Overview of Japanese Banks:

Observations from Financial

Statements for Fiscal 2003

July 2004
Bank of Japan

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Summary

In fiscal 2003 (April 2003–March 2004), approximately 90 percent of Japanese banks[1] posted positive net income, due to a decline in losses from the disposal of nonperforming loans (NPLs), i.e., credit costs, and to an improvement in stock-related gains/losses. The aggregate figures for both major banks and regional banks, however, continued to record net losses as a result of substantial disposals of NPLs at some specific banks.

The ratio of credit costs to total loans outstanding declined at many banks. This was due largely to a reduction in loan-loss provisions reflecting improvement in borrower firms' financial conditions and in the outlook for profits, against the background of economic recovery and banks' support for rehabilitation of firms. NPLs outstanding declined steadily, and the share of loans extended to borrowers with higher internal credit ratings has been increasing. The risks associated with loan portfolios declined as a whole.

With regard to the risk assessment of securities portfolios, risks associated with stockholdings diminished to a great extent, as progress was made by major banks in reducing their stockholdings to a level well below Tier I capital. Risks associated with bond holdings, on the other hand, increased for both major banks and regional banks, due to an increase in their bond holdings. However, the level of these risks is small compared to risks associated with stockholdings, and is within the range that can be absorbed by banks' profits and capital. In addition, even if long-term interest rates rise, losses stemming from the materialization of these risks can be offset to some extent as long as the rise is accompanied by a rise in stock prices and an increase in the value of loans.

[1] Japanese banks in this paper consist of the 14 major banks and 114 regional banks that comprise the 64 member banks of the Regional Banks Association of Japan and the 50 member banks of the Second Association of Regional Banks, as of the end of March 2004. All figures are on a nonconsolidated basis, unless otherwise indicated.

Japanese banks' profitability remains weak. Income from fees and commissions from businesses such as over-the-counter sales of investment trusts and arrangement of syndicated loans has been increasing rapidly in recent years. However, the net return on loans, which has a significant effect on profits, continued to be negative for both major banks and regional banks, although it has been on an improving trend reflecting the decrease in the credit cost ratio.

Fiscal 2003 has witnessed decreases in both credit risks associated with loan portfolios and market risks associated with stockholdings. The risk factors that have restricted banks' business for such a protracted period are relaxing their hold. Nevertheless, it remains difficult to claim that the prospects for Japanese banks' profitability are entirely rosy. Japanese banks need to meet the varied requests of firms and individuals for financial services by strengthening their profitability through the efficient use of capital and the use of new financial engineering techniques as well as financial market instruments.

I. Developments in Profits and Balance Sheets of Japanese Banks in Fiscal 2003

Both major banks and regional banks' operating profits from core business[2] increased slightly in fiscal 2003 (April 2003–March 2004) from the previous fiscal year. Net interest income decreased mainly due to a decline in lending volume, as borrower firms continued their efforts to improve financial conditions by reducing borrowings, and also because banks made further progress in collecting and disposing of nonperforming loans (NPLs). The decline in net interest income was compensated for by (1) an increase in fees and commissions, such as those from sales of investment trusts and insurance policies and for arranging syndicated loans; and by (2) a cut in general and administrative expenses mainly through reduction of personnel expenses.

Many banks posted large increases in net income, as losses from the disposal of NPLs[3] declined and net realized stock-related gains/losses improved. Thus, approximately 90 percent of Japanese banks recorded positive net income. The aggregate figures for both major banks and regional banks, however, continued to record net losses as a result of substantial disposals of NPLs at some specific banks.

[2] Operating profits from core business = operating profits – net realized bond-related gains/losses + net transfers to allowances for possible loan losses + loan write-offs in trust accounts.

[3] Losses stemming from disposal of NPLs include (1) net transfers/reversals to loan-loss provisions (i.e., allowances for possible loans losses and special loan-loss provisions), (2) write-offs, and (3) losses incurred when NPLs are disposed of or are sold to external parties. The term "credit costs" is used hereafter.

Selected Items from Japanese Banks' Financial Statements

tril. yen

	Major banks		Regional banks	
	FY 2003	Change from FY 2002	FY 2003	Change from FY 2002
Net interest income	4.6	−0.3	4.4	−0.1
Net fees and commissions	1.4	+0.2	0.5	+0.0
General and administrative expenses	3.3	−0.2	3.0	−0.1
Operating profits from core business	3.7	+0.3	1.9	+0.1
Net realized bond-related gains/losses	0.3	−0.4	0.0	−0.1
Net realized stock-related gains/losses	0.7	+3.9	0.1	+0.7
Total losses on disposal of NPLs	3.4	−1.6	1.8	+0.3
Net income/loss	−0.2	+4.3	−0.6	−0.2

Number of Japanese Banks Recorded Net Losses

	FY 2002		FY 2003	Number of Banks
Major banks	12	→	2	14
Regional banks	36	→	11	114
Total	48	→	13	128

The risk-based capital adequacy ratio of major banks rose for the first time in four years due to a significant improvement in unrealized gains/losses on securities (Chart 1).[4] The ratio for regional banks, however, declined slightly due to aggregate net losses.

[4] Charts and tables in this paper have been prepared by the Bank of Japan based on financial statements and other materials regarding banks' financial conditions, unless otherwise indicated.

Net deferred tax assets of both major banks and regional banks decreased in fiscal 2003 (Chart 2). This was because (1) nondeductible loan-loss provisions that had been made in the past were registered as deductible losses as a result of the removal of NPLs from balance sheets, (2) future taxable income was evaluated on a stricter basis by banks, and (3) deferred tax liabilities increased due to an increase in unrealized gains on securities.

II. Progress in NPL Disposal and Changes in Banks' Loan Portfolios

A. Decline in Credit Cost Ratios

Japanese banks' profits have been sluggish since the beginning of the 1990s owing to large credit costs. The ratio of their operating profits from core business to their total assets has gradually been rising, due to an increase in operating profits not earned on financial assets, such as income from fees and commissions, and to the continued reduction of general and administrative expenses. In terms of net income after deducting credit costs and securities-related gains/losses, however, the ratio relative to total assets has been negative in most cases and has also been volatile (Chart 3).

Japanese banks' overall credit cost ratio, the ratio of banks' total credit costs to total loans outstanding, has been declining gradually from its peak in fiscal 1998, albeit with some fluctuations (Chart 4). In fiscal 2003, the credit cost ratios of major banks and regional banks followed different paths (Chart 5). The ratio for major banks declined, due mainly to reversals of allowances for possible loan losses, as loans were collected and the borrower categories of many firms were upgraded. In contrast, the ratio for regional banks rose, due mainly to an increase in special loan-loss provisions. In terms of their levels, the credit cost ratios of both major banks and regional banks remained above 100 basis points in fiscal 2003.[5] However, looking at the distribution of individual banks' credit cost ratios, there has been an overall shift downward compared to the previous fiscal year and ratios have declined to a low level at a number of banks. Indeed, nearly half of banks had credit cost ratios of less than 50 basis points (Chart 6).

The decline in credit cost ratios and the increase in the number of banks with low ratios are attributable to the following factors.[6]

[5] One basis points = 0.01 percent.
[6] See Box 1 for the basic mechanism governing changes in credit costs.

1. Reduction of loan-loss provisions due to improvement in borrower categories

It became evident that the number of upgrades of borrower firms to higher borrower categories exceeded the number of downgrades in fiscal 2003, except for firms classified as "in danger of bankruptcy" borrowing from regional banks (Chart 7). With this change, banks were able to reduce loan-loss provisions.

This reflects improvement in firms' financial conditions and in the outlook for profits, due to the economic recovery and to banks' support for rehabilitation of firms. For example, firms' credit scores,[7] which evaluate their credit quality, had generally improved at the end of fiscal 2003 from the previous fiscal year-end (Chart 8). Developments in the average credit score over the past several years indicate an improving trend, although with fluctuations reflecting business cycles, and a negative correlation with the credit cost ratio (Chart 9).

2. Decline in losses on NPL sales

Losses on NPL sales declined in fiscal 2003. This was because (1) major banks decreased sales of NPLs, having already made solid progress in final disposal of NPLs as shown in the large amount of selling in the previous fiscal year—the first target year set by the government for the removal of NPLs from banks' balance sheets[8], and (2) prices of NPLs in the secondary market have been rising (Charts 10 and 11).[9]

[7] Credit scores are calculated as follows. Firms are classified into 28 industries as defined in the *Financial Statements Statistics of Corporations by Industry, Quarterly* (Ministry of Finance), and are further categorized by the size of their capital (i.e., large firms, medium-sized firms, and small firms), giving 84 categories of firms. Firms within the same category are treated as one sample firm, and a credit score is calculated for each category, using selected financial indicators.

[8] The "Emergency Economic Package" released in April 2001 introduced a framework for major banks to complete the removal of loans to "bankrupt" borrowers, "effectively bankrupt" borrowers, and borrowers "in danger of bankruptcy" from banks' balance sheets within three years in principle. In April 2002, the schedule of removal was specified as follows: "in principle, 50 percent within a year and the vast majority (around 80 percent) within two years."

[9] See also Box 2 for recent developments in the market for trading NPLs.

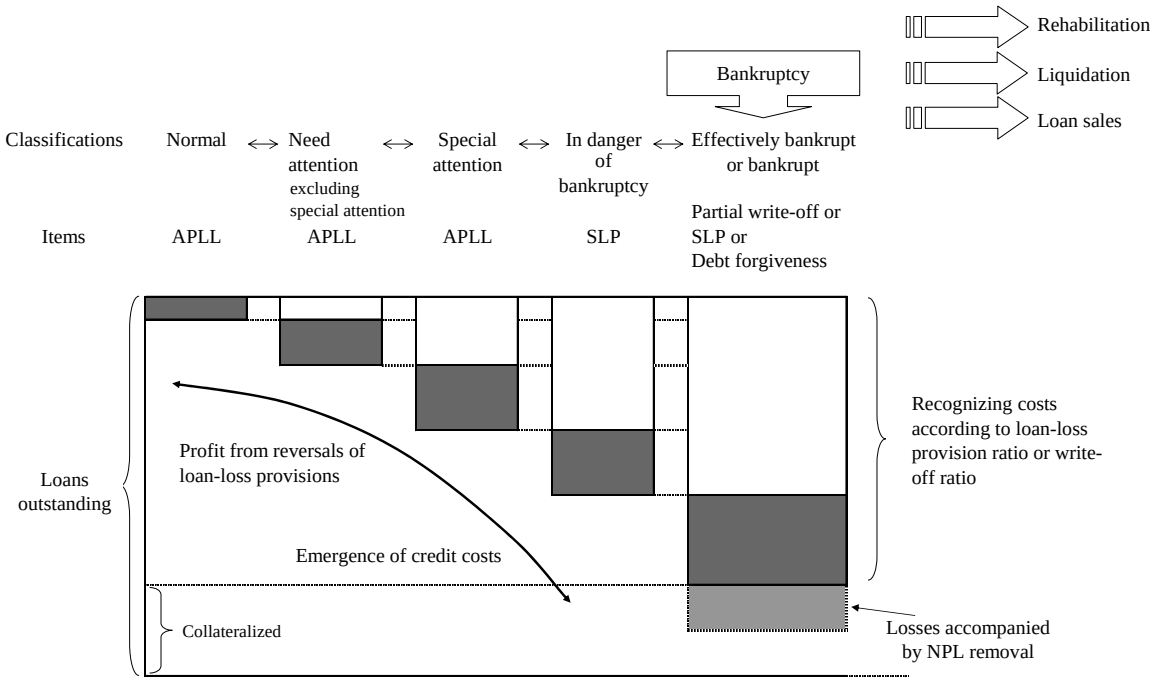
Box 1: Banks' Credit Costs

In Japan, losses stemming from the disposal of NPLs (credit costs), are recognized in a number of separate accounting items, since they are accounted for differently depending on the source of the loss (e.g., allowances for possible loan losses, special loan-loss provisions, write-offs, and loan sales) and other factors.

For loans to borrowers classified as "in danger of bankruptcy" or lower, and for those to large borrowers classified as requiring "special attention" for which banks have recently started to apply the Discounted Cash Flow (DCF) method, the general principle is loan-loss provisioning according to the condition of the individual loans concerned. For this reason, credit costs or profits (e.g., reversals of loan-loss provisions or profits from loan sales) emerge mostly in line with changes in business conditions at individual firms. On the other hand, for loans to borrowers that "need attention" (excluding those to which the DCF method is applied) and to "normal" borrowers, standard practice is to put aside loan-loss provisions collectively. Therefore, depending on the results of banks' self-assessments of their evaluation of borrower firms, credit costs then increase/decrease as borrower categories are downgraded/upgraded.

Since the level of provisioning is generally determined with reference to historical loan-loss rates, credit costs could emerge or decline with an update in a historical loan-loss rate, even if the portfolio remains unchanged.

Chart for Box 1: Accounting of Credit Costs



Notes :1. APLL = allowances for possible loan losses.
2. SLP = special loan-loss provisions.

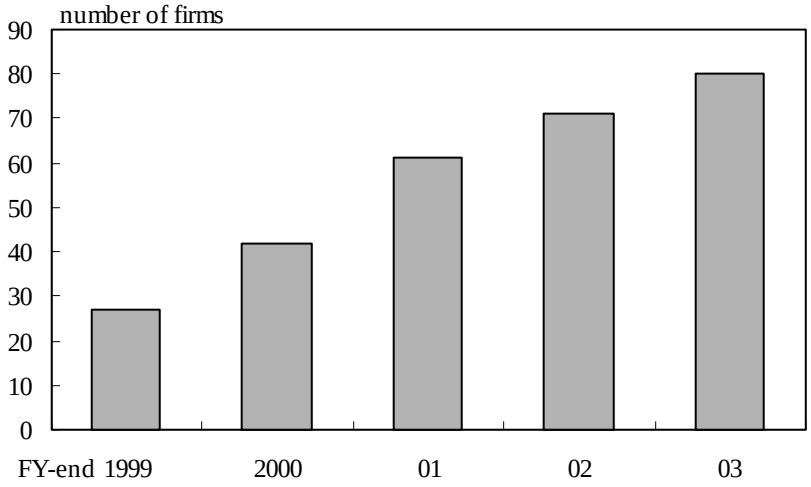
Box 2: Developments in the Market for Trading NPLs

Sales of NPLs by banks had been increasing, as major banks, as well as other banks, became more aggressive in removing NPLs from their balance sheets. In fiscal 2003, however, they decreased, after the pace of NPL disposals by banks accelerated in fiscal 2002, which was the first target year set by the government for removal of NPLs from banks' balance sheets. The ratio of actual purchase price to book value of loans has been rising recently, according to purchases by the Resolution and Collection Corporation (RCC).

Several factors can be pointed out in relation to this rise in the ratio. First, the type of loans sold in the market has been shifting from loans to borrowers classified as "bankrupt" and "effectively bankrupt" to better quality loans such as those to borrowers classified as "in danger of bankruptcy" or higher. Second, booming activity in the Real Estate Investment Trusts (REIT) market and the economic recovery have driven expectations of a rise in the disposal value of the real estate that collateralizes loans, and thus have whet the investment appetites of potential purchasers. And third, supply and demand conditions have been tighter as the number of investors has been increasing (Chart for Box 2). Against this background, investors are not just aiming, as before, merely to purchase loans at low prices in order to obtain the real estate that collateralizes them, but are also striving to increase their investment opportunities by offering more attractive corporate rehabilitation plans.

These changes in the market environment are considered to have the following beneficial effects promoting disposals of NPLs. First, they contribute to reducing the seller banks' losses on loan sales (additional losses). And second, they help increase the number of corporate rehabilitation plans that would raise the value of firms eligible for rehabilitation.

Chart for Box 2: Changes in the Number of Firms in the Servicer Business[1]



Note: 1. An increase in the number of firms in the servicer business reflects an increase in the number of investors in the market for trading NPLs, as investors in this market often obtain servicer licenses.

Source: Ministry of Justice.

B. Decline in NPLs Outstanding

The improvement in loan portfolios suggested by lower credit costs can also be observed in the reduction in the ratio of the amount of NPLs (disclosed under the Financial Reconstruction Law [FRL]) to total loans outstanding (the ratio of disclosed NPLs to total loans). This ratio for major banks dropped markedly to 5.1 percent at the end of fiscal 2003 from 7.1 percent a year earlier due mainly to a large decline in loans requiring "special attention." That for regional banks showed a relatively large fall to 6.9 percent from 7.9 percent, with a decrease in NPLs for all borrower categories in fiscal 2003 (Chart 12). This was in contrast to developments last year when the ratio for regional banks remained virtually level, while that for major banks declined.

The change in NPLs outstanding can be simply decomposed into the following: the net amount of new NPLs, i.e., the amount of loans to "normal" borrowers downgraded to NPLs minus the amount of NPLs upgraded to loans to "normal" borrowers; and the amount of NPLs removed from banks' balance sheets (Chart 13).

Major banks' NPLs outstanding declined significantly in fiscal 2003, as they continued to remove large amounts of NPLs from their balance sheets while a very small amount of new NPLs emerged. At regional banks, NPLs removed considerably exceeded newly-emerging NPLs, in contrast to previous years when they had basically been equal. This result seems to indicate that, with the scheduled date for the full removal of blanket deposit insurance drawing closer, regional banks have been becoming more aware of the need for sound management, given the public attention paid to their financial condition and particularly to the ratio of disclosed NPLs to total loans as an indicator of financial soundness.

The distribution of the ratios of NPLs to total loans for individual banks shifted downwards for both major banks and regional banks. The ratios of some banks, however, remained high, particularly among regional banks, and thus continued efforts are still needed to accelerate NPL disposal (Chart 14).

C. Decline in Risks Associated with Overall Loan Portfolios

As the declines in credit costs and NPLs outstanding indicate, the levels of risk associated with banks' loan portfolios have declined. In order to confirm this from another angle, changes in expected losses and unexpected losses on loan portfolios were estimated.[10]

Using financial data on 2,522 listed firms with total borrowings of 86 trillion yen, expected losses and unexpected losses were calculated by regarding the loans extended to these firms as if it were the loan portfolio of a single bank. By the end of fiscal 2003, both expected and unexpected losses on this loan portfolio had declined (Chart 15). Given that loans extended to unlisted small and medium-sized firms, which are considered to have benefited less from the recent economic

[10] "Expected losses" and "unexpected losses" are distinguished when calculating or controlling the credit risk associated with loan portfolios. Expected losses are the average losses calculated from the distribution of losses on overall portfolios and are anticipated to occur constantly. These losses are generally covered by interest margins and loan-loss provisioning. Unexpected losses, on the other hand, are calculated by deducting expected losses from the maximum potential losses which are illustrated, for example, by a 99 percent confidence interval calculated from the distribution of losses. These are potential losses that banks might incur, albeit infrequently, and thus maintaining business stability requires them to be covered by banks' equity capital.

recovery than large firms, are not included in this estimate, it does not provide much information about the level of risk associated with overall loan portfolios of all Japanese banks. However, for loans extended to listed firms, it can be confirmed clearly that, during fiscal 2003, the level of risk decreased and the value of loans rose.

The decline in risks associated with loan portfolios can also be observed from the fact that the share of loans extended to "normal" borrowers with higher internal credit ratings has been increasing (Chart 16).

While corporate loans decreased, loans to individuals increased and their share of total loans rose to nearly 30 percent (Chart 17). An increase in housing loans due partly to reform of the Government Housing Loan Corporation (GHLC)[11] contributed to this rise in the share of loans to individuals. The probability of default (PD) for housing loans has been lower than that for corporate loans, and therefore this rise in the share of housing loans to total loans tends to reduce the level of risk associated with the overall loan portfolio.

