

Tentative Translation

Structural Reform Evaluation Report 4  
- Financial and Corporate Revitalization -  
(Main Points)

June 2005

Cabinet Office

### 1. Has the issue of non-performing loans been normalized?

The target of halving the non-performing loan ratio set in the Financial Revitalization Program (October 2002) was completely achieved in two and a half years.

- The non-performing loan ratio of major banks fell to 2.9% after peaking at 8.4% ([term year period ended March 2002] → [term year period ended March 2005])
- There were marked improvements in problem sectors (construction, real estate, wholesale/retail, various service industries)
  - Compared to major banks, small-medium and regional financial institutions are behind in terms of the disposal of their non-performing loans (The non-performing loan ratio of regional banks fell to 5.5% after peaking at 8.3% [term year period ended September 2002] → [term year period ended March 2005])

A spiral of economic decline resulting from the disposal of non-performing loans was avoided

- Economic indicators (Annual growth rate of real GDP, number of bankruptcies, unemployment rate) are improving

Redressal of the functional failure of financing

- Together with the advancement of disposal of non-performing loans and increased capital adequacy ratio, the lending supply curve shifted to the right (the amount of lending increased by 7.8% with the same lending interest rates) ([term year period ended March 2002] → [term year period ended March 2004])
- Since 1999, banks' lending stances have consistently underpinned growth of companies' capital investment (alleviation of the credit crunch)
- "Zombie lending" preserving companies with excessive debt (which existed in non-manufacturing industries until the late 1990s) began to dissipate at the end of the 1990s
  - Lending by major banks has continued to decrease (the size of the decrease has been reduced), while regional banks have shown a positive change (lending by major banks decreased by 2.3% and lending by regional banks increased by 1.3% [term year period ended March 2005])

Ratings of major banks have recovered

- Capital adequacy ratios bottomed out in the term year period ended March 2003, and ratings at the end of FY2001, with the two showing a trend of recovery since.
  - In some respects, capital adequacy ratio (11.2% in FY2004) has been supported by public funds (public funds as preferred stock: 2.8% in FY2004) and deferred tax assets (1.6% in FY2004).
  - Earnings have remained low on an international level, and an interest rate spread linked to credit cost and lending risk has not been achieved (The lending interest rate spread after deducting credit costs was 0.6% in Japan and 3.4% in the United States [2003])

## 2. Have companies been revitalized and has the economy been rejuvenated

A corporate revitalization cycle has been established

- The result of the polarization of loans requiring close supervision for which corporate revitalization was delayed (rank up: 3.8 trillion yen, rank down: 3.3 trillion yen) was a decrease of 5.5 trillion yen in loans requiring close supervision. [FY2003, the same applies below].
- Approximately 9.8 trillion yen of “doubtful loans and below” were taken off balance sheets, into a “corporate revitalization cycle”, leading to a reduction of 3.2 trillion yen in “doubtful loans and below.”
  - The rank of loans being reduced from “normal loan” ( (1) 3.3 trillion yen reduced to rank of “doubtful loans and below” → caused by asymmetry of information between creditors and debtors), ( (2) 3.0 trillion yen reduced to rank of “loans requiring close supervision” → need for preventative corporate revitalization), resulted in a cause for increasing companies requiring revitalization in the future.

Increased vitality of companies that reduced excessive debt

- When companies with high debt ratios proceed with financial restructuring (debt reduced), the number of employees is 17% greater, the capital expenditure ratio is 10% greater, and total factor productivity is 25% greater on average than companies without financial restructuring (debt increased)

## 3. Issues and outlook

The aim for major banks is to keep the ratio of non-performing loans low in the future

- In order to achieve this, it is necessary to strengthen management such as breaking away from the dependence on public funds for equity capital. Furthermore, it is necessary for multiple financial institutions to form a market for trading loans and to expand market-based indirect financing for credit risk.

