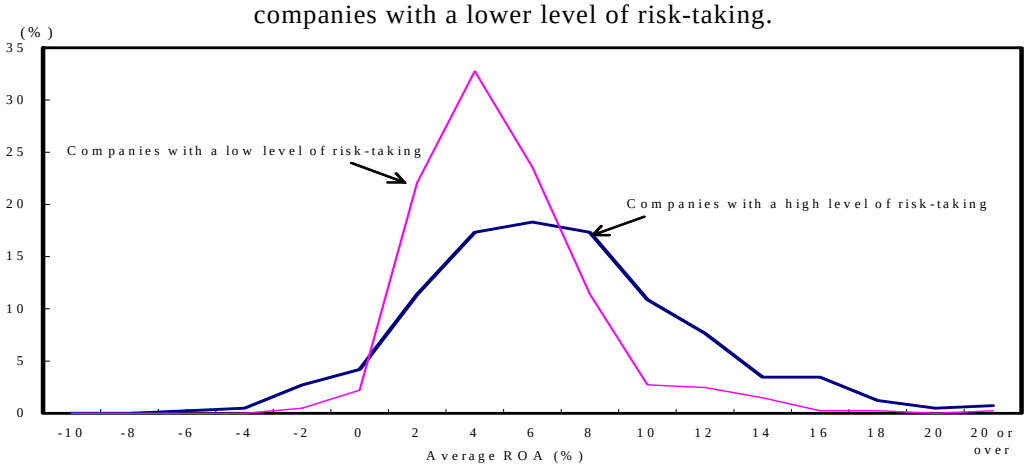
Chapter 2 Risk-Taking Capability of Corporations and Households

Section 1 Risk-Taking by Japanese Companies from Global Perspective

- It is often pointed out that Japanese companies' profitability is weak because they avoid taking risks and that the growth potential of the Japanese economy is weak because Japanese companies and households avoid taking risks.
- If we examine the relationship between the risk-taking by companies and the returns earned by them, we realize that companies taking more risks actually enjoy a higher return on assets (ROA).
- On a macroeconomic level, also, countries in which companies take more risks and business start-up (entrepreneurship) is more active enjoy higher economic growth.

Figure 2-1-2: Risk-Taking Level (ROA deviation) and Average ROA

The average ROA for companies with a higher level of risk-taking is higher that that for companies with a lower level of risk-taking.



Source: NIKKEI NEEDS

Note 1: ROA=Operating profit/average of the total assets at the beginning and end of the fiscal year

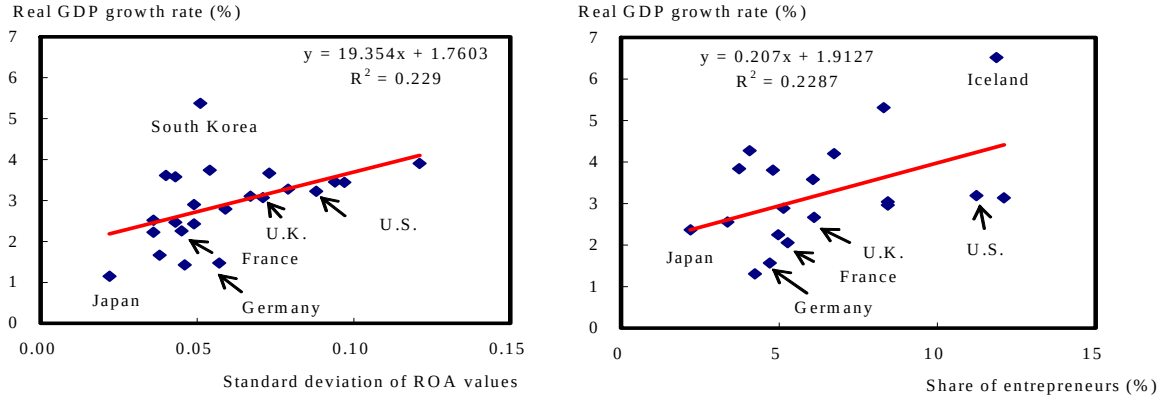
2: The level of risk-taking of a company is defined as the standard deviation of its ROA values over the period between fiscal 1997 and 2006. Companies with a level of risk-taking at or above the mean value are defined as "companies with a high level of risk-taking" and those with a level of risk-taking below the median value are defined as "companies with a low level of risk-taking."

3: By industry, the standard deviation of ROA values is relatively high for information and communications, real estate, steel, and services, while it is relatively low for mining, rubber products, textile products and paper and pulp.

4: The average ROA is the average of the ROA values in fiscal 1997 to 2006.

Figure 2-1-3: International comparison of indices related to risk-taking and real GDP growth

There is a tendency that the real GDP of countries with a higher level of risk-taking grows at a higher rate.



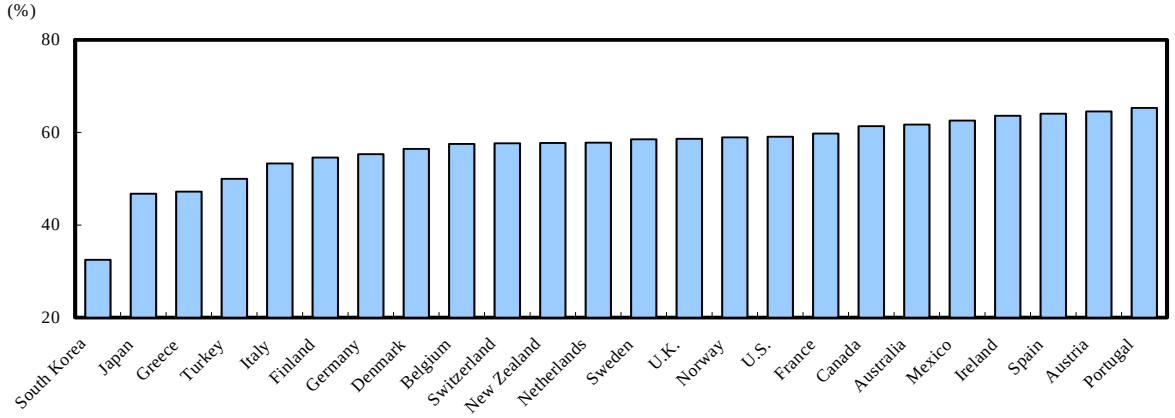
Source: Bosma et al. (2006) "Global Entrepreneurship Monitor GEM 2006 Summary Results"
Minniti et al. (2005) "Global Entrepreneurship Monitor 2005 Executive Report"
Acs et al. (2004) "Global Entrepreneurship Monitor 2004 Executive Report"
Acharya et al. (2008) IMF "World Economic Outlook Database"

- Japan ranks low among developed countries with regard to other indices related to risk-taking, such as (1) the ratio of M&As between companies in the same business sector, which indicates the level of risk-taking as represented by the strategy of "selection and concentration" of business resources, (ii) the new-business opening rate, which indicates the level of risk-taking as represented by new business startups and (iii) venture capital investment (as a ratio to GDP).

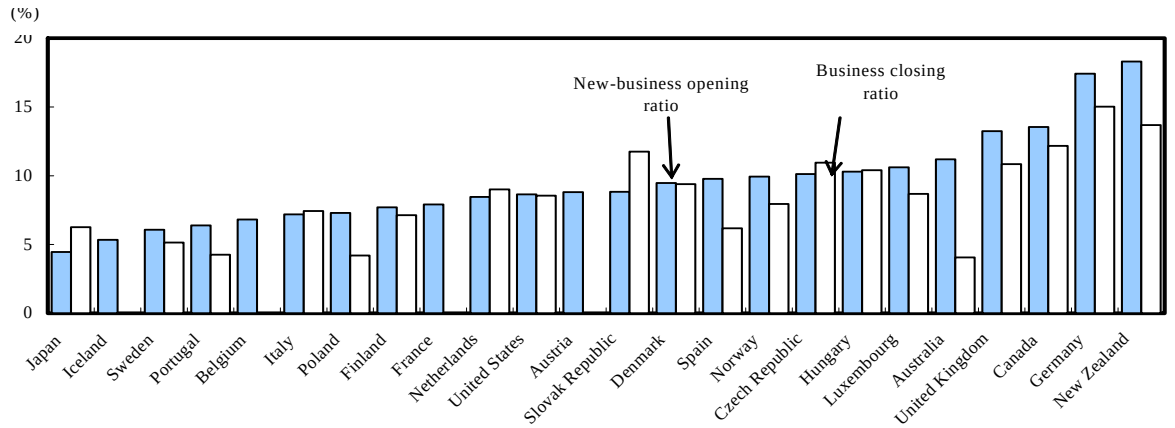
Figure 2-1-4: International comparison of indices related to risk-taking

Japanese indices related to risk-taking are low compared with those in other countries.

