

Not to be released until 2:00 p.m.  
Japan Standard Time on Saturday,  
May 1, 2010.

May 1, 2010  
Bank of Japan

# **Outlook for Economic Activity and Prices**

April 2010

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

Please contact the Bank of Japan at the address below in advance to request permission when reproducing or copying the content of this document for commercial purposes.

Secretariat of the Policy Board, Bank of Japan  
P.O. Box 30, Nihonbashi, Tokyo 103-8660, Japan

Please credit the source when quoting, reproducing, or copying the content of this document.

## **The Bank's View<sup>1</sup>**

The global economy has emerged from the sharp deterioration triggered by the financial crisis and has been on a recovery trend since the latter half of 2009. However, the global economy is not in the process of returning to its state prior to the crisis. It is becoming clear that a substantial change in the global economic structure is taking place and each economy faces new challenges to achieve more balanced sustainable growth. Specifically, the presence of emerging and commodity-exporting economies in the global economy is growing and economic activity in these economies has significantly affected fluctuations in commodity prices and the flow of global capital. In advanced economies, including Japan, the outstanding amount of public debt has risen to unprecedented levels as a result of large-scale fiscal spending. In addition, based on the experience of the financial crisis, discussions have proceeded regarding a review of financial regulation and supervision. Meanwhile, Japan -- where domestic demand is expected to decline against the backdrop of a low birth rate, population aging, and a shrinking population -- faces the critical challenge of raising real economic growth and productivity. Taking account of these medium- to long-term changes in, and challenges facing, the global economy and Japan's economy, both the Bank of Japan's baseline scenario of economic activity and prices in Japan over the coming two years as well as risks will be examined.

### **I. Outlook for Economic Activity**

In the latter half of fiscal 2009, Japan's economy continued to pick up. Exports and production had been increasing against a backdrop of progress in inventory adjustments both at home and abroad as well as improvement in overseas economies -- in particular, fast growth in emerging economies. The drop in business fixed investment started leveling out due to the recovery in corporate profits. Private consumption, notably durable goods consumption, picked up mainly due to the effects of policy measures. Meanwhile, public investment started to decline.

Japan's economy from fiscal 2010 through fiscal 2011 is likely to be on a recovery trend. The demand-boosting effects of various policy measures targeted at durable goods

---

<sup>1</sup> The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on April 30, 2010.

consumption are likely to gradually wane, and the measures are expected to be wound up in fiscal 2010. At the same time, though, Japan's exports are likely to continue increasing against the backdrop of strong growth in emerging and commodity-exporting economies, and business fixed investment is also likely to pick up with the recovery in corporate profits. Moreover, since improvements in the employment and income situation are likely to gradually become evident as corporate activity becomes more vibrant, the pace of increase in private consumption and housing investment is likely to accelerate. Taking these points into account, the growth rate of Japan's economy is expected to be at a level above the potential growth rate in fiscal 2010, and to accelerate in fiscal 2011.<sup>2</sup>

The key features of the outlook are as follows.

### *Overseas Economies*

It is assumed that overseas economies will continue to recover, led mainly by strong growth in emerging and commodity-exporting economies. In the United States and Europe, production is picking up against the backdrop of progress in inventory adjustments and the increase in exports, although the unemployment rate has remained at an elevated level. The effects of demand-boosting policy measures in the United States and Europe are expected to wane, but if balance-sheet adjustments at financial institutions and in the household sector make steady progress, downward pressure on economic activity from the financial side will decline and on the whole the momentum for a self-sustaining recovery in private demand in the United States and Europe will likely strengthen gradually, albeit to varying degrees in the different countries. Meanwhile, emerging and commodity-exporting economies have been achieving strong growth led by domestic demand, fueled -- in addition to the underlying strength of self-sustaining growth -- by the effects of the expansionary macroeconomic policies taken thus far and of large-scale monetary easing in advanced economies. In some of these economies, there are signs of overheating in asset prices, and general prices are also rising. While the Bank's baseline scenario assumes that the high growth in emerging and commodity-exporting economies

---

<sup>2</sup> Japan's potential growth rate during the projection period is estimated to be "around 0.5 percent." However, given that the potential growth rate is estimated based only on the latest available data, it is subject to a certain margin of error.

will continue, whether this scenario will unfold depends largely on the appropriate conduct of macroeconomic policies in these economies.

### ***The Corporate Sector***

In the manufacturing sector, production has been increasing due to the rise in exports and the effects of various policy measures targeted at durable consumer goods. Corporate profits have been recovering due to such increases in production as well as firms' efforts to reduce fixed costs. In a situation where firms' medium- to long-term growth expectations about the global economy are expected to be maintained, production is likely to remain on an uptrend and corporate profits are likely to continue to recover. In addition to these developments, as financial conditions are likely to improve, business fixed investment is also expected to pick up. While it is possible that improvement in the nonmanufacturing sector and among small firms may lag behind due mainly to the continued pursuit of cost cutbacks in the manufacturing sector, the effects of the recovery among export-related manufacturers are likely to spill over gradually.

### ***The Household Sector***

With regard to the employment situation, signs of improvement have become more pronounced than before, as seen in the fact that non-scheduled hours worked have been increasing and the ratio of job offers to applicants has risen moderately. Under these circumstances, private consumption, notably durable goods consumption, is picking up mainly due to the effects of various policy measures. As these measures are expected to be wound up in fiscal 2010, the pace of recovery in private consumption is likely to temporarily slow somewhat. Nevertheless, the effects of the increase in production are beginning to spill over gradually into the employment and income situation. Stock prices have also been rising against the backdrop of the recovery in corporate profits. As corporate activity becomes more vibrant, the recovery in employment is likely to become more pronounced and wages are also likely to show signs of improvement. Given these developments, the momentum for a self-sustaining recovery in private consumption is likely to build gradually. Moreover, housing investment is likely to recover moderately against the backdrop of improvements in the employment and income situation.

## ***Financial Environment***

The functioning of Japanese financial markets, which had declined considerably due to the global financial crisis, has improved substantially in 2009, and the constraints imposed by financial developments on economic activity vanished gradually. Recently, financial conditions have shown increasing signs of easing. Specifically, with the overnight call rate remaining at an extremely low level and interest rates on term instruments declining moderately, firms' funding costs, such as bank lending rates, have been on a downtrend. Issuing conditions for CP and corporate bonds have remained favorable, and even those for low-rated corporate bonds have shown signs of improvement. Financial institutions' lending stance has generally eased. Therefore, firms as a whole regard the situation as improving, although many firms still see financial institutions' lending attitudes as severe. As for the outlook, with Japan's financial system remaining stable on the whole, circumstances regarding firms' funding are likely to continue improving. The recovery in corporate profits and economic activity amplifies the stimulative effects of low interest rates, and, coupled with the improvement in funding conditions for firms, is expected to provide a boost for a self-sustaining recovery in domestic private demand. Meanwhile, as for credit demand, firms' demand for external funds is likely to remain weak due in part to the fact that firms have accumulated ample on-hand liquidity, in addition to the increase in cash flow in line with the recovery in corporate profits. Under these circumstances, it is likely that firms' financial positions will continue to improve, and bank lending and the amount of outstanding CP decrease, until a recovery in business fixed investment is well underway. Meanwhile, financial conditions surrounding small firms are likely to continue showing signs of easing, although some tightness may remain stemming from the fact that improvements in their performance tend to lag behind those of large firms.

## **II. Outlook for Prices**

The year-on-year rate of decline in the consumer price index (CPI) for all items excluding fresh food accelerated toward the summer of 2009, due mainly to the effects of the drop in commodity prices following the surge in 2008. Since then, with the effects of the commodity prices gradually waning, the year-on-year rate of decline in the CPI (excluding fresh food) has started to moderate.

The outlook for the environment for prices can be summarized as follows. First, resource utilization of labor and production capacity, which reflects the aggregate supply and demand balance of goods and services, is projected to improve gradually as the economy follows a recovery trend. Second, unit labor costs (labor costs per unit of output) are likely to remain on a downtrend as a result of efforts by firms to restrain wages, but the pace of decline is likely to slow in the latter half of the projection period when a recovery in employment and wages is projected. Meanwhile, judging from developments in long-term interest rates and the results of various surveys targeted at households and firms, medium- to long-term inflation expectations have been generally unchanged and are assumed to remain stable throughout the projection period. Commodity prices have continuously been on a rise recently, albeit with some swings, due mainly to strong growth in emerging and commodity-exporting economies. Commodity prices are assumed to rise moderately on the back of the continuation of strong growth in emerging and commodity-exporting economies.

As for the outlook for prices in terms of price indices, the domestic corporate goods price index (CGPI) is expected to be positive on a year-on-year basis from fiscal 2010 onward due mainly to the improvement in the aggregate supply and demand balance and to developments in commodity prices.

Under the assumption that medium- to long-term inflation expectations remain stable, the year-on-year rate of decline in the CPI (excluding fresh food) is expected to slow as the aggregate supply and demand balance gradually improves, and there are prospects that the rate of change in the CPI could enter positive territory in fiscal 2011.<sup>3</sup>

### **III. Upside and Downside Risks**

The outlook described above is the scenario considered to be the most likely by the Bank. As upside and downside risks concerning the outlook, the following risks warrant attention.

---

<sup>3</sup> The CPI for fiscal 2010 excludes the effects of the introduction of subsidies for high school tuition fees, a factor that will substantially lower the year-on-year rate of change in the CPI for the year. In assessing the trend change in prices, it is deemed appropriate to exclude such one-off factors that will disappear in twelve months.

The first risk concerns developments in emerging and commodity-exporting economies. These economies have continued to achieve strong growth led by domestic demand mainly as a result of the effects of expansionary macroeconomic policies in addition to the underlying strength of self-sustaining growth. Moreover, the improvement in global financial markets and continuation of large-scale monetary easing in advanced countries have increased capital inflows to emerging and commodity-exporting economies, which also seems to have been supporting economic activity in these economies. Commodity prices have also been on a rising trend against the backdrop of the growth in emerging and commodity-exporting economies. If economic conditions in emerging and commodity-exporting economies turn out to be stronger than expected, this could become an upside risk for Japan's economy through the increase in exports it would generate. However, there is a certain risk that, depending on the future conduct of macroeconomic policy in these economies, economic activity might overheat. In this case, Japan's exports could rise even further. At the same time, the worsening in the terms of trade associated with a rise in commodity prices could also pose a downside risk for private domestic demand in Japan. Moreover, if a sharp unwinding of excessive economic and financial activity takes place in emerging and commodity-exporting economies, there are risks of a substantial plunge in asset prices and of deep adjustments in economic activity in these economies.

The second risk concerns developments in advanced economies. As balance-sheet adjustments continue in the U.S. and European economies, bank lending has been sluggish. If credit intermediation does not operate smoothly for a protracted period, downward pressure on economic activity from the financial side could continue. Moreover, attention should be paid to the potential consequences and impact of any possible changes in the various policy measures implemented in advanced economies, including Japan. If expansionary macroeconomic policies are modified while the momentum for a self-sustaining recovery in private demand remains weak, there is a risk that economic activity may turn out to be weaker than expected, depending on the way such changes are undertaken or their extent. Meanwhile, if accommodative financial conditions are maintained for a prolonged period as a self-sustaining recovery in private demand gains momentum, this could lead to larger swings in economic activity and prices. Moreover, it should be noted that if public support measures are maintained for longer than necessary,



productivity growth in the economy as a whole might be hampered due to the retention of resources in inefficient areas.

The third risk concerns various international financial developments. Advanced economies around the world, including Japan, have implemented large-scale fiscal policies. As a result, the outstanding amount of public debt has been rising. Under these circumstances, depending on the market's evaluation of the outlook for public finances in the medium to long term, there is a risk that downward pressure on the economy might arise through adverse effects on financial markets, such as substantial fluctuations in long-term interest rates. Economic activity could also be affected by future regulation and supervision of the financial sector through financial institutions' and financial markets' response. Moreover, there is a risk that the possible consequences of balance-sheet adjustments in the United States and Europe as well as developments in emerging and commodity-exporting economies could cause substantial fluctuations in global financial markets.

The fourth risk concerns firms' medium- to long-term expectations for future economic growth. In this outlook, it is assumed that firms' medium- to long-term expectations for global economic growth remain unchanged and that business fixed investment will pick up at a moderate pace as overseas economies recover. Recently, in order to actively capture demand from emerging and commodity-exporting economies, firms, particularly large firms, have started to work on the development of products aimed at these economies and, in view of the international division of labor, to specialize in high-value-added products. If such moves accelerate, firms' medium- to long-term growth expectations could rise, and economic activity, particularly exports and business fixed investment, could turn out to be stronger than expected. However, if efforts to address various medium- to long-term issues, such as the need to increase the productivity of the economy as a whole, make little progress, there is a risk that expectations for growth in domestic demand could decline further. In this case, there is a risk that investment in and lending to emerging economies could increase but business fixed investment in Japan could be restrained, particularly at domestic demand-related firms, and household spending could decline through heightened anxiety about the outlook for employment and income.

There are also uncertainties regarding the outlook for inflation that could cause it to deviate either upward or downward from the projection. If any of the above-mentioned upside or downside risks affecting the level of economic activity materialize, prices may be affected accordingly. There are also the following risk factors specific to prices. The first concerns firms' and households' medium- to long-term inflation expectations. While resource utilization of labor and production capacity is likely to recover, the pace of recovery is expected to be moderate. In these circumstances, should firms and households factor in the possibility of a continued decline in prices, the decline in actual prices and wages might accelerate. The second risk factor concerns developments in import prices. Considerable uncertainty surrounds developments in prices of primary commodities such as crude oil, leaving room for movement in either direction. Especially if growth in emerging and commodity-exporting economies turns out to be stronger than expected, primary commodity prices might rise more than expected. Fluctuations in foreign exchange rates can also affect consumer prices to a certain extent, not only by causing swings in economic activity but also through changes in import prices. The third risk factor concerns the high uncertainty with respect to gauging the degree of slack in the economy or the state of utilization of labor and production capacity. When the economy is fluctuating substantially with structural changes in demand, it is possible that the supply capacity of the economy is also declining owing to obsolescence or a cutback in capital stock. In this case, if the degree of economic slack is estimated based on the output gap derived from the latest available data, there is a risk of overestimating the downward pressure on prices in a period when the economy is on a recovery trend.

#### **IV. Conduct of Monetary Policy**

The Bank has been actively implementing monetary easing measures to support the economy from the financial side. Specifically, the Bank has lowered the policy rate to 0.1 percent and, to encourage a decline in longer-term interest rates, introduced in December 2009 fixed-rate funds-supplying operations against pooled collateral, and in March 2010 substantially increased the amount of funds to be provided through the operation. Through these measures, the overnight call rate has remained at an extremely low level and interest rates on term instruments and bank lending rates have been declining. Meanwhile, the stimulative effects of low interest rates have been amplified given the improvements in corporate profits and economic activity.

In what follows, the Bank's assessment of the economic and price situation from two perspectives and the outline of its thinking on the future conduct of monetary policy will be discussed.<sup>4</sup>

The first perspective involves assessing the most likely outlook for economic activity and prices through fiscal 2011. As noted earlier, the economy is likely to be on a recovery trend. Based on the assumption that medium- to long-term inflation expectations remain stable, the year-on-year rate of decline in the CPI (excluding fresh food) is expected to slow as the aggregate supply and demand balance improves gradually, and there are prospects that the rate of change in the CPI could enter positive territory in fiscal 2011. The economy is expected to return to a sustainable growth path with price stability in the longer term.

The second perspective assesses the risks considered most relevant to the conduct of monetary policy, including risks that have a longer time horizon than the first perspective. In the area of economic activity, while there are some upside risks such as faster growth in emerging and commodity-exporting economies, there are also downside risks such as those related to international financial developments. Regarding the outlook for prices, there is a possibility that inflation will rise more than expected due to a rise in commodity prices brought about by higher growth rates in emerging and commodity-exporting economies, while there is also a risk that the rate of inflation might decline due, for example, to a decline in medium- to long-term inflation expectations.

Based on the examination from the two perspectives described above, in the conduct of monetary policy, the Bank will aim to maintain the extremely accommodative financial environment. The Bank recognizes that Japan's economy faces the critical challenge of

---

<sup>4</sup> To realize sustainable growth with price stability, the Bank assesses the economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy, taking into account the "understanding of medium- to long-term price stability" (the "understanding") -- that is, the level of inflation that each member of the Policy Board understands, when conducting monetary policy, as being consistent with price stability over the medium to long term. The "understanding" was reviewed again this year, which showed that each Policy Board member's "understanding" falls in a positive range of 2 percent or lower, and the midpoints of most Policy Board members' "understanding" are around 1 percent.

overcoming deflation and returning to a sustainable growth path with price stability. To this end, the Bank will continue to consistently make contributions as a central bank.

(Appendix 1)

**Forecasts of the Majority of Policy Board Members**

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2009	-2.2 to -2.1 [-2.2]	-5.2	-1.6
Forecasts made in January 2010	-2.5 to -2.5 [-2.5]	-5.3 to -5.2 [-5.3]	-1.5 to -1.5 [-1.5]
Fiscal 2010	+1.6 to +2.0 [+1.8]	+1.1 to +1.5 [+1.3]	-0.5 to -0.2 [-0.5]
Forecasts made in January 2010	+1.2 to +1.4 [+1.3]	-0.5 to -0.4 [-0.5]	-0.6 to -0.5 [-0.5]
Fiscal 2011	+2.0 to +2.2 [+2.0]	+0.5 to +0.8 [+0.7]	-0.1 to +0.2 [+0.1]
Forecasts made in January 2010	+1.7 to +2.4 [+2.1]	-0.5 to 0.0 [-0.4]	-0.3 to -0.1 [-0.2]

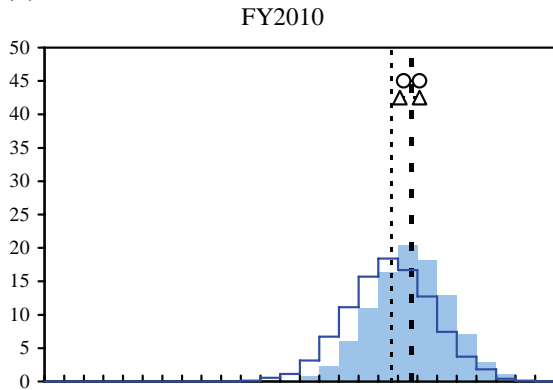
- Notes: 1. Figures in brackets indicate the median of the Policy Board members' forecasts (point estimates).
2. The forecasts of the majority of Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate, namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.
3. Individual Policy Board members make their forecasts with reference to the view of market participants regarding the future course of the policy interest rate -- a view that is incorporated in market interest rates.
4. The real GDP figures for fiscal 2009 are Policy Board members' estimates. The figures for the domestic CGPI and the CPI (excluding fresh food) are actual values.
5. The CPI for fiscal 2010 excludes the effects of the introduction of subsidies for high school tuition fees, a factor that will substantially lower the year-on-year rate of change in the CPI for the year. This measure is estimated to lower the year-on-year rate of change in the CPI (excluding fresh food) by approximately 0.5 percentage points.
6. The range shown below includes the forecasts of all Policy Board members.

y/y % chg.

