approaches.

(Foreign exchange risk managed stably)

<Figure IV-13>

Weight of foreign currency assets¹⁾ and foreign exchange positions



Foreign exchange exposures of commercial banks in foreign currency terms increased to 64.9 billion dollars as of the end of 2004, up 4.1 billion dollars as compared to the end of 2003, but exposures in domestic currency terms fell as a result of the drop in won translation values due to the strength of the Korean currency, resulting in a 0.7 percentage point fall in the weight of foreign currency assets in total assets to stand at 9.6% as of the end of 2004. In addition, foreign exchange positions shifted to a net selling surplus as the end of 2004 from a net buying surplus, but the scale of the former was just 0.1 billion dollars, thus not directly posing a major foreign exchange risk.

<Figure IV-14>

Foreign exchange and US dollar positions by bank



Despite the overall stability in the management of foreign exchange positions, loss possibilities may vary bank to bank due to a different currency mix. Some banks with a high weight of US dollars in their total foreign currency positions may suffer valuation losses on translation if the dollar depreciates. Other banks with a high weight of medium and long-term US dollar-denominated assets may incur relatively greater losses as a result of the fall in the exchange value of the US dollar owing to difficulties in adjusting their portfolios.

Furthermore, the recent appreciation of the Korean won has a direct bottom line impact on foreign exchange business and also indirectly affects the business performance of banks by way of the translation into Korean won of foreign currency assets and liabilities and foreign currency revenues and expenses. The increase in the BIS capital adequacy ratio brought about by the reduction in the value of foreign currency-denominated risk weighted assets translated into Korean won has a positive impact, but the fall in the value of revenue from foreign exchange

business upon translation into won has the negative effect of reducing net profits of banks.

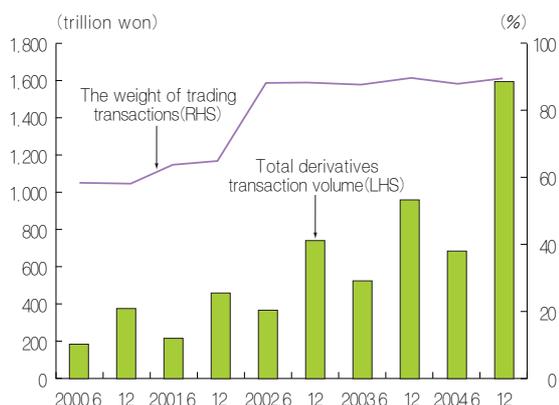
(Derivative product risk remains at low levels)

With volatility in interest rates and exchange rates growing, the volume of trading of derivative instruments is increasing greatly in order to manage the risks associated with high volatility. The volume of derivatives traded reached 1,605.7 trillion won in 2004, up 66.8% from 2003 while the share of derivatives held for trading remained constant at around the 90% level throughout that period. But, with risk hedging being the greatest purpose of derivatives trading, real risk levels are estimated to be low. In addition, given the fact that the weight of the top three banks (CR3⁸⁾) in total derivatives trading posted 39.3% at the end of 2004, which is lower than the 61.7% of CR3 based on all assets of commercial banks and much lower than the 89.2% of the US⁹⁾, the impact of derivatives trading on the banking system does not seem to be very large.

The increase of the share of over-the-counter trading in total derivative trading, which widened from 62.5% in 2003 to 78.5% in 2004, is complicating the risk structure of derivatives trading and acting to increase the burden of counterparty risk in derivative trading with customers.

<Figure IV-15>

Total derivatives transaction volume and the weight of trading transactions



Note : Annual cumulative figures
Source : Banks' call reports

8) CR(Concentration Ratio) is calculated by the simple summation of the market shares of individual banks and CR3 is the combined market share of the top three players.

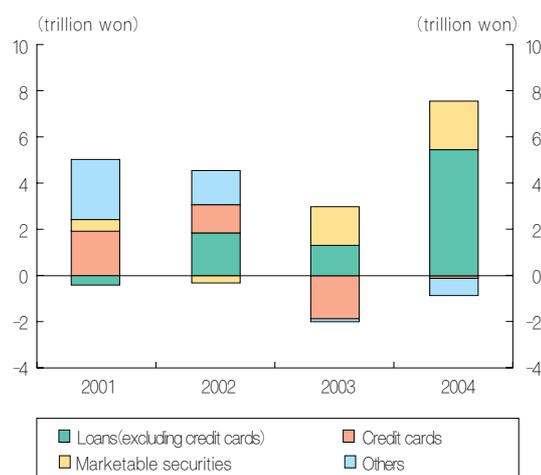
9) Derivatives trading balance as of the end of September 2004 of the Office of the Comptroller of the Currency (OCC) of US. CR3 based on domestic assets of US commercial banks as of the end of 2004 was 27.3%.

C. Profitability

(Net profits grew rapidly in 2004)

<Figure IV-16>

Changes in net profit before tax

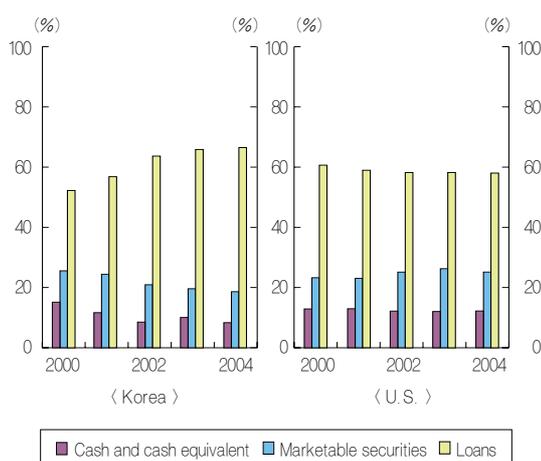


Source : Banks' call reports

Commercial banks saw their net profits before tax grow substantially to reach 6,666.6 billion won in 2004, as against the 631.2 billion won of the previous year. The expansion was driven by several factors: the profitability of lending business improved with a sharp fall in NPLs; the scale of deficits on credit card operations narrowed a great deal; and the securities field saw equity-method valuation gains (evaluation gains on equity participations) and an expansion of earnings from transactions involving marketable securities transactions. In other business areas, though, despite the increased earnings from fees and commissions, a deficit was recorded largely owing to losses on the sale of loans arising from the clearing of non-performing assets from the balance sheet.

<Figure IV-17>

Asset composition of Korean and US banks



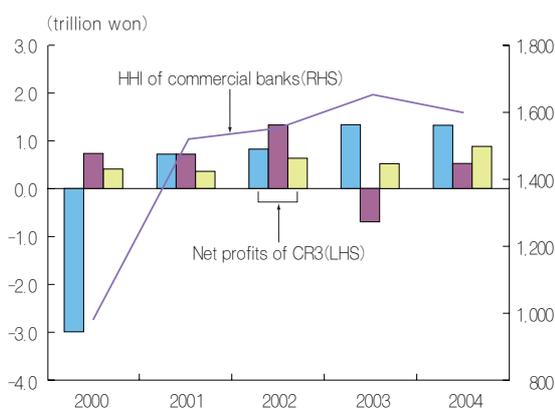
Sources : Korean banks' call reports, FDIC of U.S.

Even though there has been a sharp rise in net profits, their volatility has been increasing in certain business areas including deposits and loans and credit cards, indicating that the stability of profits is still low. This is largely attributable to domestic banks' lack of risk management skills, and the rapid changes since the Asian financial crisis in the weights of lending, marketable securities, and cash and cash equivalents¹⁰⁾ in total assets in contrast to the situation in the US. In particular, the increase in the weight of loan and the reduction in cash and cash equivalents, along with liquidity and interest rate risks, combine to detract from the stability of profit earnings.