(1) Ratio of M&As between companies in the same business sector

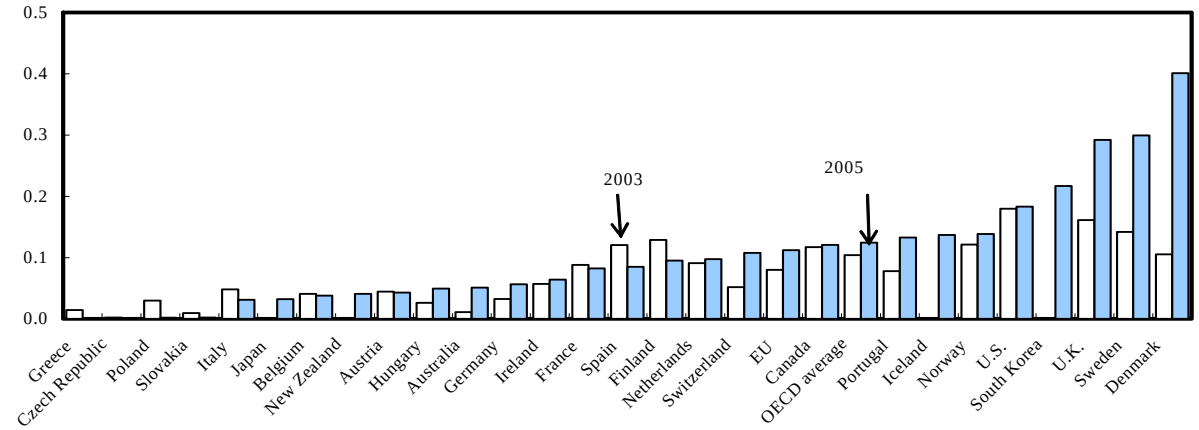


(2) New-business opening ratio/business closing ratio



(3)Venture capital investment

(as a ratio to GDP (%))



Source: "Science, Technology and Industry Scoreboard 2007" by OECD (2007), Acharya et al.

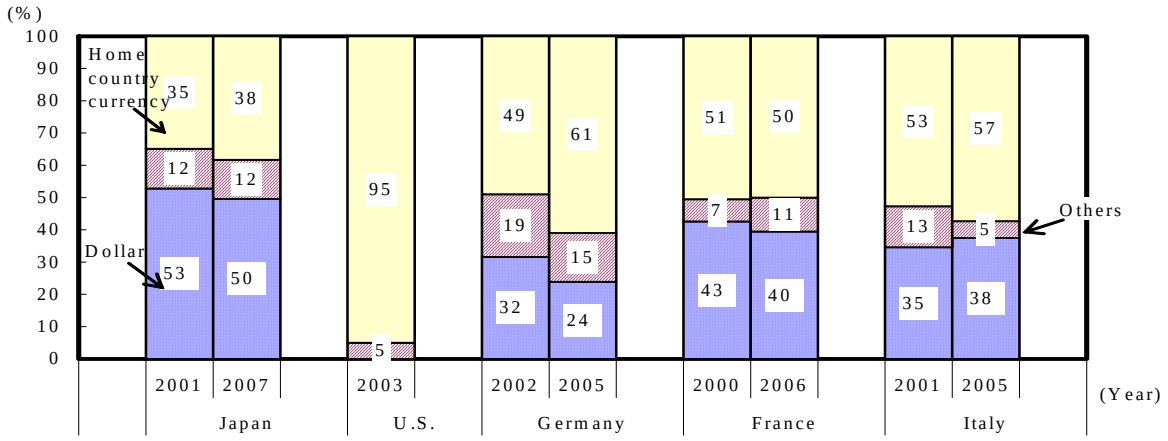
Note: The figures in (1) are for 1994 to 2004 and those in (2) are for 2003 or other years for which data are available. In (3), the figures for Japan and South Korea are for 2001 and the figure for Iceland is for 2002.

Section 2: Risk-Hedging Capability of Japanese Companies

- Generally speaking, companies actively take risks in their main business activities while seeking to limit risks to a minimum in other activities (e.g. financing in the case of industrial companies). By hedging risks regarding fluctuations in exchange rates and raw materials prices, they can focus on main business activities.
- However, Japanese processing-based manufacturing industries are vulnerable to exchange rate fluctuations. Reasons for this include the high ratio of exports to overall sales and the high ratio of foreign-currency denominated exports in particular.
- Despite the rising ratio of exports, adverse effects of exchange rate fluctuations have not become much more serious than before, because of an increase in the ratio of local production and other factors.

Figure 2-2-1: Trend of the ratio of foreign-currency denominated exports by major developed countries

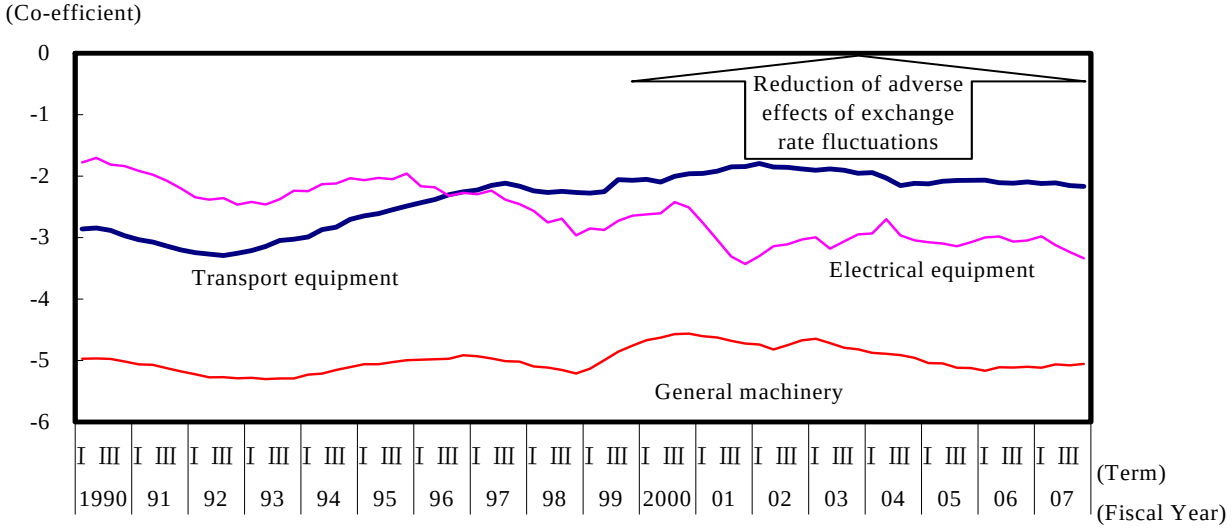
The ratio of foreign-currency-denominated exports for Japan has stayed at high levels.



Source: "Currency breakdown of international trade" by the Ministry of Finance, "Currency breakdown of exports and imports of selected EU countries" by the ECB, Goldberg and Tille (2005)

Figure 2-2-3: Effects of exchange rate fluctuations on corporate earnings by industry

Adverse effects of exchange rate fluctuations on corporate earnings have not eased.

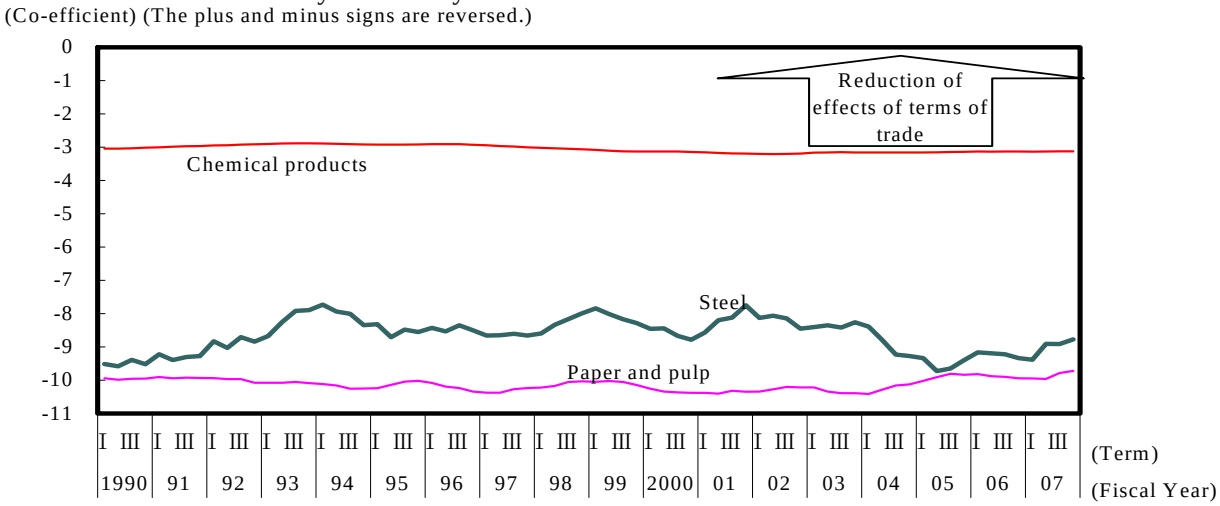


Note: The co-efficient represents the degree of change in the gross profit margin in relation to exchange rate fluctuations. In the case of a negative co-efficient, the gross profit margin declines in tandem with the yen's appreciation.

- In the materials-based manufacturing industries, terms of trade have been deteriorating due to the surge in the prices of crude oil and raw materials.
- Even among the materials-based manufacturing industries, industries that have increased value added to their products by curbing the basic unit for energy input (ratio of input to gross domestic product by industry), such as steel, are seeing the impact of the deteriorating terms of trade on their earnings easing slightly.
- Despite various efforts made by Japanese companies, their risk-hedging capability regarding fluctuations in exchange rates and the prices of crude oil and raw materials has not improved sufficiently.

