

Not to be released until 2:00 p.m.
Japan Standard Time on Tuesday,
November 4, 2003.

November 4, 2003
Bank of Japan

Outlook and Risk Assessment of the Economy and Prices

October 2003

(English translation prepared by the Bank's staff based on the Japanese original)

[The Bank's View] ¹

(Standard Scenario for the Economy and Prices)

Looking forward, Japan's economy is expected to gain cyclical momentum for a recovery in the second half of fiscal 2003, and it will continue to recover during the course of fiscal 2004. Overall economic activity deviates slightly above the standard scenario presented in the "Outlook and Risk Assessment of the Economy and Prices" (April 2003).

Overseas economies, the U.S. and East Asian economies in particular, are expected to grow relatively fast against the background of a recovery in IT-related demand. Based on the expected recovery overseas, exports and production will increase. Corporate profits are likely to increase partly due to restructuring efforts, and business fixed investment will be likely to continue following an uptrend.

Since there still remain structural impediments such as excess debt and labor, the pace of recovery is most likely to be moderate. Although household income stops declining, it will not yet show clear signs of improvement as companies continue to restrain labor costs. As a result, private consumption will remain generally flat. It should be noted that the GDP deflator has been declining faster than other price indexes, and this tendency is intensifying. The growth rate of real GDP is likely to be calculated at a higher value to the extent of this tendency.

The above pace of recovery suggests that the output gap will narrow marginally from fiscal 2003 to 2004. Nevertheless, given that the current output gap is still wide, downward pressures on prices are somewhat likely to remain. The consumer price index (CPI) will continue to register small declines in fiscal 2003 and 2004.

(Risk Assessment)

It is possible that the economy deviates either above or below the standard scenario if the following risk factors materialize.

¹ The Bank's View was determined by the Policy Board at the Monetary Policy Meeting held on October 31, 2003.

The first risk factor stems from developments in overseas economies. While uncertainties surrounding overseas economies are ebbing away, Japan's economy may deviate either above or below the standard scenario, depending on such factors as the outlook for the U.S. labor market, the global demand for the IT-related goods, and the growth rate of East Asian economies.

The second risk factor is the financial market development. Although financial markets reflect the development of real economy over the medium- to long-term, they fluctuate due to various factors in the short-term. Depending on how stock prices, long-term interest rates and foreign exchange rates or a combination of these three move, they could influence economic activity.

The third risk factor focuses on the progress in the disposal of nonperforming loans (NPLs) and financial system developments. The disposal of NPLs is making steady progress. The outstanding amount of NPLs, particularly at large banks, is declining, and provisioning is increasing. Concerns over the financial system are subsiding as stock prices rise. Under such circumstances, risks that the financial system problem adversely affects corporate finance and economic activity are receding. However, they still remain as a significant risk factor.

The fourth risk factor is the development in domestic private demand. The standard scenario assumes a recovery path, centering on large manufacturers. The economy may deviate either above or below the standard scenario, depending on the extent that the recovery spreads to nonmanufacturers, small- to medium-sized companies, and households, as well as the firms' prospects for future demand.

(Overcoming Deflation and Conduct of Monetary Policy)

In order to extricate Japan from deflation and to put its economy back on a sustainable growth path, Japan needs not only a cyclical recovery but also households and companies having higher expectations for growth. Structural problems such as excess debt, excess labor and financial system weakness need to be addressed. In this regard, some of the large manufacturers have been solving the problems of excess debt and labor. These problems, however, still remain in the nonmanufacturing sector and small- to medium-sized companies. Japan also needs to make further progress in the disposal of NPLs and the enhancement of financial system stability.

The Bank of Japan has adopted quantitative easing since March 2001. This policy contributes to ensuring financial market stability and maintaining the accommodative environment for corporate finance, thereby firmly supporting the real economy. In the financial and capital market, long-term interest rates have picked up while stock prices have risen. The financial positions of firms are improving slightly, and the accommodative funding environment is generally maintained.

The Bank of Japan aims at putting Japan's economy back on a sustainable growth path by firmly maintaining the quantitative easing policy based on clear and concrete commitment with reference to the CPI. Under the condition that financial intermediaries have not regained full strength, the Bank will reinforce the transmission mechanism of monetary policy by improving the function of credit markets such as bank lending, commercial paper and corporate bonds, thereby making the effect of monetary easing permeate the entire economy.

Forecasts of the Majority of Policy Board Members²

(y/y % chg.)

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2003	+2.3 to +2.6 [+2.4]	-0.9 to -0.5 [-0.7]	-0.3 to -0.1 [-0.2]
Forecasts made in April 2003	+0.8 to +1.1 [+1.0]	-1.0 to -0.9 [-1.0]	-0.5 to -0.4 [-0.4]
Fiscal 2004	+2.3 to +2.6 [+2.5]	-0.8 to -0.4 [-0.6]	-0.5 to -0.2 [-0.3]

Notes: 1. Brackets indicate median of the forecasts.

2. The forecasts of Policy Board members are based on the assumption that there will be no change in monetary policy.

² Forecasts of the majority of Policy Board members are shown as a range, with the highest and lowest figures excluded. The forecasts of all Policy Board members are as follows.

(y/y % chg.)

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2003	+2.3 to +2.7	-0.9 to -0.5	-0.3 to 0.0
Forecasts made in April 2003	+0.8 to +1.2	-1.0 to -0.3	-0.6 to -0.2
Fiscal 2004	+2.0 to +2.8	-0.9 to 0.0	-0.5 to +0.5

[The Background]

1. The Economy, Prices, and Financial Developments

(The Economy and Prices in the First Half of Fiscal 2003)

In the first half of fiscal 2003, overall economic activity in Japan remained flat. Exports and production, which were on a rising trend last year, decelerated as overseas economies slowed down from January through June of 2003. From summer to early autumn, however, there were signs that the economy was recovering moderately (Charts 1-4). While business fixed investment recovered gradually, exports started picking up again due to the favorable turnaround in overseas economies. Business sentiment also began to improve. Against such a background, prices continued to decline mildly. The pace of decline slowed somewhat, reflecting temporary factors. The CPI (excluding perishables, on a nationwide basis) in September was – 0.1% year on year (Chart 5).

“Outlook and Risk Assessment of the Economy and Prices” (hereafter the Outlook Report) in April 2003 illustrated the standard scenario in which “based on the assumption of a gradual recovery in overseas economies, exports and production will regain momentum and a virtuous cycle will start working on the economy.” In comparison with such a scenario, there were concerns with respect to geopolitical risks and the adverse impact of the severe acute respiratory syndrome (SARS) at the beginning of fiscal 2003. Since then, however, overseas economies have been growing at a relatively fast pace, and business fixed investment has been improving somewhat quickly with the increase in corporate profits since last year. All these recent developments suggest that the economy deviates somewhat above from the standard scenario. As for prices, the year-on-year rate of change in both the domestic Corporate Goods Price Index (CGPI) and the CPI is negative. This year-on-year decline has become slightly smaller compared to the standard scenario at the end of April 2003.

(Outlook for the Economy)

From the second half of fiscal 2003 through fiscal 2004, overseas economies, the U.S. and East Asian economies in particular, are expected to recover steadily. The recent signs of pickup in exports and production will materialize. Corporate profits will continue to increase partly due to restructuring efforts. Although business fixed investment relative to

cash flow is still significantly subdued, it is likely to follow a clear uptrend (Chart 6). Household income is expected to show signs of bottoming out. As such, Japan's economy is expected to gain cyclical momentum for a recovery in the second half of fiscal 2003, and it will continue to recover mildly during the course of fiscal 2004.

Nevertheless, public investment will be on a declining trend under the severe budget condition. Debt overhang and excess labor in the corporate sector, the nonmanufacturing sector in particular, still remain, though there are some signs of improvement. The disposal of NPLs is making progress, but it has not improved the financial intermediation function sufficiently to gather positive momentum. Given these structural impediments, it will take some more time before firms will revise their expectations for medium-term economic growth. With respect to the household sector, consumer outlays will remain flat in the middle of business efforts to reduce labor cost. The lack of improvement in household income also weighs on the consumer behavior. All in all, the recovery expected to begin in the second half of fiscal 2003 will not accelerate in fiscal 2004, and generally remain at a moderate pace.

Recent GDP data (Chart 4) suggest the possibility that the year-on-year growth rate of real GDP is calculated at a higher value due to technical reasons.³ If this tendency continues, it will be probable that the figure for real GDP growth will become rather high even if the economy is actually in the middle of "modest recovery."

(Outlook for Prices)

As for the outlook for prices, supply-demand conditions, an essential factor underlying price developments, will improve gradually as the economy continues a modest recovery. However, the current output gap is significantly wide (Chart 7), and the expected recovery will narrow the output gap only marginally. It is thus expected that downward pressures on prices are likely to persist to some extent during fiscal 2004.

Downward pressures on prices due to technological innovation will continue. Business strategy to keep prices low is not as prevalent as before. It is difficult to predict what is going to happen to such business strategy.

³ See Box.

In sum, the pace of decline in both the domestic CGPI and the CPI trends will gradually become moderate, and their projections in fiscal 2003 and 2004 are expected to be slightly negative year on year. Temporary factors, such as a rise in medical fees associated with the medical reform in April 2003 and an increase in indirect tax on tobacco in July 2003, have to a large extent contributed to mitigating the decline in the CPI so far. Moreover, the price of rice is expected to increase after October 2003 due to cool summer in Japan.⁴ These factors will manifest themselves on the year-on-year change in the CPI only for a year. As a result, the year-on-year change in the CPI will narrow its negative margin during the course of fiscal 2003. In fiscal 2004, once such temporary factors dissipate, however, its negative margin is expected to become large.

(Financial Developments)

The Bank of Japan continues to provide abundant liquidity and accommodative monetary conditions are likely to persist.

However, it is difficult to expect a marked rise in credit demand in the corporate sector since business fixed investment is made within cash flow and firms continue to reduce excess debt (Chart 8). Financial institutions will reinforce their efforts to cultivate good borrowers while they will remain cautious to borrowers with low credit ratings. Under such circumstances, commercial bank loans and funding through issuing corporate bonds and commercial paper are likely to decline, albeit at a mild pace. A pickup in economic activity will contribute to higher growth of the money supply. On the contrary, a possible weakening of demand for highly liquid risk-free assets will contribute to its lower growth (Chart 9).

2. Risk Assessment

(Developments in Overseas Economies)

The U.S. economy, sustained by consumer outlays, continues to recover steadily. New orders and business outlays in the manufacturing sector, particularly in the area of IT-related goods, are encouraging. Production is recovering. Nonetheless, the recovery in the private demand is not yet firmly set in motion. In particular, the weakness in the labor

⁴ An increase in the rice price contributed +0.1% to the preliminary figure for the CPI in the Tokyo metropolitan area in October.

market still remains. There are some concerns about the possible adverse effect on the U.S. and the world economy through the reaction in financial markets and foreign exchange market if people become skeptical about the sustainability of productivity gains, given the problem of the “twin deficits.”

European economies are bottoming, though downside risks remain. In East Asia, there exist downside risks in the countries like Korea where the household sector is still going through balance sheet adjustments. Although uncertainty about the outlook for overseas economies receded due to such factors as the containment of the SARS epidemic, there remain geopolitical risks, including Iraq and other Middle East situations. Demand for IT-related goods, while on a recovery path, warrants careful monitoring as it has a large impact on Japan’s exports. On the contrary, the recovery of the U.S. labor market, the increase in global demand for IT-related goods, and a further pickup of economic growth in China, will all contribute to better performance of overseas economies.

(Financial Market Developments)

Depending on how stock prices, long-term interest rates and the foreign exchange rate or a combination of these three move, they could influence economic activity (Chart 10).

Stock prices have risen about 40% since the end of April 2003, reflecting the improved prospects of Japan’s economy and the aggressive inflows of capital from abroad (Chart 11). In particular, bank share prices have almost doubled. Such developments in stock prices have the following impact. First, consumer and business confidence as well as corporate profits and balance sheets will improve, thereby affecting their spending behavior. Second, the lending attitude of financial institutions may be affected by an increase in the value of their shareholdings.

Long-term interest rates rose during the summer, and since then they have stabilized at the low 1% level (Chart 12). The level of government bonds outstanding in Japan is already the highest among industrialized countries, and financial institutions hold a large amount of these bonds. Long-term interest rates can affect the profitability and capital adequacy of financial institutions. The cost of capital for firms remains at extremely low levels on the whole (Chart 13). While bond yields have risen somewhat, long-term borrowing rates have not been affected since many long-term lending is based on variable rates.

On the foreign exchange market, the yen is rising recently (Chart 14). There are concerns that the exchange rate may adversely affect exports and corporate profits, and the economy may deviate below from the standard scenario.

(Disposal of Nonperforming Loans and Financial System Developments)

The disposal of NPLs is making steady progress, as the outstanding amount of NPLs is declining and the provisioning is rising, especially at large banks (Chart 15). Thanks to the recent rise in stock prices, concerns over the financial system is subsiding. The standard scenario, therefore, assumes that the funding environment for firms will generally remain accommodative.

Risks that the financial system problem adversely affects corporate finance and economic activity are receding, but they still remain as a significant risk factor. It should be noted that the prospects of banks' profitability and the progress in the disposal of NPLs could exert both upward and downward pressures on the economy through corporate finance and financial markets.

(Development in Domestic Private Demand)

The standard scenario assumes a recovery path, centering on large manufacturers. There still remains uncertainty about the possibility whether or not domestic private demand as a whole, including nonmanufacturers, small- to medium-sized companies, and households, will increase sufficiently. The recovery of business fixed investment will be affected if the firms' prospects for future demand turn out to be worse than expected due to the above risk factors, or if they turn out to be better than expected as some progress is being made in the excess debt and labor problem.

3. Returning to a Sustainable Recovery Path and Overcoming Deflation

There is a possibility that the growth rate will reach slightly beyond potential sometime before the end of fiscal 2004. Nevertheless, the output gap will narrow only marginally and prices are likely to be on a declining trend. In order to extricate Japan from deflation and put its economy back on a sustainable growth path, Japan needs not only a cyclical recovery but also households and firms having higher expectations for growth as such structural problems as excess debt, excess labor, and financial system weakness are

addressed.

In the corporate sector, firms have made efforts to strengthen their balance sheets, reform their employment practice and corporate structure, and pursue efficient international division of labor. As a result, their earnings power appears improving, mainly in manufacturing (Chart 16). There still remains the problem of excess debt and labor. Nonmanufacturers and small- to medium-sized companies are still struggling to tackle the problem of excess debt and labor, though the number of companies with improved profitability is increasing (Charts 17 and 18).

In order to support the above efforts of the private sector, it is critical for the government to carry out reforms in the area of regulation, taxation, and public expenditures. These efforts are imperative for Japan to ensure its capacity to adjust flexibly to various changes such as global competition, progress in IT, structural changes in the labor market, a declining birth rate, and aging population. In this regard, the government announced its basic thinking on structural reforms in the “Basic Policies for Economic and Fiscal Management and Structural Reform 2003”

The Bank of Japan is firmly committed to maintaining the quantitative easing policy and making monetary easing permeate the entire economy, thereby contributing to putting Japan’s economy back on a sustainable growth path.

4. Conduct of Monetary Policy and Evaluation of Financial Environment

Since its adoption of quantitative easing in March 2001, the Bank of Japan has been raising the target balance of current accounts. It is now at around 30 trillion yen (Chart 19, Upper panel).

Under the ample liquidity provision by the Bank, short-term interest rates, including term rates, have been moving at around zero (Chart 19, Lower panel).

Short-term interest rate futures have been stable at low levels since the adoption of quantitative easing. After picking up somewhat around June, they have been declining slightly since September (Chart 20).

Long-term interest rates had been generally on a declining trend with some volatility since

the adoption of quantitative easing. However, since June they have picked up, and their volatility, used to be at low levels, has also risen (Chart 12). The basic background to this is the improvement of market participants' views on economic prospects. It should be noted, though, that the rise in medium- and short-term interest rates around the latter half of August reflected such technical factors as investment repositioning by financial institutions. Some claimed that market participants became somewhat skeptical about the Bank of Japan's "precommitment" to continuing the quantitative easing policy, which led to the rise in interest rates. The Bank has been asserting repeatedly its firm commitment to continuing the quantitative easing framework. Moreover, the Bank published "Enhancement of Monetary Policy Transparency" on October 10, 2003, with the aim of underpinning and reinforcing its commitment.

The yield difference between treasury bills (TBs) and commercial paper (CP) has generally been at very low levels under quantitative easing (Chart 21, Upper panel). The yield difference between government bonds and corporate bonds has recently been somewhat on a rise reflecting a pickup in long-term interest rates. However, its level still remains low, compared with previous cases, including 1997-98 when the credit crunch occurred, and spring 2002 when market participants were highly alert to credit risks (Chart 21, Lower panel).

In corporate finance, the credit demand remains lackluster. Commercial banks are willing to lend to blue-chip firms, but they remain cautious about lending to firms with low creditworthiness. Recently, however, there are cases that banks' lending attitude is becoming less restrictive in setting the terms for loans. In the case of small- to medium-sized firms, the lending attitude of financial institutions and the financial positions are still tight, but some improvement is reported (Chart 22). The funding environment for firms with high credit ratings in bond and CP markets are generally favorable.

Commercial bank lending continues to decline by 2% year on year. The outstanding of CP issuance has exceeded that of last year, and the outstanding of corporate bond issuance has reached nearly the same level as last year (Chart 23).

The monetary base (the sum of currency in circulation and current account balances held at the Bank of Japan) is higher than a year ago due to the aggressive provision by the Bank (Chart 24). Over the past 50 years, the size of the Bank's balance sheet relative to GDP had been around 10%. Recently, it has expanded at around 30% (Chart 25). Although

high growth in the monetary base is partly offset by a decline in the money multiplier, the growth rate of the money stock remains at a level slightly above the growth of economic activity (Chart 26 and 27).

Stock prices have been on the rise since May, reflecting improved prospects of the economy and continued aggressive equity investment from abroad (Chart 11). The yen exchange rate has appreciated against both the U.S. dollar and the euro (Chart 14). The decline of real estate prices is coming to a halt in some part of Tokyo metropolitan areas, but overall they continue a downward trend (Chart 28).

In sum, the ample liquidity provision by the Bank of Japan under the quantitative easing framework has contributed to ensuring financial market stability and maintaining the accommodative environment for corporate finance by dispelling liquidity concerns as well as reducing interest rates, including those of longer-term maturity, and the credit spreads, thereby firmly supporting the real economy.

The Bank of Japan has recently clarified its firm intention to keep the current quantitative easing policy with the clear and concrete commitment based on the CPI. Such commitment will ensure that Japan's economy will be put back on a sustainable growth path.

The credit intermediation function of financial system is still far from full-fledged as evidenced by the continued decline of commercial bank lending. Under such circumstances, the Bank of Japan strives to reinforce the transmission mechanism of monetary policy by improving the function of credit markets such as the purchase of asset-backed securities, thereby making the effect of monetary easing permeate the entire economy.

(BOX) Recent Characteristics of the GDP Deflator

The GDP deflator is calculated from nominal GDP divided by real GDP, which is compiled by actual data of each demand item. Recently, a tendency is intensifying that the GDP deflator is declining at a faster pace than other price indexes (Box Chart 1, Upper panel).

The GDP deflator has been falling recently at the pace of -2% to -3% year on year, with the private non-residential investment deflator at the accelerated pace. Such a decline is in contrast with the CPI and the domestic CGPI, which have decelerated their declining pace. The contrasting feature among these price indexes owes in large part to the difference in the “index formula.” For simplicity, let us assume that there exists an economy consisting of two goods: PCs and food. PCs are a symbol of the IT-related goods, and the price declines sharply. Assume further that the ratio of transactions between PCs and food is held constant at 5:95. While the price of food is unchanged, the price of PCs, whose quality improves at the annual rate of 30%, is assumed statistically to “decline by 30% annually.” In this case, the calculated quantity of PCs, derived from the transaction amount divided by the price of PCs, increases by 30 % every year (Box Chart 2).

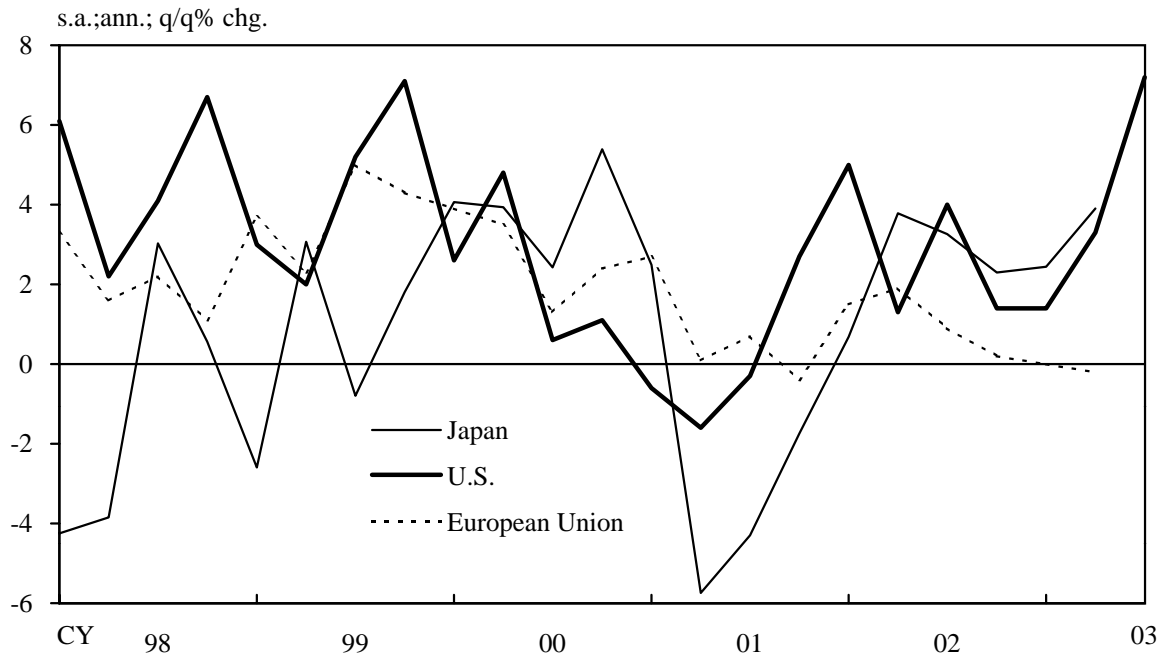
In this economy, the rate of decline in prices should be calculated as -1.5% , i.e. the rate of decline in the price of PCs (30%) times the share of transactions (5%). If the chain index, where the base year is revised every year (e.g. the GDP deflator in the U.S.), is applied, the rate of price decline in this economy is always -1.5% . However, due to difficulties in compiling the chain index, the price index whose base year is revised every 5 years is used for convenience. Among those are the Laspeyres index, which fixes the quantity weight at the base year, and the Paasche index, where the quantity weight of the current period is applied respectively. The CPI is a Laspeyres index, while the GDP deflator is a Paasche index.

In the above economy, the rate of decline of the Laspeyres index is smaller than that of the chain index, whereas that of the Paasche index is larger. Moreover, the degree of deviation from the chain index becomes larger in both the Laspeyres and Paasche indexes as they move away from the base year. Taking the above into consideration, the CPI is likely to have an upward bias and the GDP deflator may suffer from a downward bias. Furthermore, the CPI is set as 100 in the base year of 2000, while the GDP deflator is the old 1995-year based. Owing to such characteristics, it is presumably the case that the bias inherent in the GDP deflator may be larger than the CPI.