10) Cash, deposits, call loans and RPs are included and US commercial banks actively use cash equivalents in managing interest rate and liquidity risks.

<Figure IV-18>

HHI and net profits of CR3



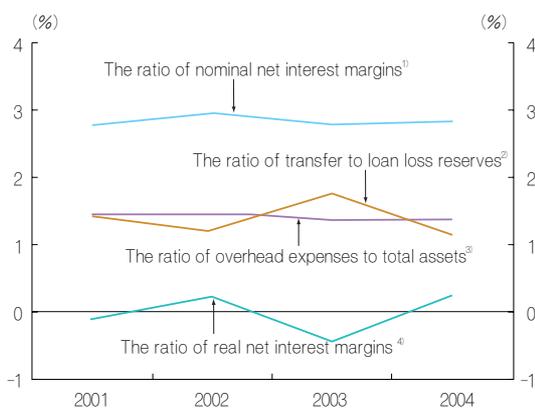
Source : Banks' call reports

The concentration rate of domestic commercial banks (excluding specialized banks), on an asset basis, increased with HHI¹¹⁾ reaching 1,601 as of the end of 2004, up from the 980 as of the end of 2000 owing to mergers and acquisitions in the banking industry. Given the sharp rise in the concentration rate, the increased volatility of the net profits of some big banks¹²⁾ may detract from the stability of the financial system. Risk management failures on the part of some large banks may not only damage the banking system, but also weaken the stability of the financial system as a whole. In actual fact, the reduced stability of the banking system generated by losses in the banking sector is seen to have lain at the heart of every financial system crisis that has arisen since the early 1990s¹³⁾.

(Slight rise in net interest margin)

<Figure IV-19>

Net interest margins



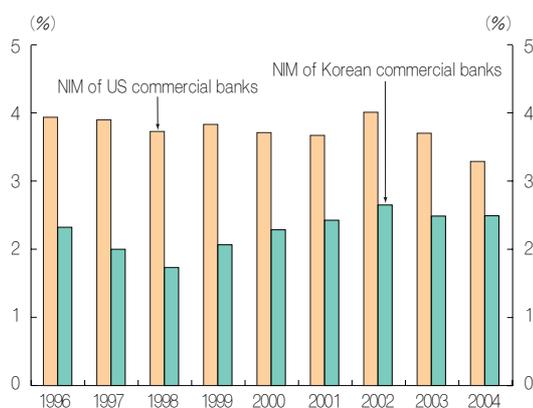
- Notes : 1) (Interest revenue - interest expense)/interest-earning assets
- 2) Net bad debt expenses/interest-earning assets
- 3) (Severance pay+overhead expenses+depreciation +amortization)/total assets
- 4) The ratio of nominal net interest margins - the ratio of transfer to loan loss reserves - the ratio of overhead expenses to total assets

Source : Banks' call reports

The ratio of nominal net interest margins (NIM) to interest-earning assets of banks registered 2.83% in 2004, up 0.06 of a percentage point from 2003. This was brought about by the fall in NPLs, the increase in interest-earning assets and the absorption by parent banks of credit card subsidiaries with high interest margins. Despite the increase in the expenses to assets ratio with the rise in sales and administrative costs, real net interest margins turned positive helped by the fall in transfers from loan loss reserves.

11) The HHI (Herfindahl-Hirschman Index) is calculated by summing the squares of the percentage market shares of individual firms.
 12) The weight of net profits of the big three banks, CR3 which had stood at around 25% (1995~1996) before the 1997 currency crisis subsequently rose to an annual average of 75% after the financial crisis. The comparable figures for the big three banks (CR3) in the US stood at 30.7%~36.0% (2000~2004).
 13) Swedish Riksbank, "The Relationship between Price Stability and Financial Stability", 「Economic Review」 2001 & FRB of Cleveland, "Systemic Banking Crises", 「Policy Discussion Papers」 2005.2.

<Figure IV-20>

Net interest margins of Korea and US

Sources : Korean banks' call reports,
FDIC of U.S.

Net interest margins may improve in the future if interest rates rise as banks hold more rate-sensitive assets than rate-sensitive liabilities for maturities of less than a year. However, with the competition for market share between financial institutions, further improvements in net interest margins will not be easily sustained. In comparison to the situation in major economies, the net interest margin of domestic banks is lower than the 3.4% of US banks with a high proportion of long-term assets under asset management, but it is nevertheless higher than the 1.6%¹⁴⁾ of Japan where the low interest rate trend has persisted for a long time and the approximate 2.0% of UK banks, which have been increasing their dependency on non-interest earnings¹⁵⁾.

(Continuation of buoyant profitability)

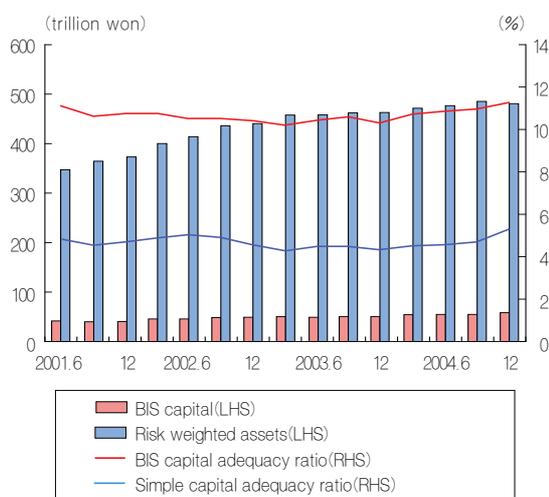
The buoyant profitability of banks is expected to be sustained throughout the year 2005 as both net interest margins and loan loss provisioning should remain stable while fee and commission income should continue to increase. However, falling profits in their securities business in response to interest rate hikes and the reduced growth of bank assets may hold back improvements in profitability.

14) Based on FY2003 and net interest spread [(interest on loans + interest on marketable securities)/(loans + marketable securities)-(interest on deposits+interest on financial debentures)/(deposits+financial debentures)] (The Japan Federation of Banks, 「Analysis of financial statements of banks」, 2004)

15) Based on 2004, UK banks show a downward trend in net interest margins as they focus more on non-interest earning than interest-earning areas of business. (Bank of England, 「Financial Stability Report」, 2004.12)

<Figure IV-21>

BIS capital adequacy ratio

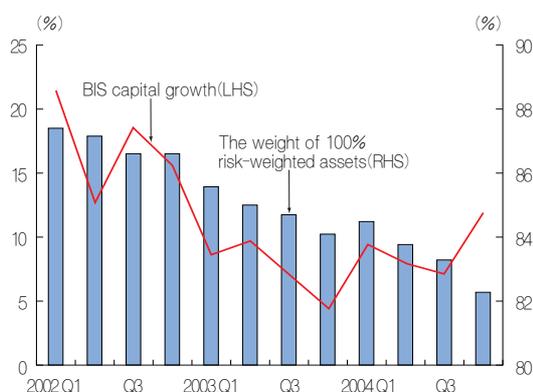


Note : Calculated taking into consideration credit and market risks from March 2002

Source : Banks' call reports

<Figure IV-22>

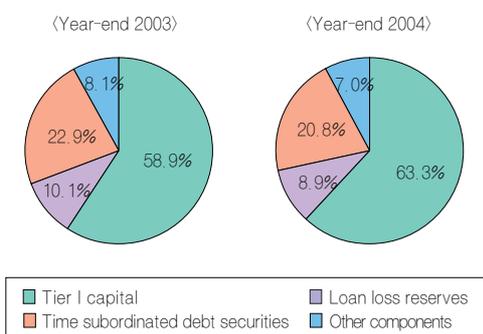
BIS capital and 100% risk-weighted assets