[11] In the government's plan for reform of special public institutions approved by the Cabinet in December 2001, the following measures were decided regarding the GHLC: (1) it would be abolished by the end of fiscal 2006 and reorganized as an incorporated administrative agency, which would carry out securitization business so as to promote the extension of housing loans by private-sector banks; and (2) it would gradually reduce its loan business.

III. Risk Assessment of Securities Portfolios

This chapter examines Japanese banks' securities-related gains/losses, the development of which significantly affects banks' profits as those from loans. Risks associated with their securities holdings are also assessed.

A. Stocks

Total stock-related gains/losses, which are the sum of net realized stock-related gains/losses and changes in net unrealized stock-related gains/losses, have fluctuated reflecting developments in stock prices and have significantly affected banks' profits and capital (Chart 18).[12]

Major banks, which have large stockholdings, had posted significant net realized stock-related losses of 3.3 trillion yen in fiscal 2002. This was due to an increase in losses on stock sales as well as devaluation of stocks under impairment accounting rules, in the face of stock prices which were around their lowest level since the collapse of the bubble economy. In fiscal 2003, however, major banks posted net realized stock-related gains of 0.7 trillion yen, due to the rebound in stock prices. Their net unrealized stock-related gains/losses, which had been fluctuating markedly reflecting developments in stock prices, also improved significantly, by 4.8 trillion yen, in fiscal 2003 from the previous year.

Major banks are fully aware of the importance of reducing their exposure to stock market volatility. They reduced their stockholdings by 3 trillion yen in fiscal 2003, 0.8 trillion yen of which were sold to the Bank of Japan using its stock purchasing facility. As a result, the amount outstanding of major banks' stockholdings stood at around 12 trillion yen at the end of March 2004, about 30 percent below the regulatory target of banks' Tier I capital (Chart 19).[13] Risks

[12] The values of banks' stockholdings are marked to market, except for stocks of their subsidiaries and affiliates. Net unrealized stock-related gains/losses, which equal the mark-to-market value after devaluation, are not appropriated as gains/losses. Instead additions/deductions are made to bank capital after allowing for deferred-tax accounting.

[13] The law concerning the limit on banks' stockholdings, effective from January 2002, requires banks to (1) limit the amount outstanding of stockholdings at mark-to-market values, on a

associated with stocks stemmed not merely from holding them, but from the facts that banks' holdings were excessive relative to their capital bases and that they had little flexibility to adjust their stock portfolios under cross-shareholdings. These risks, however, have been diminishing to a great extent.

Quantitative assessment using the value-at-risk (VaR) method based on certain assumptions confirms the reduction in major banks' stockholding-related risk:[14] specifically, the level of risk decreased by over 4 trillion yen during fiscal 2002 and 2003. With the substantial reduction in stockholdings during this period, major banks' exposure to stock market volatility decreased steadily. As a result, a significant amount of capital which had been set aside for risks related to stockholdings was released, with the amount of this capital almost equivalent to the entire capital actually raised over the two year period (Chart 20).

Regional banks posted small net realized stock-related gains of 0.1 trillion yen in fiscal 2003. Their net unrealized stock-related gains increased significantly, by 1.8 trillion yen (Chart 18). In contrast to major banks, however, the amount outstanding of their stockholdings continued to be significantly below their Tier I capital (Chart 19).

B. Bonds

Total bond-related gains/losses, which are the sum of net realized bond-related gains/losses and changes in net unrealized bond-related gains/losses, generally remained stable and posted gains between fiscal 1990 toward 1997 as long-term interest rates trended downwards. From fiscal 1998 onward, however, they have been fluctuating more widely, as long-term interest rates have generally been moving at around 1.5 percent (Chart 21).

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consolidated basis, and deducting any revaluation gains, to the amount of Tier I capital (the regulatory target); and (2) sell the amount of stockholdings exceeding Tier I capital by the end of September 2004, although the deadline may be extended by a maximum of two years, depending on the amount outstanding of stockholdings at the end of March 2001. Holdings of treasury stocks, shares of subsidiaries and affiliates, unlisted shares, and shares acquired through debt-equity-swaps (DES) are not subject to the law.

[14] The probable maximum loss for holding stocks for six months, measured with a confidence interval of 99 percent.

In fiscal 2002, both major banks and regional banks posted large gains on sales of bonds due to a further decline in long-term interest rates. In fiscal 2003, however, their gains contracted due partly to a surge in long-term interest rates between June and the beginning of September 2003. Japanese banks' net unrealized bond-related gains/losses also deteriorated significantly.

The amount outstanding of major banks' bond holdings increased by 6 trillion yen in fiscal 2003, measured on a basis that excludes bonds with remaining maturity of less than one year such as treasury bills and financing bills (Chart 22). This was due mainly to an increase in bond holdings with maturities of up to five years and in holdings of 15-year floating-rate bonds. Increases in these bonds, together with the fact that major banks increased short positions on bond futures, suggest that they were prepared to a certain extent against the risk of a rise in interest rates. The amount outstanding of regional banks' bond holdings increased by about 2.1 trillion yen in fiscal 2003, measured on a basis that excludes bonds with remaining maturity of less than one year.

With large bond holdings, Japanese banks are exposed to a certain degree of corresponding interest rate risk. The level of risk associated with major banks' bond holdings, measured by VaR,[15] increased in fiscal 2003 from the previous year, but was small compared to the risk associated with stockholdings, and its impact on Tier I capital was limited (Chart 23). The risk pertaining to banks' bond holdings can be assessed as relatively insignificant as long as it is based on average price fluctuations over a specified past period.

The impact on bond portfolios of a steepening of the yield curve, considered separately from historically expected fluctuations in prices, is estimated to be minus 1.1 trillion yen for major banks and minus 0.9 trillion yen for regional banks.[16] When the

[15] The probable maximum loss for holding bonds for a month measured with a confidence interval of 99 percent. Taking into account cross-shareholdings, the holding period is different for bonds (one month) and stocks (six months). This is in line with bank practice.

[16] It is assumed that interest rates would rise as follows in a steepening of the yield curve: a 100 basis point rise for interest rates on 10-year bonds and a smaller rise in interest rates for bonds with shorter maturities.

above amounts are simply deducted from their capital, banks' risk-based capital adequacy ratios would decrease by 0.4 percentage points for major banks and by 0.6 percentage points for regional banks. These amounts are by no means small, but the impact could be regarded as absorbable given that operating profits from core business for major banks and regional banks were 3.7 trillion yen and 1.9 trillion yen, and their risk-based capital adequacy ratios were 10.9 percent and 9.1 percent respectively.

Risks associated with banks' bond holdings typically materialize when long-term interest rates rise. The effect on banks' profits can be offset to some extent, however, if the rise in long-term interest rates is accompanied by a rise in stock prices and/or an increase in the value of loans. For example, in fiscal 2003, the effect of the improvement in net unrealized stock-related gains/losses and the decrease in the amount outstanding of loan-loss provisions outweighed the effect of the deterioration in net unrealized bond-related gains/losses (Chart 24).

The above offers a general assessment of the risks associated with Japanese banks' bond holdings based on aggregate figures. Individual banks need to continue their efforts to control risks associated with bond holdings carefully taking into account the profiles of their asset portfolios and their own capital levels.

IV. Profitability

Improving profitability continues to be a major issue for Japanese banks, although risks affecting the management of banks, including the NPL problem, have been diminishing.

In order to get a clearer perspective on the current profitability of Japanese banks, this section looks at long-term developments in the profitability of banks in 30 countries. The ratio of net income to total assets, return on assets (ROA), for reporting banks from 1980 onward was calculated using financial data from "Bank Profitability — Financial Statements of Banks" prepared by the Organisation for Economic Co-operation for Development (OECD). The 30 countries were divided into three groups by the average ROA of banks in each country: countries with average ROA in the top 20th percentile, those in the bottom 20th percentile, and all others. ROA for these groups was then plotted along with the factors affecting it (Chart 25).

The charts show that countries in the top 20th percentile (Group 1) achieved high ROA by absorbing relatively high general and administrative expenses and credit costs via net interest income and large net non-interest income. Countries in the 20th–80th percentiles (Group 2) secured profits by offsetting the decrease in net interest income with an increase in net non-interest income, while they continued to incur a certain amount of credit costs. The contribution of net non-interest income to overall profits for countries in Group 2, however, was smaller than that for countries in Group 1, and ROA for Group 2 was relatively low. For countries in the bottom 20th percentile (Group 3), to which Japan belongs, ROA was low, as credit costs, which used to be close to zero increased significantly while net interest income remained flat, and the contribution of net non-interest income to overall profits remained marginal.

Keeping the above in mind, the next section examines Japanese banks' current profitability based on financial statements for fiscal 2003 from three different perspectives: net return on loans; general and administrative expenses; and net non-interest income.

A. Net Return on Loans

Net return on loans, which is calculated as the interest margin on loans after deducting the credit cost ratio and general and administrative expense ratio, continued to be negative for major banks and near zero percent for regional banks, although it was on a rising trend reflecting the decrease in the realized credit cost ratio (Chart 26). Comparing actual loan rates for firms ranked in different borrower categories according to banks' internal rating systems with the break-even interest rates that take account of credit costs, the relationship observed between the two did not seem to be universally consistent (Chart 27).

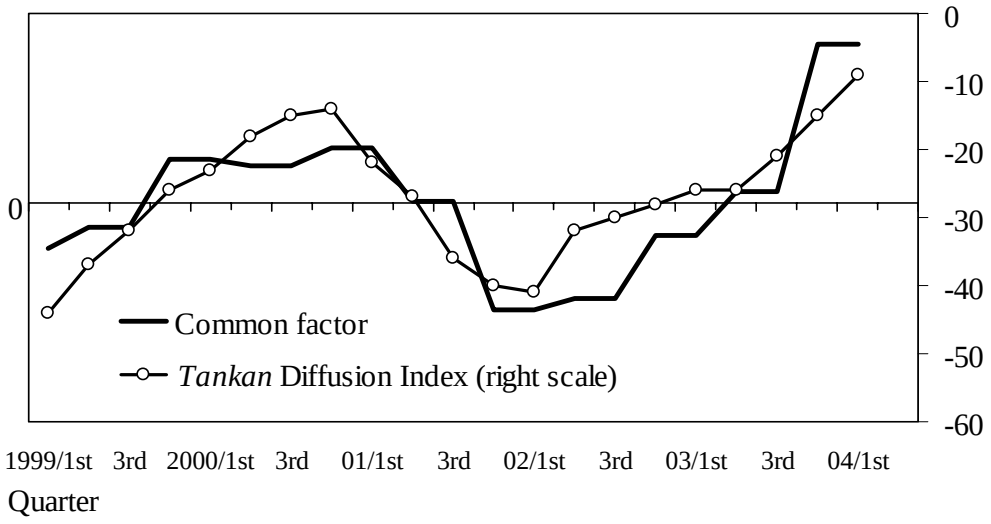
It has long been pointed out that there is a correlation between credit costs, which have a significant impact on net return on loans, and the economic cycle. Credit costs are expected to continue decreasing as long as the Japanese economy continues to recover (Box 3). Still, credit costs are unlikely to disappear completely, considering that changes in the financial and economic environment are significantly larger than in previous periods of rapid economic growth in the 1960s and 1970s. Therefore banks that have already reduced their credit cost ratios markedly may only have little room to improve their profitability through the further reduction of credit costs. On the other hand, banks that have not sufficiently decreased their credit cost ratios need to work even harder to lower these so as to improve their net return on loans. This may be achieved in a variety of ways, including the use of techniques for unbundling, repackaging, and liquidating credit risks.

Box 3: The Business Cycle and the Credit Cost Ratio

The credit cost ratio is obtained as the product of a firm's probability of default (PD) and the loss given default (1 minus the recovery ratio). The PD is strongly influenced by the business cycle, as seen in the fact that the number of firm's bankruptcies rises in a cyclical downturn. A typical credit model has been developed to incorporate common factors such as the business cycle. It has also become evident that, as data are accumulated, the loss given default is also sensitive to the business cycle.

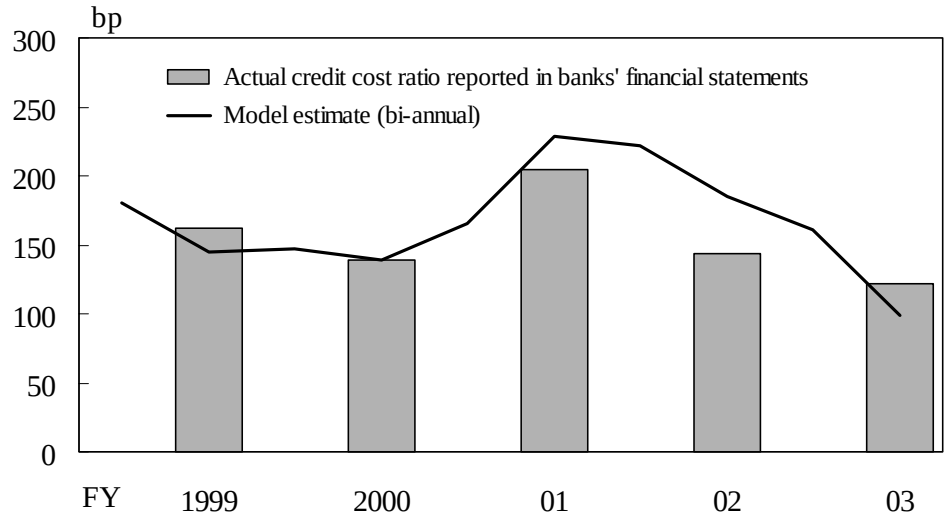
Frye's methodology, introduced in the November 2000 issue of RISK magazine, captures these characteristics in a model. Having applied the model to data on Japanese banks' loans, it turned out that the factor common to all banks extracted from this default probability model has moved in line with the diffusion index (DI) for business conditions in the Bank of Japan's *Tankan* (Short-Term Economic Survey of Enterprises in Japan), a key indicator of the business cycle (Chart 1 for Box 3). The credit cost ratio, obtained by multiplying the PD by an estimate of the loss given default, also broadly follows the movement of the actual credit cost ratio reported in banks' financial statements (Chart 2 for Box 3). The results of this analysis suggest that the fall in the credit cost ratios observed in fiscal 2003 was driven by the economic recovery.

Chart 1 for Box 3: The Common Factor in the Default Probability Model and the *Tankan*'s Business Conditions DI



Note: 1. The loan portfolio of each bank is expressed in the form of an asset value index, a linear combination of a factor common to all banks and a bank specific factor. Within the distribution of this index, all observations that fall below a given threshold value are defined as being in a state of default. In conducting estimation, all loans to borrowers classified as requiring "special attention" or lower are considered to be in a state of default. The collateral recovery ratio for each loan type is used for the recovery ratio of the loan type concerned. Since the common variable factor follows a standard normal distribution (with mean zero and variance 1), the *Tankan*'s DI in the chart is adjusted so as to overlie the common factor.

Chart 2 for Box 3: Estimate of Credit Cost Ratio



Note: 1. The credit cost ratio is an average for both major banks and regional banks. Since the collateral recovery ratio is used for the recovery ratio, the loss given default is overestimated. The given estimate of the credit cost ratio is adjusted so as to be consistent with the actual credit cost ratio.

B. General and Administrative Expenses

Both major banks and regional banks have continued their efforts to reduce general and administrative expenses, which have a significant impact on profitability, and these expenses decreased for the seventh consecutive years since fiscal 1997, marking their largest year-on-year decline, 5.3 percent, in fiscal 2003 (Chart 28). By item, personnel expenses declined due mainly to large salary cuts at major banks, including cuts in bonuses. Premises and equipment expenses declined mainly as a result of the merging and closing of branches.

Looking at long-term developments in the expense ratio, which is the ratio of general and administrative expenses to gross operating profits, the ratio for major banks declined from over 60 percent at the beginning of the 1990s to around 45 percent in fiscal 2003. That for regional banks also declined gradually from slightly over 70 percent to a little over 60 percent during the same period (Chart 29). As a result, the current expense ratio for Japanese banks has declined to about the same level as for banks overseas (Chart 30).

C. Net Non-Interest Income

The ratio of net non-interest income [17] to operating profits has increased significantly, particularly at major banks. Accordingly, net non-interest income has gradually become a more important component of banks' income in offsetting the decrease in net interest income (Chart 31).

Net non-interest income comes from a broad range of bank activities. Of these, net fees and commissions, particularly those associated with relatively new financial services, have undergone significant increases, rising roughly threefold between fiscal 2001 and 2003 for both major banks and regional banks. Major areas of increase in fee income have been in sales of investment trusts and of insurance policies, as well as in underwriting of private placement bonds. In addition to these, new channels of credit provision, such as arrangement of syndicated loans and liquidation of assets, have contributed significantly to the increase in major banks' fee income, suggesting that major banks have more diversified sources of fee income than regional banks (Chart 32). Profits from banks' derivatives business have also increased, due to the fact that in addition to large firms, small and medium-sized firms have also begun to purchase various derivatives instruments, as the need to hedge financial risks and manage assets efficiently has become increasingly prevalent.

The expansion of many of these new financial services has been the result of deregulation and measures taken to enhance the market infrastructure in recent years, such as the start of over-the-counter sales of investment trusts and insurance policies by banks, as well as the laying of the groundwork for asset liquidation. In other words, the combination of a series of measures implemented by the public authorities and the efforts of market participants, and the building-up of sales capacity on the part of banks, have together started producing solid results to enhance banks' profitability (Chart 33).

[17] Net non-interest income = net fees and commissions + profits on specified transactions + other operating profits – bond-related gains/losses.

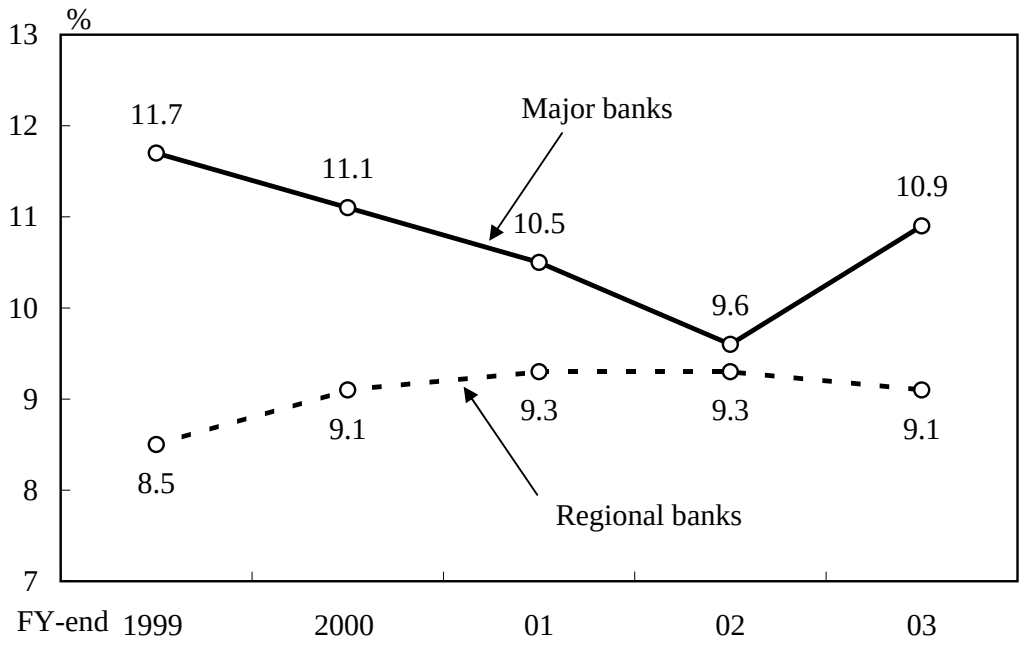
V. Issues for the Future

As we have seen above, fiscal 2003 has witnessed not only steady progress in the disposal of NPLs, but there have also been improvements made in terms of both credit risks associated with loan portfolios and market risks associated with stockholdings. The risk factors that have restricted banks' business for such a protracted period are relaxing their hold, and the ground for developing new banking business is gradually being prepared. As was discussed earlier, Japanese banks' profitability is still low by international standards, and although there are encouraging developments with increases in net non-interest income, it remains difficult to claim that the prospects are entirely rosy. As the financial and economic environment continues to undergo significant changes, Japanese banks need to further enhance their risk management skills and to strengthen their profitability if they are to successfully meet the business challenges of the future.