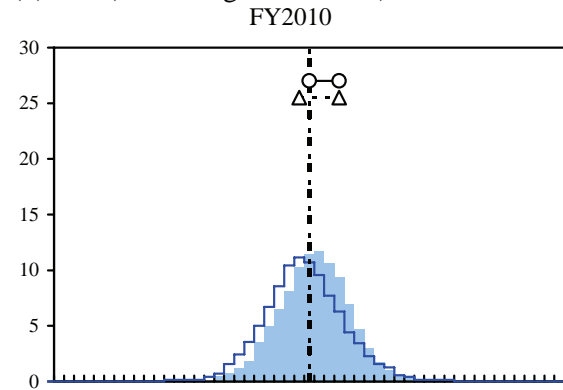
	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2009	-2.2 to -2.0	-5.2	-1.6
Forecasts made in January 2010	-2.6 to -2.3	-5.5 to -5.0	-1.6 to -1.5
Fiscal 2010	+1.5 to +2.0	+1.0 to +1.6	-0.6 to -0.2
Forecasts made in January 2010	+1.0 to +1.5	-0.9 to -0.4	-0.7 to -0.4
Fiscal 2011	+1.9 to +2.4	+0.4 to +1.0	-0.1 to +0.3
Forecasts made in January 2010	+1.6 to +2.5	-0.5 to +0.2	-0.3 to 0.0

### Risk Balance Charts

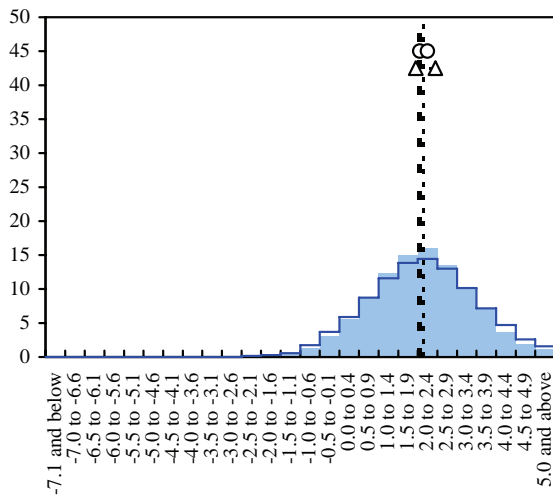
(1) Real GDP



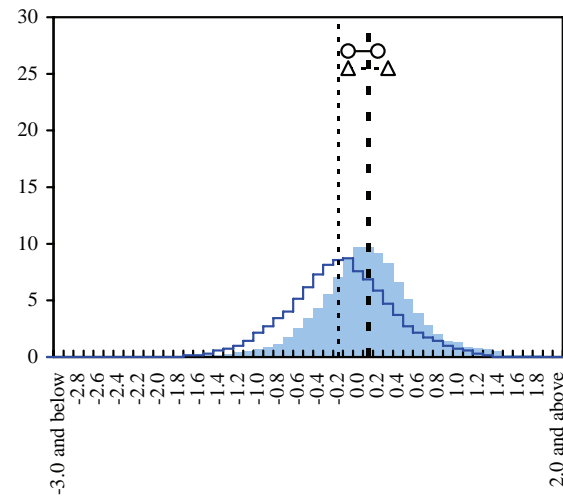
(2) CPI (Excluding Fresh Food)



FY2011



FY2011



- Notes: 1. Vertical axes in the charts represent probability (%), while horizontal axes represent the year-on-year percentage changes in the respective indicators. Bar charts represent the probability distributions in April 2010, and solid lines represent those in January 2010.
2. Vertical dashed heavy lines indicate the median of the Policy Board members' forecasts (point estimates).  
○—○ indicates the range of the forecasts of the majority of Policy Board members. Δ—Δ indicates the range of the forecasts of all Policy Board members.
3. Vertical dashed thin lines indicate the median of the Policy Board members' forecasts (point estimates) in January 2010.
4. For the process of compilation of the Risk Balance Charts, see the box on page 9 of the April 2008 *Outlook for Economic Activity and Prices*.

## **The Background**

### **I. Economic, Price, and Financial Developments in Fiscal 2009**

#### *Economic Activity*

Japan's economy bottomed out in the first half of fiscal 2009, mainly due to the effects of various policy measures both at home and abroad, and continued to pick up through the second half (Chart 1). However, the momentum for a self-sustaining recovery in domestic private demand remained weak amid substantial excesses in production capacity and employment.

Specifically, public investment increased from the second half of fiscal 2008 to the beginning of fiscal 2009 owing to the implementation of the supplementary budget for fiscal 2008 and the front-loading of the fiscal 2009 budget, but subsequently declined. Real exports continued to increase due to the effects of policy measures taken around the world and progress in adjustments of inventories overseas (Chart 2). Real imports also started to increase on the back of developments in production, albeit at a moderate pace when compared with that of exports. As a result, net exports, in terms of the real trade balance, increased markedly. Corporate profits followed a recovery trend due mainly to increased production and labor cost restraint (Chart 3 [1]). Against the backdrop of increased production and the recovery in corporate profits, the decline in business fixed investment, which accelerated significantly until the first half of fiscal 2009, more or less leveled out in the second half (Chart 3 [2]). Meanwhile, the number of employees as reported in the *Labour Force Survey* continued to decline (Chart 4 [1]). As for wages, scheduled and non-scheduled cash earnings marked year-on-year declines due to a reduction in working hours mainly in the manufacturing sector (Chart 4 [2]). Special cash earnings also declined significantly on the back of the decrease in corporate profits. As a result, employee income fell substantially (Chart 4 [3]). However, due partly to the expansion of employment subsidies and other measures, the decline in the number of employees was moderate compared with the plunge in economic activity. Moreover, around the end of fiscal 2009 the pace of decline in employment and wages moderated, and the rate of change in non-scheduled cash earnings became positive on a year-on-year basis. Thus, while the severe employment and income situation continued, signs of improvement

started to appear toward the end of fiscal 2009. Against this backdrop, private consumption, notably durable goods consumption stimulated by various policy measures, picked up (Chart 5 [1]). Consumer confidence also recovered relatively clearly from an extremely low level (Chart 5 [2]). Housing investment continued to fall in the first half of fiscal 2009 mainly due to the severe employment and income situation and adjustments in condominium inventory. However, housing investment more or less leveled out toward the end of fiscal 2009 since some progress was made in the adjustment of property prices, and the level of inventories declined, especially in the Tokyo metropolitan area (Chart 6).

Reflecting these developments in demand both at home and abroad, industrial production continued to increase (Chart 7).<sup>5</sup> On a year-on-year basis, many industries, especially the transport equipment and electronic parts and devices industries, following the earlier decline, started to register increases in production toward the end of the fiscal year on the back of the increase in exports and a pick-up in domestic automobile sales. Inventories continued to decrease owing to an increase in shipments, and the shipment-inventory balance recorded a clear improvement. Looking at the indices of all industrial activity, the year-on-year rate of change in the manufacturing sector started to increase and the pace of decline in the nonmanufacturing sector moderated markedly toward the end of fiscal 2009 (Chart 8). Against the background of such economic developments, business sentiment continued to improve, with such improvements spreading to a relatively wider range of industries (Chart 3 [1]).

Real GDP growth in fiscal 2009 is likely to have been in the range of minus 2.5 to minus 2.0 percent. This is somewhat better than the growth rate projected in the October 2009 *Outlook for Economic Activity and Prices* (Outlook Report) and the interim assessment in January 2010. The following factors underlie this. First, due mainly to strong growth in emerging and commodity-exporting economies, the pace of recovery in the global economy was faster than expected. And second, through the effects of various policy measures, durable goods consumption strengthened more than expected.

---

<sup>5</sup> Compared with the peak in the January-March quarter of 2008, the level of production had plunged to below 70 percent but picked up to more than 80 percent around the end of March 2010.



Reflecting these economic developments, resource utilization of labor and production capacity improved, although it remained at a low level (Chart 9). The weighted average of the diffusion indices (DIs) of production capacity and employment conditions, where indices are weighted by capital and labor shares in the national accounts, after registering the largest negative value on record in the June 2009 *Tankan* (Short-Term Economic Survey of Enterprises in Japan), was above previous economic troughs -- although still negative -- in the March 2010 *Tankan*. The estimated negative output gap also steadily narrowed.<sup>6</sup>

### *Prices*

In fiscal 2009, the decline in prices first accelerated, due mainly to the effects of the drop in commodity prices following the surge in 2008, but the decline, including that of retail prices, then decelerated as the effects of the commodity price swings gradually dissipated. The domestic corporate goods price index (CGPI) showed a year-on-year decline of 8.5 percent in August 2009, but the pace of decline subsequently clearly decelerated (Chart 10 [1]). The rate of decline in the consumer price index (CPI) for all items excluding fresh food, after accelerating to 2.4 percent on a year-on-year basis in August, decelerated to around 1 percent in the first few months of 2010 (Chart 10 [3]).<sup>7</sup> The pace of decline in the CPI (excluding food and energy) accelerated to 1.2 percent in December 2009 and January 2010, but then gradually stopped accelerating (Chart 11 [1]). While consumers' preference for inexpensive goods and services has persisted, the effects of the gradual improvement in the aggregate supply and demand balance appear to have been spreading to prices with a time lag.

---

<sup>6</sup> The negative output gap seems to have further narrowed slightly in the January-March quarter of 2010, although significant economic slack certainly remains. The extent of the estimated negative output gap appears to be wider than the weighted average DI of the *Tankan* suggests, which has improved to a level above the previous record low. The potential for estimation errors is particularly great at times when there are large fluctuations in the economy, and it is quite possible that the recent pace of decrease in the output gap has been overestimated. On the other hand, it is also highly possible that the weighted average DI of the *Tankan* has not sufficiently captured the extent of the decline in the level of economic activity partly because the DI does not reflect unemployment outside the corporate sector and other factors.

<sup>7</sup> Looking at recent developments in the CPI in detail, prices of petroleum products have started to increase on a year-on-year basis, and the acceleration in the rate of decline in prices of other goods and services is coming to a halt (Chart 11 [2] and [3]).

Looking at the year-on-year rate of change in prices for fiscal 2009 as a whole, both the CGPI and the CPI were more or less in line with the projections in the October 2009 Outlook Report and the interim assessment in January 2010, with a decline in the CGPI of 5.2 percent and a decline in the CPI (excluding fresh food) of 1.6 percent.

### ***Financial Markets***

From the spring of 2009, as concerns about financial system stability abated on a global basis and business sentiment bottomed out and started to improve in countries around the world, improvements in international financial markets spread. In the U.S. and European money markets, spreads between interbank rates and yields on treasury bills, which had been narrowing significantly toward the beginning of 2009, further narrowed to levels below those prior to the failure of Lehman Brothers Holdings Inc. (Chart 12 [1]). As investors' risk appetite recovered, credit spreads on corporate bonds declined significantly toward the summer of 2009 and followed a moderate downtrend thereafter (Chart 12 [2]). As improvements in international financial markets spread, the U.S. dollar funds-supplying operations that had been implemented in countries around the world were wound up at the beginning of February 2010. Various other measures introduced in the United States and Europe in response to the financial crisis also one after another came to an end (Chart 13). However, in the United States and Europe policy rates continued to be extremely low, since unemployment rates remained high and the pick-up in economic activity was expected to be moderate (Chart 14 [1]). In emerging and commodity-exporting economies, the financial environment continued to improve as illustrated, for example, by the appreciation of their currencies and the decline in sovereign risk premiums. Amid these circumstances, with economic activity and prices increasing faster than expected, some countries started to adopt a tighter monetary policy stance (Chart 14 [2]).

Since around the end of 2009, there have been some signs of instability in international financial markets due to the surfacing of payment rescheduling problem of government-affiliated firms in Dubai, developments regarding financial regulation, and concerns over fiscal problems in some advanced economies. In the second half of fiscal 2009, on the back of concerns over fiscal conditions in some countries such as Greece,

long-term interest rates and credit default swap spreads rose significantly (Chart 15). From February 2010 onward, concerns regarding fiscal problems eased somewhat, reflecting Greece's announcement of fiscal consolidation measures, and long-term interest rates and credit default swap spreads for countries such as Greece slightly declined, but they started to rise again thereafter.

In Japan's financial markets, with international financial markets heading toward stability, the functioning of individual markets started to improve, and market interest rates, especially on term instruments, declined. Since the start of 2009, overnight call rates have remained at extremely low levels and interest rates on term instruments have continued to decline (Chart 16 [1]). In December 2009, to further enhance easy monetary conditions, the Bank introduced fixed-rate funds-supplying operations against pooled collateral (Chart 16 [2]). And in March 2010, the amount to be provided through these operations was increased substantially. In response to these measures, interest rates on term instruments have continued to decline. Meanwhile, markets expected that low short-term interest rates would prevail for some time (Chart 17).

Japanese government bond (JGB) yields in the short- to medium-term zone (2 to 5 years) have followed a moderate downtrend reflecting partly the decline in interest rates on term instruments. On the other hand, the yield on 10-year JGBs, although showing some swings, has remained more or less unchanged (Chart 18). Stock prices in Japan, like those abroad, have been on an uptrend as business sentiment improved and net stock purchases by foreign investors have increased (Chart 19). The yen temporarily depreciated in early 2009, but appreciated thereafter. It has again depreciated moderately since the end of 2009 (Chart 20).

### ***The Financial Environment***

The financial environment in Japan saw increasing signs of improvement, particularly in CP and corporate bond markets from around the spring of 2009, due partly to the effects of various measures taken by the Bank. In the CP market, amid declining credit spreads, issuing conditions also improved significantly (Chart 21 [1] and [2]). Against the background of this improvement in the CP market, from the beginning of March 2009

onward, the amount of CP financial institutions desired to sell to the Bank was significantly below the scheduled purchase amount set by the Bank (Chart 21 [3]). In the corporate bond market, too, with credit spreads declining, market functioning was restored as seen, for example, in the fact that the issuance of corporate bonds increased significantly (Chart 22 [1] and [2]). Along with the improvement in the corporate bond market, the amount of corporate bonds financial institutions desired to sell to the Bank also decreased (Chart 22 [3]). Thus, with the functioning of the CP and corporate bond markets having recovered and the conditions for corporate financing having improved, the Bank in October 2009 announced that it would (1) wind up the outright purchases of CP and corporate bonds at the end of December 2009, and (2) wind up the special funds-supplying operations to facilitate corporate financing at the end of March 2010 (Chart 23). Conditions in the CP and corporate bond markets subsequently continued to improve, and both the outright purchases of CP and corporate bonds and special funds-supplying operations to facilitate corporate financing were wound up as scheduled. With overnight call rates remaining at extremely low levels, reflecting partly the decline in interest rates on term instruments, the decline in bank lending rates and firms' funding costs continued (Chart 24 [1]). Compared with economic activity and corporate profits, the stimulative effects from low interest rates were still partly constrained, but the degree of constraint decreased mainly reflecting the improvement in corporate profits (Chart 25).

With regard to credit supply, financial institutions' lending stance generally eased, and although many firms still saw financial institutions' lending attitudes as severe, firms as a whole also regarded the situation as improving (Chart 26 [1]). Concerning the demand for funds, firms' need to fund working capital and fixed investment declined and some firms reduced the on-hand liquidity that they had accumulated.

Given the above environment, looking at fund-raising by firms, loans from banks surged from the second half of 2008 to the beginning of 2009 as a result of a shift in fund-raising from CP and corporate bond markets to bank loans and the accumulation of on-hand liquidity (Chart 24 [2]). In the second half of fiscal 2009, with CP and corporate bond markets markedly improving, firms' need for funds subsided and some firms reduced the on-hand liquidity they had accumulated. As a consequence, reflecting the effects of the

surge in the previous year, bank lending started to decline. Although many small firms still saw their financial positions as weak, on the whole firms' financial positions, including those of small firms, continued to show signs of easing (Chart 26 [2]). Meanwhile, the year-on-year rate of growth in the money stock (M2) has been within a range of 2-3.5 percent (Chart 24 [3]).

Land prices continued to decline in metropolitan and nonmetropolitan areas. According to the *Land Price Publication* (prices as of January 1, 2010), both commercial and residential land prices in the three major metropolitan areas (Tokyo, Osaka, and Nagoya) and in nonmetropolitan areas declined year on year (Chart 27). The fall in both commercial and residential land prices in the 23 wards of Tokyo moderated.<sup>8</sup>

## **II. The Outlook for Economic Activity and Prices from Fiscal 2010 through Fiscal 2011**

### *The Outlook for Economic Activity and Prices*

The Bank's projections for economic activity in Japan from fiscal 2010 through fiscal 2011 are as follows. While the effects of various policy measures are likely to wane, emerging and commodity-exporting economies are likely to maintain high growth, and the momentum for a self-sustaining recovery in Japan's domestic private demand is expected to gradually gather pace. Therefore, Japan's economy is likely to be on a recovery trend.

In fiscal 2010, the momentum of economic activity might temporarily weaken somewhat compared with the latter half of fiscal 2009 as the effects of various policy measures gradually wane. However, since, as this happens, the global economy will continue to be supported by strong growth in emerging and commodity-exporting economies, it is likely that Japan's exports will also continue increasing and business fixed investment will start picking up against the backdrop of a recovery in corporate profits. In the household sector, the effects of various policy measures that have supported durable goods consumption will wane in the latter half of fiscal 2010. However, the underlying trend of a recovery in

---

<sup>8</sup> Land prices are compared on a semiannual basis for areas that are surveyed in both the *Land Price Publication* and the *Prefectural Land Price Survey*.

private consumption is not likely to be interrupted since the increase in corporate activity is likely to gradually spill over into improvements in the employment and income situation, and policy measures, including child allowances, will provide underlying support. Therefore, Japan's economic growth rate in fiscal 2010 is projected to be at a level above the potential growth rate.

In fiscal 2011, emerging and commodity-exporting economies are expected to expand steadily and adjustments in advanced economies to make gradual progress, so that the growth rate of the global economy will accelerate. In Japan, too, since the excesses in production capacity and employment are expected to decline and the momentum for a self-sustaining recovery in domestic private demand to gather pace, the growth rate of Japan's economy is likely to accelerate.

Expressing the outlook in terms of annualized real GDP growth rate, growth in fiscal 2010 is projected to be in the range of 1.5-2.0 percent and that in fiscal 2011 to be around 2 percent. Comparing these projections with those in the October 2009 Outlook Report and the interim assessment in January 2010, the growth rate for fiscal 2010 is somewhat higher, while that for fiscal 2011 is more or less unchanged.