Promotion of measures for small-medium and regional financial institutions, which are behind in disposal of bad loans in comparison to major banks

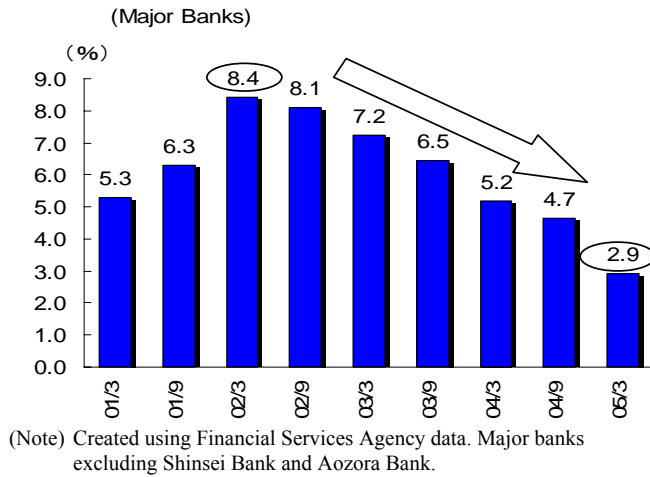
- Small-medium and regional financial institutions need to set and steadily promote voluntary improvement targets.

Establishing “an early start and rapid revitalization” is necessary for corporate revitalization

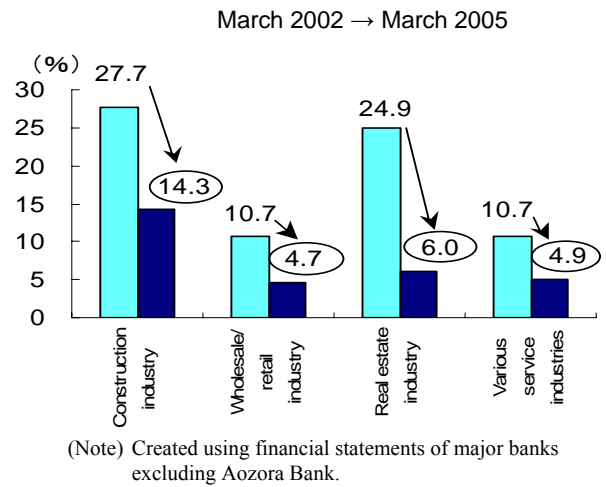
- It is necessary to preventatively avoid dissipation of management resources and damage to employment by establishing “an early start and rapid revitalization” in the phase requiring close supervision.

# 1. Has the issue of non-performing loans been normalized?

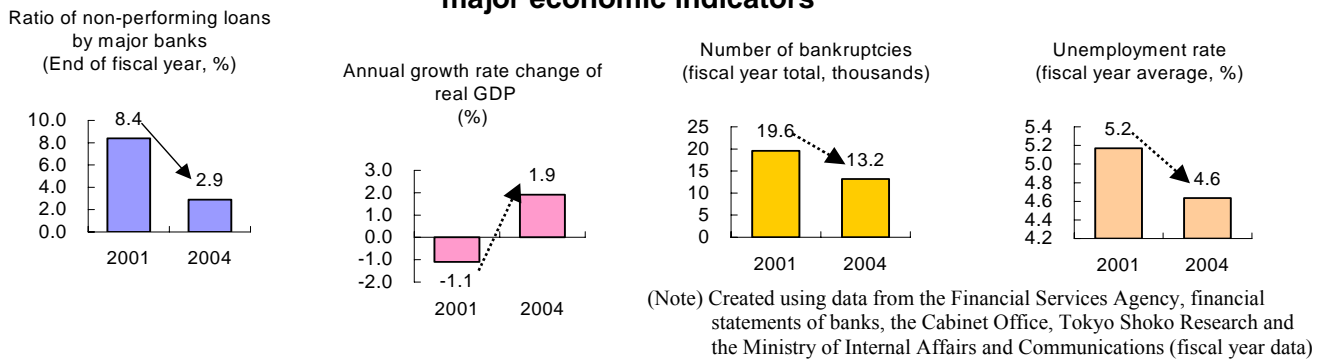
**Figure 1: The ratio of non-performing loans of major banks has been halved**



