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Bank of Japan

# **Outlook for Economic Activity and Prices**

April 2006

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

## [The Bank's View]<sup>1</sup>

### (Outlook for Economic Activity and Prices)

Japan's economy continues to recover steadily. Exports and production continue to increase. Business fixed investment also continues to increase against the backdrop of high corporate profits. Household income continues to rise moderately, reflecting improvements in employment and wages, and private consumption is on an increasing trend. With steady increases continuing in domestic and external demand, economic activity in fiscal 2005 seems to have been stronger than the projection in the October 2005 *Outlook for Economic Activity and Prices*. Consequently, the conditions of persistent oversupply have been dispersed and the output gap seems now to have closed.<sup>2</sup>

From fiscal 2006 through fiscal 2007, Japan's economy is likely to experience a sustained period of expansion, with domestic and external demand and also the corporate and household sectors well in balance. Given that the current recovery of the economy has already lasted for over four years and is likely to mature, the growth rate is likely to slow gradually toward the potential growth rate. The forecast is around 2.5 percent for fiscal 2006 and around 2 percent for fiscal 2007.

The outlook rests on the following underlying assumptions and mechanisms. First, exports are likely to remain on the increase reflecting the continuing expansion of overseas economies. Second, corporate performance is likely to continue to be strong. Corporate profits increased for the fourth consecutive fiscal year since 2002, and in fiscal 2006, the ratio of firms' current profits to sales will remain at levels exceeding the peak marked

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<sup>1</sup> The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on April 28, 2006.

<sup>2</sup> In view of the re-basing of the GDP statistics and retroactive revisions to the GDP series at the end of 2005, the method of calculating potential output was revised. The new estimate for the annual rate of change in potential output, i.e., the potential growth rate, for Japan's economy is now in the 1.5-2 percent range, up from approximately 1 percent. The output gap, the difference between actual and potential output, is estimated to have closed. It should be noted that these estimates of the potential growth rate and output gap are not exact, but vary over time depending on changes in the economic structure and the pace of technological innovation, and they may therefore be revised retroactively as new data are released.

during the bubble era of the late 1980s. With regard to resource utilization, the capacity utilization rate is rising and firms are more often experiencing constraints arising from insufficient labor. In this environment, the March *Tankan* (Short-Term Economic Survey of Enterprises in Japan) indicated that in many industries business fixed investment plans for fiscal 2006 are relatively strong for the time of year. The plans are likely to be revised upward in subsequent surveys. Firms, conscious of increasing global competition, have been generally cautious about increasing business fixed investment and have not built up large capital stocks. Over the next two years, however, the growth rate of business fixed investment is at some point expected to fall off, in view of the capital stock cycle, reflecting the long economic recovery. Third, the positive influence of the strength in the corporate sector on the household sector is likely to become more evident. Strong corporate performance is benefiting the household sector via increases in employment and wages as well as increases in dividends and rising stock prices. Against this backdrop, private consumption is expected to continue increasing steadily. Housing investment is likely to experience a moderate uptrend, partly supported by the view that interest rates will only rise from current levels, as land prices are starting to rise particularly in central Tokyo. Household spending will be the main driving force behind firm domestic private demand and firm household spending in turn will feed back to the corporate sector, with the likelihood of a virtuous circle being maintained. Fourth, the extremely accommodative financial conditions are likely to continue to support private demand. As financial institutions adopt more proactive lending postures and as the demand for credit in the private sector stops declining, the year-on-year rate of increase in the amount outstanding of lending by private banks is on the rise. Short-term real interest rates are falling. In particular, these financial conditions may also be contributing to increases in business fixed investment by small firms and housing investment.

Given this economic outlook, the environment for prices is likely to change gradually. First, a higher level of resource utilization is being observed. The March *Tankan* indicated that firms are perceiving the strongest capacity constraints in terms of capital stock and employment in more than a decade. The output gap has closed, and actual output is likely to gradually exceed potential output. Second, although unit labor costs (labor costs per unit of output) continue to decline due to increases in productivity, the rate of decline has been on a narrowing trend as a result of wages starting to increase. Given the tighter supply and demand balance of labor in a relatively wide range of industries and the likely

slowing rate of productivity increases as the economic recovery matures, unit labor costs are expected to stop declining and start increasing slightly in the future. Third, results of various surveys show that firms and households are gradually shifting up their inflation expectations for both the short term and the medium to long term.

Looking at various indices for inflation, the domestic corporate goods price index in fiscal 2005 exceeded the October projection, recording the largest increase on a year-on-year basis since early 1990, reflecting higher international commodity prices and the weaker yen in the second half of 2005. While the prices of crude oil and other commodities and foreign exchange rates will influence it significantly, the index is likely to continue increasing through fiscal 2007.

The consumer price index (CPI; excluding fresh food, on a nationwide basis) has generally moved in line with the October projection, with the year-on-year changes turning positive toward the end of 2005 followed by larger increases since the beginning of 2006. In recent years, the rate of increase in the CPI may have become less sensitive to changes in the output gap. As explained below, the views on the mechanisms underlying this development will have a bearing on the outlook for the inflation rate. Accordingly, there are uncertainties, but the year-on-year rate of increase in the CPI is likely to gradually rise to around the middle of the range between zero and 1 percent in fiscal 2006 and to slightly below 1 percent in fiscal 2007.<sup>3</sup>

#### **(Positive and Negative Deviations)**

The outlook described above is the most likely projection based on the underlying assumptions and mechanisms mentioned earlier. It should be noted that there exist the following upside and downside risks to the outlook in the coming months.

The first risk is the growth path of the global economy. The outlook assumes that the economies of Japan's major trading partners continue to expand at a pace close to their

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<sup>3</sup> This outlook for inflation is based on the 2000 base CPI. The base year for the CPI will be changed to 2005 in August 2006, and year-on-year figures back as far as January 2006 will be revised retroactively. The year-on-year rate of increase in the 2005 base CPI is likely to be slightly lower than that obtained using the current 2000 base CPI.

potential growth rates. Therefore, depending on developments in their economies, Japanese exports and production may move either upward or downward from their expected trajectory. One of the factors supporting the ongoing expansion of the global economy is the durability of stable financial conditions and generally subdued inflationary pressures due at least in part to the appropriate conduct of monetary policy by central banks. Any changes to the picture may adversely affect the global economy, accompanied by shifts in international capital flows and repricing in financial markets. Global economic developments may also be influenced by international commodity prices, including crude oil prices, which have remained at elevated levels reflecting, for example, the higher level of geopolitical risks.

In the United States, if higher resource utilization coupled with, for example, the impact of the past rises in crude oil prices leads to higher inflationary expectations, responses in financial markets may bring about a fall in the economic growth rate. In addition, given that past rises in housing prices have contributed to the growth of private consumption, any sharp adjustment in housing prices may lead to lower growth rates. Meanwhile, the Chinese economy continues to expand robustly. Although there is a risk of repercussions from the robust economic growth, there still is a possibility that this growth will accelerate during the projection period, depending on developments in fixed asset investment and private consumption.

The second risk is the possibility of inventory adjustments. Levels of inventory are still relatively low even though the economy is already in the fifth year of recovery. However, given the projected slowdown in the growth rate, there are factors that may trigger inventory adjustments during the projection period. For example, although the demand for IT-related goods is likely to continue increasing, lower-than-expected growth in demand may trigger inventory adjustments, given that the supply of these goods is increasing at a very fast pace, including in the high-value-added products sector where Japanese firms have a competitive edge. When the adjustments actually occur, however, the impact of inventory adjustments on economic activity may not be pronounced, reflecting, for example, the fact that Japanese firms have on the whole completed adjustments in excesses in employment and production capacity as well as the high level of corporate profits.

The third risk is a further acceleration of business fixed investment. The outlook assumes

that the growth in investment will gradually slow as the economic recovery matures gradually. If firms accelerate investment, there may be a positive impact on overall growth for a while. On the other hand, such acceleration may lead to an excessive build-up of capital stock which may precipitate an economic slowdown.

Looking at corporate finances, current conditions point to an acceleration in investment. Firms are less encumbered by debt, and levels of return on assets are comparable to those recorded during the bubble era of the late 1980s. Real interest rates are extremely low as well. Developments in asset prices such as land and stocks are also contributing to increasing private demand. Meanwhile, if financial markets price in the changing state of the economy, it may contribute to preventing large swings in economic activity.

Turning to developments in the inflation rate, factors causing the rate to deviate either upward or downward from the projection warrant attention. The first factor is the impact of the emerging positive output gap (i.e., actual output exceeding potential output). The weaker sensitivity of the rate of increase in the CPI to changes in the output gap is a tendency observed not only in Japan but also worldwide. This reflects developments such as deregulation, advances in information and telecommunication technology, and the deepening of economic globalization. Additionally, in Japan unit labor costs were able to fall considerably as productivity increased against the backdrop of a relatively low rate of resource utilization. However, assuming that demand gradually exceeds supply following the closing of the output gap, the rate of increase in wages and prices may accelerate at some point accompanied by an upward shift in the expected rate of inflation. The second factor is the path of the prices of crude oil and other commodities. There are substantial uncertainties in this regard. The third factor is the impact of an increase in the potential growth rate. An increase in the potential growth rate gives rise to downward pressure on prices from the supply side, whereas it may give rise to upward pressure on prices from the demand side via improvement in expectations of future income. The potential growth rate of the Japanese economy seems to be on an uptrend recently, after experiencing various structural adjustments. Nevertheless, given that it is difficult to observe such changes in real time, there is also uncertainty in this regard.

### **(Conduct of Monetary Policy)**

The Bank of Japan decided to terminate the quantitative easing policy at the Monetary Policy Meeting held on March 8 and 9, 2006. The Bank decided to change the operating target of money market operations from the outstanding balance of current accounts at the Bank to the uncollateralized overnight call rate. The new target for the uncollateralized overnight call rate was set at effectively zero percent.

Under the new guideline for money market operations, the volume of short-term funds-supplying operations by the Bank is decreasing. Accordingly, the outstanding balance of current accounts at the Bank is declining gradually. So far, the short-term money market remains stable and there is gradually more activity being seen in the interbank market. The Bank will continue to closely monitor conditions in the short-term money market, in reducing the outstanding balance of current accounts toward a level in line with required reserves.

The objective of the monetary policy of the Bank is stipulated as contributing to the sound development of the national economy through the pursuit of price stability. To this end, the Bank is pursuing an appropriate course of monetary policy. In the new framework for the conduct of monetary policy released on March 9, 2006, the Bank announced that it would assess economic activity and prices from two perspectives, taking account of the "understanding of medium- to long-term price stability," and that, in the light of this assessment, it would outline its current view on monetary policy.

Looking at the outlook deemed most likely by the Bank for economic activity and prices two years into the future (the first perspective), Japan's economy is likely to continue expanding with balanced domestic and external demand. The year-on-year rate of increase in the CPI (excluding fresh food, on a nationwide basis) is expected to rise gradually through fiscal 2007 as the output gap becomes slowly positive, indicating excess demand, and downward pressures from declining unit labor costs weaken. In sum, Japan's economy is likely to achieve sustainable growth under price stability.

Turning to the risks that are most relevant to conducting monetary policy, looking over a longer time horizon and taking account of the cost incurred when risks materialize, however

improbable they might be (the second perspective), it can be seen that the stimulus from monetary policy to economic activity and prices may be amplified against the backdrop of improving corporate profitability and a turnaround in price developments. In this situation, given that the output gap has closed, there is a risk in the medium to long term of larger economic swings, resulting in large fluctuations in the rate of inflation. Meanwhile, even if economic activity is less robust and the inflation rate lower than expected, the risk of the economy falling into a vicious circle of declining prices and deteriorating economic activity has become smaller, since the Japanese financial system has regained stability and the economy has now cast off excesses in production capacity, employment, and debt.

With regard to the future course of monetary policy, as a result of the assessment of economic activity and prices from the two perspectives described above, it seems probable that the accommodative financial conditions ensuing from very low interest rates will be maintained for some time following a period in which the uncollateralized overnight call rate is at effectively zero percent. Through and beyond this stage, the Bank will adjust the level of interest rates gradually in the light of developments in economic activity and prices.



**Forecasts of the Majority of Policy Board Members<sup>4</sup> and Actuals for Fiscal 2005**

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Forecasts made in October 2005	+2.2 to +2.5 [+2.2]	+1.6 to +1.8 [+1.7]	0.0 to +0.1 [+0.1]
Actual	+3.2	+2.1	+0.1

**Forecasts of the Majority of Policy Board Members<sup>4,5</sup> for Fiscal 2006 and Fiscal 2007**

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2006	+2.1 to +3.0 [+2.4]	+1.4 to +1.8 [+1.5]	+0.6 to +0.6 [+0.6]
Forecasts made in October 2005	+1.6 to +2.2 [+1.8]	+0.5 to +0.8 [+0.6]	+0.4 to +0.6 [+0.5]
Fiscal 2007	+1.8 to +2.4 [+2.0]	+0.8 to +1.1 [+1.0]	+0.7 to +0.9 [+0.8]

Notes: 1. Brackets indicate the median of the forecasts.

2. Real GDP for fiscal 2005 is calculated on the assumption that real GDP in the first quarter of 2006 equals that in the fourth quarter of 2005.

3. Individual Policy Board members make the above forecasts with reference to market participants' view regarding the future course of the policy interest rate that is incorporated in market interest rates. Their forecasts made in October 2005 were based on the assumption that there would be no change in monetary policy.

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<sup>4</sup> Forecasts of the majority of Policy Board members are the figures to which the individual members attach the highest probability and they are shown as a range, with the highest and lowest figures excluded. It should be noted that the range does not indicate the forecast errors.

<sup>5</sup> The forecasts of all Policy Board members are as follows.

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2006	+2.1 to +3.0	+1.3 to +1.8	+0.5 to +0.7
Forecasts made in October 2005	+1.3 to +2.4	+0.4 to +1.0	+0.4 to +0.6
Fiscal 2007	+1.6 to +2.5	+0.7 to +1.3	+0.7 to +1.0

## **[The Background]**

### **1. Economic Activity, Prices, and Monetary and Financial Developments**

#### **(Economic Activity and Prices in Fiscal 2005)**

Japan's economy emerged during the first half of fiscal 2005 from the temporary pause at which it had found itself since the second half of 2004, and thereafter both domestic and external demand continued to increase steadily (Chart 1). Real GDP growth for fiscal 2005 is likely to be in the 3-4 percent range, substantially exceeding the potential growth rate which is estimated to be in the 1.5-2 percent range (Box).

Growth in exports weakened temporarily partly reflecting the measures taken in China to cool its overheating economy. Nevertheless, with expansion continuing in overseas economies, exports recorded relatively high growth in the second half of fiscal 2005, mainly reflecting the completion of adjustments in IT-related sectors and the recovery in exports to China (Charts 2 and 3). An uptrend in industrial production reemerged as inventory adjustments progressed in IT-related sectors (Chart 4).

Corporate profits increased for the fourth consecutive fiscal year since 2002 despite the rise in crude oil prices and other materials prices (Chart 5). In fiscal 2005, the ratio of firms' current profits to sales exceeded the peak marked during the bubble era of the late 1980s. The ratio for large manufacturers was at a notably high level, reflecting increased receipts from overseas affiliates (increases in dividends as well as in royalties and license fees for industrial processes and franchises), and also reflecting the weaker yen in the second half of fiscal 2005.<sup>6</sup> In this situation, business sentiment improved on the whole, albeit with differences among industries, firm sizes, and regions (Chart 6).<sup>7</sup> Business fixed

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<sup>6</sup> Increases in dividends and in royalties and license fees for industrial processes and franchises received from overseas affiliates reflect the fact that firms, particularly manufacturers, have been expanding their overseas business over the past few years, and this expansion has started to generate profits for the parent firms with a slight time lag.

<sup>7</sup> The Bank has been conducting research and analysis on regional economic conditions at its branches in Japan. In order to make effective use of them, the Bank started to release the "Regional Economic Report" from April 2005. For the assessment of recent regional economic

investment continued to record relatively high growth, as the capacity utilization rate has risen and corporate profits remain high against the backdrop of increases in demand both at home and abroad (Chart 7). In the manufacturing sector, business fixed investment increased substantially in both the materials industry and the processing industry. As for the nonmanufacturing sector, fixed investment increased particularly in the real estate, information and telecommunication technology, as well as electric and gas utilities industries. Making the most of their cashflow, firms have been expanding production capacity as well as investing in research and development to strengthen their competitiveness.

As for the employment and income environment, household income trended moderately upward reflecting improvements in employment and wages as labor market conditions continued to improve (Chart 8). Looking at types of employees, the number of full-time employees recorded higher growth than that of part-time employees from the spring of 2005. Nominal wages per worker continued to trend moderately upward. An increase in dividend income and the rise in stock prices also contributed to boosting household income and the value of household assets (Chart 9). With the effects of strong corporate performance thus benefiting the household sector, private consumption grew gradually firmer (Chart 10). In these circumstances, business sentiment improved at firms in industries related to private consumption. Housing investment continued to show some strength, particularly in residences for sale and for rent. Meanwhile, public investment trended downward.

According to the Cabinet Office's reference dates of business cycles, the economy has been recovering for more than four years since the trough in January 2002. Various excesses in the corporate sector have been eliminated, and the March *Tankan* indicated that firms are facing the strongest capacity constraints in terms of capital stock and employment in more than a decade (Chart 11).<sup>8</sup> Although the estimates are subject to a certain margin of error,

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conditions, please refer to the "Regional Economic Report (Summary) April 2006" on the Bank's web site ([http://www.boj.or.jp/en/type/ronbun/chiiki\\_rep/chiiki0604.htm](http://www.boj.or.jp/en/type/ronbun/chiiki_rep/chiiki0604.htm)) and to the Reference for a brief description.

<sup>8</sup> The *Tankan* composite indicator is the weighted average of the diffusion indices of production capacity and employment conditions in the *Tankan*, where indices are weighted by capital and labor income shares in the national accounts. The composite indicator showed that excesses in capital

the output gap, which is the difference between actual GDP and potential output, is estimated to be closed now (its average level since 1975). This contrasts with the beginning of the current recovery phase, when the output gap indicated significant excess supply (Chart 12). According to an estimate by the Organisation for Economic Co-operation and Development (OECD), Japan's output gap (measured as excess supply) was the third smallest among major countries in 2005, following Canada and the United States.

As for price developments, commodity prices in the international markets such as those for crude oil and nonferrous metals continued to increase, reflecting increased global demand and concerns about supply-side constraints (Chart 13). Against this backdrop, commodity prices in the domestic markets remained on an increasing trend. With regard to price indices, the year-on-year rate of change in the domestic corporate goods price index increased to 3 percent for the first time since early 1990, reflecting the rise in commodity prices at home and abroad (Chart 14). In the first half of fiscal 2005, the year-on-year rate of change in the CPI (excluding fresh food, on a nationwide basis) declined slightly, particularly for agricultural and fishery products as well as public utility charges, due mainly to the effects of the decline in rice prices and the reduction in electricity and telephone charges. However, as such factors exerting downward pressure gradually fell off, the year-on-year changes in the CPI turned positive toward the end of 2005, to be followed by larger increases since the beginning of 2006 (Chart 15). Changes in prices of goods (excluding agricultural and fishery products) and general services were generally positive on a year-on-year basis throughout fiscal 2005, and the pace of increase accelerated toward the fiscal year-end.

Economic activity in fiscal 2005 seems to have been stronger than the projection in the October 2005 *Outlook for Economic Activity and Prices* due to the stronger-than-expected increase in exports and relatively solid private consumption. With regard to prices, the domestic corporate goods price index slightly exceeded the October projection reflecting higher commodity prices in the international markets and the weaker yen in the second half of 2005. The CPI (excluding fresh food, on a nationwide basis) has generally moved in

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stock and employment had been dispelled by September 2005 and it recently suggests a slight deficiency.

line with the October projection.

**(Outlook for Economic Activity in Fiscal 2006 and 2007)**

From fiscal 2006 through fiscal 2007, Japan's economy is likely to experience a sustained period of expansion, with domestic and external demand and also the corporate and household sectors well in balance.<sup>9</sup> Given that the current recovery of the economy has already lasted for over four years and is likely to mature, the growth rate is likely to slow gradually toward the potential growth rate.

In fiscal 2006, the corporate sector is likely to continue to show strength and business fixed investment is likely to continue increasing. The ratio of firms' current profits to sales in fiscal 2006 will continue to exceed the peak marked during the bubble era of the late 1980s. Business fixed investment plans for fiscal 2006 in the March *Tankan* are relatively strong for this time of the year in many industries. Although the upward revision in business fixed investment plans for fiscal 2006 is likely to be small compared to that in fiscal 2005, when investments were boosted by delayed implementation of investments planned in fiscal 2004, the year-on-year change is likely to be positive for the fourth consecutive year (Chart 7[3]). With regard to the employment and income environment, the positive influence of the strength in the corporate sector on the household sector is likely to become more evident, reflecting increases in economic activity to date. The pace of increase in household income is expected to accelerate slightly, and disposable income is likely to remain on an uptrend despite expected rises in premiums for public pension insurance and the reduction or abolition of the across-the-board income tax credits. Furthermore, firm household spending will in turn feed back to the corporate sector, with the likelihood being that this will become a mutually reinforcing trend. As this virtuous circle is sustained, real GDP growth in fiscal 2006 is expected to be in the 2-2.5 percent range, slightly exceeding the economy's potential growth rate.

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<sup>9</sup> Based on the Cabinet Office's reference dates of business cycles, the current economic expansion will equal that experienced during the bubble boom, known as the *Heisei* boom (51 months during 1986-91) in April 2006, and if it continues much longer, in October it will equal the *Izanagi* boom (57 months during 1965-70) which is the longest postwar economic expansion phase to date.

This virtuous circle is likely to be sustained through fiscal 2007. However, growth in business fixed investment is likely to be under downward pressure in view of the capital stock cycle reflecting the long economic recovery. Such downward pressure has not been in evidence to date mainly because the pace of increase in business fixed investment has been moderate, with corporate behavior having been cautious and the economy having temporarily paused twice. Thus the growth rate in fiscal 2007 is likely to fall toward the 1.5-2 percent range of the potential growth rate and to be around 2 percent, reflecting a slowdown in the pace of increase in business fixed investment.

#### **(Outlook for Prices in Fiscal 2006 and 2007)**

Given this economic outlook, the environment influencing prices is likely to change gradually. As the economy continues to expand at a pace slightly above its potential, the output gap, which is closed now, is likely to become positive (excess demand) and then to widen moderately. Although unit labor costs (labor costs per unit of output) continue to decline due to increases in productivity, the rate of decline has been on a narrowing trend, as a result of wages starting to increase (Chart 16). Given the tighter supply and demand balance of labor in a relatively wide range of industries and the likely slowing rate of productivity increases as the economic recovery matures, unit labor costs are expected to stop declining and start increasing slightly in the future. Prices of raw materials, such as crude oil and other commodities, are generally expected to remain at high levels.

Although such upward pressure on prices is likely to be offset, to some extent, by downward pressure stemming from intense competition among firms facing deregulation, advances in information and telecommunication technology, and the deepening of economic globalization, on the whole the uptrend in prices is likely to become firmly established. As evidenced by various surveys, firms and households are gradually shifting up their inflation expectations for both the short term and the medium to long term (Chart 17). According to the Bank's *Opinion Survey on the General Public's Mindset and Behavior*, households' expectations of inflation, in terms of its average for the next five years, have been increasing gradually with the median at approximately 1 percent.

Against this backdrop, the domestic corporate goods price index is likely to increase by

about 1.5 percent in fiscal 2006, and about 1 percent in fiscal 2007. The year-on-year rate of increase in the CPI (excluding fresh food, on a nationwide basis) is likely to be around the middle of the range between zero and 1 percent in fiscal 2006 and slightly below 1 percent in fiscal 2007.<sup>10</sup>

### **(Developments in Monetary Aggregates)**

Looking at the environment for corporate finances, accommodative monetary conditions are likely to be maintained, as the lending attitude at financial institutions is expected to remain positive (Chart 18). Firms' financing conditions are currently very easy overall and their financing needs have not increased given ample cashflows from high profits. A closer look at firms' medium-term business strategies suggests that firms are gradually putting less emphasis on shedding interest-bearing liabilities from their balance sheets and more firms are making business fixed investment exceeding the level of depreciation allowances in select business areas.<sup>11</sup> Purchases of land are also increasing, reflecting the fact that business fixed investments for constructing new manufacturing sites and opening new retail shops have been rising. Firms are gradually returning more surplus cash to shareholders

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<sup>10</sup> This outlook for inflation is based on the 2000 base CPI. The base year for the CPI will be changed to 2005 in August 2006, and year-on-year figures back as far as January 2006 will be revised retroactively. The year-on-year rate of increase in the 2005 base CPI is likely to be slightly lower than that obtained using the current 2000 base CPI. Factors considered as possible causes of downward revision are as follows. First, for durable consumer goods subject to substantial price declines, such as personal computers, the lower the level of the price index the smaller is the change in the level of the index. However, with the re-indexing that accompanies the revision of the base year, changes in the index will once again be larger (the "price index formula" effect). Second, among the new items to be included in the CPI with the revision of the base year, there are items that are recently experiencing accelerating price declines, for example, flat-panel televisions (the "newly included items" effect). And third, the weight applied to the rent for non-wooden houses, whose rate of price decline is large, is expected to increase with the revision (the "basic statistics" effect). Taking these factors into account, the extent of the downward revision is likely to be approximately the same as that accompanying the shift of the base year from 1995 to 2000 when personal computers were included, i.e., a 0.26 percentage point decline (the average during 2000).

<sup>11</sup> For details, see "Jojokigyo no Kyasshu Furo Douko to Shishutsukoudo -- Shinchouna nakani Mirareru Sekkyokuka he Muketa Ugoki (Movements in Listed Firms' Cashflows and Their Spending Behavior -- A Cautious Shift toward a More Positive Attitude)," available only in Japanese, *Nippon Ginko Chousa Kiho* (Bank of Japan Research Bulletin), Winter 2006, January 2006.

through, for example, dividend payments. With high levels of return on assets comparable to those recorded during the bubble era of the late 1980s, some firms are allowing their debt-equity ratios to rise, thereby further improving their return on capital with a view to realizing an optimal capital structure. In this situation, the year-on-year rate of change in the amount outstanding of lending by private banks, after adjusting for special factors such as the effects of marketing loan assets and disposing of nonperforming loans, turned positive in August 2005 and has since been gradually rising. It is likely to remain positive in the future as the economic expansion is sustained (Chart 19).

Households and firms have become increasingly interested in holding financial assets other than bank deposits as the financial system has regained stability. Financial institutions, in order to increase income from fees and commissions, are adopting business strategies to provide financial instruments other than deposits, for example selling investment trusts at bank windows. These developments are likely to cause a shift of funds from bank deposits to financial assets such as investment trusts and Japanese government bonds specifically designed for individual investors. The growth rate of the money stock ( $M_2$ +CDs) has been exceeding that of nominal GDP in recent years, and its level relative to nominal GDP remains significantly high. Given the asset allocation by households and firms, the growth rate of the money stock is unlikely to accelerate substantially. Such developments in the money stock are expected to be compatible with moderate price increases and sustainable economic growth.

## **2. Examining the Mechanism of Changes in Economic Activity and Prices**

### **(Environment surrounding Exports)**

According to the World Economic Outlook released by the International Monetary Fund (IMF), the growth rate of the global economy has shifted upward since 2003 from its past-two-decade average of 3-4 percent to 4 percent or above, against the backdrop of strong growth in emerging economies. After the above 5 percent growth rate for the global economy in 2004, the growth rate was slightly below 5 percent in 2005, and for 2006, a similarly high growth rate is expected. As for Japan's major trading partners, the U.S. economy continues to expand steadily particularly in terms of domestic private demand,



despite signs of slowdown in some areas such as the housing market. Meanwhile, although the euro economies remain somewhat sluggish, the momentum for recovery in the euro area has been gradually increasing as evidenced by the recovery in exports and production. The Chinese economy as a whole continues to grow strongly, despite the continued supply-demand imbalances in individual sectors.

With regard to the future path of Japan's exports, a key issue is whether or not the current developments in overseas economies will continue. Affecting this are the following risks: first, the risk that growth in the U.S. economy may slow prompted by a rise in the inflation rate and adjustment in housing prices; second, the risk that the initial signs of an external-demand-led economic recovery in the euro area may not reach full potential; and third, the risk surrounding the acceleration of economic growth in China which will depend on developments in fixed asset investment and private consumption.

#### **(Inventory Adjustment Pressure)**

In the manufacturing sector as a whole, growth in inventory levels is roughly consistent with shipments (Chart 4[3]). In detail, the year-on-year growth rate for inventories of electronic parts and devices has been rather high, partly reflecting a large fall in the same period in the previous year, but it has still stayed below the growth rate for shipments. As for other producer goods (iron and steel, chemicals, etc.), inventory levels have become more consistent with shipment levels in Japan, because of favorable conditions for high-value-added products and progress in inventory adjustments for general-purpose products. Meanwhile, inventory levels for durable consumer goods are basically consistent with shipments, despite large fluctuations due partly to inventories of automobiles waiting for shipment as exports.

More than a few manufacturers in IT-related sectors, such as those of electronic parts and devices, are planning to increase production considerably. Firms have been trying to prevent the build-up of excessive inventories as much as possible, but the supply of IT-related goods, including high-value-added products where Japanese firms have a competitive edge, is increasing at a very fast pace. In this situation, it should be noted that if for any reason inventories were to become excessive relative to shipments, and if the

situation was exacerbated by developments such as a slowing of U.S. economic growth, the growth of Japan's exports and production could be depressed (Chart 20).

### **(Capital Stock Cycle)**

Although the momentum driving increases in business fixed investment is likely to be maintained through fiscal 2007, the pace of increase may slow gradually because of the accelerating growth of the capital stock reflecting increases in investment since fiscal 2003 (Chart 21). On the other hand, as corporate finances provide an accommodative environment for increasing investment, firms may actually accelerate their investment and the expected deceleration in the pace of increase in business fixed investment may not materialize for the time being. As the lending stance of financial institutions continues to be positive and expectations of higher interest rates and land prices are gradually increasing, business fixed investment by small nonmanufacturers may turn out stronger than expected, as it has done in the past. To date, firms have not been looking to aggressively increase business fixed investment. If firms accelerate investment, this may positively impact on overall growth for a while. At the same time, such acceleration may lead to an excessive build-up of capital stock precipitating an economic slowdown.