Considering the economic developments described earlier in terms of the investment-saving balance, while the large fiscal deficit of the general government is expected to continue, net saving in the private sector will remain high as confidence in the corporate and household sectors is unlikely to recover sufficiently (Chart 28). Net saving is likely to be somewhat higher than the fiscal deficit, implying that the current account surplus will continue and increase moderately.

Regarding the environment surrounding the outlook for prices, the aggregate supply and demand balance is projected to improve gradually as the economy continues to grow at a pace above the potential growth rate. Unit labor costs (labor costs per unit of real GDP) are likely to decline (Chart 29). This is because labor productivity normally rises during an economic recovery, and because of persistent efforts by firms to restrain personnel costs. However, the pace of decline in unit labor costs is likely to moderate in the latter half of the

projection period when a recovery in employee compensation is projected. Meanwhile, medium- to long-term inflation expectations are assumed to remain stable throughout the projection period. Looking at households' inflation expectations, which are estimated based on the Bank's *Opinion Survey on the General Public's Views and Behavior*, the "expected rate of inflation over a period of one year" rose to around 1 percent in the summer of 2008 (Chart 30). However, more recently it has been slightly below 0 percent, reflecting the decline in the prices of frequently purchased items such as petroleum products and food. On the other hand, the "expected rate of inflation over the next five years," despite some fluctuations, has remained relatively stable at a slightly positive level. Developments in indicators such as long-term interest rates also suggest that medium- to long-term inflation expectations appear to be generally stable. Commodity prices have recently been on the rise, albeit with some swings, due mainly to high growth in emerging and commodity-exporting economies (Chart 31). While there are both upside and downside uncertainties regarding the outlook, commodity prices are projected to rise moderately on the back of the continued strong growth in emerging and commodity-exporting economies.

As for the outlook in terms of price indices given these conditions, the rate of change of the CGPI is expected to continue to be positive on a year-on-year basis from fiscal 2010 onward due mainly to the improvement in the aggregate supply and demand balance and to the rise in commodity prices. Looking at the CPI (excluding fresh food), the rate of decline, after registering 1.6 percent in fiscal 2009, is expected to decelerate on the basis of stable medium- to long-term inflation expectations, reflecting improvements in the aggregate supply and demand balance and the rise in commodity prices. Following this moderation, there are prospects that the rate of change in the CPI could enter positive territory in fiscal 2011.<sup>9</sup> Compared with the October 2009 Outlook Report and the interim

---

<sup>9</sup> The projection for the CPI (excluding fresh food) for fiscal 2010 excludes the effects of the introduction of financial support for high school tuition fees that significantly push down the year-on-year rate of change in the index for twelve months. Taking into account the flash estimate of the CPI for Tokyo for April, the waiver of public high school tuition fees and the provision of tuition aid for private high school attendance are projected to push down the CPI (nationwide, excluding fresh food) by about 0.5 percentage points. It is important to judge the trend change in prices by excluding the effects of these one-off factors, which will have a large short-term impact on price changes. See Box 1 for details.

assessment in January 2010, this projection for the CGPI is higher for both fiscal 2010 and fiscal 2011. The projection for the CPI is more or less unchanged for fiscal 2010 and somewhat higher for fiscal 2011.

Given the above economic and price developments, nominal income is also expected to gradually pick up toward the latter half of the projection period.<sup>10</sup>

The following provides supplementary details on each of the items in the outlook for economic activity and prices.

### ***The Environment Surrounding Exports and Production***

Overseas economies, especially emerging and commodity-exporting economies, have been growing faster than envisaged in the October 2009 Outlook Report and the interim assessment in January 2010 (Chart 32). As a result, Japan's exports have increased more than expected.

In emerging and commodity-exporting economies, not only are the expansionary macroeconomic policies taken so far having an effect, but a virtuous cycle of increased production, income, and spending has started to operate, and these economies are likely to continue to realize strong growth led by domestic demand. The global economy as a whole is likely to continue recovering throughout the projection period, led by these economies. Looking at each fiscal year, the pace of recovery, with the impact of balance-sheet adjustments in the United States and Europe continuing, is likely to moderate in fiscal 2010 when compared with the second half of fiscal 2009 as the strength of restocking and the effects of demand-boosting policy measures wane. For fiscal 2011, the global economy is projected to maintain a relatively high growth rate, since emerging and commodity-exporting economies, provided they pursue appropriate macroeconomic policies, are expected to follow a sustainable growth path and, in the United States and Europe, the momentum for a self-sustaining recovery in private demand is likely to strengthen.

---

<sup>10</sup> See Box 2 for the relationship between nominal and real values.



Japan's exports have been recovering rapidly since reaching their bottom at the beginning of 2009, led by exports to emerging economies, including China (Chart 33). Exports to China have already surpassed the peak before the Lehman shock, and exports to the NIEs and the ASEAN-4 countries are also approaching their previous peak levels. On the other hand, although exports to the United States and Europe have recovered to some extent, their levels remain low. In terms of goods categories, following the V-shaped recovery in exports of IT-related goods, there have recently been growing signs of a recovery also in exports of capital goods and parts and components. As for motor vehicles and related goods, exports to East Asian countries have been buoyant, while exports to the United States and Europe have remained more or less unchanged after the recovery driven by the completion of inventory adjustments and measures to support car purchases. As for the outlook, exports are expected to continue increasing on the basis of a continued recovery in overseas economies and to reach, by the end of fiscal 2011, the end of the projection period, a level comparable to the previous peak registered around the end of fiscal 2007.

The above scenario concerning the outlook for overseas economies is subject to both upside and downside risks. As for U.S. and European economies, downside risks continue to warrant attention. Both in the United States and Europe, the ability of the financial system to provide support to the real economy continues to be weak. Another risk factor is that, in countries such as the United States and the United Kingdom, spending restraint may continue for a protracted period as balance-sheet adjustments in the household sector progress. Regarding some European countries, there is concern that the problem of fiscal deficits could constrain economic growth. Furthermore, on the back of such problems in the United States and Europe, concern that global financial markets could become unstable has not been dispelled. Meanwhile, if accommodative financial conditions are maintained for an overly prolonged period as a self-sustaining recovery in private demand gains momentum, this could lead to larger swings in economic activity and prices. Moreover, it should be noted that if public support measures are maintained for longer than necessary, productivity growth in the economy as a whole might be hampered through the retention of resources in inefficient areas.

On the other hand, emerging and commodity-exporting economies have been achieving strong growth led by domestic demand, fueled -- in addition to the underlying strength of self-sustaining growth -- mainly by the effects of expansionary macroeconomic policies taken thus far. In addition, the improvement in global financial markets and the continuation of large-scale monetary easing in advanced countries have increased capital inflows to emerging and commodity-exporting economies, which also seems to have been supporting economic activity in these economies. Such strength of final demand and production activity in emerging and commodity-exporting economies could generate derived demand on a broad basis and further lift the global economy. This could become an upside risk for Japan's economy through the increase in exports it would generate. However, there is a certain risk that, depending on the future conduct of macroeconomic policy in these economies, economic activity might overheat. In this case, Japan's exports could rise even further, and such overheating might pose a downside risk for domestic private demand in Japan through a worsening of the terms of trade due to a rise in commodity prices. If global inflationary pressure, as a result of a rise in commodity prices, were to increase, this could hamper the continued recovery of the global economy. Excessive economic and financial activity entails the risk of inducing a decline in asset prices or adjustments in economic activity in the future through the unwinding of these excesses.

On the domestic front, the measures to support purchases of eco-friendly cars and electrical appliances have brought about stronger-than-expected effects, and private consumption as a whole has continued to pick up (Chart 34 [1]).<sup>11</sup> However, the ability of such purchase support measures to provide an additional push to durable goods consumption is likely to dissipate from the April-June quarter of 2010 onward. On the other hand, as will be discussed later, it will take some time before the momentum for a self-sustaining recovery in private consumption gathers pace. Therefore, the pick-up in durable goods consumption is likely to level off in fiscal 2010. Especially in the October-December

---

<sup>11</sup> The group that made the greatest contribution to purchases of durable goods is households whose head was aged 50 or over (Chart 34 [2]). Since older age groups tend to have sizeable financial asset holdings, they are relatively less likely to be affected by the deterioration in the employment and wage situation. Against this backdrop, measures to support purchases of durable goods appear to have had significant effects especially on elderly people.

quarter, that is, the quarter immediately after the purchase support for eco-friendly cars expires, the decline in car sales may be large. However, while the decline is likely to temporarily weaken private consumption as a whole, this is unlikely to interrupt the upward trend in private consumption, mainly for the following reasons: (1) the measures to support the purchase of eco-friendly cars and electrical appliances do not end simultaneously (the end of September 2010 for the former and the end of December 2010 for the latter); (2) demand for televisions due to the switchover to terrestrial digital broadcasting will remain until the summer of 2011; and (3) not only will policy measures such as the provision of child allowances continue to provide support, but also the severity in the employment and income situation will gradually ease.

Reflecting the above developments in exports and durable goods sales, growth in industrial production on a quarter-on-quarter basis, after a marked increase in the January-March quarter of 2010, may decelerate and temporarily become weak in the October-December quarter following the expiry of the purchase support for eco-friendly cars. Thereafter, industrial production is expected to continue rising, due mainly to increases in exports and domestic demand, and by the end of the projection period to recover to a level slightly below the peak registered at the end of fiscal 2007.

This outlook for exports and production is based on the assumption that a more rapid shift to overseas production than in the past will not take place. In this regard, tapping demand in the Asian region is a key pillar of many Japanese firms' business strategies, and their overseas business fixed investment, which substantially decreased following the Lehman shock, is expected to recover earlier than domestic business fixed investment (Chart 35 [1]). However, this increase in the ratio of overseas business fixed investment is not a new phenomenon unique to the current situation but the continuation of an ongoing trend. The overseas production ratio has also been following a medium- to long-term upward trend, and with regard to cyclical changes in this ratio, no clear relationship can be observed that would suggest that the overseas production ratio rises rapidly at times of a strong yen (Chart 35 [2]).

Rather, in past phases of expansion in overseas demand, there was a clear positive correlation in that both overseas production and domestic production expanded. The reason for this complementary relationship between production at home and abroad is the continuous deepening of the cross-border division of labor. That is to say, on the one hand Japanese manufacturers have been promoting a shift to overseas production for commoditized products and products that merit local production for local consumption, while on the other they have been capturing overseas demand for products that require high technological capabilities and have continued to meet such demand with domestic production. Given the adaptability of Japanese firms illustrated by this track record, it can be expected that this time around, too, the role of domestic production bases in the further deepening of the international division of labor will be reconfigured in a positive manner. However, because demand is expected to shift from the United States and Europe to the emerging economies at an unprecedented pace, there is considerable uncertainty in this regard.

The "capturing of global demand" also has important implications in terms of developments in the balance of payments such as with regard to the income from outward foreign direct investment. In recent years, the surplus in Japan's income balance has been increasing, to which the increase in direct investment income receipts has contributed to some extent (Chart 36). However, the main factor underlying the surplus is portfolio investment income. In addition, the ratio of direct investment income receipts to GDP is relatively small when compared with other countries. Furthermore, in Japan's income balance, the ratio of gross payments to GDP is much lower than is the case in other countries. This is because the inflow of foreign capital in Japan is extremely limited, both with regard to portfolio investment and with regard to direct investment. In terms of the efficiency of resource allocation stemming from the international division of labor, the gross amount of investments and transactions is more important than the balance itself. The fact that Japan is lagging behind in globalization in terms of the amount of investments it attracts may be impeding opportunities for economic growth.

### ***Firms' Profits and Spending Behavior***

As for the corporate sector, corporate profits have been recovering. The *Financial Statements Statistics of Corporations by Industry, Quarterly* show that break-even points have declined significantly, mainly due to cutbacks in costs such as labor costs (Chart 37). As a result, although firms' sales remain more than 20 percent below their peak in the case of manufacturers and more than 15 percent below their peak in the case of nonmanufacturers, corporate profits have started to clearly recover. At the same time, however, firms' efforts to cut costs also put downward pressure on domestic demand, holding down sales of nonmanufacturing firms and small firms, especially micro unincorporated firms. In the manufacturing sector, corporate profits are expected to continue recovering with production remaining on the uptrend as the recovery of the global economy continues. While profits of domestic demand-related firms are also expected to continue improving, it is likely that the improvement in their profits will lag behind, given the ongoing cost-cutting efforts in the corporate sector and the moderate recovery in the household sector. Therefore, it is likely to take some more time for activity in the corporate sector as a whole to strengthen.

Business fixed investment, especially in the manufacturing sector, which cut investment levels significantly, is likely to pick up reflecting the increase in production and the recovery in corporate profits (Chart 38). The relationship between capital stock and business fixed investment also suggests that, as long as firms' expectations for economic growth do not become clearly negative, business fixed investment in fiscal 2010 will start to increase (Chart 39). However, the increase is likely to remain moderate in fiscal 2010 and is expected to become more pronounced only in fiscal 2011.

The recent developments in business fixed investment seem rather weak when compared with the improvement in cash flows that is already becoming increasingly apparent (Chart 40 [1]). A similar phenomenon has often been observed in the early phase of previous economic recoveries since the 1990s, especially in the manufacturing sector. Looking at the ratio of business fixed investment to cash flow, this is highly correlated with expected growth in industry demand over the coming five years (Chart 40 [2]). That is to say, in recent years, medium- to long-term growth expectations have tended to shift downward in

every economic downturn, so that during the early stage of an economic recovery business fixed investment does not recover immediately following an improvement in cash flows. Since in the recent economic downturn, too, medium- to long-term growth expectations have shifted down somewhat, the pick-up in business fixed investment will remain only moderate compared with the improvement in corporate profits for the time being. However, the uptrend in business fixed investment is expected to become more pronounced sometime around fiscal 2011, since it is likely that cash flows will further improve and the sense of excess in production capacity will abate as utilization rates rise.

The aforementioned outlook is still subject to considerable uncertainty both upward and downward. For example, if global demand continues to increase, and efforts to capture such demand are increasingly rewarded, firms' medium- to long-term growth expectations could rise and the recovery in business fixed investment might soon become more pronounced. On the other hand, if efforts to address various medium- to long-term issues -- such as the need to increase the productivity of the economy as a whole, make little progress -- there is a risk that expectations for domestic demand growth might further weaken and investment in and lending to emerging and commodity-exporting economies might increase further, while domestic investment could remain subdued.

### ***The Employment and Income Situation and Households' Spending Behavior***

The employment and income situation has been severe, with the unemployment rate at a high level and employee income decreasing. However, against the background of the increase in production, the severity in the employment and income situation has recently eased somewhat. In fact, non-scheduled hours worked have been increasing, the ratio of job offers to applicants has risen moderately, and the unemployment rate has already started to come down from the level seen in the summer of 2009. However, given that for the time being the rise in the level of economic activity is still likely to be limited compared with the magnitude of the economic downturn, pressures to adjust employment and wages are likely to remain for some time.

Looking at the labor supply and demand situation, labor productivity, particularly when viewed in terms of labor productivity per worker, remains still substantially below the past

trend (Chart 41 [1] and [2]).<sup>12</sup> This suggests that, relative to demand, there is still an excess of workers. This is consistent with the fact that the DI for employment conditions in the *Tankan* still indicates a substantial "net excess." Given this current situation, even if demand follows a recovery trend in the future, firms are likely to respond by further increasing working hours and improving efficiency while restraining employment. Therefore, the unemployment rate is also likely to remain high and follow only a slight downtrend throughout the projection period (Chart 41 [3]).

Meanwhile, wages per employee declined significantly on the back of the plunge in corporate profits and cuts in working hours. However, recently the pace of decline has been moderating reflecting the increase in working hours. As for the outlook, the recovery in corporate profits and working hours is expected to start pushing up wages. However, the level of economic activity is low and the sense of excess employment is still strong, so that pressures to adjust employment and wages downward are expected to remain. The labor income share has declined from its recent peak, but is still considerably higher than the levels seen around 2004-07 (Chart 42).<sup>13</sup> Given this relatively high level, the labor income share is expected to continue to be on a moderate downtrend going forward.

Comparing employment and wage adjustments in Japan, the United States, and Germany during the recent economic downturn shows that while in Japan and Germany adjustments

---

<sup>12</sup> Of course, estimates of the trend in labor productivity are subject to a certain margin of error. For example, while the decline in manufacturing employment has continued despite the continued increase in production, there has been a noticeable increase in employment in medical and welfare services, which suffer from a shortage of labor. Through such a structural transformation in which the relative weight of labor-intensive services rises, increases in labor productivity as a whole become more moderate, thus speeding up a recovery in employment.

<sup>13</sup> Comparing developments in the labor income share in the System of National Accounts (SNA) and the *Financial Statements Statistics of Corporations by Industry, Quarterly*, the decline is more pronounced on the basis of the latter since the preceding increase during the phase of economic downturn was also steeper. However, assessing the current level of the labor income share in relation to past levels, both the SNA and the *Financial Statements Statistics of Corporations by Industry, Quarterly* are more or less the same in that (1) although the labor income share has fallen roughly to the long-term average observed since around 1990, (2) it is still around 2 percentage points higher than the low and stable levels observed during previous periods of economic expansion.

largely took the form of adjustments in working hours, in the United States they mainly took the form of adjustments in the number of those employed (Chart 43 [1] and [2]). Meanwhile, a look at developments in hourly wages over the past two years shows that while in Japan and the United States they have been on a downtrend, in Germany they have remained more or less unchanged on average due to a temporary surge (Chart 43 [3]). Looking at the extent in labor cost adjustments overall in terms of unit labor costs suggests that the situation is similar in Japan and the United States in that unit labor costs have recently been declining significantly, while in Germany they have remained high (Chart 43 [4]).

Private consumption, notably durable goods consumption, is picking up mainly due to the various policy measures, despite the continued severe employment and income situation. Since durable goods consumption might decline upon the expiry of the purchase support measures, the pace of recovery in private consumption is likely to temporarily slow somewhat in fiscal 2010. On the other hand, since compensation of employees tends to gradually rise as corporate activity becomes more vibrant, it is likely that in fiscal 2011 the momentum for a self-sustaining recovery in private consumption will gradually build.

Looking at household income formation, compensation of employees fell significantly in fiscal 2009, but the pace of decline has been gradually moderating (Chart 44 [1]). However, although the compensation of employees plunged in fiscal 2009, real disposable income is expected to have increased, underpinned by (1) the significant decline in consumer prices and (2) large cash benefits handed out as part of the 2008 stimulus package as well as subsidies. Moreover, such subsidies will have brought about (3) inter-temporal substitution effects with regard to durable goods consumption, that is, they will have led consumers to bring forward purchases of such goods. Taking these points into account, private consumption in fiscal 2009 is likely to have been supported considerably by temporary factors. In contrast with fiscal 2009, the growth rate of real disposable income is expected to decline in fiscal 2010 even if such factors as the moderating pace of the decline in compensation of employees and the partial provision of child allowances are taken into account. In addition, the pick-up in durable goods consumption is expected to start leveling off due to the expiry of the durable goods purchase promotion measures.