To this end, it is vital that banks make efficient use of their limited capital and also sufficient use of new financial engineering techniques and financial market instruments. For banks, the efficient use of capital means controlling the total level of risk embodied in the various different types of risk that they face so as to keep it within the bounds of their overall capital levels, while allocating their capital flexibly with due attention to the balance of risks and returns. For example, banks should assess appropriately the credit risk inherent in a given loan contract based on the financial condition and projected future cash flow of the firm concerned, and subsequently set a sufficient return, i.e., the interest rate on the loan, in line with this assessment of credit risk. Furthermore, it is also important for banks to actively manage their loan portfolios to keep the risk-return profile of the overall portfolio in line with their capital levels. In doing so, it would be effective to use new financial engineering techniques that enable the risks inherent in loans to be skillfully unbundled, repackaged, and liquidated, and also to make use of credit markets where banks can distribute risks to a wide range of market participants. Capital will be used more efficiently if not just credit risks, but also other risks including market and operational risks, can be managed in an integrated manner, and if capital in surplus in one area can be swiftly reallocated to other areas. This will also lead to improved profitability.

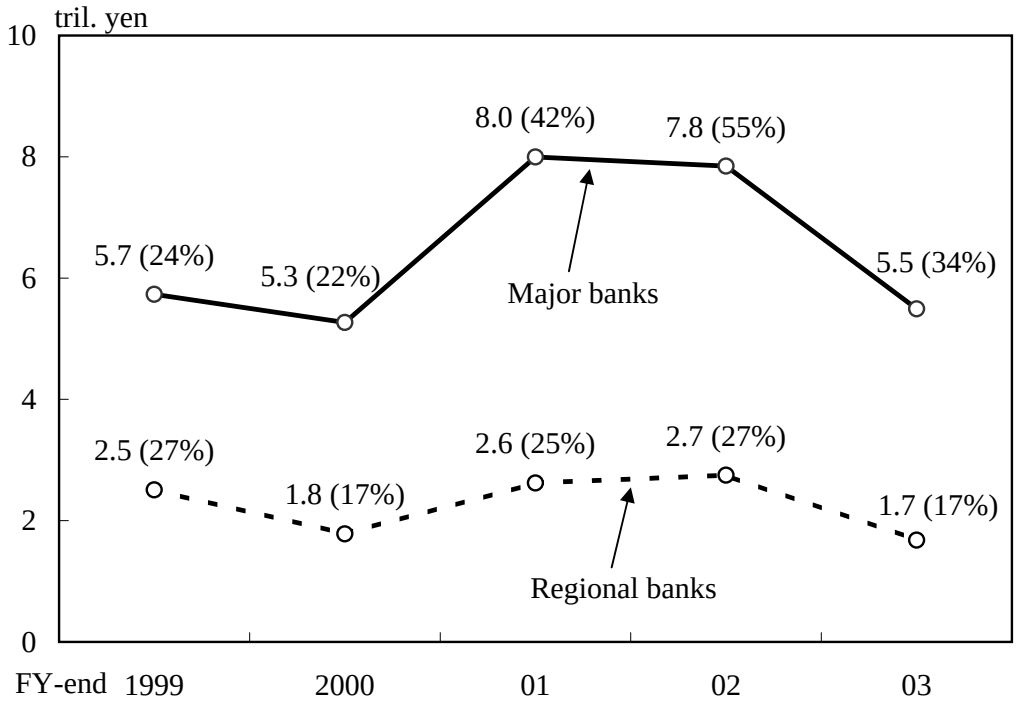
Japanese banks need to meet the varied requests of firms and individuals for financial services by further advancing sophistication of risk management skills and enhancing profitability through the efficient use of capital and the use of new financial engineering techniques as well as financial market instruments.

Chart 1: Risk-Based Capital Adequacy Ratios[1]



Note: 1. On a consolidated basis.

Chart 2: Net Deferred Tax Assets[1,2]



Notes: 1. Net deferred tax assets = deferred tax assets – deferred tax liabilities.
2. Figures in parentheses are the ratios of net deferred tax assets to Tier I capital.

Chart 3: Return on Assets

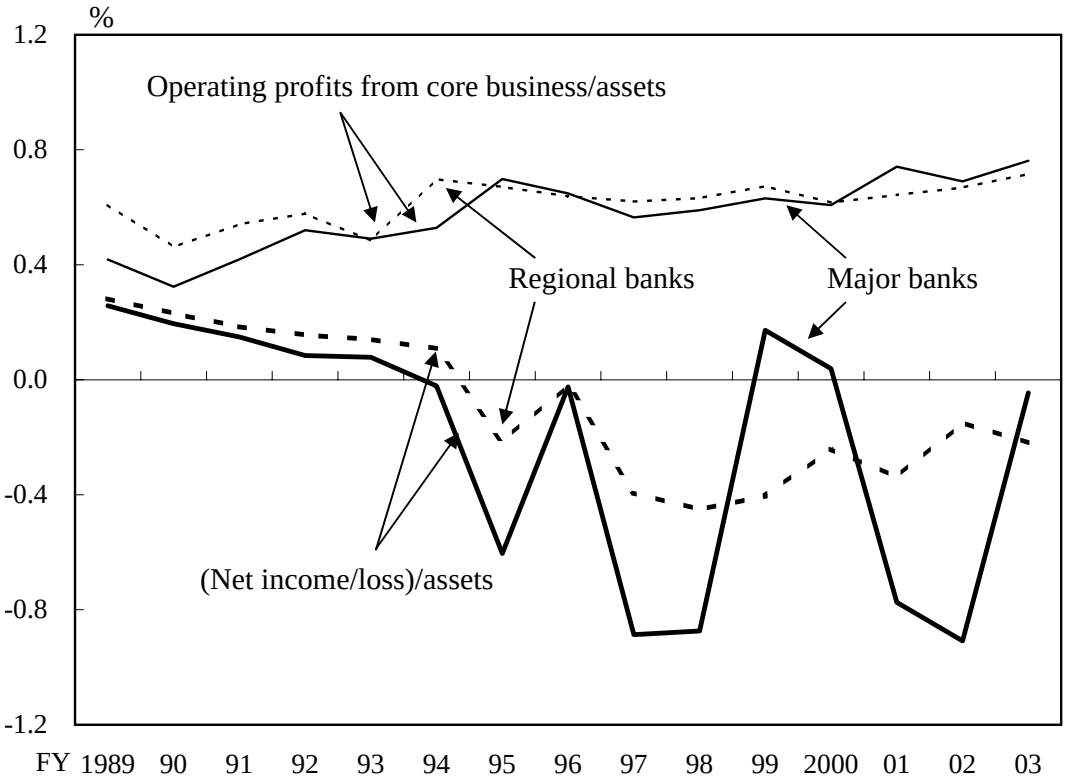
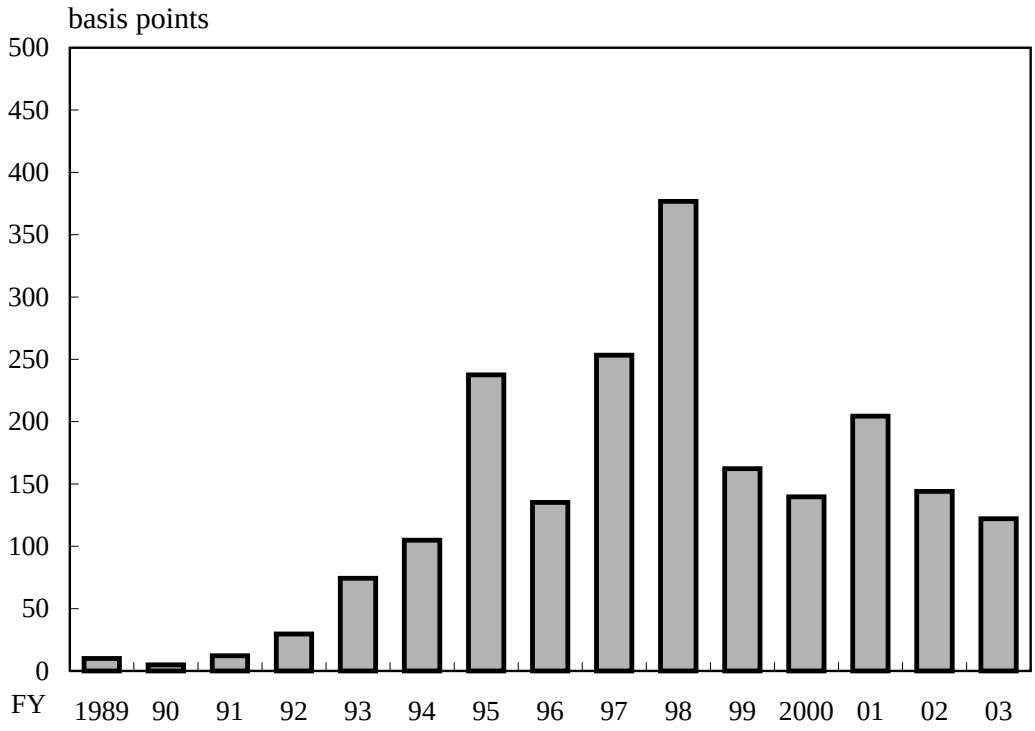


Chart 4: Credit Cost Ratio[1,2]

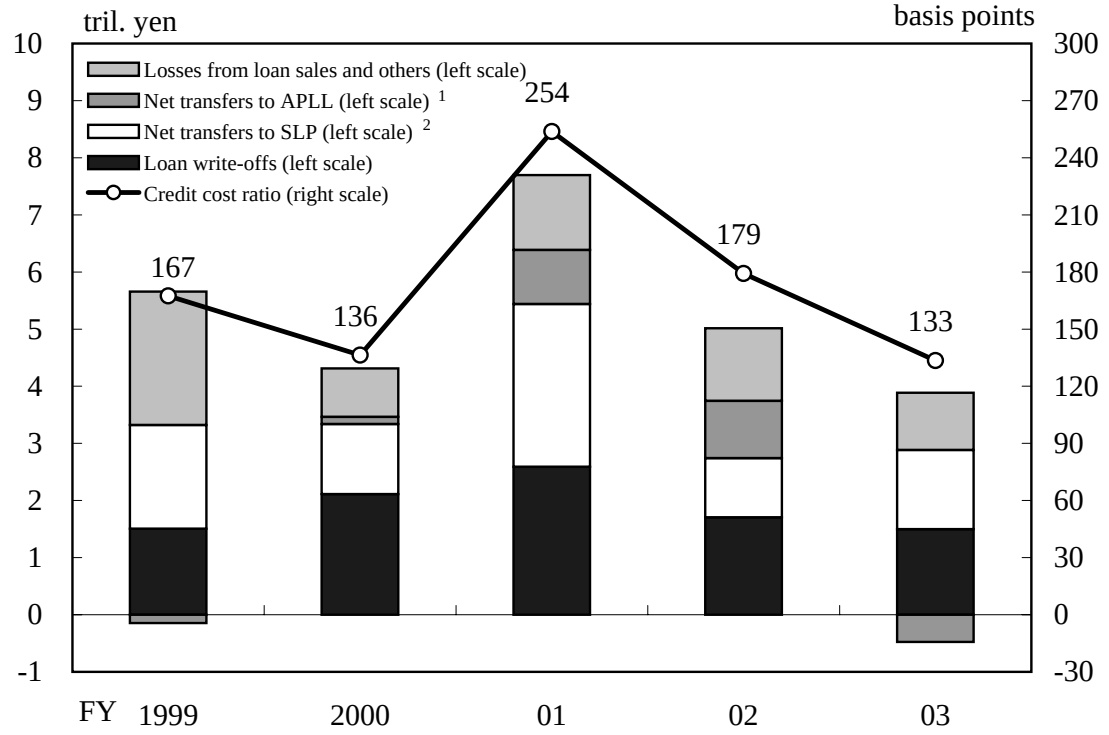


Notes: 1. One basis point = 0.01 percent.

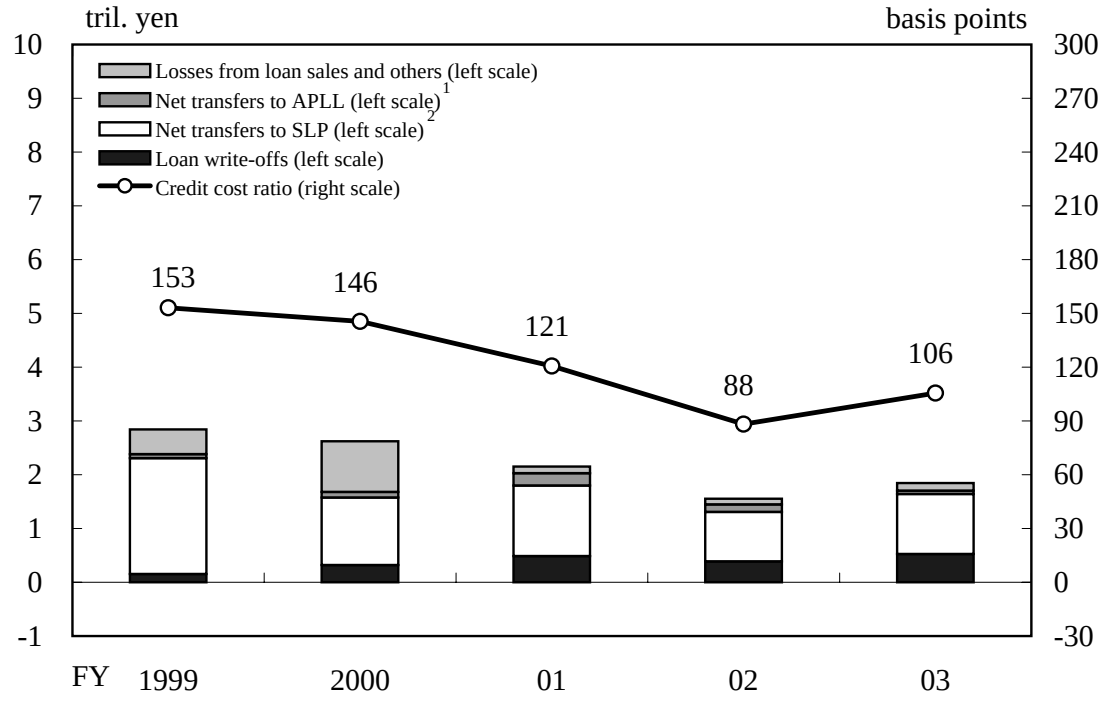
2. The aggregate figure for major banks and regional banks.

Chart 5: Breakdown of Credit Costs

Major banks



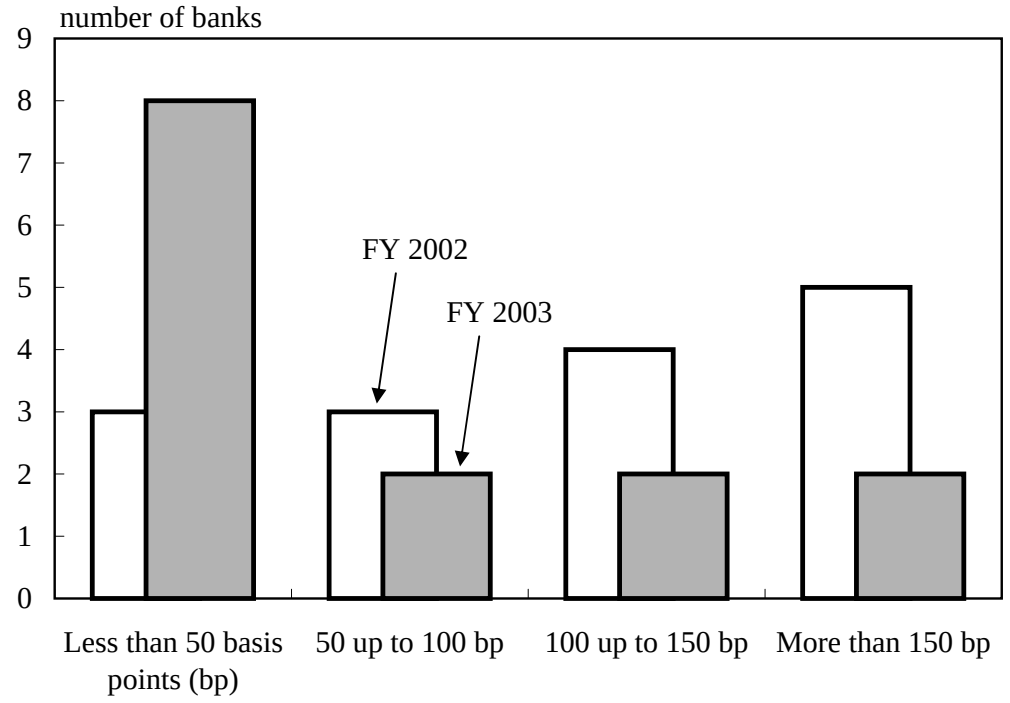
Regional banks



Notes: 1. APLL = allowances for possible loan losses.
2. SLP = special loan-loss provisions.