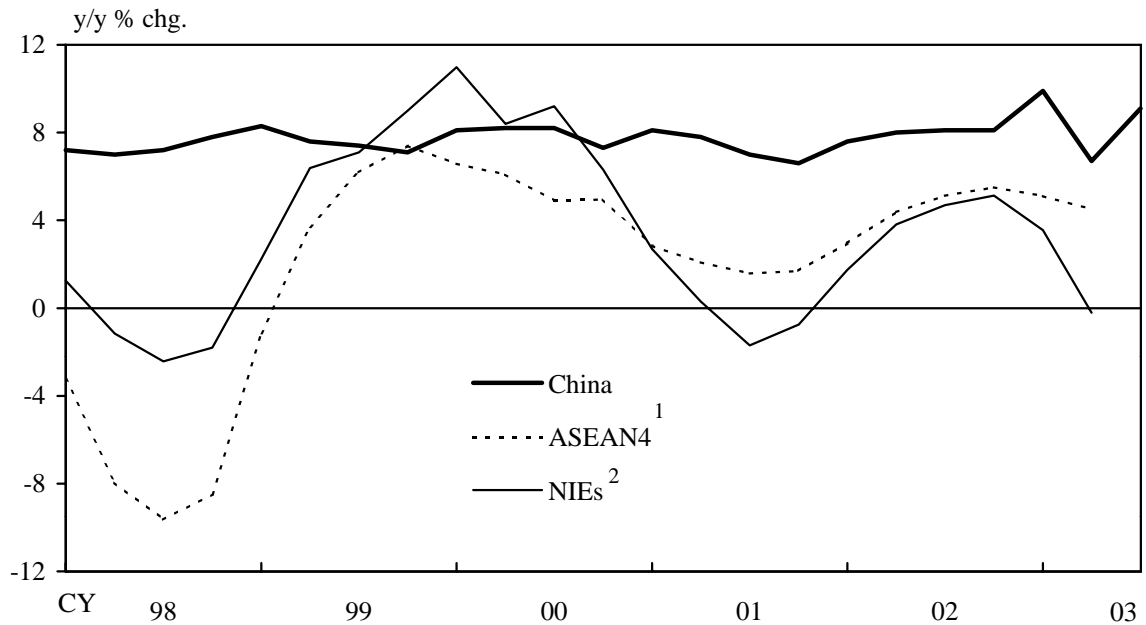
If the recent GDP deflator is lower than that in the past, real GDP comes out higher than that in the past. Comparing the indexes of all industrial activity with real GDP, the rate of growth in real GDP is much larger than that of the indexes of all industrial activity (Box Chart 1, Lower panel). Given the possibility that the calculated value of real GDP may be higher than otherwise, real growth rate higher than the 1-2% level is needed, which we used to keep in mind, in order to narrow the output gap.

Real GDP Growth Rates in Overseas Economies

(1) Real GDP Growth Rates in Advanced Economies



(2) Real GDP Growth Rates in East Asian Economies

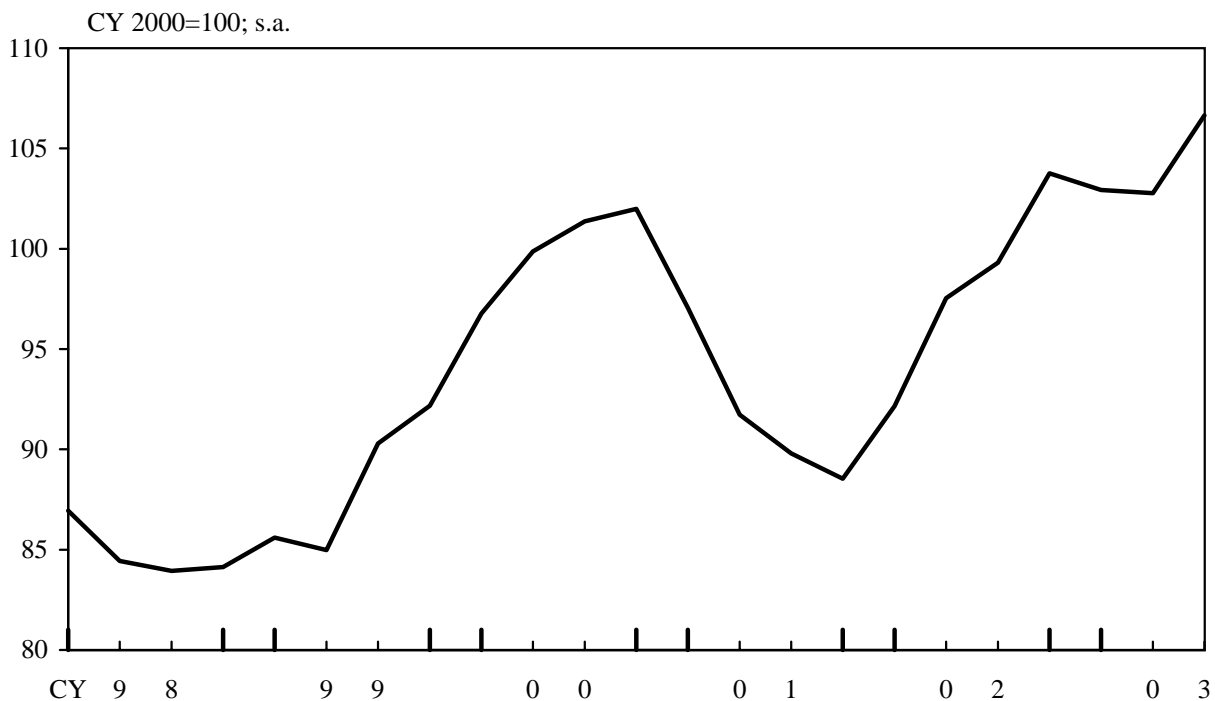


Notes: 1. Data for four members: Thailand, Malaysia, the Philippines, and Indonesia.

2. Data for NIEs members: Korea, Taiwan, Hong Kong, and Singapore.

Exports and Production

(1) Real Exports



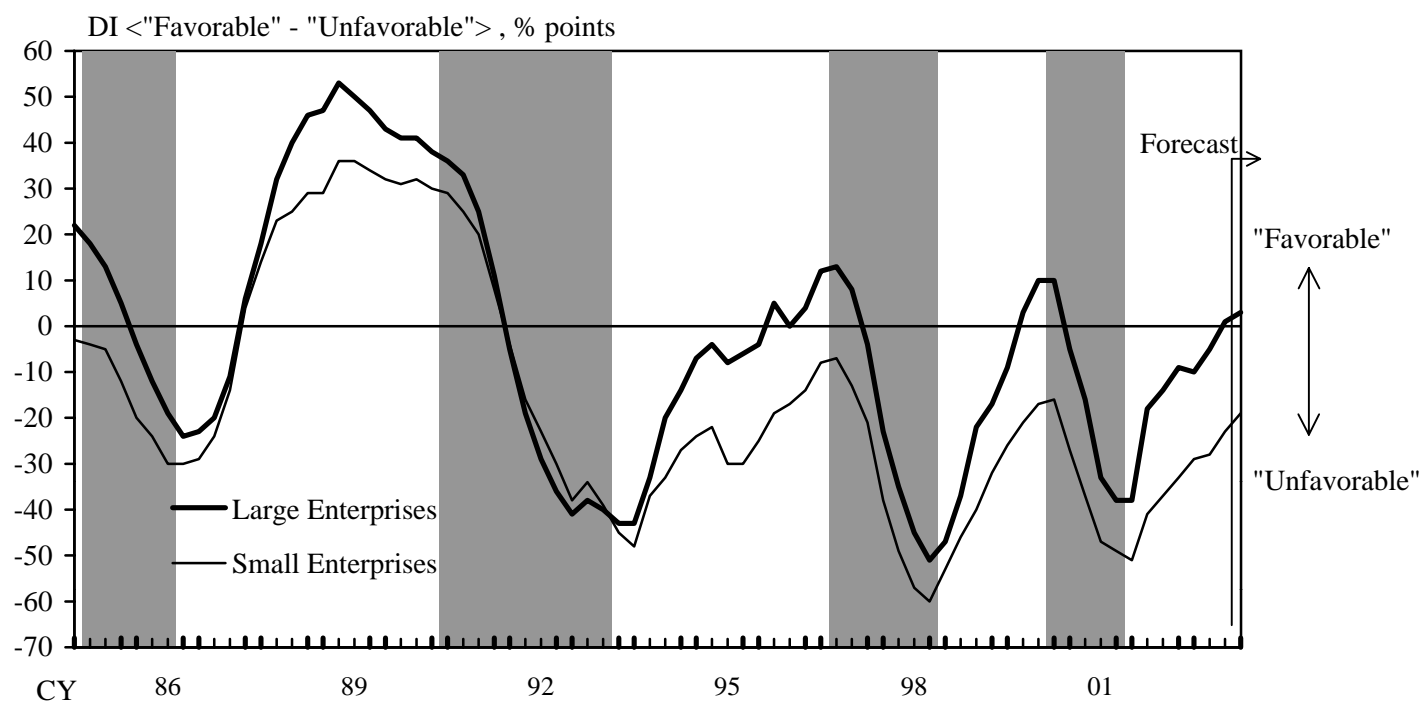
(2) Production



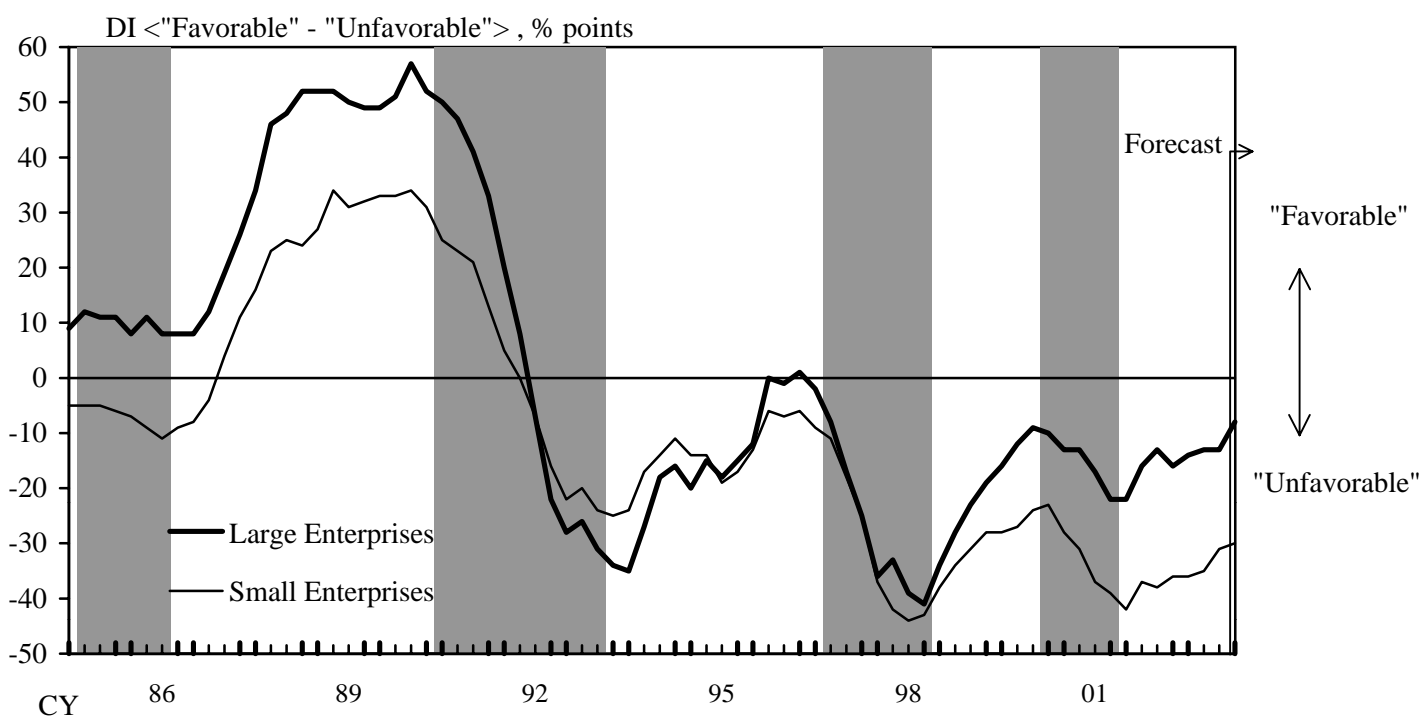
Sources: Ministry of Finance, "The Summary Report on Trade of Japan";
 Bank of Japan, "Corporate Goods Price Index";
 Ministry of Economy, Trade and Industry, "Indices of Industrial Production."

Business Conditions

(1) Manufacturing



(2) Nonmanufacturing



Notes: 1. Large enterprises: 1,000 employees or more

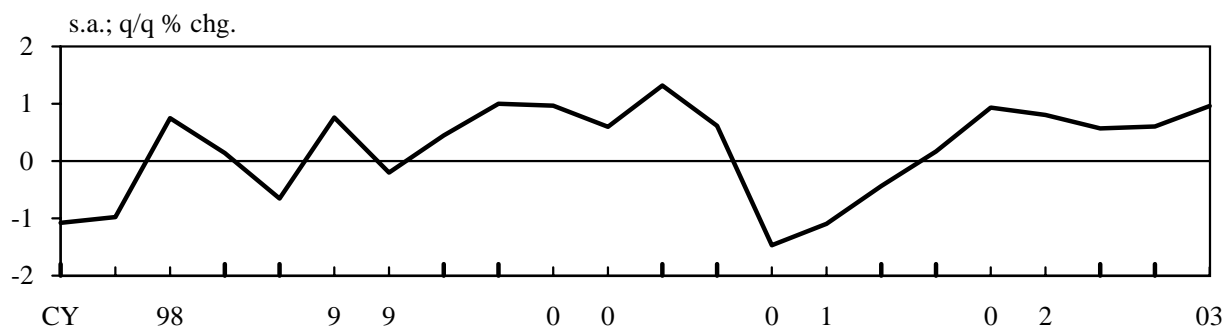
Small enterprises: 50-299 employees (for Manufacturing), 20-99 employees (for Wholesaling),
20-49 employees (for Retailing, services, and leasing),
50-299 employees (for Other industries)

2. Shaded areas indicate recession periods.

Source: Bank of Japan, "Tankan, Short-term Economic Survey of Enterprises in Japan."

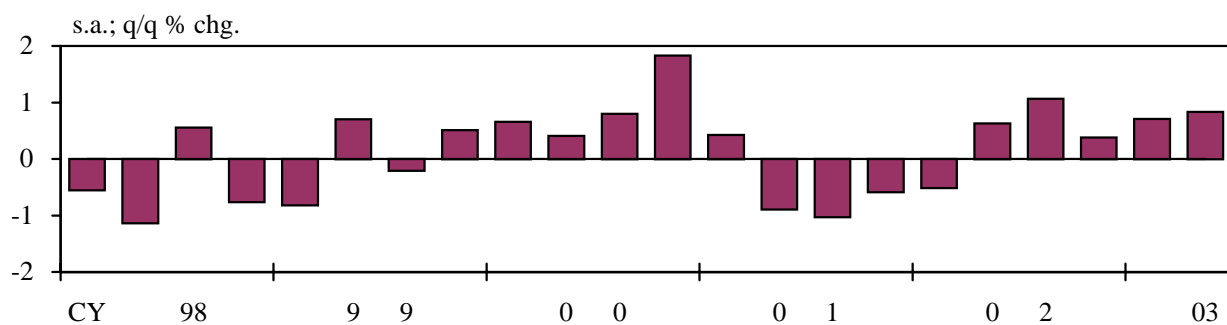
Real GDP

(1) Changes from the Previous Quarter

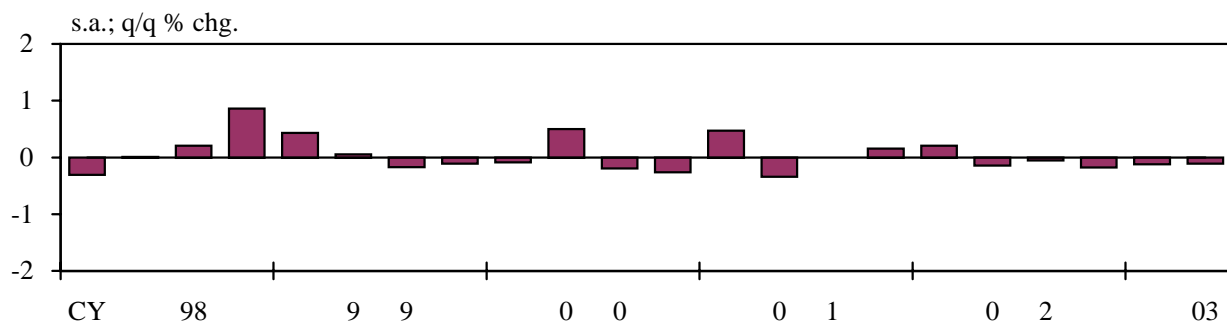


(2) Each Component's Contribution to Changes in Real GDP

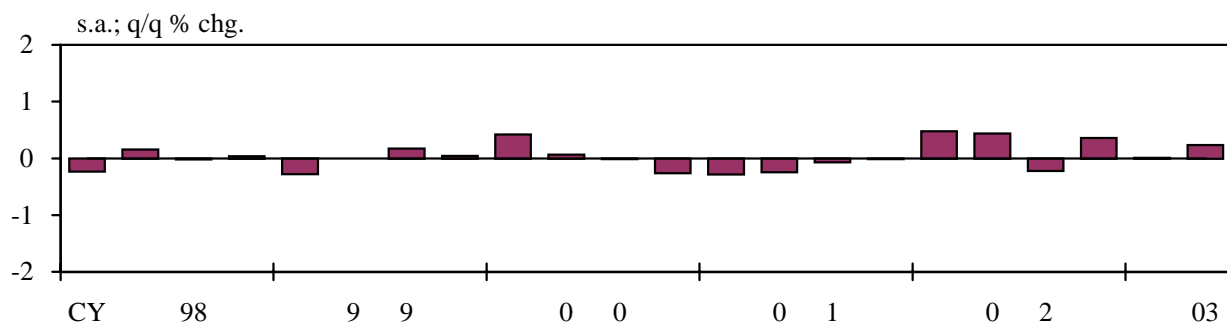
a. Domestic private demand



b. Public demand



c. Net exports of goods and services

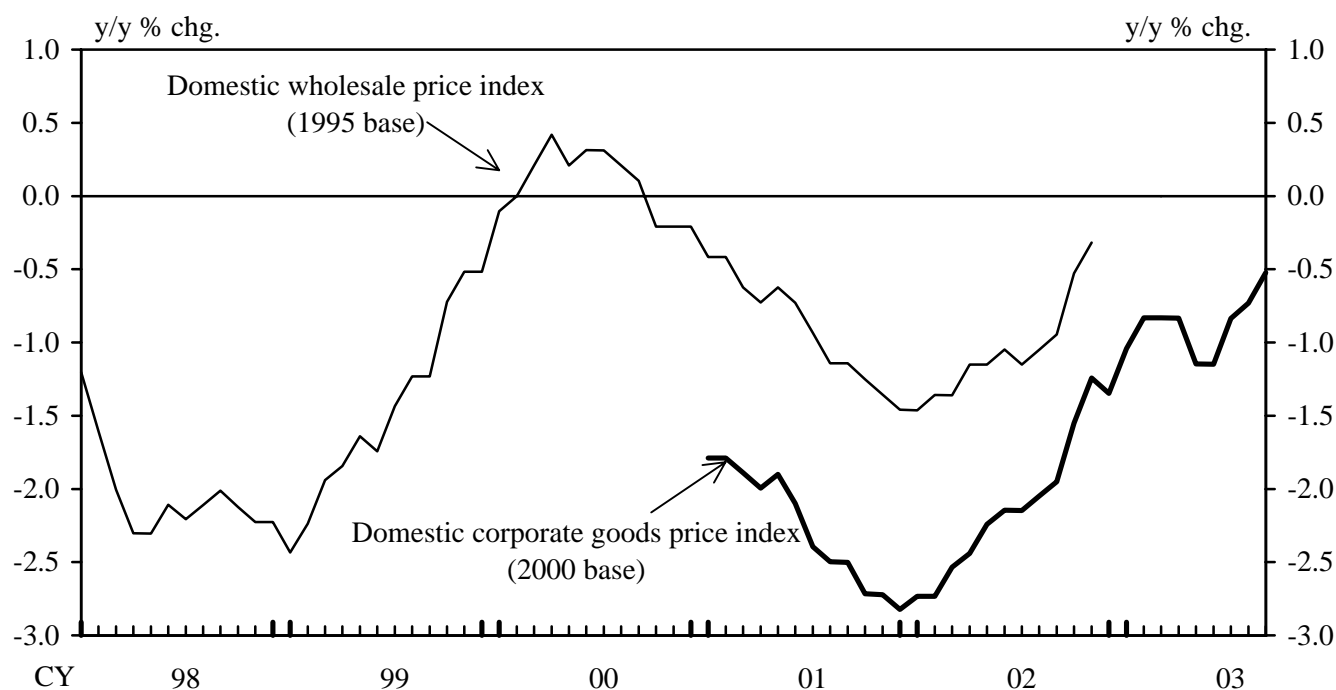


Note: The figures include "reference series" for 1994/Q1-1999/Q4.

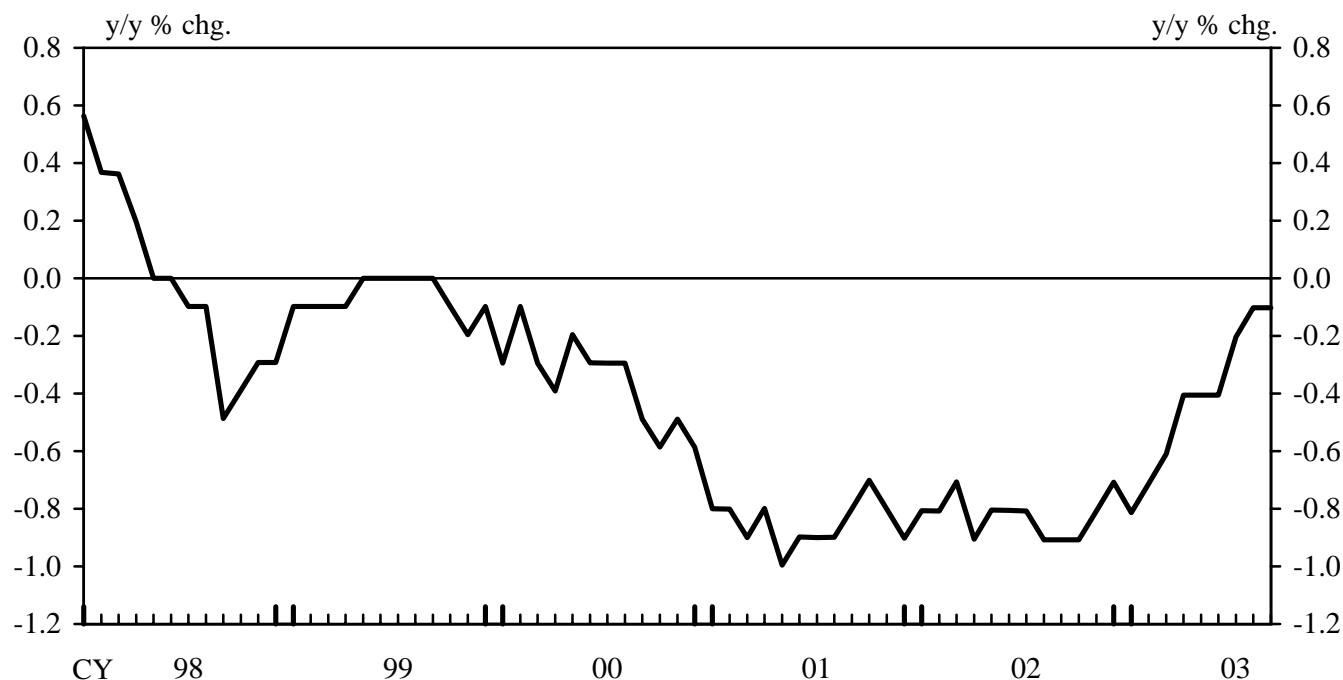
Source: Cabinet Office, "National Accounts."