Considering the above-mentioned outlook in terms of the propensity to consume, this is expected to slightly decline throughout the projection period (Chart 44 [2]). The reason is that when the growth in the compensation of employees is sluggish and future expected income is not likely to increase much, a certain proportion of increases in disposable income through income transfers is likely to be saved.<sup>14</sup> Moreover, anxiety over the future against a backdrop of such factors as the large fiscal deficit may push down the propensity to consume. Thus, Japan's household saving rate, while on a downtrend in the medium to long term due to the advance in population aging, may slightly rise throughout the projection period reflecting the decline in the propensity to consume.

This outlook for private consumption is subject to both upside and downside risks. If the severe employment and income situation becomes protracted and there is a growing sense of stasis about the future, it becomes more likely that the propensity to consume will decline further than in the above projection. On the other hand, if firms succeed in tapping potential household demand, or the pick-up in stock prices becomes more pronounced, there is a possibility that the propensity to consume will increase.

Housing investment seems to have bottomed out in fiscal 2009 and is expected to start increasing moderately from the first half of fiscal 2010 onward. The number of housing starts, a leading indicator, bottomed out in the July-September quarter of 2009. Adjustments of condominium prices have been making progress (Chart 6 [2]) and, in conjunction with the various support measures, an environment is gradually developing in which pent-up demand is likely to materialize. Inventory adjustments have also made good progress in the Tokyo metropolitan area, while those in the Kinki area have lagged behind (Chart 6 [3]). In these circumstances, activities such as the purchase of land for new projects are spreading gradually, especially among large developers. However, as the severe employment and income situation continues, an increasing number of households have opted not to build new houses but instead to buy secondhand ones or to renovate. Taking these points into account, the pace of increase in housing investment is likely to

---

<sup>14</sup> Various studies and surveys by private institutions have shown that the marginal propensity to consume out of child allowance payments is likely to be in the region of 30-50 percent.

remain moderate.

### ***The Environment Surrounding Prices***

Looking at the recent price environment at the retail level suggests that consumers' preference for inexpensive goods remains deeply ingrained and competition between firms is severe. However, input and output prices DIs have recently been leveling out on the back of the pick-up in the economy and the increase in commodity prices (Chart 45). Looking at average purchase prices of goods calculated on the basis of the *Family Income and Expenditure Survey*, the situation is becoming less similar to the past, when the pace of decline was rapidly accelerating (Chart 46).<sup>15</sup> Against this backdrop, consumer prices (excluding fresh food) have been moving more or less in line with the projections in the October 2009 Outlook Report and the interim assessment in January 2010.

Looking ahead, when the effects of the introduction of subsidies for high school tuition fees are excluded, the pace of decline in prices is projected to slow moderately.<sup>16</sup> This is based on the assumption that medium- to long-term inflation expectations remain stable and the aggregate supply and demand balance continues to improve (Chart 47 [1]).

There are uncertainties associated with the outlook for prices, and developments in economic activity could cause prices to deviate either upward or downward from the projection. Among the uncertainties specific to prices are, first, the uncertainty regarding firms' and households' medium- to long-term inflation expectations. In this outlook, it is assumed that medium- to long-term inflation expectations remain positive and stable, and that there will be a tendency for the actual inflation rate to move closer to medium- to long-term inflation expectations. However, there remains a risk that such expectations could shift downward while economic slack persists for a protracted period. There is also a possibility that the tendency for the actual inflation rate to move closer to medium- to

---

<sup>15</sup> Average purchase prices in the *Family Income and Expenditure Survey* are calculated by dividing the expenditure amount by the quantity purchased, and their decline appears to reflect the strengthening of consumers' increased preference for inexpensive goods, including a shift in purchasing to lower-priced alternative products.

<sup>16</sup> In assessing the trend change in prices, it is appropriate to exclude one-off factors that will disappear in twelve months.

long-term inflation expectations might be stronger than expected, and that therefore the actual inflation rate might deviate upward from the above projection.

The second uncertainty concerns import prices. Commodity prices plunged toward the end of 2008 and rebounded toward mid-2009. Since then, they have continued to rise with some swings. As for the outlook, the rise in commodity prices is expected to be moderate, given that the pace of the global economic recovery will be more moderate than in previous economic expansions. However, based on recent experience, commodity prices might rise or fall excessively owing to such factors as swings in the market's view concerning the outlook for the global economy. In particular, if growth in emerging and commodity-exporting economies is stronger than expected, primary commodity prices might increase. Fluctuations in foreign exchange rates can also affect consumer prices to a certain extent, not only by influencing economic activity but also through changes in import prices.

And third, it should be noted that there is high uncertainty in gauging the state of utilization of labor and production capacity. When the economy is fluctuating substantially with structural changes in demand, it is possible that the supply capacity of the economy might be declining owing to obsolescence or reductions in the capital stock. In this case, if the degree of economic slack is estimated based on the output gap derived from recent data, there is a risk that, as the economy follows a recovery trend, the downward pressure on prices is overestimated. On the other hand, given the moderate slope of the Phillips curve in recent years, it can be said that relative to the uncertainty concerning medium- to long-term inflation expectations, measurement errors in estimates of the output gap do not pose a great problem in gauging the outlook for prices (Chart 47 [2]).<sup>17</sup> Moreover, it

---

<sup>17</sup> Another issue to be noted is the revision of the base year for the CPI. Given that considerable time has passed since the current base year for the CPI, 2005, the negative contribution to the CPI of durable consumer goods prices, which have declined significantly in recent years, has weakened. As a result, there is an increasing tendency for the year-on-year decline in the CPI as a whole to be underestimated. Therefore, when the base year is changed to 2010, the year-on-year rate of change in the CPI after January 2011, which will be subject to revision, could be revised downward from the current outlook. The base-year change from 2005 to 2010 is expected to take place in the summer of 2011, and the year-on-year rate of change prior to December 2010 will not be revised retroactively.

should be noted that there are uncertainties concerning the degree of price fluctuations in response to changes in the aggregate supply and demand balance.

### **(Box 1) Indicators to Judge Trends in Consumer Prices**

The price stability that central banks aim to achieve is not short-term or temporary price stability, but stability that is sustainable in the medium to long term. To accomplish this mission, it is necessary to exclude the effects of various temporary disturbances from observed changes in price indexes and accurately identify trend changes in prices.<sup>18</sup>

#### **1. Excluding Items That Fluctuate Significantly**

One way to look at trend changes in prices is to specify in advance items that fluctuate significantly and examine developments in price indexes excluding these items. Items that fluctuate significantly include fresh food, whose prices are subject to weather conditions. In the case of Japan's CPI, the Ministry of Internal Affairs and Communications publishes an index that excludes such volatile fresh food prices. In some cases, a price index is used that excludes energy and food prices, both of which are subject to commodity price developments.

#### **2. Excluding Items That Temporarily Fluctuate Significantly**

In some cases, in order to facilitate the gauging of trend changes in prices, it is useful to exclude items whose prices normally do not fluctuate greatly but temporarily fluctuate significantly. The subsidies for high school tuition fees since April 2010 are one example. Since April, tuition fees are waived for students of public high schools, and the government provides support with fees to households of private high school students. In the CPI, the effects of these measures will appear as a price decline. That is, on a year-on-year basis, high school tuition fees will fall substantially for the twelve months starting from April 2010, but the impact of subsidies for high school tuition fees on the year-on-year rate of change in the CPI will disappear in April 2011. Thus, to gauge trend changes in prices, it is useful to construct a price index that excludes in advance items that are expected to show temporary but significant changes due to institutional changes.

#### **3. Using a Trimmed Mean Index**

The above two approaches make it necessary to specify in advance items that are expected

---

<sup>18</sup> A price indicator that gauges trend changes in prices by excluding temporary changes is called a "core indicator."

to fluctuate significantly. However, when such items cannot be specified in advance or arbitrariness in the exclusion of specific items should be avoided, another indicator used is the trimmed mean.<sup>19</sup> Trimmed mean indicators are calculated as follows: after calculating the inflation rate for each individual item, items that show an extreme rise or decline are excluded (trimmed), and a new index is compiled based on the remaining items. Trimmed mean indicators show less fluctuation than the overall CPI or the CPI excluding fresh food (Box 1 Chart [1]).

Determining which of these indicators are useful in gauging trend changes in prices depends not only on whether temporary factors can be identified but also on their empirical performance. From an empirical perspective, two assessment criteria can be considered: (1) the ability to detect trend changes in the overall index; and (2) the ability to forecast the future direction of changes in the overall index.<sup>20</sup> Based on these criteria, overall, the CPI excluding fresh food and the trimmed mean CPI perform somewhat better than the other indicators (Box 1 Chart [2] and [3]).

---

<sup>19</sup> For details on the trimmed mean, see Shigenori Shiratsuka, "Core Indicators of Japan's Consumer Price Index," Bank of Japan Review Series, 2006-E-7, 2006.

<sup>20</sup> For details, see Shiratsuka (2006).

**(Box 2) Nominal Values, Real Values, and Prices**

**1. The Relationship among Nominal Values, Real Values, and Prices**

Households make purchases taking into account their income and asset situation. Similarly, firms engage in business activities taking into account their sales, profits, and balance-sheet situation.<sup>21</sup> All these variables are nominal values.

On the other hand, economic activity ultimately should be assessed in terms of whether economic agents' "degree of satisfaction" (level of utility) has increased. Since it is difficult to objectively measure this degree of satisfaction, as approximate measures, economic agents' quantity of consumption or purchasing power are used. These are "real values." Real values are obtained by excluding the effects of changes in general prices from "nominal values." Suppose, for example, that a person's nominal income has increased by 10 percent. If prices have simultaneously risen by 10 percent, there is no change in the amount of goods the person can consume or the person's purchasing power, and thus the person's "degree of satisfaction" does not increase. Consequently, in order to raise households' consumption and purchasing power in a sustainable manner, sustainable increases in real values are necessary. Similarly, for firms, a rise in the general price level will raise the prices they can charge, but input prices will increase at the same time, so that a rise in general prices does not necessarily lead to an increase in corporate profits. In

---

<sup>21</sup> When a loan agreement is entered, the loan amount represents a nominal value, and thus the principal being repaid and the interest rate are also nominal values. If the borrower's nominal income were to unexpectedly decline in the future, this would affect the borrower's ability to repay the principal and interest and might lead to his or her bankruptcy. The phenomenon in which the economy is adversely affected through the above channel is called the "debt deflation problem" (see Irving Fisher, "The Debt-Deflation Theory of Great Depressions," *Econometrica*, 1, 1933, pp. 337-357). "Downward rigidity in nominal wages" is another issue related to "nominal values." When there is "downward rigidity in nominal wages," reductions in labor costs in response to an economic downturn are made not through cuts in wages but in the number of workers, which involves the cost of increased unemployment. However, in Japan wages are more flexible than in many other countries, and thus the costs stemming from downward rigidity in nominal wages can be considered to be relatively low (Chart 43).

order for corporate profits to expand, real values need to rise, that is, output and/or value added need to increase.<sup>22</sup>

## **2. Changes in Variables over the Business Cycle**

Three factors are often cited as significantly affecting prices: (1) the aggregate supply and demand balance; (2) import prices; and (3) medium- to long-term inflation expectations. Of these, the aggregate supply and demand balance is substantially affected by changes in real demand, that is, in real GDP. Therefore, for prices to increase in a sustainable manner, real GDP needs to increase in a sustainable manner.

Box 2 Chart (2) depicts the relationship between prices and the aggregate supply and demand balance. As can be seen, in the case of Japan changes in prices lag about one year behind changes in the aggregate supply and demand balance. This balance has been improving since around the spring of 2009. If this relationship also applies to the current business cycle, the improvement in the aggregate supply and demand balance should start to gradually spill over to prices.

Given this relationship, during the process of economic recovery, real values tend to increase first. Then, with prices also rising, nominal values will also increase as a result.

---

<sup>22</sup> Looking at the correlation between corporate profits on the one hand and real economic growth or prices on the other indicates that there is a high correlation between corporate profits and real economic growth, but a relatively low correlation between corporate profits and prices (Box 2 Chart [1]).

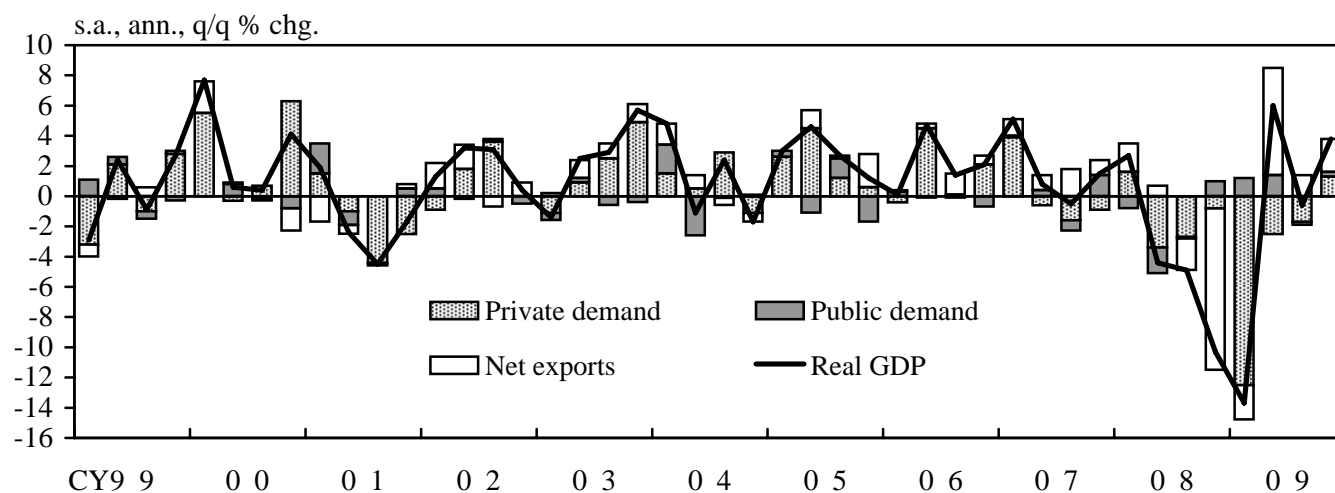


## Charts

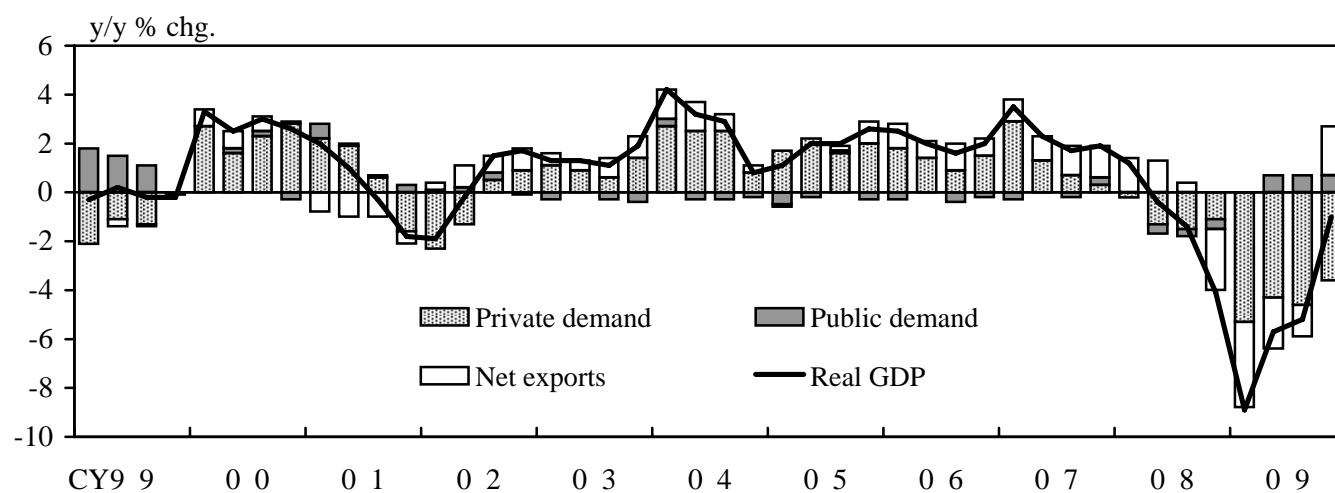
Chart 1	Real GDP and Indexes of Business Conditions	Chart 31	Commodity Prices
Chart 2	Exports and Imports	Chart 32	Overseas Economies
Chart 3	Corporate Profits and Fixed Investment	Chart 33	Real Exports by Region
Chart 4	Employee Income	Chart 34	Durable Goods Consumption
Chart 5	Private Consumption	Chart 35	Overseas Production
Chart 6	Housing Investment	Chart 36	Income Account
Chart 7	Production	Chart 37	Ratio of Break-Even Point to Sales and Current Profits
Chart 8	All Industry Activity	Chart 38	Fixed Investment Plans
Chart 9	Resource Utilization	Chart 39	Capital Stock Cycle
Chart 10	Prices	Chart 40	Cash Flow and Business Fixed Investment
Chart 11	Consumer Price Index	Chart 41	Labor Productivity and Unemployment Rate
Chart 12	Credit Spread in Major Economies	Chart 42	Labor Share
Chart 13	Measures Taken by Major Central Banks	Chart 43	International Comparison of Employment and Wage Adjustments
Chart 14	Policy Interest Rates	Chart 44	Disposable Income of Households and Propensity to Consume
Chart 15	Sovereign Risk Premiums	Chart 45	Changes in Output and Input Prices
Chart 16	Short-Term Interest Rates	Chart 46	Goods Prices Facing Consumers
Chart 17	Market Participants' Expectations on Interest Rates in the Future	Chart 47	Output Gap and Inflation Rate
Chart 18	Long-Term Interest Rates		
Chart 19	Stock Prices	Box1 Chart	
Chart 20	Exchange Rates		Comparison of CPIs
Chart 21	CP Market	Box2 Chart	
Chart 22	Corporate Bonds Market		Relationships among Nominal Values, Real Values, and Prices
Chart 23	Measures by the Bank of Japan to Facilitate Corporate Financing		
Chart 24	Bank Lending and Money Stock	Reference	
Chart 25	Interest Rates and Economic Activity		Economic Assessment by Region (Regional Economic Report)
Chart 26	Corporate Finance-Related Indicators		
Chart 27	Land Prices		
Chart 28	Investment-Saving Balance		
Chart 29	Wages and Prices		
Chart 30	Inflation Expectations		