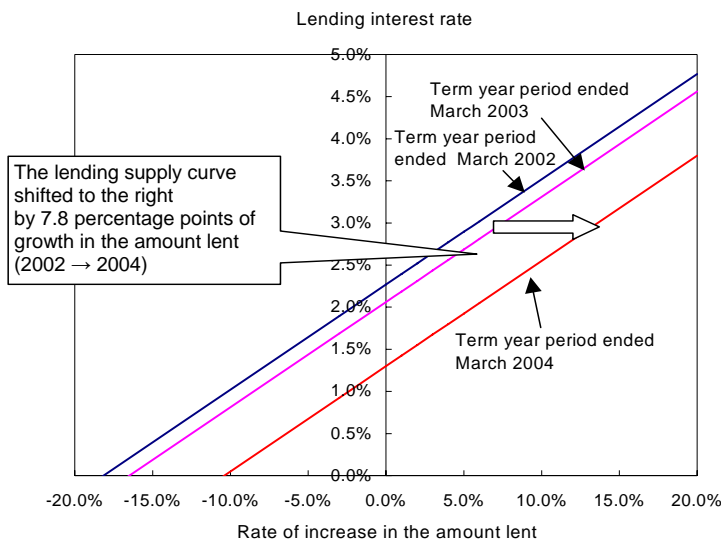
**Figure 2: There were marked reductions in problem sectors**



**Figure 3: Reduction of non-performing loans and solid performance of major economic indicators**



**Figure 4: The lending supply curve on a bank level shifted to the right between 2002 and 2004 (all banks)**



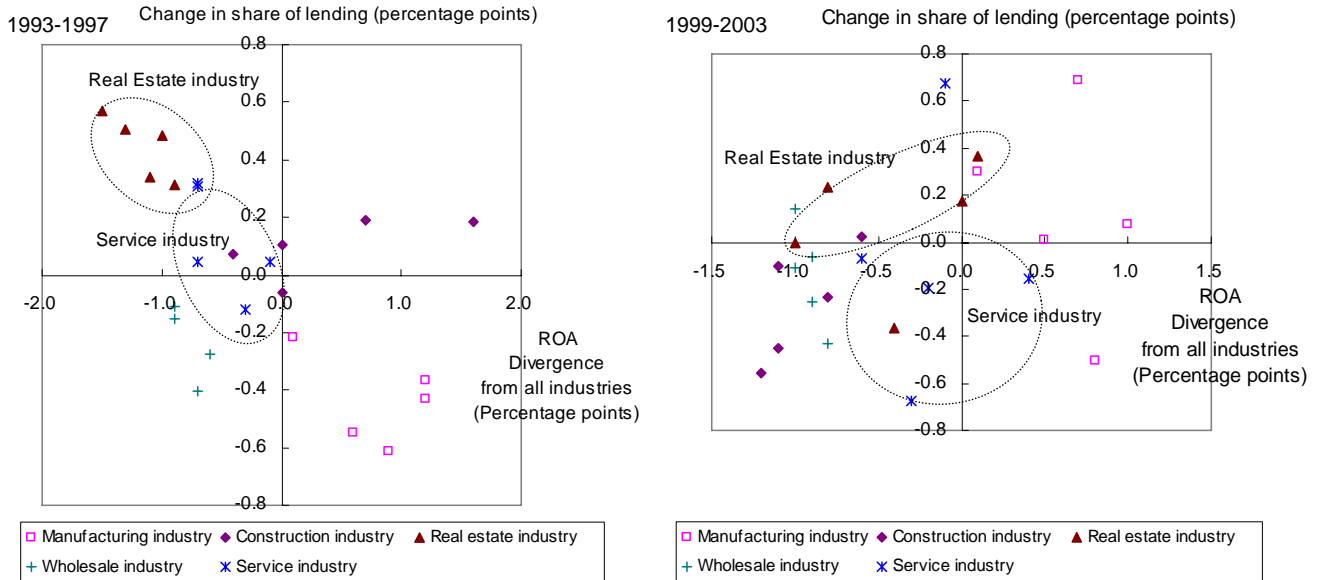
- (Notes)
- Using variables affecting the behavior of the supply side (lender), the following is used to break down the rate of lending growth (estimation of the lending supply function)  

$$NL = C + \alpha * NPL_{t-1} + \beta * SCR_{t-1} + \gamma * INKINRI + \varepsilon$$
 Where NL is the year-on-year increase of in money lent, C is a constant term, NPL is the ratio of non-performing loans, SCR is the capital adequacy ratio, INKINRI is the lending yield (interest on loans/ amount lent) and (-1) to the lower right stands for the figure for the previous fiscal year.
  - Created using data from Nikkei NEEDS, and the financial statements and materials from briefings on financial results of banks.