Source : Banks' call reports

<Figure IV-23>

BIS capital structure



Source : Banks' call reports

D. Capital adequacy

(BIS capital adequacy ratios rose substantially)

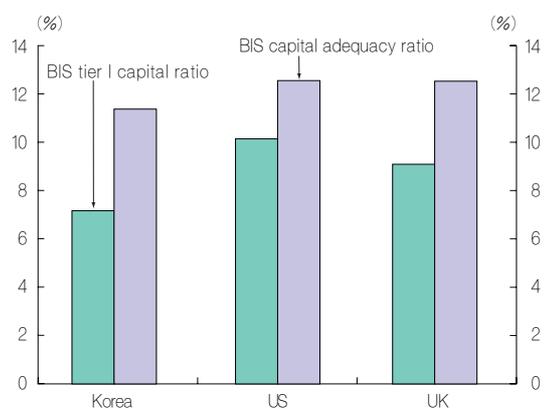
The BIS capital adequacy ratio increased by 0.89 of a percentage point to stand at 11.29% at the end of 2004 from a year earlier, and the simple ratio of the BIS capital to total assets reached 5.28%, also up by 0.89 of a percentage point from a year earlier to register its highest level since BIS ratios were first officially calculated in Korea in 1992.

The BIS capital adequacy ratio is expected to edge up slightly in 2005 as well. This is because the vibrant profitability of commercial banks should continue and banks are likely to rein in the operation of their funds in those sectors carrying a high risk weighting ahead of the full implementation of the New Basel Capital Accord (Basel II).

(BIS capital structure improved)

BIS capital structure improved as Tier I capital rose to 63.3% at the end of 2004, up 4.4 percentage points over the previous year end, thanks to the brisk increase in net profits; meanwhile the weight of time subordinated debt securities in Tier II capital fell.

With the increase in the BIS capital ratio and the strengthening of their BIS capital structure, banks' capital adequacy improved. However, given the high volatility of banks' net profits and the relatively low BIS Tier I capital ratio compared to that of commercial banks in major economies, continued efforts are needed to expand equity capital, and particularly Tier I capital, to further improve capital structure. To this end, banks need to increase the

<Figure IV-24>**BIS capital adequacy ratios of banks in Korea and major economies**

Sources : Korean banks' call reports, FDIC of US, Bank of England

stability of their profits, increase equity capital through new issues of shares and retain a higher proportion of their earnings.

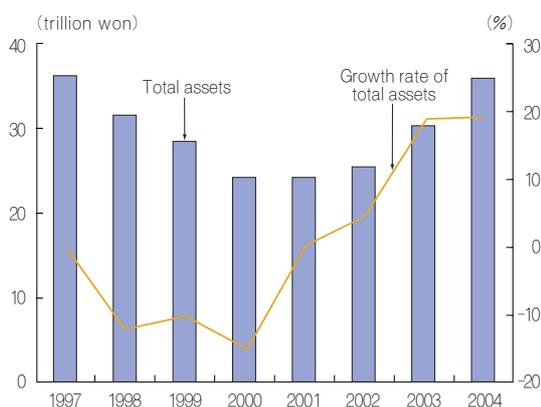
2. Soundness of non-bank institutions

A. Mutual savings banks

(Mutual savings banks saw their role and profitability weaken)

<Figure IV-25>

Total assets of mutual savings banks

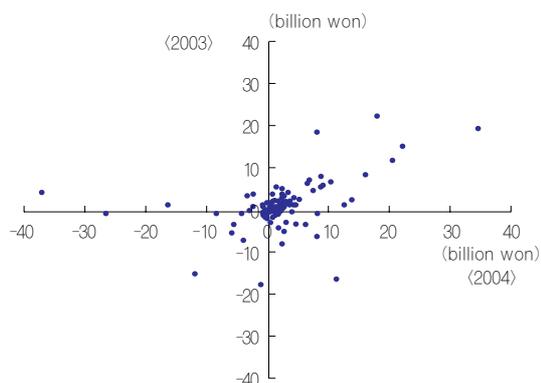


Source : The Financial Supervisory Service

Total aggregate assets of mutual savings banks¹⁶⁾ reached 35,941.2 billion won as of the end of 2004, sustaining the strong upward trends evident since 2003. However, this figure represented about 98.9% of the total aggregate assets recorded in nominal terms as of the end of 1997, indicating that mutual savings banks have not fully recovered from the reduction in their assets during the period of financial restructuring after the financial crisis. Over the same period, the total assets of domestic banks increased to 1,017.7 trillion won at the end of 2004, from 584.6 trillion won at the end of 1997, demonstrating a relative contraction of the role of mutual savings banks in the financial industry.

<Figure IV-26>

Net profit distribution of mutual savings banks



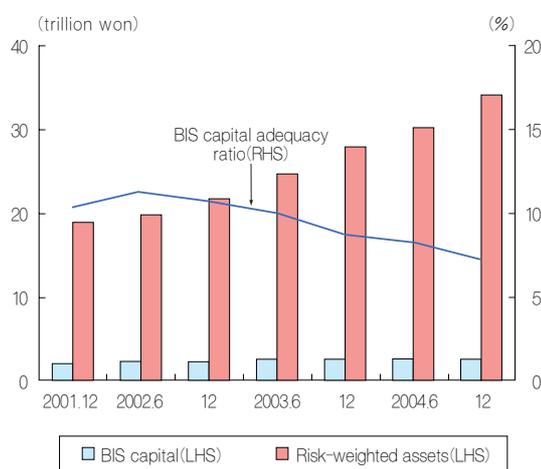
Note : Net profits lower than -40 billion won are not indicated
Source : The Financial Supervisory Service

Mutual savings banks registered an overall deficit of 153.4 billion won in 2004, having shifted from a surplus of 126.8 billion won in 2003 in response to the heavy losses incurred by some mutual savings banks that were ordered to take prompt corrective action. According to the data on net profits in 2003-2004, the number of mutual savings banks that registered a surplus in both years was only 58.4% of the total and those that exhibited a deficit for two straight years account for 13.3% of the total, which is an indication of the low profit stability of mutual savings banks.

16) Mutual savings banks close their accounts at the end of June, but for analytical purposes year-end data are used.

<Figure IV-27>

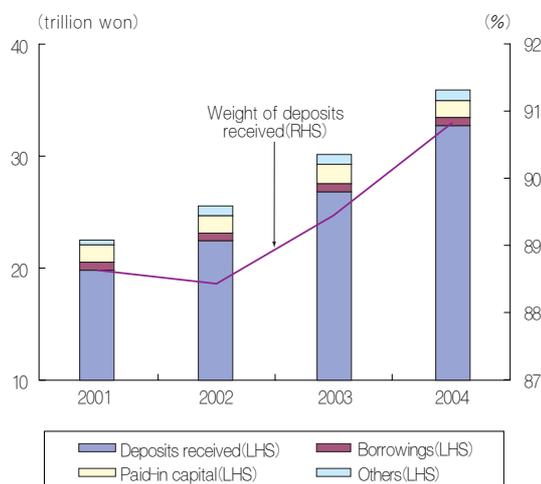
BIS capital adequacy ratio of mutual savings banks



Source : The Financial Supervisory Service

<Figure IV-28>

Financing structure of mutual savings banks



Source : The Financial Supervisory Service

This weak performance of mutual savings banks is attributable to the facts that the likelihood of their borrowers' potential insolvency is high as they operate most of their assets, which are funded at high interest rates, in areas that offer high risks and high returns and that the debt servicing capacity of the small businesses and low income families that constitutes a major customers of mutual savings banks weakened substantially within the course of the delay in economy recovery. As a result, the delinquency rate registered by mutual savings banks rose from 21.2% in 2003 to 22.8% in 2004.