### **(Households' Propensity to Expend)**

Households' average propensity to consume has been at a high level (Chart 22). In the background to this lie the following factors. The first factor is an uptrend in the propensity to consume due to the aging of the population. In general, an individual's propensity to consume changes with the phases of his or her life cycle. It tends to decline during the phases of youth and middle age, and thereafter to rise as the individual ages. Therefore, given that a declining birthrate and aging population cause the proportion of the elderly in the population to increase, there will be a consequent rise in the overall average propensity to consume.<sup>12</sup> The second factor is consumer sentiment, now becoming buoyant due to

---

<sup>12</sup> The reason an individual's average propensity to consume declines during youth and middle age before rising thereafter is the following. Disposable income usually follows a curved path of continuous increases until an individual reaches the age of 45-55, before declining thereafter. Consumption, however, is relatively stable over the course of the individual's life cycle compared with movements in income.

improvements in the employment and income situation and higher stock prices. The recent rise in wages is composed of increases not only in overtime and bonus payments, which are affected by temporary factors, but also in regular payments.<sup>13</sup> Since increases in regular payments are usually considered to constitute changes in permanent income, this rise could support households' propensity to consume for the time being. These factors suggest that households' propensity to consume will remain at its current elevated level.<sup>14</sup>

Housing investment is likely to follow a moderate uptrend, given that the income situation is favorable and expectations of higher interest rates and land prices are gradually taking hold. Should the effects of monetary easing prove unexpectedly strong, it is possible that households' residential purchases may accelerate, in addition to greater-than-expected business fixed investment by small nonmanufacturers.

#### **(The Maturing of the Economic Recovery and Upward Pressure on Wages)**

With the maturing of the economic recovery, the main driving force behind domestic private demand will gradually shift from business fixed investment to household spending. Experience of past economic expansions suggests that rapid increases in exports and business fixed investment are followed by gradual increases in household spending, i.e., private consumption and housing investment (Chart 23). Demand stemming from an increase in household spending, private consumption in particular, tends to be skewed toward the nonmanufacturing sector, including retailers and providers of household services. As a result, the main source of strength in economic activity is likely to shift from manufacturers to nonmanufacturers. When the increasing level of economic activity is tied to an increase in the relative importance of the highly labor intensive nonmanufacturing sector, increases in wage costs cannot be easily absorbed by firms by increasing their

---

<sup>13</sup> Regular payments have been in fact on a gradual uptrend. In the *Monthly Labour Survey*, the recent somewhat subdued figures for regular payments since January 2006 seem to be largely due to changes in the sample of small establishments (of 5 to 29 employees) which are carried out twice a year in January and July. According to anecdotal information, more than a few firms have agreed this spring on a raise, for the first time in a long while. In the future, the improving trend is likely to become more evident as the effects of these sample changes abate.

<sup>14</sup> For recent developments in private consumption, please refer to a forthcoming report "Why Has Japanese Private Consumption Remained Firm?" on the Bank of Japan's web site.

productivity. Furthermore, the resulting demand for additional labor leads to upward pressure on wages.<sup>15</sup> Looking at past experience, labor's share of income tends to stop falling after a long economic expansion (Chart 24). In sum, as the economic recovery matures, growth in productivity is likely to slow, wages are likely to start rising, and unit labor costs are likely to show smaller declines before at some point starting to increase slightly.

### **(Relationship between the Inflation Rate and the Output Gap)**

The view on consumer prices in this outlook takes into account the possible declining sensitivity of the rate of increase in the CPI to changes in the output gap. It is assumed that CPI inflation will not noticeably accelerate even if the positive output gap should widen (Chart 25).<sup>16</sup> This is a development observed not only in Japan but worldwide. In the background lie factors that include deregulation, advances in information and telecommunication technology, and the deepening of economic globalization. Mobile phone charges may be subject to downward pressure due to new entry into the market. This is an example of the effect of deregulation and advances in information and telecommunication technology. As for the effect of the deepening of economic globalization, even when the domestic output gap indicates excess demand, upward pressure on prices may be contained due to competition between domestic goods and imported goods from emerging economies. In Japan in the past, unit labor costs could fall considerably as productivity was increased against the backdrop of a relatively low rate of resource utilization, and this may have helped make the rate of increase in the CPI less sensitive to changes in the output gap. However, with actual output expected gradually to

---

<sup>15</sup> In Japan, compared to countries such as the United States, firms tend to offer long-term labor contracts and to retain workers during phases of economic slowdown. Thus, when the level of economic activity is low and firms are retaining many workers, they have considerable room to increase productivity. On the other hand, when the level of economic activity rises and firms are increasingly required to hire workers from outside, there is a little room to increase productivity.

<sup>16</sup> The relationship between the inflation rate and the output gap is referred to as the Phillips curve. There are two factors to note when considering the sensitivity of the inflation rate to changes in the output gap. The first factor is the slope of the Phillips curve, specifically how much the inflation rate will rise in response to a given change in the output gap. The second factor is the pace at which the curve shifts either upward or downward, specifically how much a rise in the expected inflation rate will push up the actual rate given that the output gap remains unchanged.

exceed potential output, there may at some point be an upward shift in inflation expectations and wages and prices may start to increase faster than anticipated.

The relative importance of each factor above may differ depending on circumstances, and the sensitivity of the rate of increase in the CPI to changes in the output gap may vary accordingly. If sensitivity to the output gap is not as weak as assumed, prices may rise more than expected. On the other hand, if sensitivity to the output gap is even weaker than assumed, prices will not respond even if economic activity is stronger than expected. In the latter case, at the point when prices finally respond and start to increase, the economy may overheat to the extent that a wide positive output gap appears (compared with the current situation of no output gap). If this were to happen, swings in economic activity could actually be larger, reflecting an excessive build-up of capital stock and its subsequent adjustment. Another risk is that even if the inflation rate were not sensitive to changes in the output gap in the short term, at some point the rate of wage and price increases might accelerate accompanied by an upward shift in the expected rate of inflation.

#### **(Developments in Financial Markets)**

The uncollateralized overnight call rate has been at around zero percent. Interest rates on term instruments have increased somewhat (Chart 26). Euroyen futures rates and implied forward rates embodied in treasury bills (TBs) and financing bills (FBs) have strengthened (Chart 27). Long-term interest rates have been rising (Chart 28). Long-term interest rates in the United States and Europe are also rising. The levels of real short-term interest rates, calculated by subtracting the inflation rate from nominal short-term interest rates, remain low. This, together with improvements in corporate profitability, appears to have strengthened the stimulative effects of monetary easing on economic activity (Chart 29). As described earlier, Japan's inflation rate is projected to be on a moderate uptrend in the medium to long term, presumably lowering medium- to long-term real interest rates.

Credit spreads between CP and short-term government securities are widening to some extent, but spreads between corporate bonds and long-term government bonds have remained tight against the backdrop of increased demand for corporate bonds from investors (Chart 30). Lending rates have been at historical lows, as banks have been

adopting a more positive lending posture (Chart 18[3]).

Stock prices have been generally robust (Chart 31). This reflects the expansion of the global economy and the strength of Japanese corporate profits as well as continuing strong interest from foreign investors.

The exchange rates of the yen have shown some swings recently, mainly reflecting market views on the economic situation at home and abroad, interest rate differentials between Japanese and overseas markets, and global imbalances. The nominal effective exchange rate of the yen continues to decline (Chart 32).<sup>17</sup>

The rate of decline in land prices has slowed recently, although land prices on the whole remain on a downward trend (Chart 33). The average year-on-year change in the published land prices for the Tokyo area (as of January 1, 2006) became positive for the first time in 15 years. The rate of change in commercial land prices in the three major metropolitan areas (Tokyo, Osaka, and Nagoya) has started to increase, against the backdrop of firm demand for office space. The weighted average rate of change in published land prices stopped decreasing and started to increase.<sup>18</sup> In the rental market for office space, the decline in rent is coming to a halt, as the vacancy rate has been on a downtrend.

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<sup>17</sup> The real effective exchange rate is a weighted average of the yen's real exchange rates versus major currencies. Real exchange rates are calculated from the nominal exchange rates and price indexes of the relevant countries. The real effective exchange rate is currently as low as that recorded in the period immediately after the conclusion of the Plaza Accord in 1985, and this is considered to be supporting growth in Japan's net exports.

<sup>18</sup> The "weighted average rate of change in published land prices" is the average rate of change in land prices weighted by the level of land prices per square meter at individual locations surveyed in the previous year.

**(BOX) The Output Gap and the Potential Growth Rate**

Potential output is defined as the supply capacity derived from the economic structure that exists at a point of time, and the output gap is defined as the difference between actual GDP and potential output.

Potential output can be broadly estimated in two ways. In the first, potential output is defined as the level of economic activity that would be achieved when factors of production are utilized to their fullest potential under the existing economic structure (hereafter the "maximum utilization method"). In the second, potential output is defined as the level of economic activity that would be achieved when factors of production are utilized at their long-term average levels (hereafter the "long-run average utilization method").

The output gap calculated from potential output based on the "maximum utilization method" always takes a negative value, while under the "long-run average utilization method" it can be either positive or negative. Up until now, the Bank has employed the former definition while many overseas central banks and other institutions employ the latter definition.

Taking the opportunity of the re-basing of the GDP statistics and retroactive revisions to the GDP series, the Bank switched its method of estimating potential output to the "long-run average utilization method." The Bank also reviewed its methodology for estimating trends as well as the data employed in estimating potential input levels for individual factors. The new methodology also takes into account structural changes in the labor market that have become apparent in the past few years, and the estimation period was extended back to 1975, from 1983.

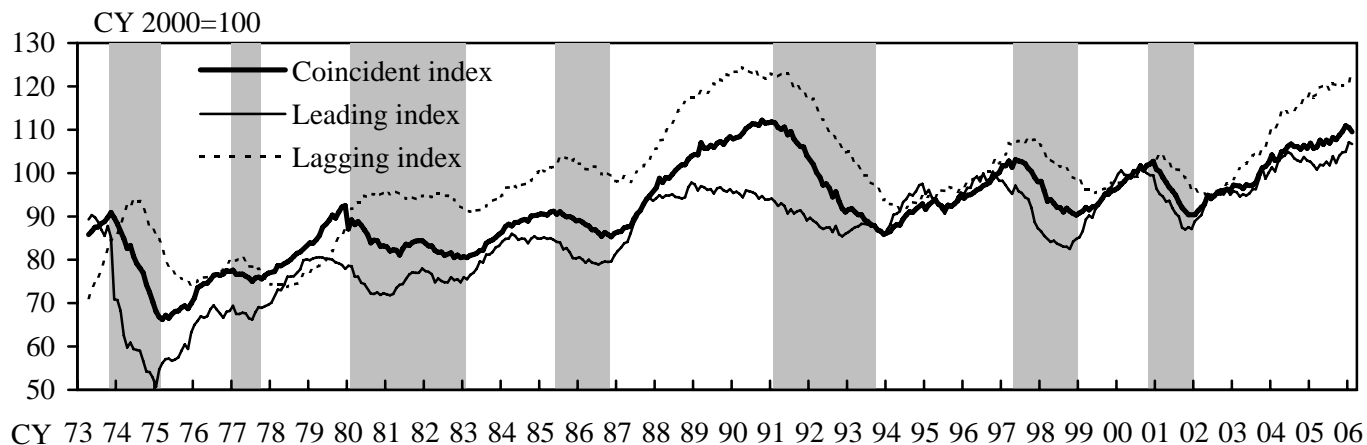
According to the revised estimates, the output gap, for a long time negative during the current economic recovery phase, has diminished and is now closed. This means that the level of resource utilization is at its long-term (since 1975) average (BOX Chart).

The potential growth rate which is the annualized rate of the change in potential output, has gradually risen to the 1.5-2 percent range, from approximately 1 percent during 2003-2004.

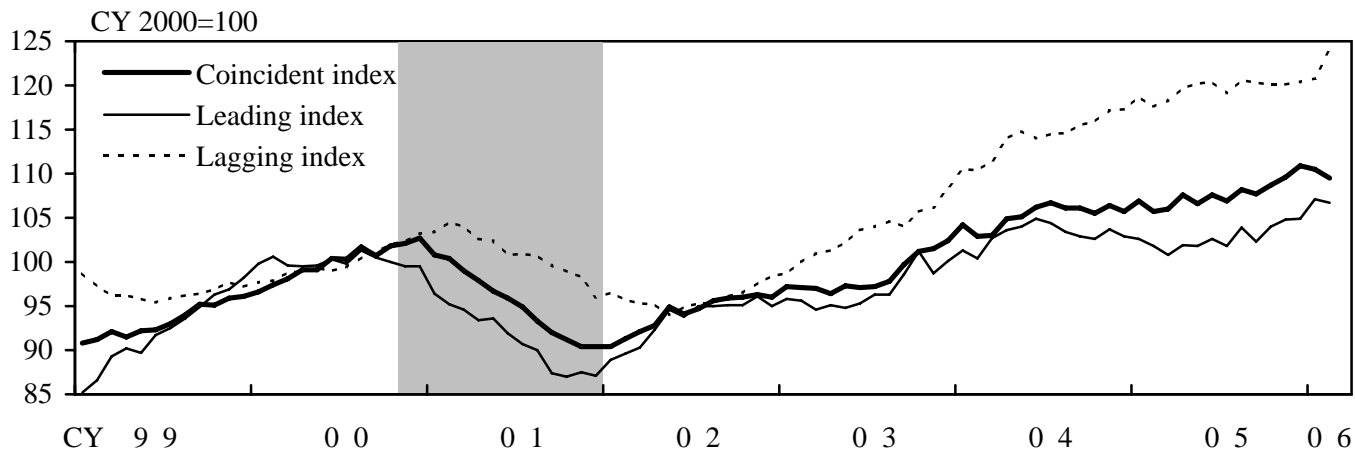
However, it should be noted that non-negligible measurement errors remain in the new estimates for the output gap and the potential growth rate under the new methodology. In particular, despite efforts made to improve accuracy in estimating various trends, retroactive revisions are inevitable when, for example, new data become available. Therefore, the estimates should continue to be treated as approximations.

## Indexes of Business Conditions and Real GDP

(1) Indexes of Business Conditions (Composite Indexes)

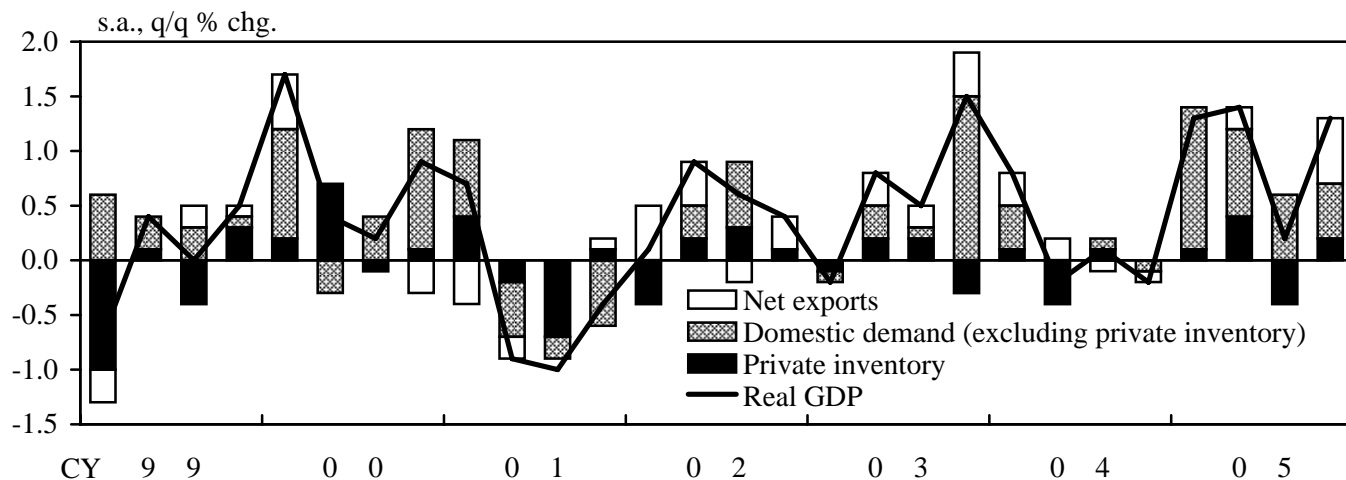


(2) Indexes of Business Conditions (Composite Indexes, Close-Up from 1999 Onward)



Note: Shaded areas indicate recession periods.

(3) Real GDP

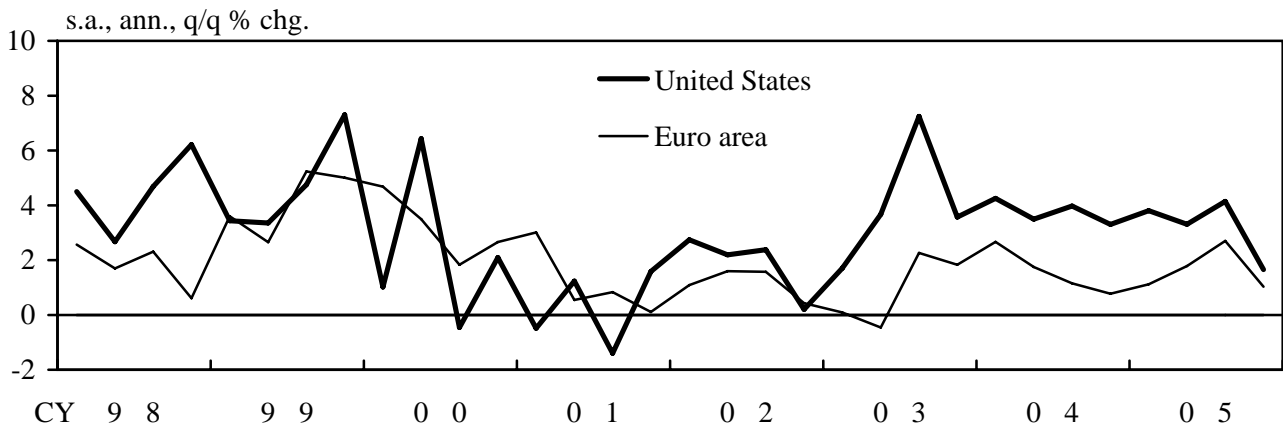


Source: Cabinet Office, "National Accounts," "Indexes of Business Conditions."

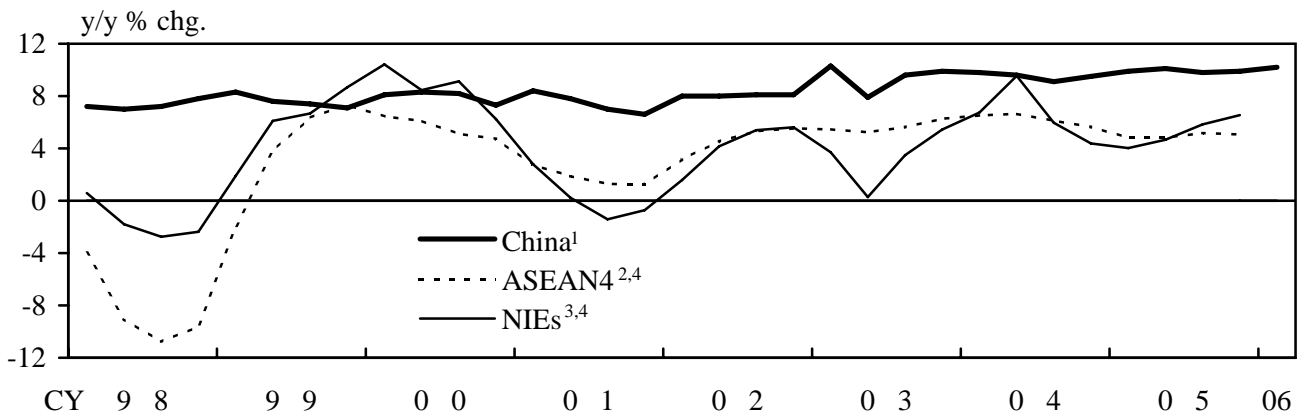


## Real GDP Growth Rates in Overseas Economies

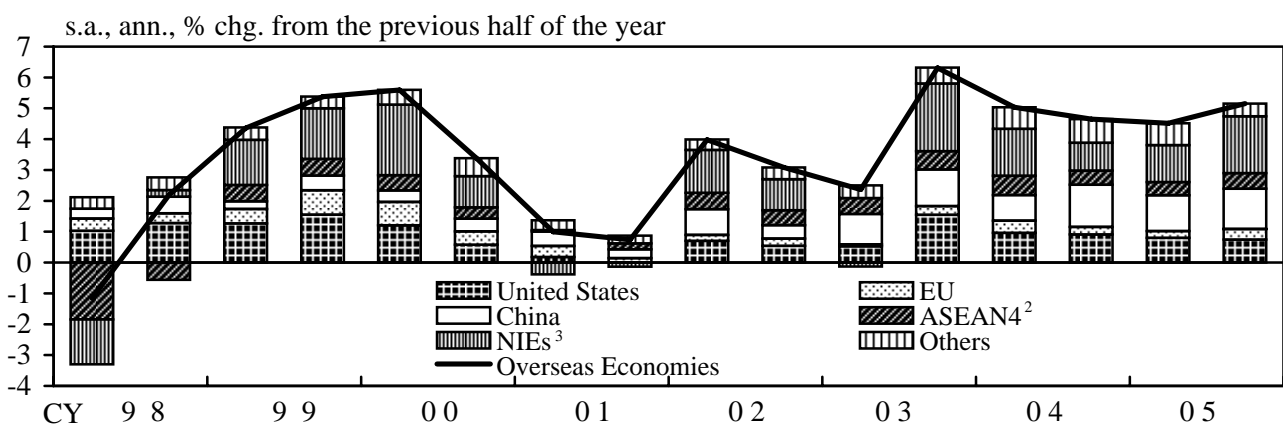
### (1) Real GDP Growth Rates in Advanced Economies



### (2) Real GDP Growth Rates in East Asian Economies



### (3) Real GDP Growth Rates in Overseas Economies<sup>4</sup>



Notes: 1. Data for China in 2005 were revised based on the First National Economic Census.

2. Data for ASEAN4: Thailand, Malaysia, the Philippines, and Indonesia.

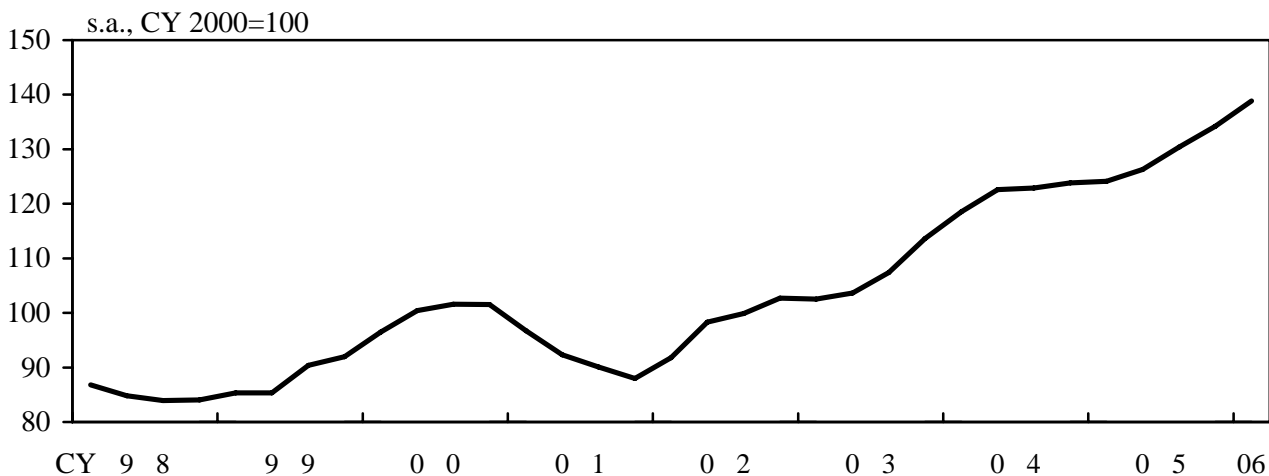
3. Data for NIEs: South Korea, Taiwan, Hong Kong, and Singapore.

4. Calculated by the Bank of Japan, as the average of real GDP weighted by value of exports from Japan to each economy.

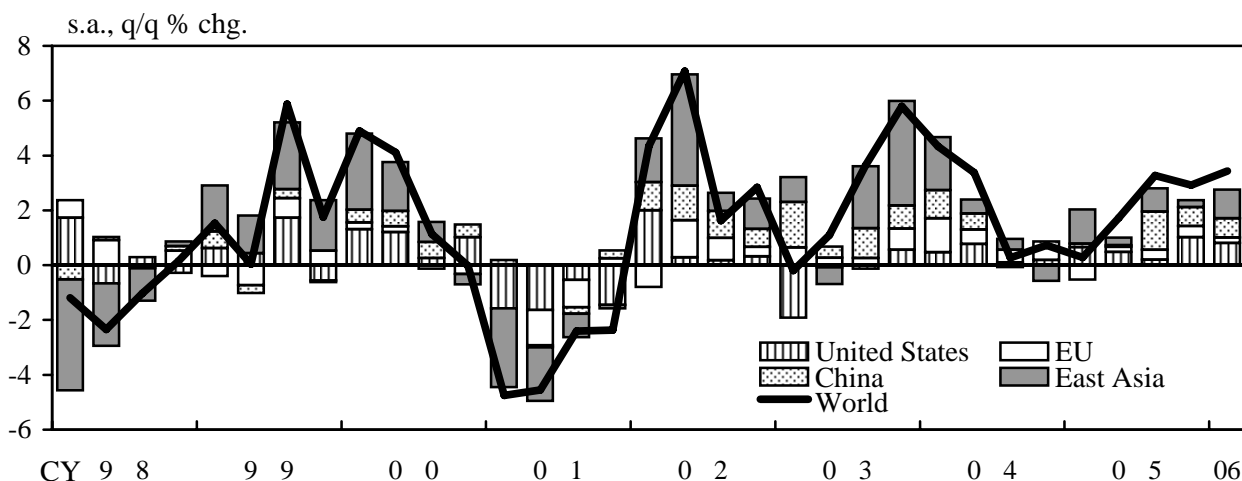
Sources: National governments; central banks; European Commission.

## Exports

(1) Real Exports

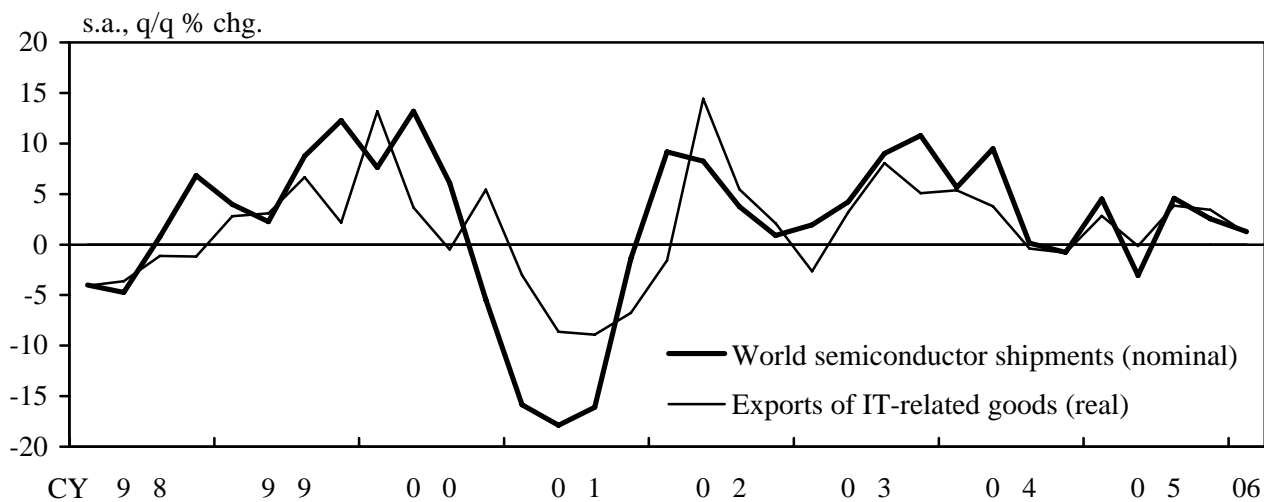


(2) Real Exports (Breakdown by Region)



Note: Data for East Asia: NIEs and ASEAN4.

(3) World Semiconductor Shipments and Exports of IT-Related Goods

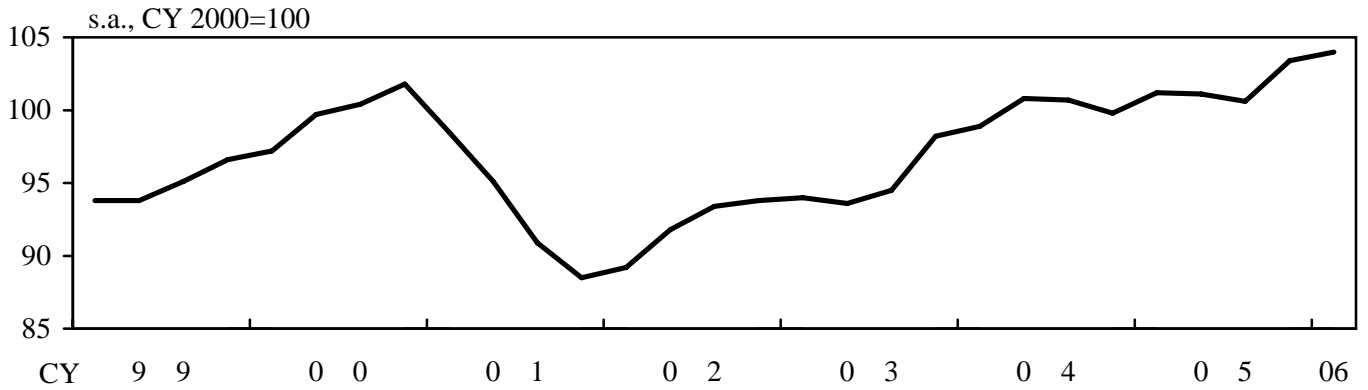


Note: Figure of world semiconductor shipments for 2006/Q1 is that of January-February average.