2002-2004  
 Non-performing loan ratio down 1 percentage point → Rate of increase in the amount lent up 2.6 percentage points  
 Capital adequacy ratio up 1 percentage point → Rate of increase in the amount lent up 1.3 percentage points

**Figure 5: “Zombie lending” seen in the real estate industry dissipated from the end of the 1990s onwards**

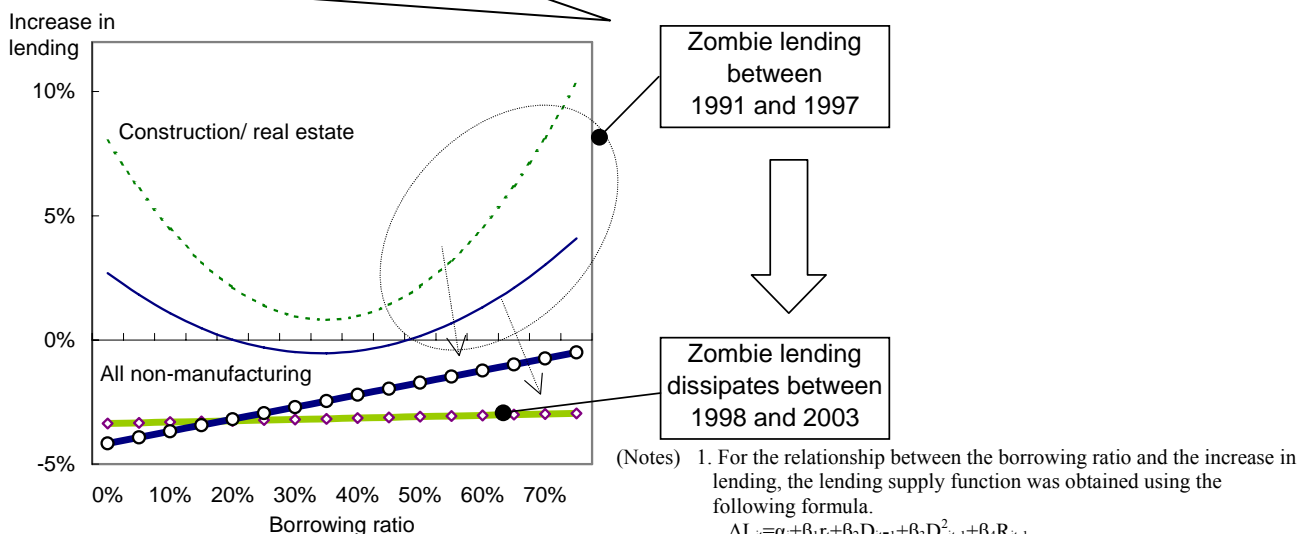
The relationship between changes in the share of lending by sector and earnings ratios shows that the ROA in the real estate industry was lower than for the average of all industries between 1993 and 1997, but the share of lending increased. This relationship dissipated between 1999 and 2003.



(Note) Created using “Loans and Discounts Outstanding by Sector” by the Bank of Japan and “Financial Statements Statistics of Corporations by Industry” from the Ministry of Finance. Account data for domestic banks used for loans.

**Figure 6: Based on the zombie lending function, “zombie lending” dissipated from the end of the 1990s**

The zombie lending function (relationship between the borrowing ratio of companies and the increase in lending by banks) shows that when the borrowing ratio exceeds a certain level, the increase in lending accelerated (zombie lending) until the late 1990s, and this was a straight line from the end of the 1990s onwards (no zombie lending).

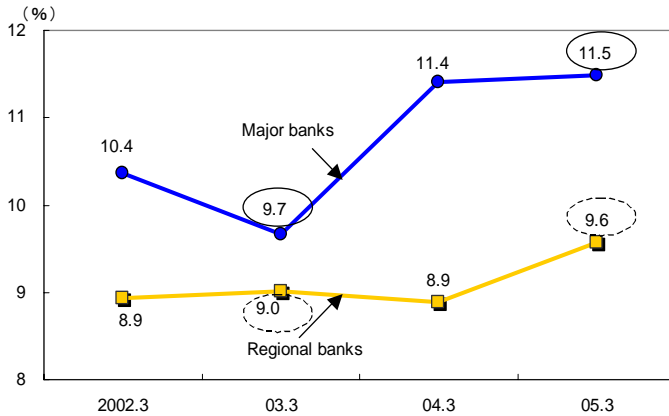


(Notes) 1. For the relationship between the borrowing ratio and the increase in lending, the lending supply function was obtained using the following formula.  