Figure 2-2-7: Effects of changes in terms of trade on corporate earnings by industry

The degree of reduction in the adverse effects of changes in terms of trade on earnings varies from industry to industry.

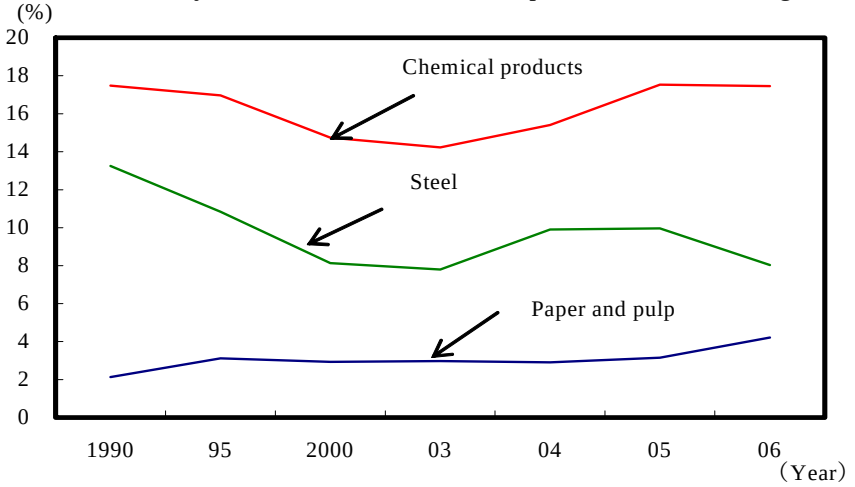


Source: "Financial Statements Statistics of Corporations by Industry" by the Ministry of Finance,"Input-Output Price Index of the Manufacturing Industry by Sector" by the Bank of Japan, "effective exchange rate indices" by BIS

Note: The co-efficient represents the degree of change in the gross profit margin in relation to changes in terms of trade. In the case of a negative co-efficient figure (actually in the case of a positive co-efficient figure as the plus and minus signs are reversed here), the gross profit margin declines in tandem with deterioration of terms of trade.

Figure 2-2-8: Ratio of oil and coal input to gross domestic product by industry.

In the steel industry, the ratio of oil and coal input has been declining since 2005



Source: "1990, 1995, 2000 connected input-output tables" by the Minister of International Affairs and Communications, "simple input-output tables" (base year: 2000) by the Ministry of Economy, Trade and Industry

Section 3: Risk-Taking Capability of Japanese Companies

- Regarding business portfolios of companies, the strategy of "selection and concentration" aimed at particular business segments may be viewed as a form of risk-taking.
- Since the 1990s, the number of business segments listed on companies' consolidated financial statements has remained essentially flat, and the degree of concentration of sales on core businesses has generally remained flat, indicating a lack of progress in the strategy of "selection and concentration."
- The slow progress in the withdrawal from slumping businesses is evidence of a lack of progress in the strategy of "selection and concentration" at Japanese companies.

Figure 2-3-2: Trend in the number of disclosure segments (excluding a purely nominal increase)

Excluding a purely nominal increase, the number of disclosure segments has stayed essentially flat.

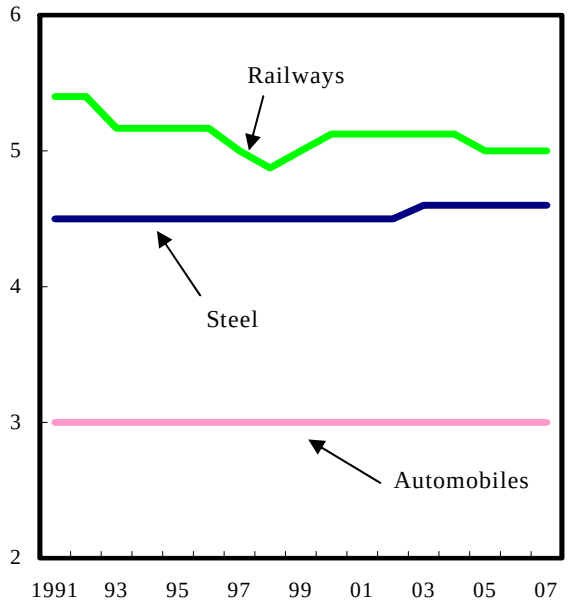
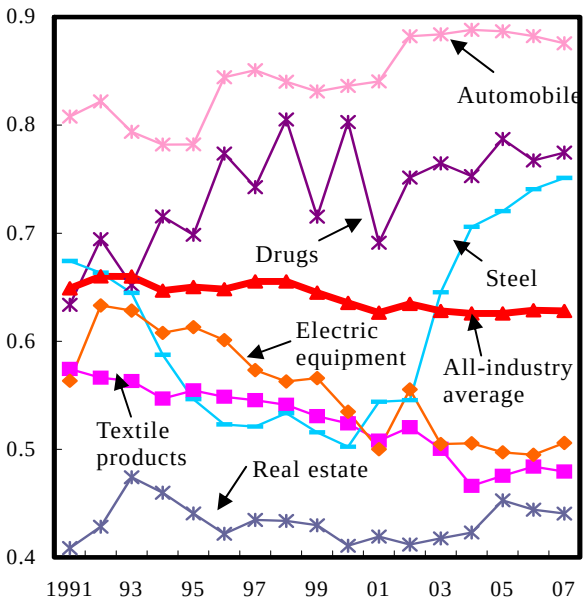


Figure 2-3-3: Trend in the degree of sales concentration

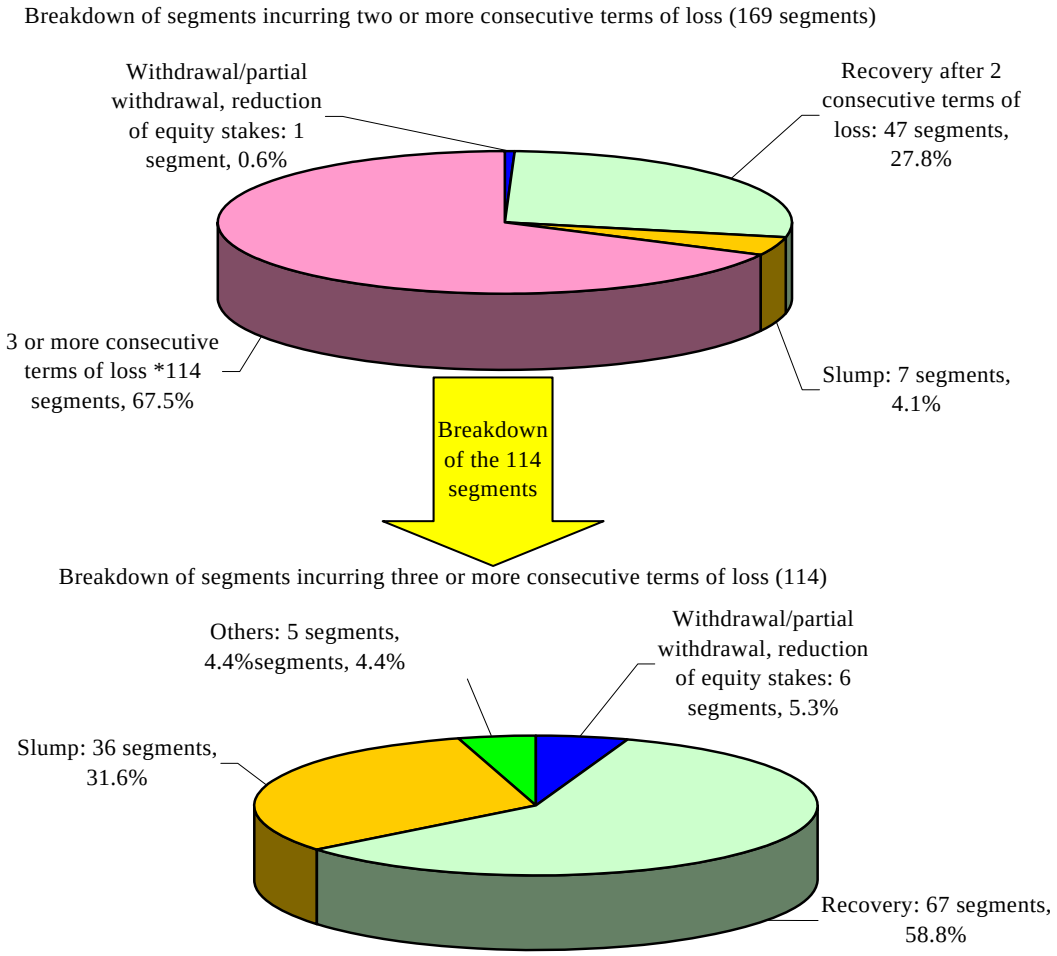
Averaged on an all-industry basis, the degree of sales concentration has stayed essentially flat. However, it varies from industry to industry



Source: "Segment information" in Nikkei NEEDS. Earnings reports issued by individual companies were used as a reference as necessary.

Figure 2-3-4: Slumping segments and corporate actions

The withdrawal from slumping businesses has been slow.



Source: "Segment information" in Nikkei NEEDS. Earnings reports issued by individual companies were used as a reference as necessary.