Prices

(1) Corporate Goods Price Index



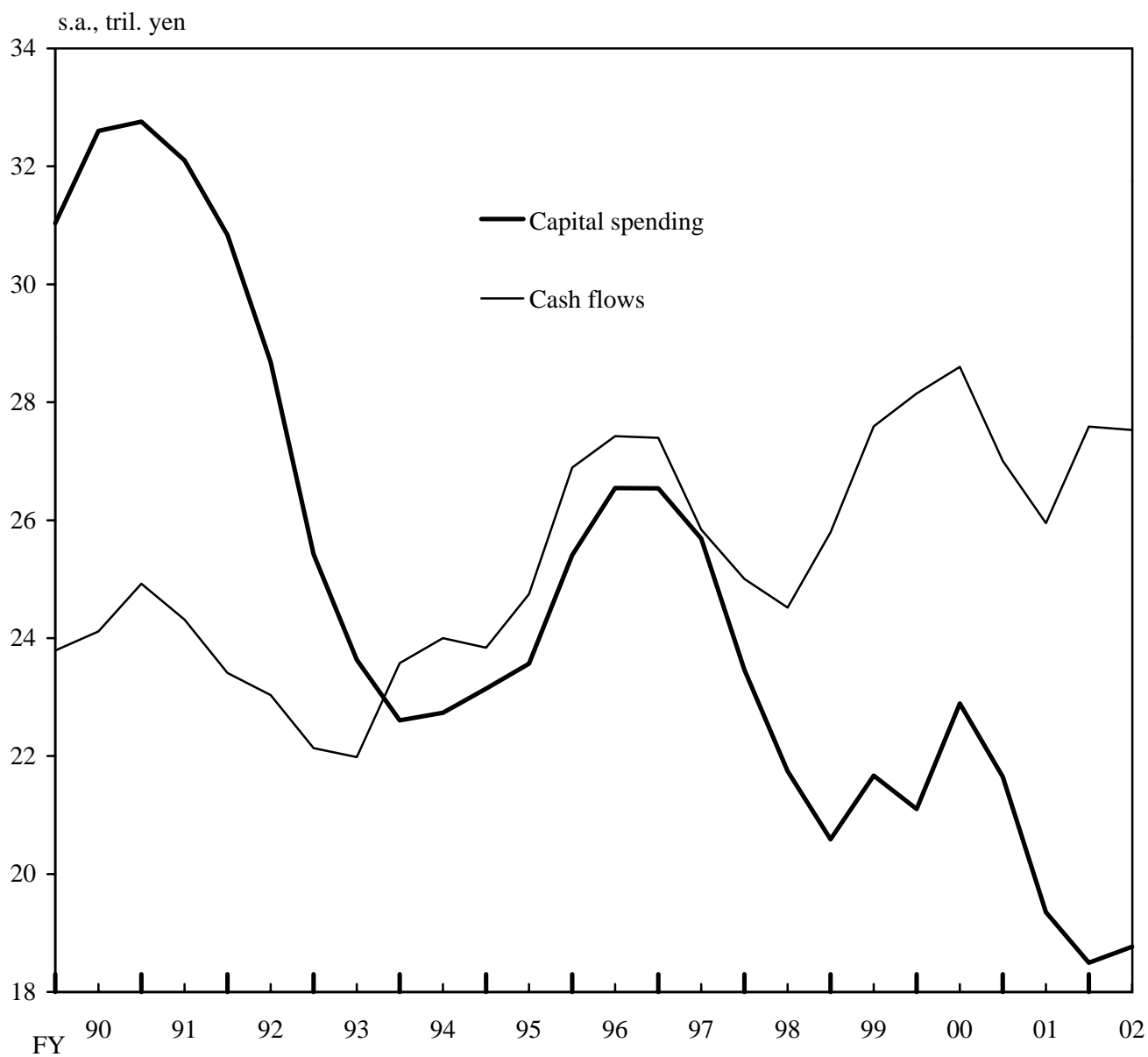
(2) Consumer Price Index (Excluding Fresh Food)



- Notes: 1. Adjusted to exclude the effects of the consumption tax hike in April 1997.
2. CPI before December 2000 is on the 1995 base.

Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Consumer Price Index"; Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Indexes."

Cash Flows and Capital Spending



Notes: 1. Figures are adjusted for sample changes, and seasonally adjusted by X-11.

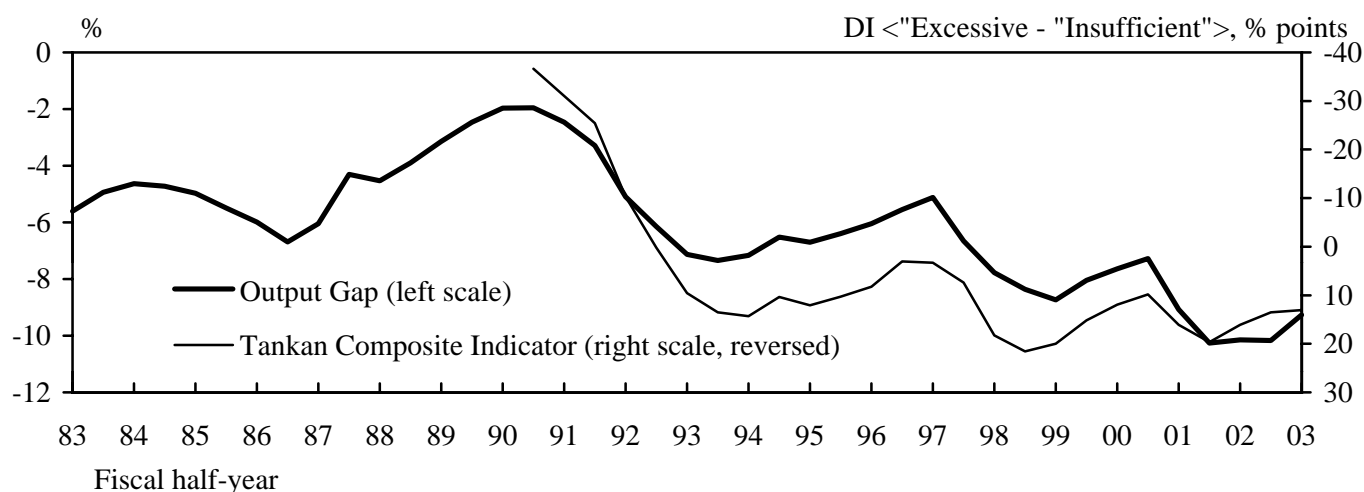
2. Large firms of other services industry are excluded.

3. Cash flows = current profits / 2 + depreciation expense

Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

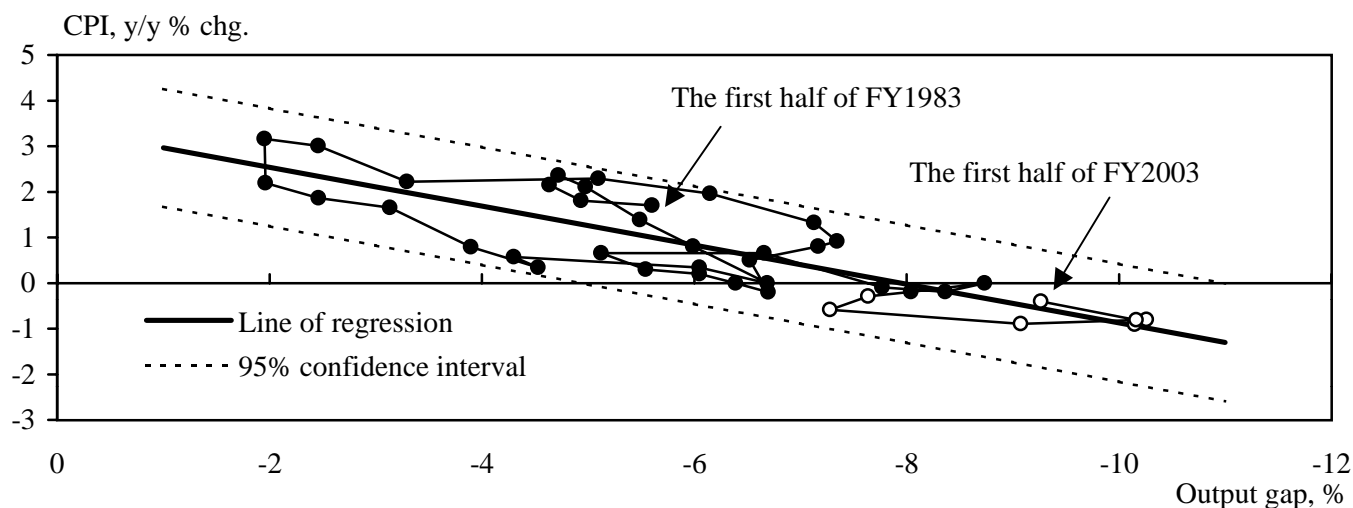
Output Gap and Price

(1) Output Gap and Tankan Composite Indicator



- Notes: 1. The Tankan Composite Indicator is the average of the diffusion indices of production capacity and employment conditions, weighted by capital and labor shares in national account (FY1990-FY 2001 averages). The survey target for the production capacity DI was limited to the manufacturing industry before 1990/Q3. For this reason, the figures are calculated for the period from 1990/Q4, when the survey target was extended to cover the nonmanufacturing industry.
2. Output gap for the first half of FY2003 is based on the April-June period.
3. Output gap is calculated as the wedge between actual and maximum outputs (BoJ staff estimation).

(2) Output Gap and Consumer Price Index



- Notes: 1. Estimation result: $CPI = 3.39 + 0.43 \times \text{Output gap}$
(11.16) (8.96)

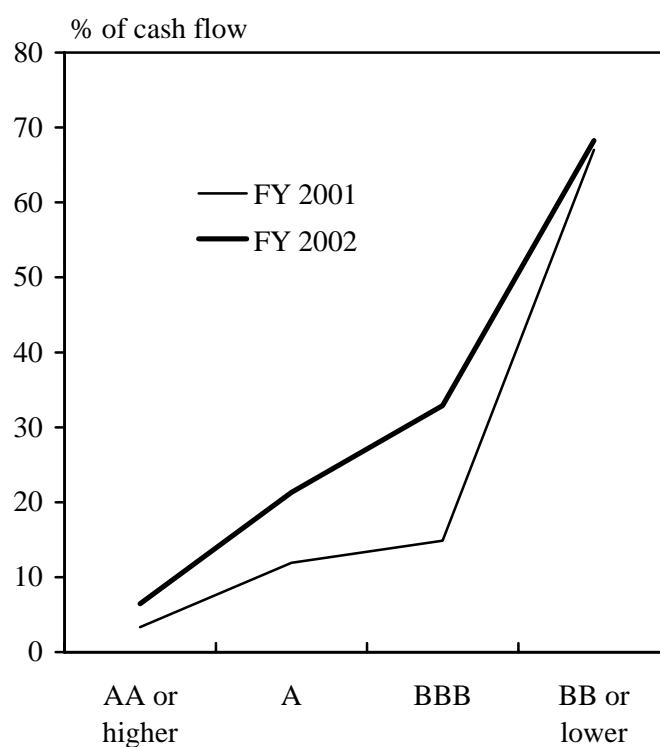
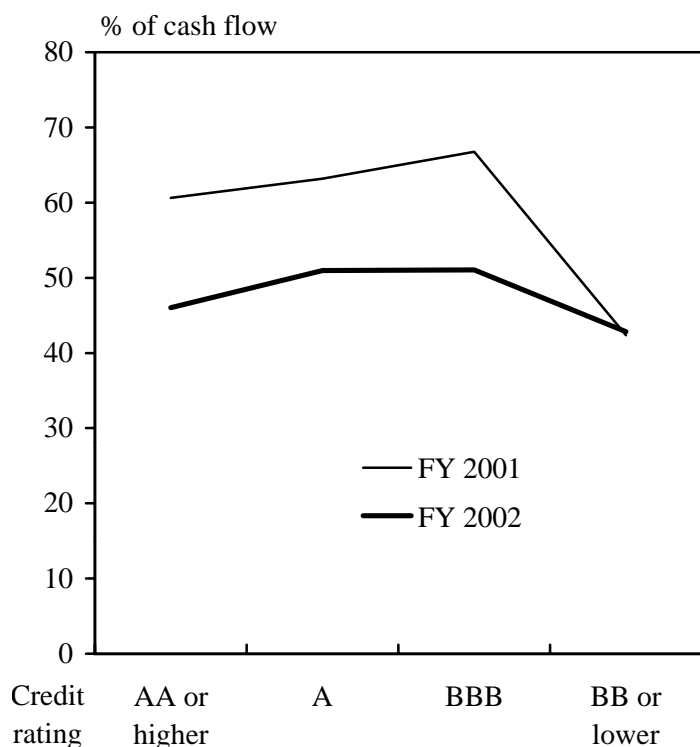
- Sample = 1983 to 2002 (fiscal half-years), $R^2 = 0.68$, Standard error = 0.65, t-value in parentheses.
2. CPI (excluding fresh food) is consumption-tax adjusted. Figures until 2000 are on the 1995 base.
3. Sample period of the diagram runs from the first half of FY 1983 to that of FY 2003. The figures for 2003 are based on the April-June period.
4. Points from 2000 onwards are shown in white dots.

Sources: Cabinet Office, "National Accounts," "Capital Stock of Private Enterprises Statistics"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Consumer Price Index," Bank of Japan "Tankan, Short-term Economic Survey of Enterprises in Japan" etc.

Use of Cash Flow

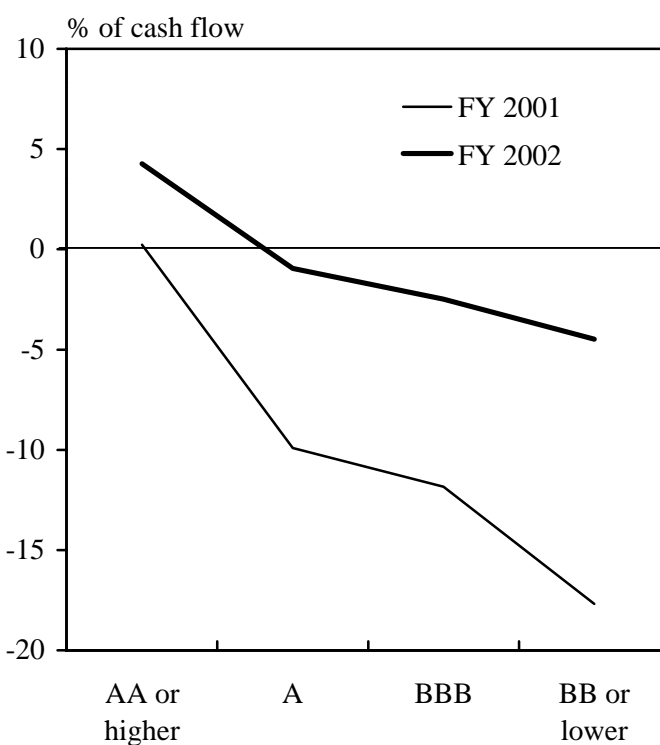
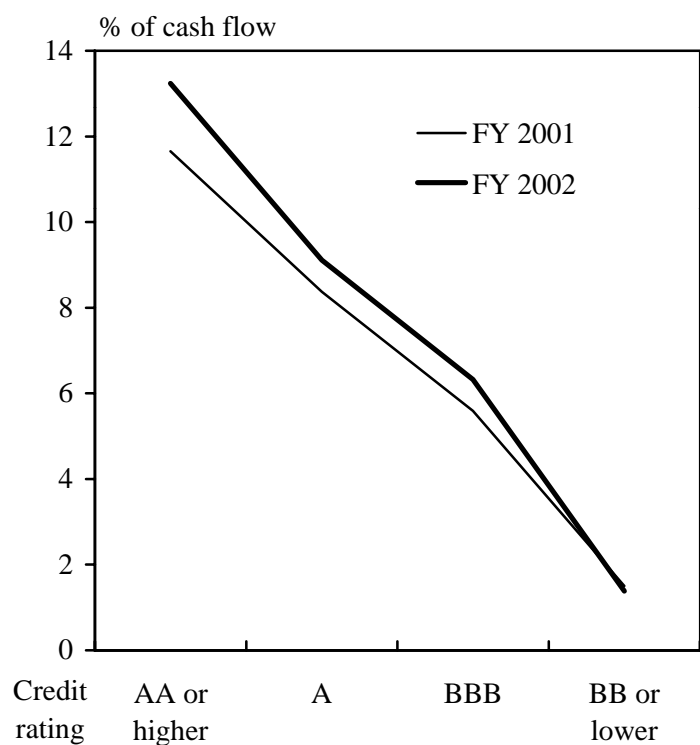
(1) Business Fixed Investment

(2) Debt Repayment



(3) Stock Buyback and/or Dividend

(4) Net Increase/Decrease in Cash



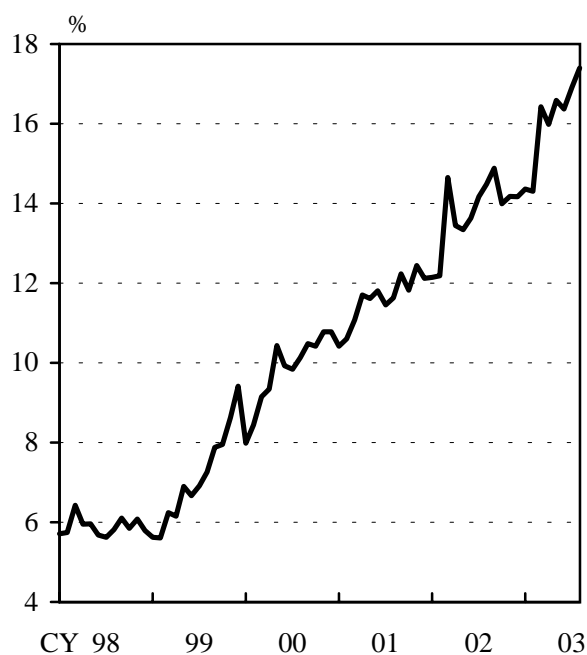
Notes: 1. All of the firms selected in the sample, numbering 499, are listed firms.

2. Cash flow = cash flow from operating activities + sales of fixed assets and securities

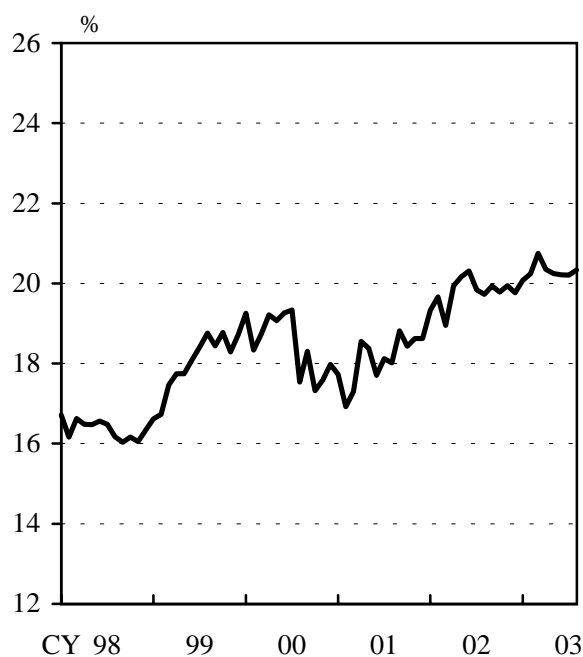
Sources: Rating and Investment Information, Inc., etc.

Ratio of Risk-Free Assets to Total Assets

(1) Domestically Licensed Banks



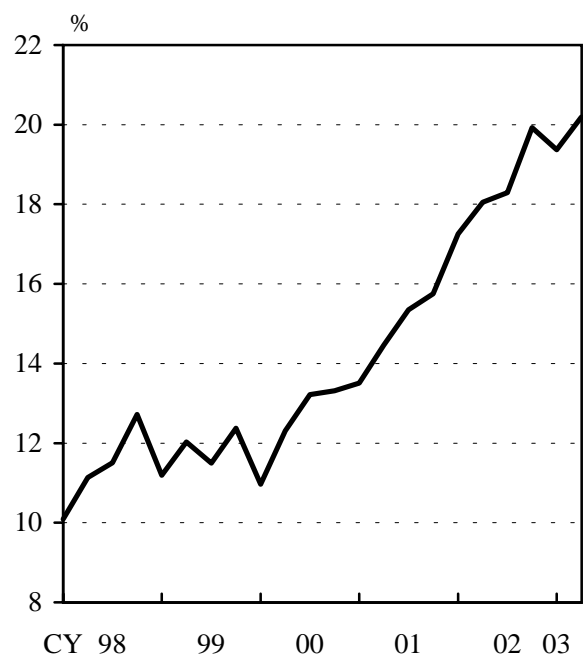
(2) Life and Nonlife Insurance Companies



(3) Households



(4) Private Nonfinancial Corporations



Note: Each sector's ratio of risk-free assets to total assets is calculated as follows:

Domestically licensed banks: (cash + current account balances + government bonds)/total assets.

Life and nonlife insurance companies: (cash and deposits with others + government bonds)

/total operating funds.

Households and private nonfinancial corporations: (currency + transferable deposits

+ central government securities)/total financial assets.

Sources: Life Insurance Association; Marine and Fire Insurance Association of Japan; Bank of Japan.