(Capital adequacy ratio maintains downward path)

The capital adequacy ratio of mutual savings banks on the basis of the BIS criteria stood at 7.13% as of the end of 2004, down 1.61 percentage points from a year earlier. This reflected the sharp increase in their risk-weighted assets generated by their expansion of project financing without an increase in equity capital. Despite the fall in the BIS ratio, capital has not been replenished through the stock market or the injection of additional funds by major shareholders; consequently an upturn in their capital adequacy has not proved possible.

In the meantime, given the way in which mutual savings banks raise funds and the interlocking exposures between financial institutions, the likelihood of systemic risk arising from the insolvency of a particular mutual savings bank is not considered to be very large. But given their business characteristic of focusing on customers in specific regions in which they operate, the failure of large mutual savings banks could have a great impact on their particular regional economies. Moreover, amidst the shift of banks' strategic focus to asset quality and

profitability, the weakening of the role of mutual savings banks, which are major providers of funds to small enterprises and households in low income brackets, might well lead to a greater proportion of the population being denied access to the organised financial system.

B. Credit unions and Community credit cooperatives

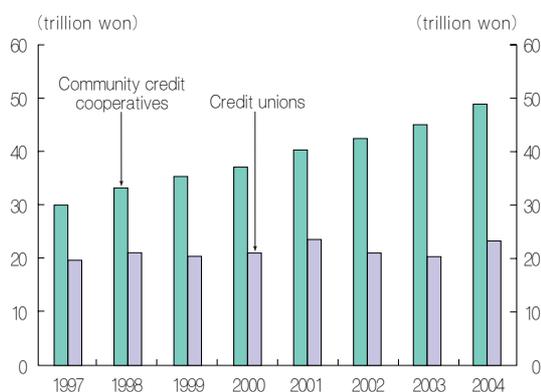
(Weakening competitiveness of credit unions and community credit cooperatives)

The aggregate assets of credit unions registered 22,764.3 billion won and those of community credit cooperatives 43,782.9 billion won as of the end of 2004, showing increases of 17.7% and 63.5% respectively over the seven-year period since year-end 1997. Even though the numbers of credit unions and community credit cooperatives declined at a similar rate during financial restructuring, community credit cooperatives saw a larger increase in their assets because their restructuring was achieved largely through merger and acquisition activity rather than through winding-up or bankruptcy. However, the increase in their assets has been lower than that in bank assets since the financial crisis, indicating that their role, along with that of mutual savings banks, as providers of funds to low-income families and small-scale SMEs, has weakened rather than increased.

The reliance of credit unions and community credit cooperatives on deposit-taking for their fund-raising stands as high as 82% to 85% while the weight of equity investment by their members makes up only between 5% and 9% of their funding, much less than

<Figure IV -29>

Total assets of credit unions and community credit cooperatives



Sources : National Credit Union Federation of Korea, Korea Federation of Community Credit Cooperatives

<Table IV -1>

Restructuring of credit unions and community credit cooperatives

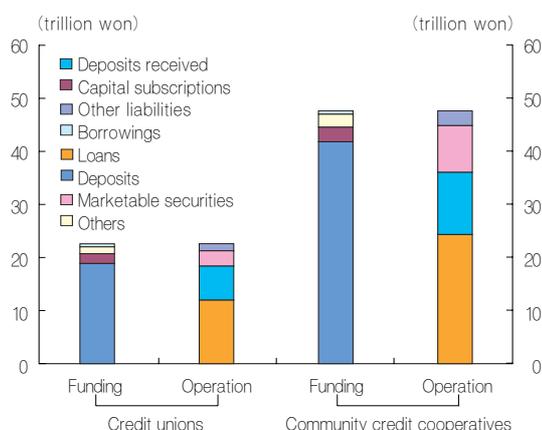
(Number of businesses)

	1997 (A)	Restructuring					New (C)	2004 (A-B+C)
		License cancelled	Bankruptcy	M&A	winding up	Sub-total (B)		
CU	1,666	2	338	112	161	613	13	1,066
CCU	2,743	1	29	857	340	1,227	131	1,647
Total	4,409	3	367	969	501	1,840	144	2,713

Sources : National Credit Union Federation of Korea, Korea Federation of Community Credit Cooperatives

<Figure IV-30>

Financing and fund operations of credit unions and community credit cooperatives



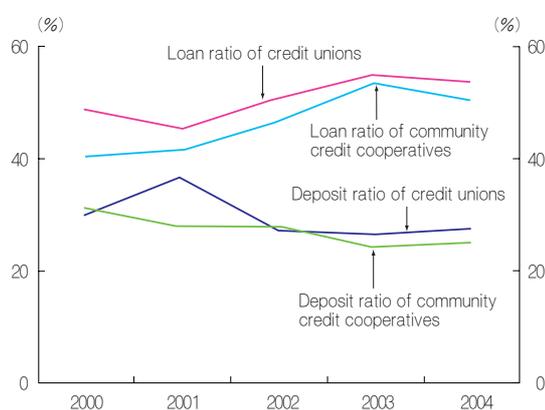
Note : Based on year-end 2004
 Sources : National Credit Union Federation of Korea,
 Korea Federation of Community Credit Cooperatives

the levels of similar institutions abroad¹⁷⁾, and it is still decreasing. The fall in the subscription of equity not only detracts from the stability of their financing, but also weakens discipline by members' monitoring and restraint, thus increasing the possibility of insolvency. In particular, the absence of members' surveillance may act as a major factor leading to insolvency in the case of credit unions that operate in particular regions, where there may be serious problems of asymmetries of information, rather than in the case of those that are workplace-based or serve particular groups.

In the meantime, of the assets operated by credit unions and community credit cooperatives, the weight of lending represented 50-54% as of the end of 2004, having maintained an upward path in 2001-2003 before shifting to a downward trend in 2004. There are a number of reasons for this downturn: the target customer base of credit unions and community credit cooperatives shrank greatly due to the increased numbers of those individuals branded as "credit delinquents", the protracted delay of economic recovery that weakened the debt servicing capacity of low-income families and their failure to secure a strong competitive edge in competition with banks as lenders to low-income families. Furthermore they lack the skills to manage their assets while exercising risk management adequately.

<Figure IV-31>

Loans and deposits ratio of credit unions and community credit cooperatives



Note : The ratio to total assets managed by each entity
 Sources : National Credit Union Federation of Korea,
 Korea Federation of Community Credit Cooperatives

Because of their weakness in terms of asset management, credit unions and community credit cooperatives commonly entrust a certain share of their assets, representing about a half of total lending, to their federations for management. This practice can disperse the risks associated with asset management of

17) Credit unions of US have over 80% of equity investment out of total liabilities.

individual firms, but it may also have negative effects such as weakening their role as financial institutions serving less privileged members of the community and eroding the basis of the regional economy. Moreover, a lack of asset management skills on the part of the federations themselves may lessen the business performance and credibility of all member institutions, raising the spectre of systemic risk.