## Real GDP and Indexes of Business Conditions

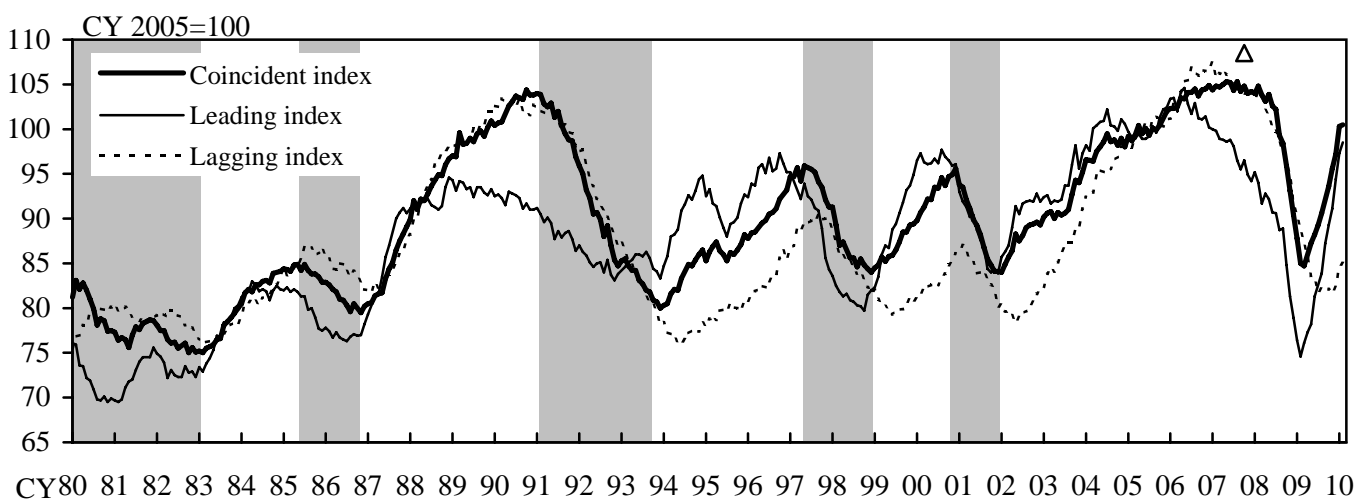
(1) Real GDP (Quarter-on-Quarter Changes)



(2) Real GDP (Year-on-Year Changes)



(3) Indexes of Business Conditions (Composite Indexes)

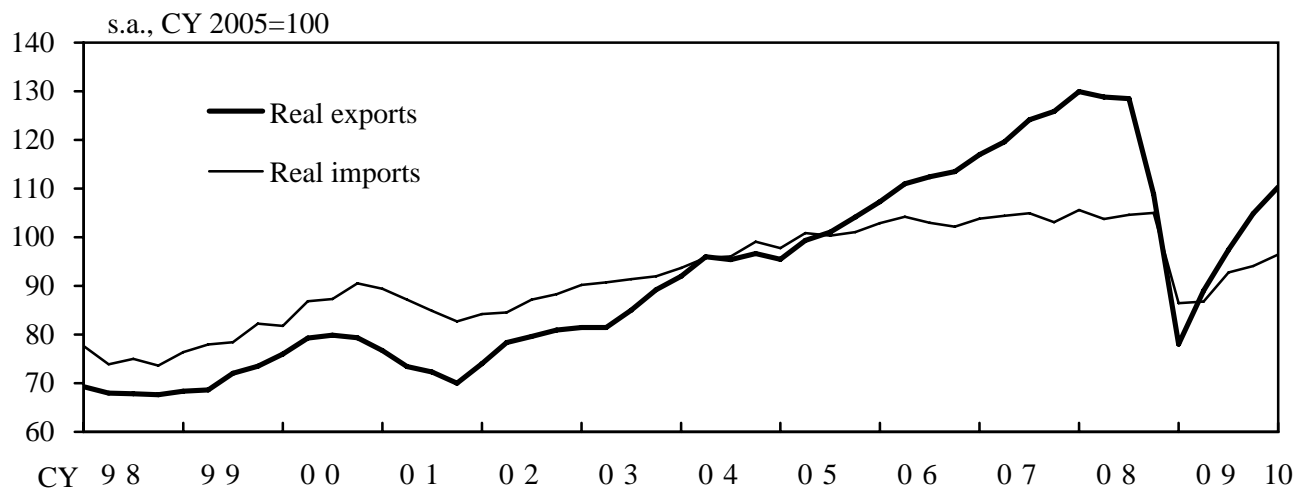


Note: Shaded areas indicate recession periods. Triangle shows the last peak.

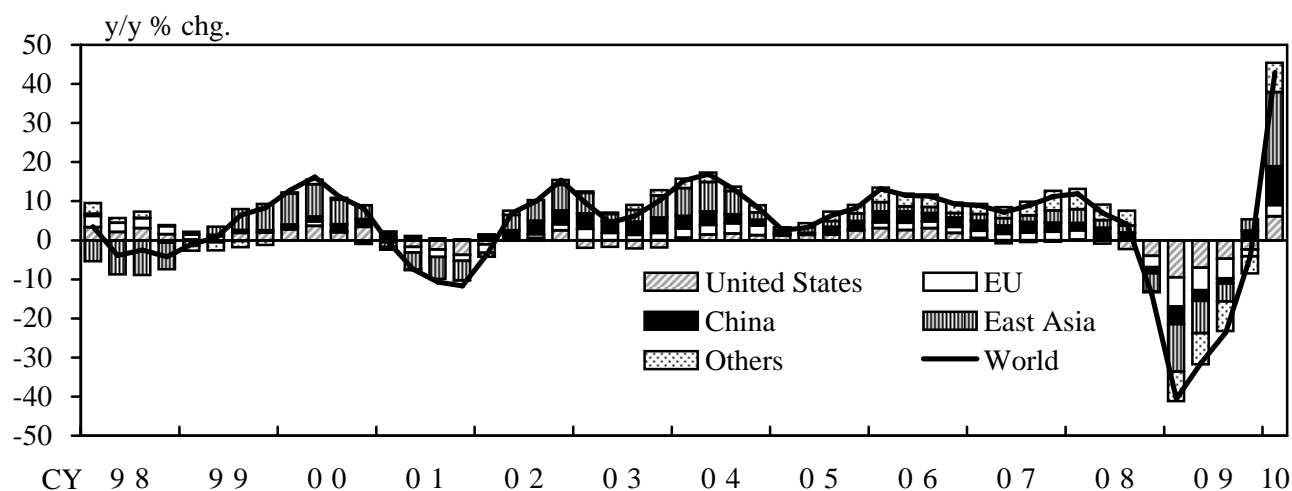
Source: Cabinet Office, "National Accounts," "Indexes of Business Conditions."

## Exports and Imports

### (1) Real Exports and Real Imports

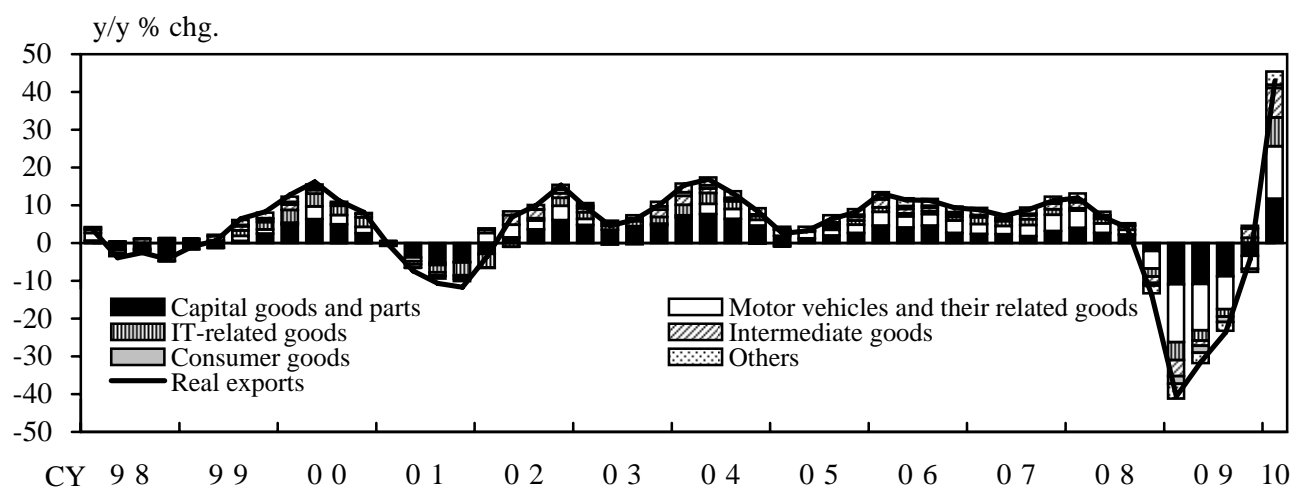


### (2) Real Exports (Breakdown by Region)



Note: Data for East Asia: NIEs and ASEAN4.

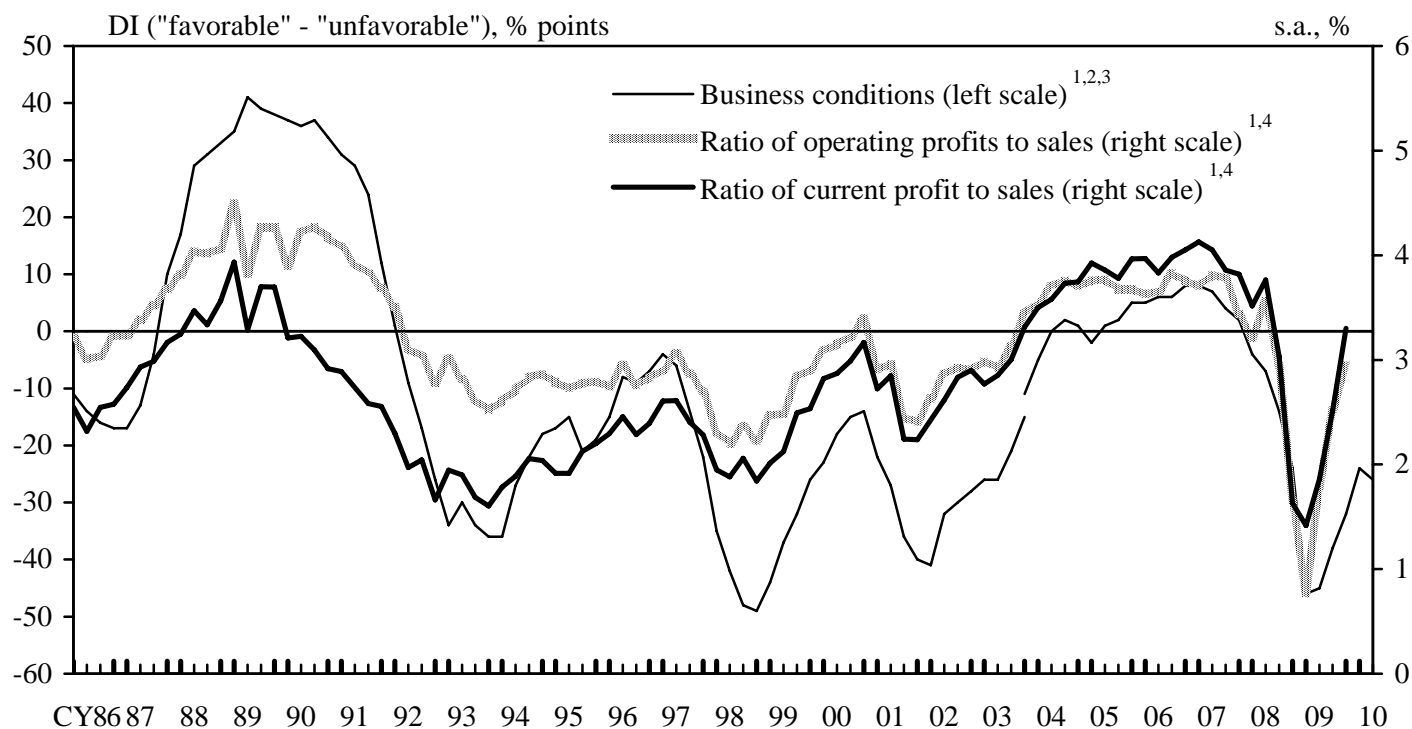
### (3) Real Exports (Breakdown by Goods)



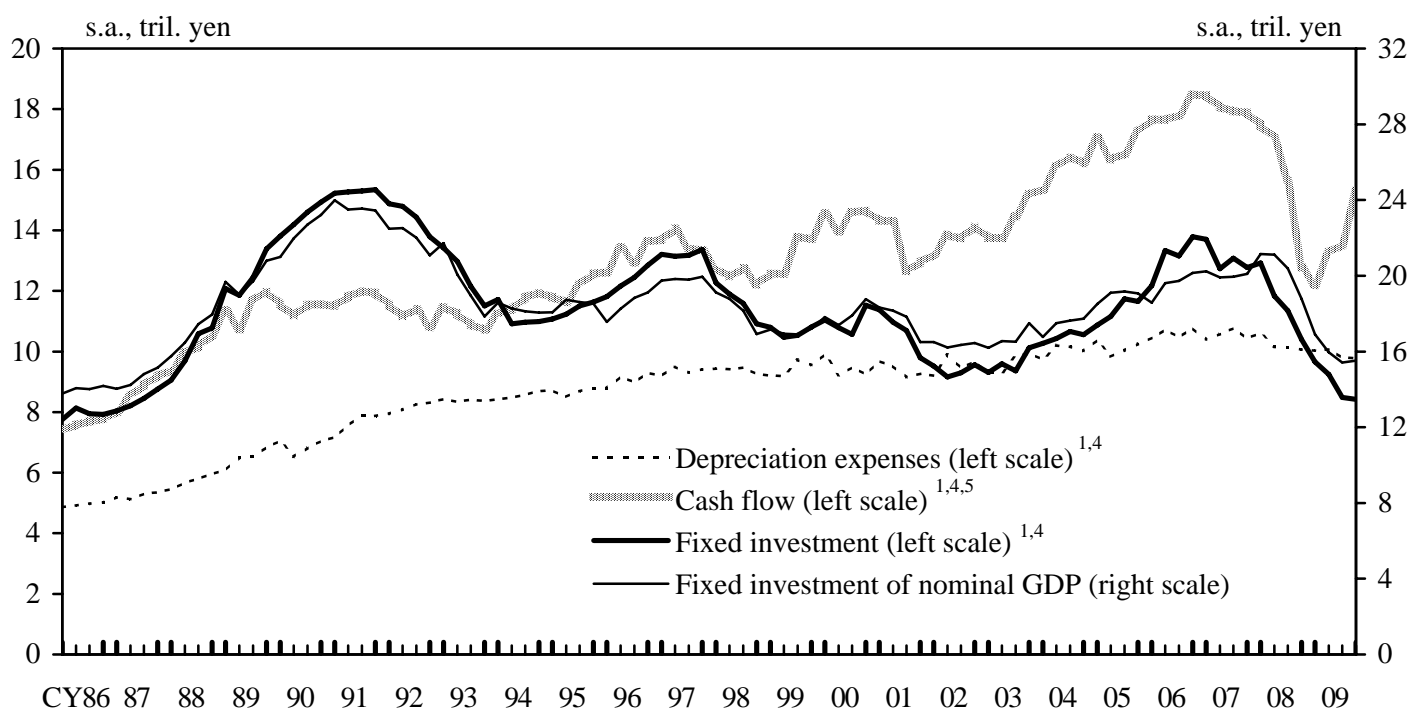
Sources: Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index."

## Corporate Profits and Fixed Investment

## (1) Corporate Profits



## (2) Fixed Investment



Notes: 1. Based on all-size enterprises and all industries.

2. Taken from the "Tankan, Short-Term Economic Survey of Enterprises in Japan." The figure for 2010/Q2 is the forecast in the March 2010 survey.

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

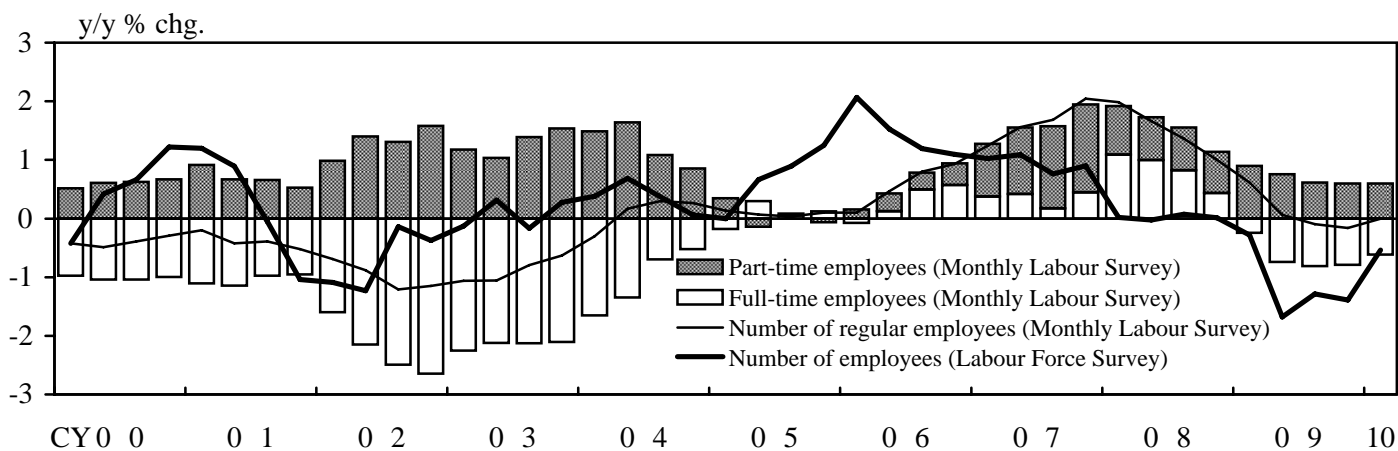
4. Taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly." Figures exclude finance and insurance.