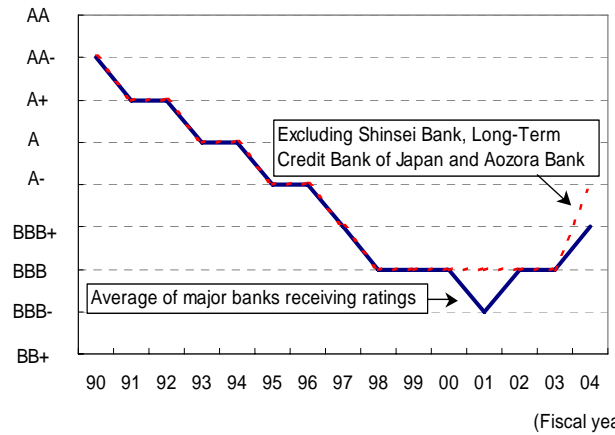
$$\Delta L_{jt} = \alpha_j + \beta_1 r_t + \beta_2 D_{jt-1} + \beta_3 D_{jt-1}^2 + \beta_4 R_{jt-1}$$

$$\Delta L_{jt}$$
 is the increase in lending to company  $j$  over a period of  $t$ ,  $r_t$  is the lending interest spread over a period of  $t$ ,  $D_{jt-1}$  is the borrowing ratio of company  $j$  over a period of  $t-1$  and  $R_{jt-1}$  is the ROA of company  $j$  over a period of  $t-1$ .  
 2. Created from Nikkei NEEDS, etc.

**Figure 7: The capital adequacy ratio of major banks increased**



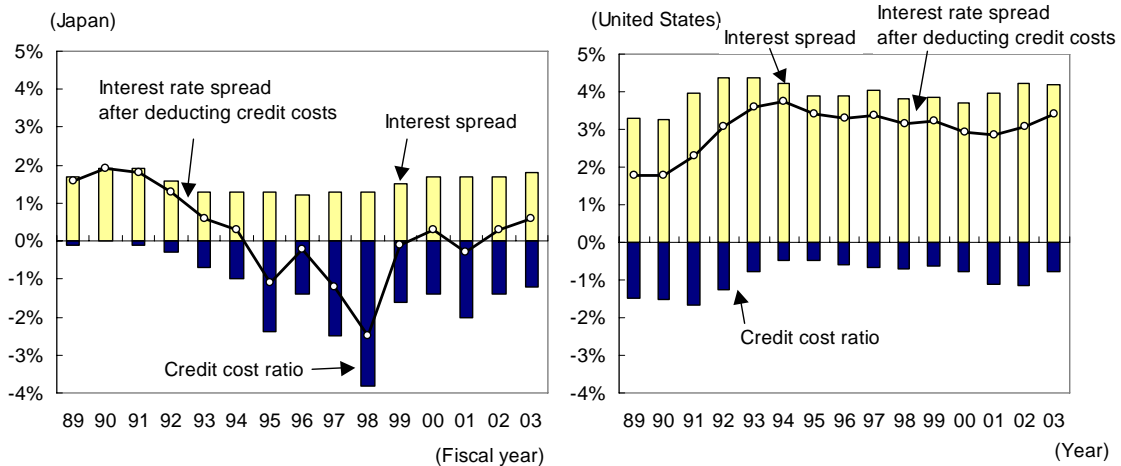
**Figure 8: Ratings of major banks are recovering**



- (Notes)
1. Major banks: Mizuho Corporate (BIS), Mizuho (BIS), Mizuho Trust (BIS), Tokyo-Mitsubishi (BIS), Mitsubishi Trust (BIS), UFJ (BIS), UFJ Trust (domestic), SMBC (BIS), Resona (domestic), Chuo Mitsui Trust (BIS), Sumitomo Trust (BIS)
  2. The values for regional banks are weighted averages obtained from the sum of the capital adequacy ratio of regional and second-tier regional banks divided by the number of banks.
  3. Consolidated data