Chart 6: Distribution of Credit Cost Ratios

Major banks



Regional banks

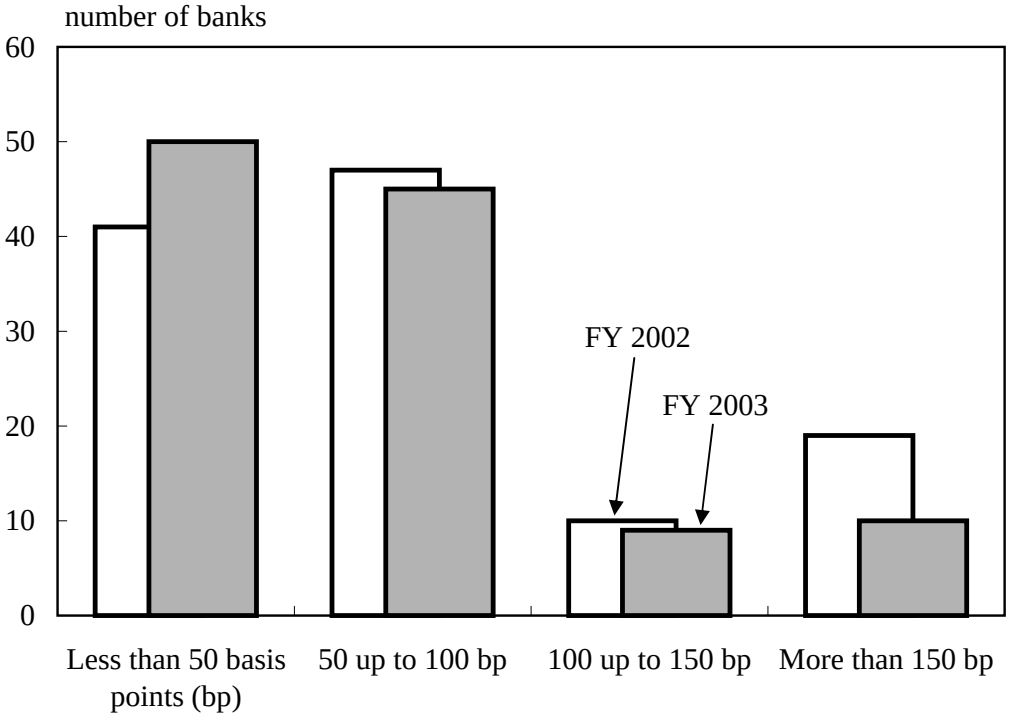
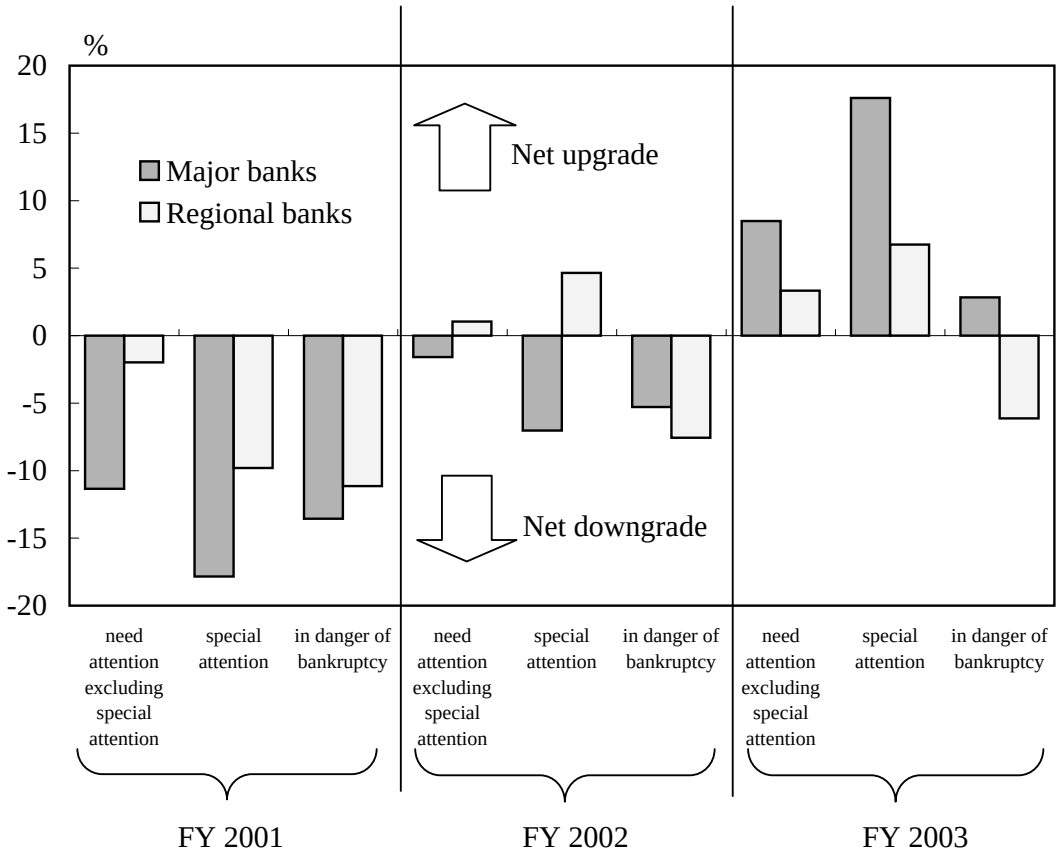
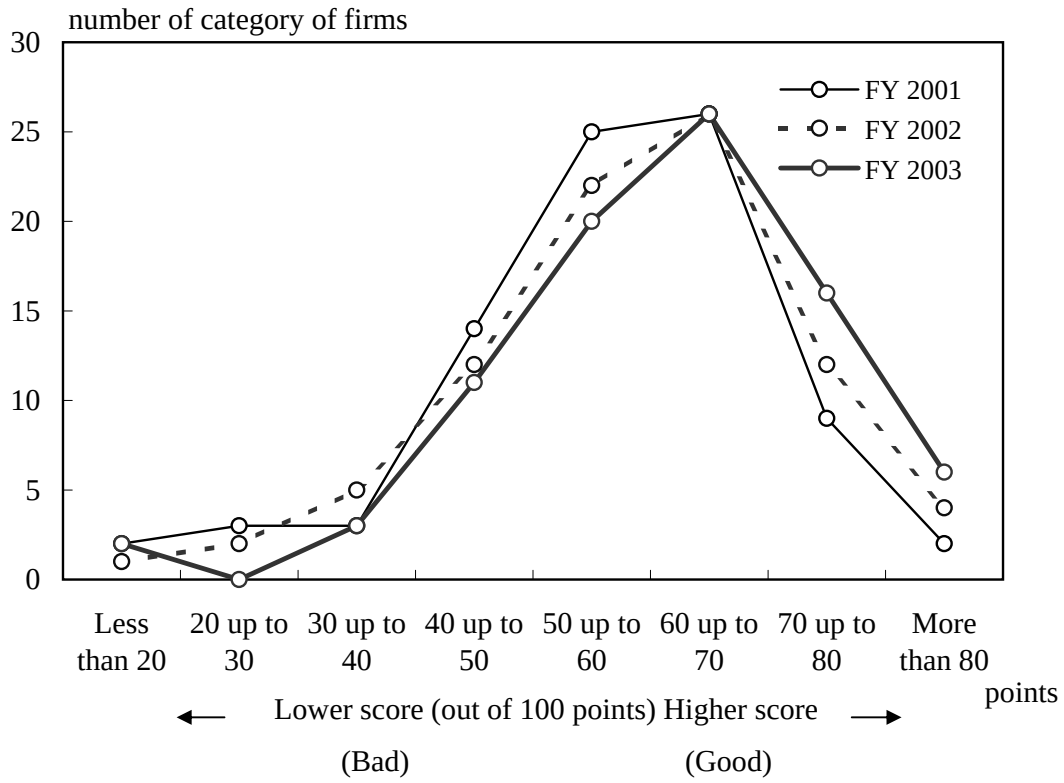


Chart 7: Net Upgrade/Downgrade of Borrower Categories[1]



Note: 1. Net upgrade/downgrade is calculated as follows: subtract the number of downgrades from the number of upgrades in each fiscal year and divide the number by the total number of borrower firms at the beginning of the fiscal year in each borrower category.

Chart 8: Distribution of Firms' Credit Scores[1,2]



Notes: 1. Figures are those for the last quarter of each fiscal year, namely January to March 2002 for FY 2001, January to March 2003 for FY 2002, and January to March 2004 for FY 2003.

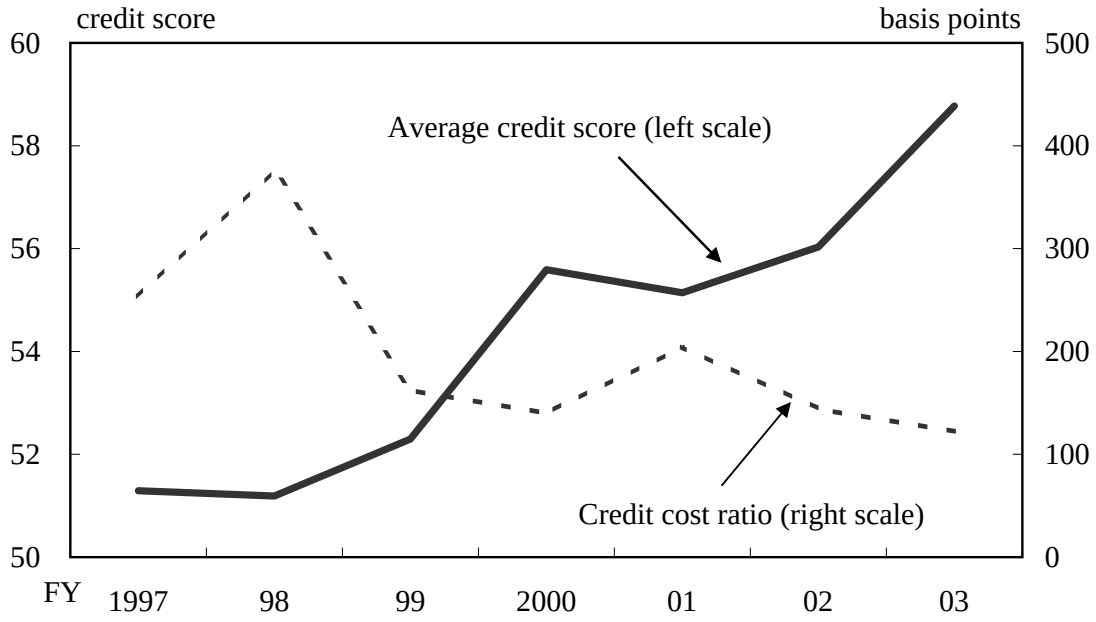
2. Credit scores are calculated as follows. Firms are classified into 28 industries (excluding agriculture, forestry, and fisheries) as defined in the "Financial Statement Statistics of Corporations by Industry, Quarterly" (Ministry of Finance), and are further categorized by the size of their capital (i.e., large firms, medium-sized firms, and small firms), giving 84 categories of firms. Firms within the same category are treated as one sample firm, and a credit score is calculated for each category in five-point units with 20 grades, with the full score of 100 points.

   a. Indicators of firms' financial strength (60 points):
   Capital adequacy ratios (20 points); ratios of retained earnings to total capital (20 points); dependency on borrowed capital (10 points); and funding capability (10 points).

   b. Indicators of firms' profitability (15 points):
   Rate of recurring profits to total capital (10 points); and rate of operating profits before depreciation to total capital (5 points).

   c. Indicator of firms' repayment capacity (25 points):
   Number of years necessary to repay interest-bearing liabilities (25 points).

Chart 9: Credit Score and Credit Cost Ratio[1]



Note: 1. Credit cost ratio is aggregated for major banks and regional banks.
Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

Chart 10: Banks' Sales of NPLs

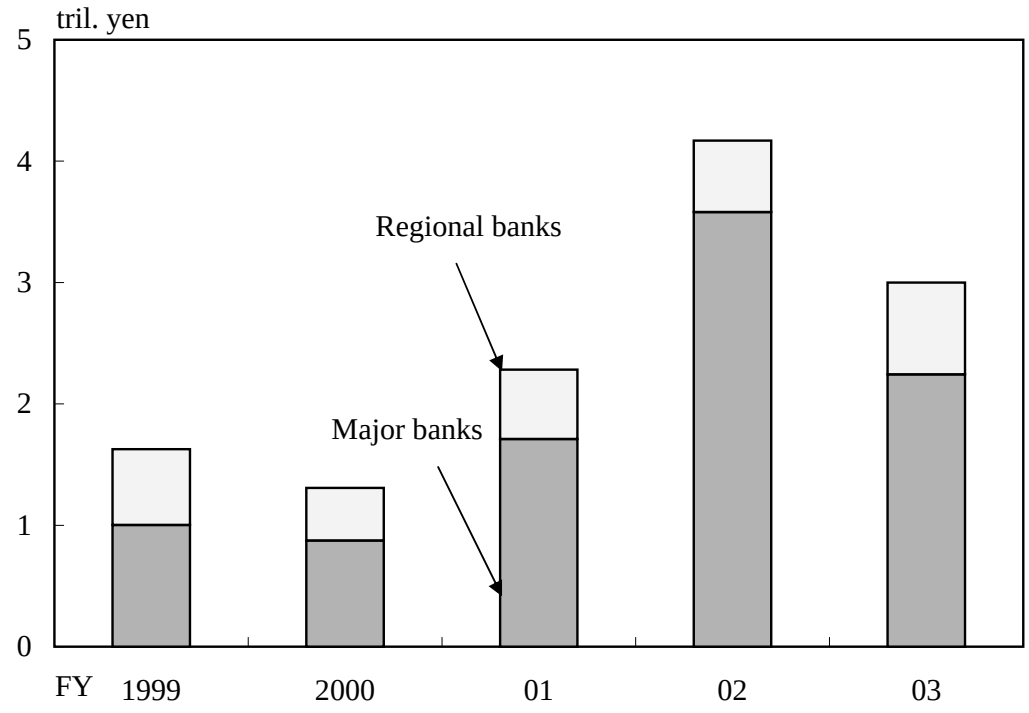
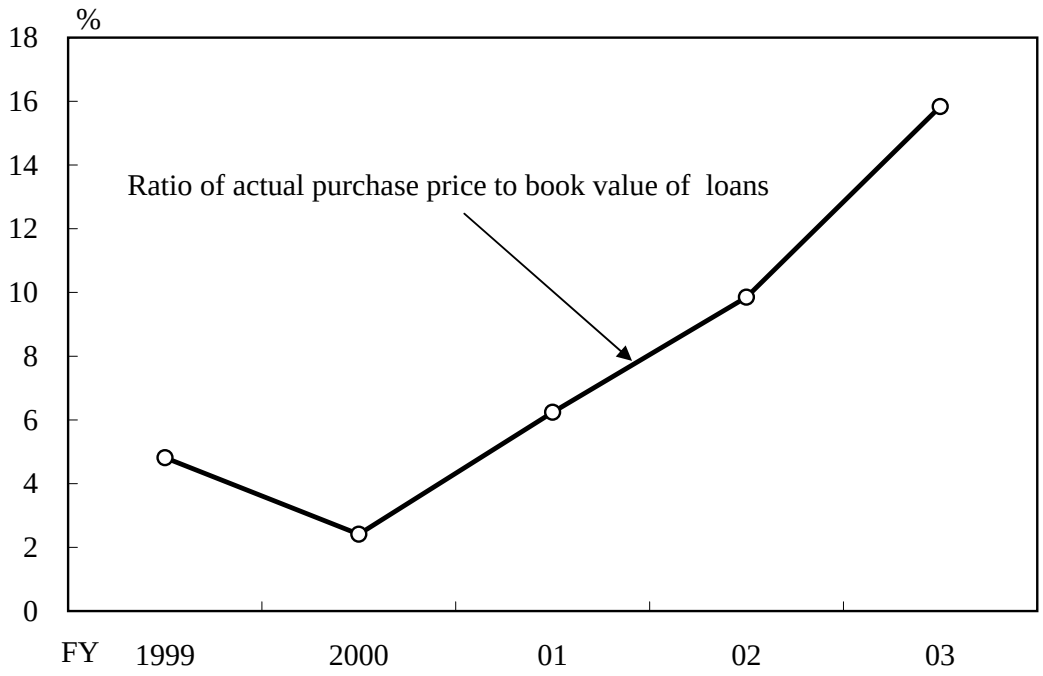


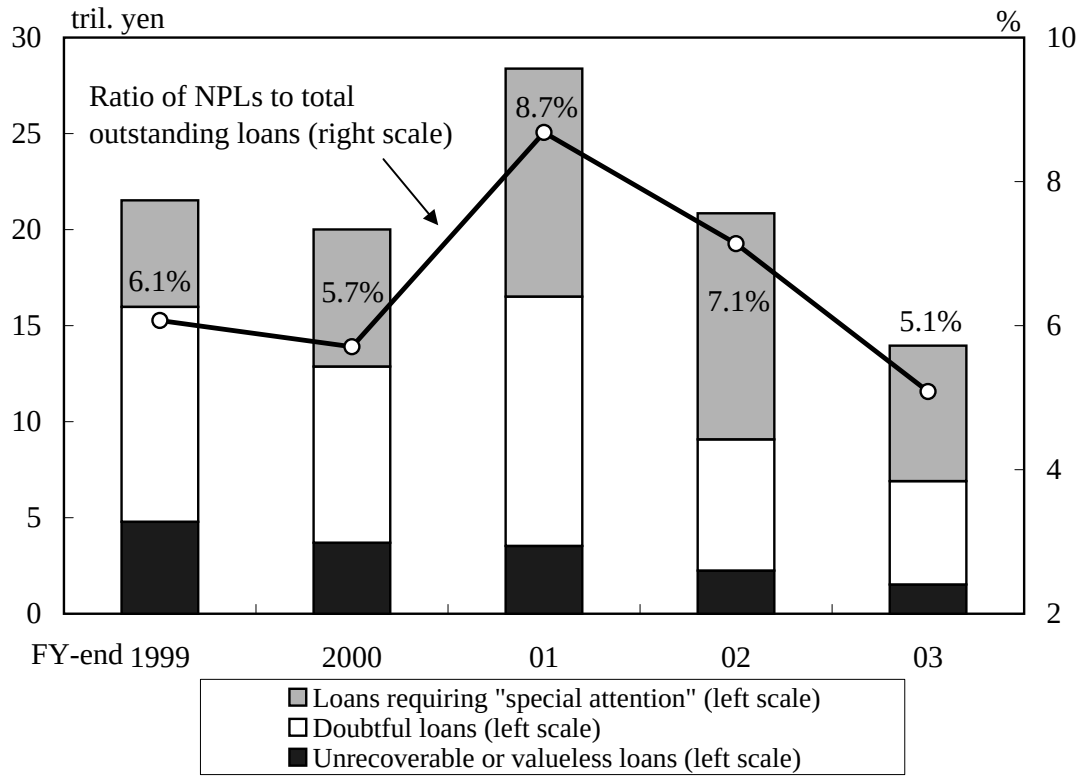
Chart 11: Prices of Loans Purchased by the Resolution and Collection Corporation[1]



Note: 1. Loans purchased by the Resolution and Collection Corporation (RCC) from sound financial institutions pursuant to Article 53 of the Financial Reconstruction Law.