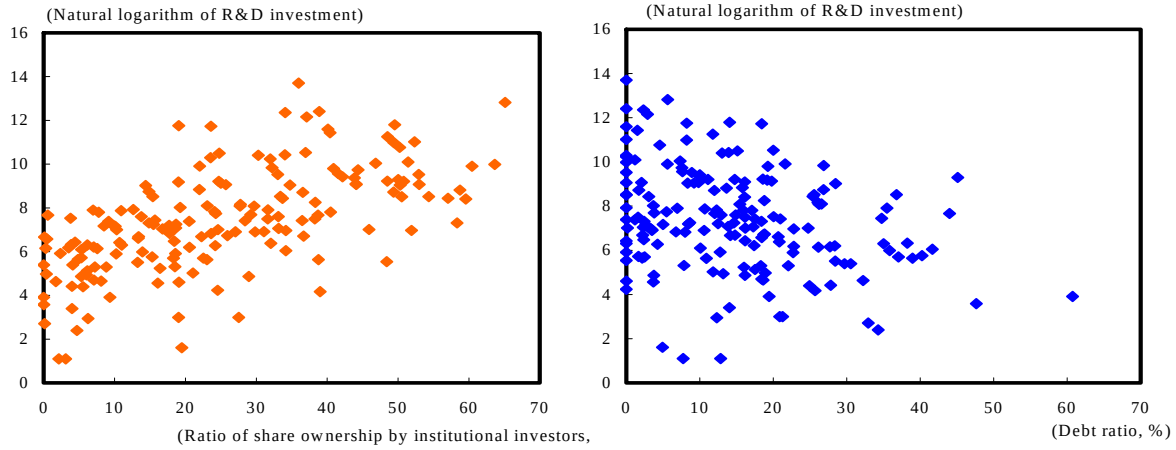
Note 1: The figures were taken from annual financial results for the period between 1991 and 2007. One term is equivalent to one business year.

2: "Recovery" means booking of profit in 2007 for a second or more consecutive term. "Slump" means (i) booking of loss in 2007 for a fourth or more consecutive term, (ii) booking of loss in 2007 for a second or more consecutive term after a temporary recovery, or (iii) booking of profit in 2007 after three or more consecutive terms of loss. "Others" means booking of loss in 2007 for a third consecutive term for the first time.

- Compared with foreign companies, Japanese companies are less inclined to take risks in most areas. However, they are active in investment in research and development (R&D) as an exception. The ratio of share ownership by institutional investors is generally high for companies actively investing in R&D. In light of this, it may be said that institutional investors' approach of seeking high returns while taking risks is influencing Japanese companies' stance on investment in R&D.
- Institutional investors' share ownership ratio for a company is also related to the company's stance on basic research and exploration of new fields, which are R&D activities with particularly high risks.

Figure 2-3-9: Characteristics of companies actively investing in R&D

Companies actively investing in R&D tend to have a high ratio of share ownership by institutional investors and a low debt ratio.

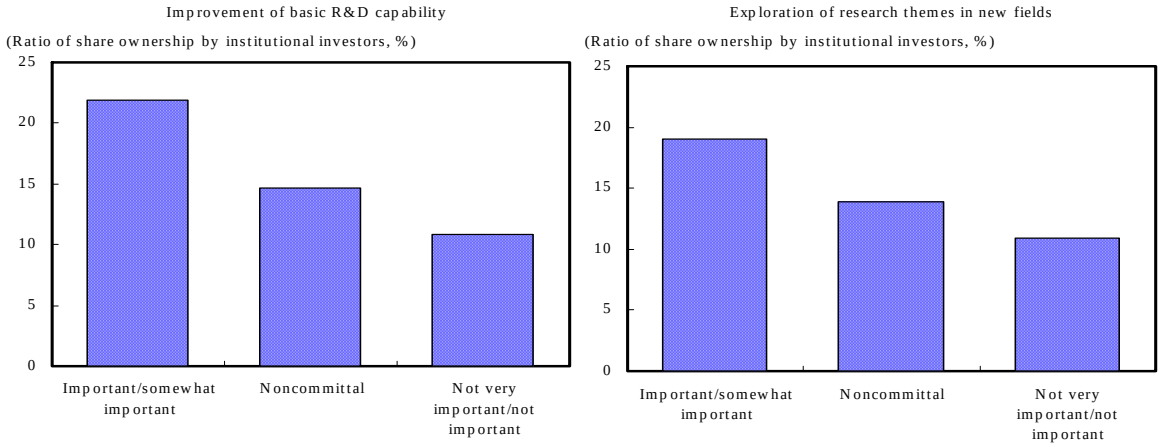


Source: "Survey on the risk-taking capability of companies" by the Cabinet Office (2008), Nikkei NEEDS, Nikkei NEEDS-cges

Note: Analysis of R&D investment was conducted on the respondent companies whose ratio of R&D investment to sales was not zero and did not exceed 100%.

Figure 2-3-10: Relationship between the recognition of the importance of improvement of basic R&D capability and exploration of research themes in new fields and the ratio of share ownership by institutional investors

Companies placing priority on high-risk areas tend to have a high ratio of share ownership by institutional investors.



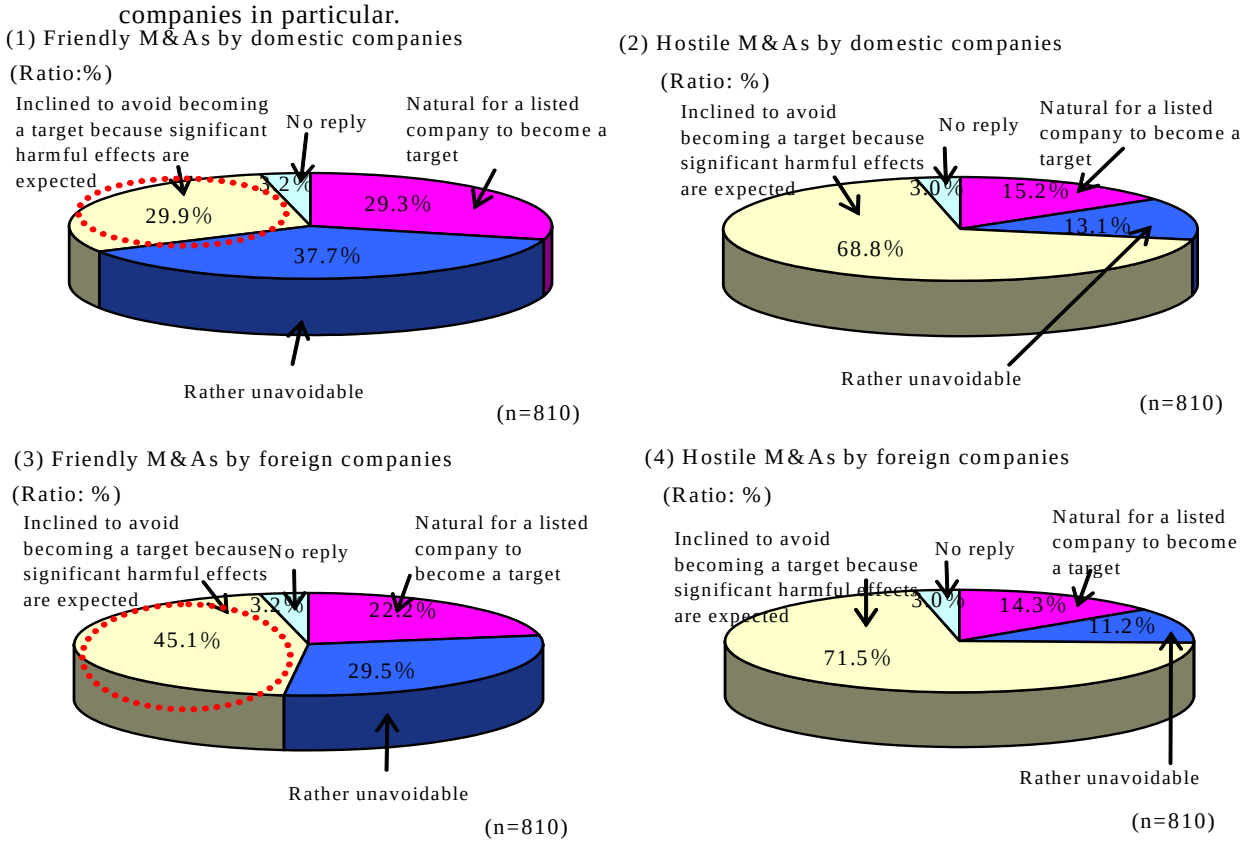
Source: "Survey on the risk-taking capability of companies" by the Cabinet Office (2008), Nikkei NEEDS, Nikkei NEEDS-cges

Note: The above ratios of share ownership by institutional investors represent the averages of the respondent companies for the respective response categories.

- A survey regarding corporate sentiment on M&As shows that there is no shortage of companies hoping to avoid becoming an M&A target even if it is a friendly deal.
- Companies with a higher ratio of cross shareholdings and own shareholdings are more strongly inclined to avoid becoming an M&A target.