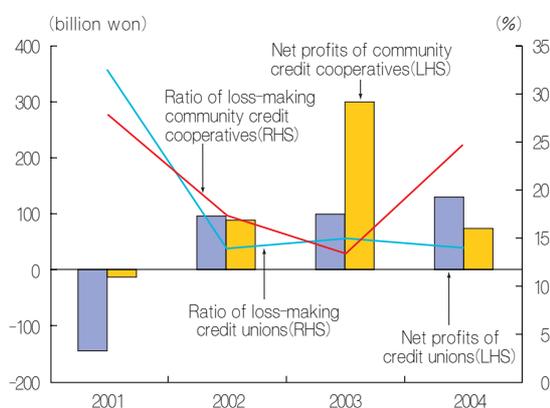
(Low level of profit stability)

Credit unions shifted into the black in 2002, recording a profit of 130.6 billion won in 2004. Community credit cooperatives showed a profit of 73.2 billion won in 2004, a substantial decline from the 229.1 billion won in 2003, with the number of loss-making cooperatives expanding to 25% of the total. With the low profitability of credit unions and community credit cooperatives and the large differences in earnings between superior cooperatives (including unions) and others, the overall stability of their profits appears low.

The delinquency rate of community credit cooperatives is lower than that of credit unions, which show larger profits. It is, moreover, on the decline despite the weakening of their profitability. This indicates a lack of compatibility between the statistical data. In fact, credit unions and community credit cooperatives number 2,700 in all, making it difficult for the Financial Supervisory Commission and the Ministry of Government Administration and Home Affairs¹⁸⁾ to carry out the effective supervision of them all individually. At the same time, market discipline

<Figure IV -32>

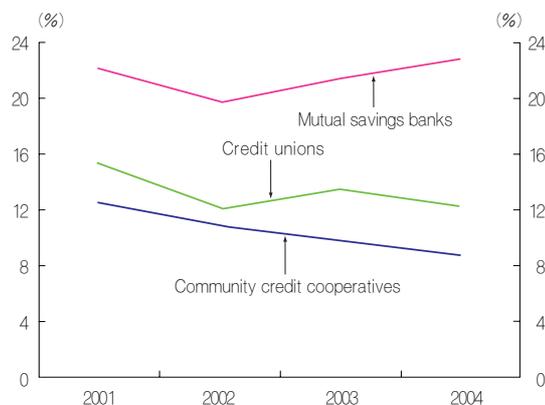
Net profits of credit unions and community credit cooperatives



Sources : National Credit Union Federation of Korea,
Korea Federation of Community Credit Cooperatives

18) Credit unions and community credit cooperatives are supervised by the Financial Supervisory Commission and the Ministry of Government Administration and Home Affairs, respectively. Credit and insurance businesses of community credit cooperatives are supervised by the MOGAHA in consultation with the FSC.

<Figure IV-33>

Delinquency rate of mutual savings banks, credit unions and community credit cooperatives

Note : Delinquency of one month and longer, but for community credit cooperatives, delinquency of one day and longer

Sources : The Financial Supervisory Service
National Credit Union Federation of Korea
Korea Federation of Community Credit Cooperatives

through disclosure requirements is not working effectively, limiting the improvement in the credibility of credit unions and community credit cooperatives.

In the meantime, given the small size of individual cooperatives (including unions) and of cross exposures between organizations, the problems of a few of them are not expected to give rise to instability in the financial system as a whole. Insolvencies of some credit unions and community credit cooperatives, however, and the lack of expertise on the part of their federations may weaken their roles as providers of funds to low income brackets, increasing the number of those debarred from access to the financial system and deepening its polarization. Therefore, supervision of the soundness of individual institutions and of their federations must be intensified while plans need to be drawn up for the rapid restructuring of distressed financial institutions by way of exit along with the consolidation of the competitiveness of financial institutions serving the less privileged members of the community.

V. Financial infrastructure

1. Payment and settlement system

A. Payment and settlement trends

(Overview)

The daily average volume of settlements by non cash payment instruments¹⁾ stood at 19.7 million transactions, for a total value of 136.7 trillion won in 2004, up 0.4% by volume and up 8.4% by value from a year earlier. Such expansion of the scale of settlements is largely attributable to the increase in funds transfer through the payment and settlement system brought about by the more intensive use of the BOK-Wire, which more than offset the substantial decline in the number and value of checks and bills.

(Checks and bills)

The daily average volume of settlements by checks and bills posted 3.5 million transactions, for a total value of 14.8 trillion won in 2004, down 11.4% by volume and down 29.7% by value from a year earlier. The scale of settlement was led downward by a sharp fall in the use of promissory notes and current account checks in an environment in which paper-based settlement is being replaced by electronic-based settlement.

<Table V-1>

Settlement volume by payment instrument

(thousand transactions, trillion won, %)

		2003	2004	Change
Volume	Checks/Bills	3,939	3,489	-11.4
	Fund transfer	8,929	9,270	3.8
	Cards, etc. ¹⁾	6,020	6,899	3.2 ²⁾
	Total	18,887	19,658	0.4 ²⁾
Value	Checks/Bills	21.1	14.8	-29.7
	Fund transfer	103.7	120.9	16.6
	Cards, etc. ¹⁾	1.3	1.0	-26.4 ²⁾
	Total	126.1	136.7	8.4 ²⁾

Notes : 1) Credit cards, debit cards, check cards, prepaid cards and e-money. Credit card records from years prior to 2001 only include results from the credit card operations of banks and their subsidiaries

2) Figures for check cards, prepaid cards and e-money were first published in 2004. They are therefore excluded from the calculations of changes from the previous year.

<Table V-2>

Settlement by bills and checks

(thousand transactions, trillion won, %)

		2003	2004	Change
Volume	Cashier's checks	3,874	3,433	-11.4
	Promissory notes, etc. ¹⁾	51	44	-12.7
	Other certificates ²⁾	14	11	-15.2
	Total	3,939	3,489	-11.4
Value	Cashier's checks	6.1	5.2	-14.4
	Promissory notes, etc. ¹⁾	12.5	8.1	-34.9
	Other certificates ²⁾	2.4	1.4	-41.5
	Total	21.1	14.8	-29.7

Notes : 1) Including current account checks, personal checks and bills of exchange

2) Cashier's receipts for call loan repayment, and receipts of transactions related to securities investment trusts and negotiable Certificates of Deposits (CD)

1) Payment instruments are broadly classified into cash and non-cash instruments, and non-cash instruments include checks and bills, funds transfer, cards, and E-money, etc.

<Table V-3>

Settlement by funds transfer

(thousand transactions, trillion won, %)

		2003	2004	Change	
Credit transfer	Volume	Large value credit transfer	6	7	7.0
		Retail credit transfer	5,173	5,192	0.4
		Total	5,180	5,199	0.4
	Value	Large value credit transfer	91.2	107.8	18.3
		Retail credit transfer	12.2	12.7	4.5
		Total	103.3	120.6	16.7
Debit transfer	Volume	Giro system direct debits	1,670	1,811	8.4
		CMS debit transfers	2,079	2,260	8.7
		Total	3,749	4,071	8.6
	Value	Giro system direct debits	0.1	0.1	15.3
		CMS debit transfers	0.3	0.2	-20.6
		Total	0.4	0.3	-9.5

<Table V-4>

Settlement over BOK-Wire

(thousand transactions, trillion won, %)

		2003	2004	Change
Volume	Gross settlement	4.3	5.3	23.1
	Net settlement	0.7	0.6	-3.2
	Receipt and disbursement of Treasury funds, etc. ¹⁾	1.4	0.9	-37.0
	Total	6.4	6.9	7.0
Value	Gross settlement	70.0	89.4	27.6
	Net settlement	13.9	11.8	-15.2
	Receipt and disbursement of Treasury funds, etc. ¹⁾	7.3	6.7	-8.0
	Total	91.2	107.8	18.3

Note : 1) Receipt and disbursement of treasury funds, Bank of Korea loans, transactions of government and municipal bonds

(Funds transfer)

Among funds transfer²⁾ between financial institutions, credit transfers registered a daily average of 5.2 million transactions and 120.6 trillion won in 2004, up 0.4% by volume and up 16.7% by value from a year earlier. This arose mainly from the increase in large value funds transfer through the BOK-Wire and retail funds transfer through the Electronic Banking System.