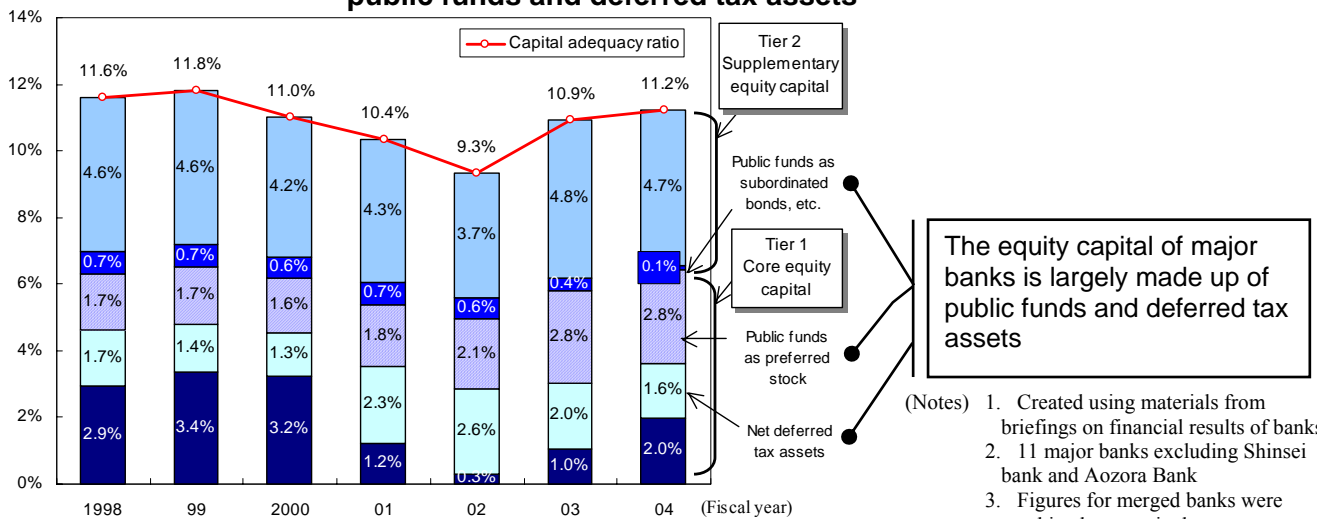
(Note) Created from Standard & Poor's Ratings of Japanese Banks

**Figure 9: The lending interest rate spread after deducting credit costs was lower for Japanese banks than banks in the United States**



- (Notes)
1. Figures for Japan are based on Financial Institutions Accounts by the Bank of Japan
  2. Figures for the United States are based on data from the Federal Deposit Insurance Corporation (FDIC)
  3. The credit cost ratio is the corporate default ratio multiplied by loss ratio at time of default (=1- recovery)