Long-term Developments in Financial Markets

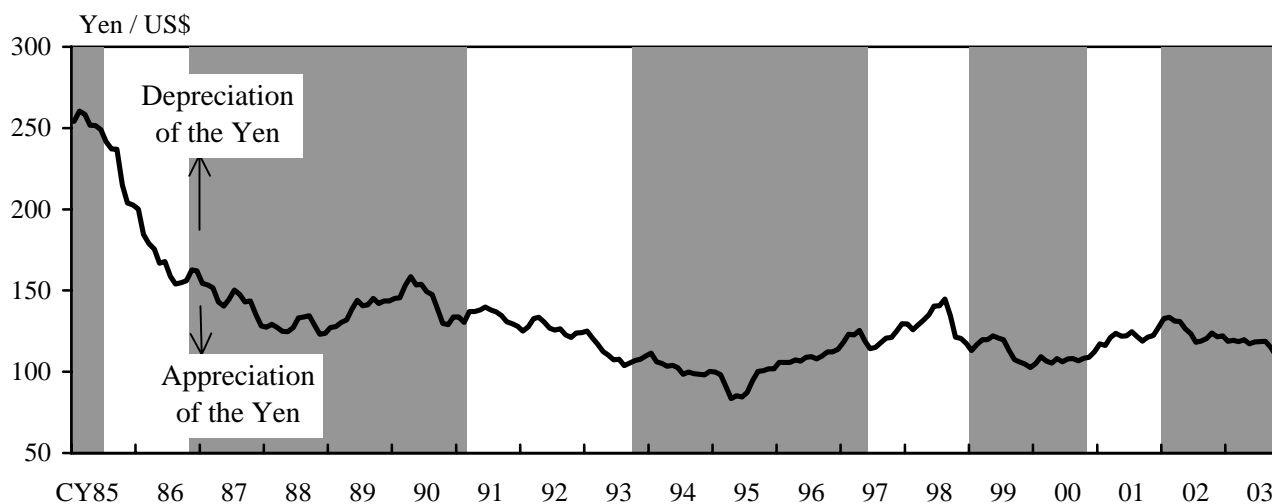
(1) Long-term Interest Rates



(2) Stock Prices (Nikkei 225 Stock Average)



(3) Exchange Rates



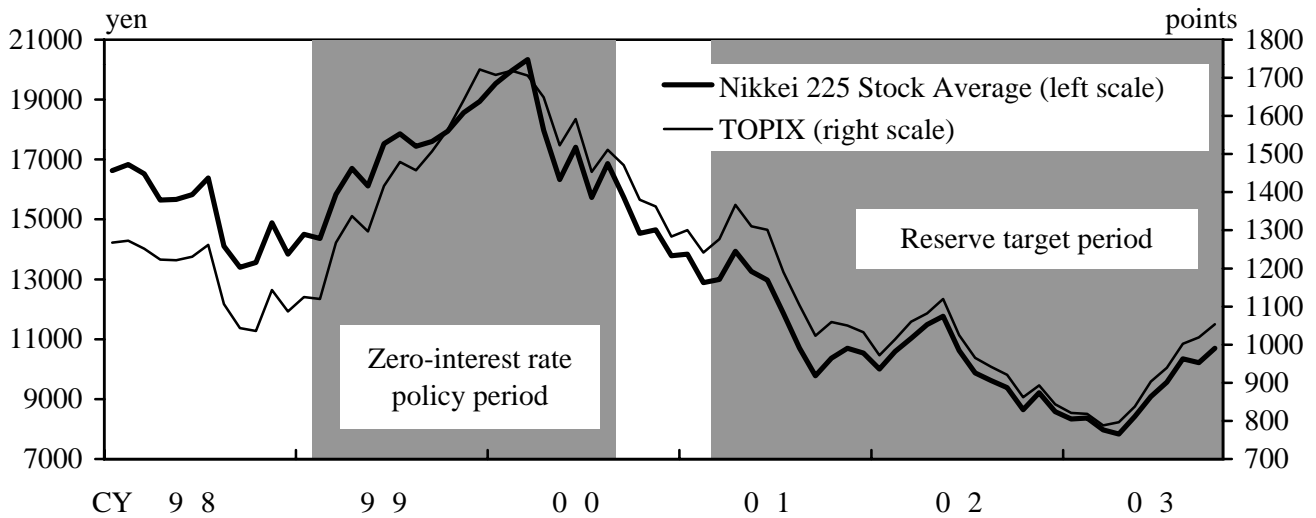
Notes: 1. Monthly average. Figures for October 2003 are averages up to October 30.

2. Shaded areas indicate economic expansion periods.

Sources: Bank of Japan, *The Nihon Keizai Shimbun*, Japan Bond Trading Co., Ltd.

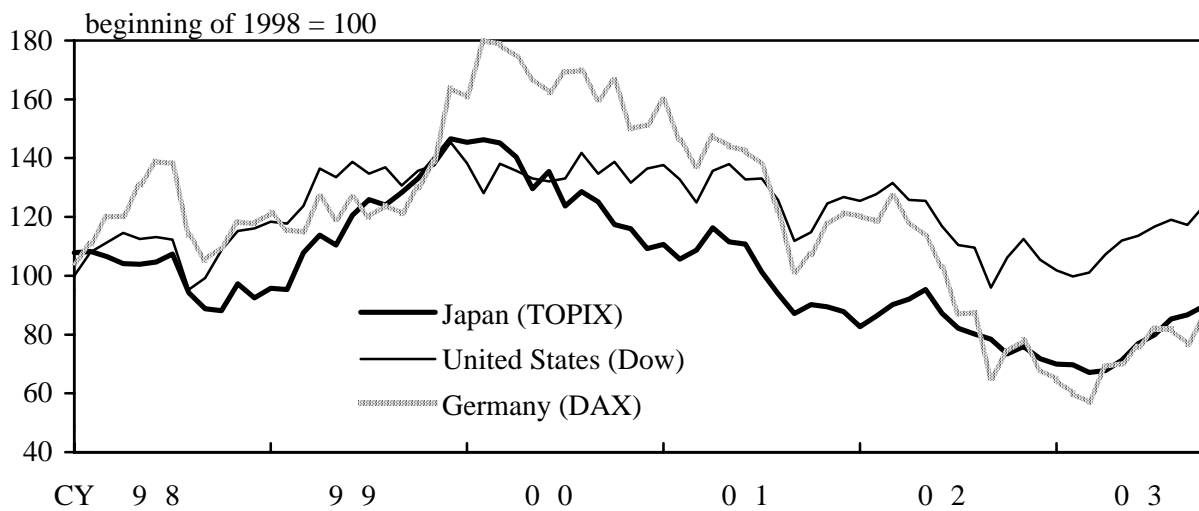
Stock Prices

(1) Japan



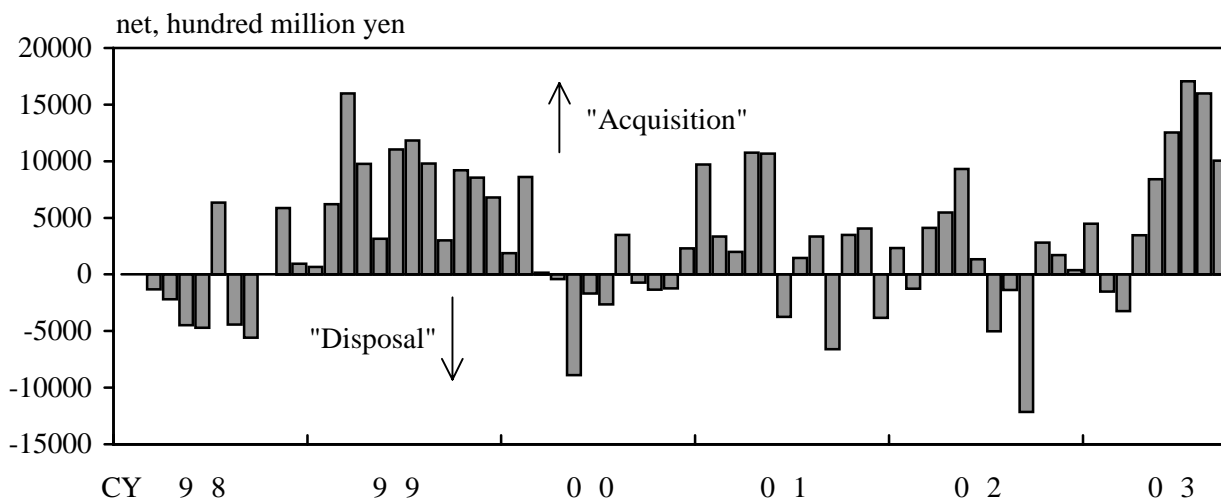
Note: Data are at end of month. Figures for October 2003 are those of October 30.

(2) Major Countries



Note: Data are at end of month. Figures for October 2003 are those of October 30.

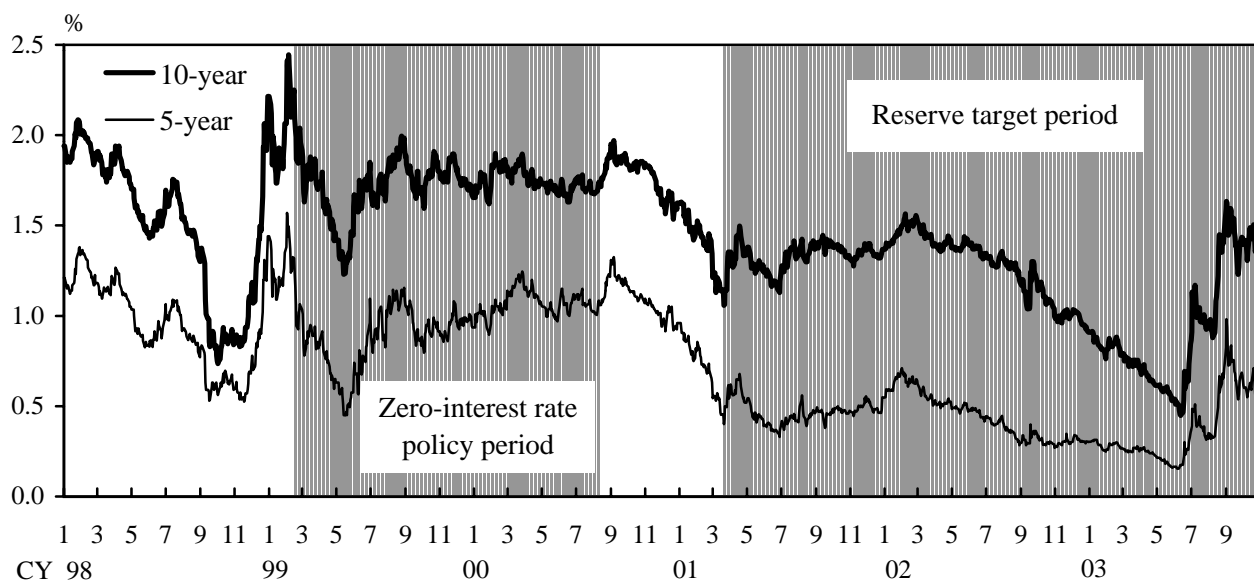
(3) Inward Stocks Investment



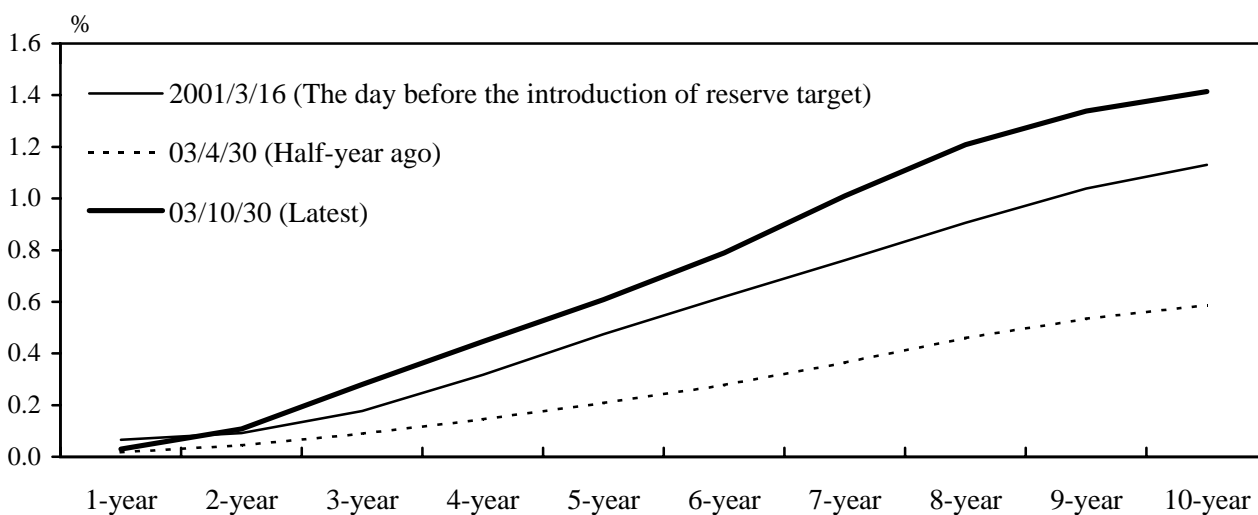
Note: Contract basis.

Long-Term Interest Rates

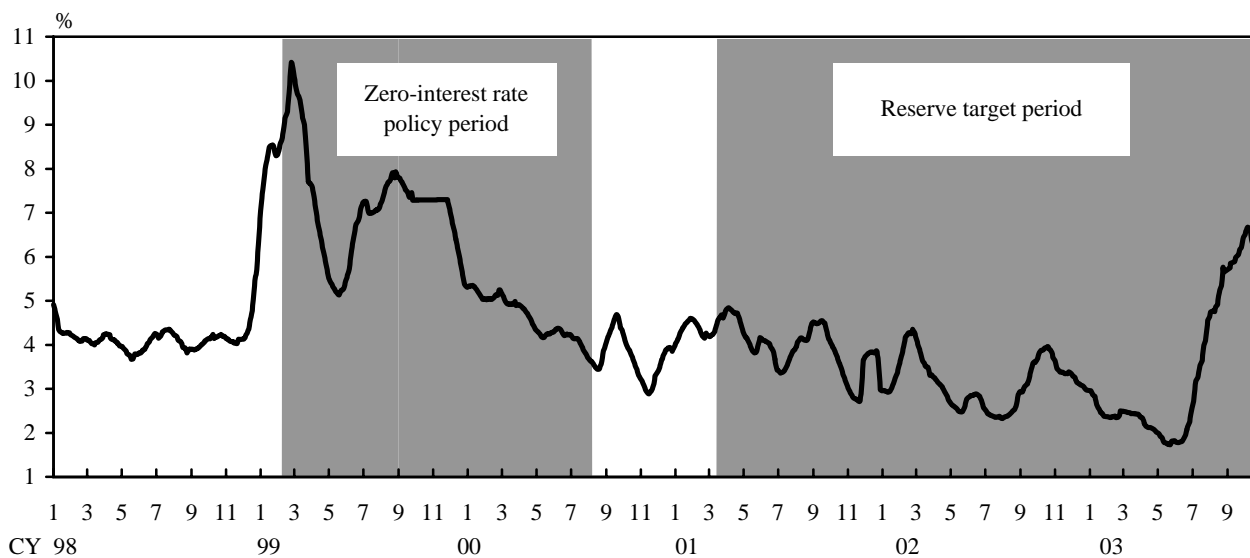
(1) Rate Developments



(2) Yield Curve

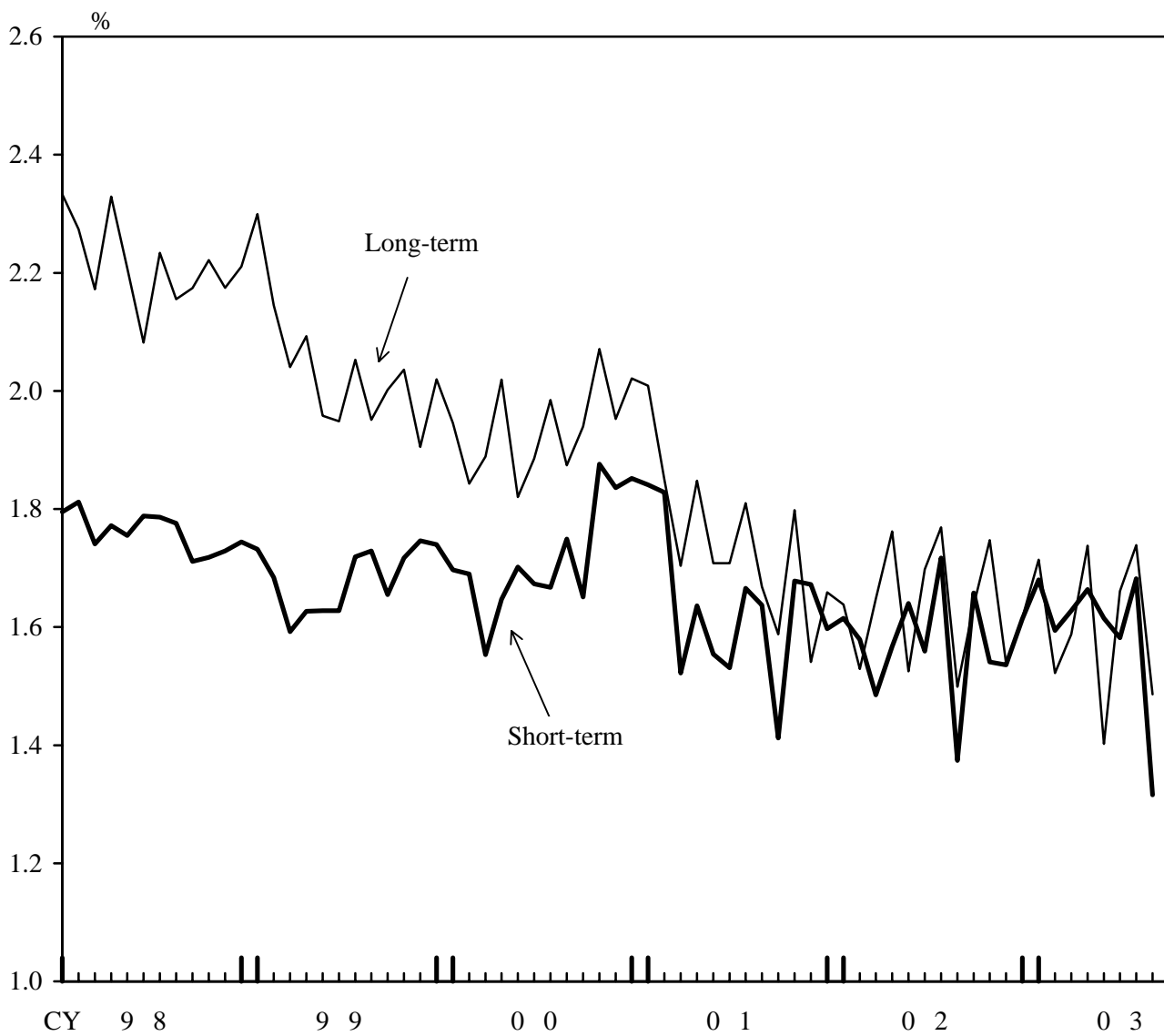


(3) Implied Volatility



Sources: Bloomberg; Japan Securities Dealers Association; Tokyo Stock Exchange.

Average Contracted Interest Rates on Loans and Discounts

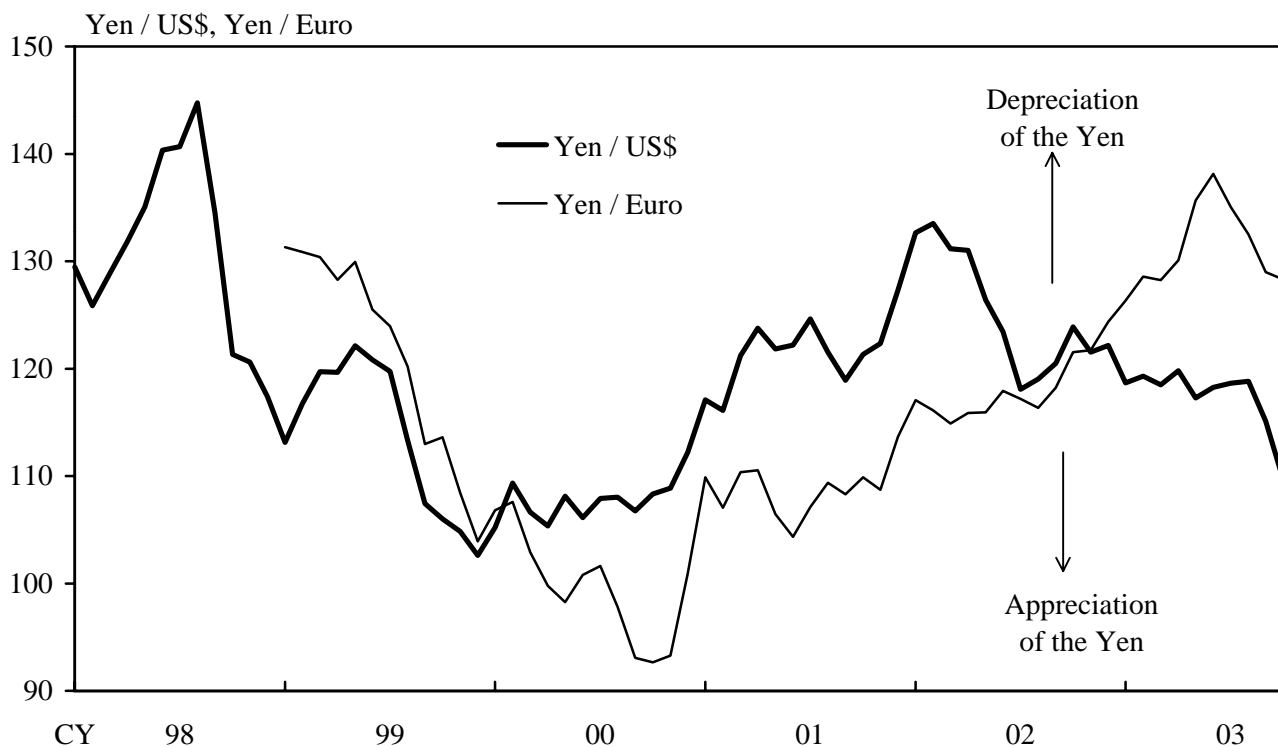


Note: On new loans and discounts.

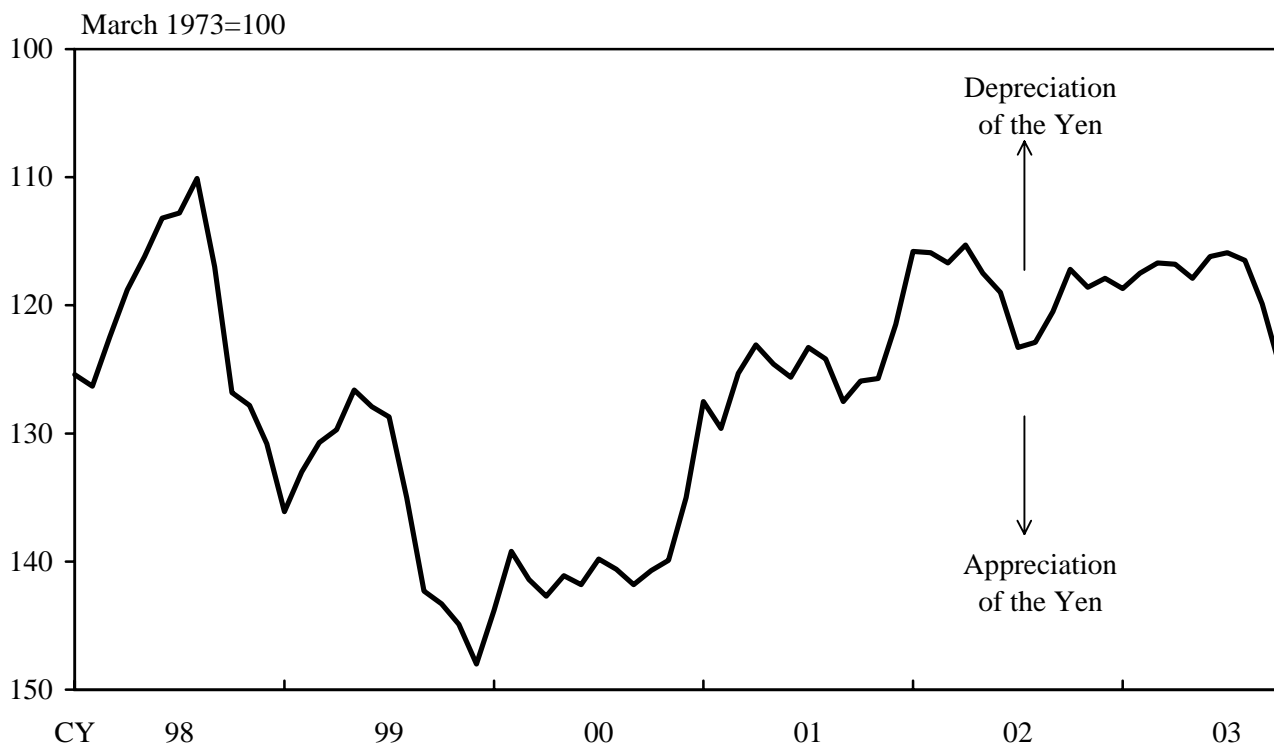
Source: Bank of Japan.