In the meantime, the daily average volume of settlements by debit transfer posted 4.1 million transactions, for a total value of 336.0 billion won in 2004, up 8.6% by volume and down 9.5% by value from a year earlier. The increase in their volume was driven by the wider use of direct debit transfers for payment of charges for public utilities and imposts while the fall in their value resulted from the greater use by credit card issuers of the Electronic Banking System rather than Cash Management Service (CMS) System for collection and a subsequent sharp fall in the CMS settlement volume.

Strikingly, the daily average volume of large value funds settlements through BOK-Wire reached 6,867 transactions, for a total value of 107.8 trillion won in 2004, up 7.0% by volume and 18.3% by value from a year earlier. The sharp expansion of securities settlements by the delivery versus payment (DVP) system and of foreign-currency call transactions between foreign bank branches and their headquarters

2) Funds can be transferred from one account to another either by credit transfer or debit transfer. Credit transfer refers to a transfer of funds initiated by the payer directing his/her bank to deposit a certain amount into the bank account of the payee whereas in a debit transfer the payee instructs his/her bank to withdraw a certain amount from the payer's account in accordance with a prior contract.

(foreign-currency denominated call transactions through foreign bank branches' interoffice accounts) contributed to the increase in settlement volume.

(Cards)

The usage of cards for settlement registered a daily average of 6.4 million transactions by volume and 971.2 billion won by value in 2004, marking a year-on-year increase of 3.2% in volume terms and a decrease of 27.0% in value terms. The usage of credit cards posted a daily average of 6.2 million transactions by volume and 963.1 billion won by value, representing an increase of 3.2% in volume terms, but a decrease of 27.0% in value terms, which was caused by the reduced resort to cash advance services. The usage of cards other than credit cards, such as debit cards, recorded a daily average of 0.2 million transactions by volume and 8.1 billion won by value, much lower than that of credit cards.

<Table V -5>

Settlement by cards

(thousand transactions, trillion won, %)

		2003	2004	Change
Volume	Credit Cards	6,017	6,207	3.2
	Debit Cards ¹⁾	2	3	21.9
	Check Cards	..	211	..
	Prepaid Cards	..	17	..
	Total	6,020	6,438	3.2 ²⁾
Value	Credit Cards	1,319.1	963.1	-27.0
	Debit Cards ¹⁾	0.2	0.2	13.2
	Check Cards	..	7.2	..
	Prepaid Cards	..	0.7	..
	Total	1,319.2	971.2	-27.0 ²⁾

Notes : 1) Throughput of the Debit Card Net of Korea Financial Telecommunications and Clearings Institute

2) Figures for check cards, prepaid cards and e-money were first published in 2004. They are therefore excluded from the calculations of changes from the previous year.

<Table V -6>

Net exchange payments and value of collateral securities

(billion won, %)

Category		2003	2004	Change
Net average exchange payments ¹⁾	Morning	2,135.9	2,206.0	70.1(3.3)
	Afternoon	7,312.7	5,190.9	-2,121.8(-29.0)
Value of collateral securities called for as collateral ²⁾ (A)		5,177.3	5,871.1	693.8(13.4)
Value of securities deposited as collateral ²⁾ (B)		5,315.0	6,114.6	799.6(15.0)
B/A		102.7	104.1	

Notes : 1) Sum of net exchange payments during the year/net exchange payment days

2) Based on year-end figures

B. Settlement risk trends

The simple sum of daily average net debit position by participants in net settlement, which indicates the level of net settlement risk, increased by 70.1 billion won (3.3%) to 2.2 trillion won in 2004 for morning net settlement³⁾ and shrank by 2.1 trillion won (29%) to 5,190.9 billion won for afternoon net settlement. The

3) Apart from the Check Clearing System of Korea Financial Telecommunications and Clearings Institute (KFTCI), the net settlement amount, and subsequent fund adjustments, arising from inter-bank fund transfers through 10 systems (Giro System, Electronic Banking System, Interbank Funds Transfer (IFT) System, Interbank CD/ATM System, Cash Management Service (CMS) System, Electronic Funds Transfer at the Point of Sale (EFTPOS) System, BANKLINE System, K-cash System and B2B & B2C E-Commerce Payment System) are settled across the current accounts of participating institutions at the Bank of Korea as of 11:30.

sharp decrease in net debit position in afternoon⁴⁾ net settlement was caused by the sharp fall in the use of bills and checks, coupled with the change of the methodology followed in funds adjustment following the clearing of cashier's checks from the basis of compensation for the cumulative total of the daily amounts foregone to that of compensation for the interest foregone.

Net debit caps set by participants in net settlement (26 institutions) increased to 14.2 trillion won at the end of 2004, up 2.8 trillion won (25.1%) from a year earlier. This is because participants raised net debit caps to cope with an increase in fund transfers between customers through retail payment systems such as Electronic Banking System, Interbank Funds Transfer System and CD/ATM System. Despite the raising of the net debit caps, the simple average of the maximum utilization rate of net debit caps by participants registered 74.5% in 2004, up 10.2 percentage points from the 64.3% of the previous year.

The volume of securities deposited as collateral with the Bank of Korea by net settlement participants to guarantee fulfillment of net settlement stood at 5.9 trillion won as of the end of 2004, up 693.8 billion won (13.4%) from a year earlier.

4) Net settlement for bills & checks and funds adjustment for cashier's checks through the Check Clearing System of KFTC is made across the current accounts of participating banks at the Bank of Korea as of 14:30.

C. Developments in the payment and settlement system

(Oversight of payment and settlement system tightened)

The revised Bank of Korea Act assigning the Bank's role of overseeing payment and settlement systems, which took effect as of January 1, 2004, provided a legal framework for assessing the safety and efficiency of the payment and settlement system. Based on the Act's provisions, the Bank of Korea conducted an assessment of six systemically important payment systems⁵⁾: the BOK-Wire, Checks Clearing System, the CD/ATM System, the Interbank Funds Transfer System, Electronic Banking System of Korea Financial Telecommunications and Clearings Institute (KFTC) and the OTC bonds transaction settlement system of Korea Securities Depository (KSD).

According to the assessment results, these systems were found to comply generally with global standards for safety and efficiency. Recommendations were issued to the operators of the systems found to have certain problems such as a lack of legal guarantee of settlement finality or the absence of business continuity planning for the management of operational risk.

(Safety and efficiency of payment and settlement system enhanced)

The plan, launched in 2002, to introduce the Payment versus Payment (PVP) system of Continuous Linked

5) The Bank of Korea classified the nation's payment and settlement systems into systemically important, prominently important, and other payment and settlement systems on the criteria of the likelihood of causing systemic risks, the nature and scale of settlement funds and availability of alternative payment systems.

Settlement(CLS) Bank in order to reduce foreign exchange settlement risk arising from time differences between the two legs of an international foreign exchange transaction, was completed and the system was brought into official operation as of December 6, 2004.

For the operation of the system, the Bank of Korea constructed an interface linking BOK-Wire to the CLS Bank system in March 2004 and KFTC established CLS Network⁶⁾ that enables the sharing of foreign currency transactions data and settlement information between related parties by linking the systems of domestic settlement members to CLS Bank and connecting them to third parties. In addition, to provide a legal basis for introducing CLS System the Bank of Korea reviewed relevant laws and regulations⁷⁾ and drafted the necessary amendments in close cooperation with the National Assembly, the Ministry of Finance and Economy, and the Ministry of Justice.