Chart 12: NPLs Disclosed under the FRL

Major banks



Regional banks

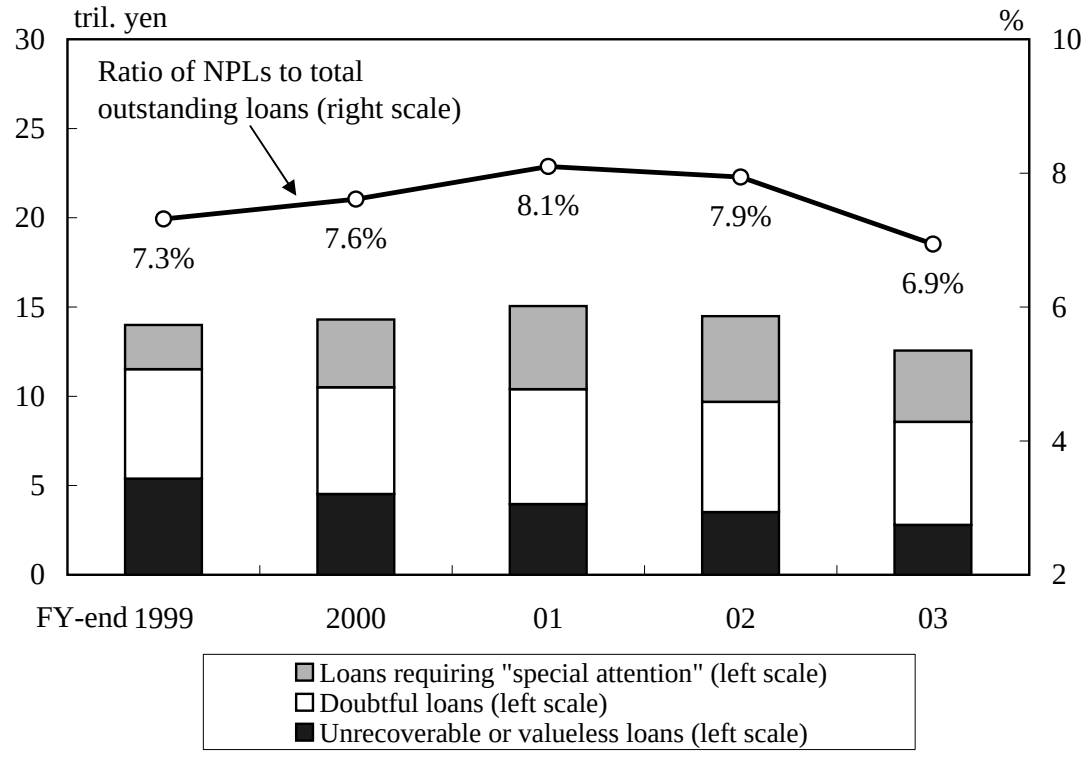
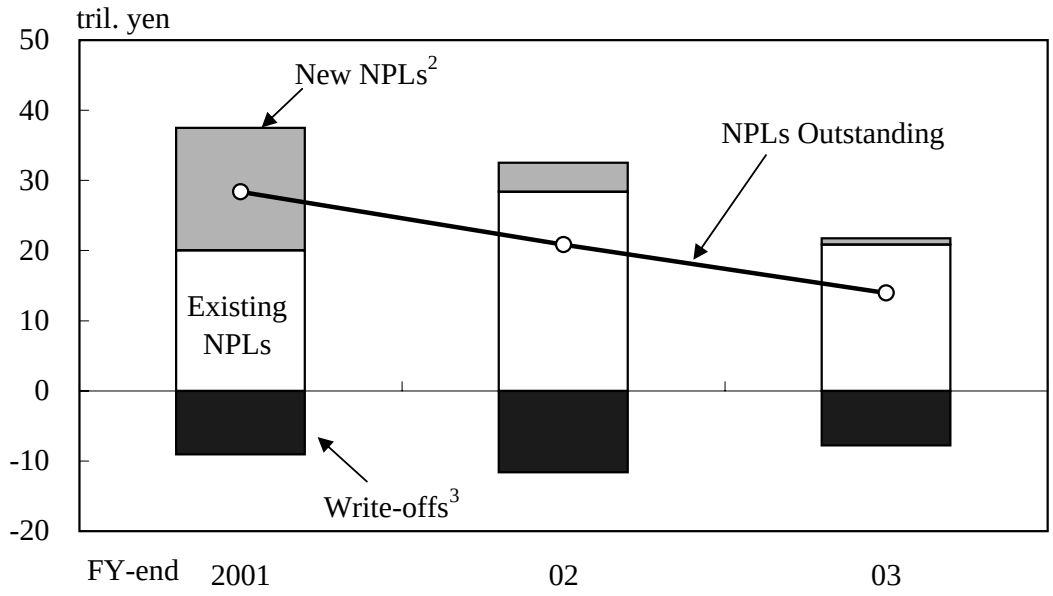
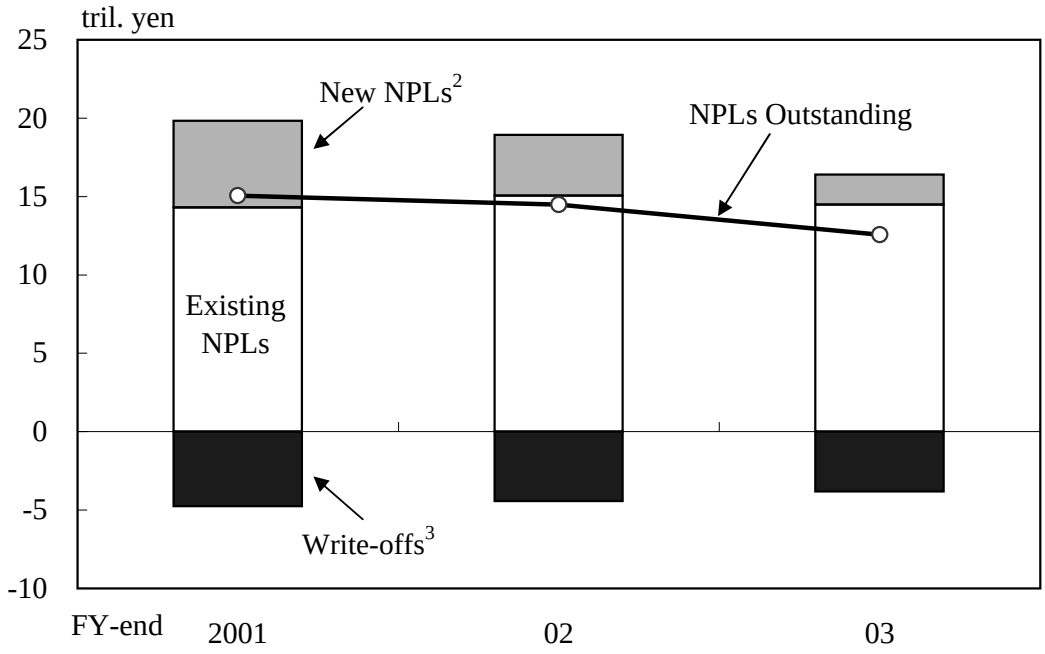


Chart 13: Decomposition of the change in the NPLs Outstanding[1]

Major banks



Regional banks



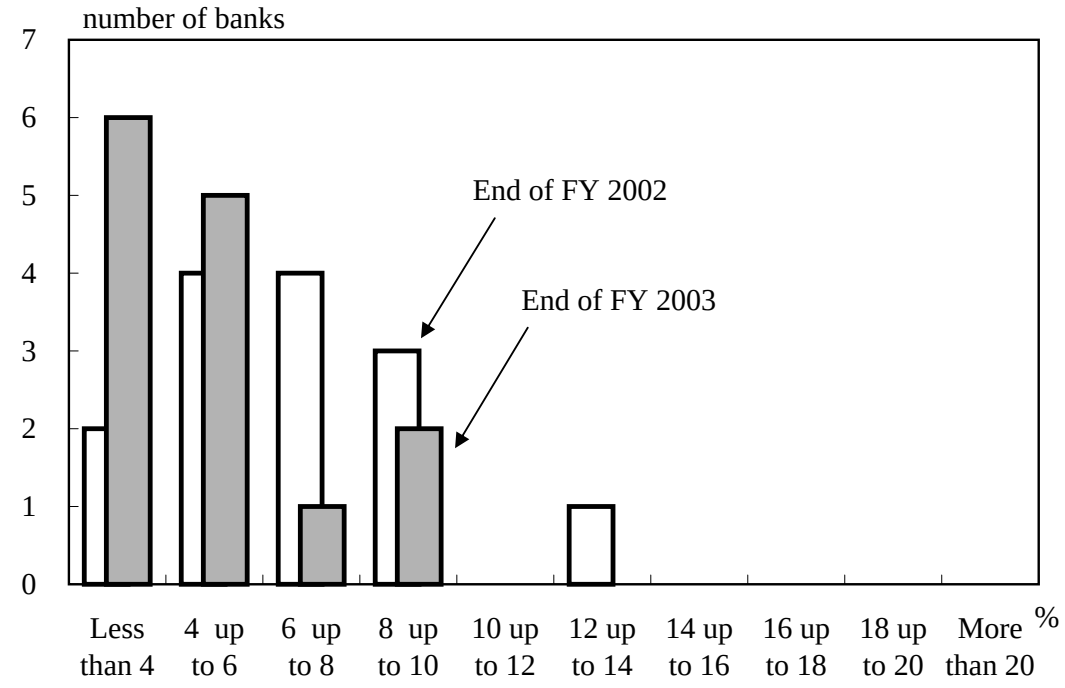
Notes: 1. The NPLs outstanding at the fiscal year-end – the NPLs outstanding at the previous fiscal year-end (existing NPLs) = new NPLs + write-offs.

2. The net amount of new NPLs is the net amount of loans for which credit categories were shifted by upgrades/downgrades between NPLs (loans to borrowers classified as requiring "special attention" and "in danger of bankruptcy" or lower) and loans to borrowers classified as "normal" and "need attention" excluding "special attention."

3. The amount of loan write-offs is the difference calculated from the equation in Note 1 above.

Chart 14: Distribution of NPL Ratios

Major banks



Regional banks

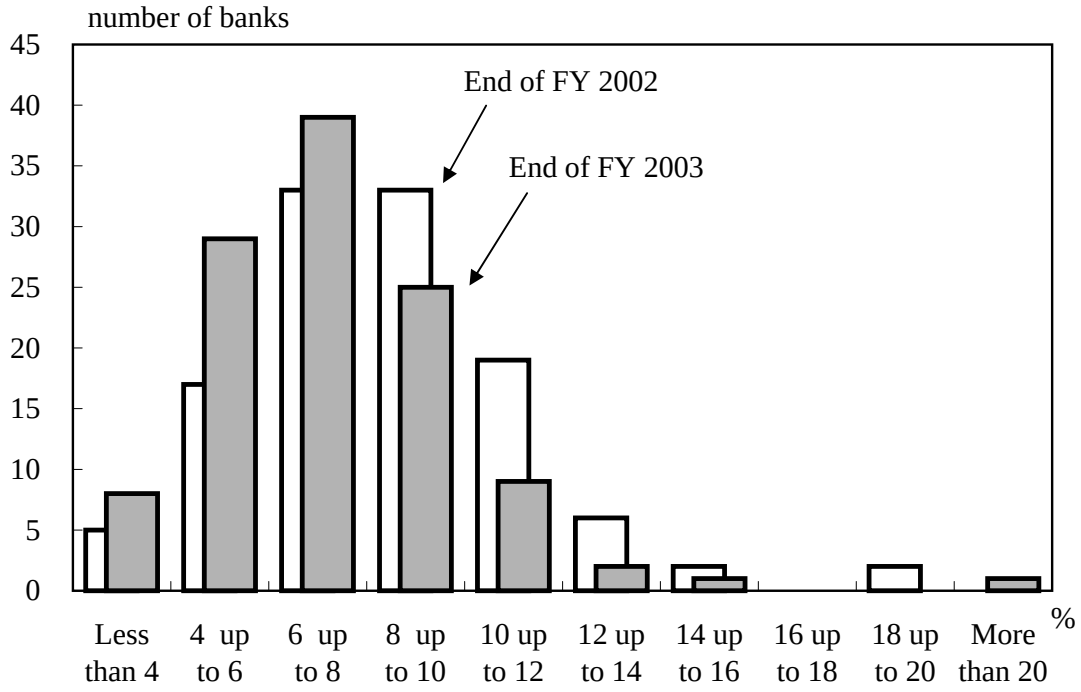
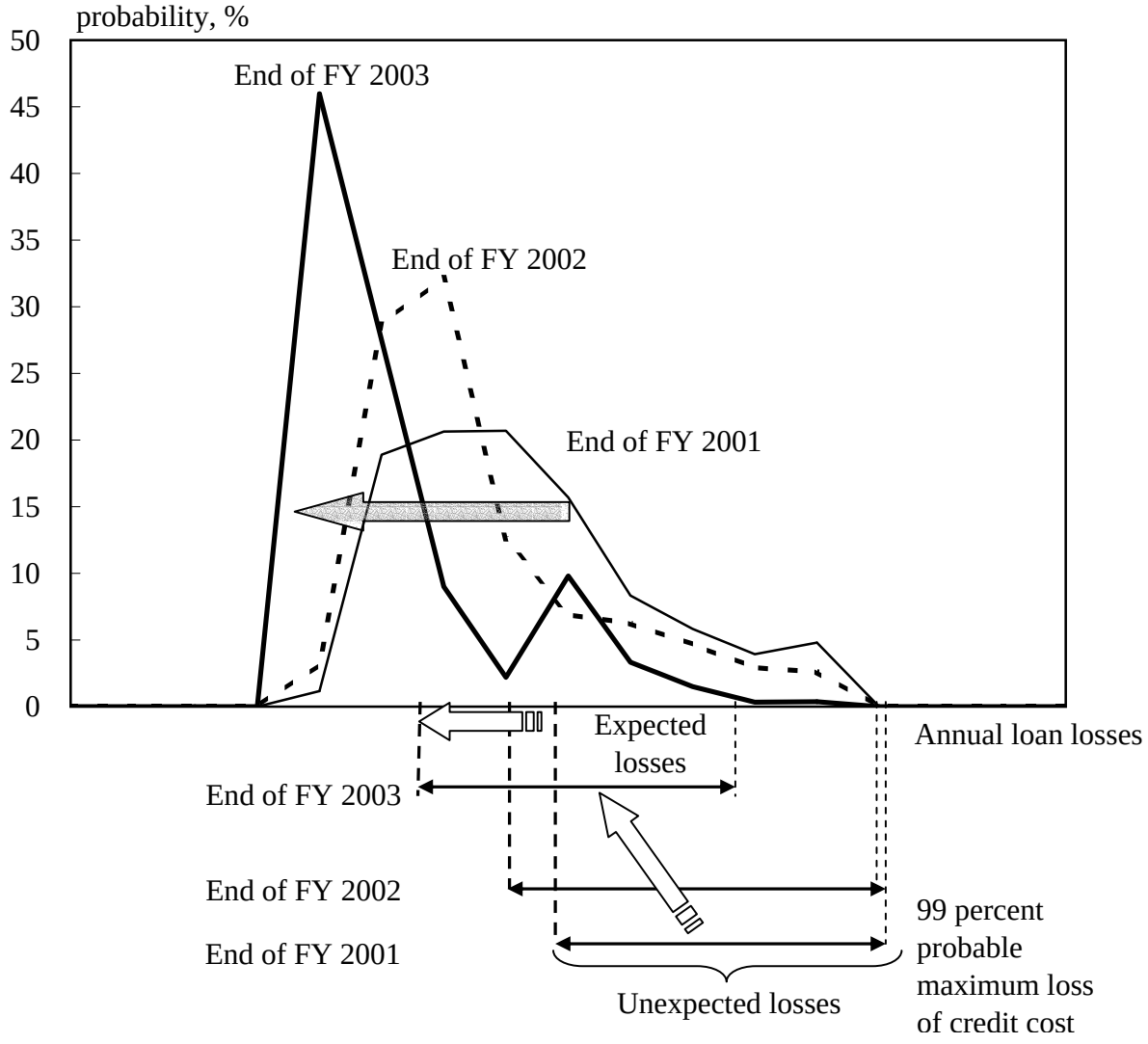


Chart 15: Expected and Unexpected Losses from Loan Portfolios[1]



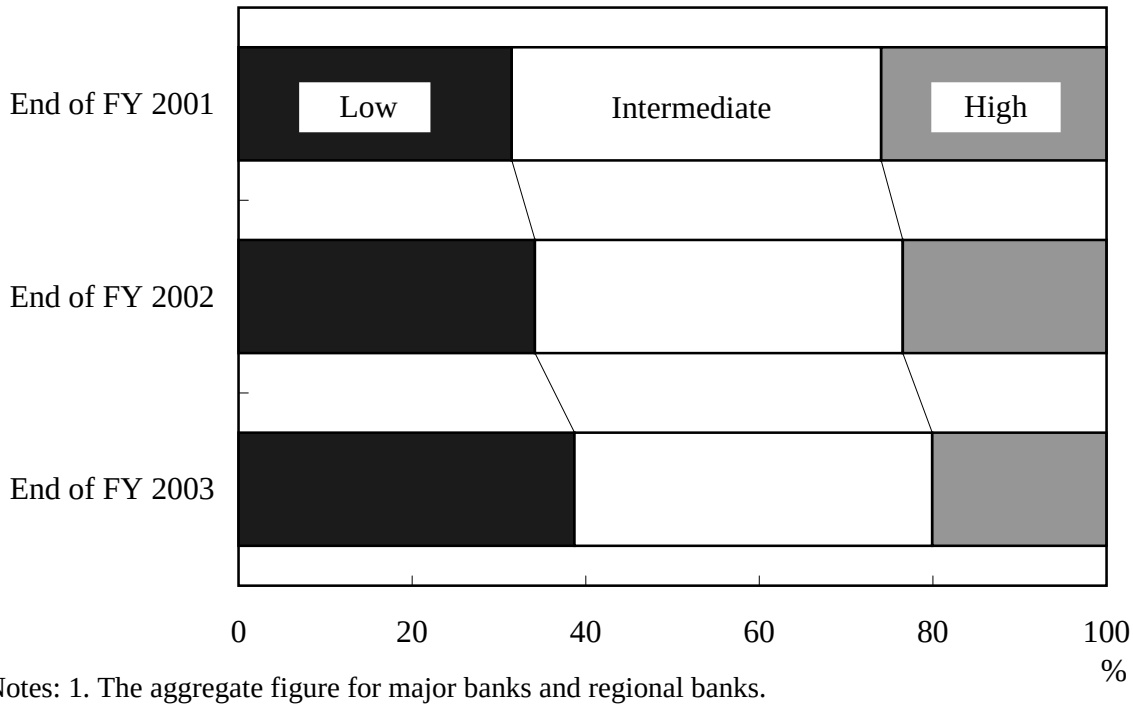
Note: 1. The Monte Carlo simulation under a given probability of default (PD) is conducted for listed firms other than those in financial services, e.g., banking and insurance, as follows.

a. Categorizing firms into each borrower category
Firms are ranked by the ratio of net amount outstanding of interest-bearing liabilities to cash flow, assuming that banks decide borrower categories according to this ranking. Then, firms are categorized into borrower categories based on the share of major banks' loans outstanding for each borrower category.

b. PD for each borrower category
PD is set taking account of loan-loss provisions rate for each category at the end of FY 2003. Borrowers classified as "effectively bankrupt" and "bankrupt" are regarded as in default to simplify calculation. PD for "normal" borrowers is 0.2 percent; for borrowers classified as "need attention" other than those requiring "special attention," 4.0 percent ; for those requiring "special attention," 10 percent; and for those,"in danger of bankruptcy, " 37 percent.

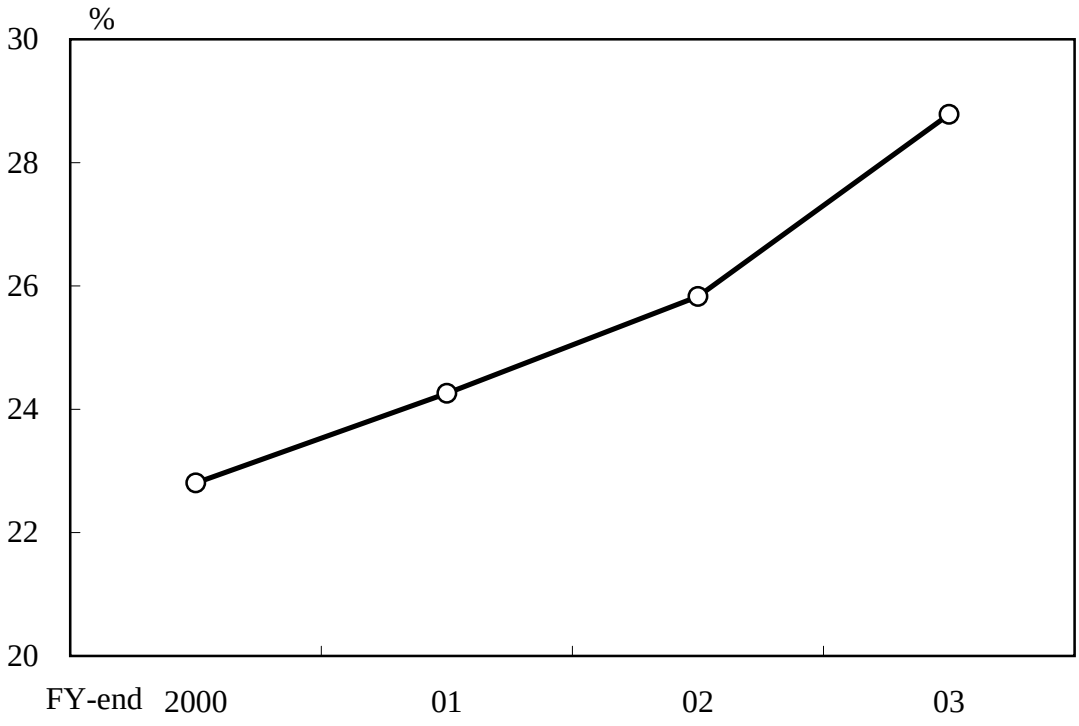
Source: Financial statements.