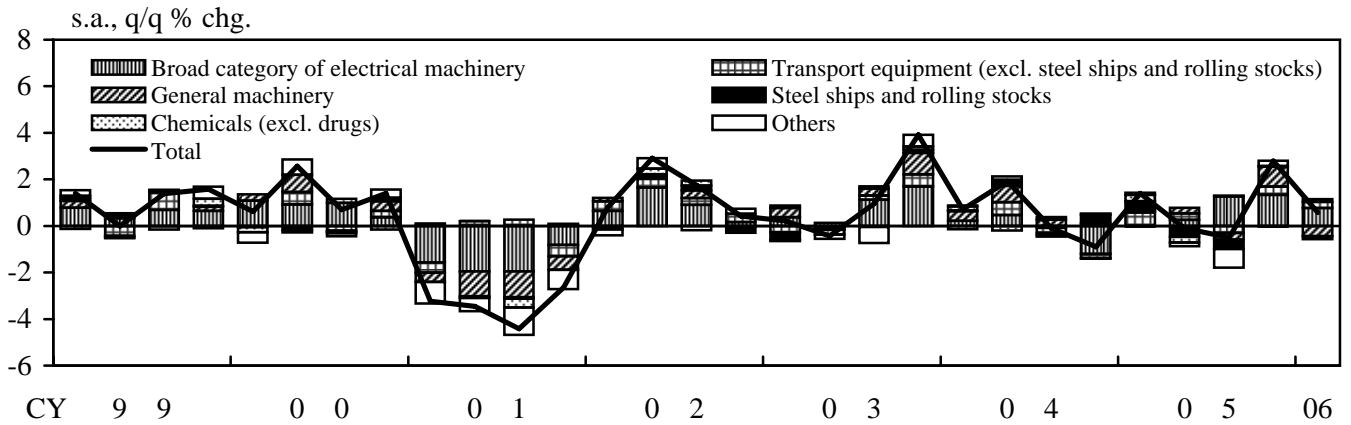
Sources: Ministry of Finance, "The Summary Report on Trade of Japan";  
Bank of Japan, "Corporate Goods Price Index"; World Semiconductor Trade Statistics (WSTS).

# Production

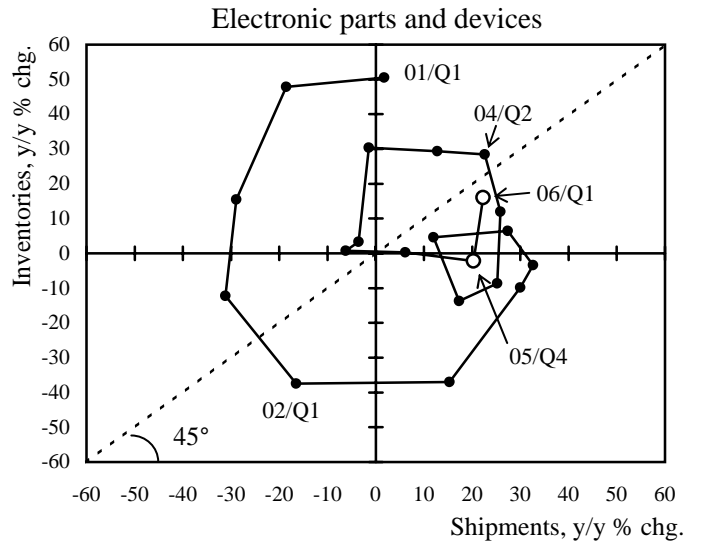
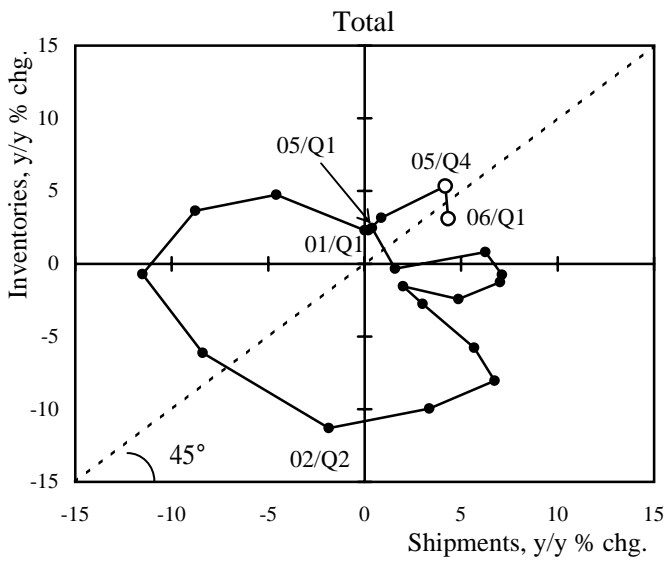
## (1) Production



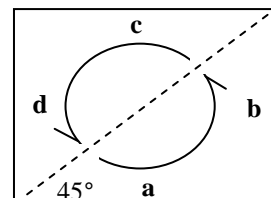
## (2) Production (Breakdown by Industry)



## (3) Inventory Cycle

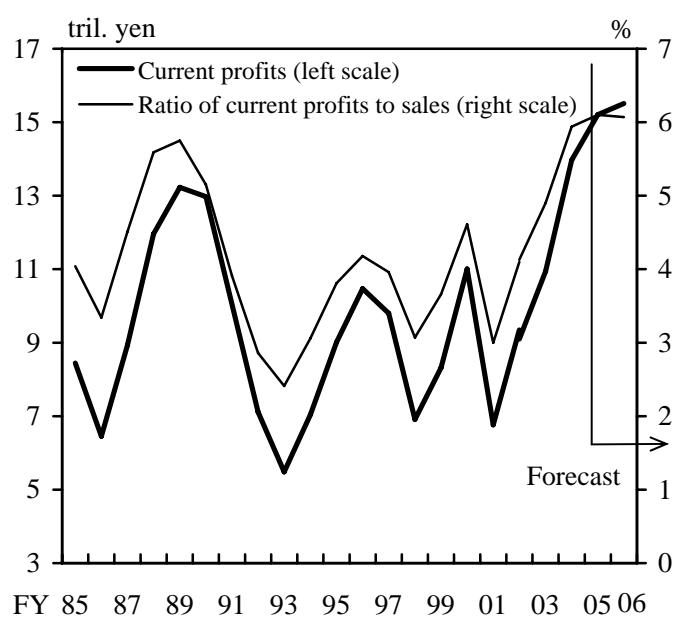


- a Shipment recovery phase
- b Intended inventory accumulation phase
- c Unintended inventory accumulation phase
- d Inventory adjustment phase

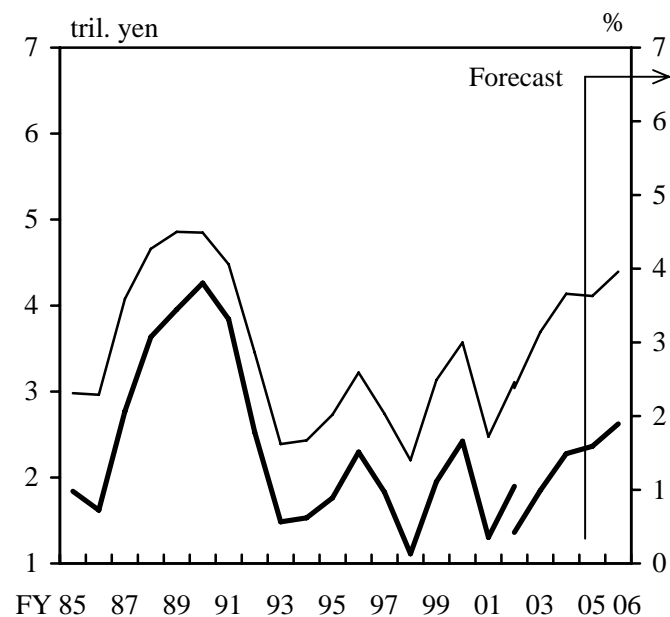


## Current Profits

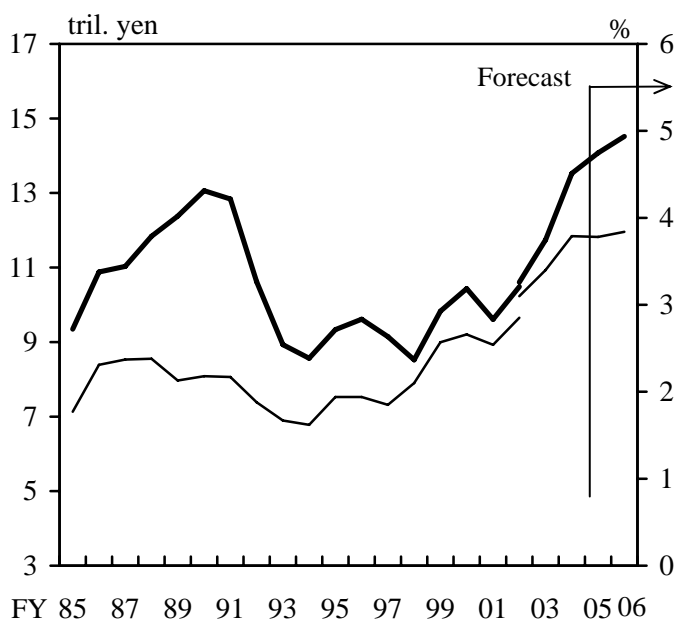
(1) Large Manufacturing Enterprises



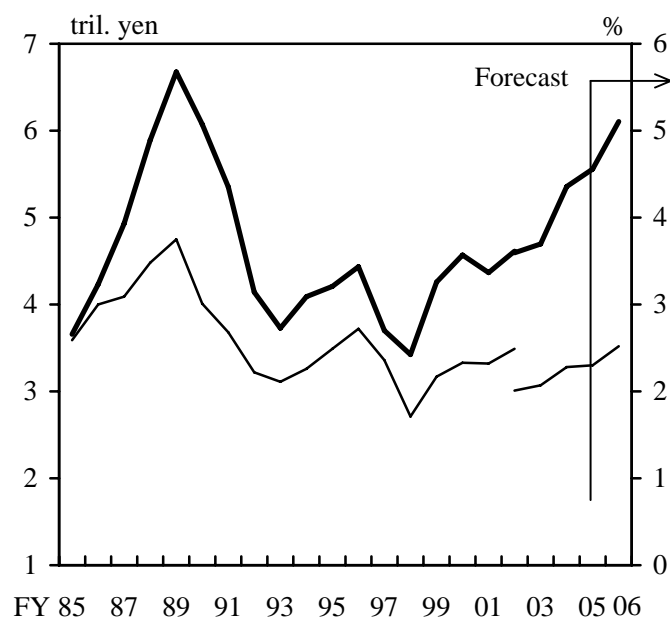
(2) Small Manufacturing Enterprises



(3) Large Nonmanufacturing Enterprises



(4) Small Nonmanufacturing Enterprises



Notes: 1. Large enterprises (pre-revision): 1,000 employees or more.

Small enterprises (pre-revision): 50-299 employees (for manufacturing), 20-99 employees (for wholesaling), 20-49 employees (for retailing, services, and leasing), 50-299 employees (for other nonmanufacturing).

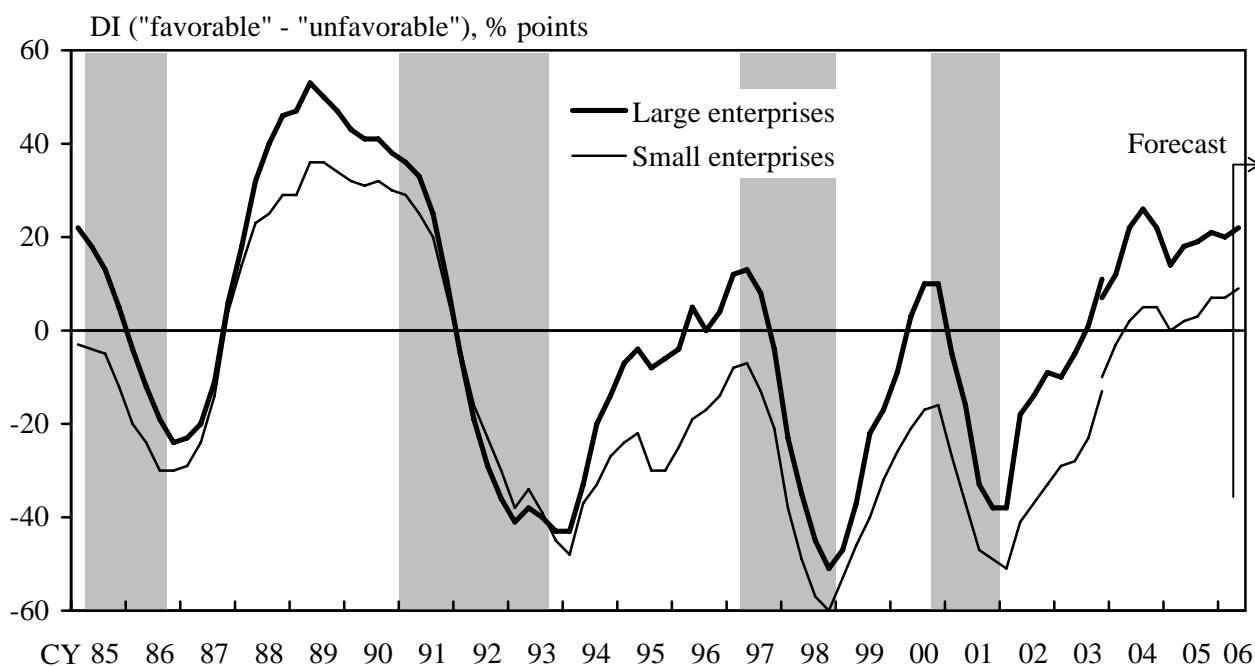
Large enterprises (post-revision): capital of 1 billion yen or more.

Small enterprises (post-revision): capital of from 20 million yen to less than 100 million yen.

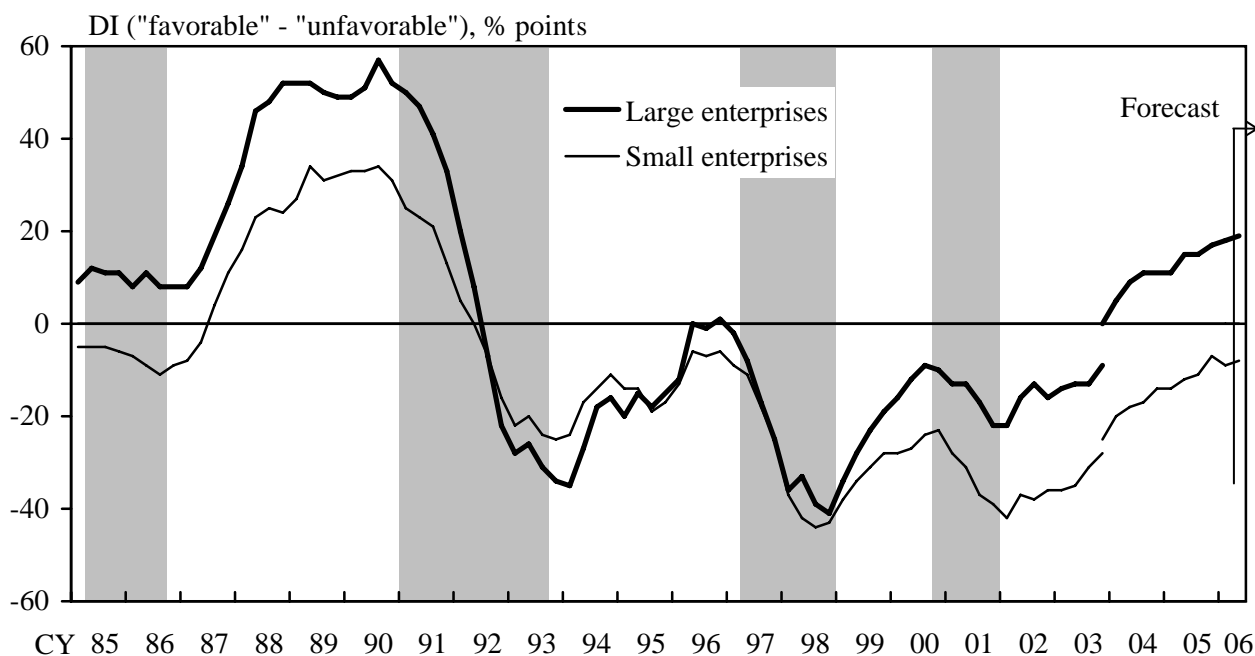
2. The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to FY 2002. Figures on a new basis are from FY 2002.

## Business Conditions

## (1) Manufacturing



## (2) Nonmanufacturing



Notes: 1. The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to the December 2003 survey. Figures on a new basis are from the December 2003 survey.

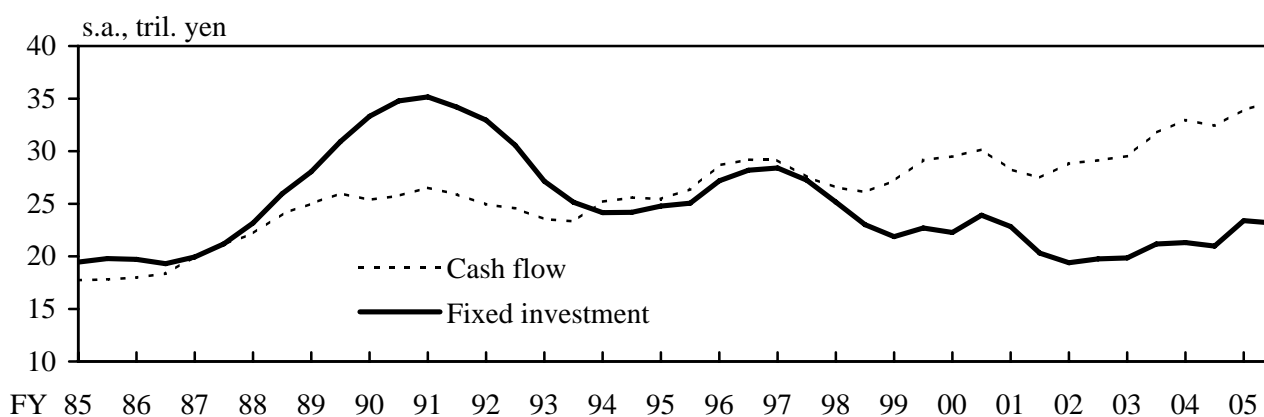
2. Shaded areas indicate recession periods.

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

## Fixed Investment

### (1) Fixed Investment and Cash Flow

(Financial Statements Statistics of Corporations by Industry, Quarterly, All Enterprises)

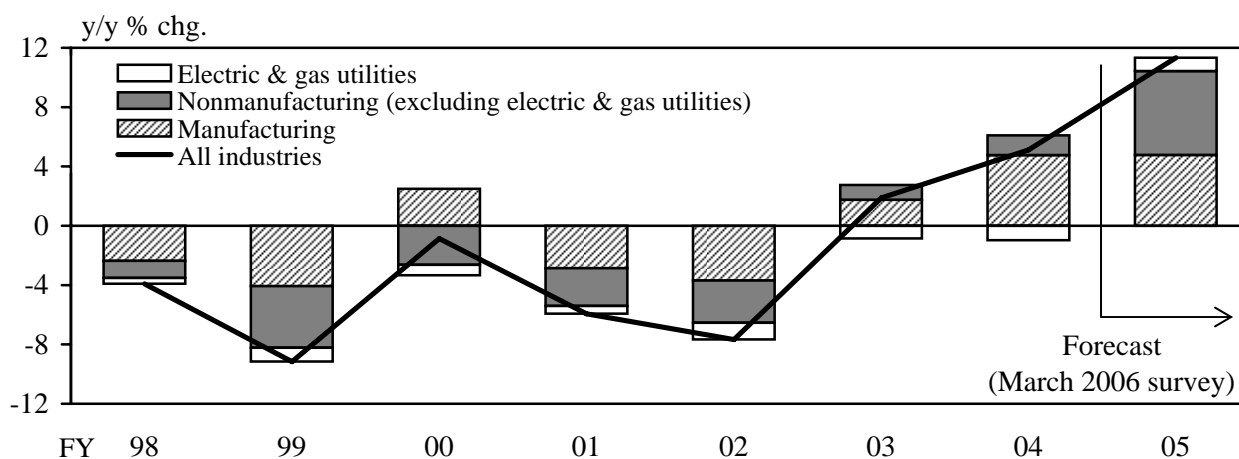


Notes: 1. Figures are adjusted for sample changes.

Cash flow = current profits/2 + depreciation expense

2. Figures for the second half of FY 2005 are calculated on the assumption that the growth rates of 2006/Q1 are the same as those of 2005/Q4.

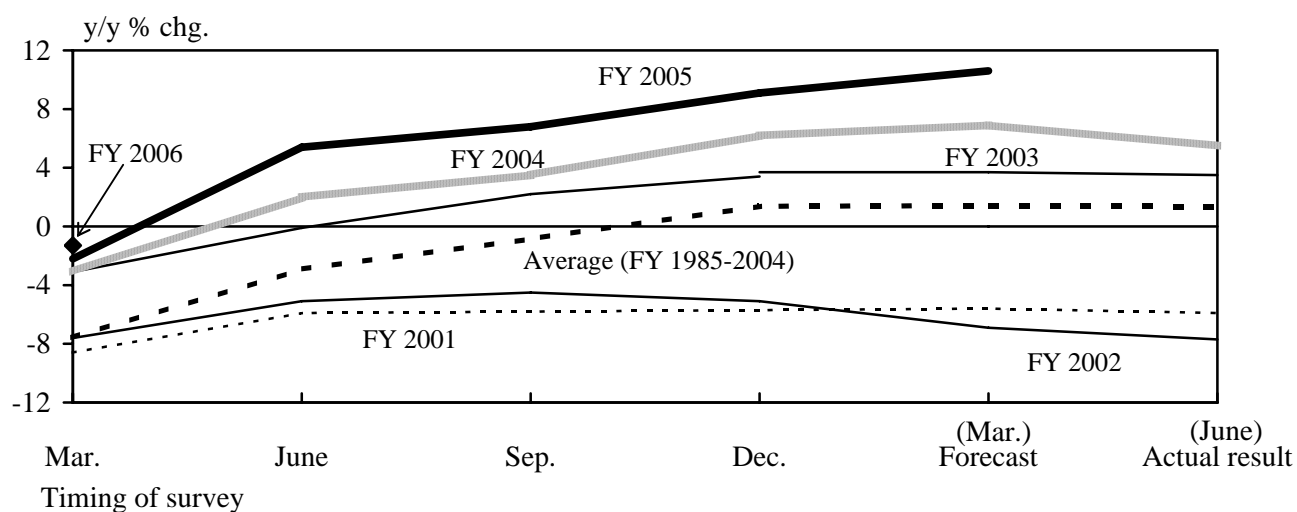
### (2) Fixed Investment Plans as Surveyed (*Tankan*, All Enterprises)



Note: Figures up to the FY 2002 include land purchasing expenses and exclude software investment.

Figures from the FY 2003 exclude land purchasing expenses and include software investment.

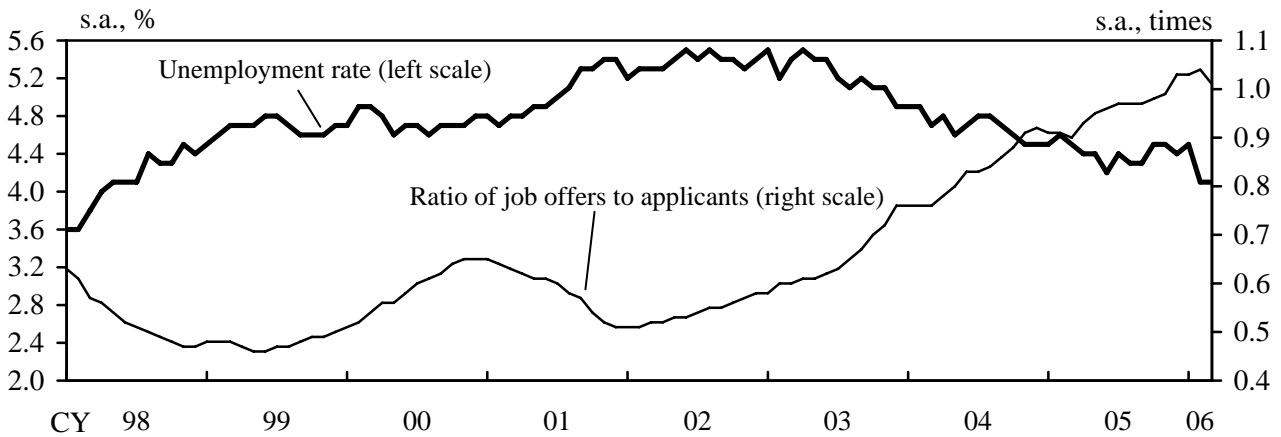
### (3) Developments of Fixed Investment Plans (*Tankan*, All Enterprises)



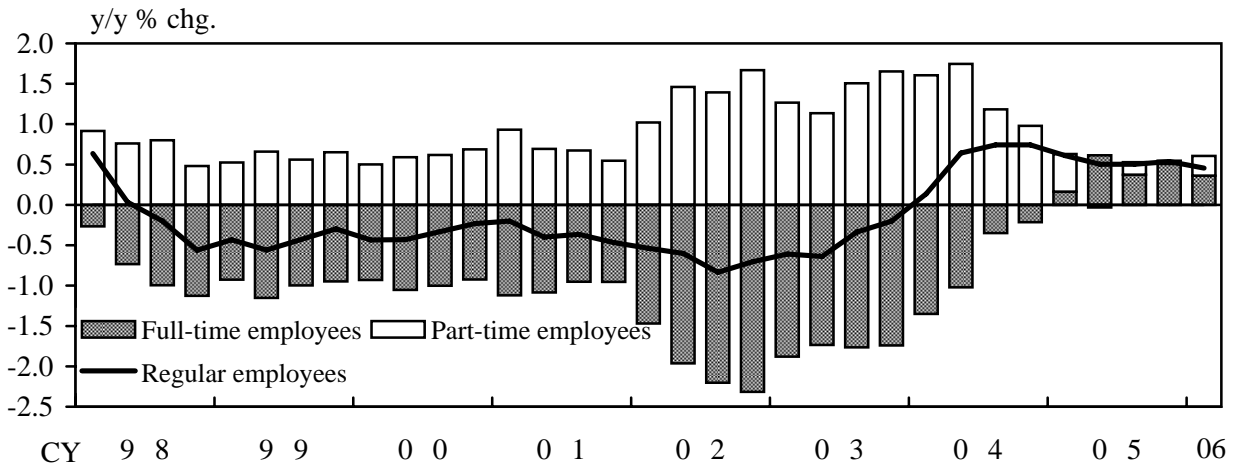
Sources: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan."

## Labor Market Conditions

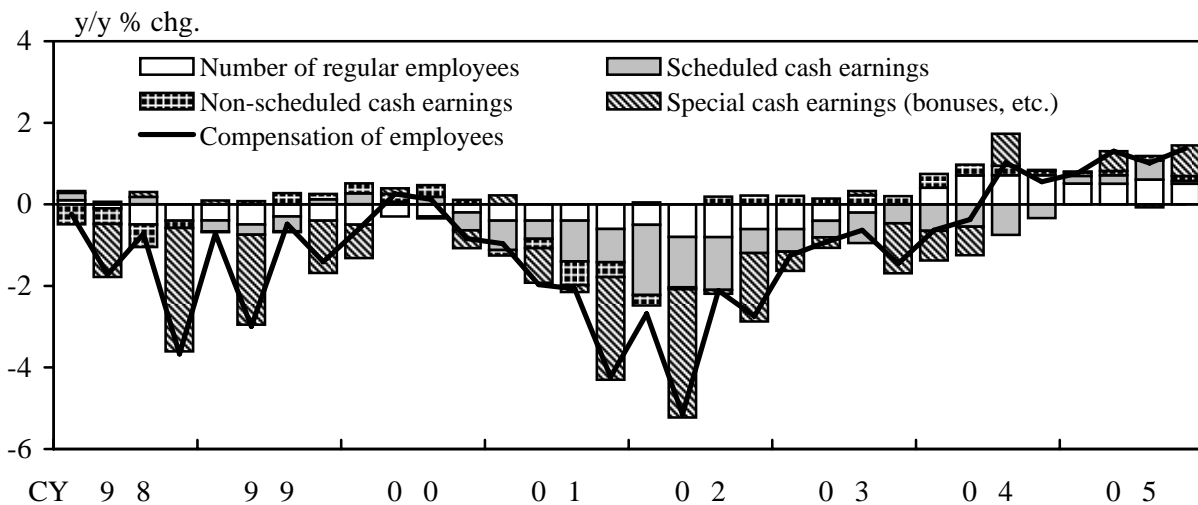
(1) Unemployment Rate and Ratio of Job Offers to Applicants



(2) Number of Regular Employees<sup>1,2</sup>



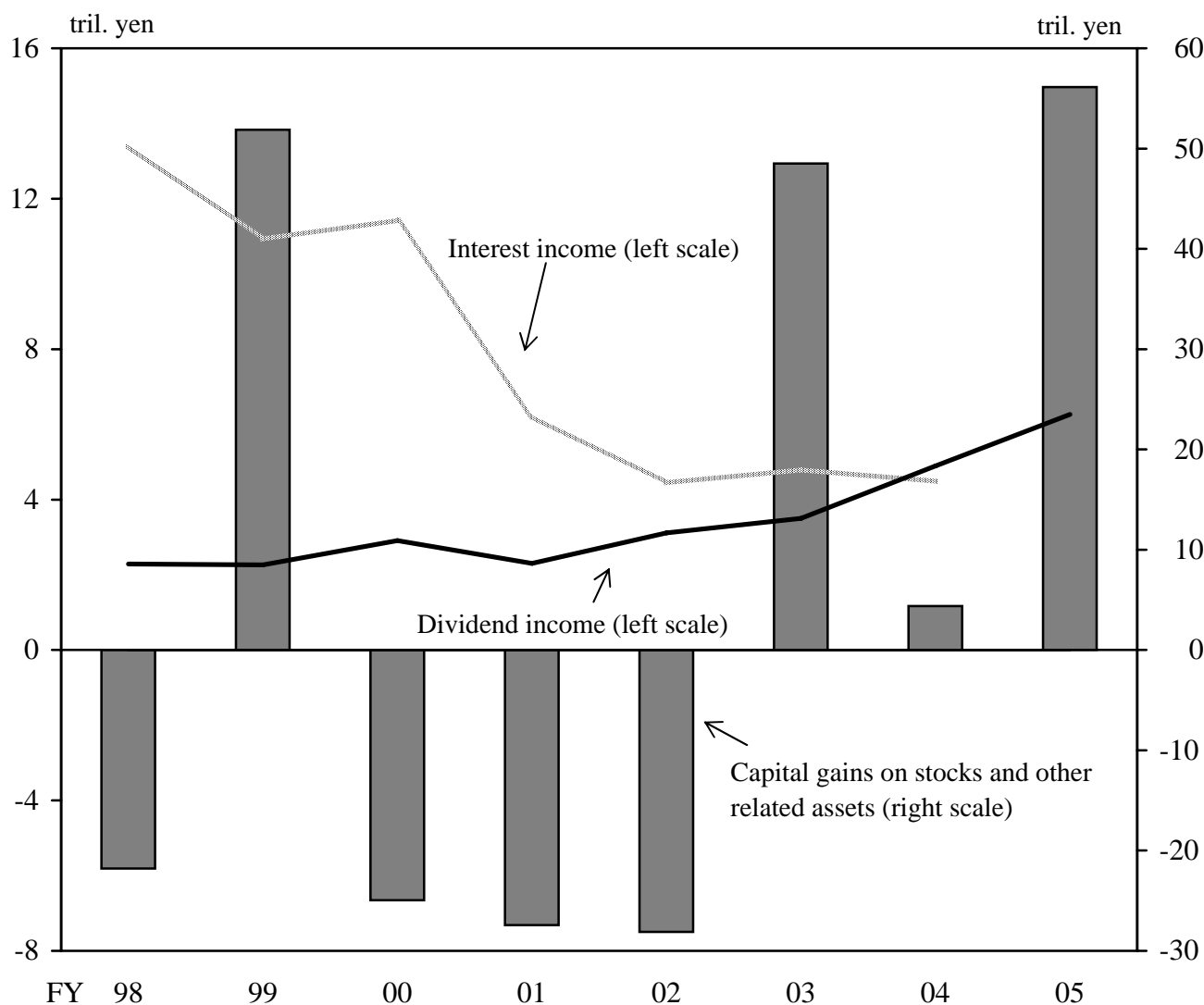
(3) Breakdown of Compensation<sup>1,3</sup>



Notes: 1. Data are for establishments with at least 5 employees.  
 2. Figures for 2006/Q1 are those of January-February averages.  
 3. Q1=Mar.-May, Q2=June-Aug., Q3=Sep.-Nov., Q4=Dec.-Feb.