Exchange Rates

(1) Yen / US\$ and Yen / Euro



(2) Real Effective Exchange Rate

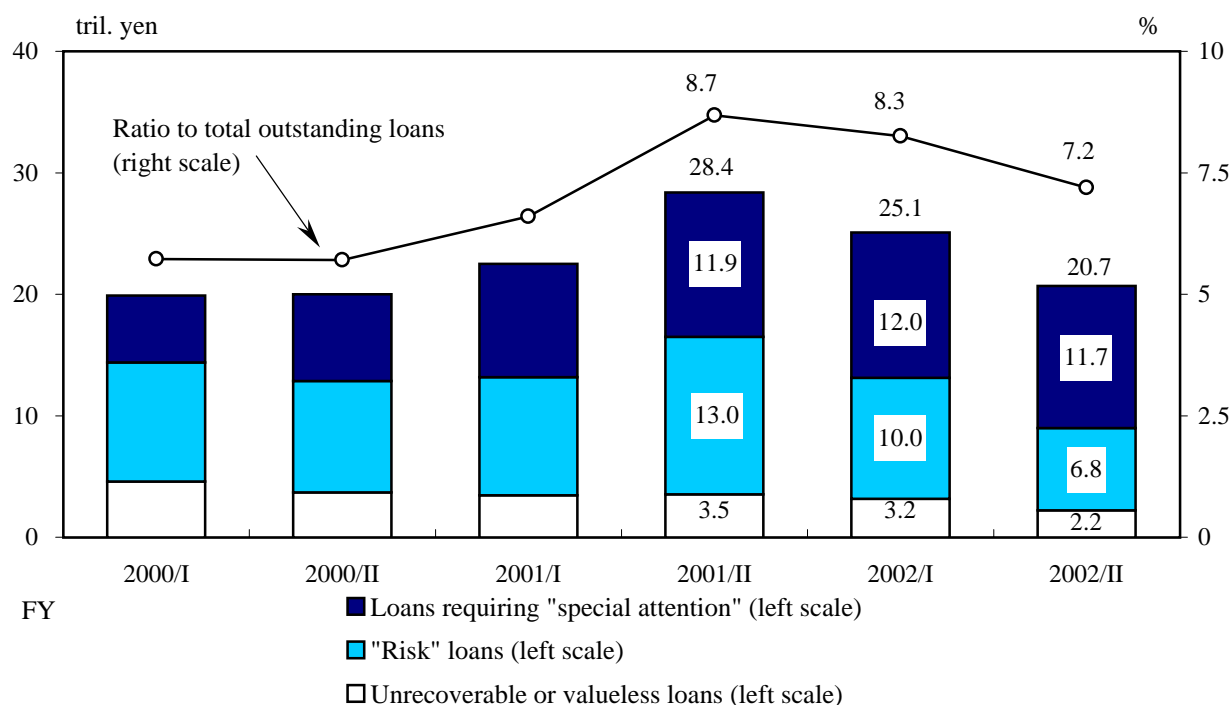


Note: Monthly average. Figures for October 2003 are averages up to the latest.

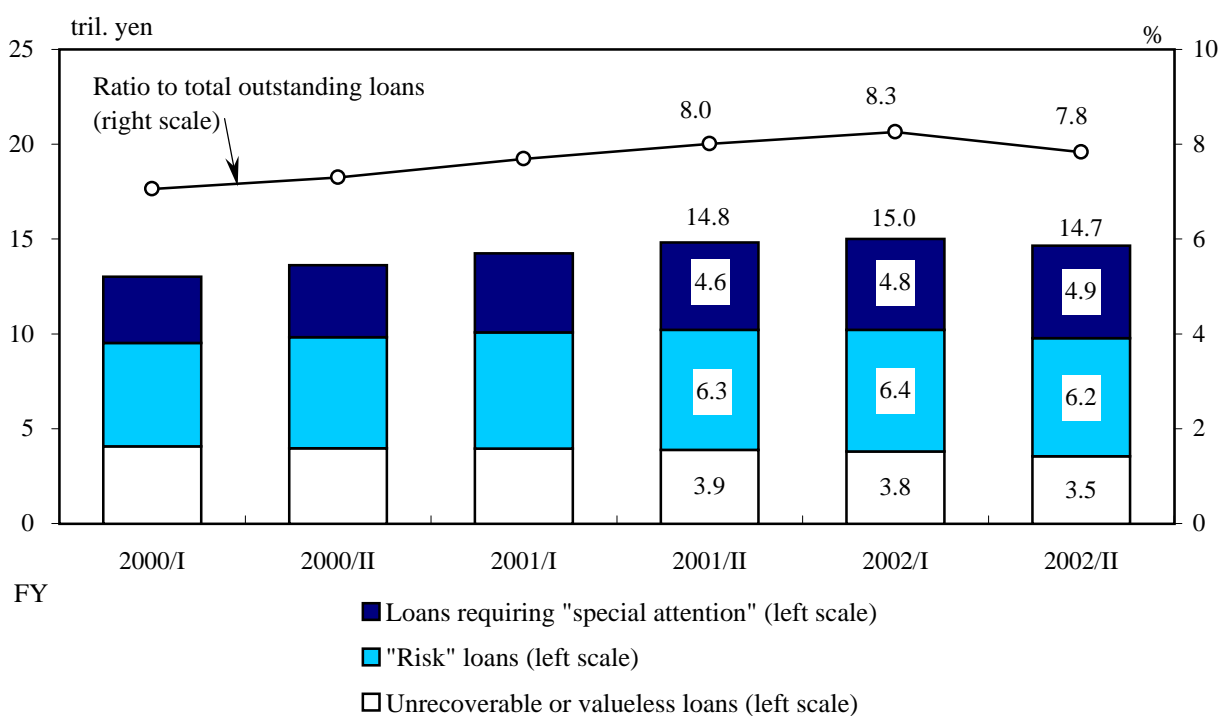
Source: Bank of Japan.

The Amount of Non-Performing Loans

(1) Major banks



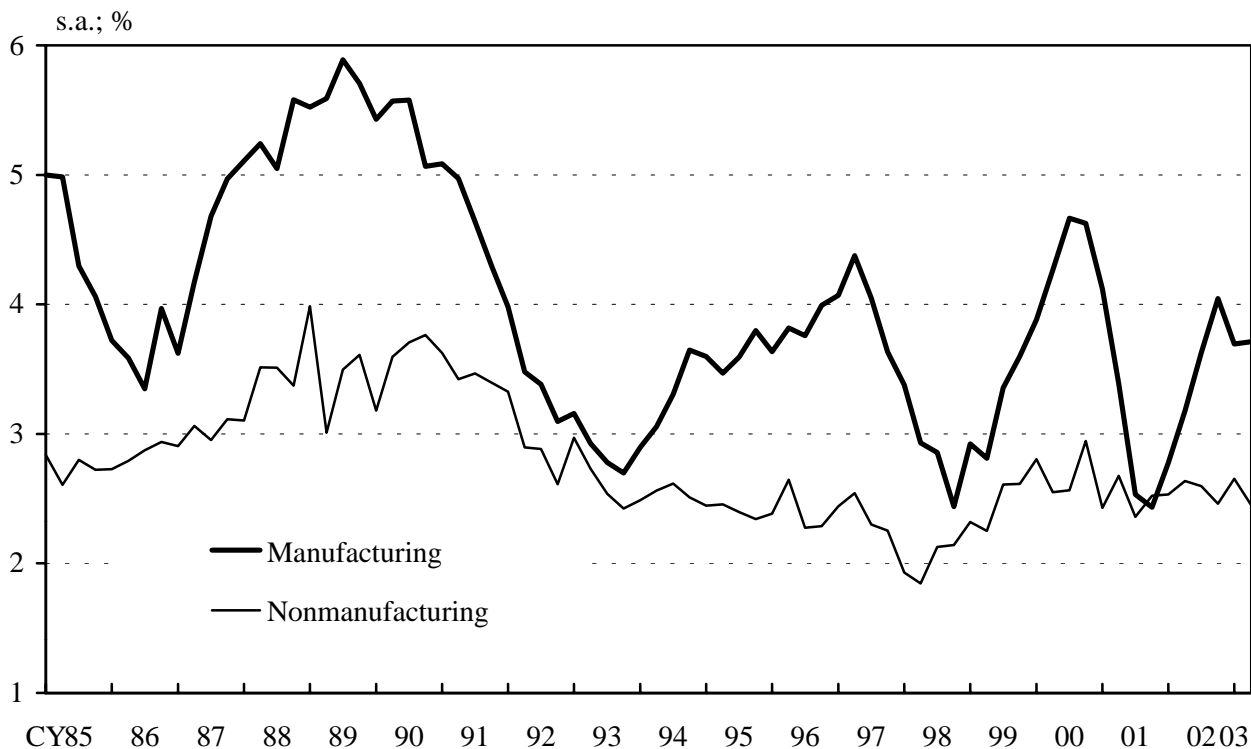
(2) Regional banks and regional banks II



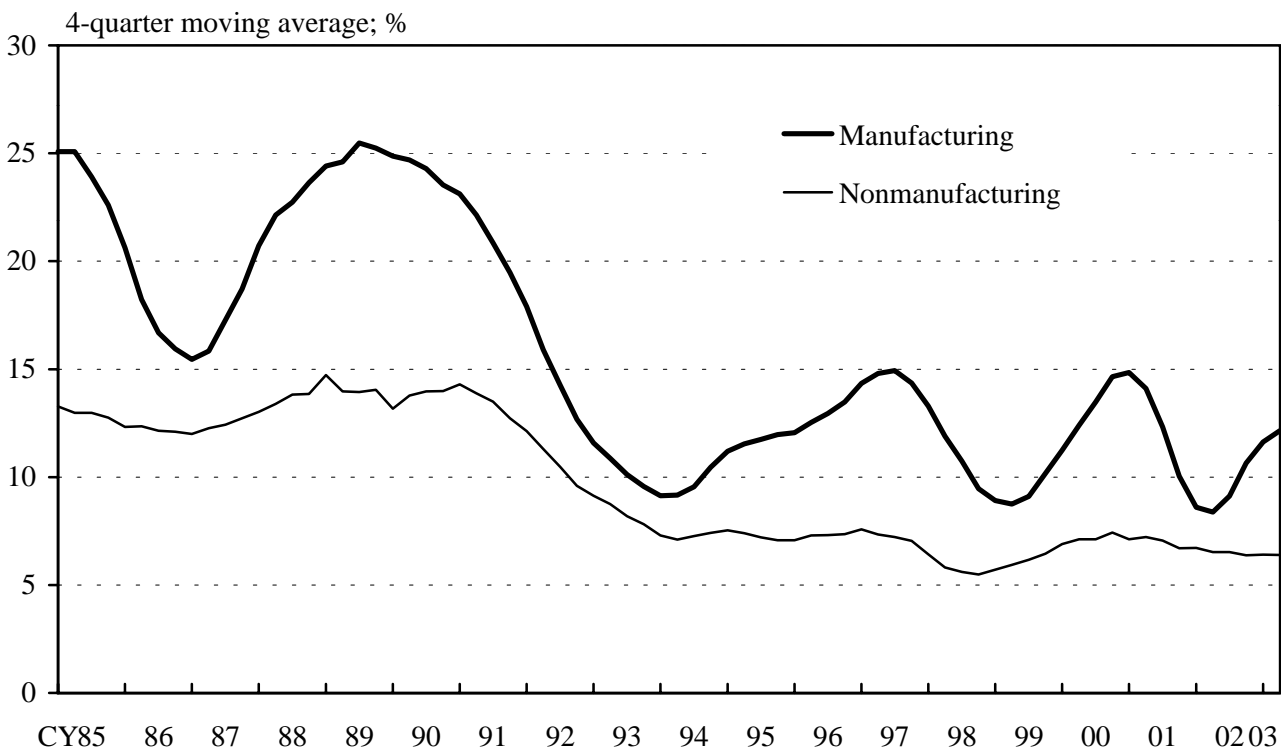
Note: The amount of Non-Performing Loans disclosed under the Financial Reconstruction Law.
Sources: Bank of Japan; Financial Services Agency.

Corporate Profits

(1) Ratio of Operating Profits to Sales



(2) Return on Assets (ROA)



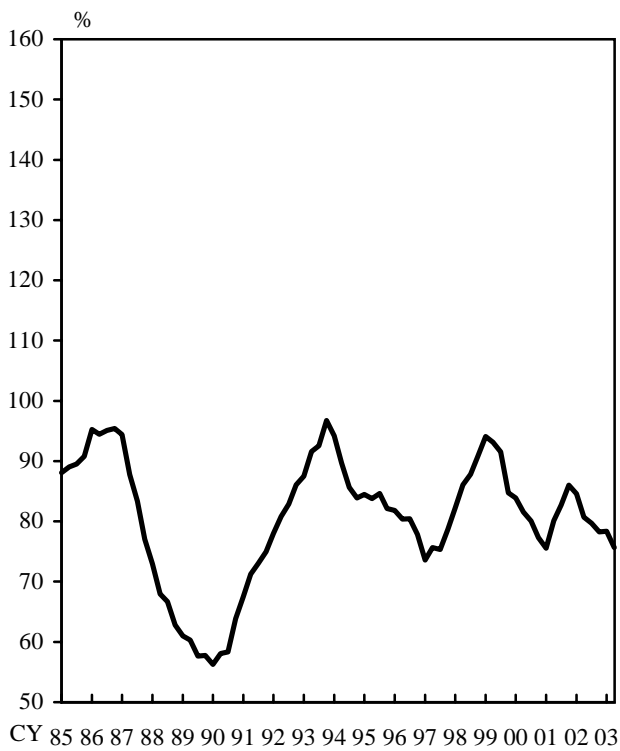
Notes: 1. Large firms of other services industry are excluded from nonmanufacturing firms.

2. ROA = operating profits / (land + other property, plant and equipment)

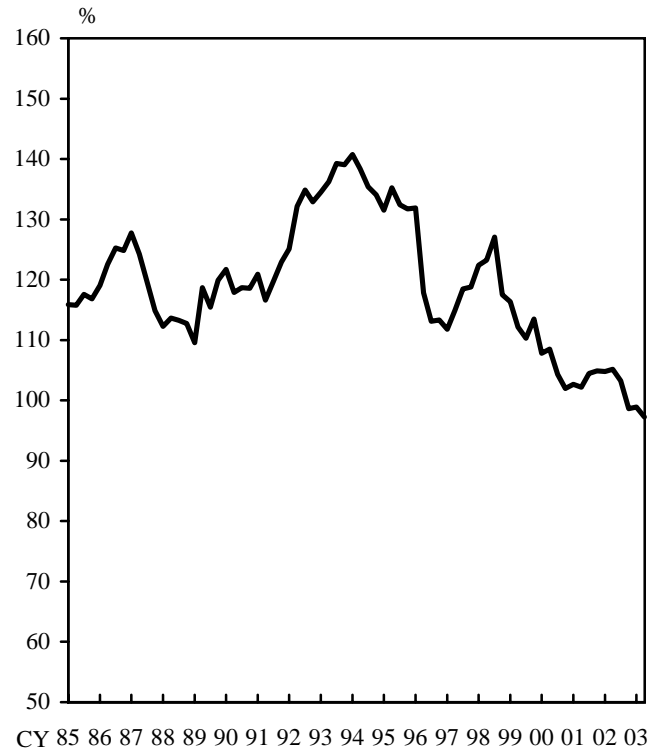
Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

Pressures Arising from Firms' Excess Debt

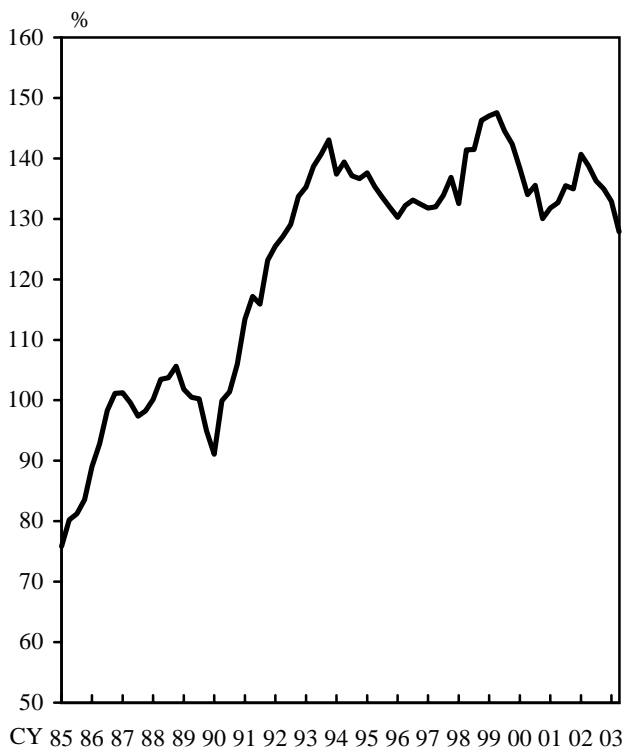
(1) Large Manufacturing Firms



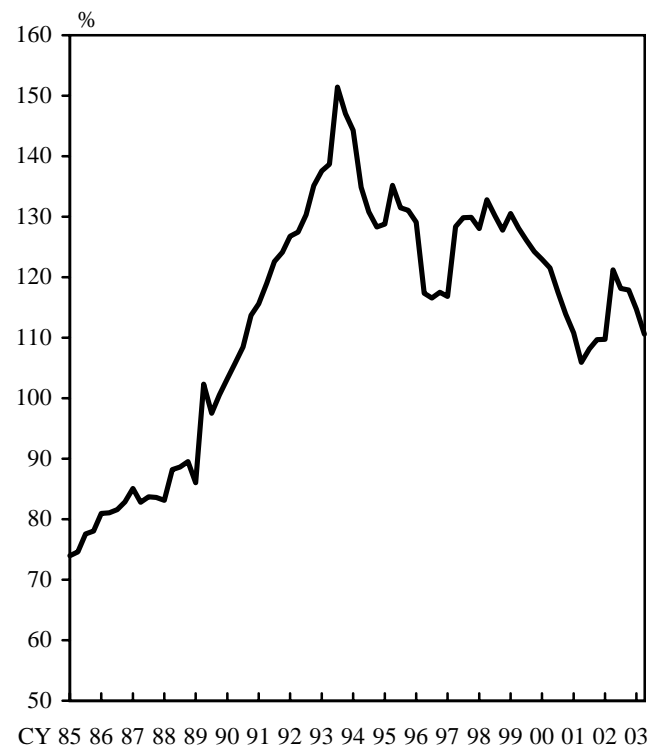
(2) Medium and Small-sized Manufacturing Firms



(3) Large Nonmanufacturing Firms



(4) Medium and Small-sized Nonmanufacturing Firms



Notes: 1. Ratio of debts to sales.