**Figure 10: The equity capital of major banks is largely made up of public funds and deferred tax assets**

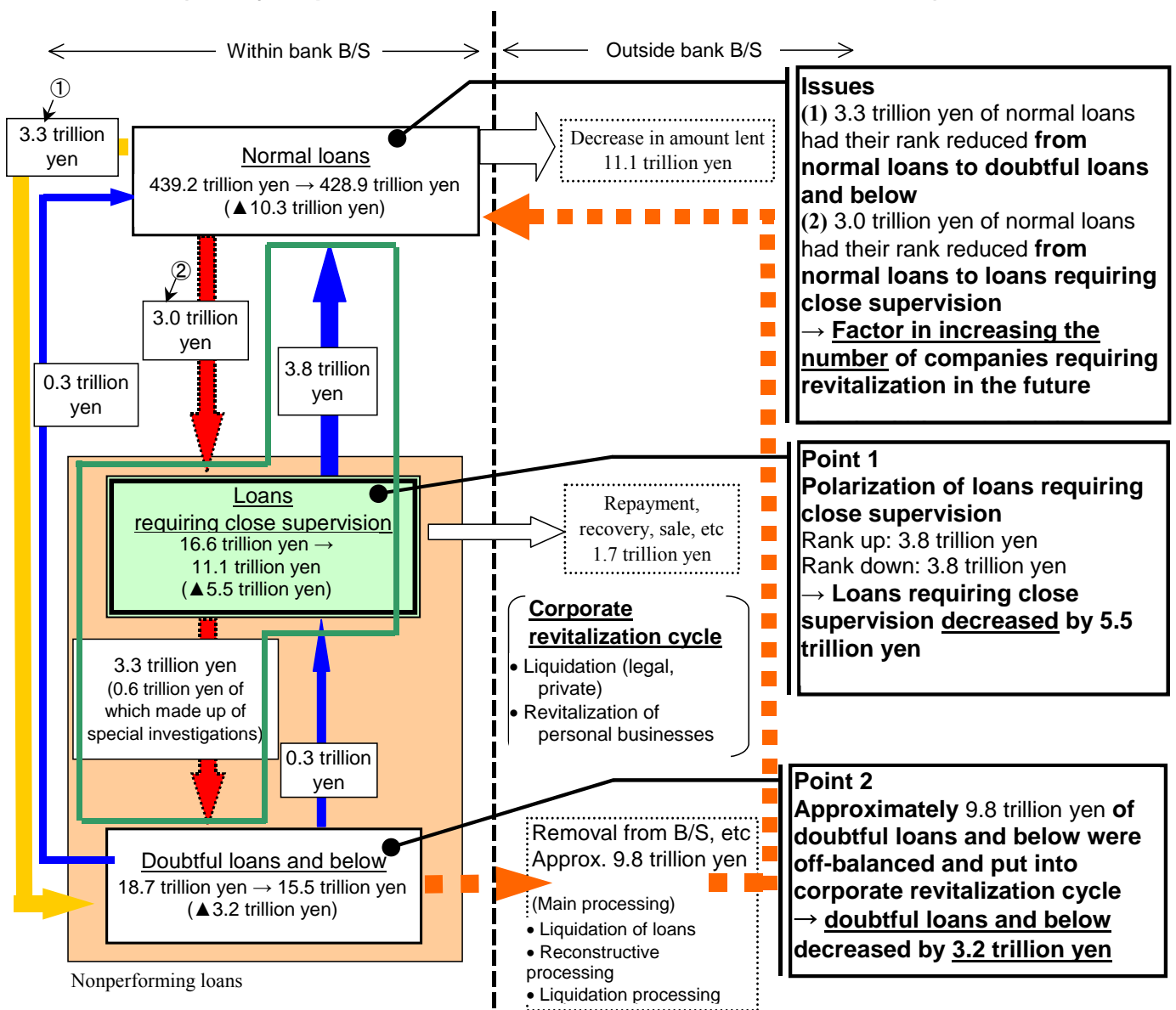


- (Notes)
1. Created using materials from briefings on financial results of banks.
  2. 11 major banks excluding Shinsei bank and Aozora Bank
  3. Figures for merged banks were combined retroactively

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2. Approximately 9.8 trillion yen of “doubtful loans and below” were taken off balance sheets, leading to a “corporate revitalization cycle” and as a result, a reduction of 3.2 trillion yen in “doubtful loans and below.”
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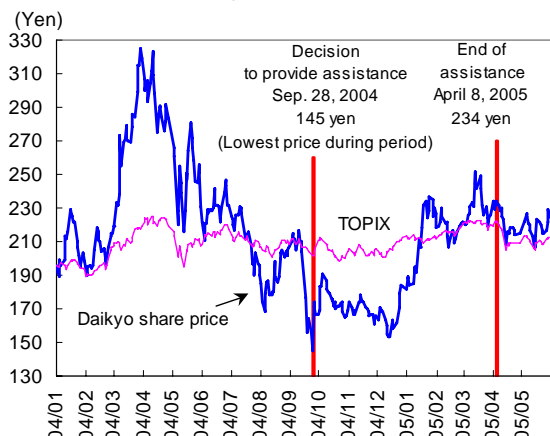
**Figure 11: Normalization and rejuvenation of loans requiring close supervision as Term potential sources of non-performing loans progressed (Term year period ended March 2003 ⇨ March 2004 all banks)**