5. Cash flow = depreciation expenses + current profits/2

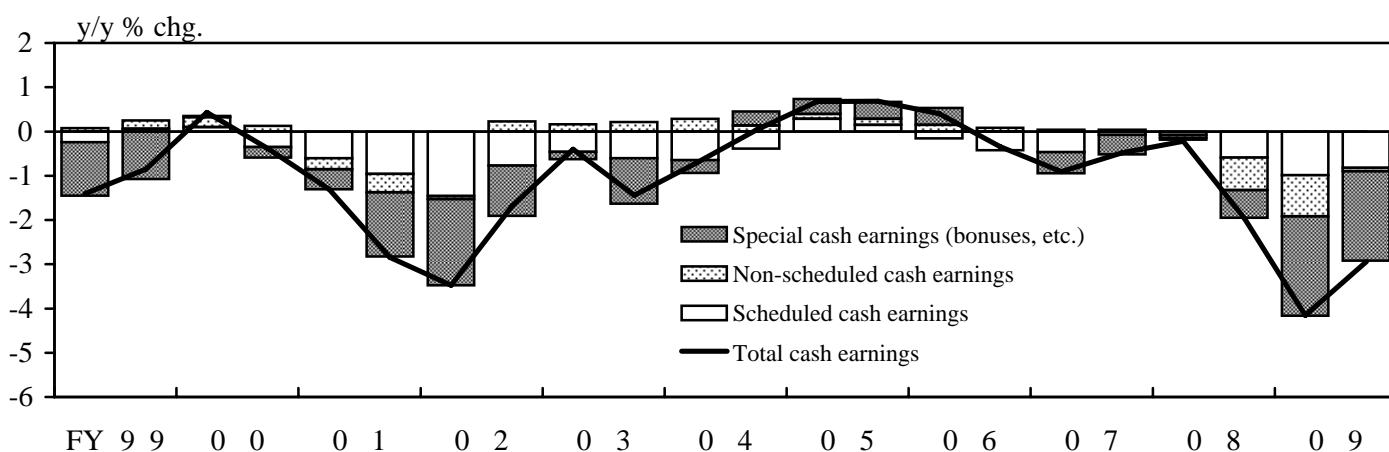
Sources: Cabinet Office, "National Accounts"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

## Employee Income

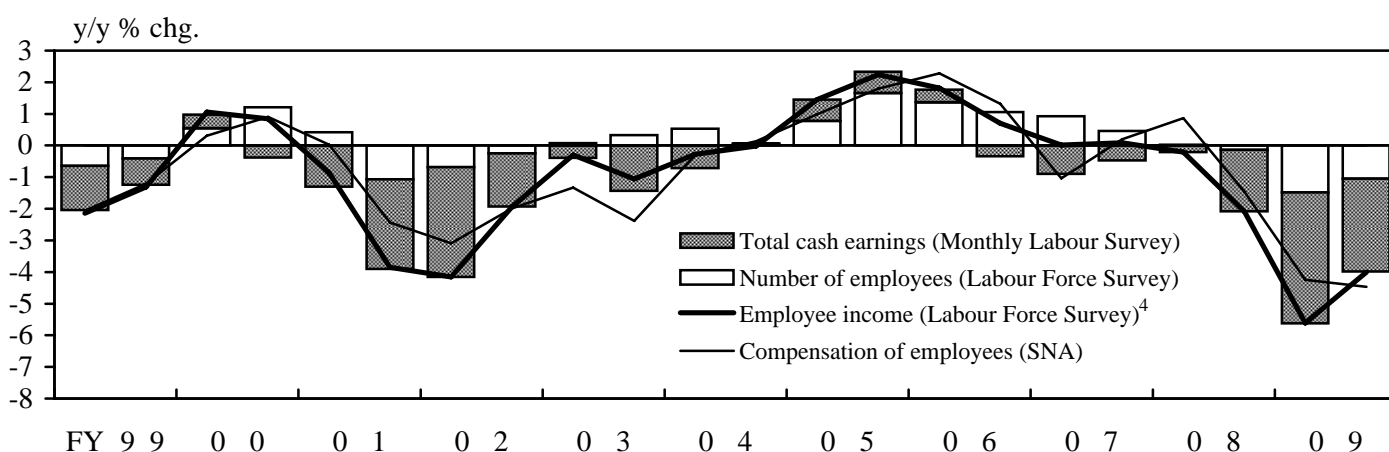
### (1) Number of Employees<sup>1,2</sup>



### (2) Total Cash Earnings (Monthly Labour Survey)<sup>1,3</sup>



### (3) Employee Income<sup>1,3</sup>



Notes: 1. Data from "Monthly Labour Survey" are for establishments with at least five employees.

2. Figures for 2010/Q1 are the January-February averages.

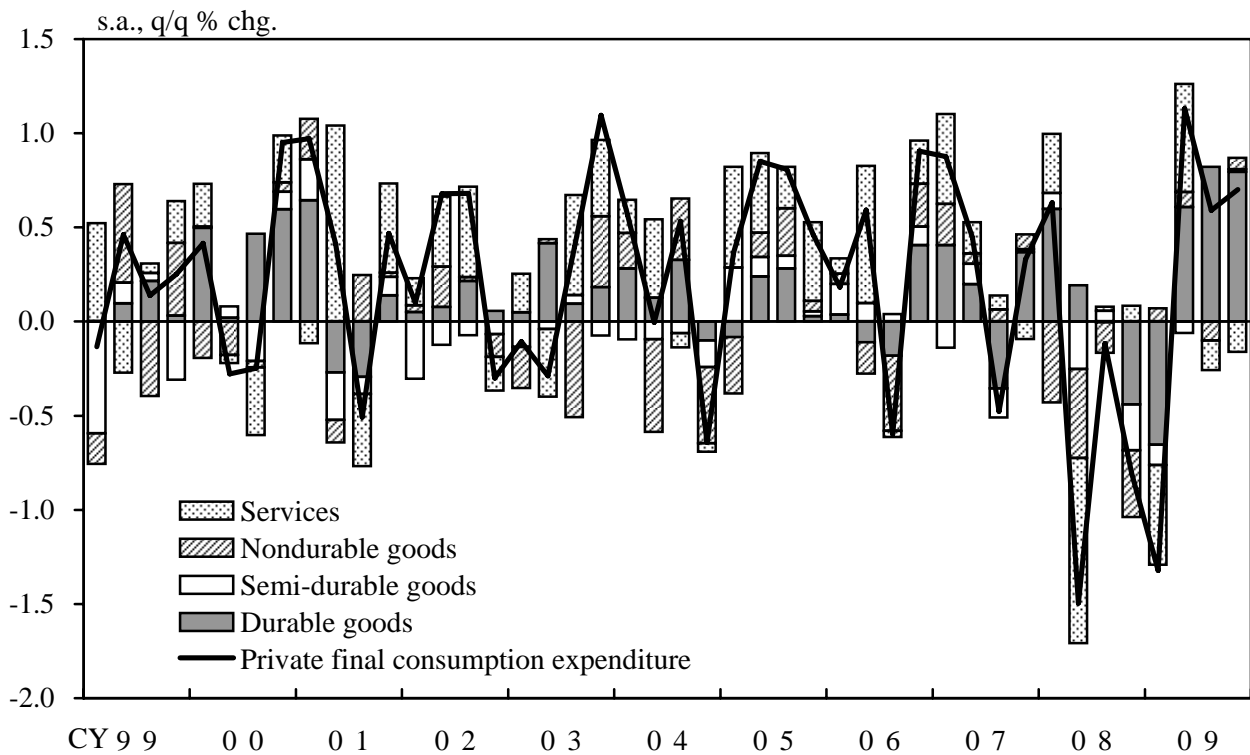
3. Figures for the second half of fiscal 2009 are the October 2009-February 2010 averages, except for the figure for compensation of employees, which is the annualized value of 2009/Q4.

4. Calculated as the number of employees (Labour Force Survey) multiplied by total cash earnings (Monthly Labour Survey).

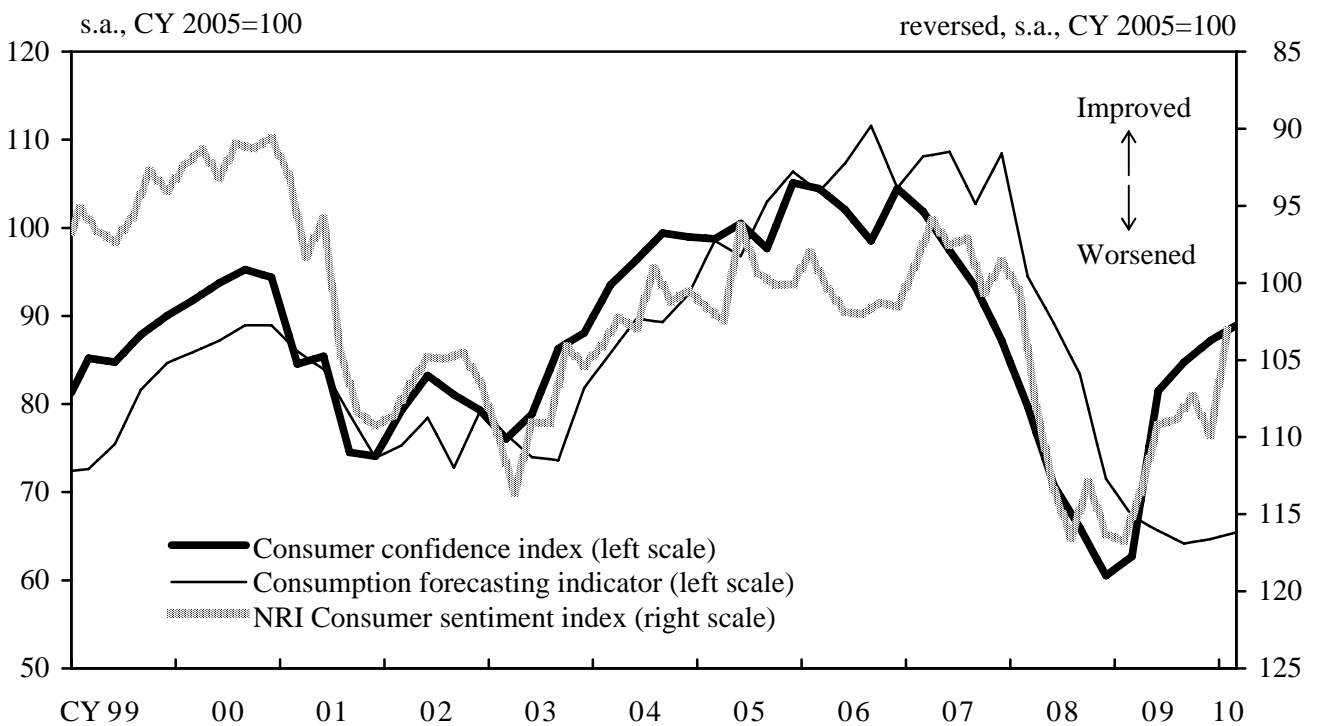
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey."

## Private Consumption

(1) Breakdown of Real Private Final Consumption Expenditure



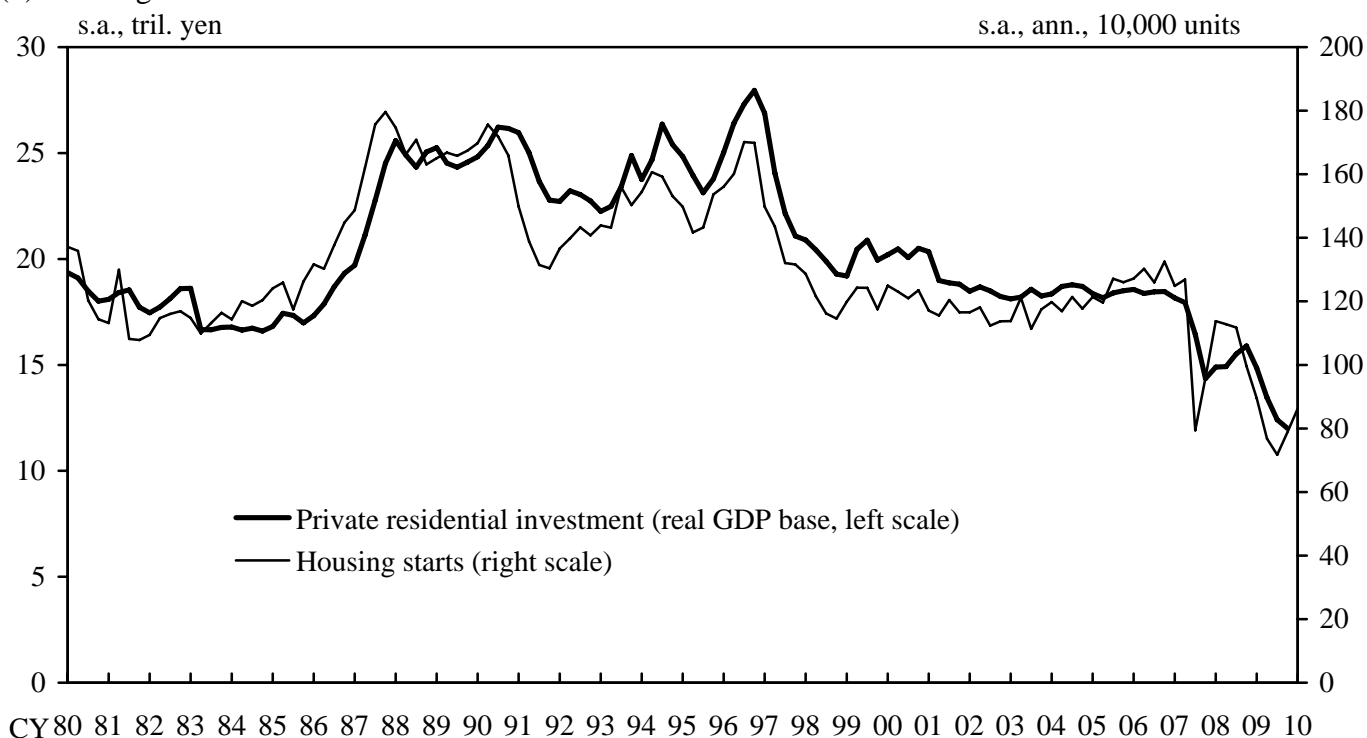
(2) Consumer Confidence



Sources: Cabinet Office, "National Accounts," "Consumer Confidence Survey";  
 Nikkei Inc., "Consumption Forecasting Indicator";  
 Nippon Research Institute (NRI), "Consumer Sentiment Survey."

## Housing Investment

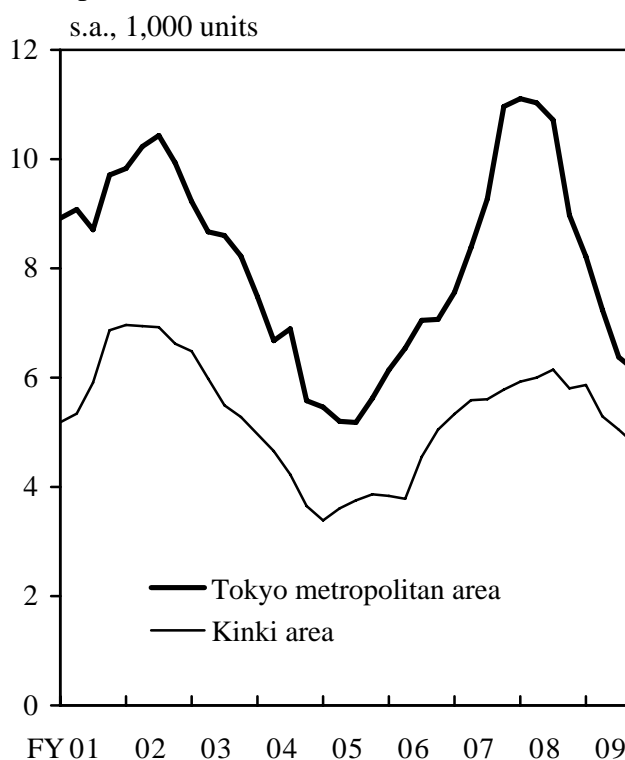
(1) Housing Starts and Private Residential Investment<sup>1</sup>



(2) Real Estate Industry Diffusion Index<sup>2</sup>



(3) Apartment Stock



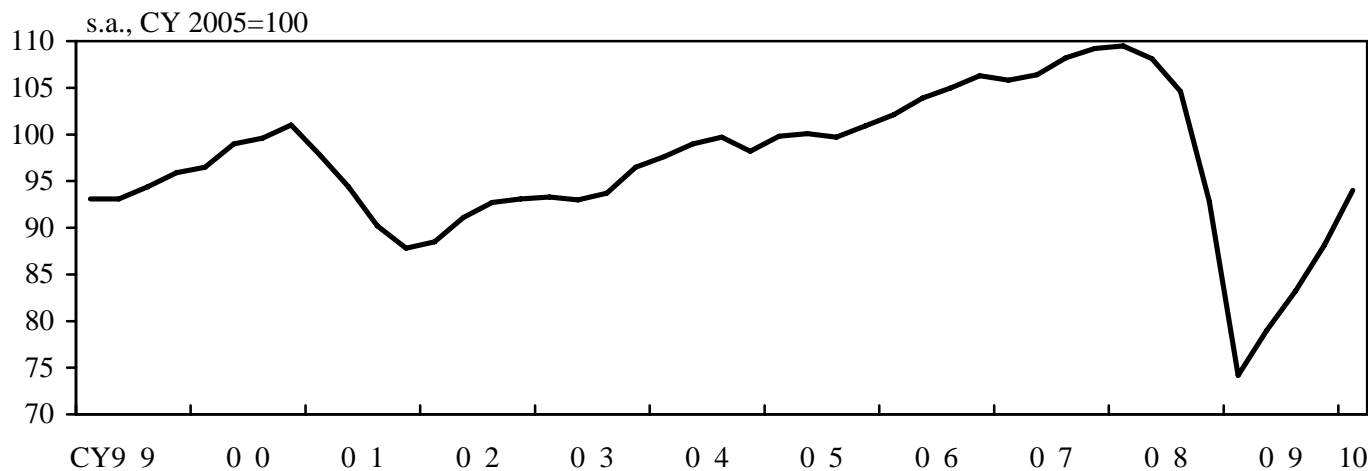
Notes : 1. Figure of housing starts for 2010/Q1 is the January-February average.

2.  $DI = [(\text{"rise"} \times 2 + \text{"slightly rise"}) - (\text{"slightly fall"} + \text{"fall"} \times 2)] \div 2 \div \text{total} \times 100$

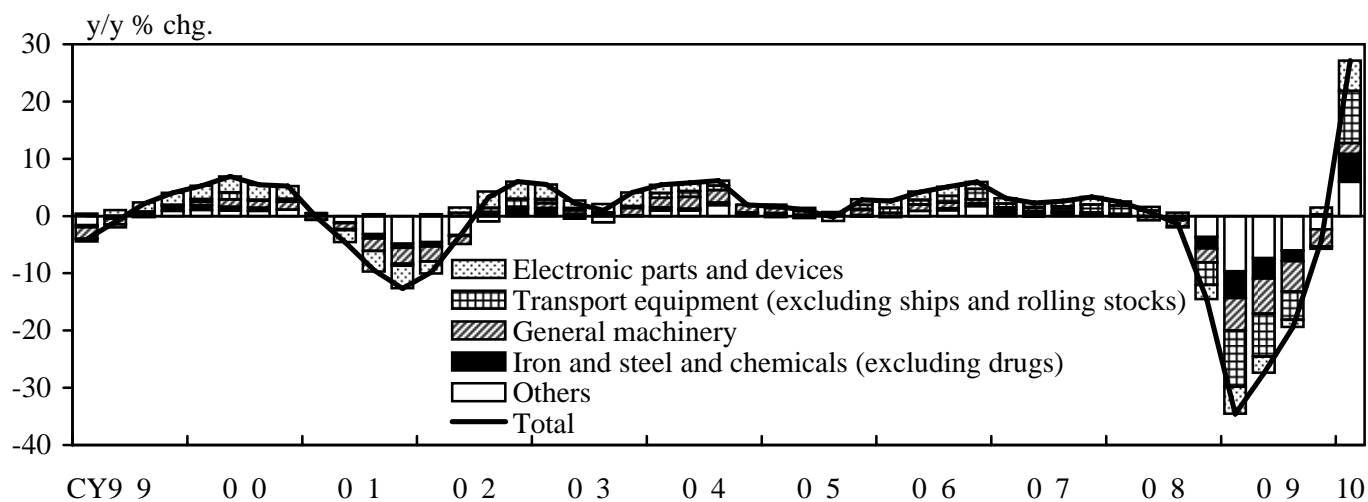
Sources: Ministry of Land, Infrastructure, Transport and Tourism, "Statistics on Building Construction Starts"; Cabinet Office, "National Accounts"; The Land Institute of Japan; Real Estate Economic Institute Co., Ltd.