Sources: Ministry of Internal Affairs and Communications, "Labour Force Survey";  
 Ministry of Health, Labour and Welfare, "Report on Employment Service," "Monthly Labour Survey."

## Households' Dividend and Interest Income and Capital Gains on Stocks



Notes: 1. Capital gains are based on "Flow of Funds Accounts."

Capital gain = market value at the end of the period - market value at the end of the previous period - net transactions during the period

Stocks and other related assets are defined as the sum of "shares and other equities" and "investment trust beneficiary certificates." Figure for FY 2005 is that of April-December 2005.

2. Dividend income in FY 2005 is estimated by multiplying dividend income in FY 2004 by the year-on-year growth rate of the dividends paid during FY 2005 by listed firms which close the books at the end of March (excluding financial institutions and nonbanks, and firms listed in emerging markets).

### Main Figures for Households' Income

1. Nominal compensation of employees (FY 2004): **255.4 tril. yen**

2. Interest income (FY 2004): **4.5 tril. yen**

3. Dividend income (FY 2005, estimated as follows)

Dividend income (FY 2004): 4.9 tril. yen

Growth rate of dividends paid by listed firms: +28%

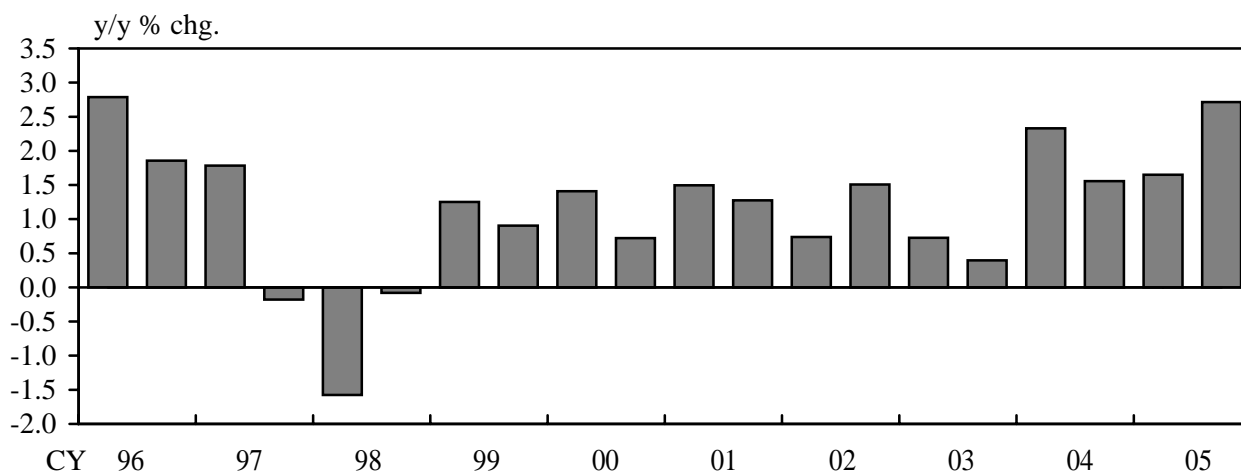
⇒ estimated dividend income (FY 2005): 4.9 tril. yen x 1.28 = **6.3 tril. yen**

4. Capital gains (April-December 2005): **56.1 tril. yen**

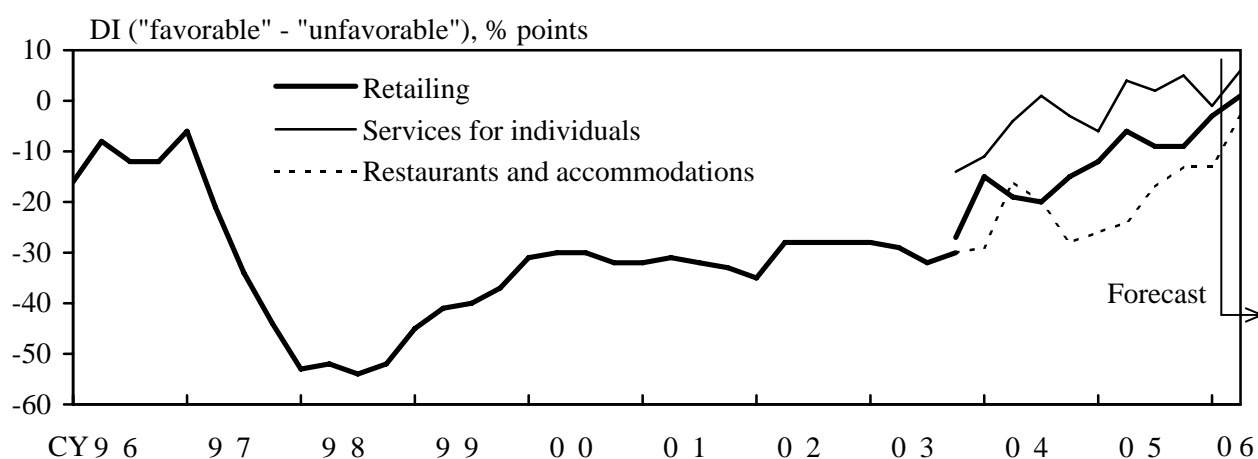


## Private Consumption

### (1) GDP Private Consumption

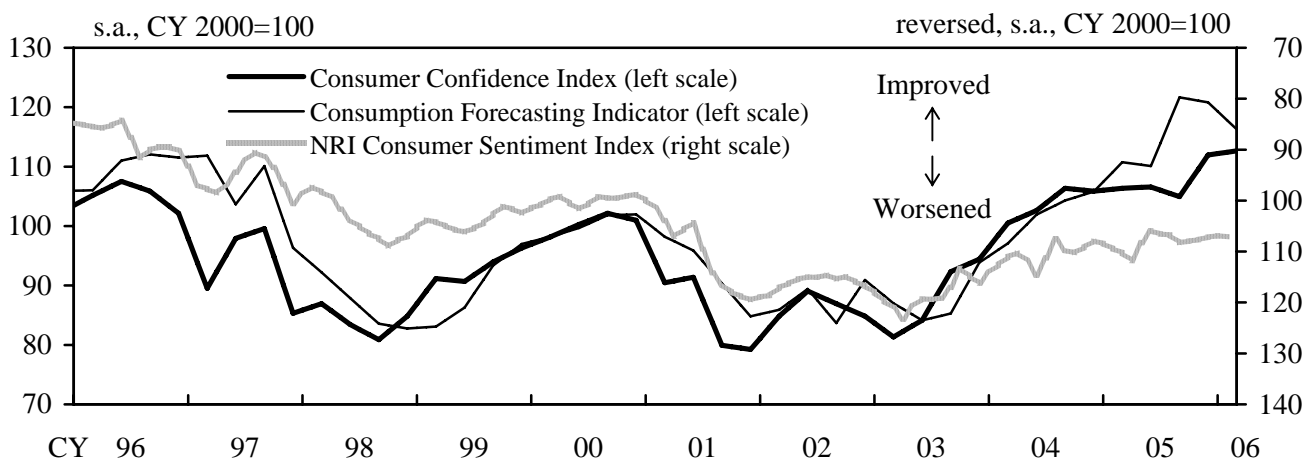


### (2) Business Conditions Judged by Enterprises Related to Private Consumption (*Tankan*)



Note: The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to the December 2003 survey. Figures on a new basis are from the December 2003 survey.

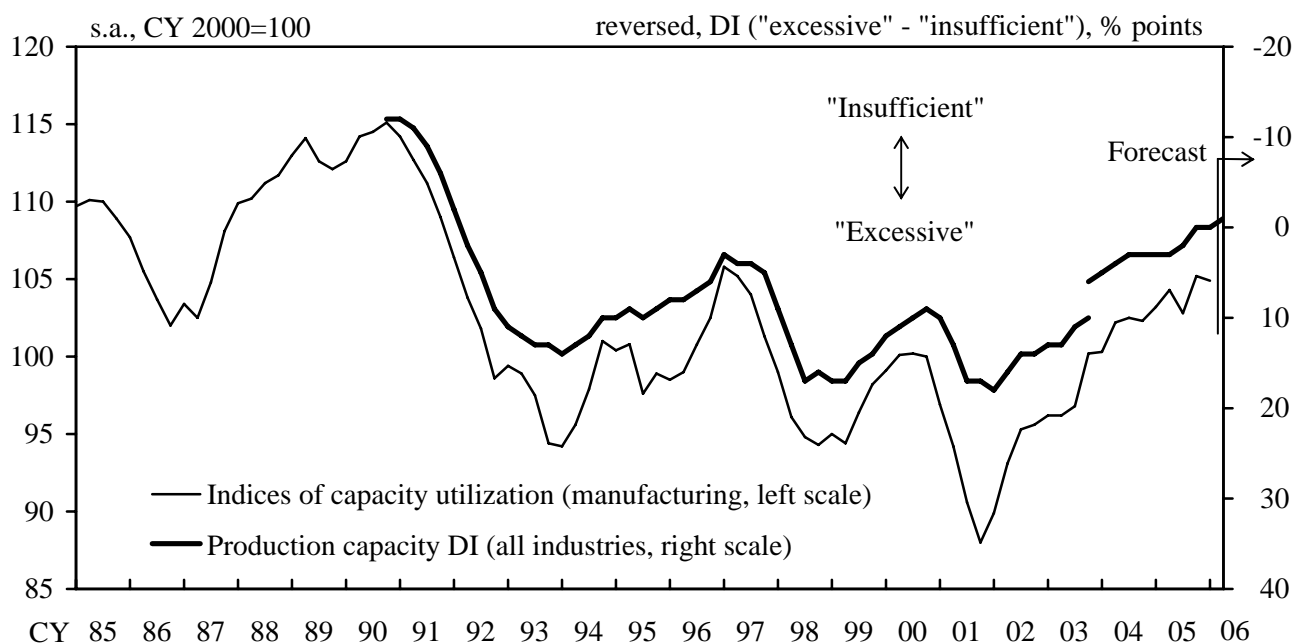
### (3) Consumer Confidence



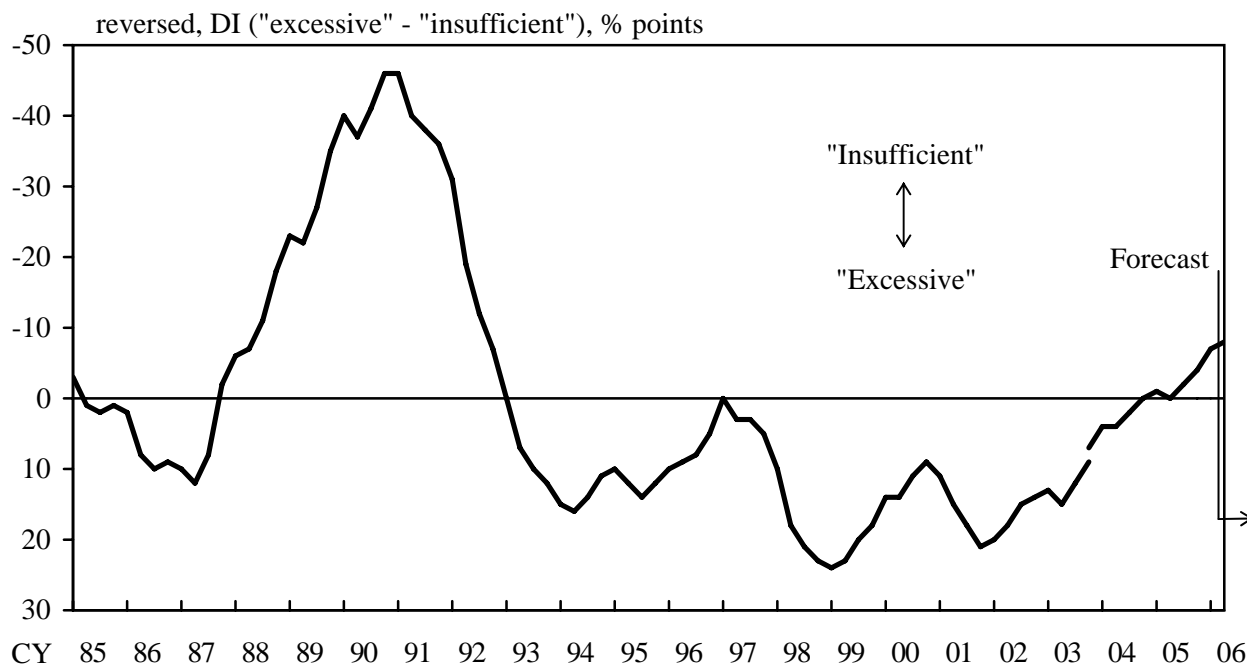
Sources: Cabinet Office, "National Accounts," "Consumer Confidence Survey";  
 Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan";  
 Nikkei Research Institute of Industry and Markets, "Consumption Forecasting Indicator";  
 Nippon Research Institute (NRI), "Consumer Sentiment Survey."

## Firms' Perception of Production Capacity and Employment

### (1) Production Capacity DI (*Tankan*) and Indices of Capacity Utilization<sup>1,2,3</sup>



### (2) Employment Conditions DI (*Tankan*)<sup>1,2</sup>



Notes: 1. Production capacity DI and employment conditions DI are based on all enterprises.

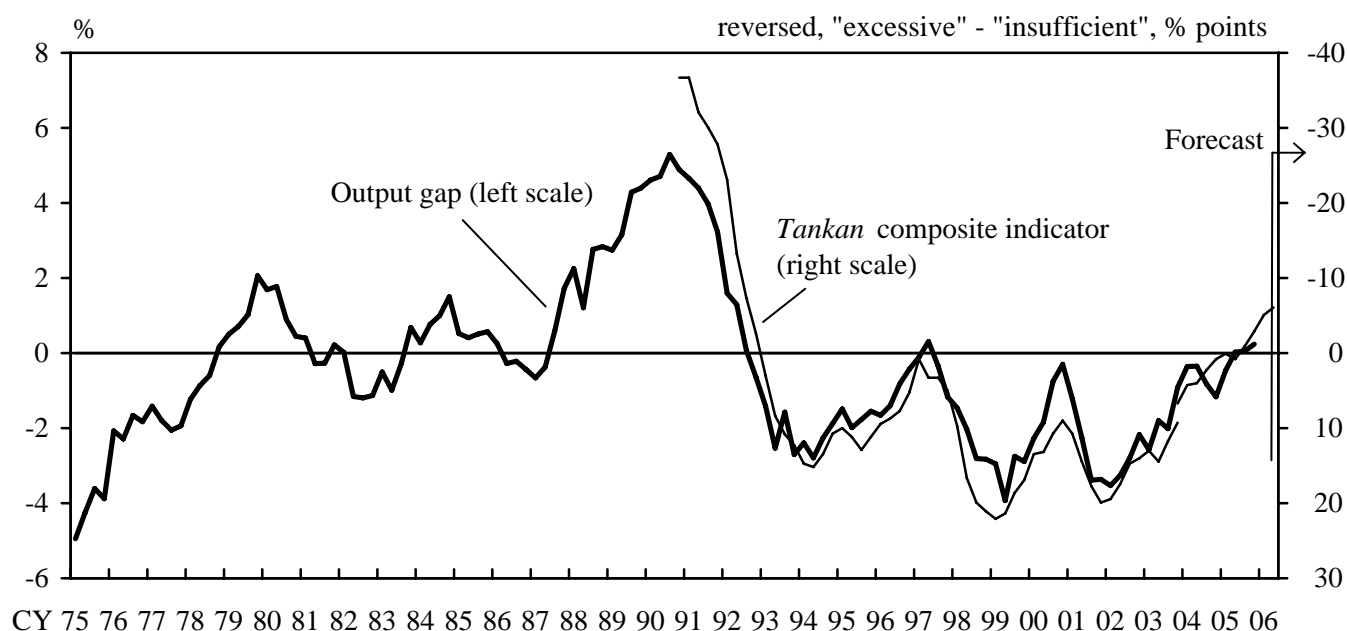
2. The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to the December 2003 survey. Figures on a new basis are from the December 2003 survey.

3. Figure of indices of capacity utilization for 2006/Q1 is that of January-February average.

Sources: Ministry of Economy, Trade and Industry, "Indices of Industrial Production";  
Bank of Japan, "*Tankan* , Short-Term Economic Survey of Enterprises in Japan."

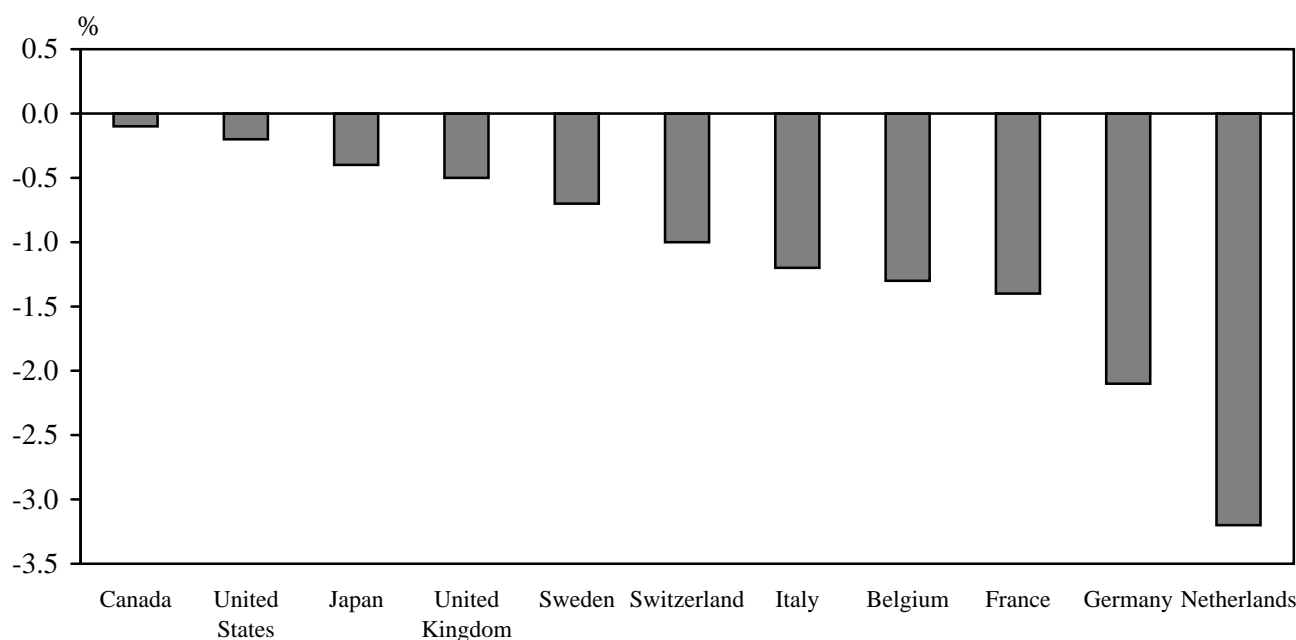
## Output Gap

### (1) *Tankan* Composite Indicator and Output Gap



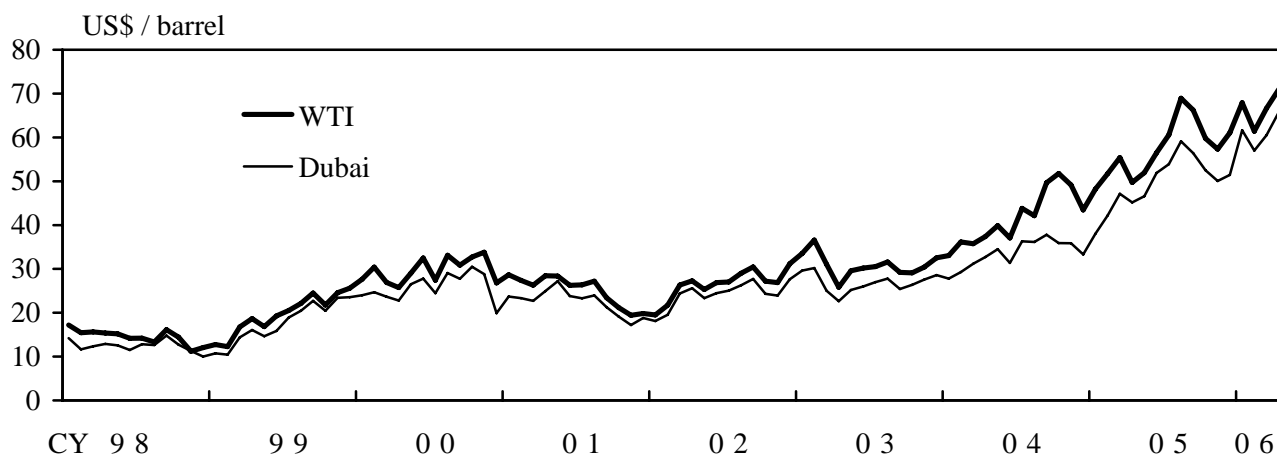
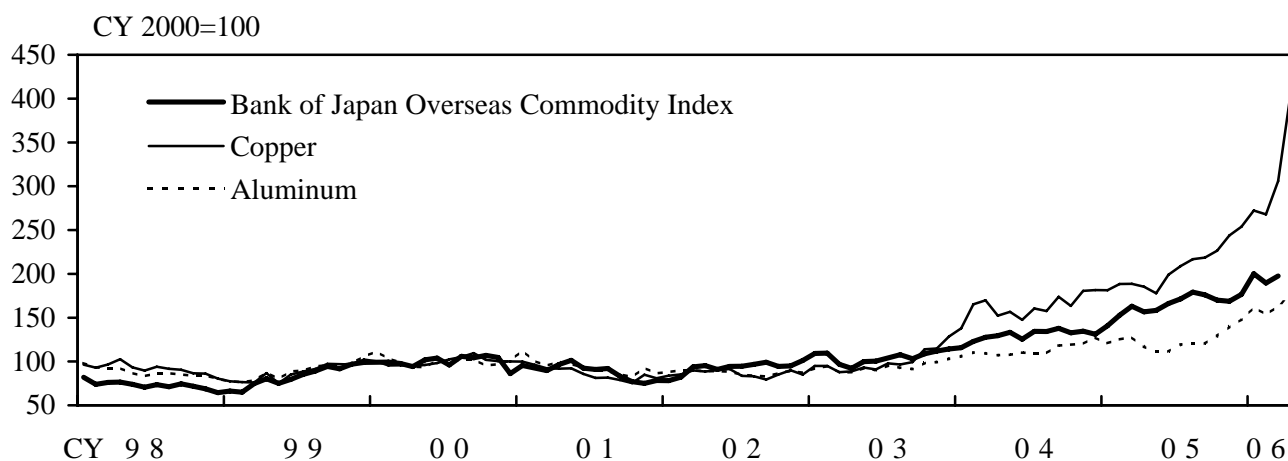
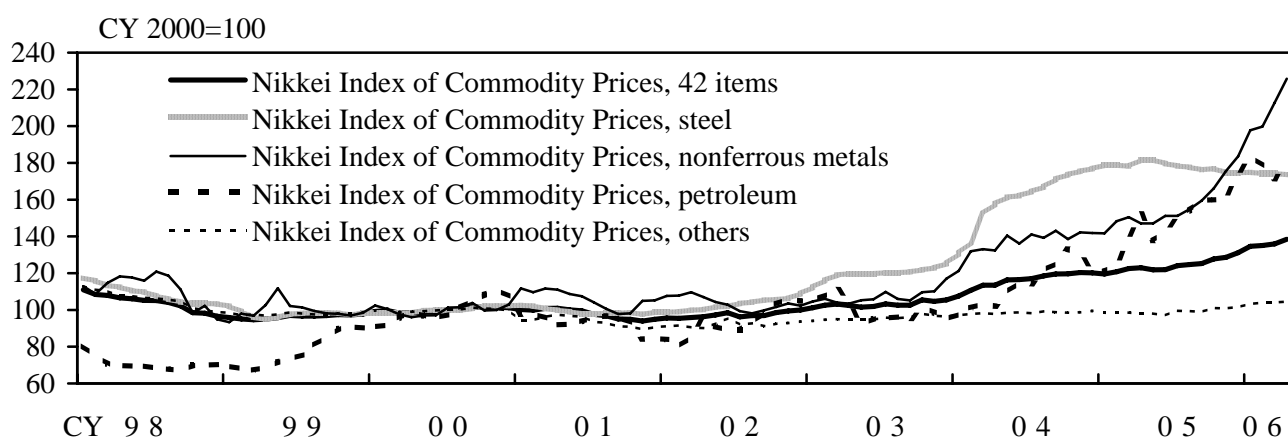
Note: The *Tankan* composite indicator aims at constructing a series similar to the output gap directly from the *Tankan* survey data that show firms' judgment of excessiveness as to the number of employees and the production capacity. It is calculated as the average of the diffusion indices of production capacity and employment conditions, weighted by capital and labor shares in the national accounts (FY 1990-2004 average). The survey coverage 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 was extended to include the nonmanufacturing industry. Due to a change in the sample, there is a discontinuity as of the December 2003 survey.

### (2) Output Gap of Major Countries (As of CY 2005, Estimated by OECD)



Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; OECD, "Economic Outlook," etc.

## Commodity Prices

(1) Oil Prices<sup>1,2</sup>(2) International Commodity Prices<sup>1,2</sup>(3) Domestic Commodity Prices<sup>1,2,3</sup>

Notes: 1. Data are at end of month.

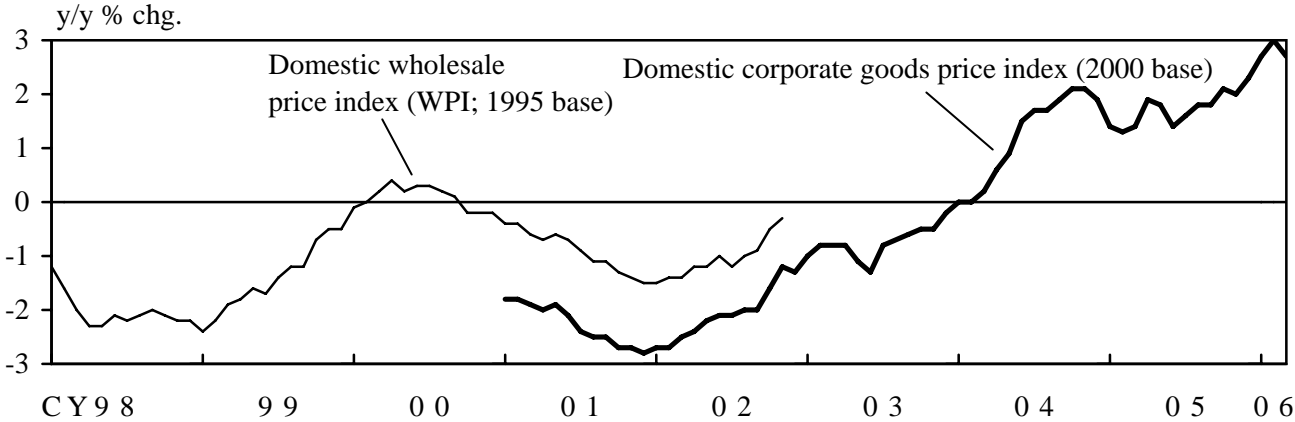
2. Figures for April 2006 are the latest available data.

3. Steel: steel bars, H sections, steel plates, etc. Nonferrous metals: unwrought copper, unwrought aluminum, etc. Petroleum: gasoline, kerosene, gas oil, fuel oil C.

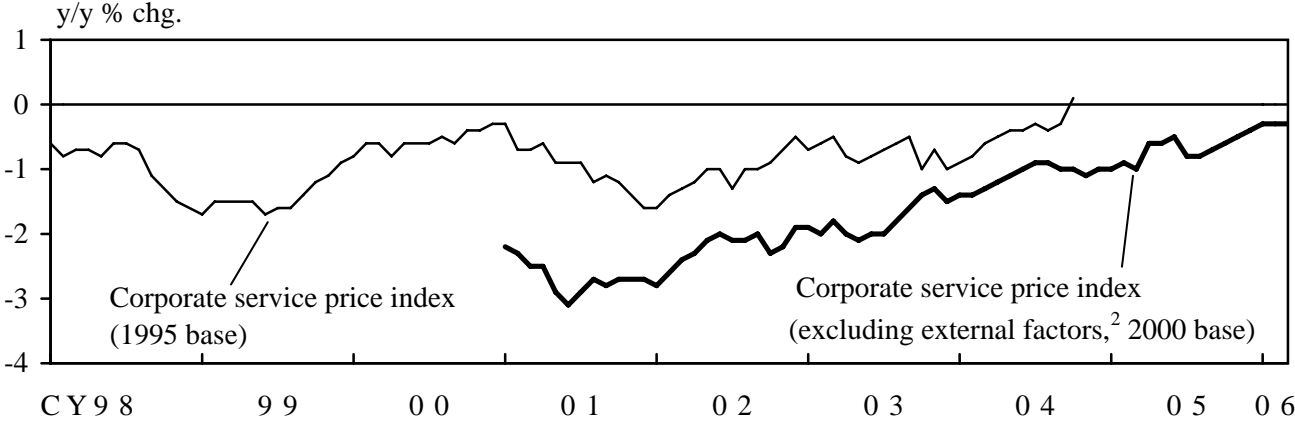
Sources: Bank of Japan; *Nihon Keizai Shimbun*, etc.