Figure 2-3-12: Corporate sentiment on M&As

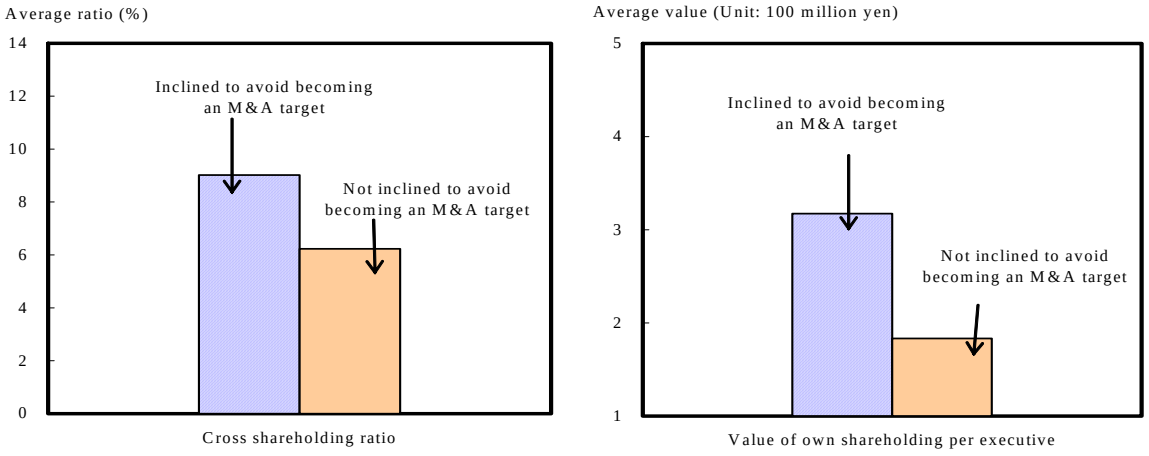
Japanese companies are strongly inclined to avoid becoming targets of M&A by foreign companies in particular.



Source: "Survey on the risk-taking capability of companies" by the Cabinet Office (2008)

Figure 2-3-13: Cross shareholding ratio and inclination to avoid M&As

Companies with a high ratio of cross shareholdings and own share ownership by executives generally have an inclination to avoid becoming an M&A target.

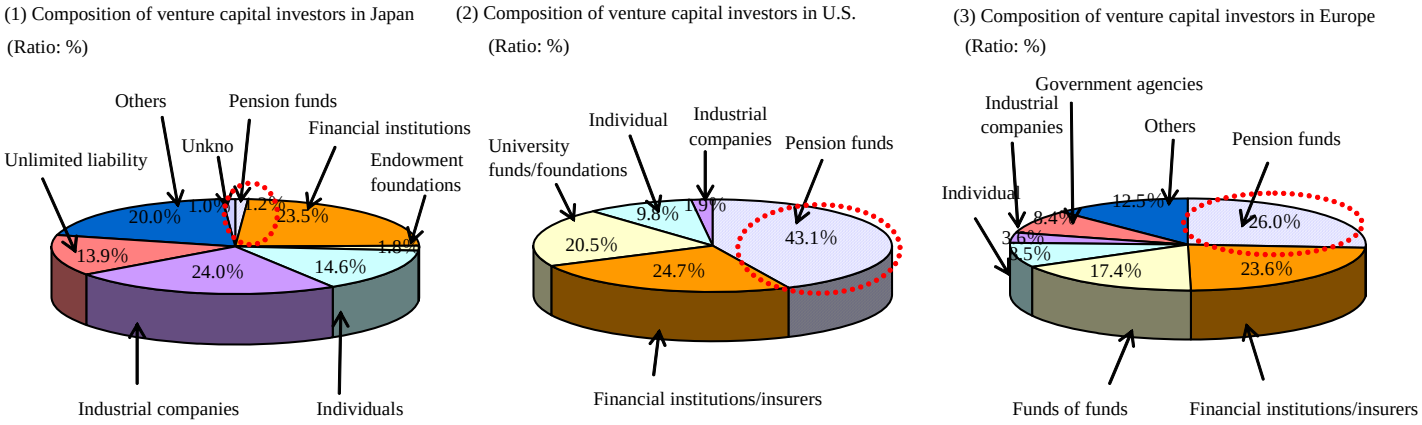


Source: Nikkei NEEDS-Cges, "Survey on the risk-taking capability of companies" by the Cabinet Office (2008)

- Pension funds play a major role in providing venture capital in the United States. Meanwhile, as industrial companies and financial institutions are the main providers of venture capital in Japan, it is important that personnel of the parent companies of venture companies acquire an acute perception of viable venture businesses.
- Although main "exits" for venture capital investment in Europe are M&As and sales to other venture capital investors, IPOs serve as the primary exit in Japan. The narrowing of the window of exit due to a slump in the stock markets for emerging companies is partly to blame for the shrinkage of venture capital investment in Japan.

Figure 2-3-15: Composition of venture capital investors (Japan, U.S., Europe)

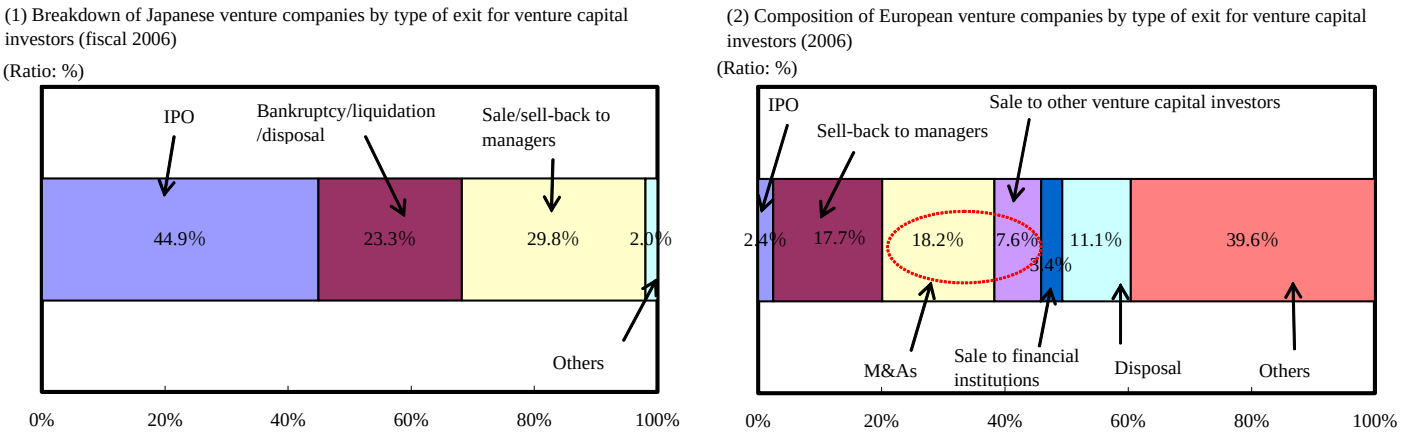
In the United States and Europe, pension funds account for a large portion of venture capital investment.



Source: "Fiscal 2007 survey on venture capital investment" by Venture Enterprise Center (2007), "NVCA Yearbook 2004" by NVCA (2004) and "EVCA Yearbook 2007" by EVCA (2007)
Note: The figures for Japan are for fiscal 2006, those for Europe are for 2006, and those for the U.S. are for 2003 (All figures are in terms of value.).

Figure 2-3-16: "Exits" for venture capital investment

In Europe, M&As and sales to other venture capital investors serve as major exits.



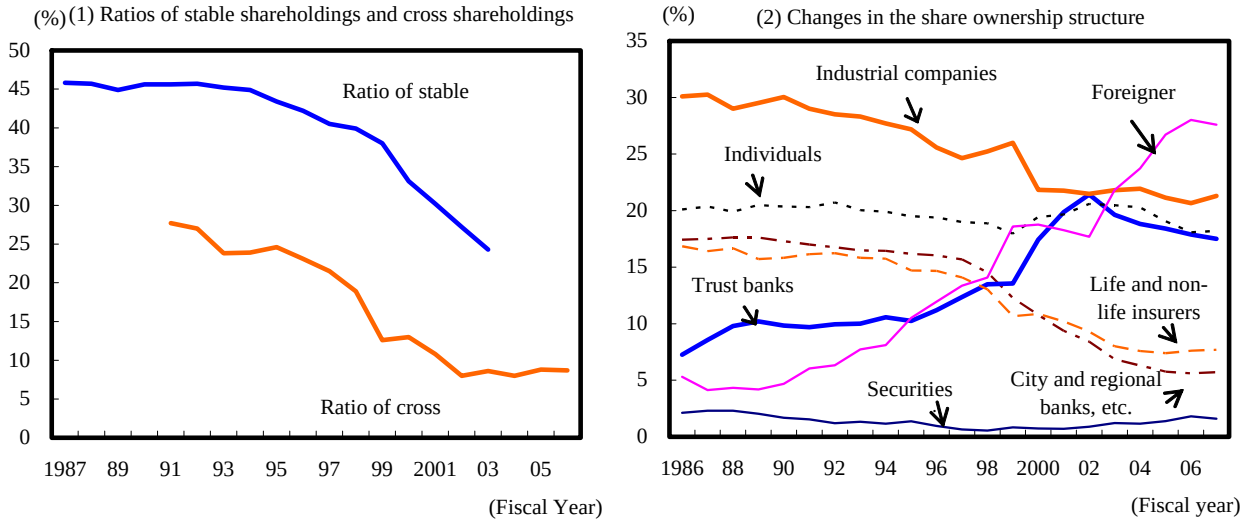
Source: "Fiscal 2007 survey on venture capital investment" by Venture Enterprise Center (2007), EVCA Yearbook 2007"by EVCA (2007)

Section 4: Changes in Japanese corporate systems and risk-taking

- For Japanese companies as a whole, the ratio of cross shareholdings declined remarkably since the latter half of the 1990s, and the ratio of stable shareholdings has also declined sharply. In addition, while the ratio of shareholdings by foreigners and trust banks has increased, the ratio of shareholdings by city and regional banks, etc., life and non-life insurers and industrial companies has declined. Meanwhile, regarding employment, there has not been any significant change in existing large companies' practice of employing regular workers for the long term.
- However, similarity among individual companies has decreased, leading to diversification of the employment system. Companies can be divided into four categories according to the relationship between the degree of their dependency on the main bank and the period of employee service: (i) companies with strong dependence on the main bank and with a long period of employee service, (ii) companies with weak dependence on the main bank and a long period of employee service, (iii) companies with strong dependence on the main bank and a short period of employee service and (iv) companies with weak dependence on the main bank and a short period of employee service.
- Generally speaking, "the traditional Japanese type" of companies as represented by Category (i) are less inclined to take risks than "market-oriented" companies that have characteristics opposite to theirs.