To provide a legal framework to guarantee settlement finality⁸⁾ in the use of core payment and settlement systems, the Bank of Korea requested the inclusion of a

6) Domestic banks use the CLS services via Kookmin Bank and Korea Exchange Bank, which are members of CLS Bank, while Korean branches of foreign banks use the settlement service through their head offices, which also should be settlement members. Domestic banks other than Kookmin Bank and Korea Exchange Bank are to select either of them as their counterpart settlement member and participate in foreign exchange settlement through the CLS Network developed by KFTC.

7) Amendments to 「Regulation on Foreign Currency Transactions」 (MOFE, effective as of September 1), amendments to 「Regulation on Current Account Transactions of The Bank of Korea」 (effective October 1), amendments to 「Regulation on the Operation and Management of the Payment Systems」 and 「Working Rules on the Operation and Management of Payment System」 (effective October 1) and request for an insertion of a provision on settlement finality into 'Act concerning Bankruptcy and the Rehabilitation of Debtors (draft)'.

8) Settlement finality means any settlements over the payment and settlement system initiated by payment order of participating institutions are irrevocable and unconditional in that they shall be completed in accordance with the pre-determined rules by the payment system.

<Table V -7>

System failures/disasters classification and associated risks

Category		Risks
Technical failures		<ul style="list-style-type: none"> failures in hardware, software and telecommunications networks breakdowns in computer systems used for payment and settlement
Natural disasters		<ul style="list-style-type: none"> power leakage or outages caused by earthquakes, typhoons or floods, etc
Man-made disasters	human errors	<ul style="list-style-type: none"> errors in devices or equipment caused by the mistakes of the staff managing them
	accidents	<ul style="list-style-type: none"> power black-out, fire or broken water conduits caused by wear and tear of facilities
	attacks	<ul style="list-style-type: none"> unauthorised entry by outsiders

provision on settlement finality in the “Act concerning Bankruptcy and the Rehabilitation of Debtors (Consolidated Bankruptcy Act)”, that was being drafted by the government in September 2004. To facilitate the incorporation of its desired provision, the Bank of Korea built up a consensus from October 2004 on the need for a legal guarantee of settlement finality through a process of consultation with the parties involved, including the government and the National Assembly, and the holding of a conference of legal experts. As a result, the National Assembly resolved to include the provision on settlement finality in the Consolidated Bankruptcy Act when passed in March 2005.

The Bank of Korea developed Business Continuity Planning (BCP) through the wholesale revision of the existing contingency plan in December 2004 in order to avoid risks that might disrupt the operations of the BOK-Wire and to ensure business continuity at a certain level with swift response and restoration in the event of system failure or disasters. The planning classifies the risks that might disrupt the operations of the BOK-Wire into technical failures, natural disasters and man-made disasters, and in the light of this planning, the Bank of Korea reviewed all the measures in place to prevent recognized risks, taking remedial action to address problematic issues identified.

The Bank of Korea in July 2004 changed the method of the adjustment of funds following the clearing of cashier’s checks from one based on the cumulative total of the daily amount to one based on the amount of interest involved, as the volume of funds adjustment⁹⁾

9) The method of compensation based on cumulative total of the daily amount refers to a method of funds adjustment arising from inter-bank transactions under which the paying bank of net obligation offers one-day interest-free call loan (fund adjustment loan), equivalent of the

between banks arising from the clearing of cashier's checks between issuing banks and receiving banks had increased rapidly due to swelling cumulative total of the daily amount following the launch of the 5-day-week in the financial industry. In addition, in November 2004, the Bank of Korea drew up a plan to change the method of fund adjustment related to all cashier's receipts¹⁰⁾, bringing it into practice in March 2005 after reaching an agreement on applicable interest rates with banks and investment firms. As a result, the volume of net settlement between banks associated with the clearings of cashier's checks dropped significantly, reducing banks' burden of carrying settlement funds and their settlement risk.

cumulative total of daily amounts to the receiving bank of net obligation and collects the loan the next business day while under the interest settlement method, the paying bank of net settlement pays due interest to the receiving bank of net obligation instead of giving and taking call loans.

- 10) Including receipts for business related to securities investment trust, notices of call fund settlements, receipts for default bill collection, receipts for cash remittance, receipts for error, default check collection, etc.

2. Recent developments in domestic financial system

<Table V -8>

Changes resulting from deregulation in securities industry

Before	After
<ul style="list-style-type: none"> □ Scope of securities firm's business <ul style="list-style-type: none"> ○ Brokerage and underwriting businesses: <ul style="list-style-type: none"> - stocks, invested securities, preemptive rights - bonds, CP - Beneficiary Certificates - <u>warrants, ELS</u> - (New) ○ Additional businesses <ul style="list-style-type: none"> - futures business (stock related) - discretionary investment & advisory service - <u>OTC derivatives trading (excluding general product & credit derivatives)</u> - (New) ○ Incidental business <ul style="list-style-type: none"> - securities evaluation - agent · proxy · representative for M&As - sales & brokering of CDs - management consulting - underwriting · intermediation · proxy for private offerings - real estate rental business - publishing business - <u>advertising agent using electronic documents</u> - (New) - (New) 	<ul style="list-style-type: none"> □ Scope of securities firm's business <ul style="list-style-type: none"> ○ Brokerage and underwriting businesses: <ul style="list-style-type: none"> - (unchanged) - (unchanged) - (unchanged) - <u>securitized derivatives (including warrants & ELS)</u> - <u>investment equity of limited company/limited partnership & anonymous association</u> ○ Additional businesses <ul style="list-style-type: none"> - (unchanged) - (unchanged) - <u>OTC derivatives trading</u> - <u>trust business</u> ○ Incidental business <ul style="list-style-type: none"> - (unchanged) - (unchanged) - (unchanged) - (unchanged) - (unchanged) - (unchanged) - <u>advertising agent using electronic documents, etc</u> - <u>real estate business (rental, broking, advisory service) for properties not owned</u> - <u>vending of information such as securities analysis, etc</u>
<ul style="list-style-type: none"> □ Regulation on entry & other business <ul style="list-style-type: none"> ○ Licensing criteria for OTC derivatives <ul style="list-style-type: none"> - <u>equity capital over 300 billion won</u> - equity capital ratio over 300%, etc ○ Regulation on commission fees for discretionary investment & advisory service <ul style="list-style-type: none"> - <u>only deposit amount-based commissions allowed</u> ○ Prior Notification to FSS when opening incidental business 	<ul style="list-style-type: none"> □ Regulation on entry & other business <ul style="list-style-type: none"> ○ Licensing criteria for OTC derivatives <ul style="list-style-type: none"> - <u>equity capital over 100 billion won (to be removed in two years)</u> - (unchanged) ○ Regulation on commission fees for discretionary investment & advisory service <ul style="list-style-type: none"> - (Removed) ○ (Removed)

Source : The Ministry of Finance and Economy

(Securities business deregulation promoted)

To promote the balanced development of the Korean financial sector and heighten the function of the financial market in the intermediation of funds, the proposed revision of the 'Enforcement Decree of the Securities and Exchange Act', providing for the substantial easing of regulations concerning securities business, was adopted on March 22, 2005.