# Prices

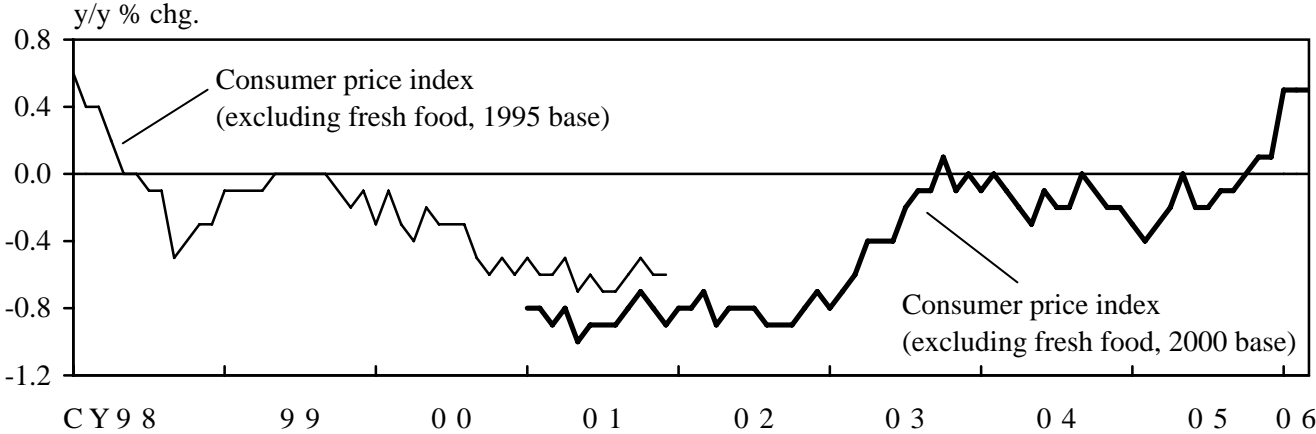
(1) Domestic Corporate Goods Price Index<sup>1</sup>



(2) Corporate Service Price Index<sup>1</sup>



(3) Consumer Price Index<sup>1</sup>

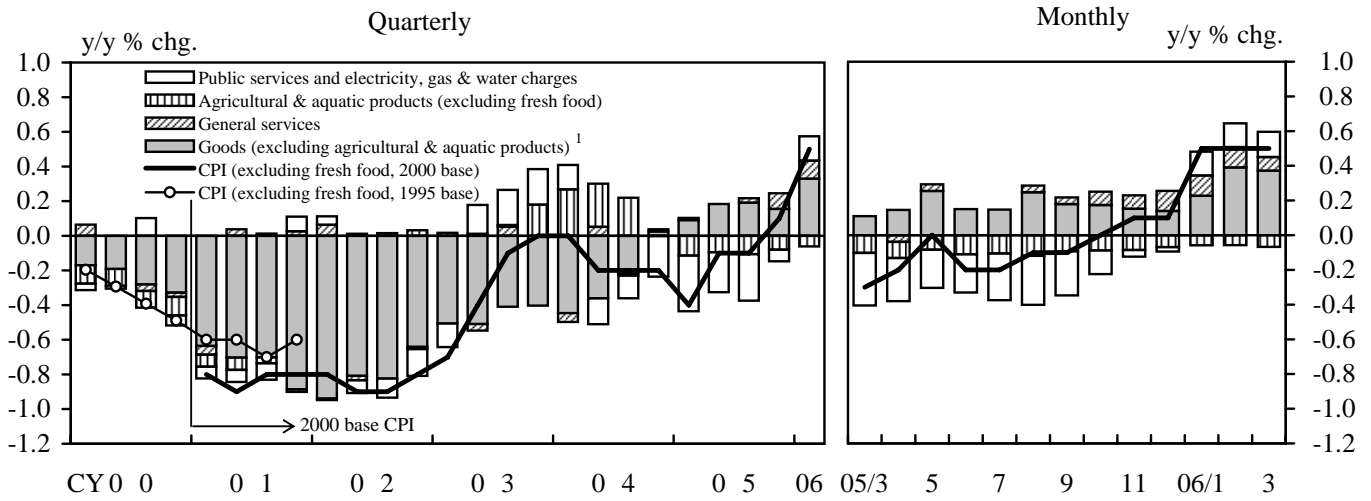


Notes: 1. Adjusted to exclude the effects of changes in consumption tax rate.  
 2. External factors: international air passenger transportation, ocean liner, ocean tramper, ocean tanker, oceangoing ship chartering services, and international air freight.

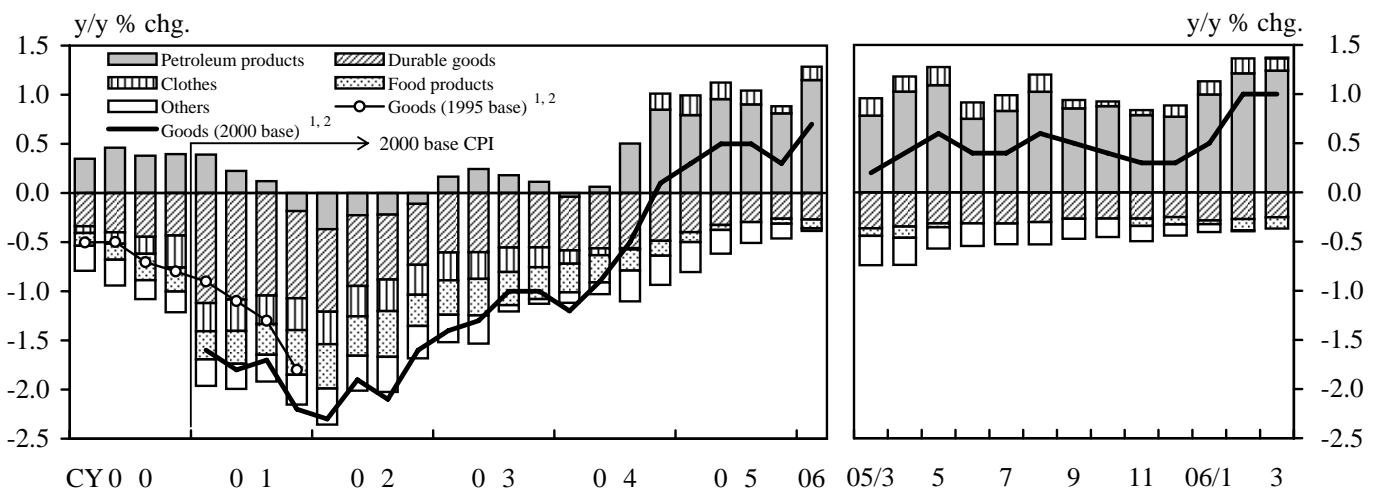
Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Indexes," "Corporate Service Price Index."

# Consumer Price Index

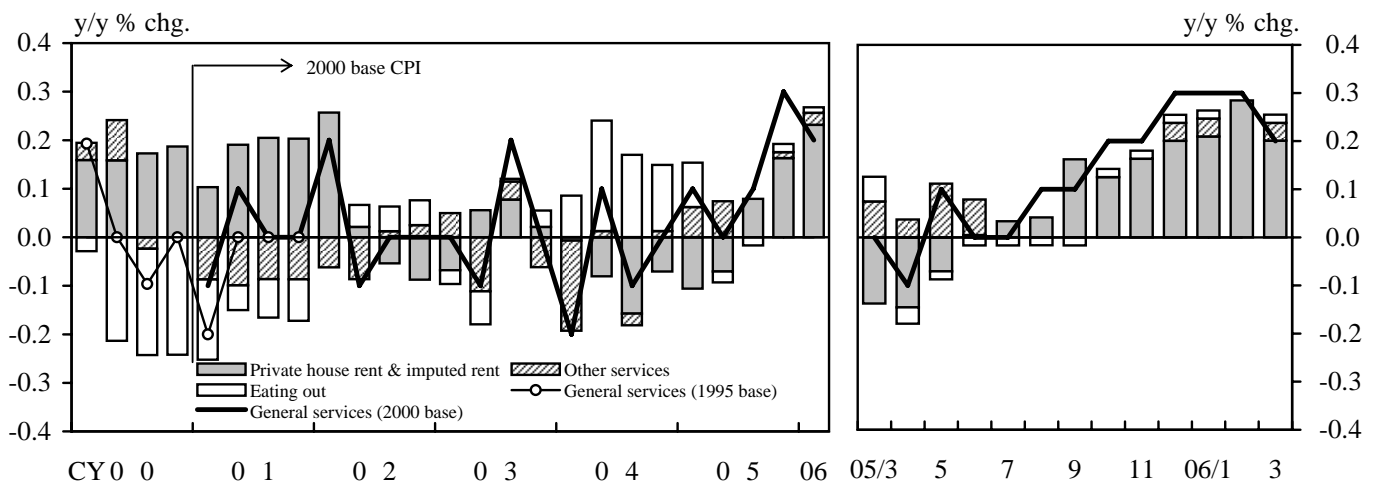
(1) Consumer Price Index (Excluding Fresh Food)



(2) Goods (Excluding Agricultural & Aquatic Products)<sup>1</sup>



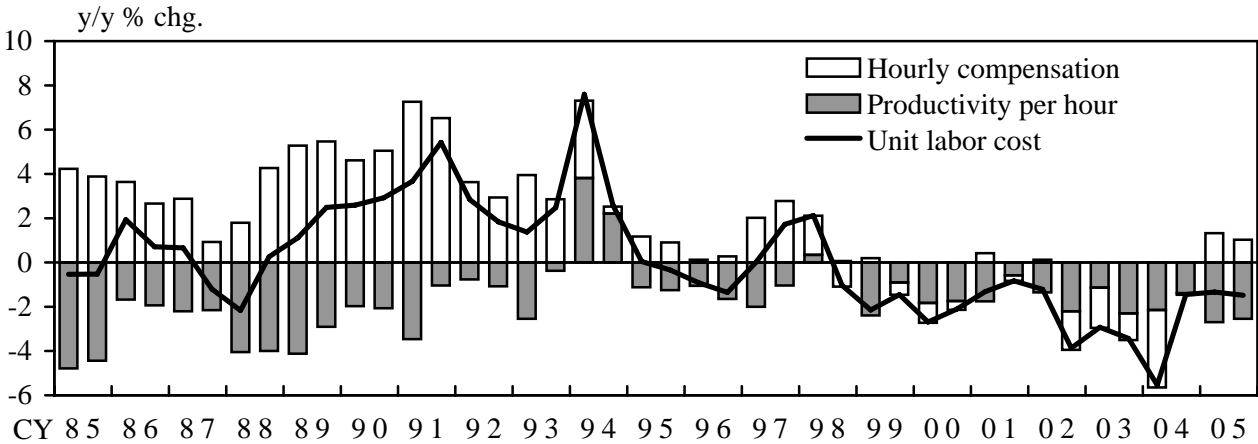
(3) General Services



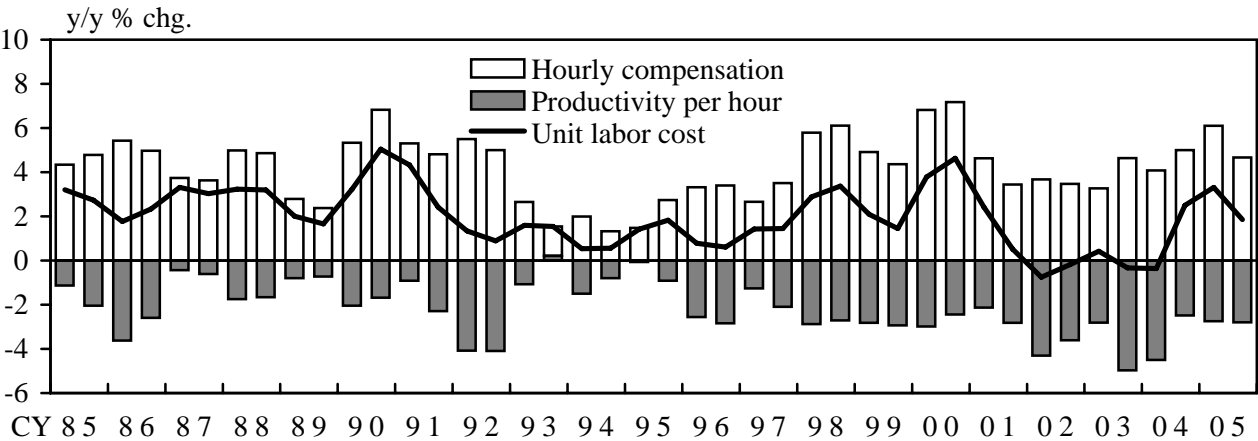
Notes: 1. The items are basically the same as the definition published by the Ministry of Internal Affairs and Communications. However, electricity, gas & water charges are excluded from goods.  
 2. Excluding agricultural & aquatic products.

# Unit Labor Cost

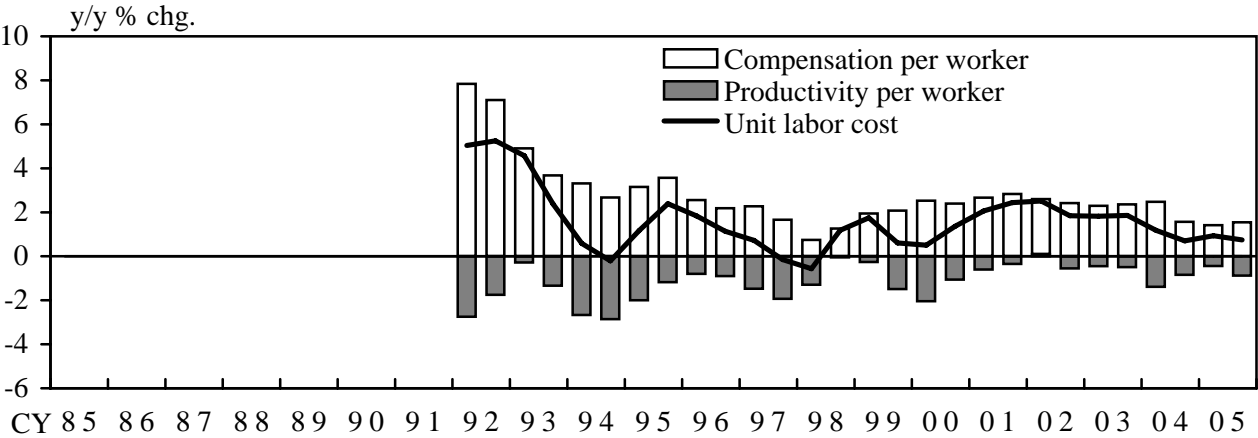
(1) Japan



(2) United States



(3) Euro Area

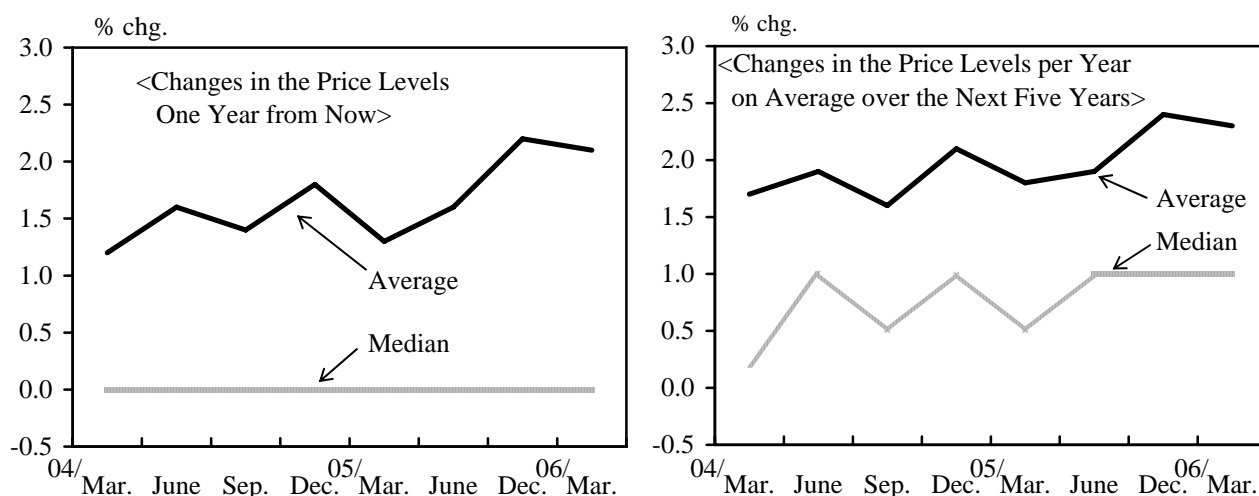


Note: Figures of Euro area for the second half of CY 2005 are those of 2005/Q3.

Sources: Cabinet Office, "National Accounts"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; U.S. government; European Central Bank.

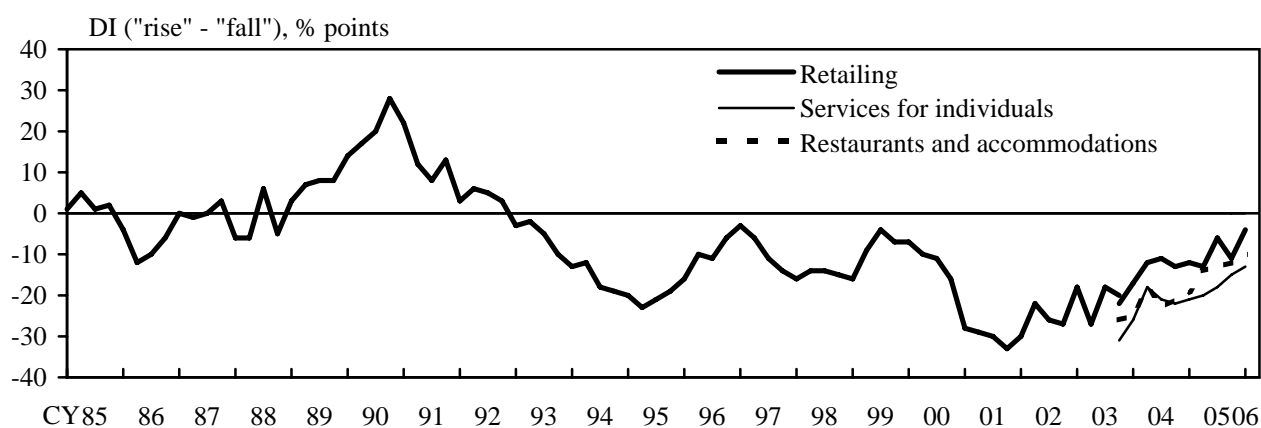
## Outlook for Prices

### (1) Households (Opinion Survey on the General Public's Mindset and Behavior)



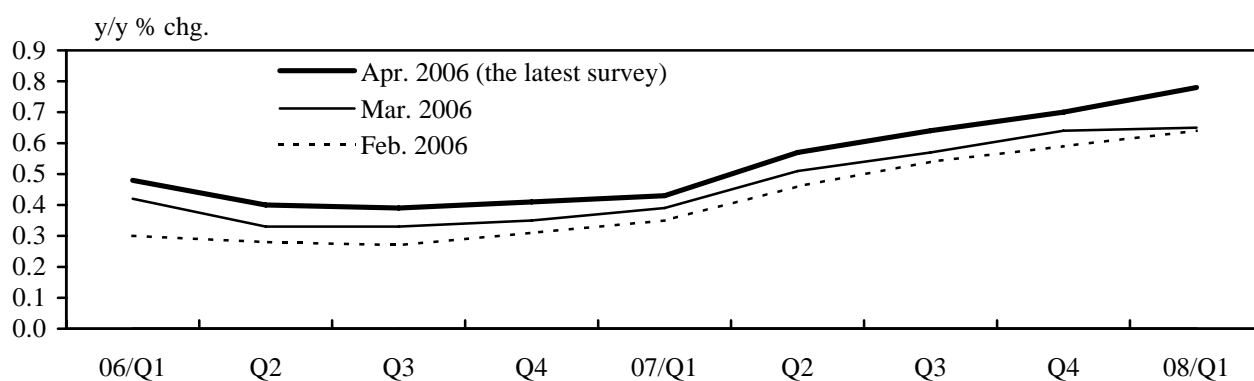
- Notes: 1. Calculated by excluding 0.5 percent of the highest and the lowest figures, respectively.  
 2. The survey was not conducted in September 2005.

### (2) Firms (*Tankan*, Change in Output Prices [Forecast One Quarter Ahead])



- Notes: 1. All-size enterprises.  
 2. The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to the December 2003 survey. Figures on a new basis are from the December 2003 survey.

### (3) Economists (ESP Forecast)



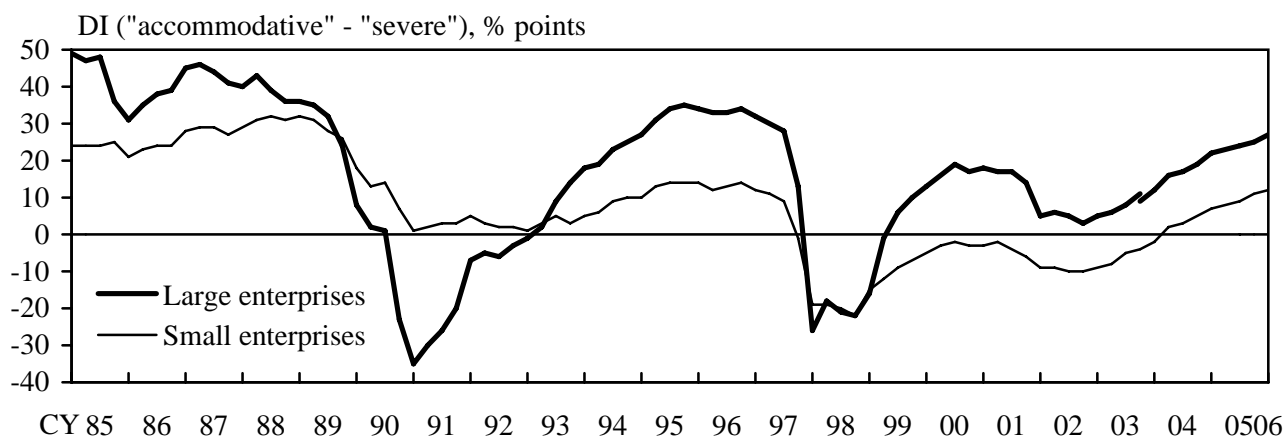
Note: Figures are the averages of the year-on-year changes in the consumer price index excluding fresh food forecasted by 37 economic research institutions and economists.

Sources: Bank of Japan, "Opinion Survey on the General Public's Mindset and Behavior," "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Economic Planning Association, "ESP Forecast."

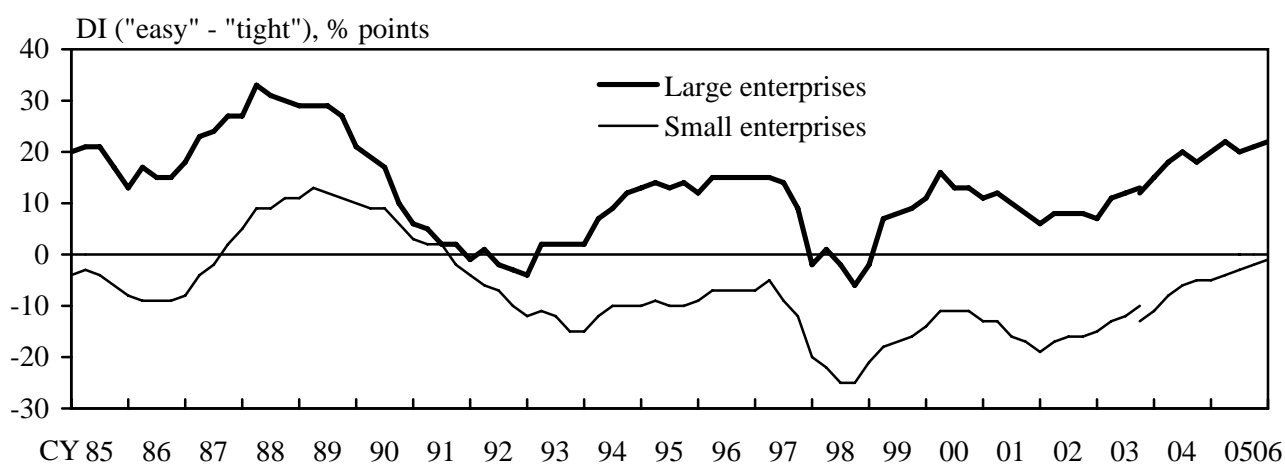


## Corporate Finance

(1) Lending Attitude of Financial Institutions as Perceived by Firms (*Tankan*)

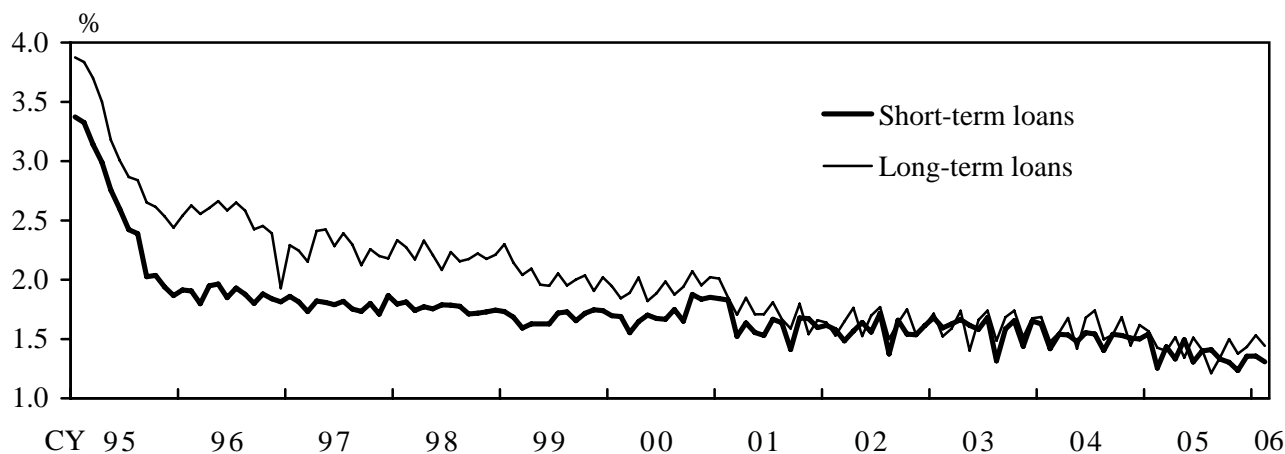


(2) Financial Position of Firms (*Tankan*)



Note: The *Tankan* has been revised from the March 2004 survey. Figures based on the previous data sets are up to the December 2003 survey. Figures on a new basis are from the December 2003 survey.

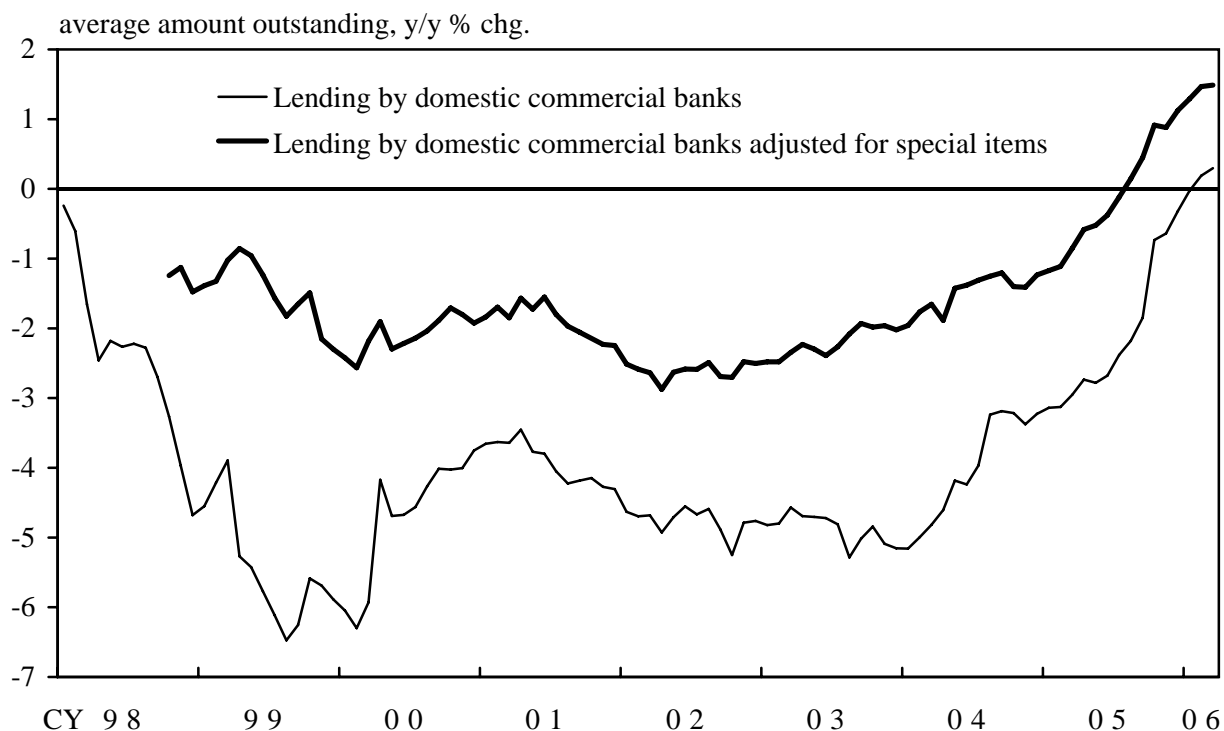
(3) Average Contracted Interest Rates on New Loans and Discounts



Source: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan," "Average Contracted Interest Rates on Loans and Discounts."