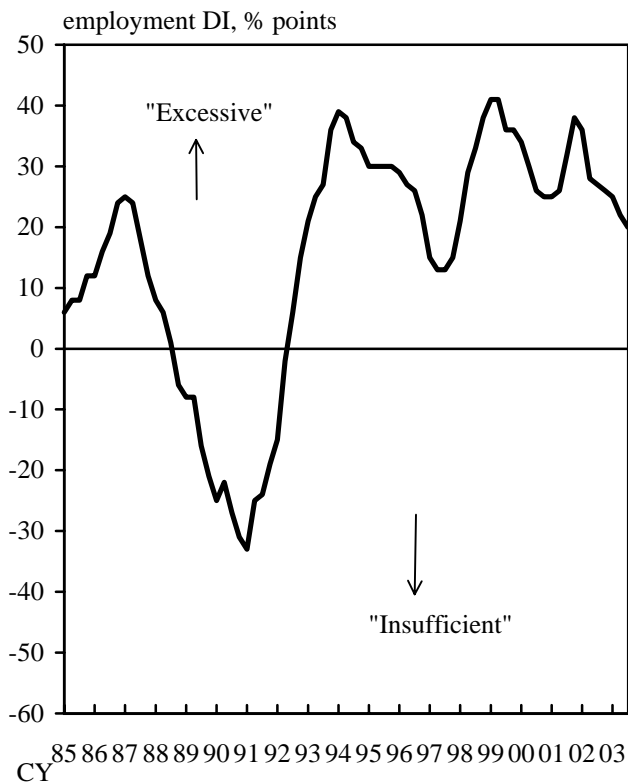
2. Debts = financial debts (corporate bonds + long-term and short-term borrowings + bills discounted) - cash and deposits

3. Electric, gas and other service industries are excluded from large nonmanufacturing firms.

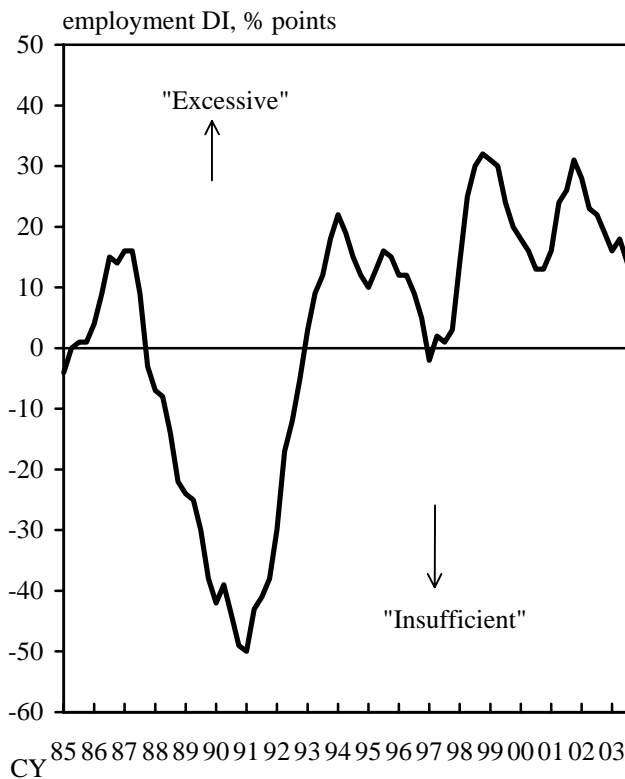
Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

Pressures Arising from Excess Labor

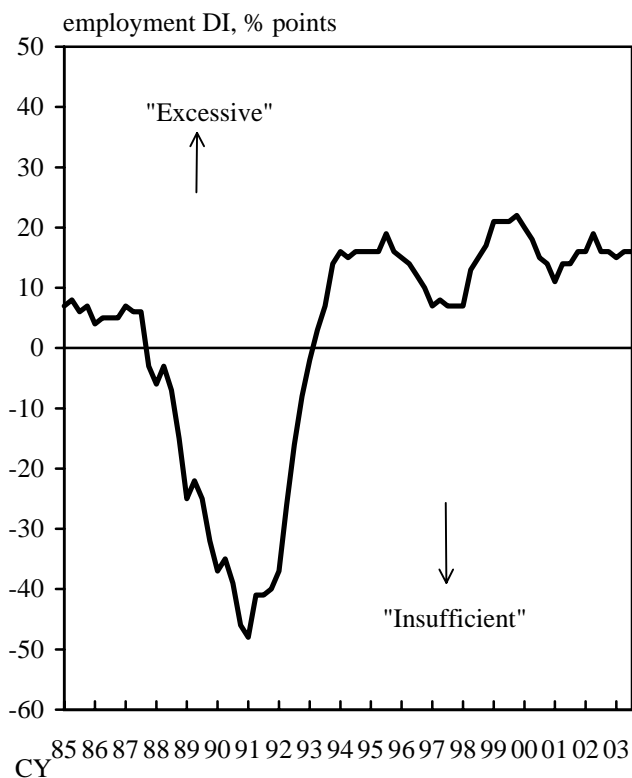
(1) Large Manufacturing Firms



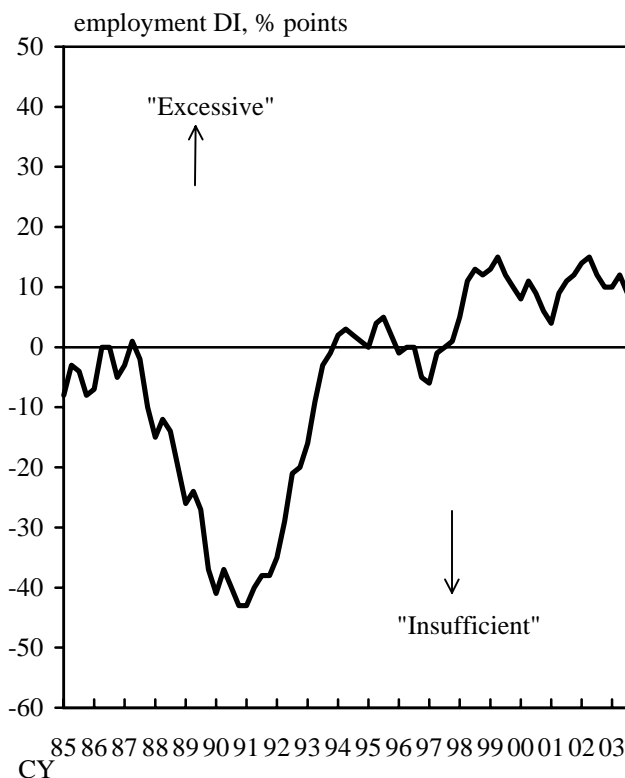
(2) Small Manufacturing Firms



(3) Large Nonmanufacturing Firms

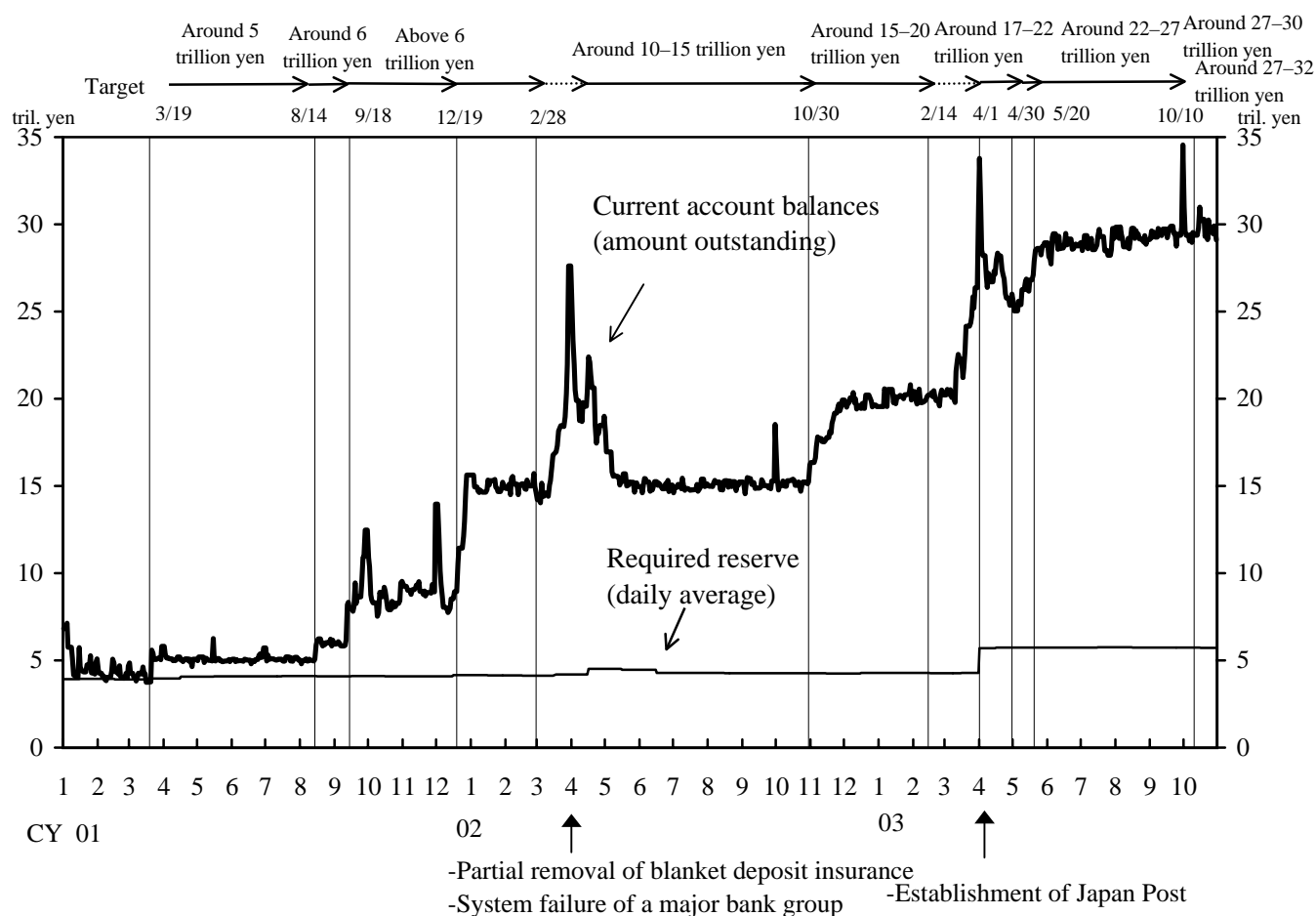


(4) Small Nonmanufacturing Firms

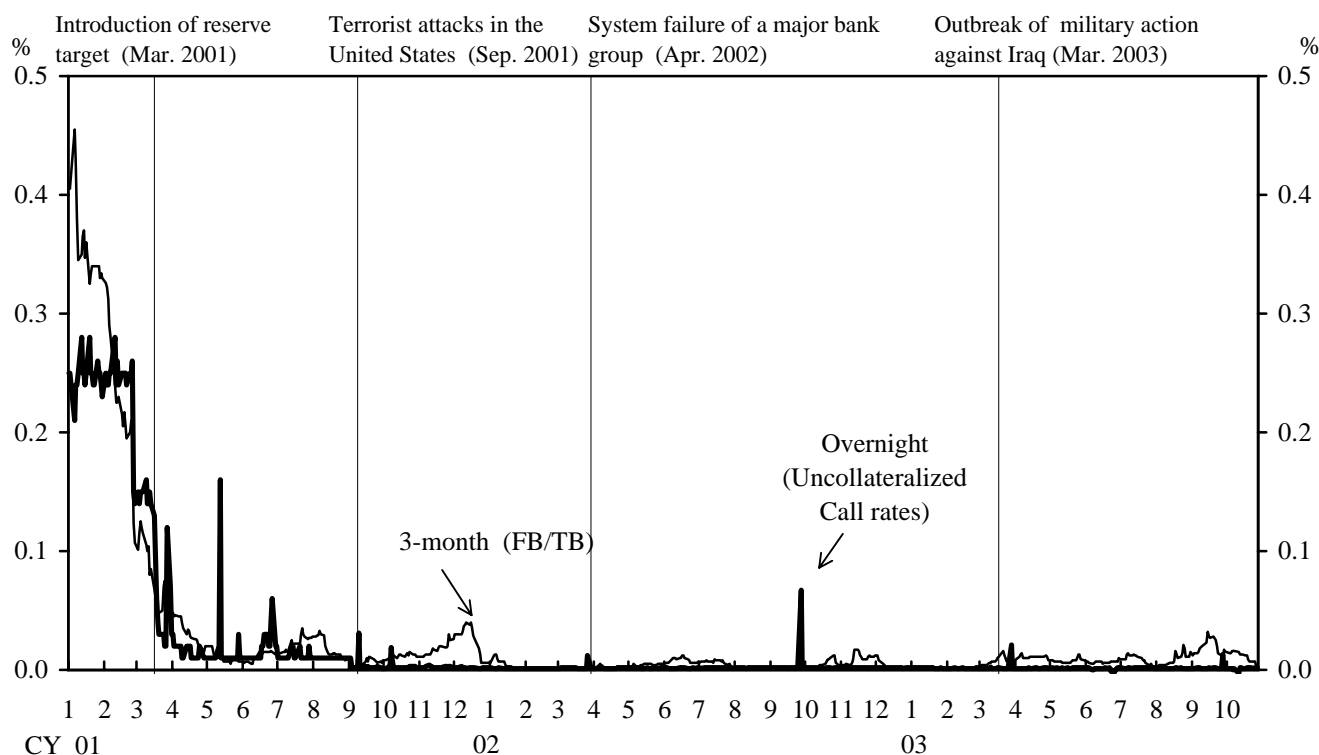


BOJ Current Account Balances and Money Market Rates

(1) BOJ Current Account Balances



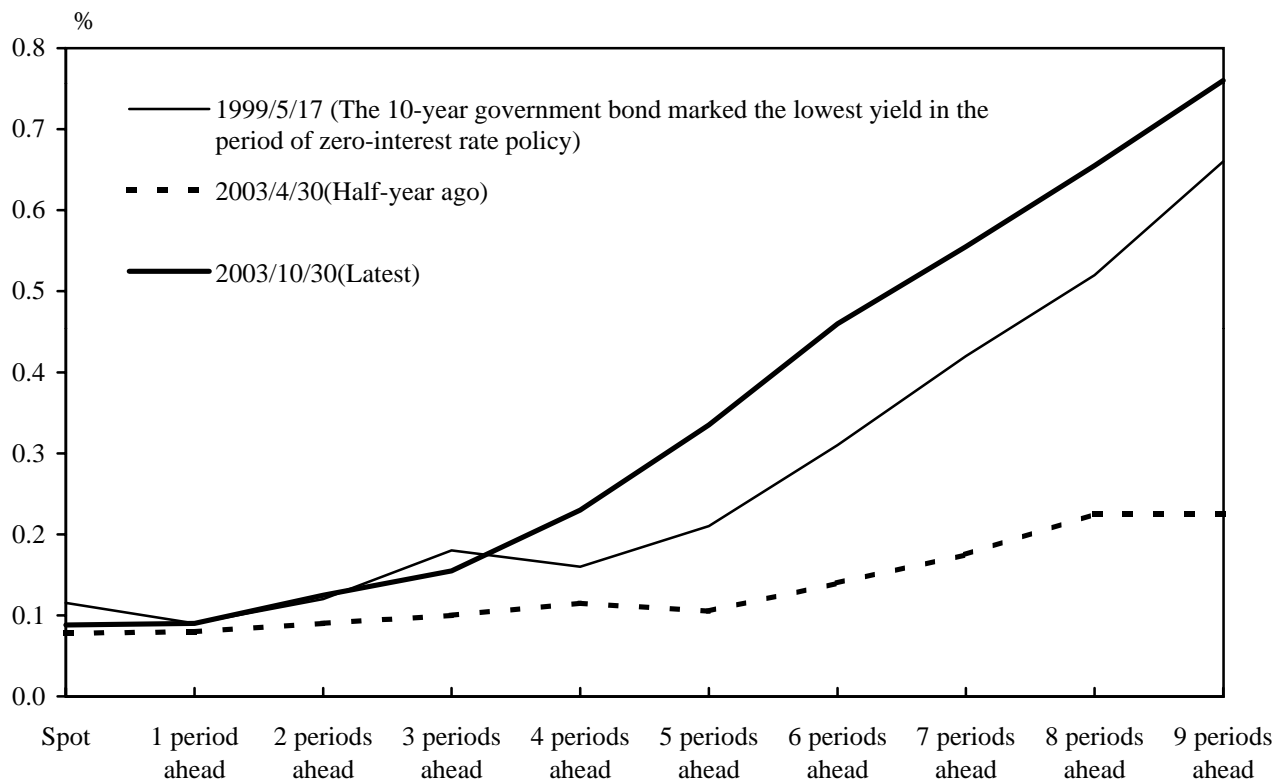
(2) Money Market Rates



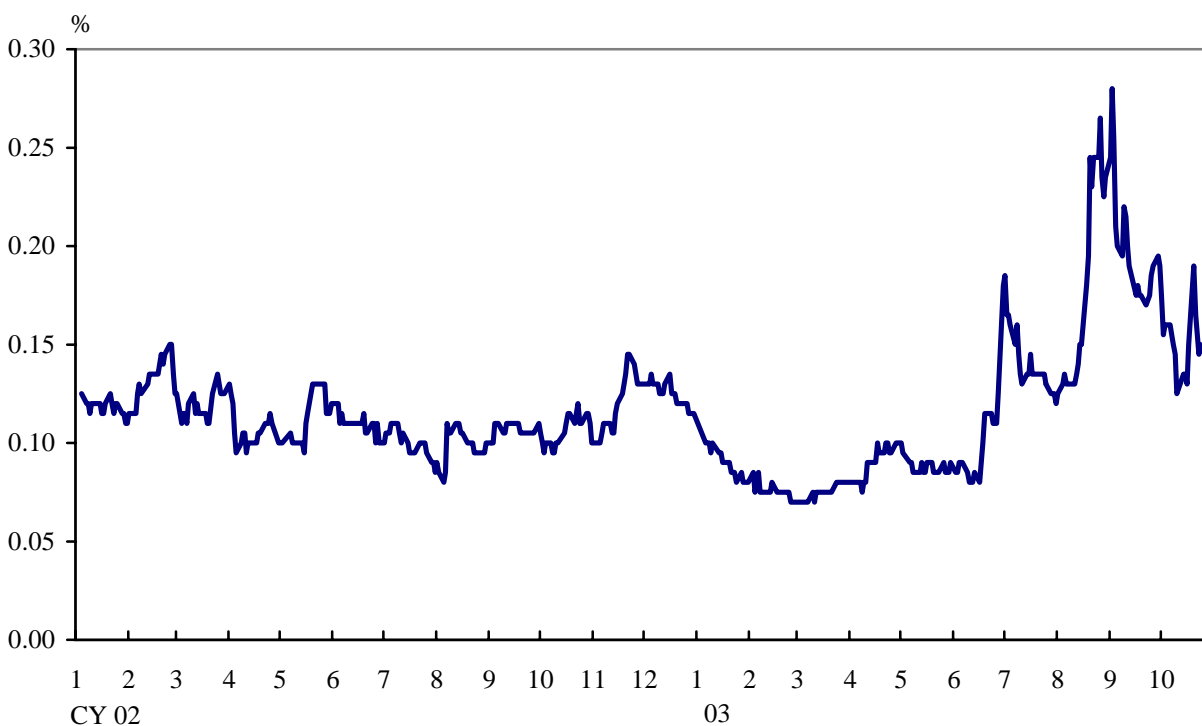
Sources: Bank of Japan; Japan Bond Trading Co., Ltd.

Interest Rates Futures

(1) Euro-Yen Interest Rates Futures (3-Month)



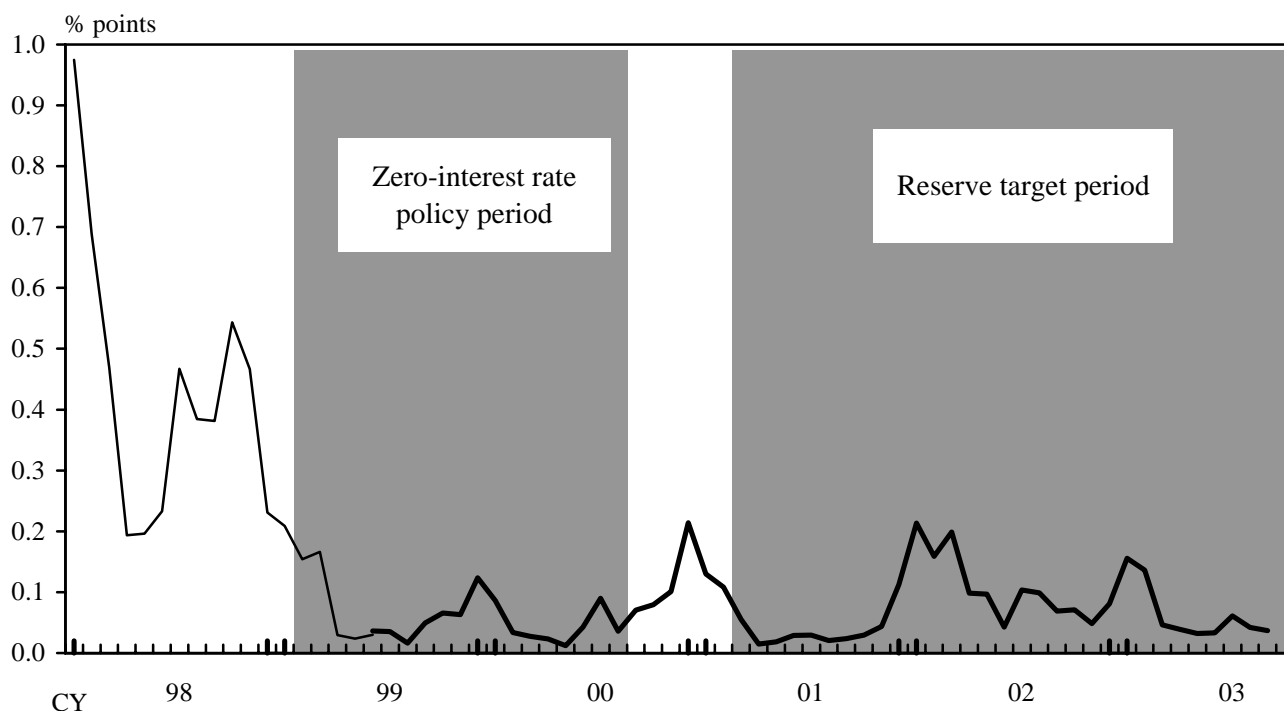
(2) Euro-Yen Interest Rates Futures (3-Month) Developments



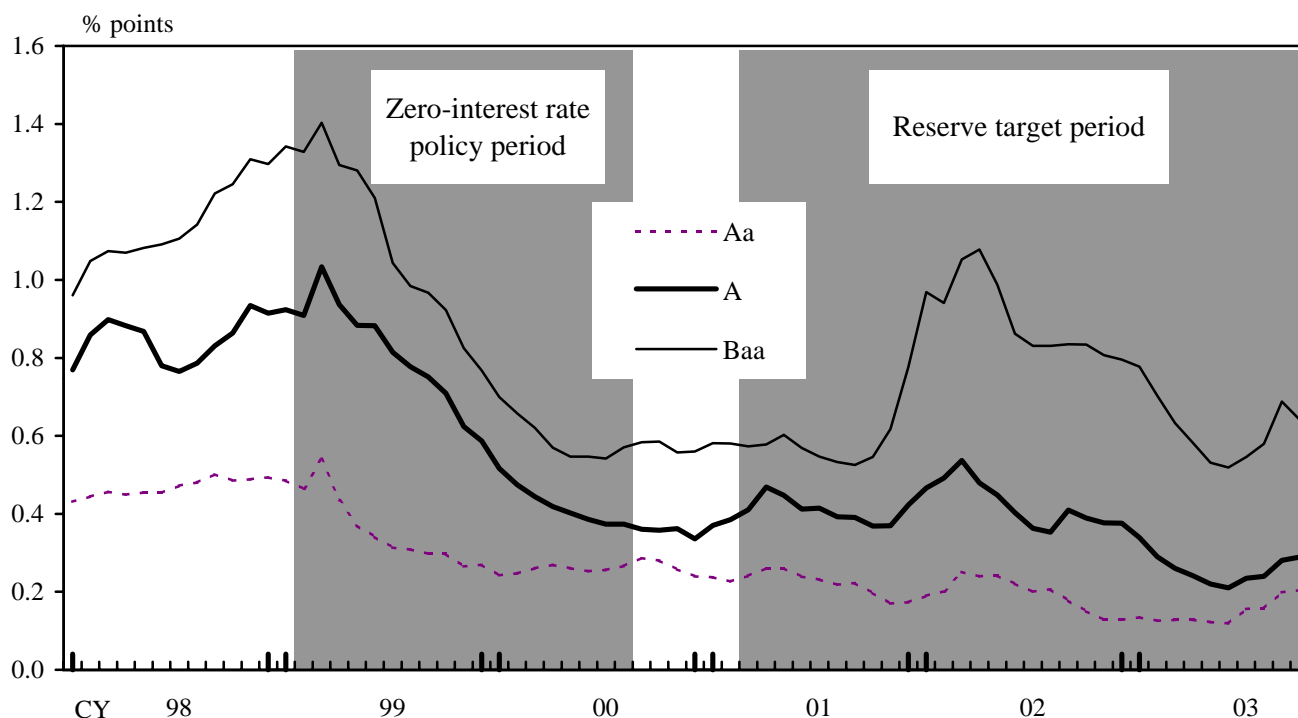
Source: Tokyo International Financial Futures Exchange.