Figure 2-4-2: Changes in the ratio of stable shareholders and the share ownership structure

The ratio of stable shareholdings has been declining.



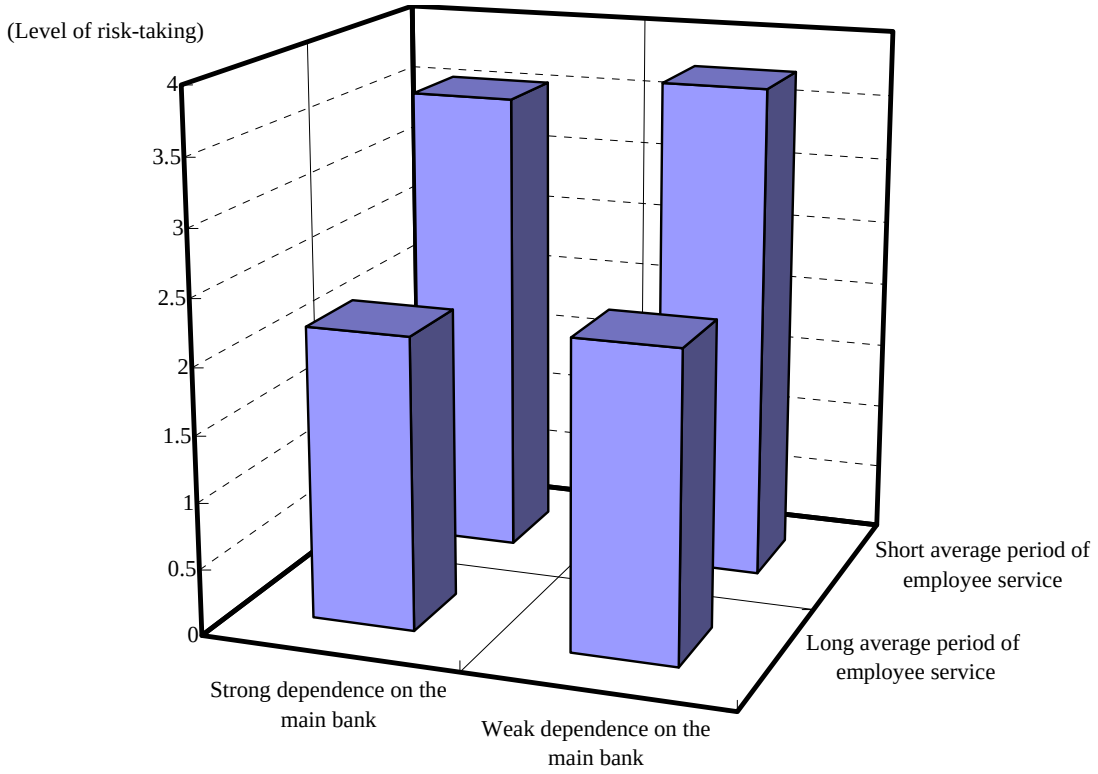
Source: "2003 survey on the status of cross shareholdings" by the NLI Research Institute (2004), "Survey on state of share distribution" by the Tokyo Stock Exchange (2008)

Note 1. The "ratio of stable shareholdings" and the "ratio of cross shareholdings" refer to the ratio to the total market capitalization of listed stocks (in terms of value).

Note 2. "Cross shareholdings" refer to shares owned by companies with mutual share ownership. "Stable shareholdings" include cross shareholdings and shares held by financial institutions.

Figure 2-4-5: Combination of corporate characteristics and the degree of risk-taking (ROA deviation)

The “traditional Japanese type” of companies have a low level of risk-taking compared with “market-oriented” companies.



Source: Nikkei NEEDS, “Corporate finance databank” by the Development Bank of Japan and the Japan Economic Research Institute

Note 1: The level of risk-taking was calculated on the basis of the ROA standard deviation over the period between fiscal 1997 and 2006.

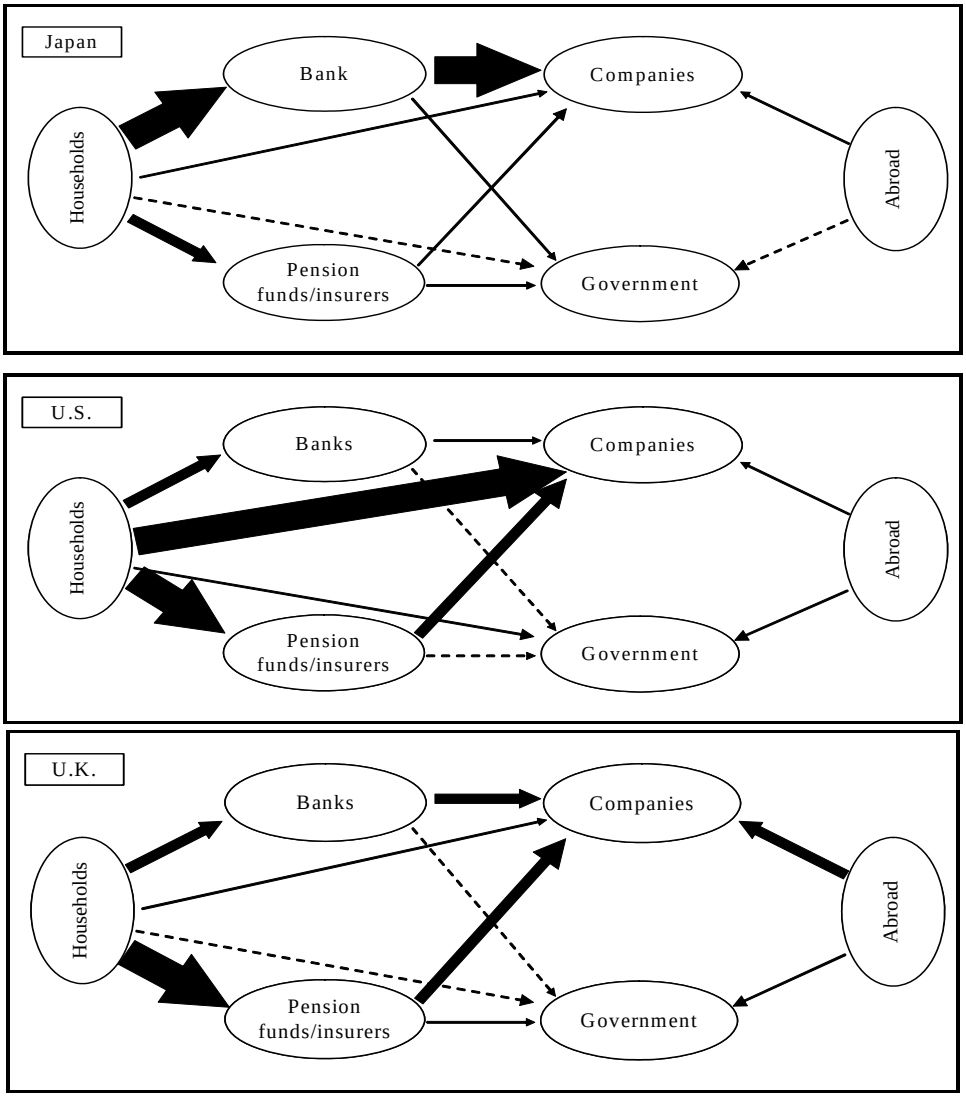
Note 2: Companies with an average period of employee service (regular employees) longer than the median length are defined as companies with a long period of employee service, and those with an average period of employee service shorter than the median length are defined as companies with a short period of employee service. Similarly, the classification by dependency on the main bank (the ratio of borrowing from the main bank to the overall borrowing) was made with the median value of the dependency as the dividing point.

Section 5: Provision of Risk Money and Risk-Taking Capability of Households and Financial Institutions

- Household financial assets in Japan are held mainly as cash and deposits, which means that they usually flow to companies via banks in the form of loans. Meanwhile, household financial assets in the United States are mainly managed in ways to provide funds directly to companies in the form of stock investment and investment money and those in the United Kingdom flow to companies via pension funds and insurance companies.
- The low level of "investment efficiency" (the return to be gained in exchange for taking a certain degree of risk) in Japan compared with the level in the United States may be one reason why Japan is lagging in direct financing (The investment efficiency in the United States is some 50% higher than the level in Japan.)