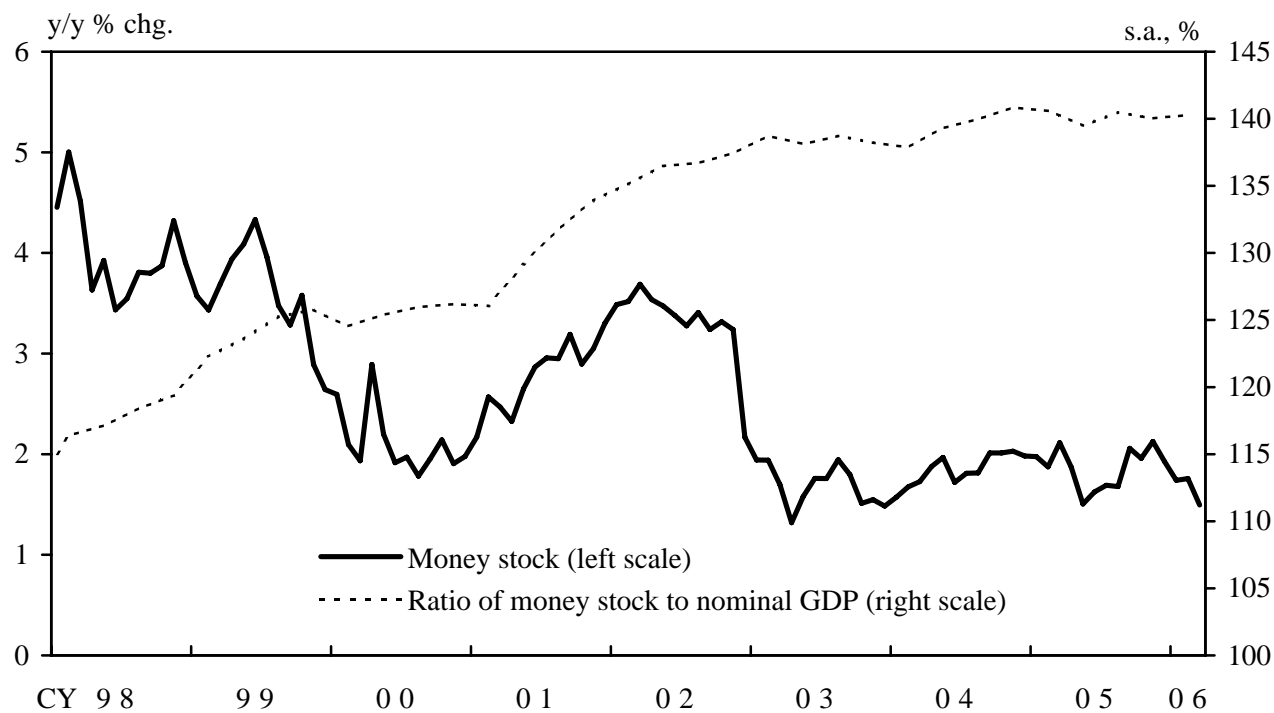
## Bank Lending and Money Stock

### (1) Lending by Domestic Commercial Banks



Note: Adjusted figures exclude fluctuations from liquidations of loans, loan write-offs, etc.

### (2) Money Stock ( $M_2$ +CDs)

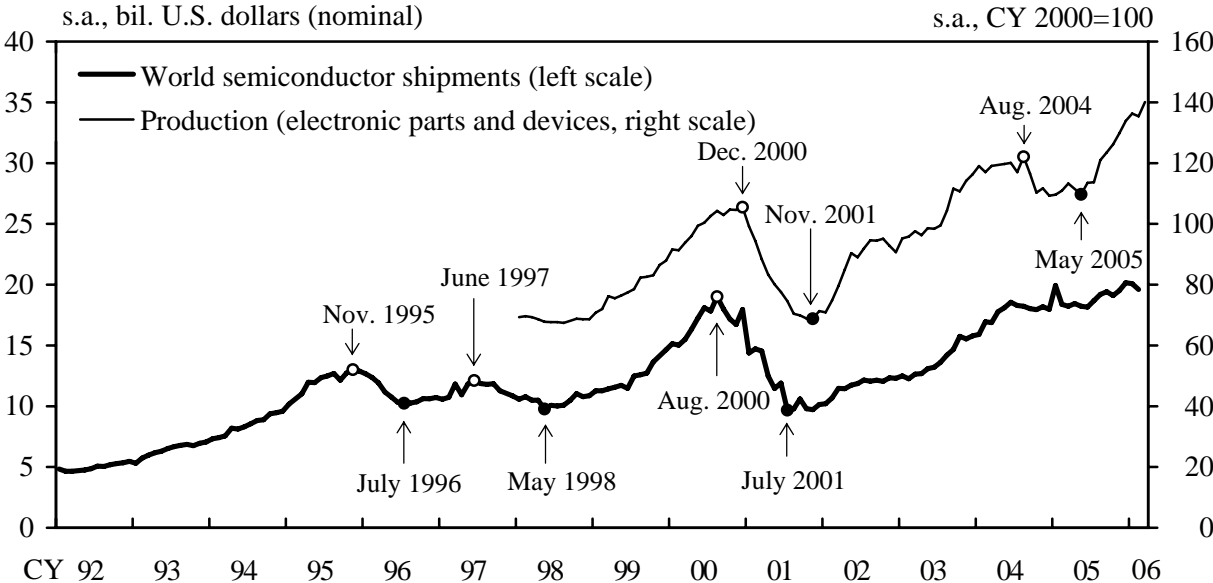


Note: Figure for nominal GDP in 2006/Q1 is assumed to be unchanged from the previous quarter.

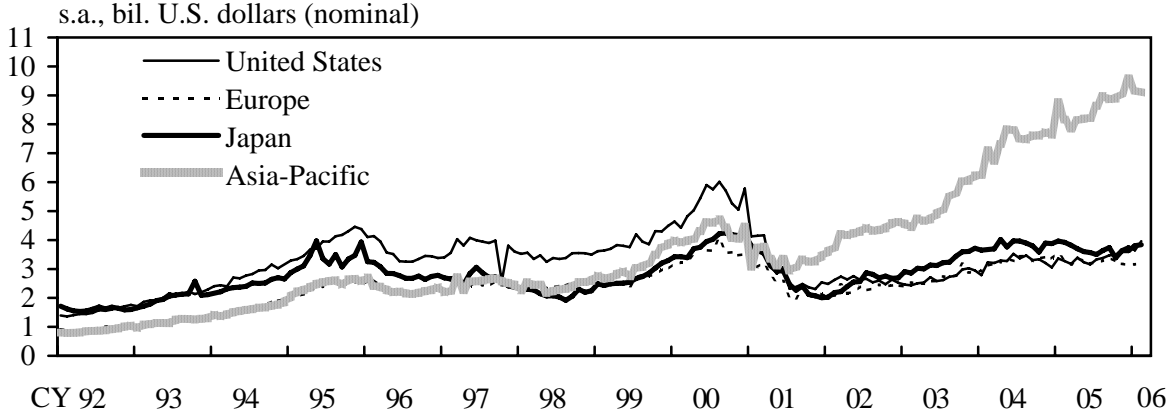
Sources: Cabinet Office, "National Accounts"; Bank of Japan, "Principal Figures of Financial Institutions," "Money Stock."

# Silicon Cycle

(1) World Semiconductor Shipments

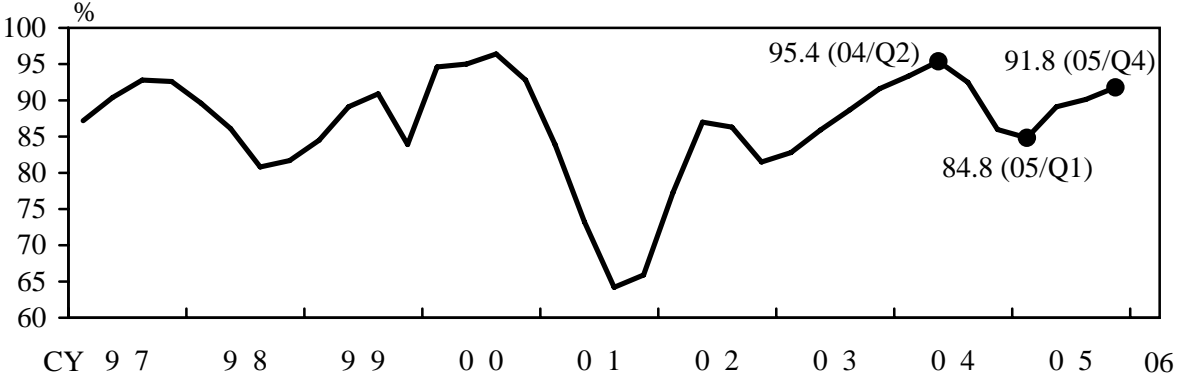


(2) World Semiconductor Shipments (Breakdown by Region)



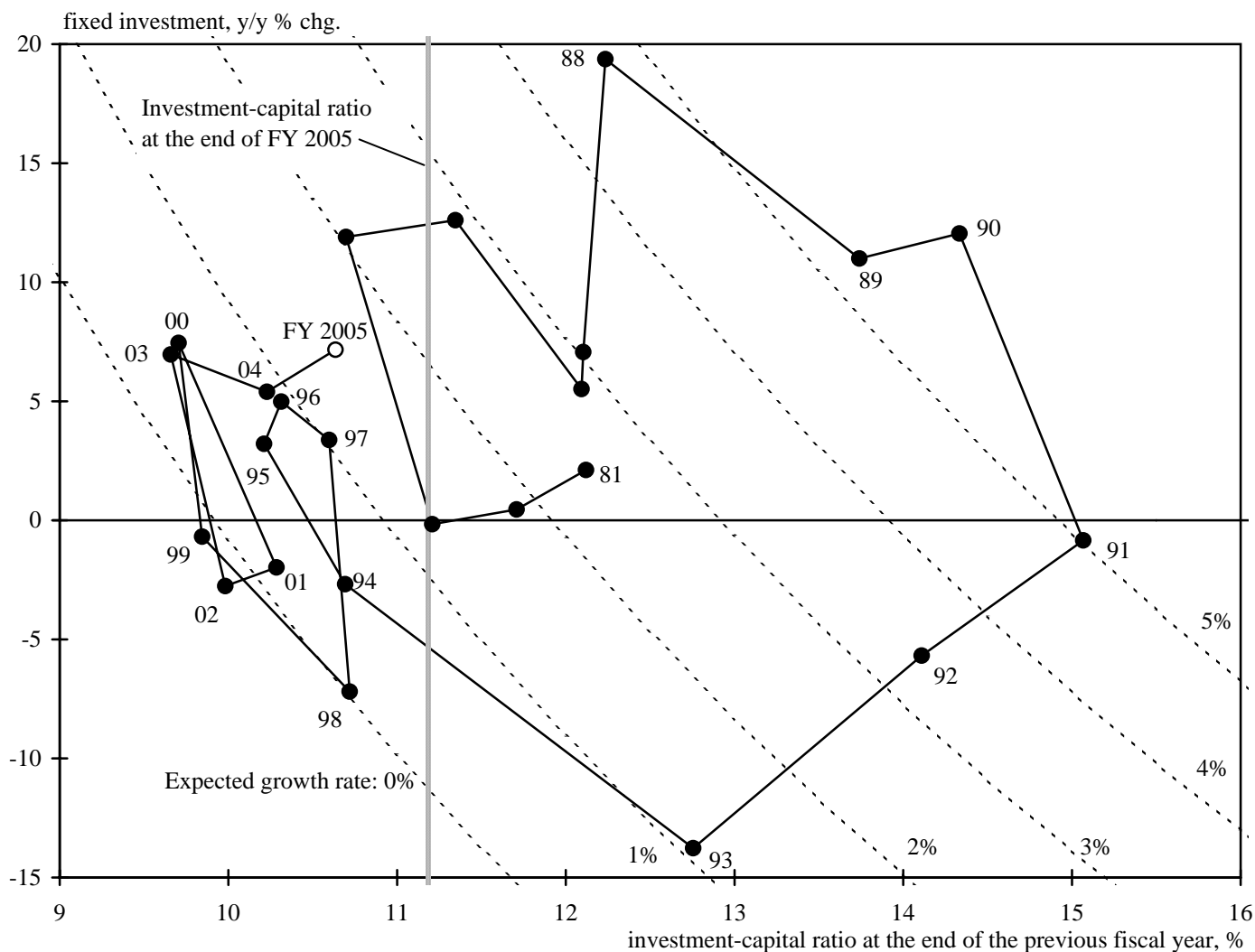
Note: Data of world semiconductor shipments are seasonally adjusted by the Bank of Japan.

(3) International Utilization of Semiconductor Capacity



Sources: Ministry of Economy, Trade and Industry, "Indices of Industrial Production"; World Semiconductor Trade Statistics (WSTS); Semiconductor International Capacity Statistics (SICAS).

## Capital Stock Cycle



1. Capital stock cycle in the chart shows the relation between the investment-capital ratio and year-on-year change of fixed investment.
2. As two variables have the following relation, a hyperbolic curve can be drawn for a given expected growth rate.  

$$\text{Year-on-year change of fixed investment (y-axis)} \times \text{investment-capital ratio at the end of the previous fiscal year (x-axis)} = \text{expected growth rate} + \text{trend of capital coefficient} + \text{depreciation rate}$$

The phase of fixed investment at a certain time can be evaluated in relation to the hyperbolic curve corresponding to the expected growth rate at that time.
3. For example, on the assumption of a 2 percent expected growth rate, the year-on-year change of fixed investment in FY 2006 will be on the intersection of the investment-capital ratio at the end of FY 2005 with the hyperbolic curve corresponding to the 2 percent expected growth rate. This implies that the growth in investment will slightly decelerate in FY 2006 compared to that in FY 2005. Moreover, for FY 2007, assuming that the expected growth rate remains at 2 percent, further deceleration of the growth in investment is expected. This is because the investment-capital ratio at the end of FY 2006 rises in comparison with that of FY 2005.

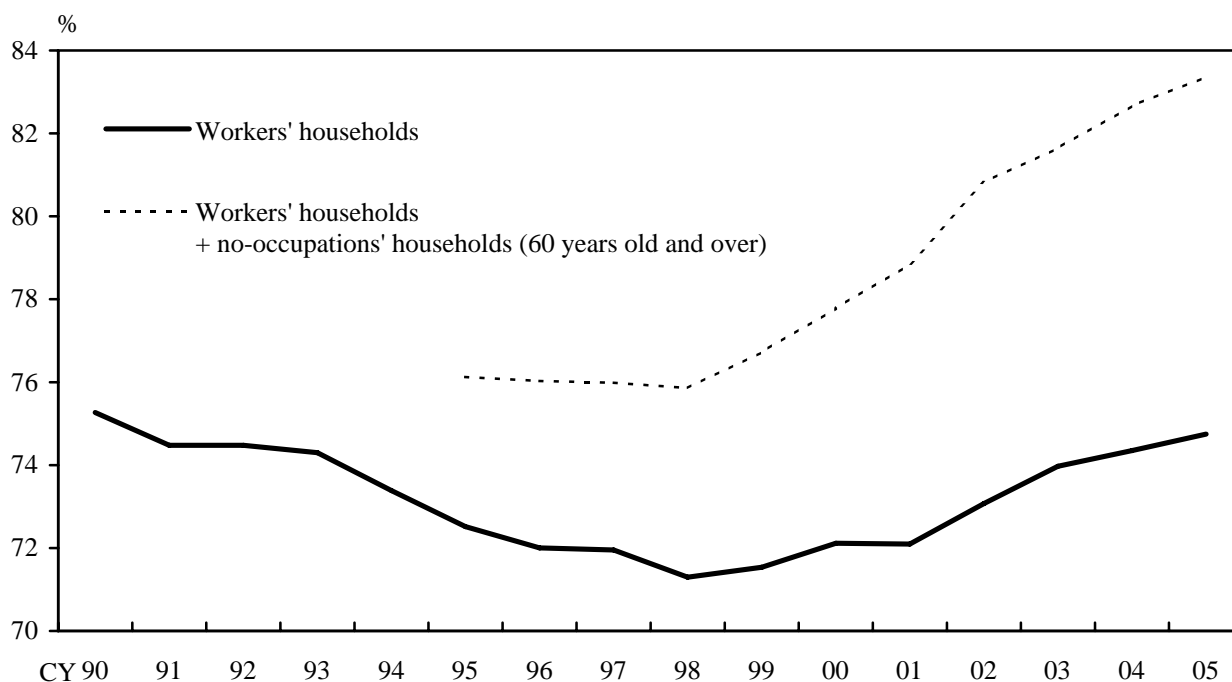
Notes: 1. Capital stock is calculated by the Bank of Japan using the data of the Japan Industry Productivity Database.

2. Fixed investment in FY 2005 is calculated on the assumption that the investment growth rate in 2006/Q1 is the average of those of 2005/Q2-Q4.

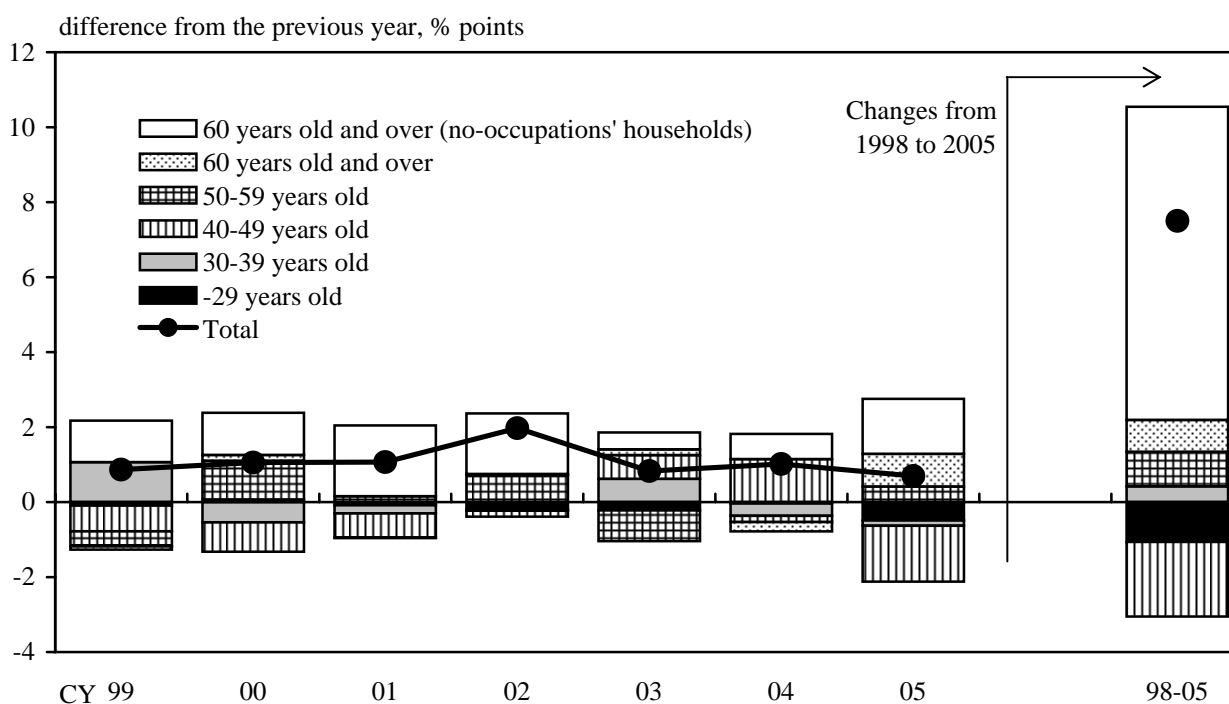
Sources: Cabinet Office, "National Accounts," "Sectoral Productivity and Economic Growth: 1970-1998"; Ministry of Economy, Trade and Industry, "Census of Manufactures."

## Propensity to Consume

(1) Propensity to Consume (Family Income and Expenditure Survey)



(2) Propensity to Consume by Age Group of Household Head

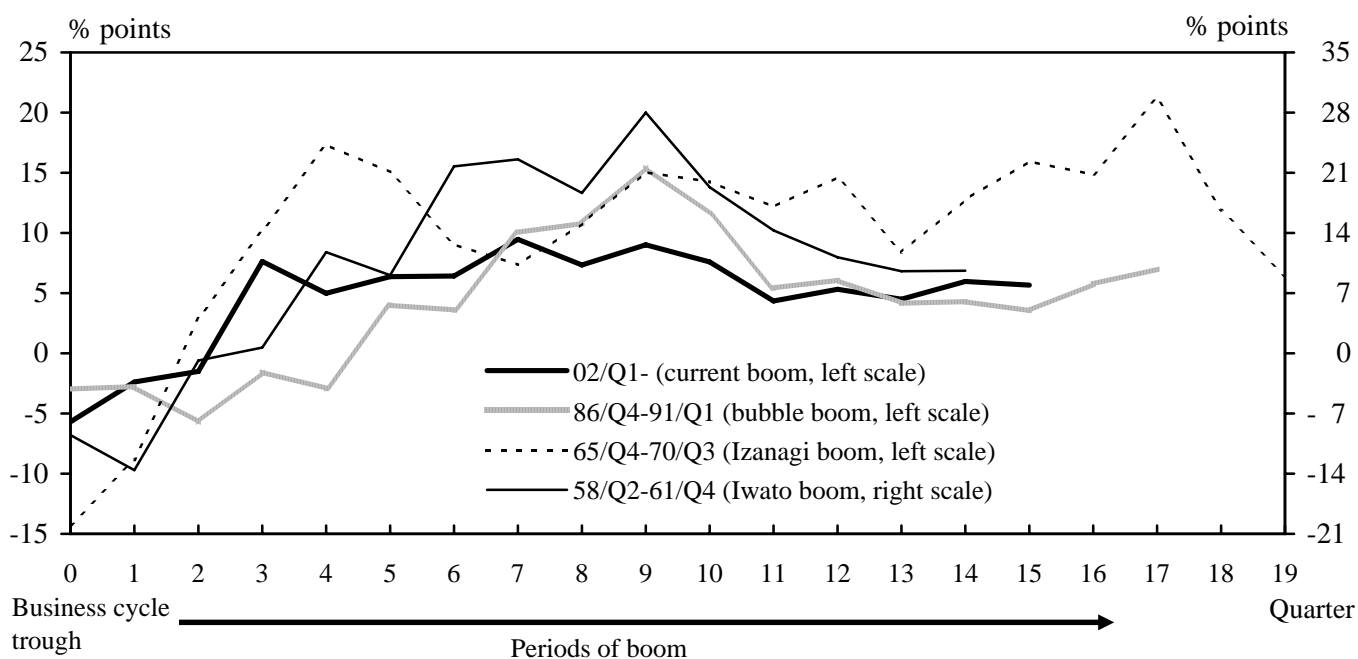


Note: Changes in the degree of contributions by age group of household head result not only from changes in the propensity to consume of each age group but from changes in the weight of each age group among all households.

Source: Ministry of Internal Affairs and Communications, "Monthly Report on the Family Income and Expenditure Survey."

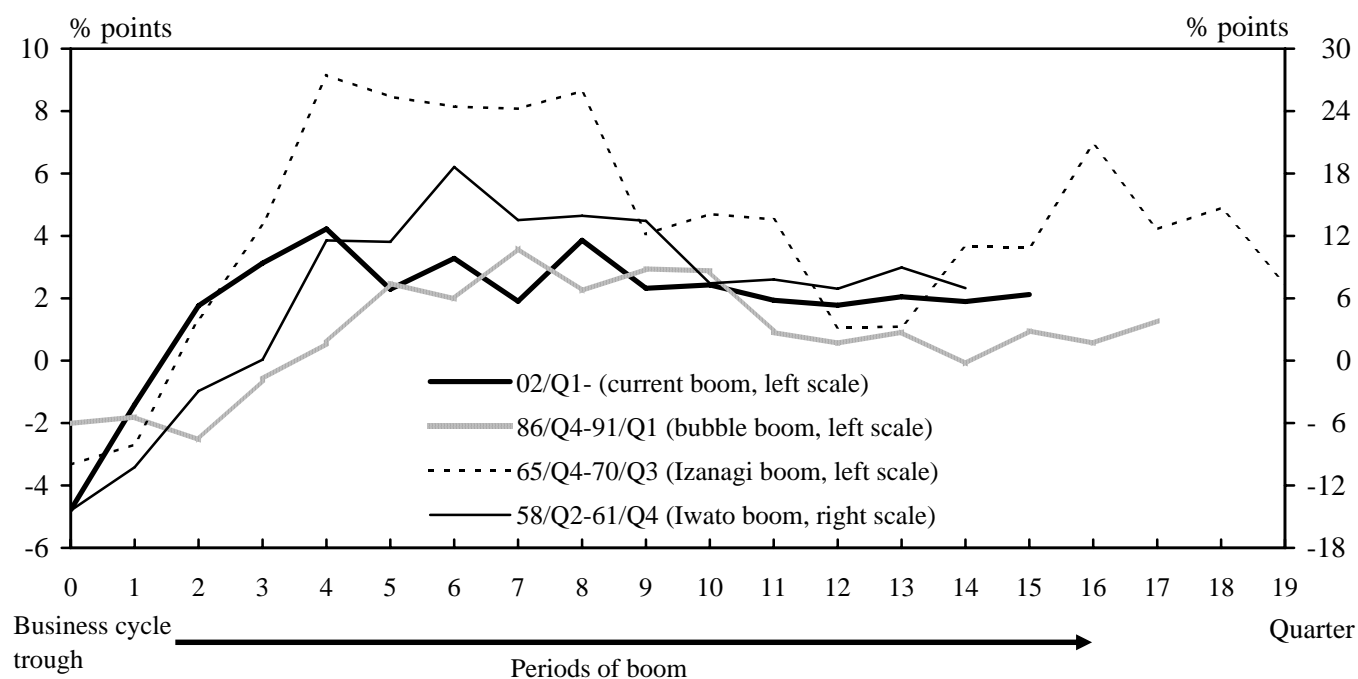
## Maturation of Business Cycles

(1) Difference between Y/Y Change in Firm-Sector and Households' Expenditure



Note: Firm-sector expenditure is defined as the sum of exports and nonresidential investment.  
Households' expenditure is defined as the sum of private consumption and residential investment.

(2) Difference between Y/Y Change in Manufacturing and Nonmanufacturing Production

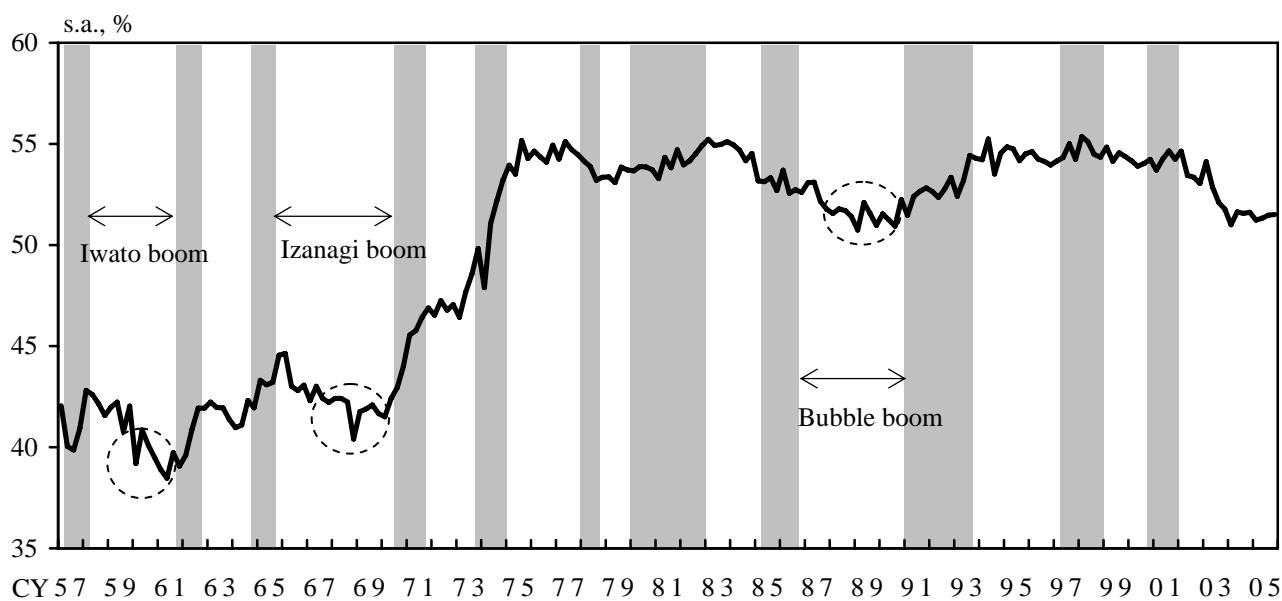


Note: Manufacturing and nonmanufacturing production are calculated by using the coefficients of production induced by GDP demand components in SNA Input and Output Tables, 1995 basis (annual revision for 2002). For the Izanagi and Iwato booms, industrial production and real GDP are used for manufacturing and nonmanufacturing, respectively, instead.

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

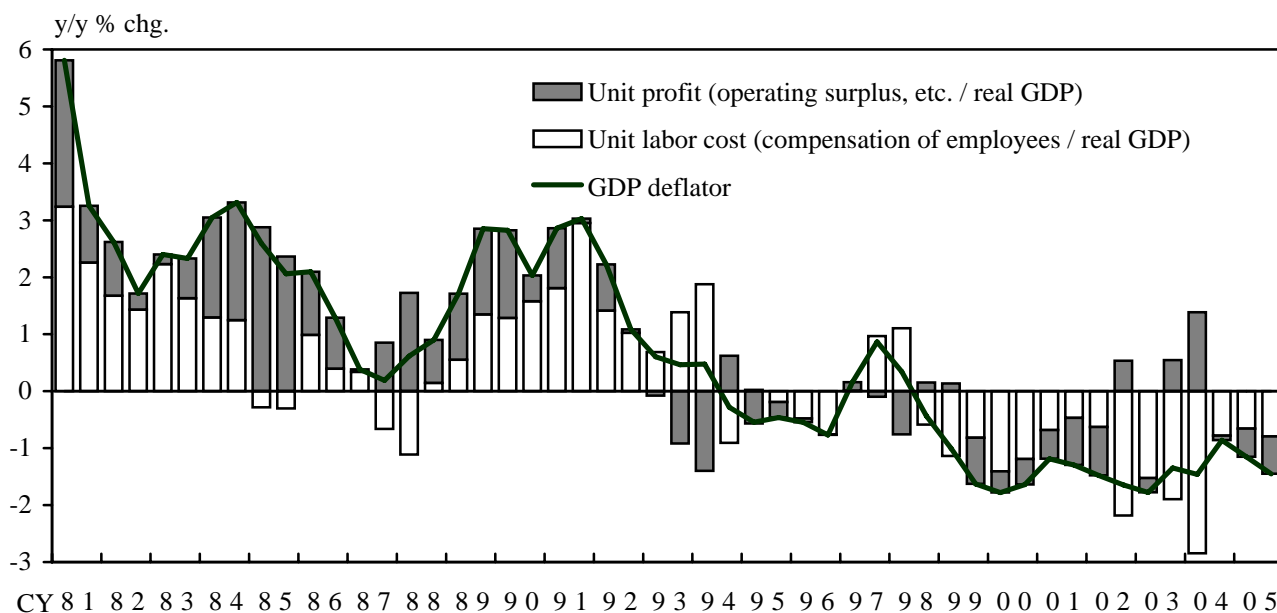
## Labor Share

## (1) Labor Share



Notes: 1. Labor share = compensation of employees / nominal GDP. Figures prior to 1979/Q4 are based on 68SNA.  
2. Shaded areas indicate recession periods.