Credit Spreads

(1) Short-Term (3-Month)



(2) Long-Term (5-Year)

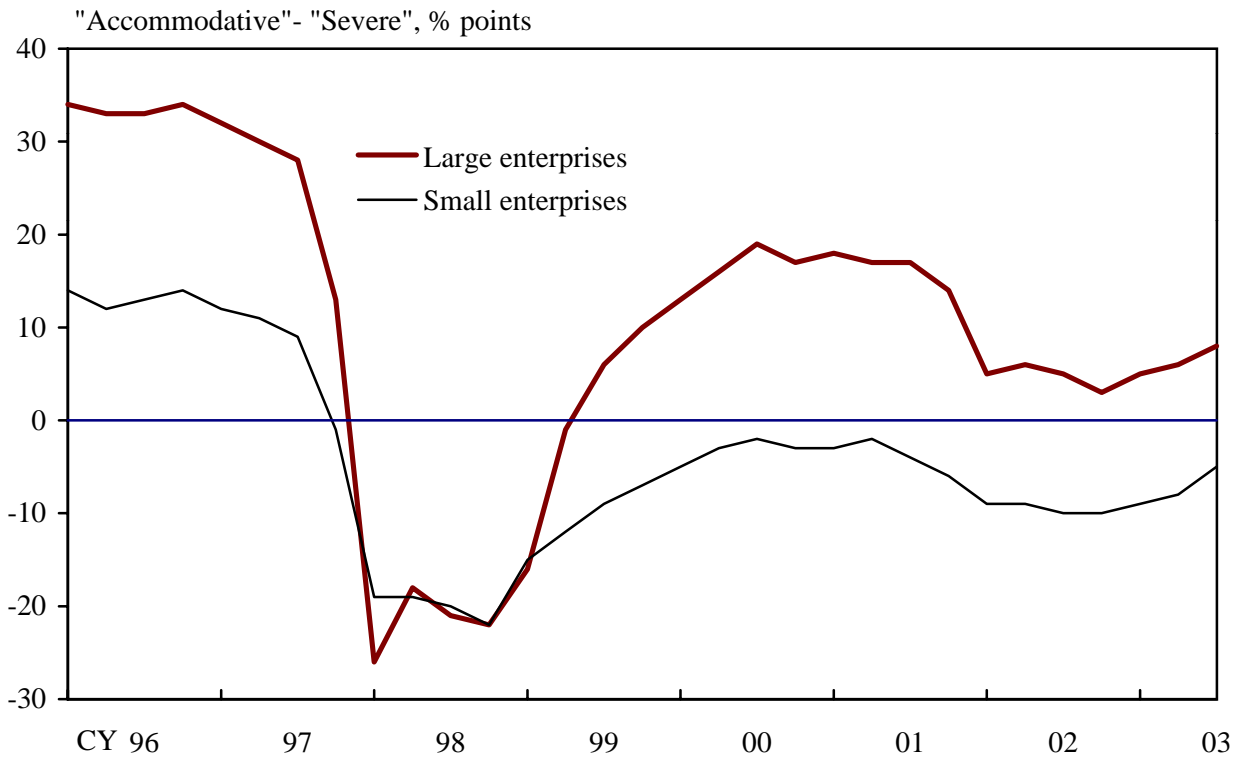


- Notes: 1. The short-term spread is average issuance rate of CPs minus FB/TB yield.
 2. The long-term spread is corporate bond yield minus government bond yield.
 3. CP ratings are A-1 or better.
 4. FB/TB yields before May 1999 are on bills with a 6-month maturity.
 5. The indicated ratings of corporate bonds are of Moody's.
 6. The long-term spread in October 2003 is an average of data from October 1 to 30.

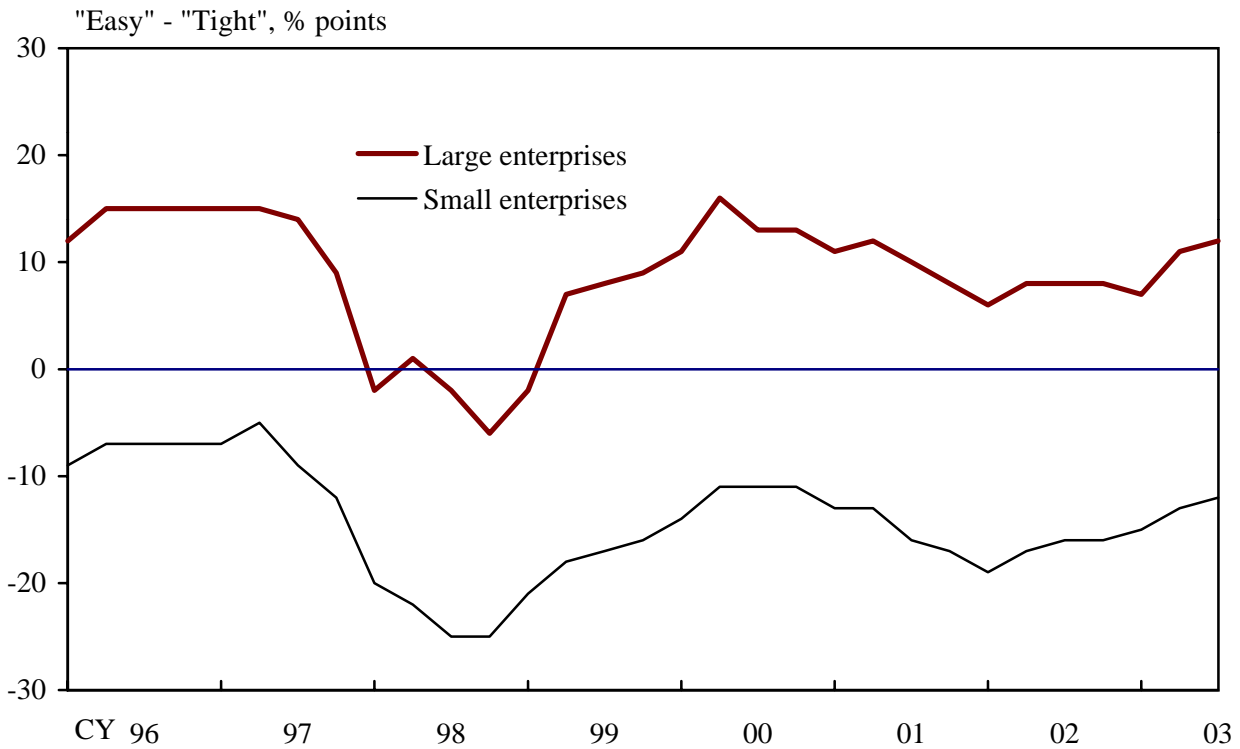
Sources: Bank of Japan; Japan Bond Trading Co., Ltd.; Japan Securities Dealers Association.

Lending Attitude of Financial Institutions and Financial Position of Firms

(1) Lending Attitude of Financial Institutions (D.I.)



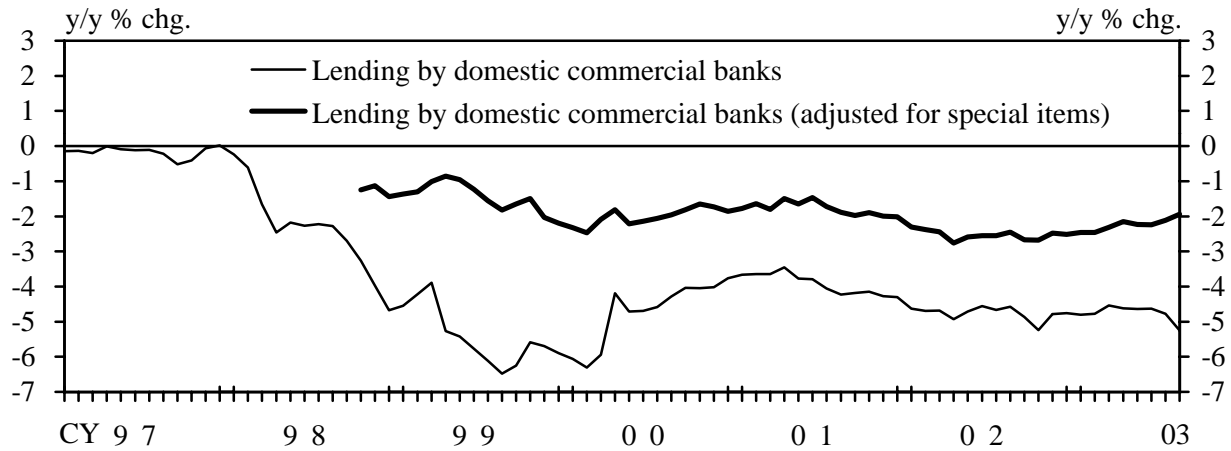
(2) Financial Position (D.I.)



Source: Bank of Japan, "Tankan—Short-Term Economic Survey of Enterprises in Japan."

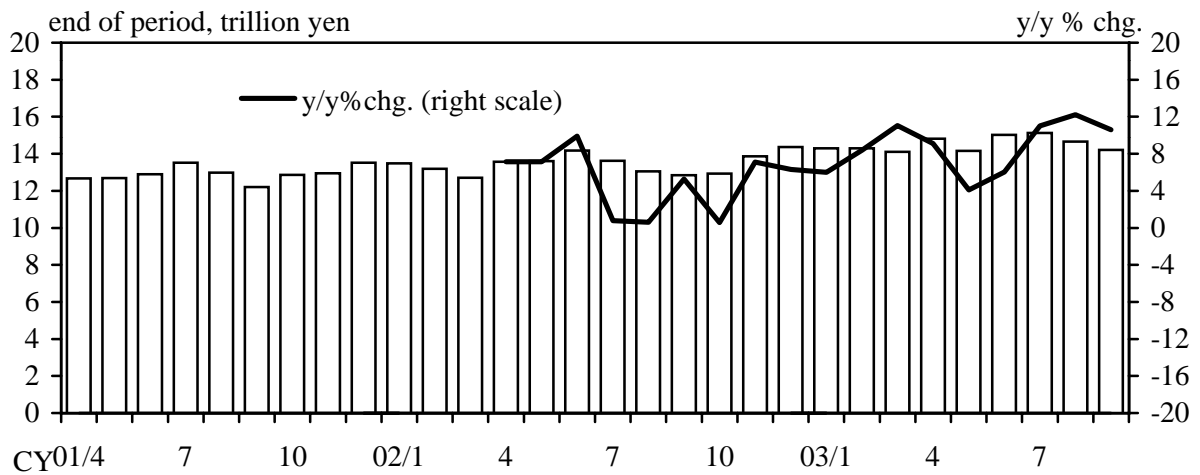
Fund-Raising for Firms

(1) Lending by Domestic Commercial Banks



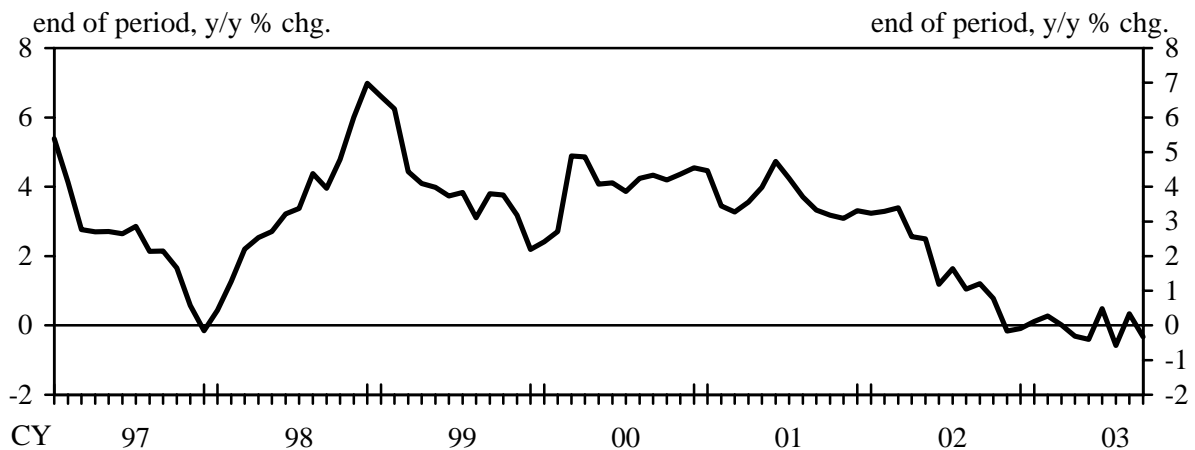
Notes: Adjusted figures exclude the fluctuations from the liquidation of loans, loan write-offs, etc.

(2) Amount Outstanding of Commercial Paper



Notes: 1. Figures are those of the client financial institutions of the Bank of Japan.
 2. Excludes those issued by banks.

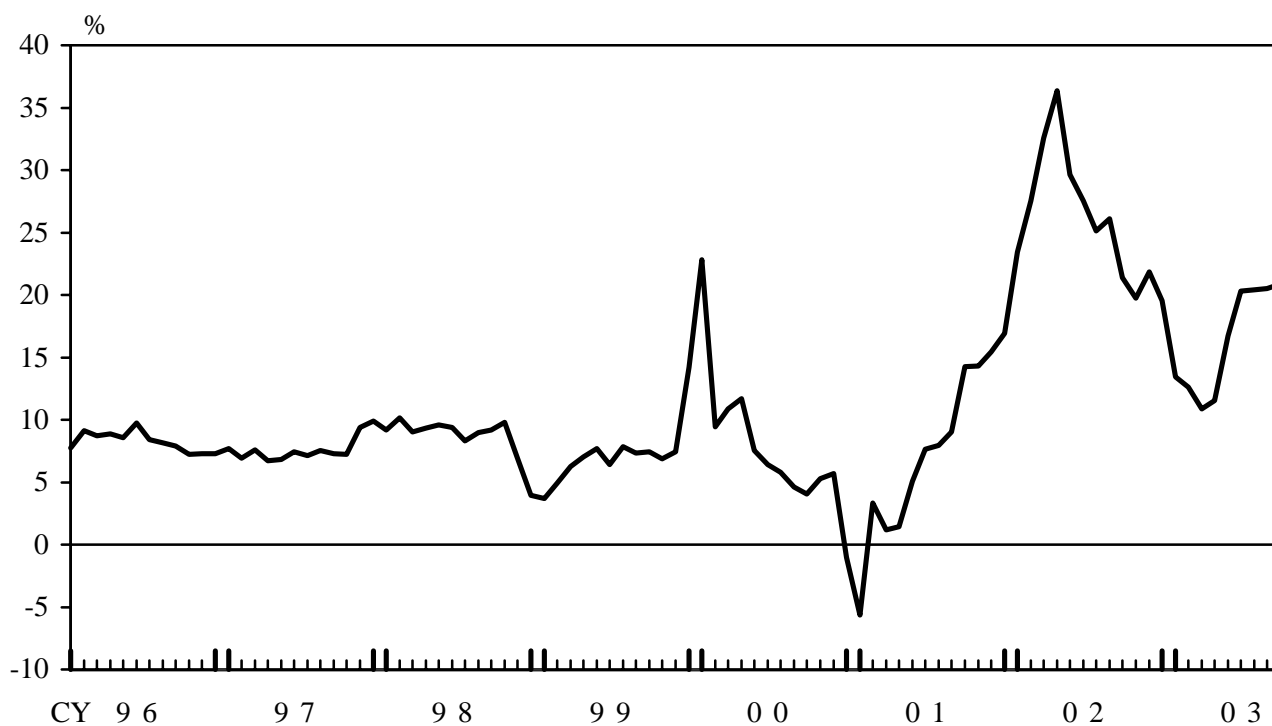
(3) Amount Outstanding of Corporate Bonds (Changes from a Year Earlier)



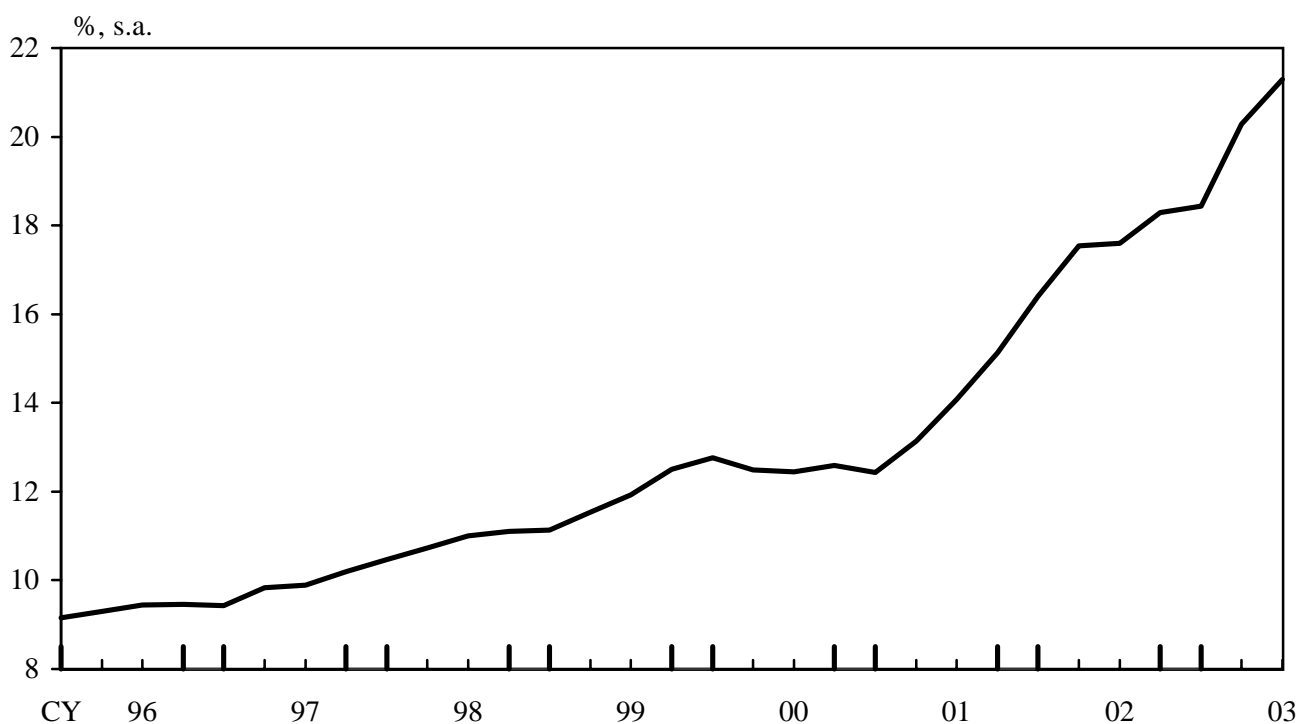
Sources: Bank of Japan, Japan Securities Dealers Association, IN Information Center.

Monetary Base

(1) Changes from a Year Earlier



(2) Ratio of Monetary Base to Nominal GDP

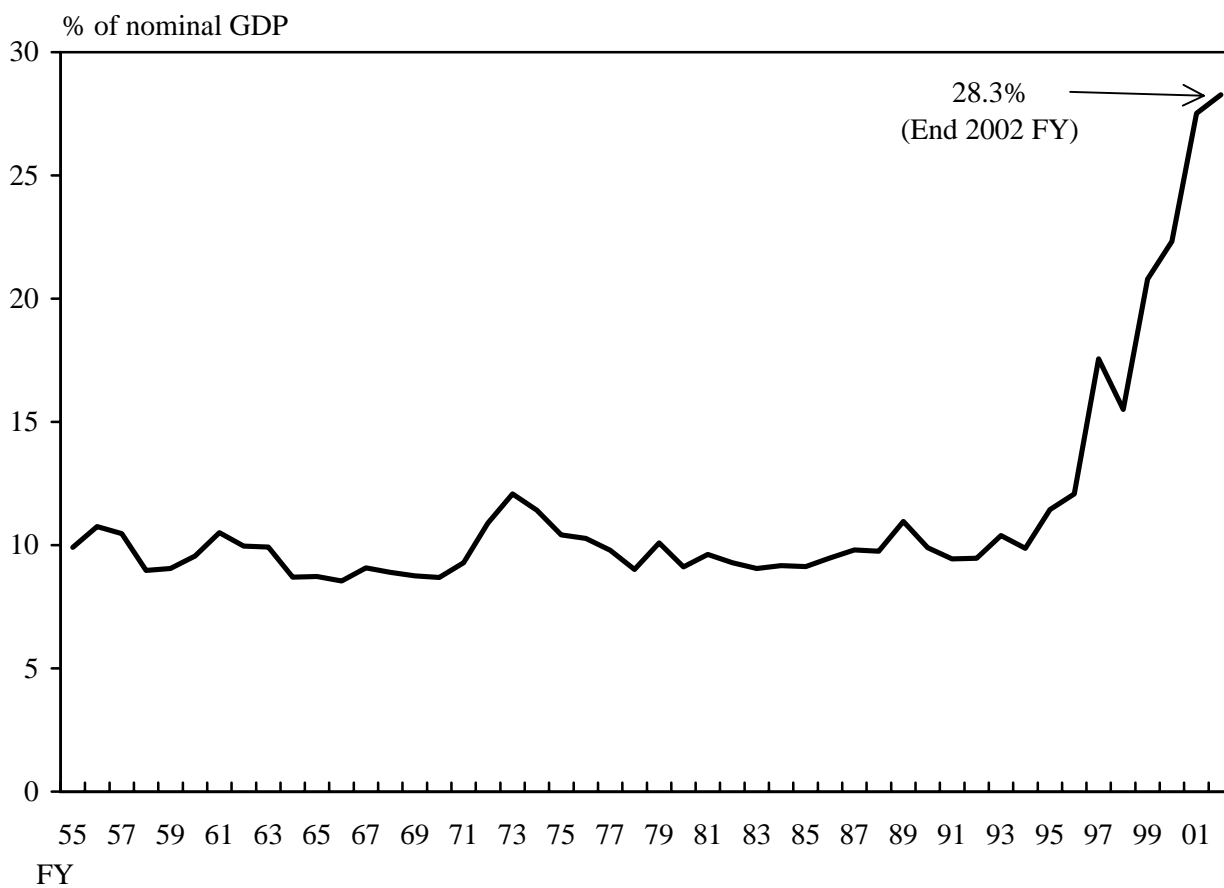


Notes: 1. Monetary base = currency in circulation (banknotes + coins) + current deposits at the Bank of Japan
Data for currency in circulation include holdings of financial institutions.

2. Figure for the nominal GDP in 2003/Q3 is assumed to be unchanged from the previous quarter.

Sources: Cabinet Office, "National Accounts"; Bank of Japan.