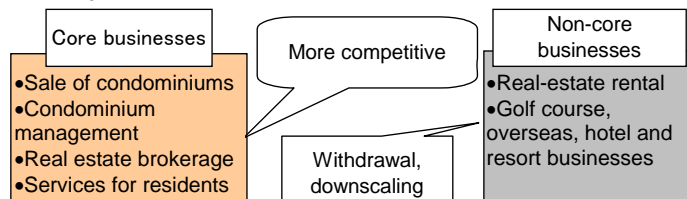
- (Notes)
1. Created based on materials from the Financial Services Agency and UFJ Institute materials
  2. The 0.3 trillion yen that changed from doubtful loans and below to normal loans is the net residual change in doubtful loans and below.
  3. As “off balancing” includes increased rank due to improvements in industry conditions, the entire amount is not the value excluded from the bank B/S

**Figure 12: Example of corporate revitalization through selection and concentration of core business (Daikyo)**

**Increase in enterprise value due to assistance by Industrial Revitalization Corporation (Daikyo share price)**



**Business plan, etc.: selection and concentration of businesses**



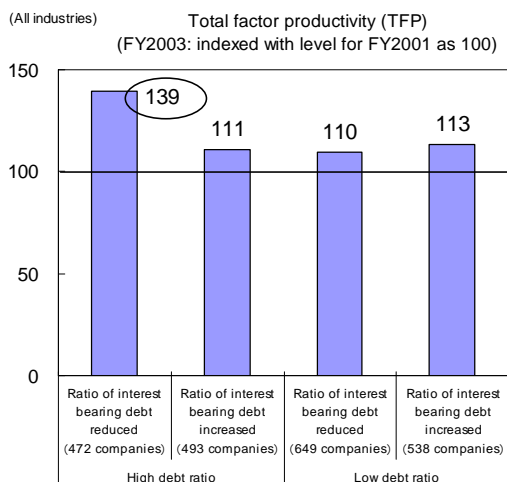
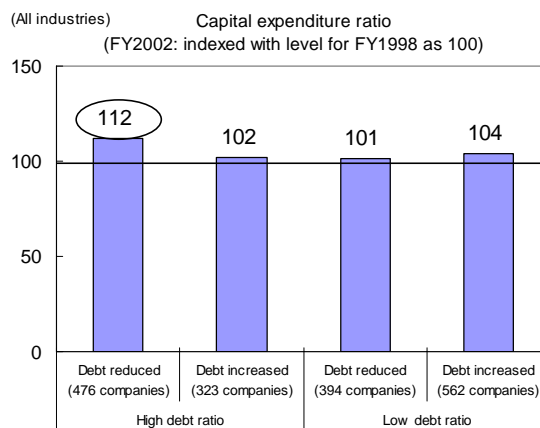
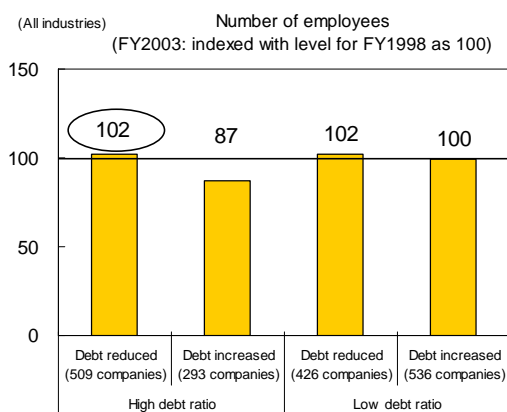
**Financial restructuring: 146.5 billion yen of debts waived, 30 billion yen of DES, retirement of preferred stock**

• Assistance ended on April 8, 2005 (Sponsor was ORIX)

(Note) Created based on the Industrial Revitalization Corporation of Japan website.

- (Notes) 1. Created using materials from Bloomberg.  
2. TOPIX is indexed based on the Daikyo share price of 196 yen at the start of 2004.

**Figure 13: There were significant increases in the number of employees, capital expenditure ratios and productivity in companies that reduced debt**



When proceeding with financial restructuring (debt reduced: left edge) of companies with high debt ratios, the number of employees is 17% greater, the capital expenditure ratio is 10% greater and total factor productivity is 25% greater than companies without financial restructuring (debt increased: second from left).

- (Notes) 1. Created using the Teikoku Databank database (number of employees and capital expenditure ratio) and Nikkei NEEDS (TFP).  
2. Companies listed on the first section and second section of the Tokyo Stock Exchange were used for Nikkei NEEDS.