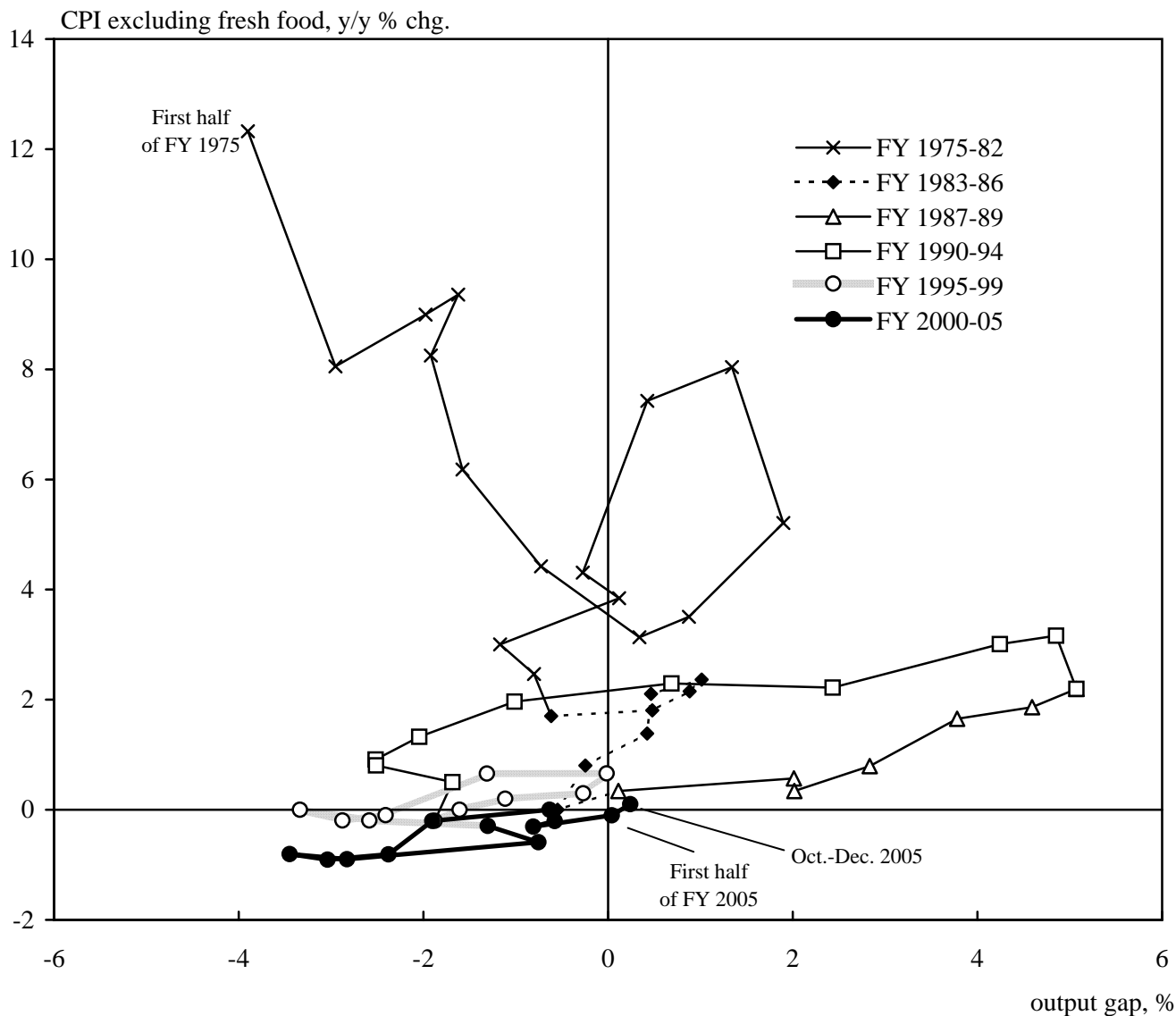
## (2) Decomposition of GDP Deflator in Terms of Distribution



Notes: 1. Before 1994, fixed-based series are used (base year=1995). After 1995, chain-linked series are used (base year=2000).  
2. Operating surplus, etc., includes (i) operating surplus and mixed income, (ii) consumption of fixed capital, (iii) taxes on production and imports, (iv) subsidies, and (v) statistical discrepancy.

Source: Cabinet Office, "National Accounts."

## Output Gap and Consumer Price Index



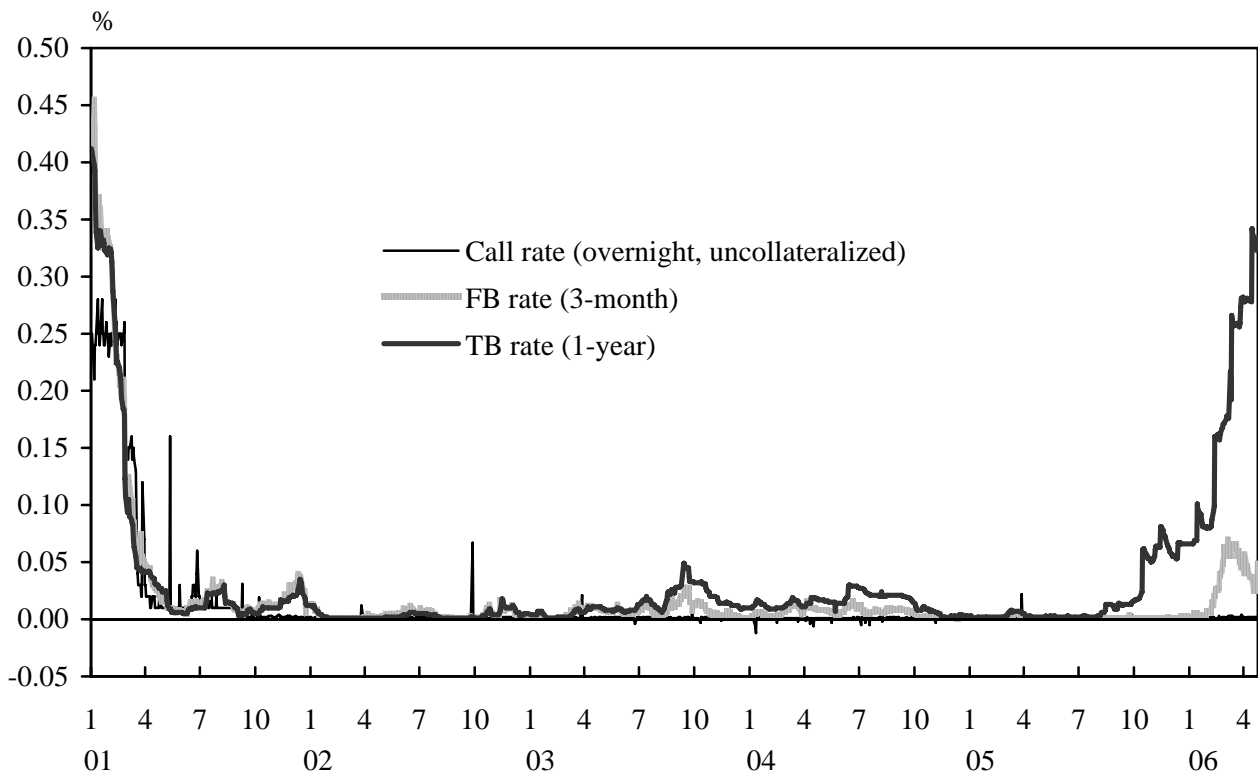
Notes: 1. Adjusted to exclude the effects of changes in consumption tax rate.  
 2. Figures of CPI for FY 1975-2000 are 1995 base.  
 Figures of CPI for FY 2001-05 are 2000 base.

Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Consumer Price Index," "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production," etc.

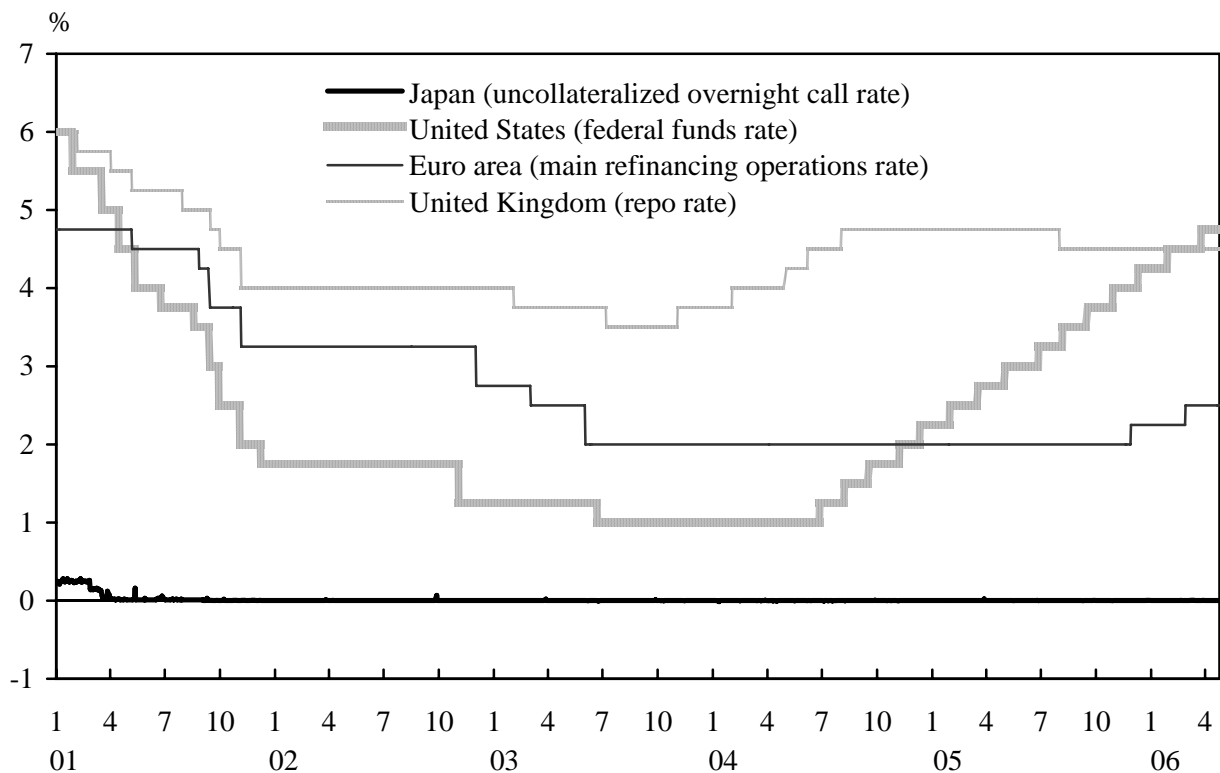


## Short-Term Interest Rates

(1) Short-Term Interest Rates



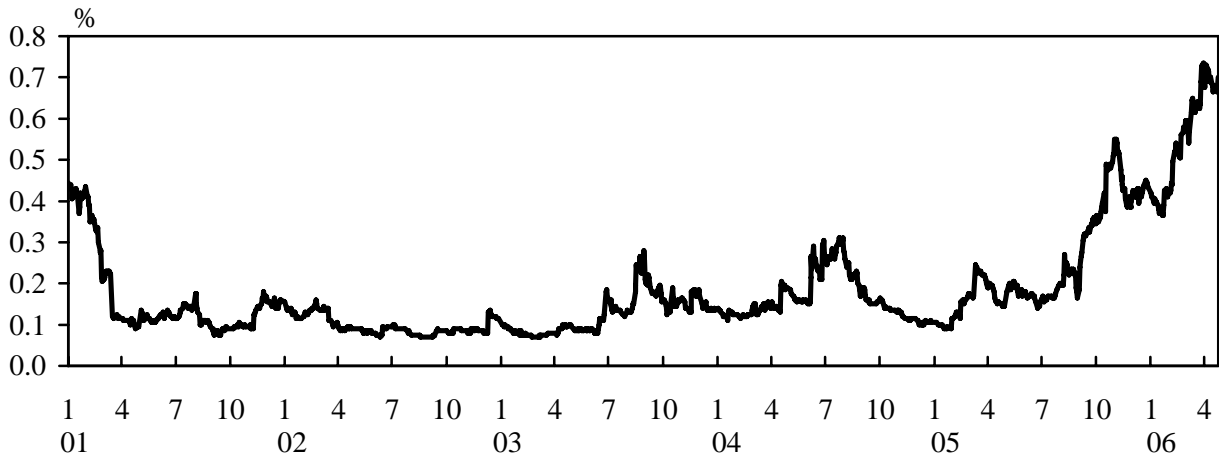
(2) Policy Interest Rates in Major Economies



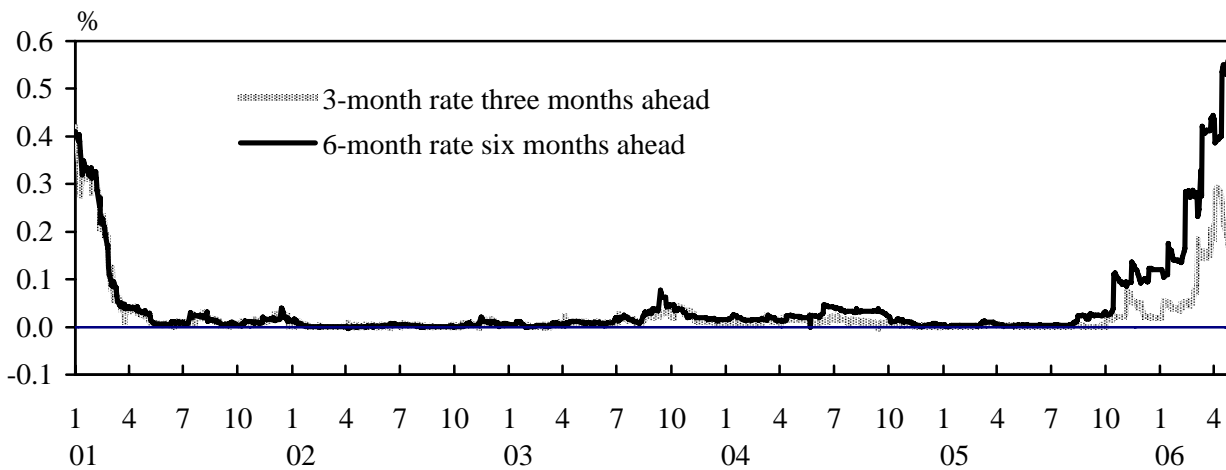
Sources: Bank of Japan; other central banks; Bloomberg.

## Market Participants' Expectations on Interest Rates in the Future

(1) Euroyen Interest Rate Futures (3-Month, Leading Contract Months)

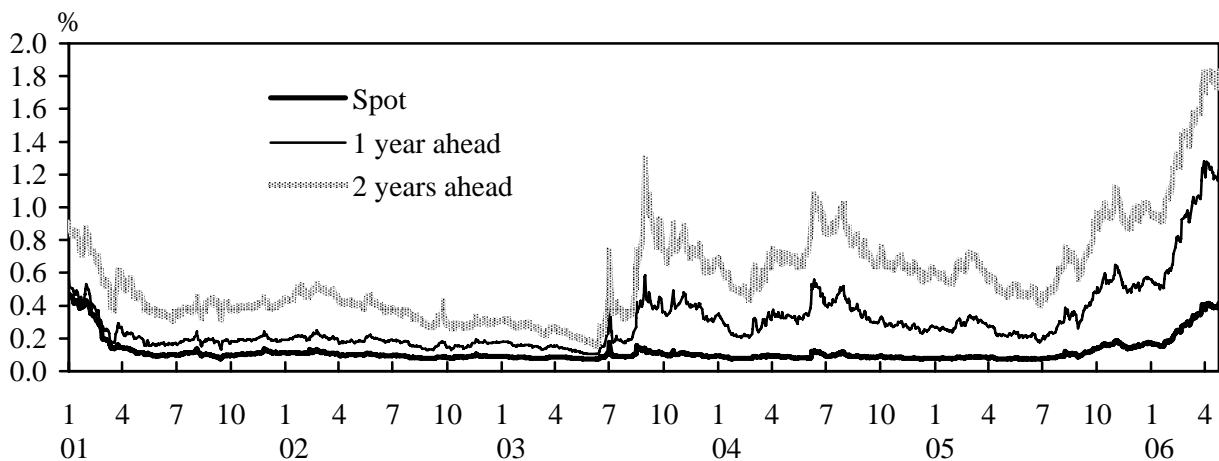


(2) Implied Forward Rates (3-Month, 6-Month)



Note: Calculated from FB rate (3-month) and TB rates (6-month, 1-year).

(3) Implied Forward Rates (1-Year)

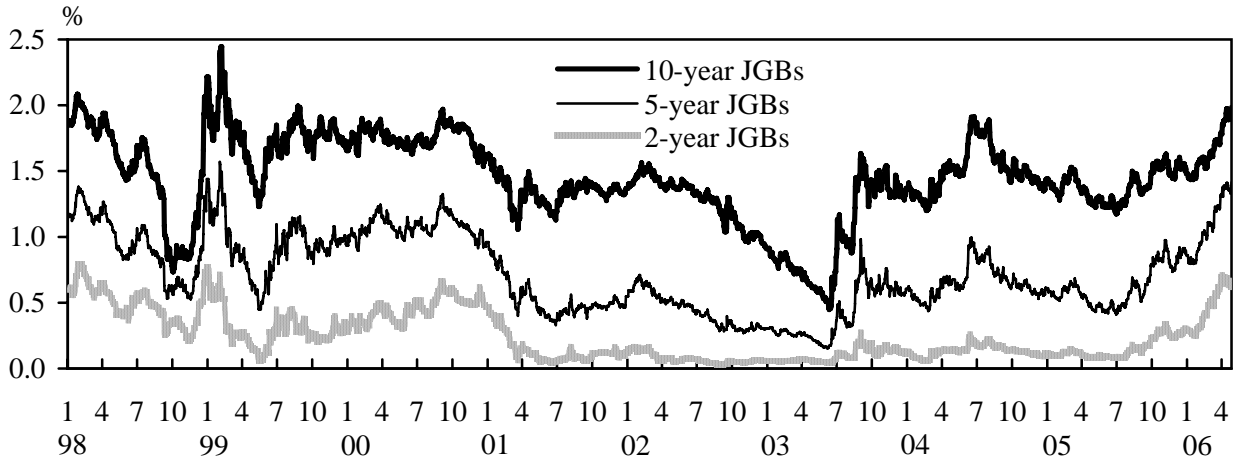


Note: Calculated from yen-yen swap rates.

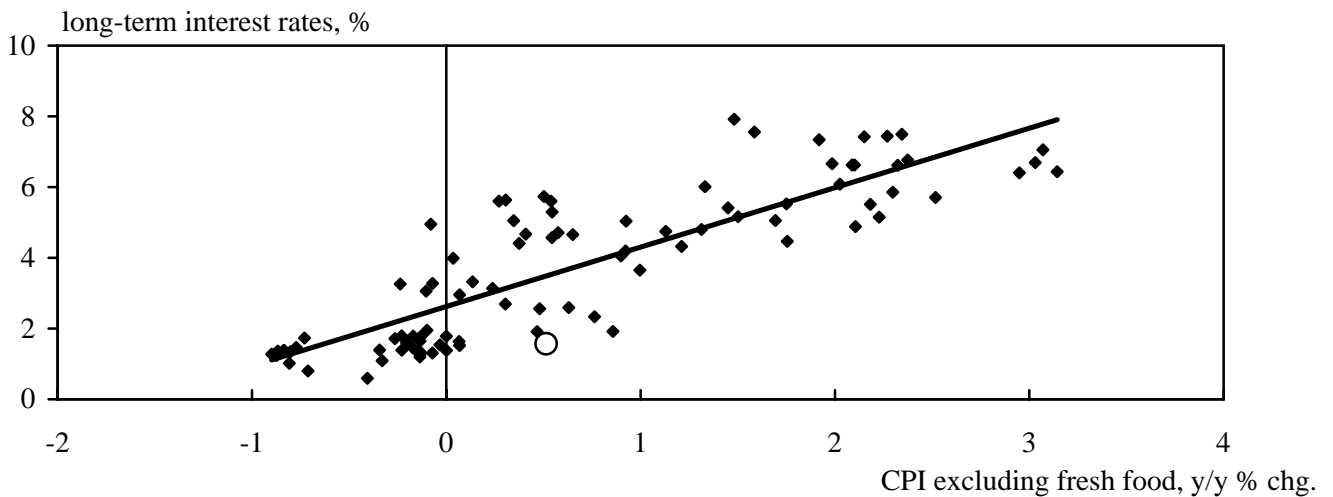
Sources: Tokyo Financial Exchange; Reuters; Bloomberg.

## Long-Term Interest Rates

(1) Government Bond Yields

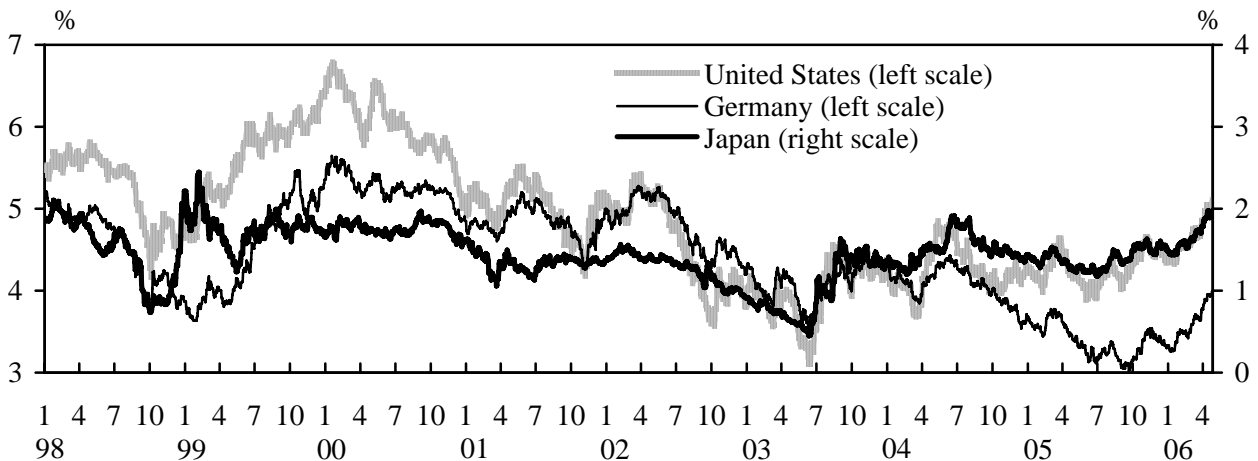


(2) Long-Term Interest Rates and Change in the Consumer Price Index



- Notes: 1. Long-term interest rates are 10-year JGB yields.
- 2. CPI is adjusted to exclude the effects of the changes in consumption tax rate.
- 3. The sample period is 1983/Q3-2006/Q1. The white circle indicates the latest data.

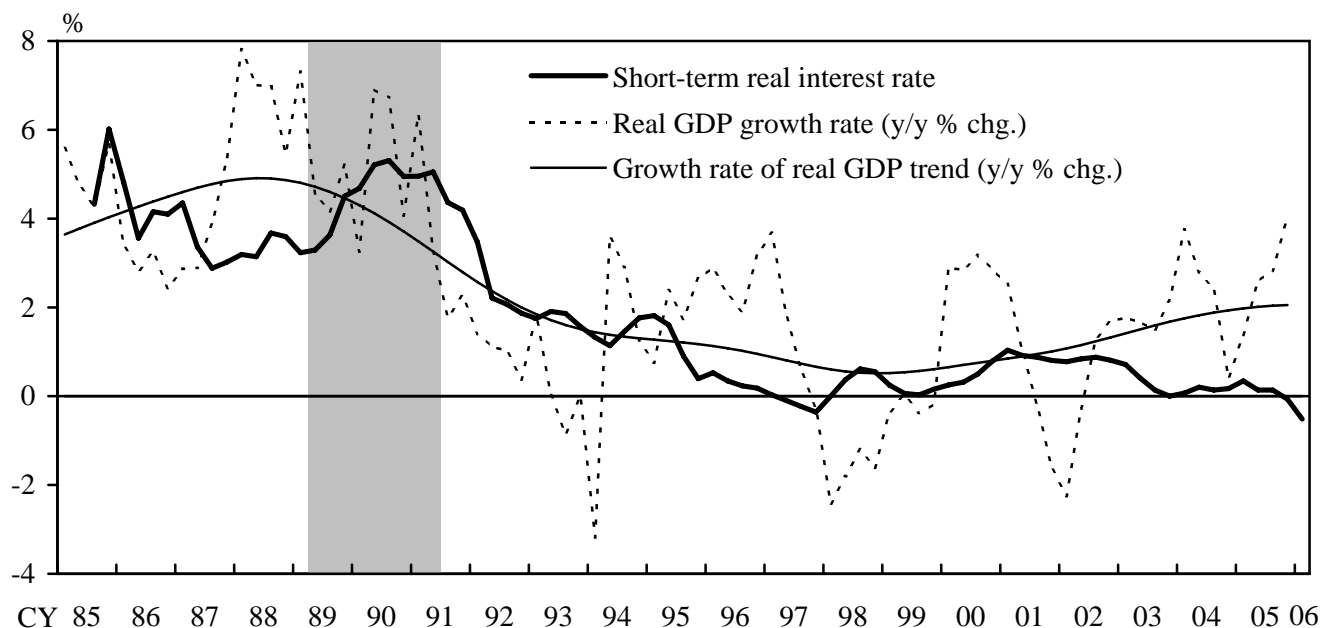
(3) Long-Term Interest Rates in Major Countries (10-Year Government Bond Yields)



Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Japan Bond Trading Co., Ltd.; Bloomberg.

## Interest Rates and Economic Activity

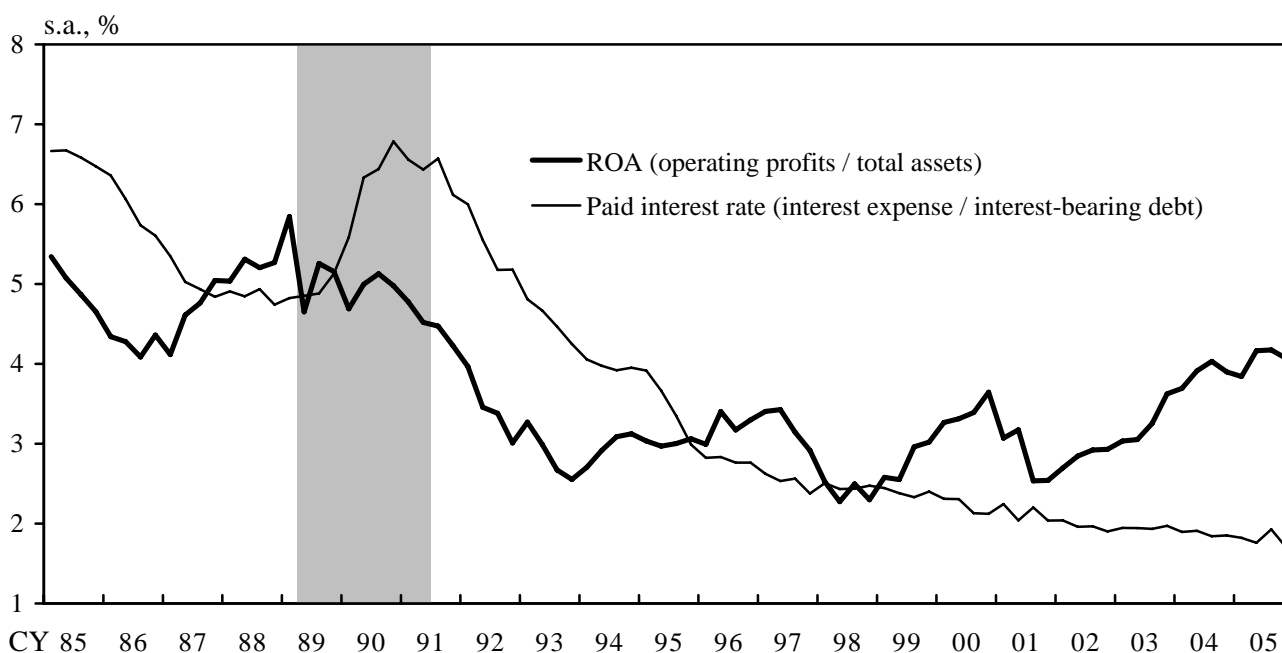
### (1) Short-Term Real Interest Rate and Real GDP Growth Rate



- Notes: 1. Short-term real interest rate = call rate (overnight, uncollateralized) - y/y % chg. in the consumer price index (excluding fresh food)  
 2. Real GDP trend is calculated by applying the HP filter.  
 3. Shaded area indicates the phase of rises in the policy interest rate (May 1989-June 1991).