## Production

### (1) Industrial Production

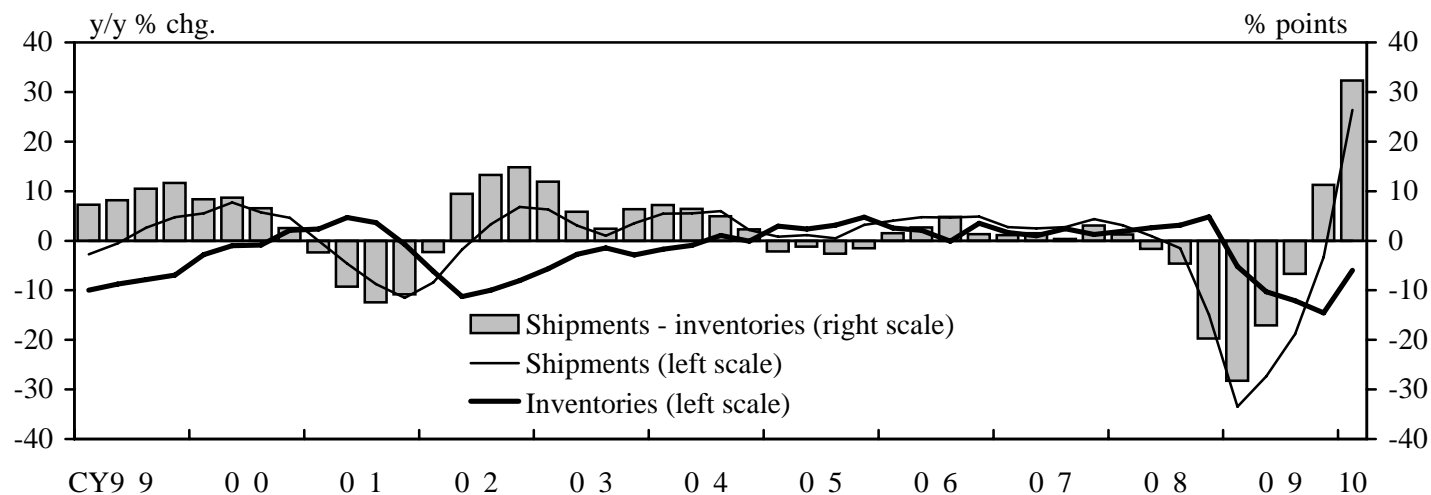


### (2) Production (Breakdown by Industry)



Note: Figures up to CY 2003 are on the 2000 base.

### (3) Shipment-Inventory Balance (Mining and Manufacturing)



Source: Ministry of Economy, Trade and Industry, "Indices of Industrial Production."

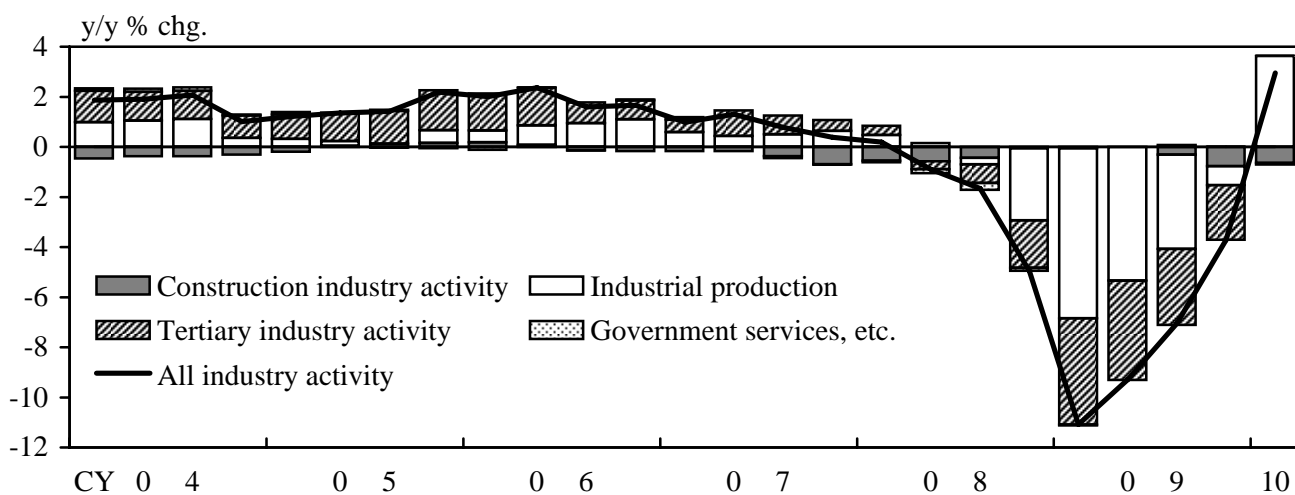


## All Industry Activity

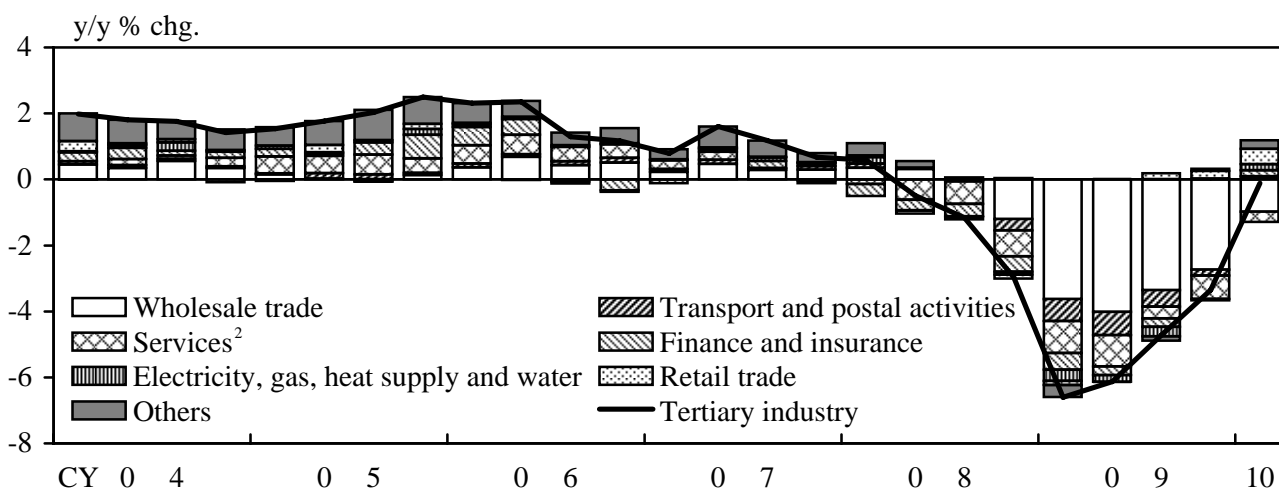
(1) All Industry Activity and Real GDP<sup>1</sup>



(2) All Industry Activity<sup>1</sup>



(3) Tertiary Industry Activity<sup>1</sup>



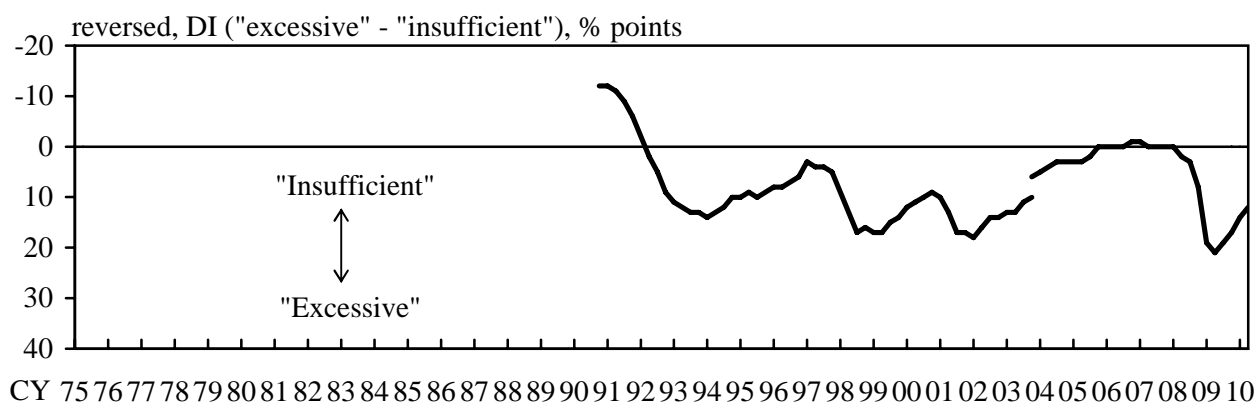
Notes: 1. Figures for 2010/Q1 are the January-February averages.

2. Consisting of scientific research, professional and technical services; living-related and personal services and amusement services; and miscellaneous services (except government services, etc.).

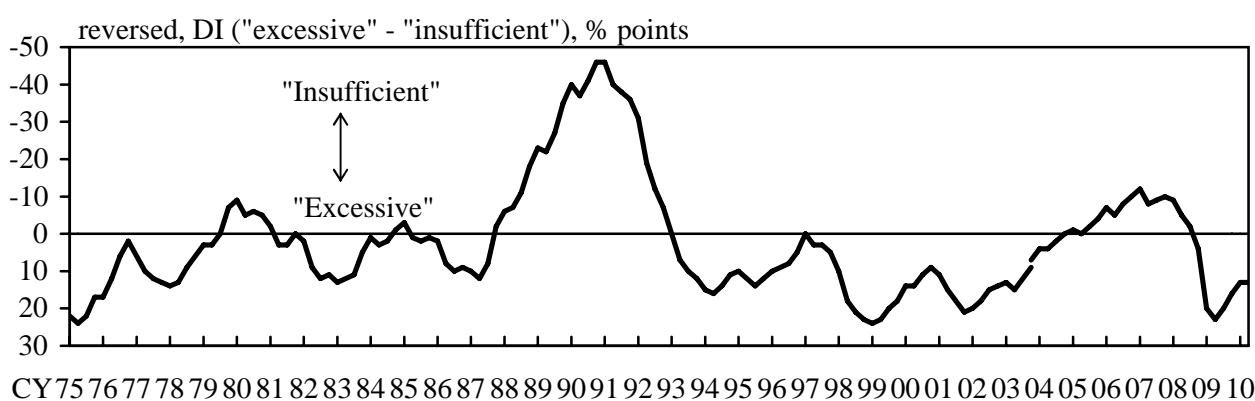
Sources: Ministry of Economy, Trade and Industry, "Indices of All Industry Activity," "Indices of Tertiary Industry Activity"; Cabinet Office, "National Accounts."

## Resource Utilization

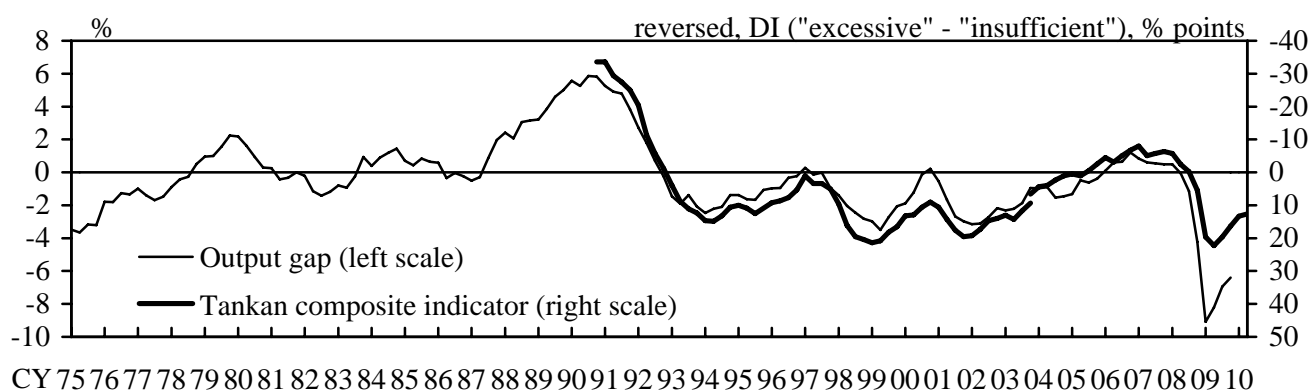
## (1) Production Capacity DI



## (2) Employment Conditions DI



## (3) Tankan Composite Indicator and Output Gap



Notes: 1. Figures of the DI are based on all-size enterprises and all industries. Figures of the DI for 2010/Q2 are the forecasts in the March 2010 survey.

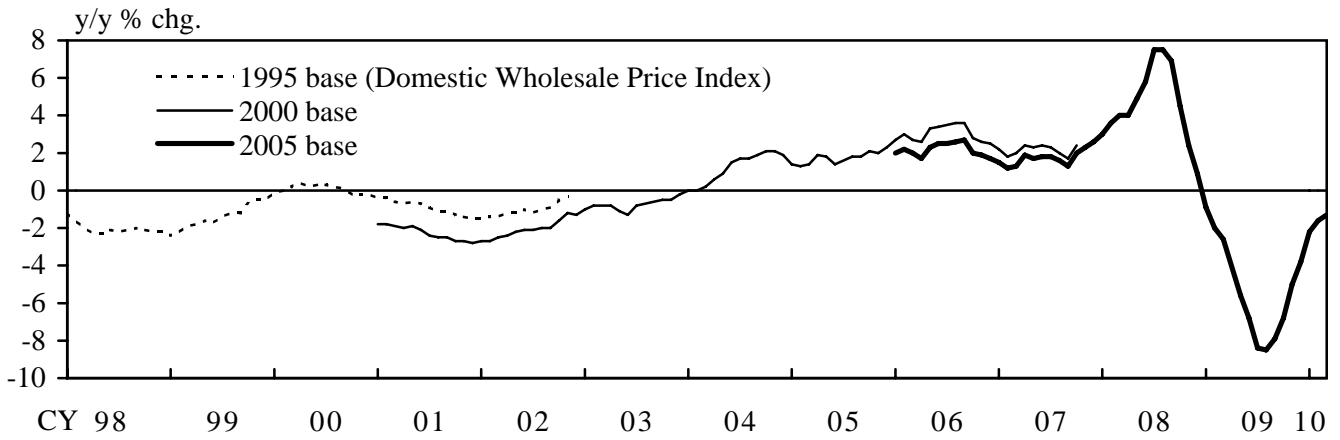
2. By use of the *Tankan*, the Tankan composite indicator is calculated as the average of the DI of production capacity and employment conditions, weighted by capital and labor shares in the National Accounts (fiscal 1990-2008 average). The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate" (Bank of Japan Review Series, May 2006).

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

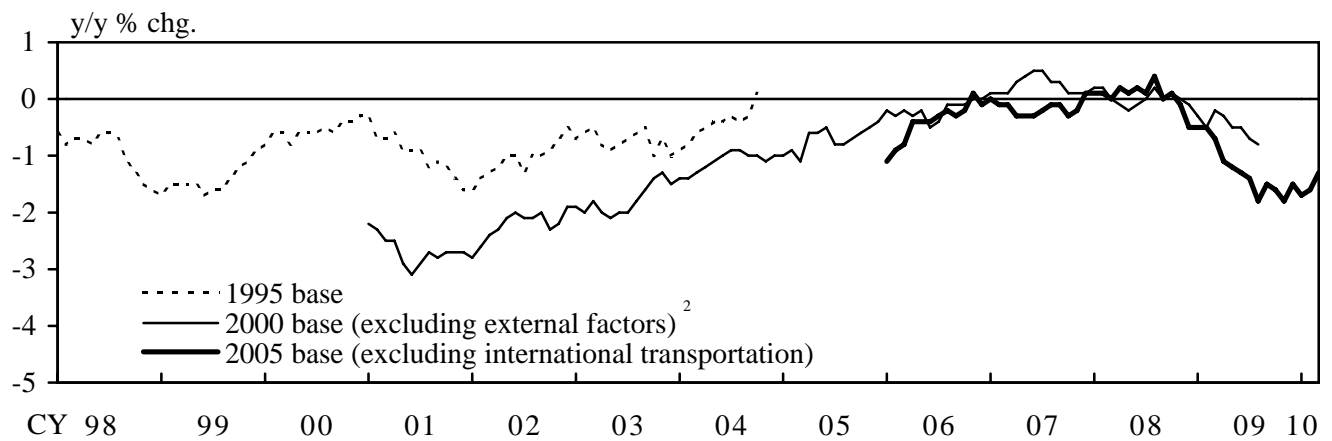
Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy,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

# Prices

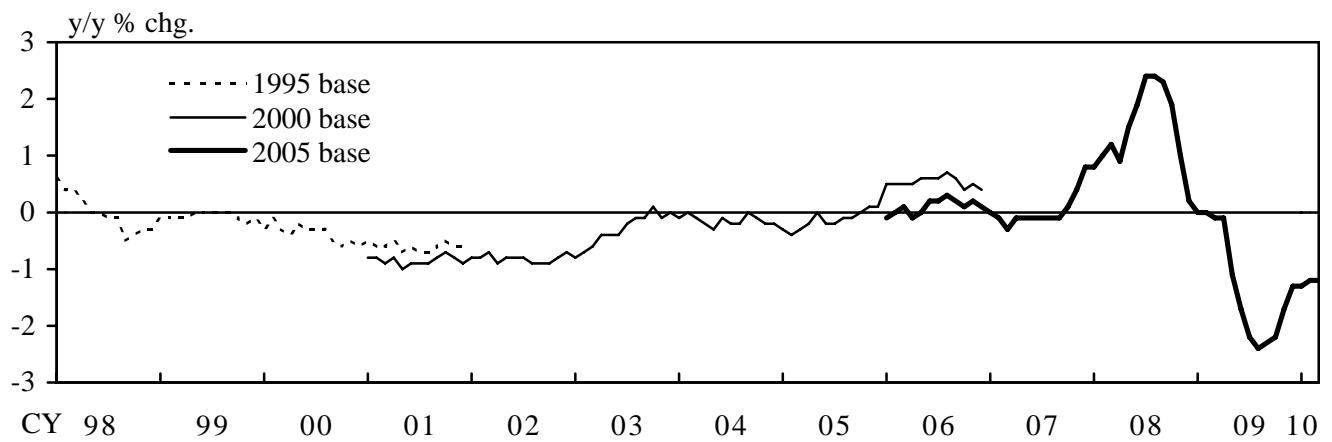
(1) Domestic Corporate Goods Price Index<sup>1</sup>



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



(3) Consumer Price Index<sup>1</sup> (excluding fresh food)



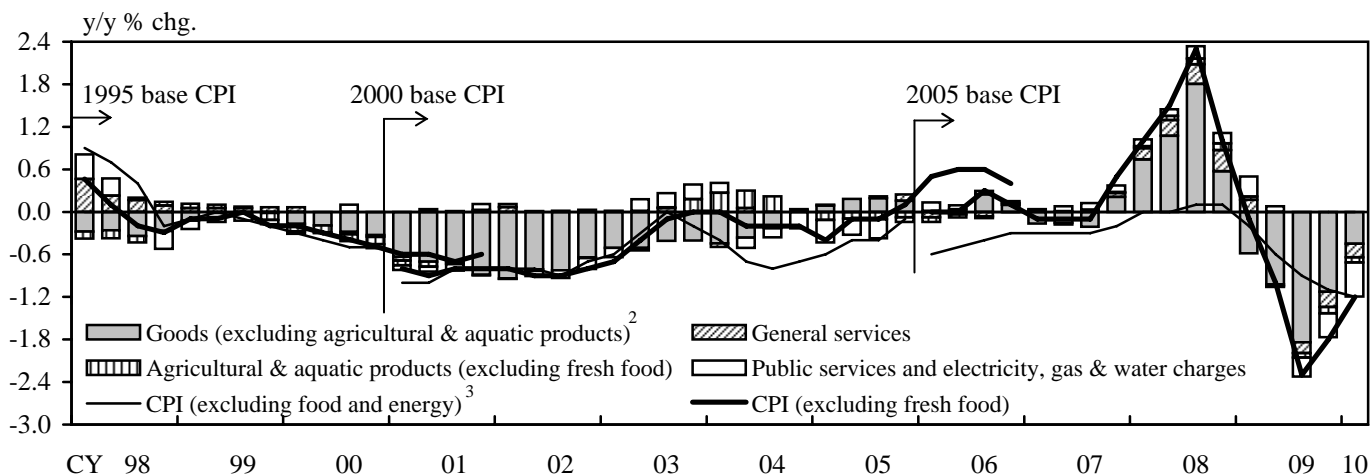
Notes: 1. Adjusted to exclude the effect of a change in the consumption tax rate.