Figure 2-5-4: Major Flows of funds in Japan, the U.S. and the U.K.

In Japan, funds flow from households to companies and the government mainly via banks, while they are provided from households to companies and the government directly in the United States and via pension funds and insurance companies in the United Kingdom.



Source: Data for Japan taken from "Flow of Funds Accounts Statistics" by the Bank of Japan, those for the United States from"Flow of Funds Accounts of the United States" by the FRB and those for the United Kingdom from"United Kingdom Economic Accounts"by the Office for National Statistics.

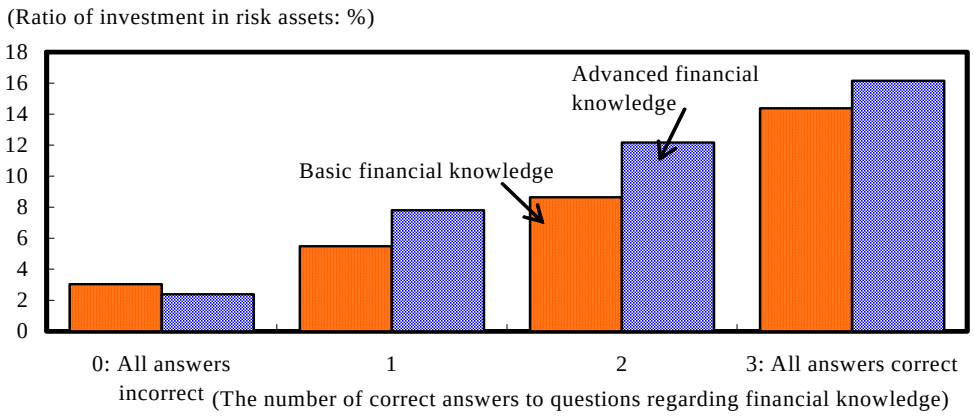
Note 1: All above data are based on figures on a stock basis as of the end of 2007.

2: "Pension funds" do not include public pension funds.

- Reasons for the low level of investment by Japanese households in risk assets may include a lack of financial literacy, the thin ranks of wealthy families and the heavy burden of mortgage loans.
- Households with a higher level of financial and IT literacy allocate a larger portion of their investment to risk assets. This indicates that enhancing such literacy may encourage the provision of risk money by households to companies.
- Households borrowing mortgage loans and hoping for home ownership have a low level of investment in risk assets.

Figure 2-5-7: Financial literacy and investment in risk assets

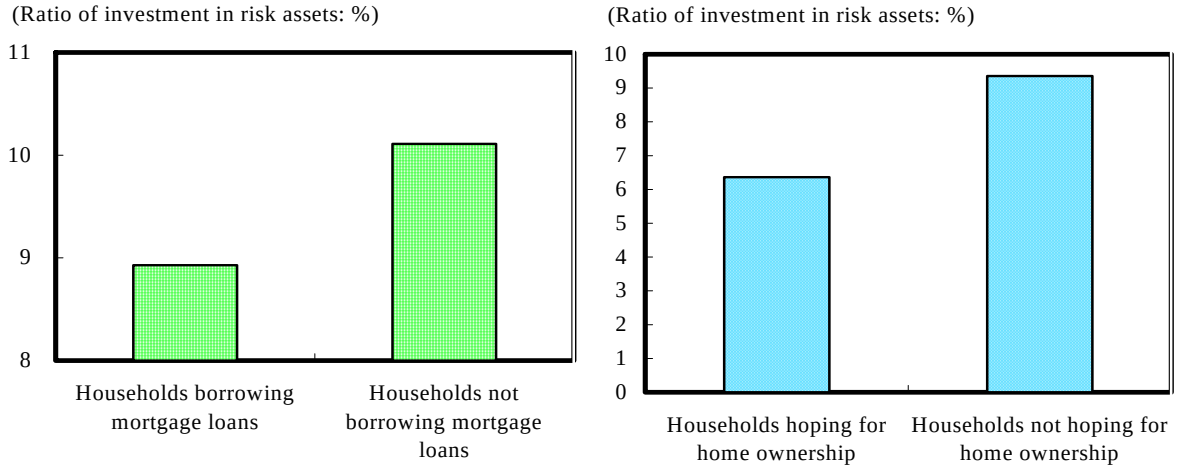
Households with a higher level of financial knowledge allocate a larger portion of their investment to risk assets.



Source: "Survey on family life and behavior" by the Cabinet Office (2008)
Note 1: The survey reflects only responses from the heads of households.
2: The ratio of risk assets refers to the ratio of stocks and stock investment funds to the overall financial assets.
3: Questions regarding basic financial knowledge concerned simple interest calculation, compound interest calculation and real interest calculation, while those regarding advanced financial knowledge concerned stocks, investment trusts and corporate bonds.

Figure 2-5-12: Effects of the burden of mortgage loans and the hope for home ownership on investment in risk assets

Households borrowing mortgage loans and hoping for home ownership have a low level of investment in risk assets.

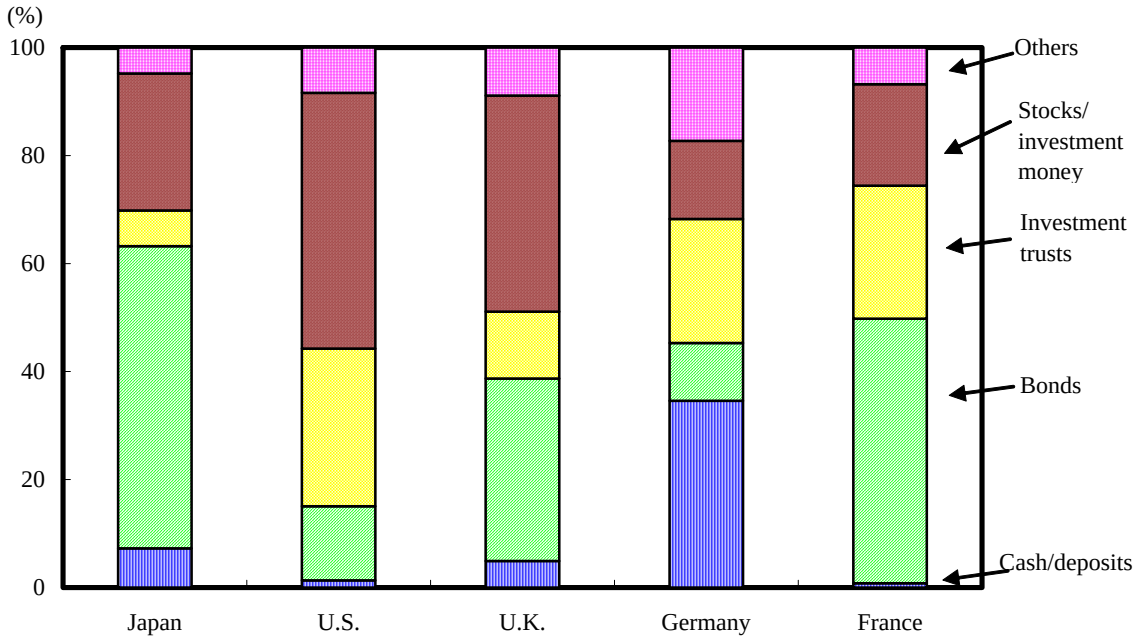


Source: "Survey on family life and behavior" by the Cabinet Office (2008)
Note: The ratio of risk assets refers to the ratio of stocks and stock investment funds to the overall financial assets.

- As Japan's household financial assets, totaling 1,500 trillion yen, are distributed widely throughout a huge number of households, institutional investors, as experts collecting and managing funds, have a significant role to play.
- Private pension funds in Japan have a low level of investment in stocks and investment trusts compared with those in the United States and the United Kingdom, indicating a cautious investment stance.
- In Japan, too, there have in recent years been an increasing number of cases where institutional investors express dissent to proposals presented at general shareholders' meetings. Furthermore, institutional investors are inclined to invest in companies with a high level of ROA.

Figure 2-5-19: Pension fund asset allocation by country

Pension funds in Japan allocate a smaller portion of their investments to stocks and investment trusts than those in the United States and the United Kingdom



Source: Data for Japan were taken from "Flow of Funds Accounts Statistics" by the Bank of Japan, those for the United States from "Flow of Funds Accounts of the United States"by the FRB, those for the United Kingdom from "United Kingdom Economic Accounts"by the Office for National Statistics, those for Germany from "Financial Accounts for Germany" by Deutsche Bundesbank and those for France from"Financial Accounts"by Banque de France.

Note 1: The above data cover investment by non-public pension funds in Japan, private pension funds in the United States and pension funds and insurers in the United Kingdom, Germany and France.

2: The amounts of stock investments/investment money and bond investments in Japan include the amounts of investments in foreign stocks and bonds estimated on the basis of data regarding investments in foreign securities in "Flow of Funds Accounts Statistics" by the Bank of Japan and "International Investment Position of Japan" by the Ministry of Finance."