Chart 16: Breakdown of Loans to "Normal" Borrowers[1,2]



Notes: 1. The aggregate figure for major banks and regional banks.
2. Amount outstanding of each bank's loans extended to "normal" borrowers is divided into three categories according to the level of credit risk involved, namely, "low," "intermediate," and "high." The three categories are set using banks' internal credit rating systems.

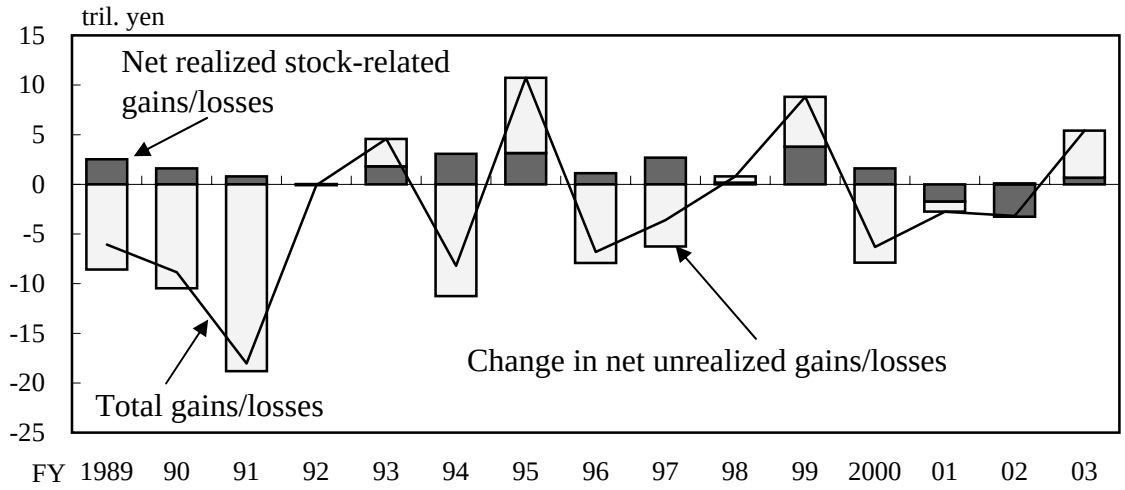
Chart 17: Ratio of Loans to Individuals to Total Loans[1]



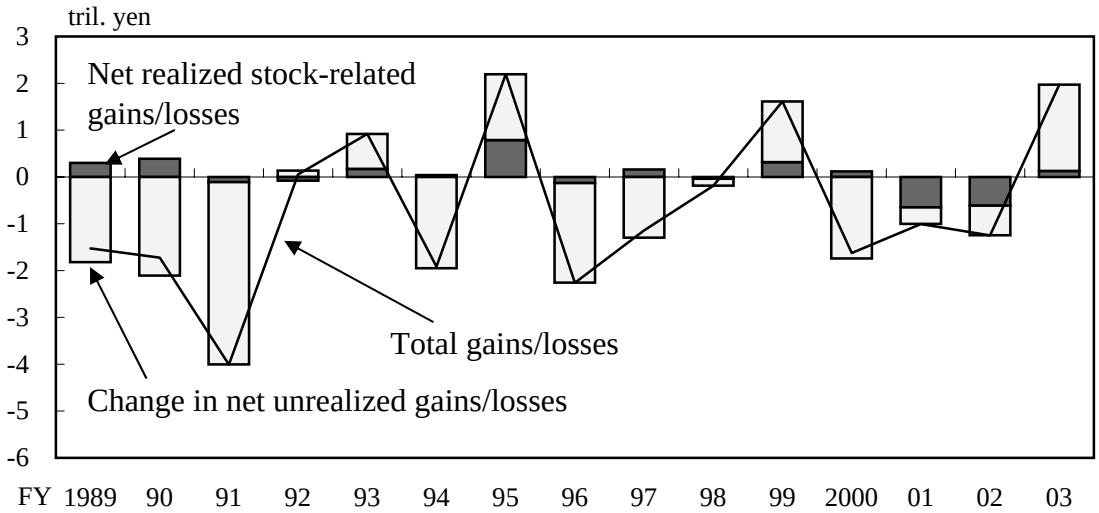
Note: 1. The aggregate figure for major banks and regional banks, excluding the former long-term credit banks and trust banks.

Chart 18: Net Stock-Related Gains/Losses

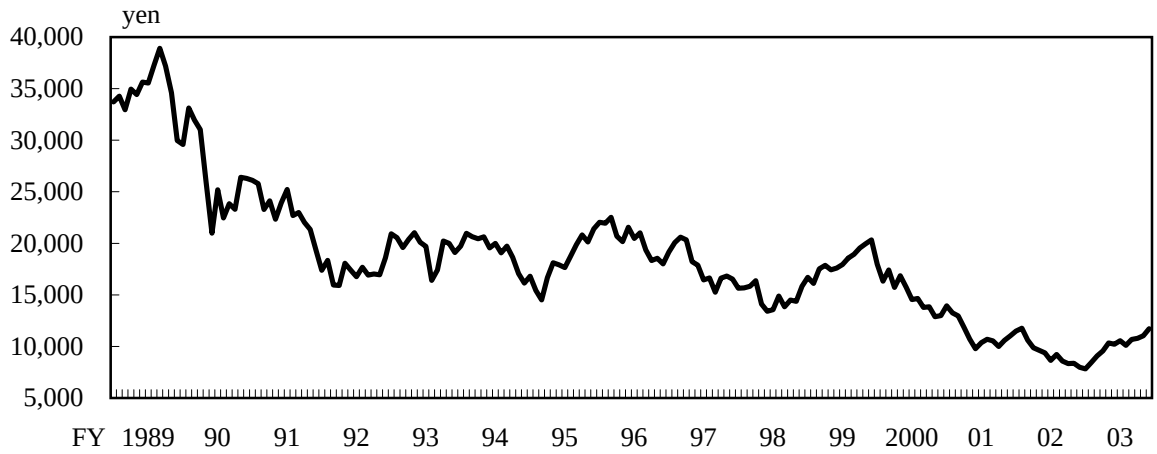
Major banks



Regional banks



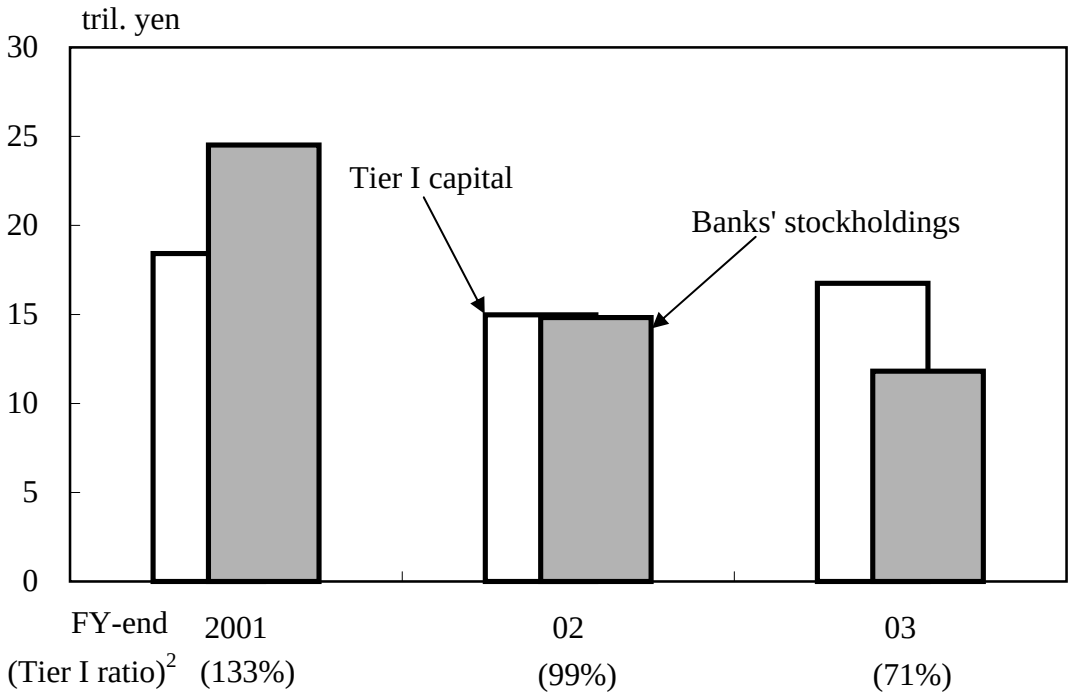
Reference: Nikkei 225 Stock Average



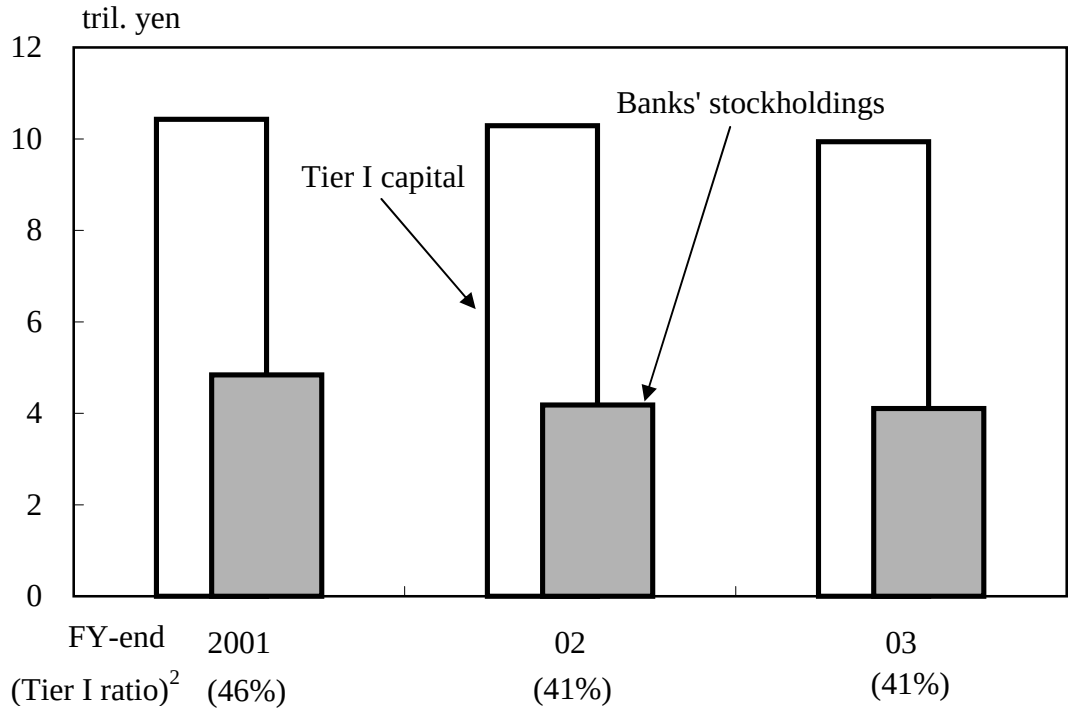
Source: Bank of Japan,"Financial and Economic Statistics Monthly."

Chart 19: Banks' Stockholdings and Its Ratio to Tier I Capital[1]

Major banks



Regional banks



Note: 1. On a consolidated basis.
2. The ratio of banks' stockholdings to Tier I capital.

Chart 20: Major Banks' Exposure to Stock Market Volatility

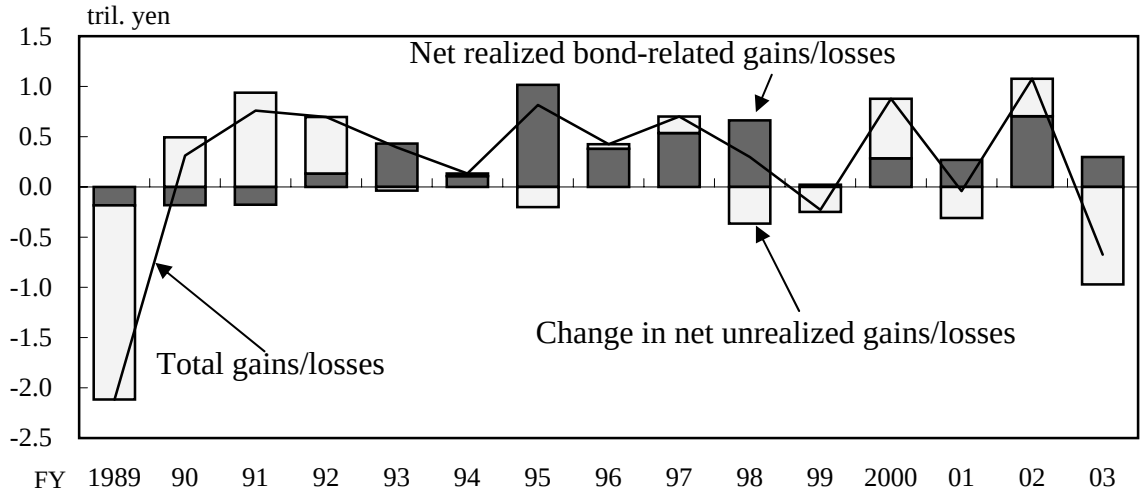
tril. yen

	Decrease in stockholdings[1]	Decrease in VaR[2]	Amount of capital raised[3]
FY 2002	- 9.7	-3.3	2.4
FY 2003	- 3.0	-0.9	2.0
Total	-12.7	-4.3 (-23%)[4]	4.4 (24%)[4]

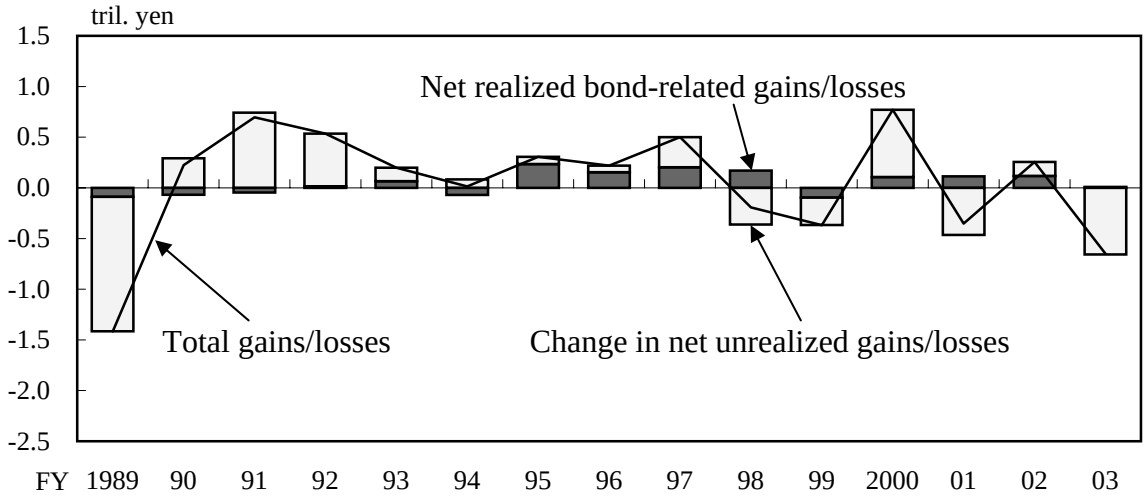
Notes: 1. Change in the amount of stocks for which market prices are available, excluding those held for the purpose of trading and stocks of subsidiaries and affiliates.
2. The probable maximum loss for holding stocks for six months, measured with a confidence interval of 99 percent. It is calculated based on the assumption that the change in the value of stockholdings reflect fully (β=1) the price movements in the TOPIX (Tokyo Stock Price Index).
3. The amount of capital that can be included in Tier I capital, such as that raised through issuance of preferred stocks and preferred subscription bonds and through injection of public funds.
4. Figures in parentheses are the ratios of stockholdings to Tier I capital at the end of FY 2001 (March 2002).

Chart 21: Net Bond-Related Gains/Losses

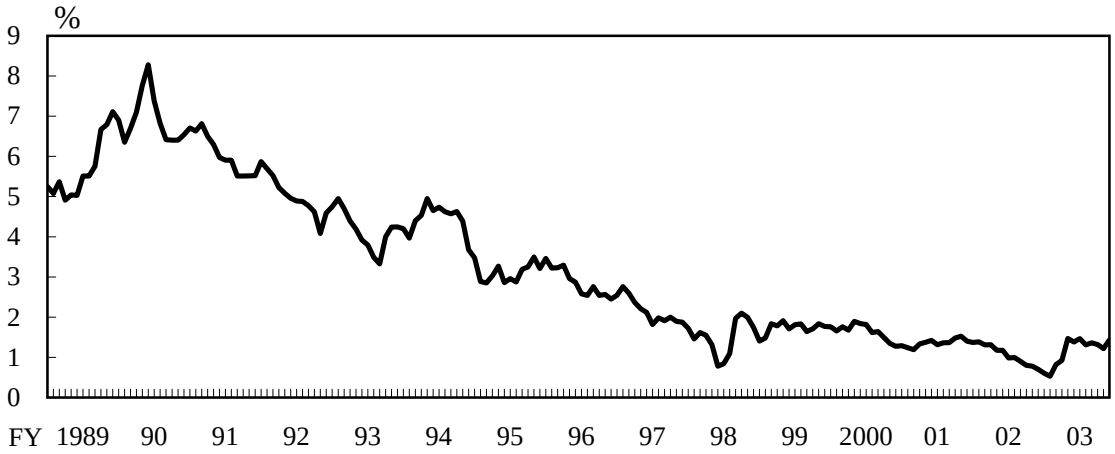
Major banks



Regional banks



Reference: Yields on 10-Year Government Bonds

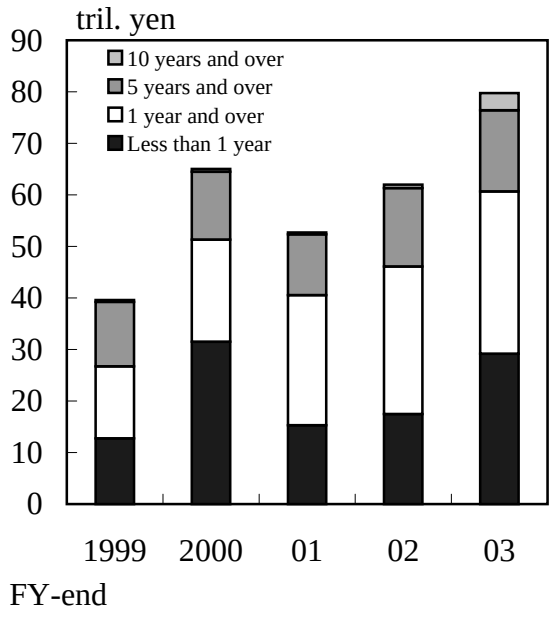


Source: Bank of Japan,"Financial and Economic Statistics Monthly."