### (2) ROA and Paid Interest Rate

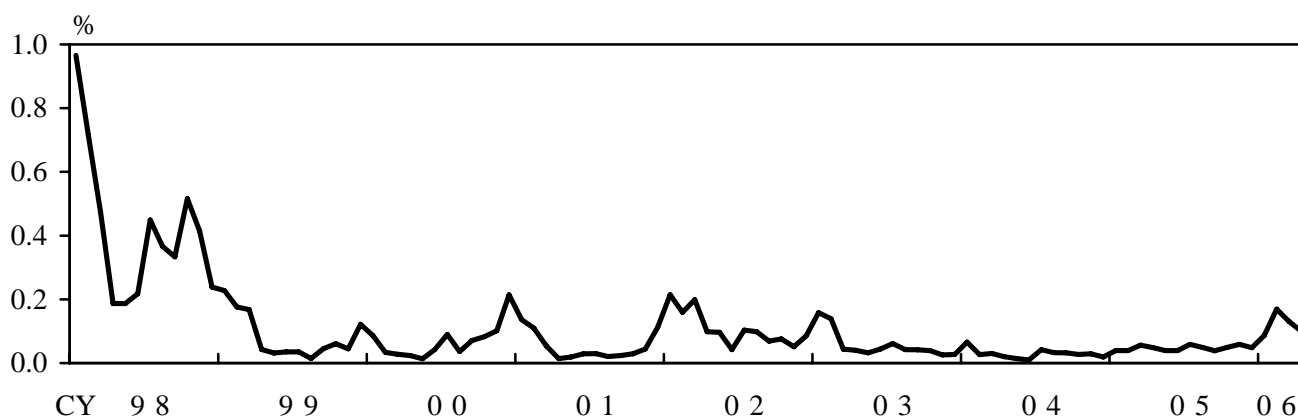
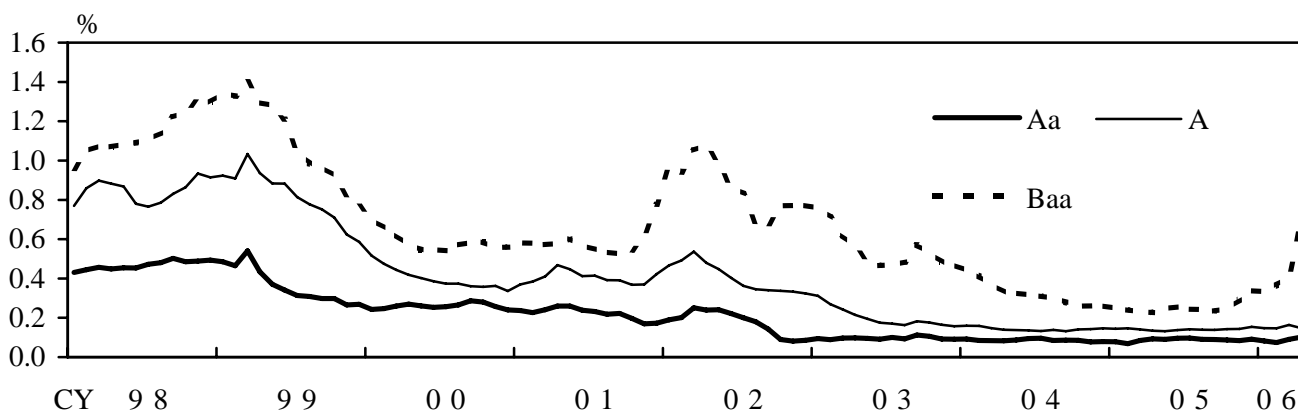
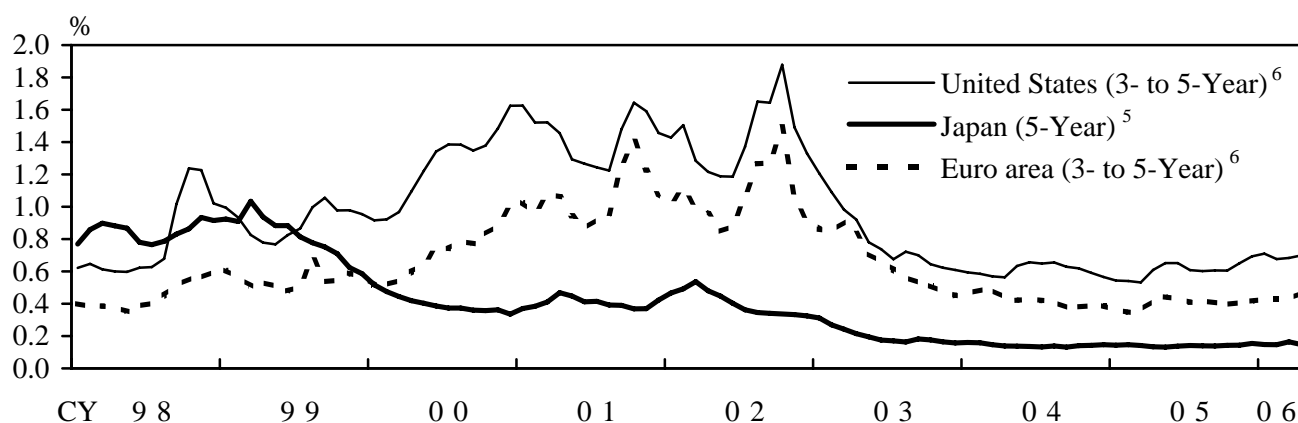
(Financial Statements Statistics of Corporations by Industry, Quarterly, All Enterprises)



- Notes: 1. Interest-bearing debt = long- and short-term borrowings + corporate bonds + bills receivable discounted outstanding  
 2. Shaded area indicates the phase of rises in the policy interest rate (May 1989-June 1991).

Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Bank of Japan.

## Credit Spread

(1) Spread for Commercial Paper (3-Month)<sup>1,2,3</sup>(2) Spread for Corporate Bonds (5-Year)<sup>3,4,5</sup>(3) Spread for Corporate Bonds in Major Economies (A-Rated)<sup>3,4</sup>

Notes: 1. The spread for CP is the average issuance rate of CP minus the FB yield.

2. CP ratings are A-1 or above.

3. The spreads for both CP and corporate bonds in April 2006 are the averages up to the latest available data.

4. The spread for corporate bonds is the corporate bond yield minus the government bond yield.

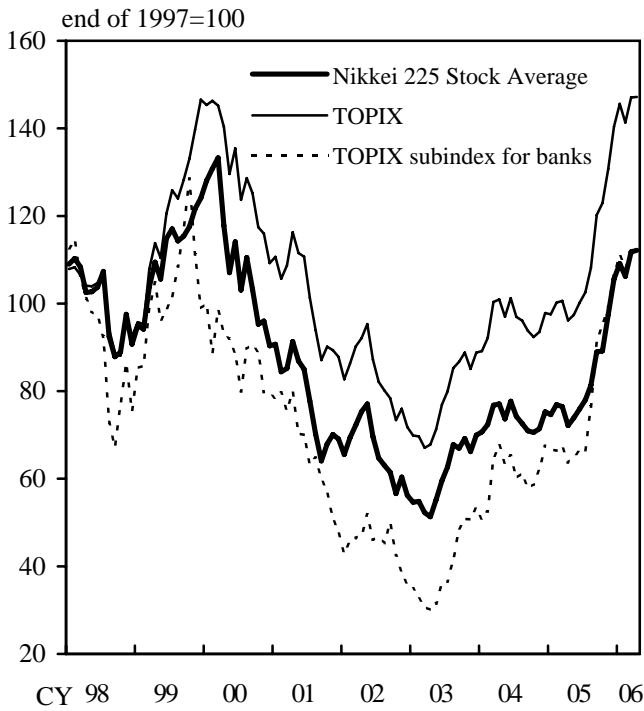
5. The indicated ratings of corporate bonds are of Moody's.

6. The indicated rating of corporate bonds is of Moody's and S&P.

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

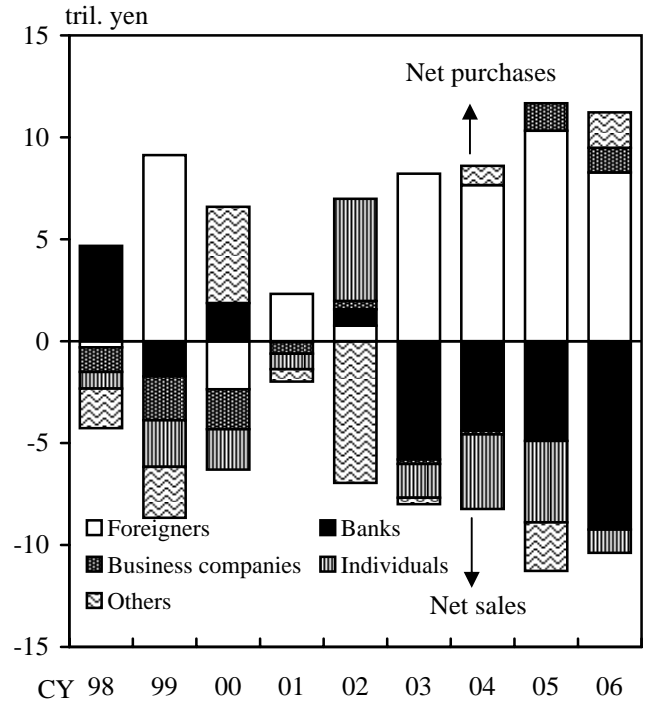
# Stock Prices

(1) Stock Prices



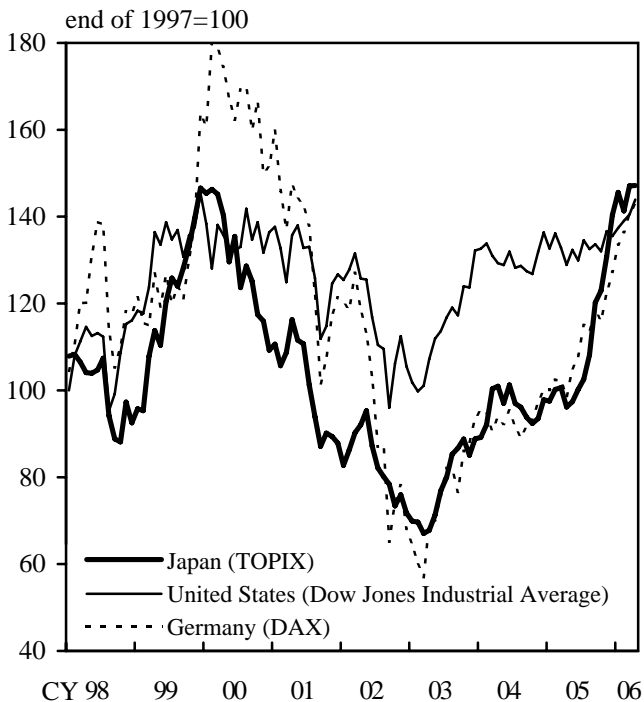
Note: Data are at end of month. Figures for April 2006 are the latest available data.

(2) Trading Volume by Investor Type



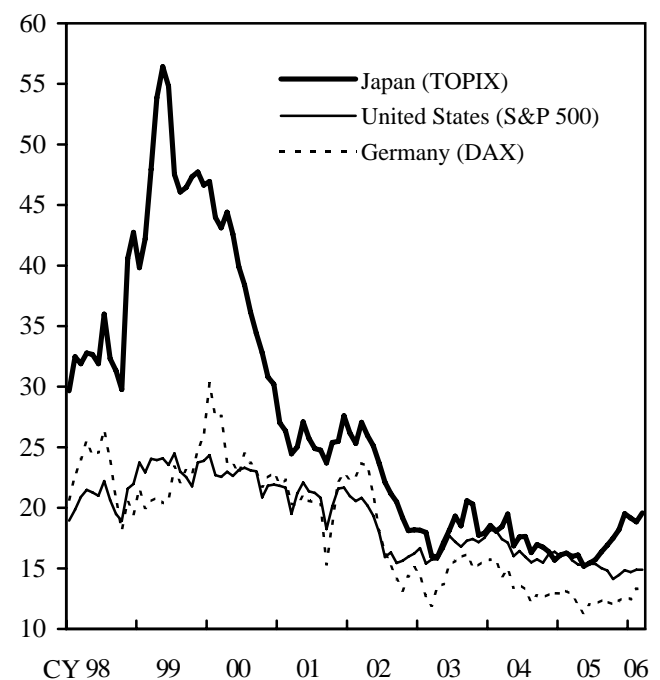
Notes: 1. Figures are the sum of the first and second sections of the Tokyo, Osaka, and Nagoya stock exchanges.  
2. Figures for 2006 are those of January-March in terms of annual amount.

(3) Stock Prices in Major Countries



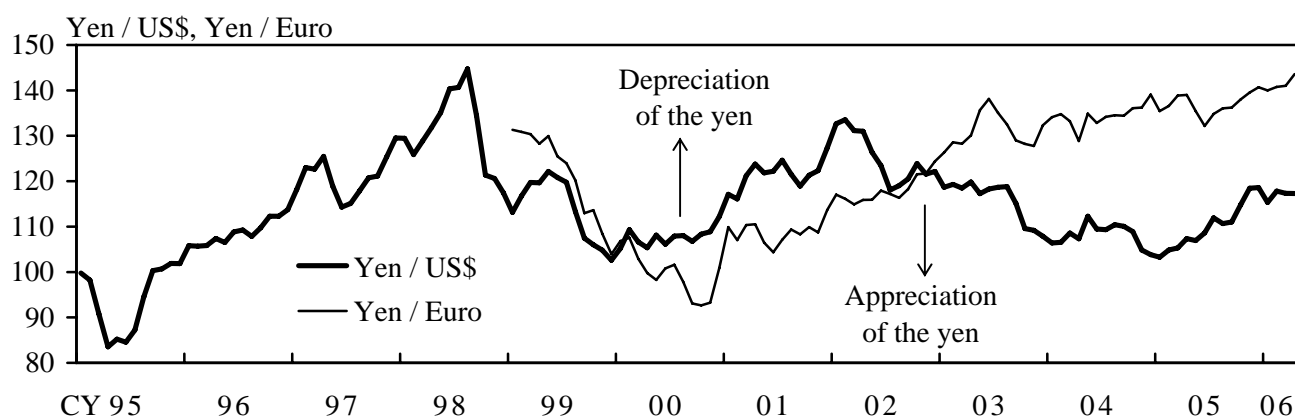
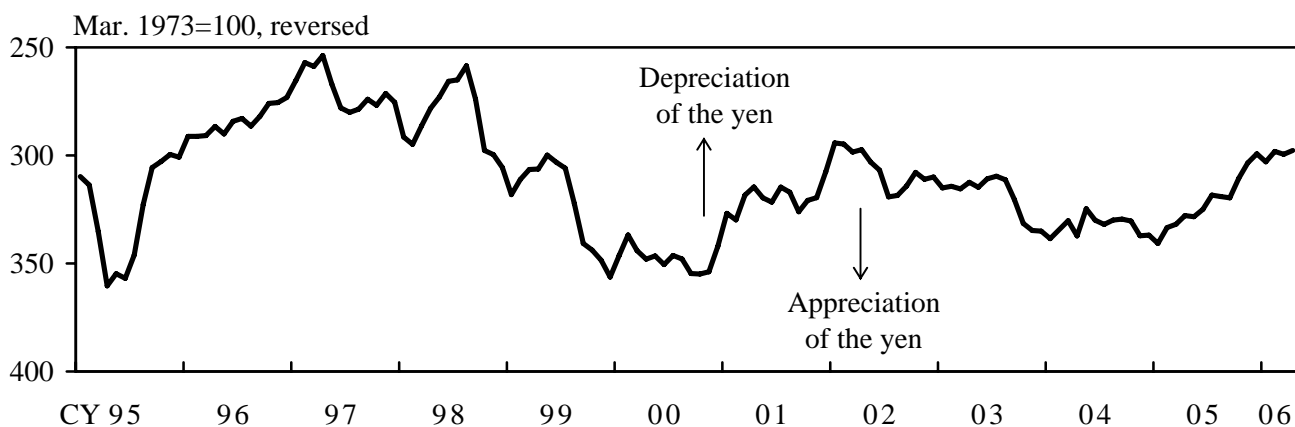
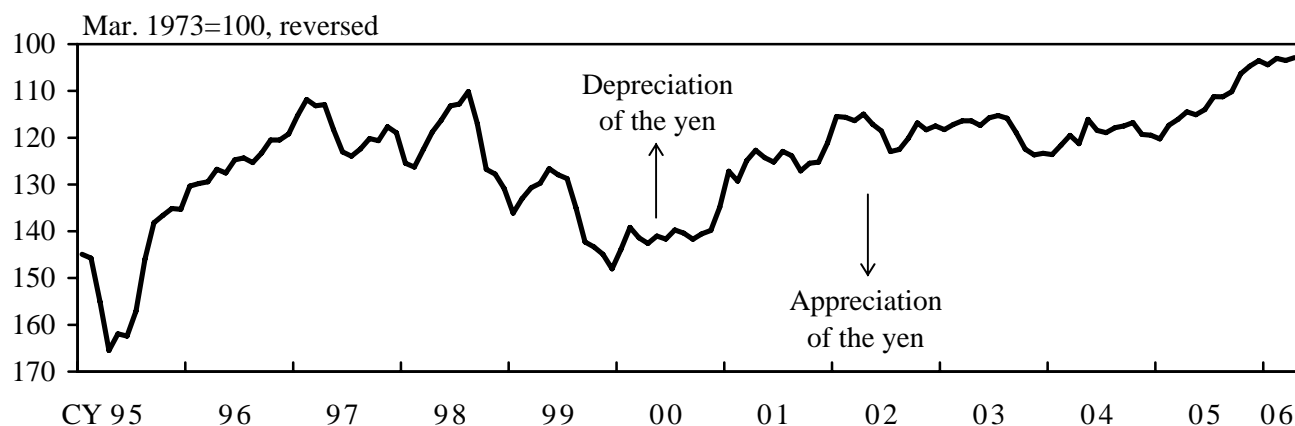
Note: Data are at end of month. Figures for April 2006 are the latest available data.

(4) P/E Ratios in Major Countries



Note: 12-month forward EPS is used to calculate P/E ratio.

## Exchange Rates

(1) Yen / US\$ and Yen / Euro<sup>1</sup>(2) Nominal Effective Exchange Rate<sup>1,2</sup>(3) Real Effective Exchange Rate<sup>1,2,3</sup>

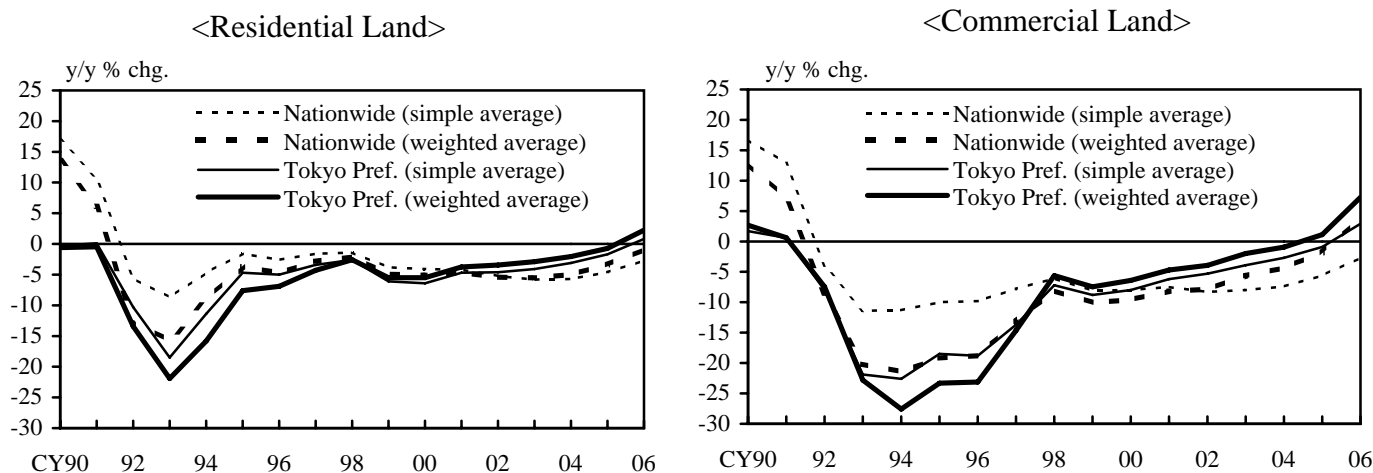
Notes: 1. Monthly average. Figures for April 2006 are averages up to the latest available data.

2. The nominal and real effective exchange rates are set against 15 currencies that have a large share among Japanese total exports.

3. The real effective exchange rate is a weighted average of the yen's real exchange rates which are calculated from the nominal exchange rates and price indexes of the relevant countries.

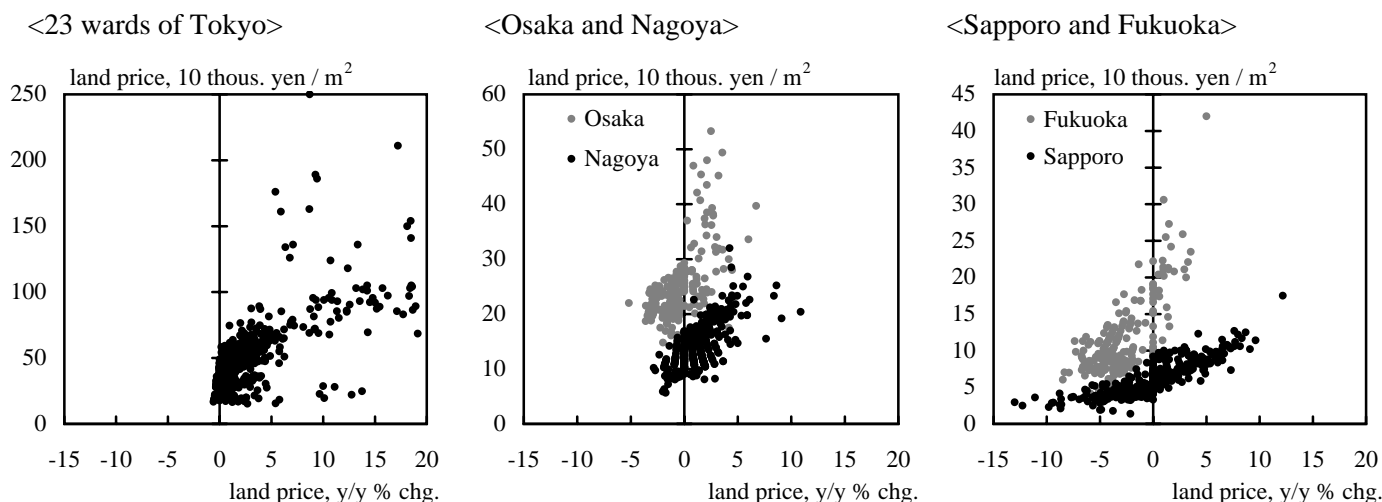
# Land Prices

## (1) Nationwide Average and Tokyo Prefecture (As of January 1)

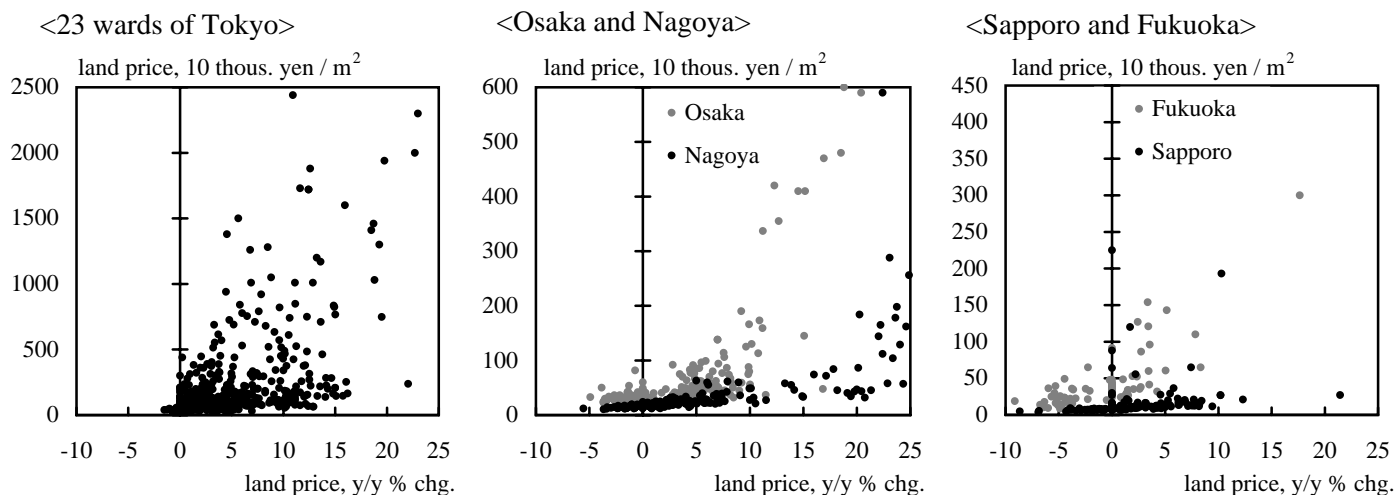


Note: Average land prices released by the Ministry of Land, Infrastructure and Transport are simple averages of the rates of change in land prices per square meter at individual locations surveyed. Weighted averages are calculated by the Bank of Japan, averaging the rates of change in land prices weighted by the level of land prices per square meter at individual locations surveyed in the previous year. The rate of changes in weighted average is equal to that in the sum of land prices at individual locations surveyed. However, as "Land Price Publication" is a sample survey, the rate of changes in weighted average is not generally equal to that in the total value of land.

## (2) Residential Land



## (3) Commercial Land

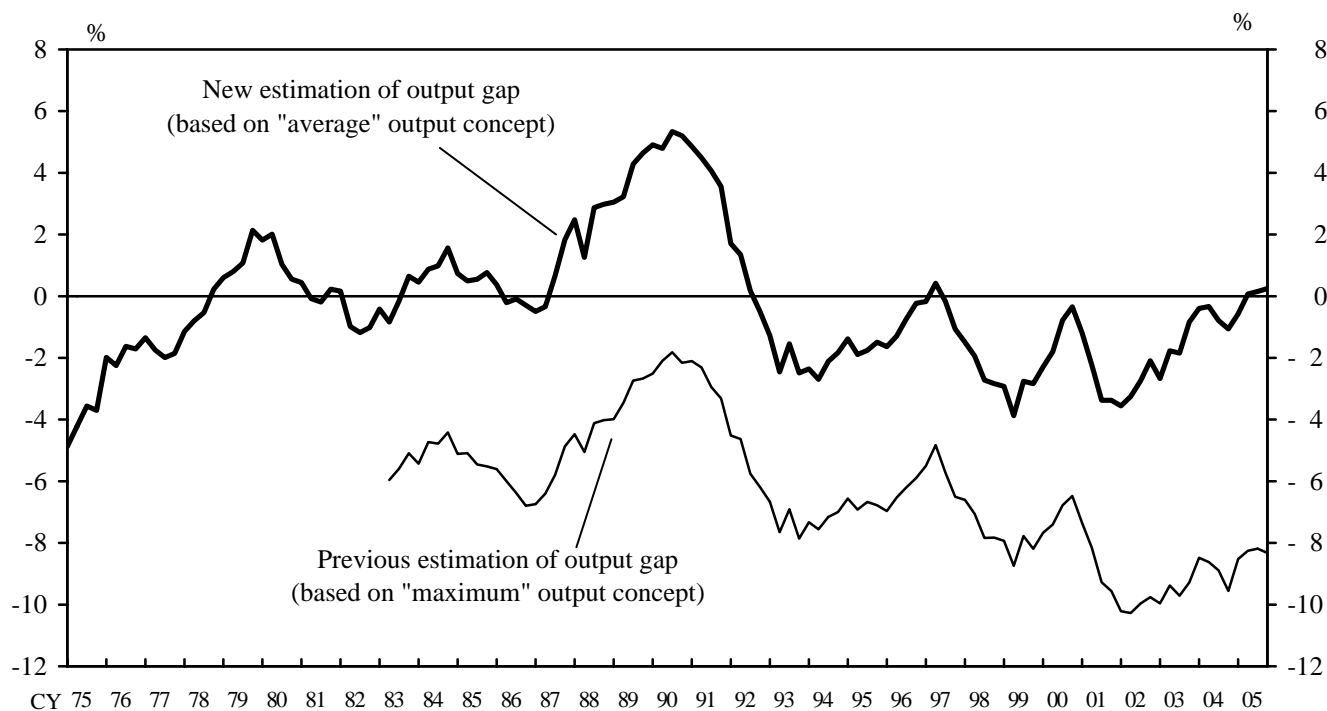


Source: Ministry of Land, Infrastructure and Transport, "Land Price Publication."

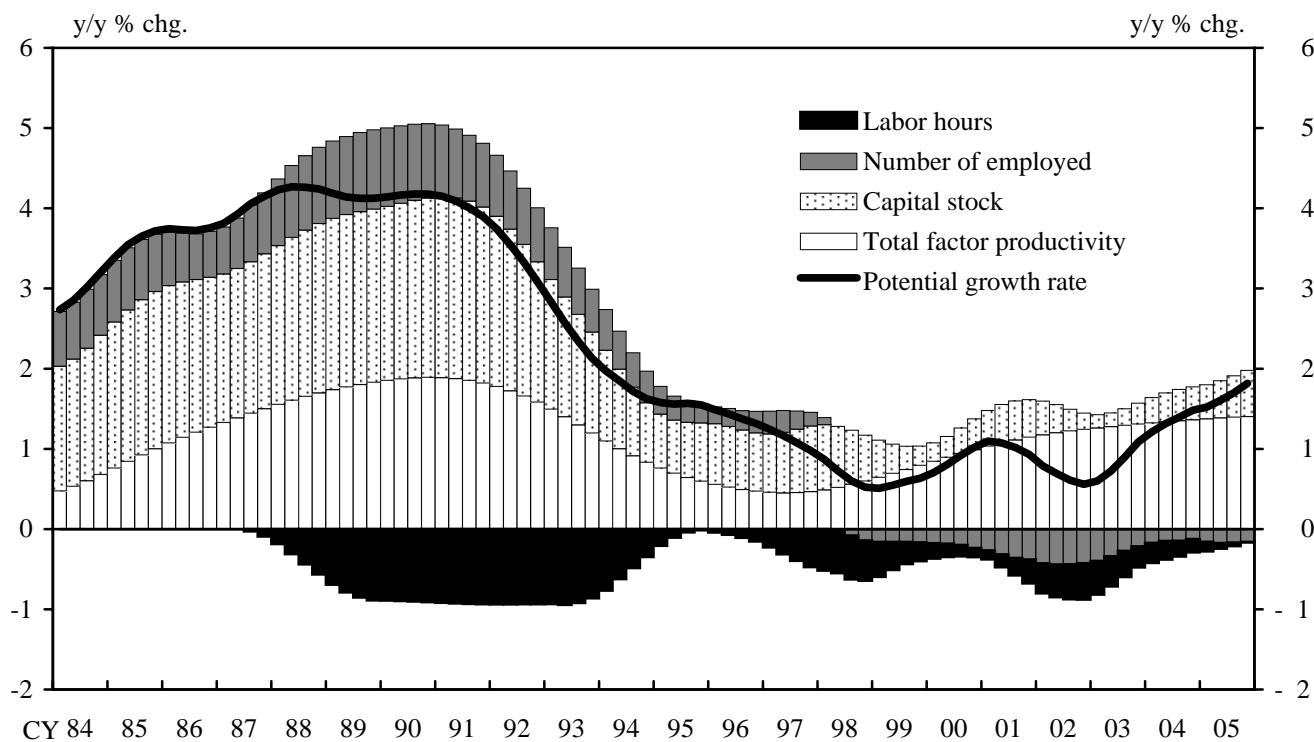


## Output Gap and Potential Growth Rate

### (1) Output Gap



### (2) Potential Growth Rate



Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production," etc.

## Economic Assessment by Region (Regional Economic Report)

Region	Assessment in April 2006	Revision of assessment from January to April	Assessment in January 2006
Hokkaido	The economy continues to show signs of gradual picking up.	Unchanged	The economy shows signs of gradual picking up.
Tohoku	The economy has been picking up gradually.	Unchanged	The economy has been picking up gradually.
Hokuriku	The economy is recovering steadily.	Slightly upward	The economy continues to recover gradually, as seen in a wider range of economic activities.
Kanto-Koshinetsu	The economy continues to recover steadily.	Slightly upward	The economy continues to recover.
Tokai	The economy is expanding.	Slightly upward	The economy continues to recover.
Kinki	The economy continues to expand.	Slightly upward	The economy continues to expand gradually.
Chugoku	The economy continues to recover as a whole.	Unchanged	The economy continues to recover as a whole.
Shikoku	The economy continues to show signs of gradual picking up.	Unchanged	The economy continues to show signs of gradual picking up.
Kyushu-Okinawa	The economy is recovering steadily.	Unchanged	The economy is recovering steadily.

Note: The Regional Economic Report (summary) is available on the Bank of Japan's web site, [http://www.boj.or.jp/en/type/ronbun/chiiki\\_rep/chiiki0604.htm](http://www.boj.or.jp/en/type/ronbun/chiiki_rep/chiiki0604.htm)

Source: Bank of Japan, "Regional Economic Report (summary) April 2006."