This provides a legal foundation for securities firms to evolve into investment banks as it includes capital participations and hybrid instruments combining derivatives and securities within the scope of marketable securities as defined by the Securities and Exchange Act and allows securities firms to carry out trust business and transactions involving credit derivatives. In addition, regulations on entry & business operation have been considerably lightened with the easing of requirements for carrying out OTC derivative product business (in terms of equity capital) and the liberalization of fees and commissions for discretionary investment and advisory services.

(Measures to support high-tech startups put in place)

After announcing its 'Comprehensive Plan to Upgrade SMEs Competitiveness' on July 7, 2004, the government on December 24 unveiled its 'Plan for the Support of Venture Firms', focusing on the expansion of the capital market and infrastructure for venture firms, which is to be implemented phase by phase.

<Table V -9>

Initiatives to support high-tech startups by phase

Key initiatives
<p><Inception phase></p> <ul style="list-style-type: none"> - support venture capital firms in funding and improve their investment capabilities <ul style="list-style-type: none"> • support the formation of a fund of funds for SMEs investment by government • provide tax benefits on the investment made into venture investment funds • ease the regulation on establishing and operating venture capital firms including those on paid-in capital • establish systems to evaluate venture capital firms and tighten criteria used for expelling non-performing venture capitalists - introduce a second chance program for high-tech startups
<p><Growth phase></p> <ul style="list-style-type: none"> - build venture information infrastructure and expand financial support <ul style="list-style-type: none"> • improve the environment for information-sharing between high-tech startups • provide greater credit guarantees by Korea Technology Credit Guarantee (10 trillion won by 2007) • approve more exceptions for venture investment from the ceiling on total amount of shareholding of other domestic companies - create dedicated PEF for SMEs and high-tech startups - create venture clusters through business- academy collaboration and other means
<p><Maturity phase></p> <ul style="list-style-type: none"> - bring greater vitality to KOSDAQ <ul style="list-style-type: none"> • widen daily limit for price fluctuation in KOSDAQ. ($\pm 12\% \rightarrow \pm 15\%$) • revamp listing-related regulations: easing registration requirements for high-tech startups and reducing the time period between largest shareholder registration and transition to sale • broaden criteria for delisting insolvent firms from KOSDAQ - foster the third market (quote brokerage system) <ul style="list-style-type: none"> • offer assignment tax exemption for small shareholders of high-tech startups • promote a shift from counterparty transaction to limited open-trade transactions - galvanize M&As between or against high-tech startups

The plan emphasizes initiatives to nurture venture capital business and create a venture eco-system by boosting the KOSDAQ market and merger activities between or against high-tech startups to ensure sufficient and timely investment in them along their evolutionary path of inception, growth, maturity and restructuring.

For high-tech startups in the initial stage of inception, 1 trillion won of investment will be made available to help form a fund of funds for SMEs investment in order to improve the investment capacity of venture capital firms, and tax benefits will be given to investors in venture investment funds to induce greater investment. In addition, paid-in capital requirements for venture capital firms (minimum 10 billion won) will be eased while performance evaluation and exit requirements will be strengthened, and programs including new credit guarantees will be introduced to get firms that failed to take off in the first instance through no fault of their own back on their feet and give them a second chance. It will thus be free of a moral hazard dimension.

For firms in the stage of growth, the transparent disclosure of business data will be encouraged to provide credible investor information required to boost private investment, and credit guarantees will be expanded with Korea Technology Credit Guarantee Fund (KOTEC) being repositioned as a dedicated provider of credit guarantees to high-tech startups.

To help the restructuring phase of high-tech startups and smoothen the flow of investment funds, the daily fluctuation limits on the KOSDAQ will be widened to 15% and insolvent businesses will be promptly shown the exit with the broadening of criteria used for designating certain stocks as second class

(administered issues) and the shortening of grace period before exit; in addition, a quote-brokerage system (third market) and the mergers and acquisitions market for high-tech startups will be boosted.

Moreover, the government announced on January 21, 2005 that it would develop more market-friendly plans that would replace the current ‘Venture Firm Designation System’¹¹⁾, under which the Small and Medium Business Administration directly authorizes firms as high-tech startups, within the first half of 2005.

(Improvement of banks’ loan loss provisioning promoted)

The supervisory agency resolved to shift from the current uniform application of minimum loan loss provisioning ratios to the use of different ratios on the basis of expected loss rates calculated by individual banks themselves in line with the international standard practice. The shift is aimed at helping banks be prepared for the implementation of the New Basel Capital Accord, improve their ability to manage risks and respond effectively to the economic situation.

Accordingly, all banks need to develop computer systems to calculate expected loss rates based on their own accumulated loss data by the end of 2005 and start to use the expected loss rate¹²⁾ in their loan loss provisioning from the second half of 2006.

11) The system was put in place under the ‘Special Act on Fostering Venture Firms’ that gives the Small and Medium Business Administration the authority to designate venture capital-invested firms, R&D firms and new technology firms as venture firms, and the system will be removed at year-end 2005.

12) Individual banks will set aside loan loss reserves based on their own expected loss rate or the average expected loss rate of the banking sector.

<Table V -10>

Implementation timetable for the New Basel Capital Accord

		2005		2006		2007	
		1st half	2nd half	1st half	2nd half	1st half	2nd half
Ask banks to submit New Basel Capital Accord implementation plans							
Approve internal rating systems of individual banks	Announce approval procedures						
	Conduct prior consultation with banks and preliminary review						
	Receive applications by banks for the approval of internal rating systems and review the systems for approval						
Host public hearings to gather market opinions on implementation timing and approach							
Conduct a road show for regional banks to train them and get their feedback							
Select external credit assessment institutions for the standardized approach	Develop selection standards and procedures						
	Carry out selection processes						
Formulate national standards for the new BIS capital adequacy ratio calculation	Review detailed tasks						
	Write detailed working-level manual						
	Put the standards into regulation						
Increase awareness of and conduct training about New Basel Capital Accord							
International cooperations							
Parallel running							

Source : The Financial Supervisory Service

To help them carry out this change, the Financial Supervisory Service (FSS) will set out model standards for the calculation of expected loss rates, review and evaluate the implementation schedules and progress of individual banks, and carry out a quantitative impact study.

(Plans to adopt the New Basel Capital Accord announced)

The FSS announced the time-line for adopting the New Basel Capital Accord and drew up a detailed plan for its implementation.

On October 20, 2004, the FSS announced ‘Standards for New BIS Capital Adequacy Ratio (draft)’ containing decisions on financial institutions subject to the BASEL II framework, the scope of risks to be managed, the formula for the BIS capital adequacy ratios and issues at national discretion¹³⁾ (75 categories).

The FSS announced on December 22, 2004, that it had set the year-end 2007 as the target date for the full implementation¹⁴⁾ of the New Basel Capital Accord, and that all domestic and foreign banks operating in Korea were to come under the new capital adequacy framework. Given the encouragement to use advanced IRB approaches in major nations, the selection of the methodologies to be used for calculating the capital requirement is to be left to each individual bank so that

13) The Basel Committee on Banking Supervision allowed flexibility in implementing 75 categories within a certain boundary based on different national financial environments and the FSS has confirmed the 67 out of the 75 categories with the rest expected to be decided later.

14) The Basel Committee on Banking Supervision finalized the new Basel Accord in June 2004 and will implement the accord on 13 member nations as of year-end 2006 (advanced approach, as of year-end 2007).

the decision will be based on its risk profile and risk management capabilities.

On February 11, 2005, the FSS made public the detailed timetable for banks on the selection of risk assessment methodologies, the submission of implementation plans and the deadline for banks wishing to use the IRB approach to file for the approval of their rating system.

'Financial Stability Report' is published twice a year and also posted on the web-site of the Bank of Korea (<http://www.bok.or.kr>).

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