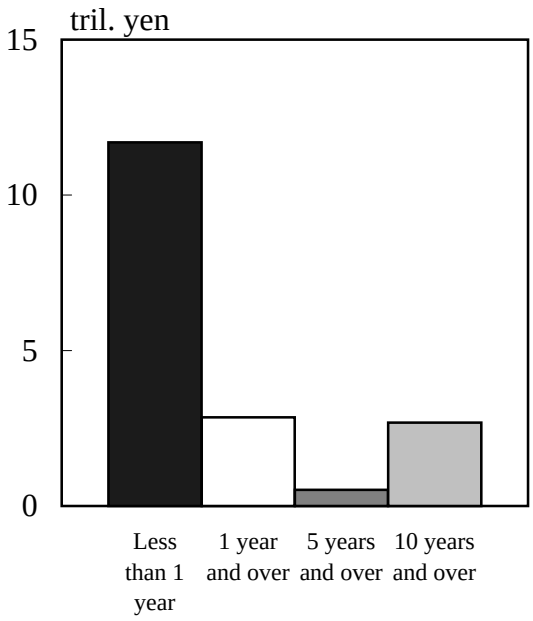
Chart 22: Annual Changes in Bond Holdings by Remaining Maturity

Major banks

Amount outstanding of bonds by remaining maturity

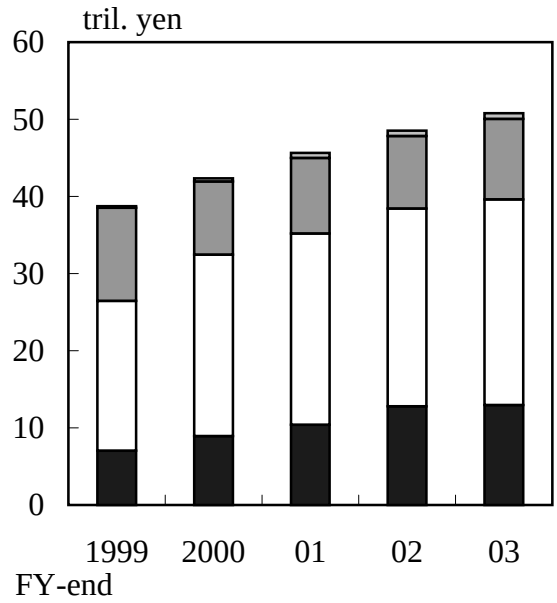


Annual changes in FY 2003



Regional banks

Amount outstanding of bonds by remaining maturity



Annual changes in FY 2003

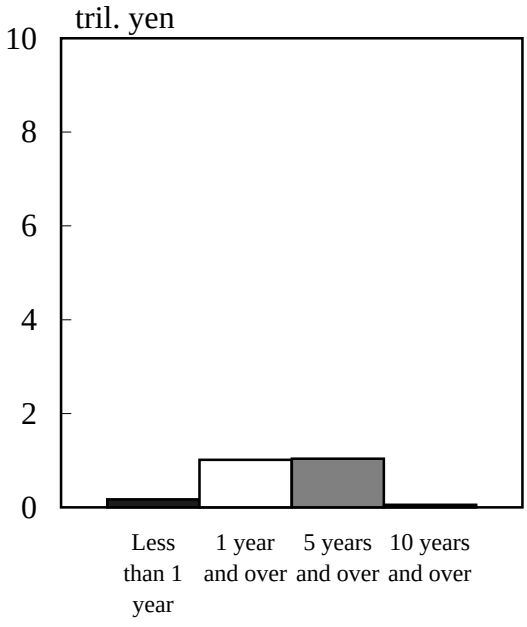


Chart 23: Ratio of VaR to Tier I Capital for Major Banks[1]

%, end of fiscal year

	2002	2003
Stocks	49.8	34.5
Bonds	2.2	3.4

Note: 1. The probable maximum loss arising from holding securities on the balance sheets of major banks on the assumption that stocks are held for six months and bonds for one month, with a confidence interval of 99 percent. VaR for stocks is calculated based on the assumption that the change in the value of stockholdings reflects fully (β=1) the price movements in the TOPIX. As for bonds, the maximum probable loss is calculated based on the amount outstanding of bonds for each remaining maturity, on the assumption that interest rates on 10-year bonds would rise to a certain level obtained from past average period fluctuations and the rise would become smaller as the remaining maturity gets shorter.

Chart 24: Changes in the Assets Value of Banks in Fiscal 2003

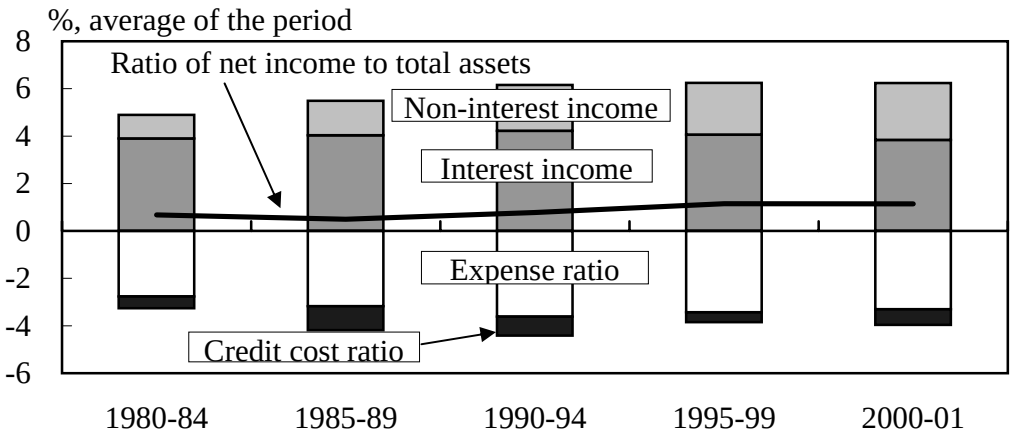
changes from end - March 2003 to end-March 2004, tril. yen

	Unrealized bond-related gains/losses (A)	Unrealized stock-related gains/losses (B)	Loan-loss provisions[1] (C)	Changes in the assets value (A + B – C)
Major banks	-1.0	+4.8	-1.0	+4.8
Regional banks	-0.7	+1.8	-0.2	+1.4

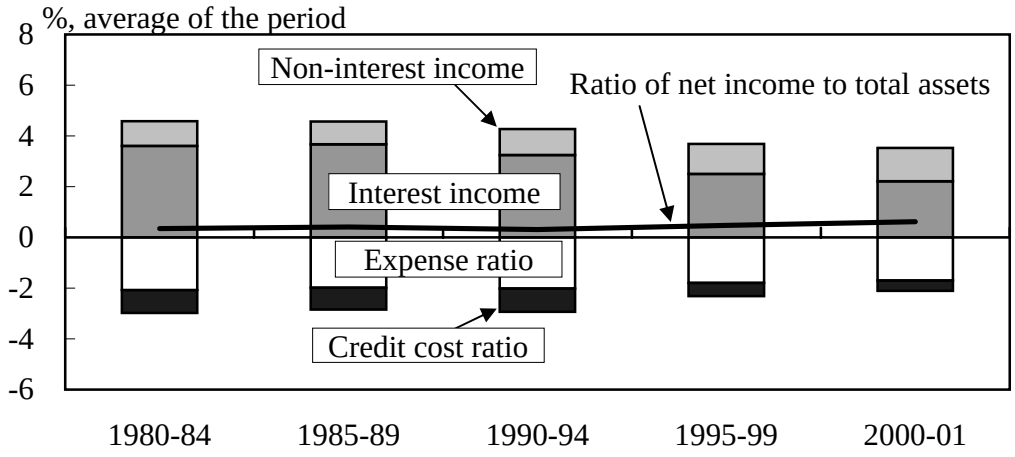
Note: 1. Total of (1) allowances for possible loan losses, (2) special loan-loss provisions, and (3) allowances for special overseas assets.

Chart 25: Profitability of Banks in 30 Countries: Comparison between Groups[1]

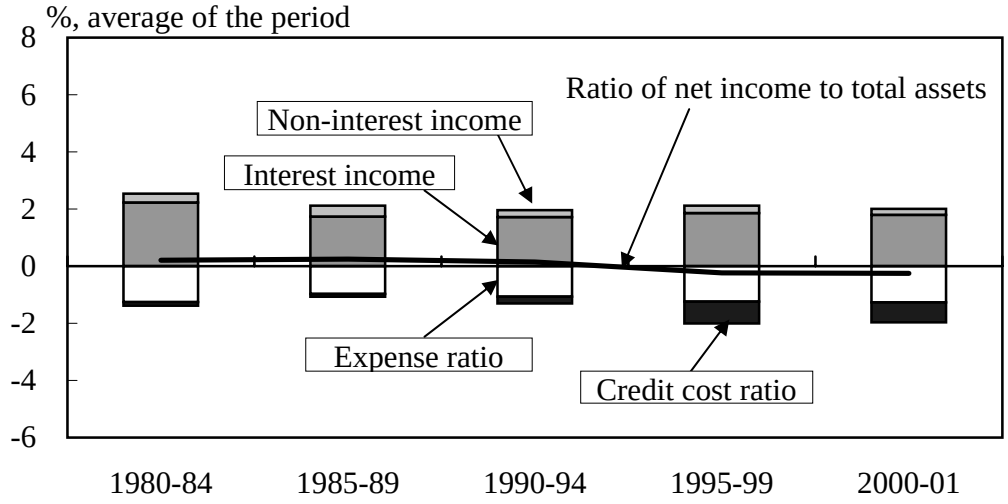
(1) Group 1



(2) Group 2



(3) Group 3

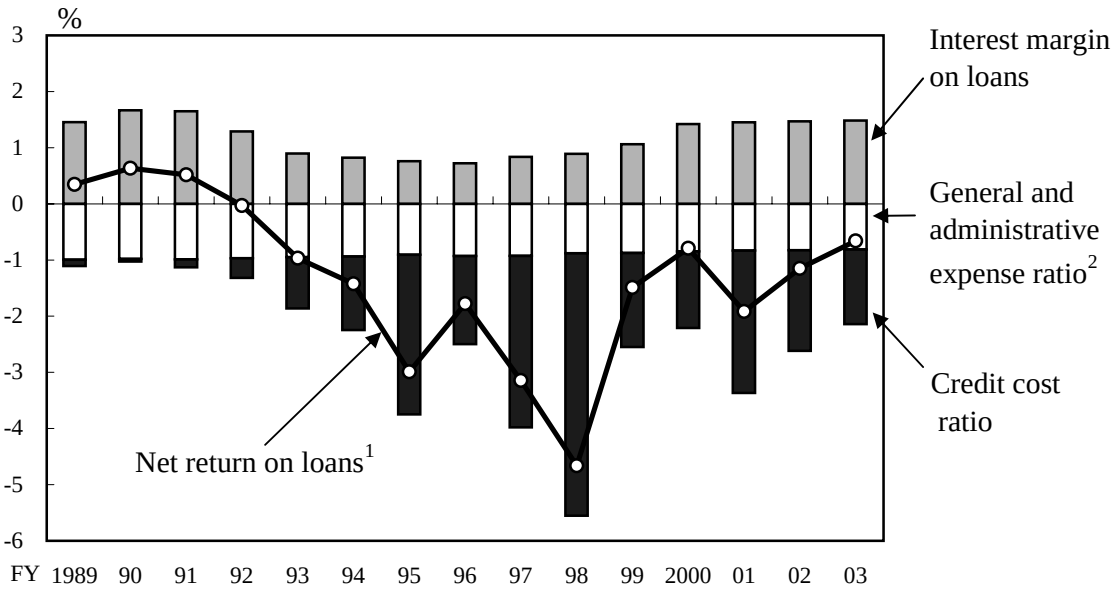


Note: 1. Reporting countries are divided into three groups: countries whose banks' average ratios was in the top 20th percentile (Group 1: 6 countries), those in the bottom 20th percentile (Group 3: 6 countries), and all others (Group 2: 18 countries).

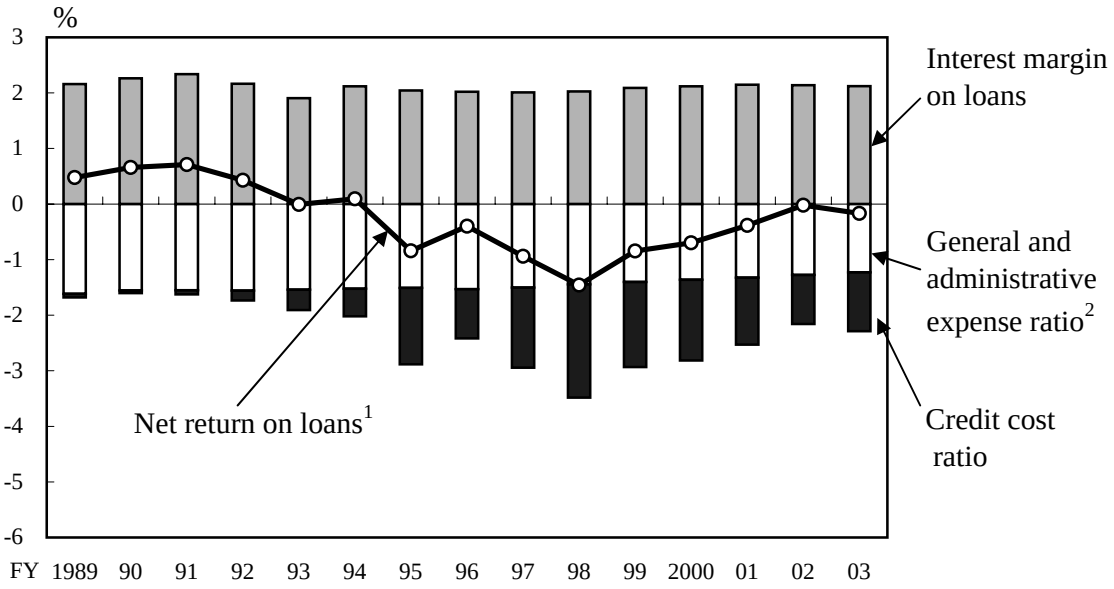
Source: Organisation for Economic Cooperation and Development, "Bank Profitability-Financial Statements of Banks."

Chart 26: Return on Loans

Major banks



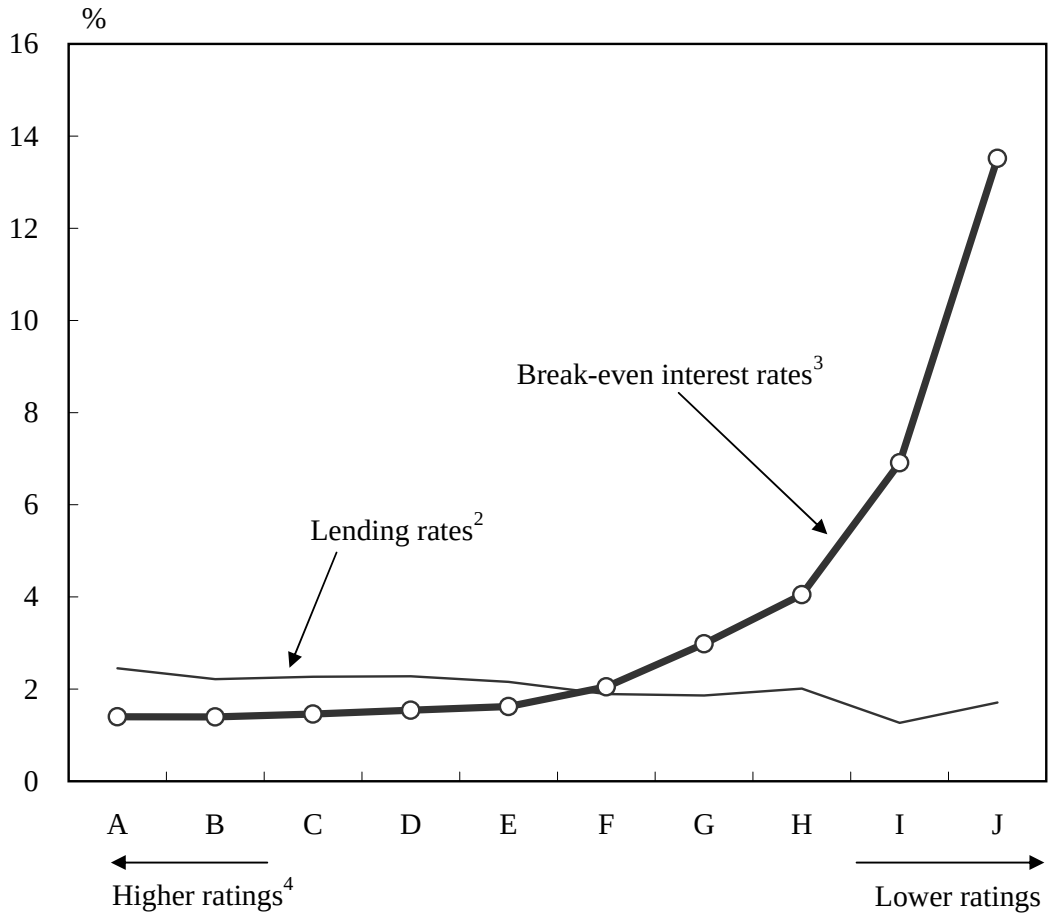
Regional banks



Notes: 1. Interest margin on loans after deducting the realized credit cost ratio and general and administrative expense ratio.

2. General and administrative expense ratio
= general and administrative expenses/average amount outstanding of total interest-earning assets.

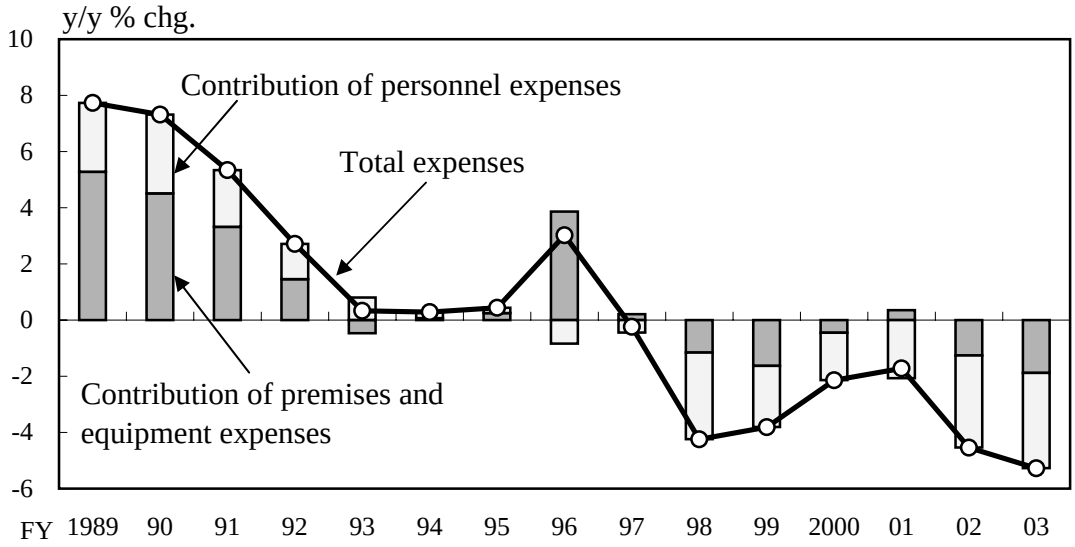
Chart 27: Break-Even Interest Rates for Loans According to Banks' Internal Rating[1]



Notes: 1. Based on financial data of approximately 120,000 borrower firms held by the Credit Risk Database (CRD) Administration Council. The Bank categorized these firms into ten groups (from A to J) based on the ratings given by the CRD.