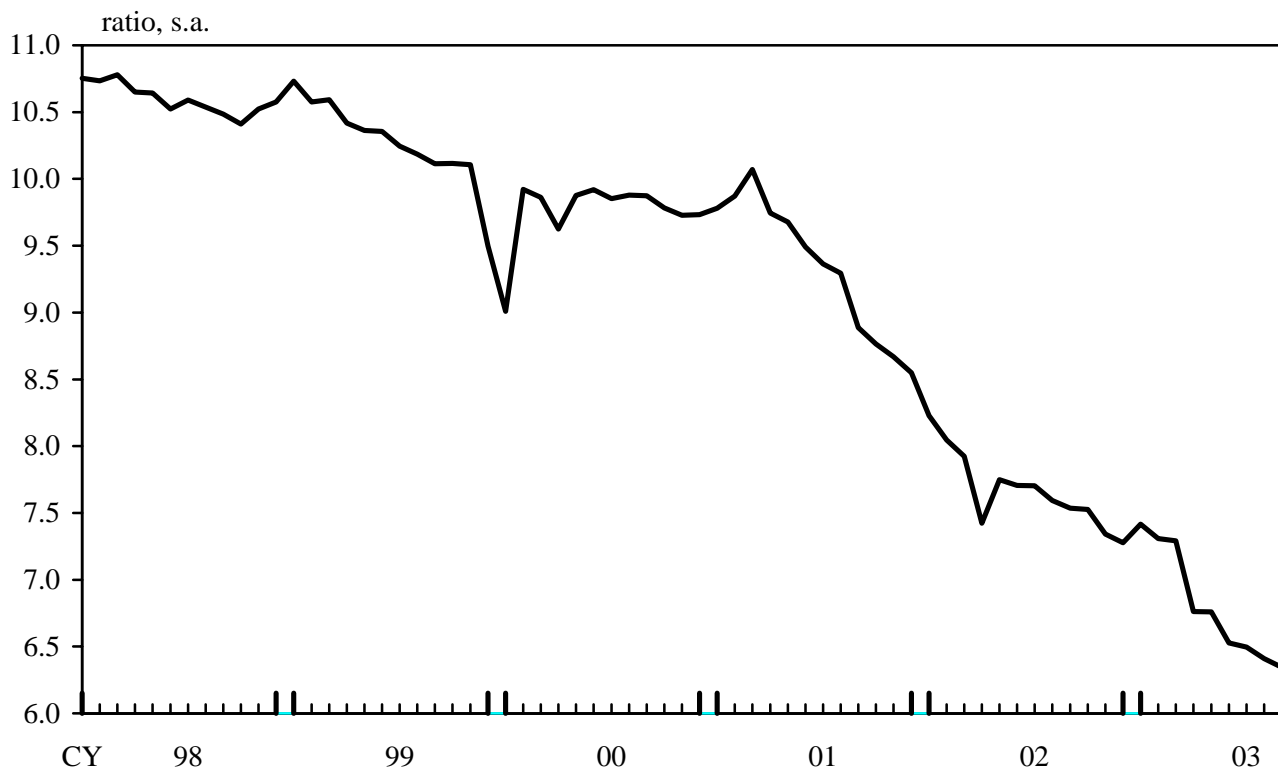
The Size of BOJ's Balance Sheet



Sources: Bank of Japan; Cabinet Office, "National Accounts"

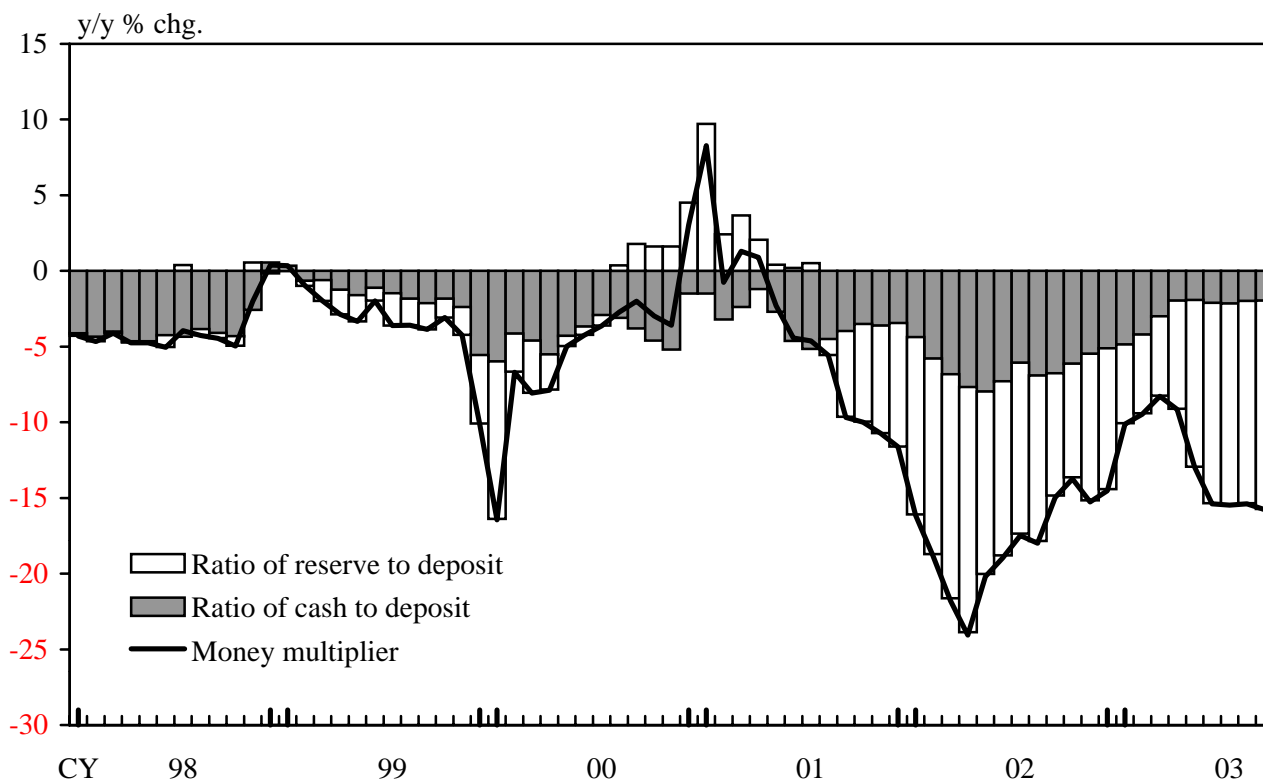
Money Multiplier

(1) Money Multiplier



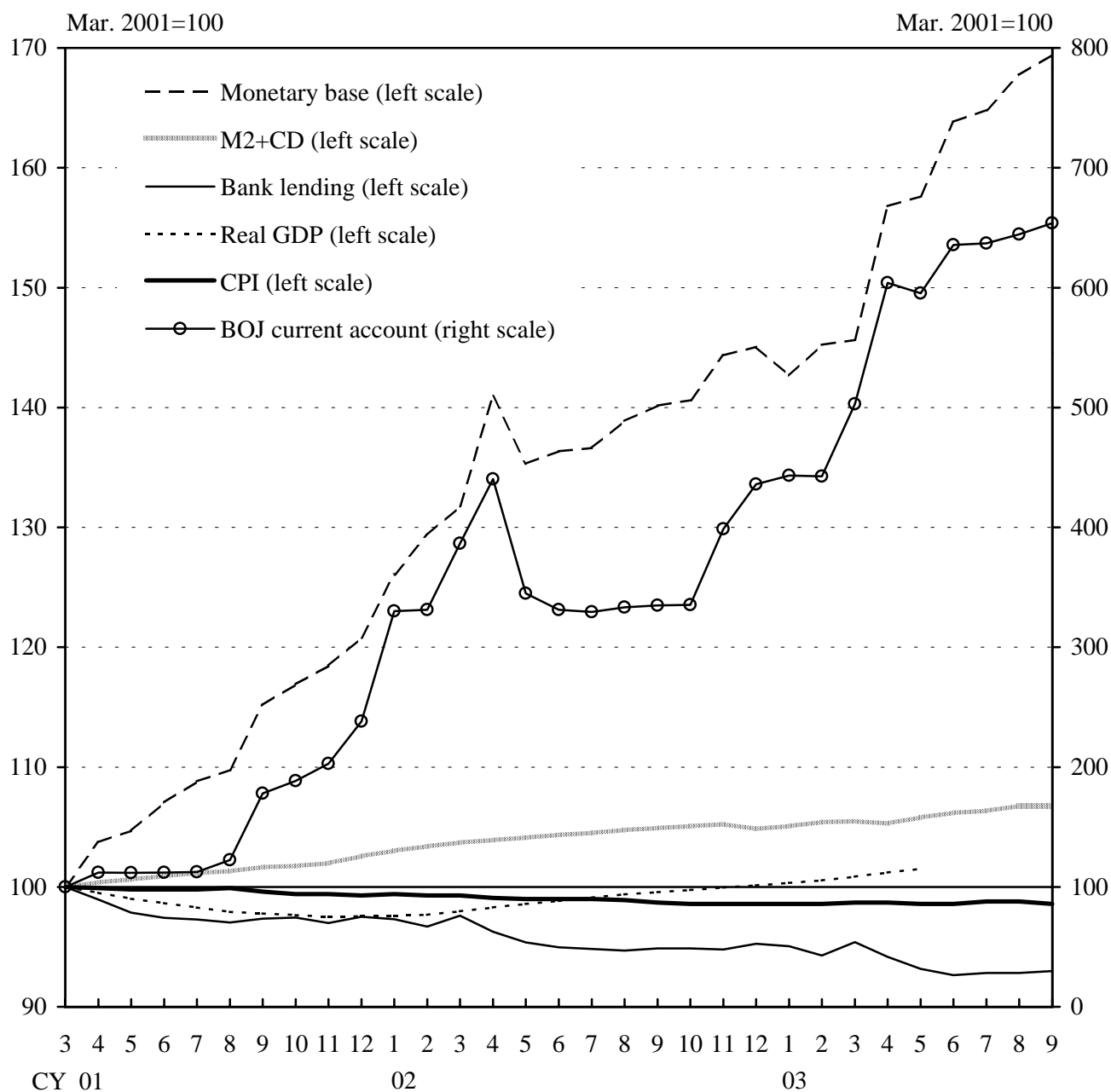
Note: Money Multiplier = $M2+CD / \text{Monetary Base}$

(2) Breakdown of Money Multiplier



Source: Bank of Japan

Monetary Indicators, Economic Activity and Price Development

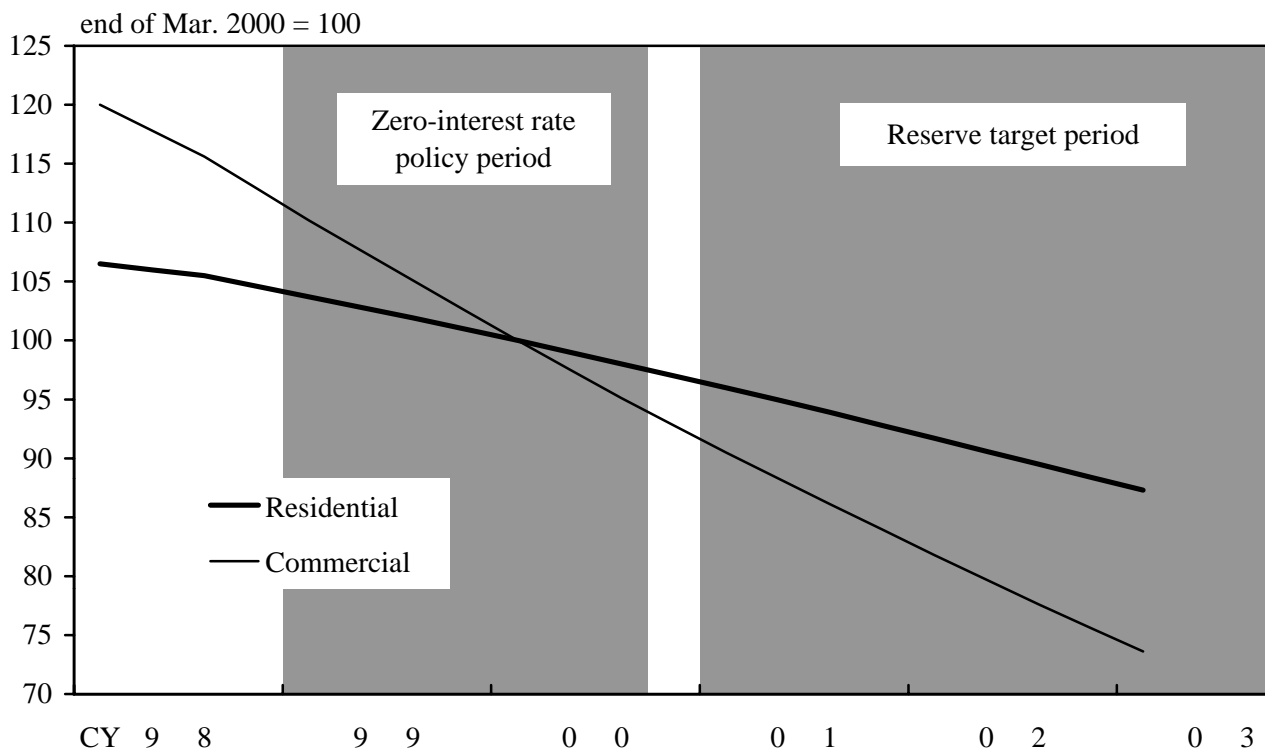


Note: Figures for real GDP are plotted at the middle month of each quarter.

Sources: Cabinet Office, "National Accounts"; Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Consumer Price Index"; Bank of Japan.

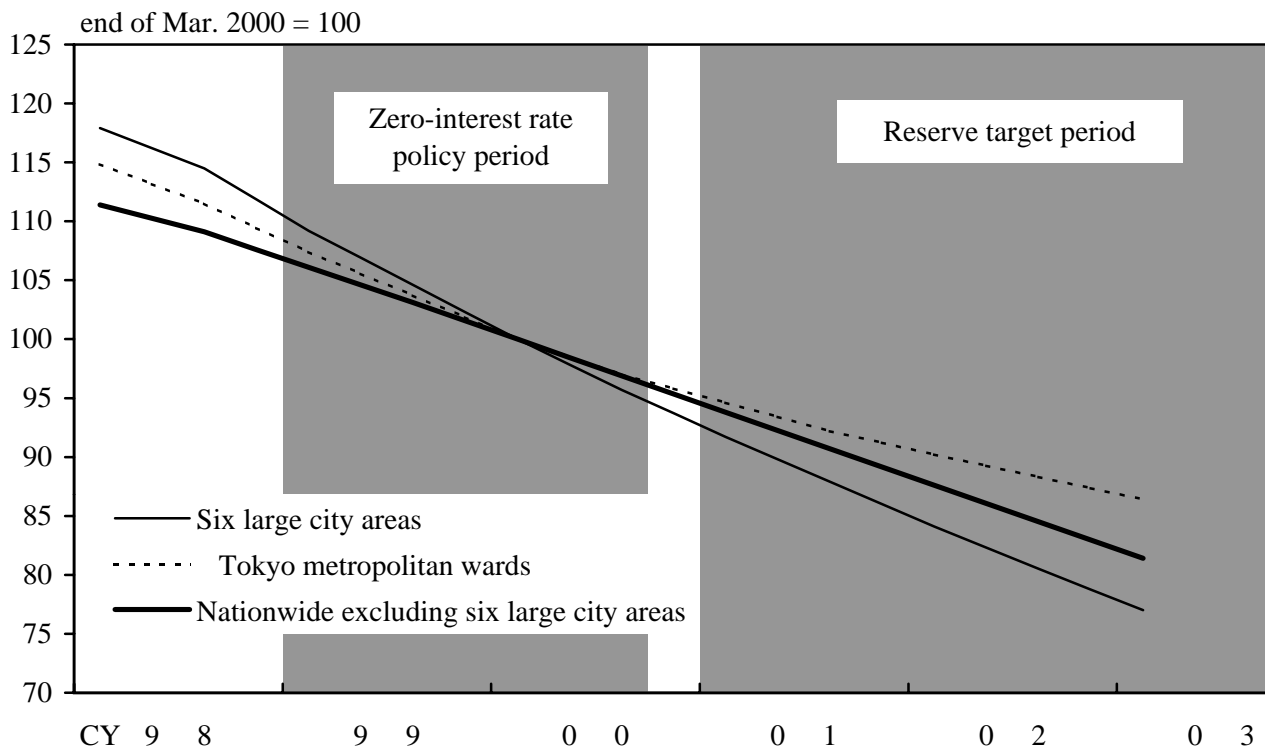
Land Prices

(1) Breakdown By Categories



Note: Nationwide.

(2) Breakdown By Areas



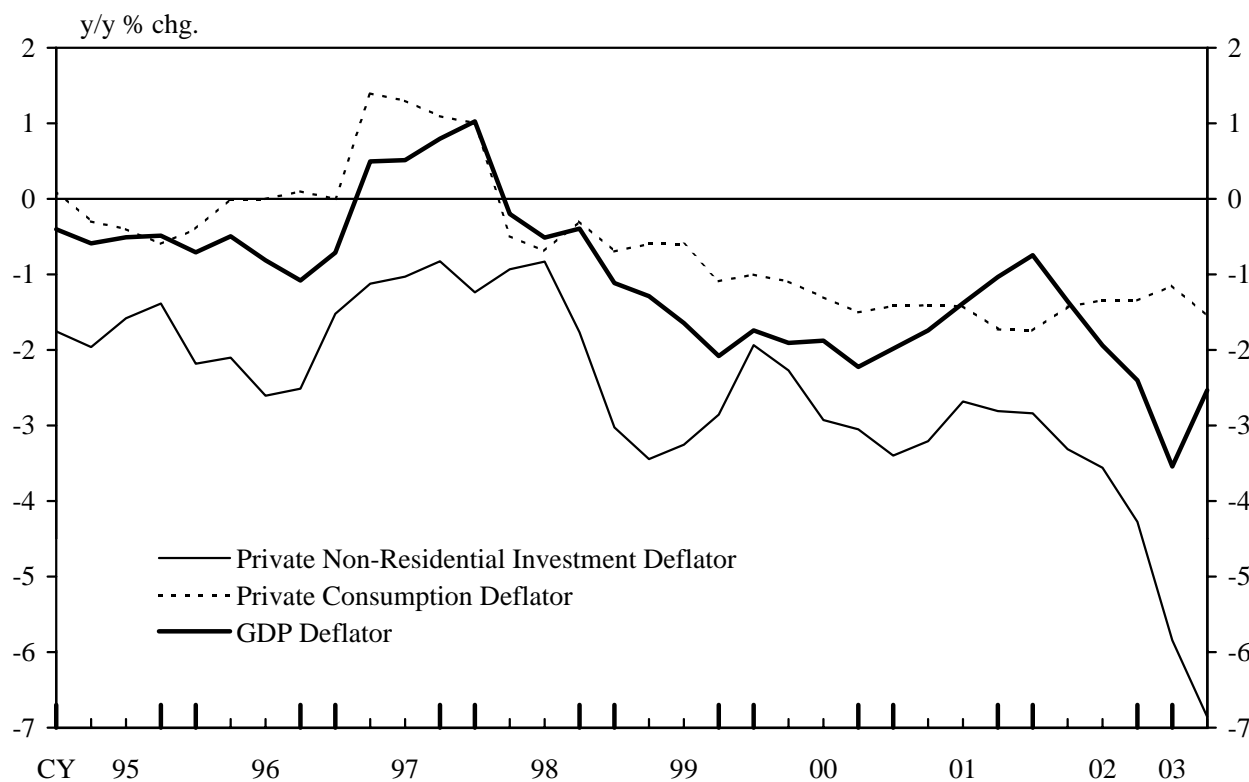
Notes: 1. Average of three categories (commercial, residential, and industrial).

2. Six large city areas: Tokyo metropolitan wards, Yokohama, Nagoya, Kyoto, Osaka, Kobe.

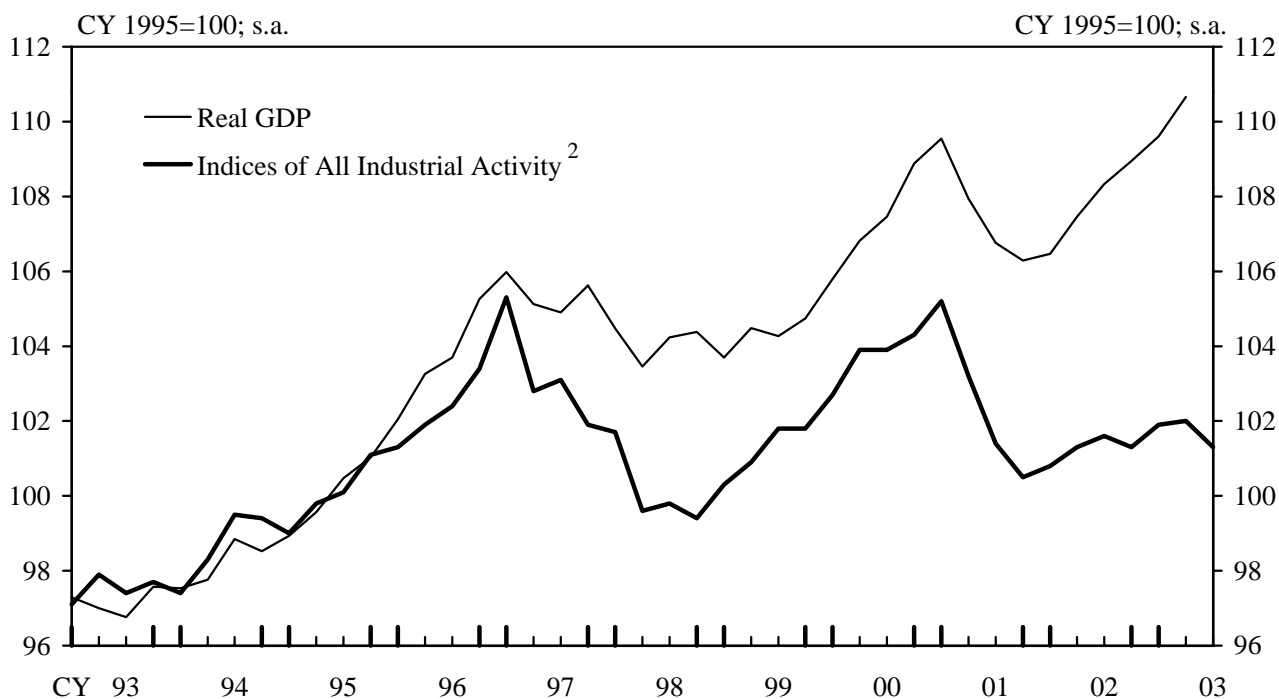
Source: Japan Real Estate Institute, "Urban Land Price Index."

GDP Deflator and Real GDP

(1) GDP Deflator



(2) Real GDP and Indices of All Industrial Activity



Notes: 1. The figures of Real GDP and Deflators include "reference series" for 1994/Q1-1999/Q4.

2. 2003/Q3 figures are Jul.-Aug. averages.

Sources: Cabinet Office, "National Accounts";
Ministry of Economy, Trade and Industry, "Indices of Tertiary Industry Activity."

Numerical Example of Price Index Formula

Assumptions

1. Ratio of the nominal expenditure of food to computer is fixed throughout the period at 95:5.
2. For food, both the nominal expenditure and the price remain unchanged, leaving the quantity also constant.
3. For computer, the nominal expenditure remains unchanged, while its price declines by 30% every year, resulting in an increase in the quantity.

	Base year	1 year later	2 years later	3 years later
Price of Food	100.0	100.0	100.0	100.0
(y/y% chg.)		(0.0)	(0.0)	(0.0)
Price of Computer	100.0	70.0	49.0	34.3
(y/y% chg.)		(-30.0)	(-30.0)	(-30.0)
Quantity of Food	19.0	19.0	19.0	19.0
(y/y% chg.)		(0.0)	(0.0)	(0.0)
[Quantity Weight]	[0.950]	[0.930]	[0.903]	[0.867]
Quantity of Computer	1.0	1.4	2.0	2.9
(y/y% chg.)		(42.9)	(42.9)	(42.9)
[Quantity Weight]	[0.050]	[0.070]	[0.097]	[0.133]
Chain-type Index	100.0	98.5	97.0 *	95.6
(y/y% chg.)		(-1.5)	(-1.5)	(-1.5)
Laspeyres Index	100.0	98.5	97.5 **	96.7
(y/y% chg.)		(-1.5)	(-1.1)	(-0.8)
Paasche Index	100.0	97.9	95.1 ***	91.3
(y/y% chg.)		(-2.1)	(-2.9)	(-4.0)

* Previous year's index multiplied by the weighted average of changes in each price with the nominal expenditures of the current year used as the weights.

$$98.5 \times (1.0 \times 0.95 + 0.7 \times 0.05) = 97.0$$

** Each price index weight-averaged using the quantity weight fixed at the base year.

$$100.0 \times 0.95 + 49.0 \times 0.05 = 97.5$$

*** Each price index weight-averaged using the quantity weight of the current period.

$$100.0 \times 0.903 + 49.0 \times 0.097 = 95.1$$