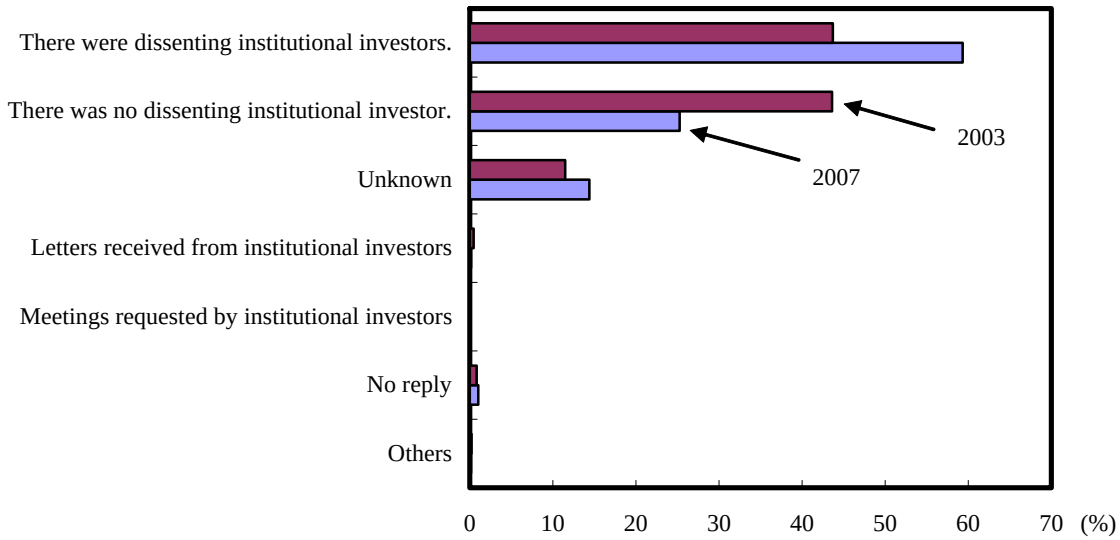
3: Investments in foreign securities by pension funds in the United States, the United Kingdom, Germany and France are included in their investments in stocks and bonds.

4. The above data represent figures as of the end of 2007.

Figure 2-5-22: Exercise of voting rights by institutional investors, etc. at general shareholders' meetings

Institutional investors, etc. are increasingly inclined to carefully consider proposals presented at general shareholders' meetings before making judgment.

(1) Ratio of shareholders' meetings in which institutional investors, etc. expressed dissent to proposals



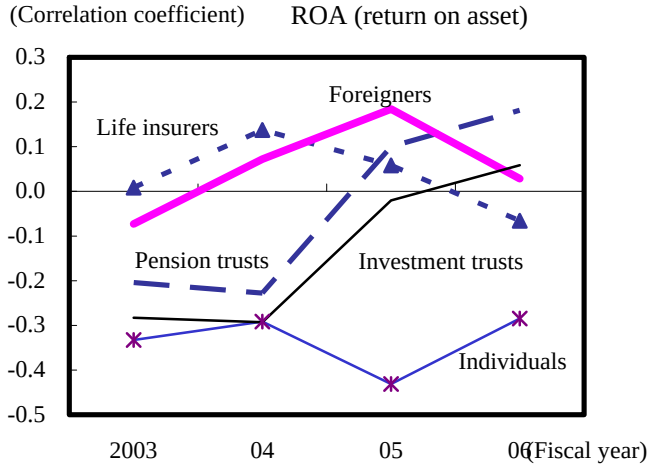
Source: Commercial Law Center (2003), Commercial Law Center (2007)

Note 1: "Institutional investors, etc." include foreign institutional investors (including pension funds and investment trust funds), domestic institutional funds (including trusts and life and non-life insurers) and major shareholders (including investment funds).

2. The data are based on a questionnaire survey regarding ordinary general shareholders' meetings held between July of the previous year and June of the current year.

Figure 2-5-23: Relationship between the amount of shareholdings by institutional investors and various corporate management indexes

Institutional investors are inclined to invest in companies with a high level of ROA.



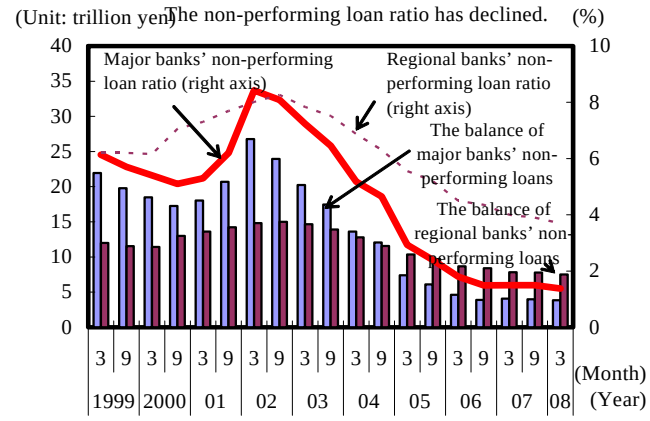
Source: Data compiled by the Tokyo Stock Exchange

- Japanese banks' non-performing loan ratio has declined while their capital adequacy ratio has been rising, which means that their risk-taking capacity is generally increasing.
- Although the amount of unrealized profits on stockholdings of Japan ' s six major banking groups decreased sharply in the business year ended in March 2008, they will be able to retain profits unless stock prices drop sharply.

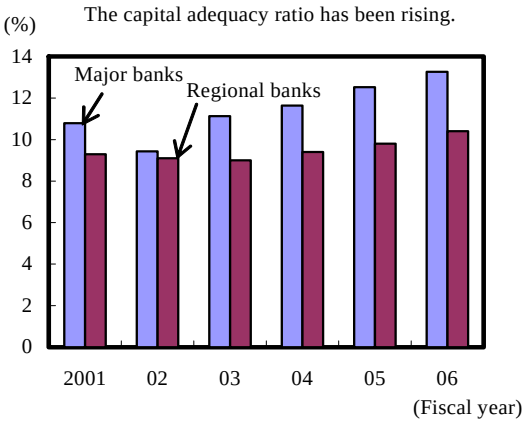
Figure 2-5-26: Banks' non-performing loans and capital adequacy ratio

The non-performing loan ratio has declined while the capital adequacy ratio has been rising.

(1) Changes in the non-performing loan ratio and the balance of non-performing loans (city banks and regional banks)



(2) Changes in the capital adequacy ratios (city banks and regional banks)



Source: Data compiled by the Financial Services Agency

Note 1: The figures for "major banks" represent the total of the figures for city banks and trust banks (including the figures for the former Industrial Bank of Japan).

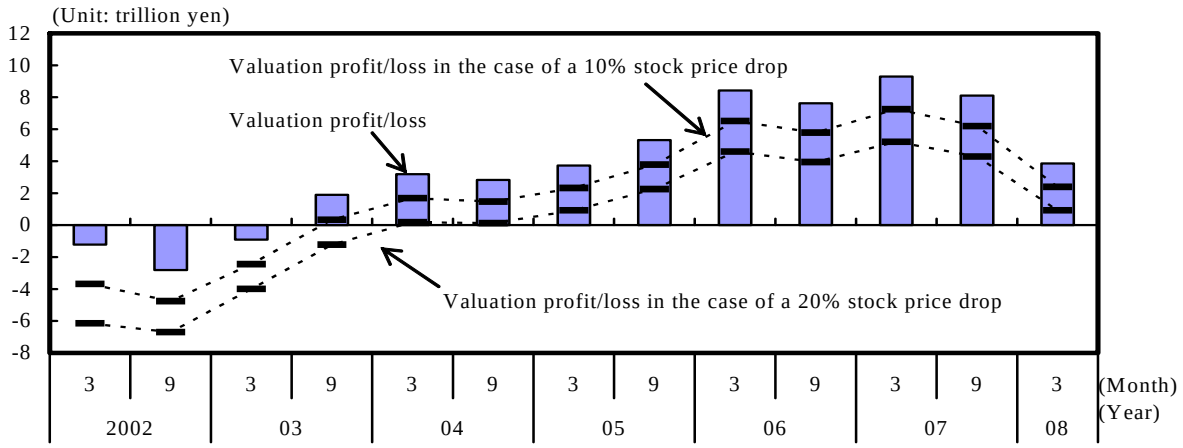
2: The figures for regional banks include the figures for Resona Bank in the business year ended in March 2003 and thereafter.

3: The non-performing loan ratio represents the ratio of non-performing loans as defined under the Financial Reconstruction Act to the overall amount of credit provided. Non-performing loans as defined under the Financial Reconstruction Act, which took effect in October 1998, comprise loans to bankrupt and virtually bankrupt borrowers, loans with the risk of default and loans to companies classified as requiring special attention.

Figure 2-5-27: Risk involved in banks' shareholdings

(2) Estimates of the risk related to stock price fluctuations

The effects on banks' shareholdings will be limited unless stock prices drop sharply.



Source: Data on the financial results (consolidated basis) of the six major banking groups

Note 1: Stock valuation profit/loss represents the difference between the value booked on the balance sheet (market price) and the acquisition cost.

2: The valuation profit/loss in the case of a 10% stock price drop was calculated under the following formula:
Pt=Bt×0.9-At (PT: valuation profit/loss, At: acquisition cost, Bt: value booked on the balance sheet (market price)

3: The valuation profit/loss in the case of a 20% stock price drop was calculated under the following formula:
Pt=Bt×0.8-At