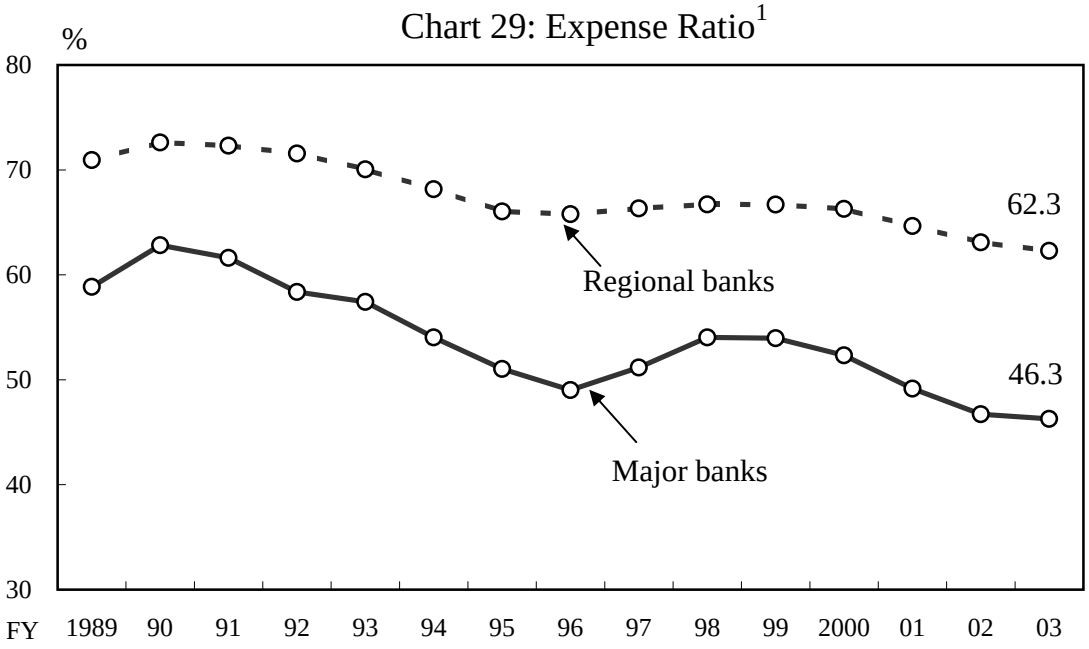
2. Interest rates paid by borrower firms, i.e., (interest payments + discounted value)/ interest-bearing liabilities.
3. Break-even interest rates = credit cost ratio + short-term prime lending rates. Credit cost ratio is calculated on the assumption that loans to borrowers in categories below J are in default based on information on shifts (upgrade/ downgrade) in borrower categories estimated from the CRD's ratings. Recovery ratio is assumed to be 50 percent for loans in all categories.
4. Banks' internal ratings are not always consistent with borrower categories; however, the ratings A to J above generally correspond to loans to "normal" borrowers and to those classified as "need attention."

Chart 28: General and Administrative Expenses[1]



Note: 1. The aggregate figure for major banks and regional banks.

Chart 29: Expense Ratio[1]



Note: 1. Expense ratio = General and administrative expenses/gross operating profits. The ratios are three-year moving averages. Figures for FY 2003 are the average rates of FY 2002 and 2003.

Chart 30: International Comparison of the Expense Ratio[1]

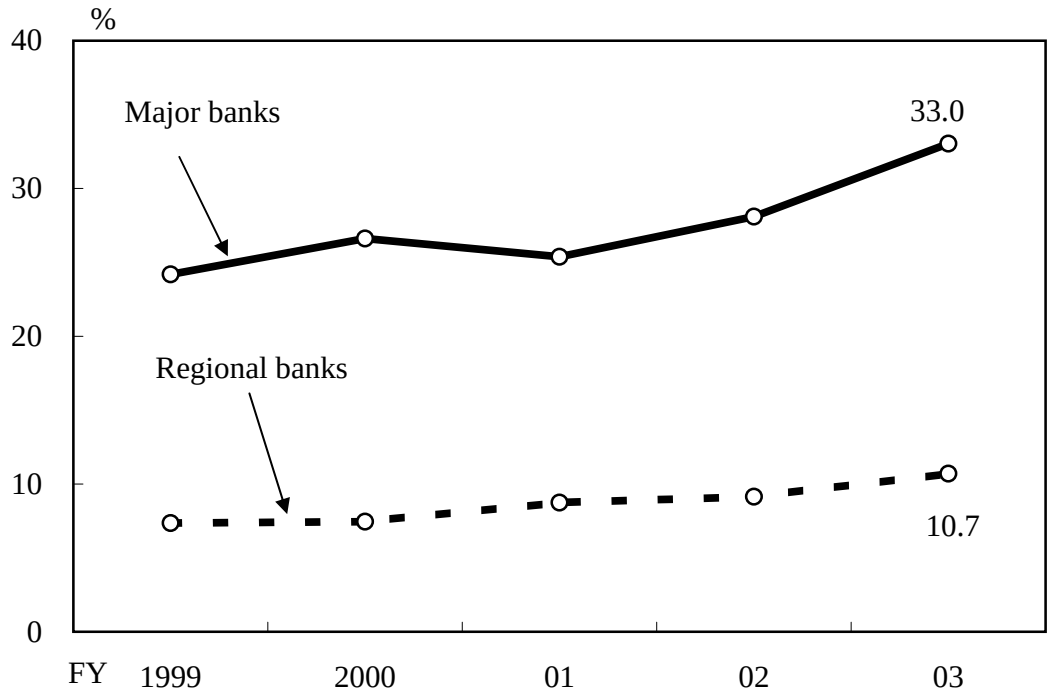
%, average ratios for 1997-2001

U.S.A.	U.K.	Germany	France	Italy	Switzerland
61	57	67	70	60	57

Note: 1. Expense ratio = General and administrative expenses/gross operating profits.

Source: "Bank Profitability-Financial Statements of Banks," Organisation for Economic Cooperation and Development.

Chart 31: Ratio of Non-Interest Income to Total Income[1,2]

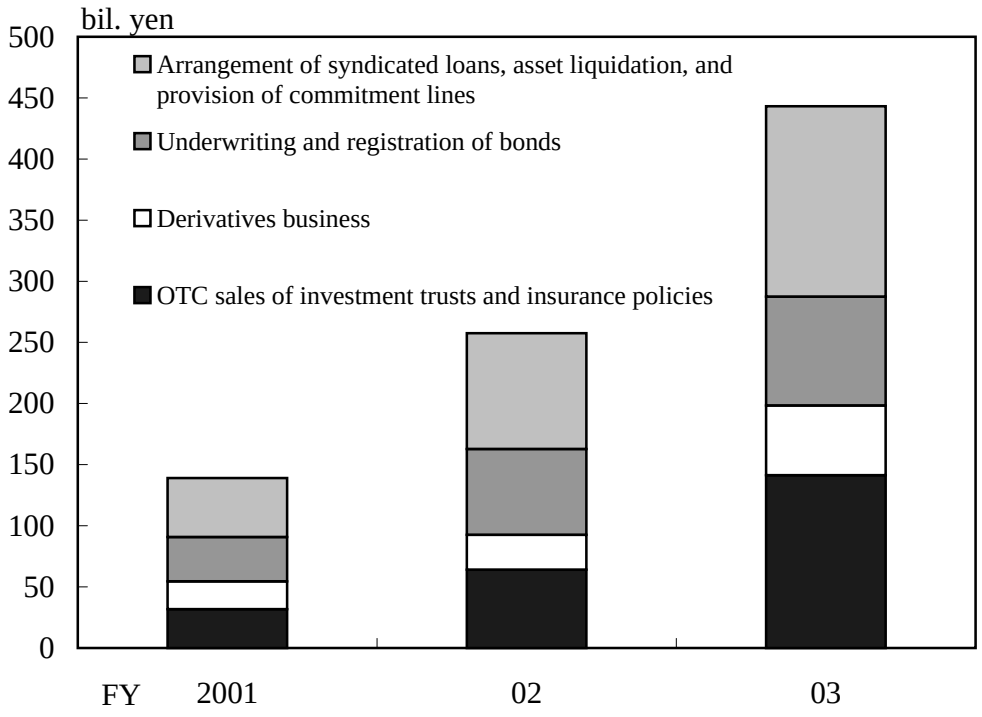


Notes: 1. Non-interest income = net fees and commissions + profits on specified transactions + other operating profits – net realized bond-related gains/losses.

2. Ratio of non-interest income to gross operating profits = non-interest income/(interest income + non-interest income).

Chart 32: Fee Income from New Financial Services

Major banks



Regional banks

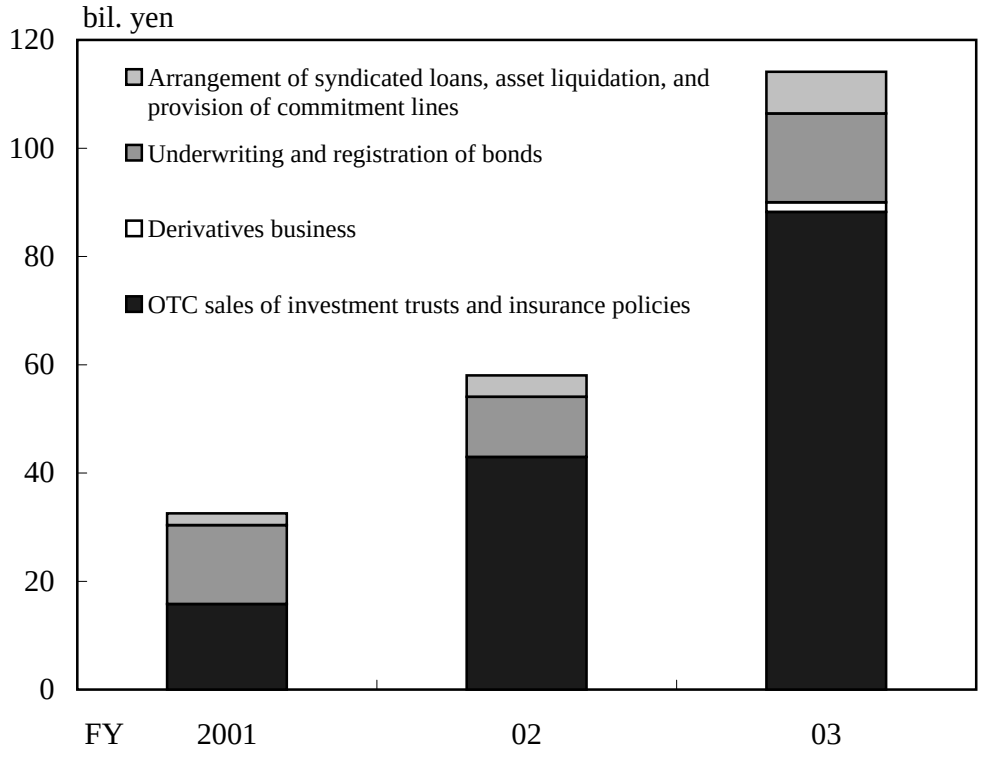


Chart 33: Deregulation Related to Financial Services

	Sales of investment trusts and insurance policies	Private placement bonds	Asset liquidation and securitization
1998	➢ Removal of ban on sales of investment trust certificates by banks.		➢ Enactment of the Law on Securitization of Specified Assets by Special Purpose Company (SPC Law). - The law established the scheme concerning specified purpose companies incorporated for asset liquidation and securitization. ➢ Enforcement of the law concerning special measures for transfer of claim or assignment of claim. - The law simplified measures for notifying and obtaining approval of individual debtors when transferring a claim to third parties.
1999			➢ Enforcement of the Law Concerning Special Measures for Servicing Business (Servicer Law). - The law enabled incorporation of firms that conduct debt collection services.
2000		➢ Establishment of a scheme to guarantee certain bonds. - The Credit Guarantee Corporation started providing guarantees for private placement bonds.	➢ Amendment to the SPC Law. - The amended law expanded the type of assets that can be liquidated and securitized to include property rights in addition to real estate, and simplified procedures to incorporate specified purpose companies.
2001	➢ Partial removal of ban on sales of insurance policies by banks. - Sales of long-term fire insurance policies related to housing loans, and overseas travel insurance policies have been exempted from the ban.		➢ Amendment to the Servicer Law. - The amended law expanded the type of debts that can be collected by firms conducting debt collection services, which had been limited to loan claims of banks.
2002	➢ Removal of ban on sales of exchange-traded funds (ETFs) by banks. ➢ Expansion of the type of insurance policies sold by banks. - Personal pension insurance policies and casualty insurance policies with income endowment was exempted from the ban.	➢ Easing of criteria for provision of guarantees for private placement bonds.	
2003		➢ Amendment related to the Securities Exchange Law. - The amended law expanded the criteria on issuance of private placement bonds.	

Reference: Profits and Balance Sheets of *Shinkin* Banks[1] That Held Current Accounts at the Bank of Japan in Fiscal 2003

1. Profits

Operating profits from core business for *shinkin* banks increased slightly from the previous fiscal year, as reduction of general and administrative expenses compensated for the decrease in net interest income and net fees and commissions. *Shinkin* banks posted net income in fiscal 2003, a change from the net loss in fiscal 2002, due to the decline in credit costs arising from NPL disposals and the improvement in net stock-related gains/losses (Chart 1 for Reference). The number of banks reporting net loss decreased from 74 to 40 (Chart 2 for Reference).

Chart 1 for Reference: Selected Items from *Shinkin* Banks' Financial Statements

bil. yen

	FY 2003	Change from FY 2002
Net interest income	1,868	−42
Net fees and commissions	88	−4
General and administrative expenses	1,438	−57
Operating profits from core business	524	+7
Net realized bond-related gains/losses	34	−38
Net realized stock-related gains/losses	32	+123
Total losses on disposal of NPLs	352	−157
Net income/loss	117	+208

[1] These figures cover 285 *shinkin* banks that held current accounts at the Bank of Japan at the end of March 2004, on a nonconsolidated basis. Figures in preceding years cover all *shinkin* banks that held accounts for each period, and include those that went bankrupt.

Chart 2 for Reference: The Number of *Shinkin* Banks That Recorded Net Losses

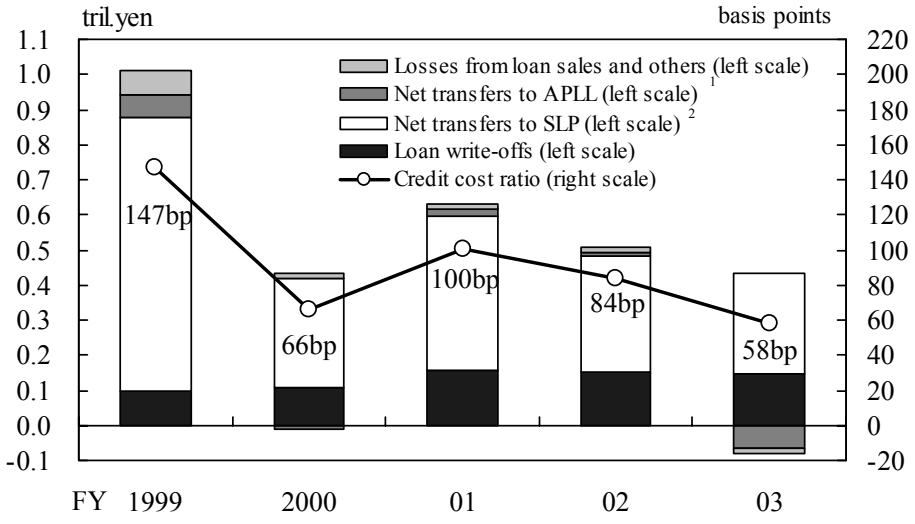
	FY 2002		FY 2003
Those that recorded net losses	74	→	40
Total of *Shinkin* banks	300	→	285

2. Credit Costs

Shinkin banks' credit costs in fiscal 2003 declined from the previous fiscal year, due mainly to the upgrading of borrower categories reflecting improvements in firms' business conditions (Chart 3 for Reference).

The ratio of NPLs (as disclosed under the Financial Reconstruction Law [FRL]) to the total amount outstanding of loans for many s*hinkin* banks remained fairly high, although it decreased from the previous year, due mainly to the decrease in loans requiring "special attention" (Charts 4 and 5 for Reference).

Chart 3 for Reference: Breakdown of Credit Costs



Notes :1. APLL = allowances for possible loan losses.
2. SLP = special loan-loss provisions.

Chart 4 for Reference: NPLs Disclosed under the FRL

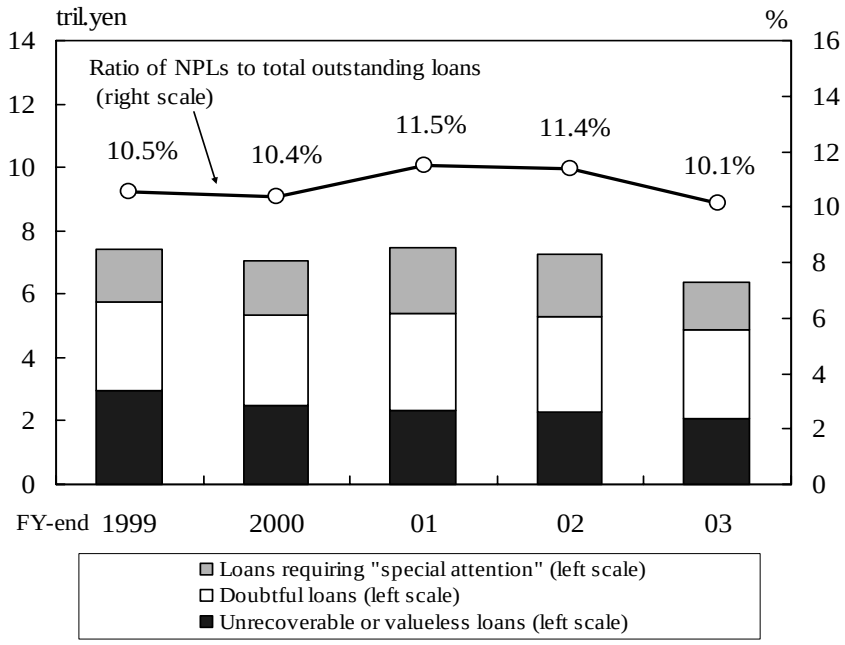


Chart 5 for Reference: Distribution of NPLs Ratios

Number of banks

	0% up to 4%	4% up to 8%	8% up to 12%	More than 12%
FY-end 2002	3	58	124	115
FY-end 2003	8	67	113	97

3. Capital

The risk-based capital adequacy ratio of *shinkin* banks rose slightly in fiscal 2003, as net income became positive on aggregate and the amount of risk assets was reduced (Chart 6 for Reference).

The ratio of net deferred tax assets to Tier I capital was virtually unchanged: 12.8 percent at the end of fiscal 2003 following the 13.1 percent at the end of fiscal 2002.

Chart 6 for Reference: Risk-Based Capital Adequacy Ratios