2. External factors consist of international air passenger transportation; ocean liner; ocean tramper; ocean tanker; oceangoing ship chartering services; and international air freight.

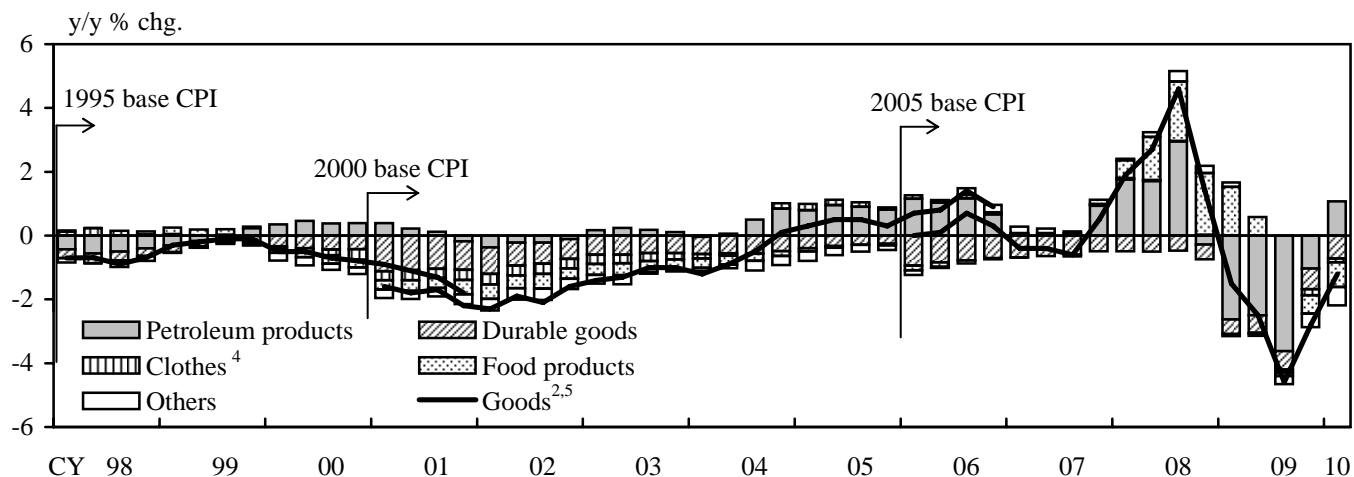
Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Index," "Corporate Services Price Index."

# Consumer Price Index

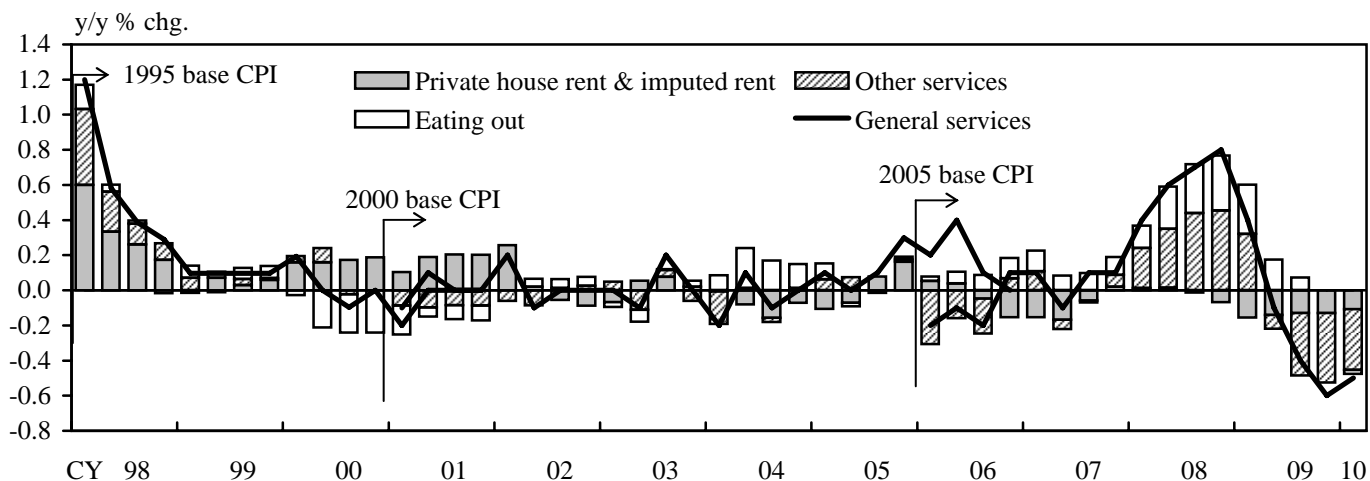
(1) Consumer Price Index (Excluding Fresh Food)<sup>1</sup>



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



(3) General Services<sup>1</sup>

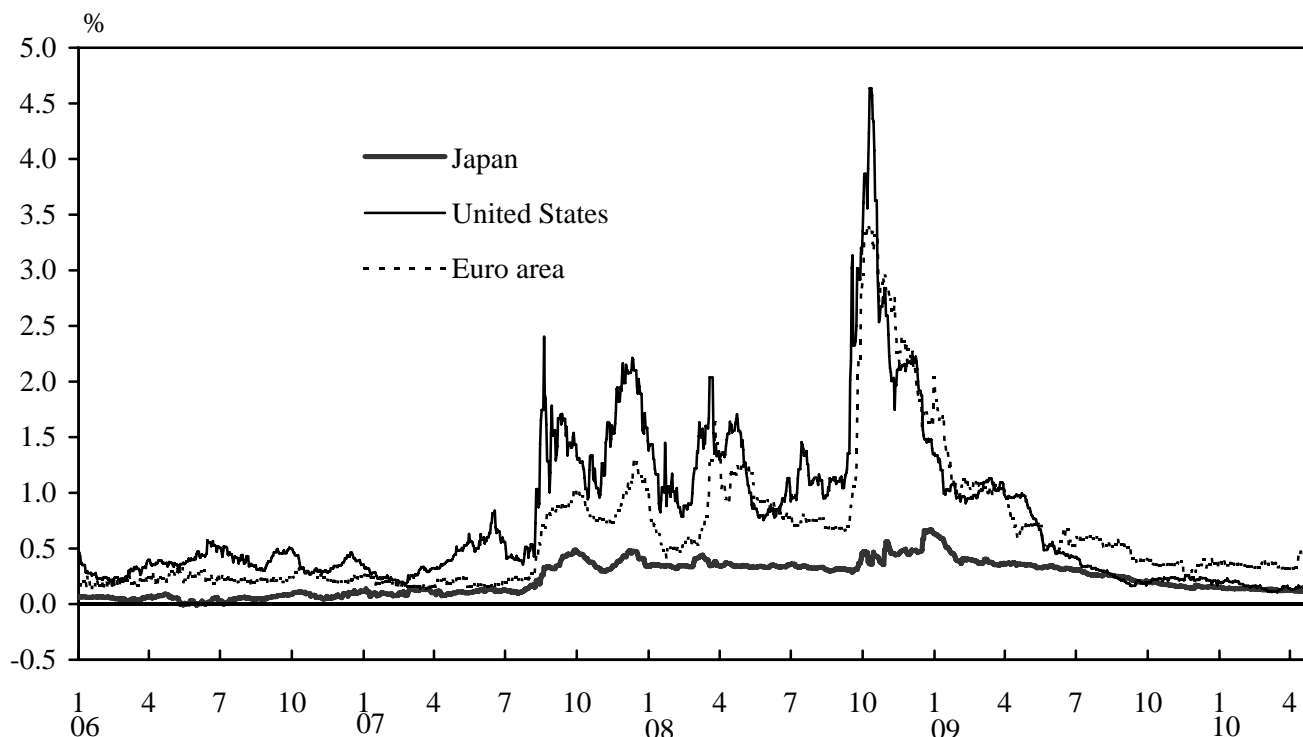


- Notes: 1. Figures are adjusted to exclude the effect of a change in the consumption tax rate.  
 2. The items are basically the same as the definition published by the Ministry of Internal Affairs and Communications. However, electricity, gas & water charges are excluded from goods.  
 3. Alcoholic beverages are excluded from food.  
 4. Including shirts, sweaters & underwear.  
 5. Excluding agricultural & aquatic products.

Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."

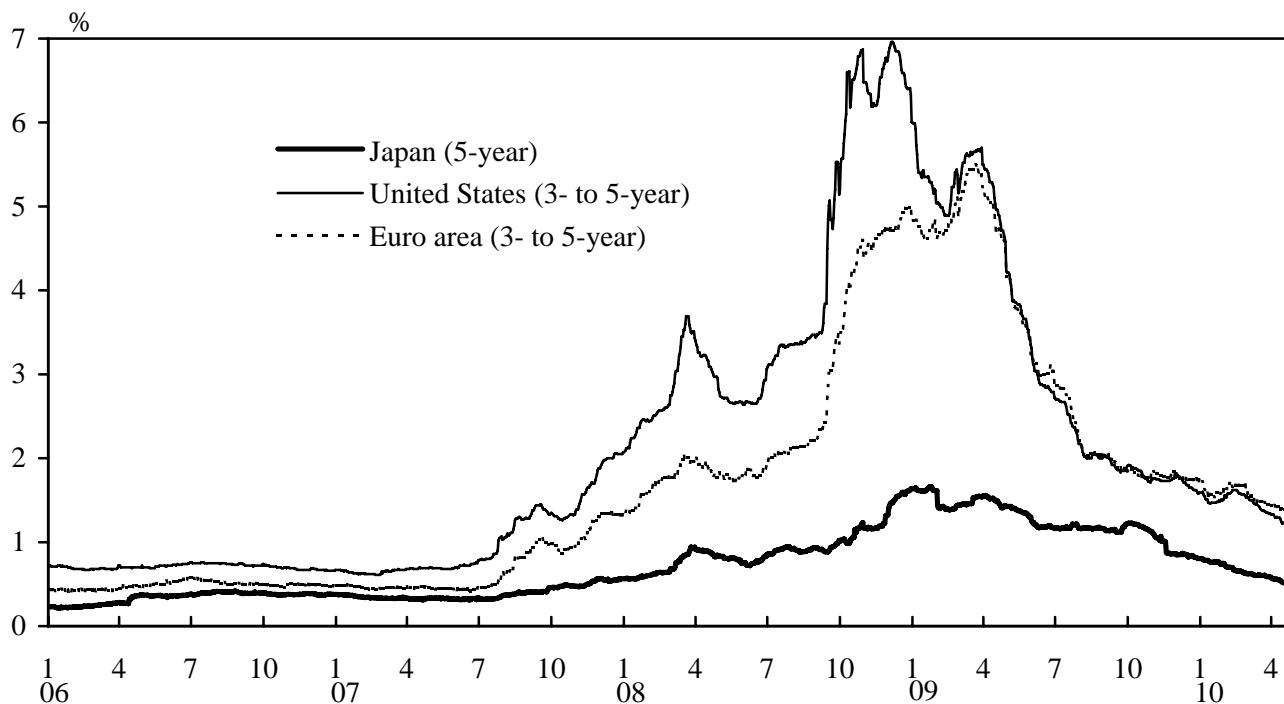
## Credit Spread in Major Economies

### (1) Spread for Term Instruments in Major Economies



- Notes: 1. The spread for term instruments is Libor (3-month) minus the short-term government security (3-month) yield.  
 2. The German short-term government security yield is used for the euro area.

### (2) Spread for Corporate Bonds in Major Economies



- Notes: 1. The spread for corporate bonds (rated A) is the corporate bond yield minus the government bond yield.  
 2. The indicated rating of corporate bonds in Japan is of R&I, and those in the United States and the euro area are of Moody's, S&P, and Fitch.

Sources: Japan Securities Dealers Association; Bloomberg.

## Measures Taken by Major Central Banks

## Federal Reserve System

	Introduction	Completion
• Term Auction Facility	Dec. 2007	Mar. 2010
• Primary Dealer Credit Facility	Mar. 2008	Feb. 2010
• Commercial Paper Funding Facility	Oct. 2008	Feb. 2010
• Outright purchases of agency mortgage-backed securities	Nov. 2008	Mar. 2010
• Term Asset-Backed Securities Loan Facility	Nov. 2008	June 2010
• Outright purchases of government bonds	Mar. 2009	Oct. 2009

## European Central Bank

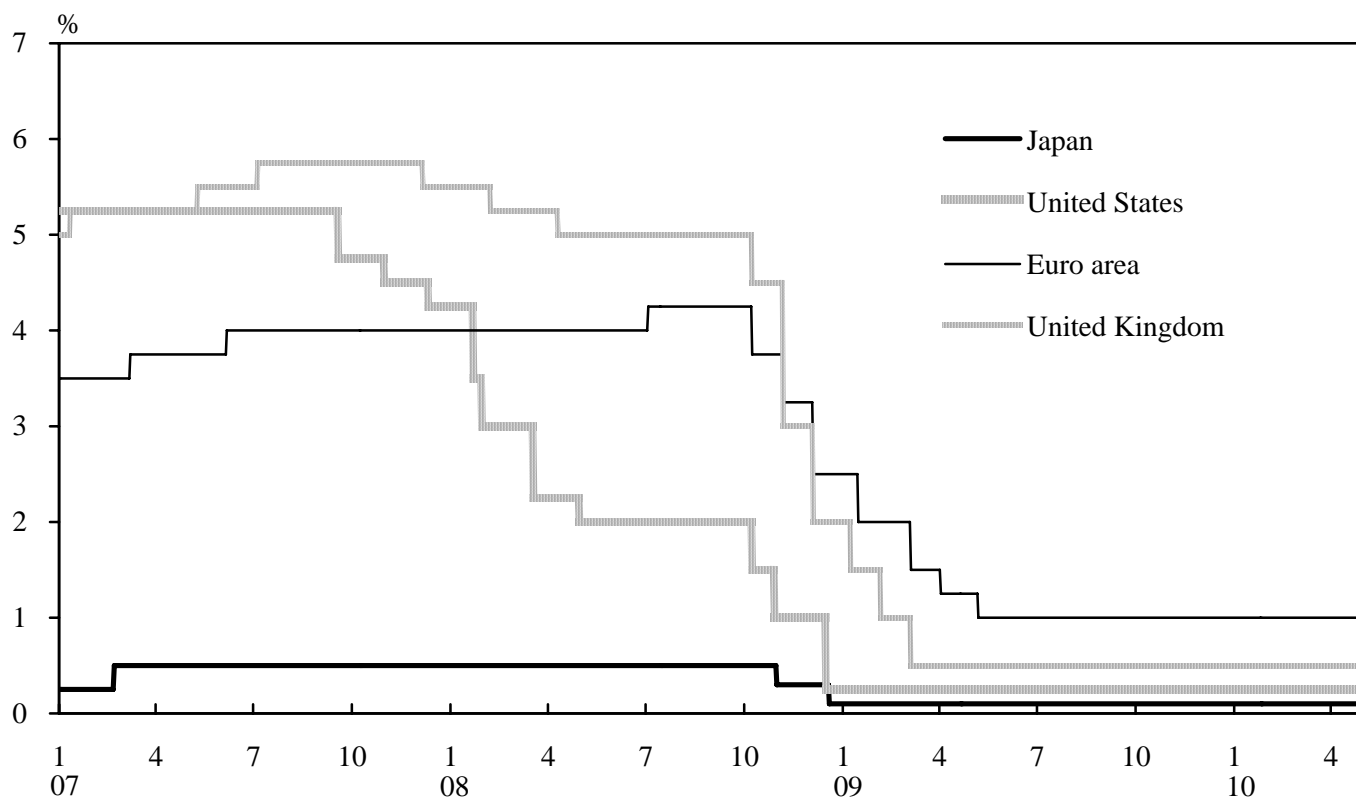
• U.S. dollar funds-supplying operations	Dec. 2007	Feb. 2010
• Unlimited supply of liquidity at fixed rate		
Maturities: one week, one month	Oct. 2008	Undecided
three months, six months	Oct. 2008	Mar. 2010
twelve months	May 2009	Dec. 2009
• Expansion in the range of eligible collateral and in the number of counterparties of funds-supplying operations	Oct. 2008	Undecided
• Outright purchases of covered bonds	May 2009	June 2010

## Bank of England

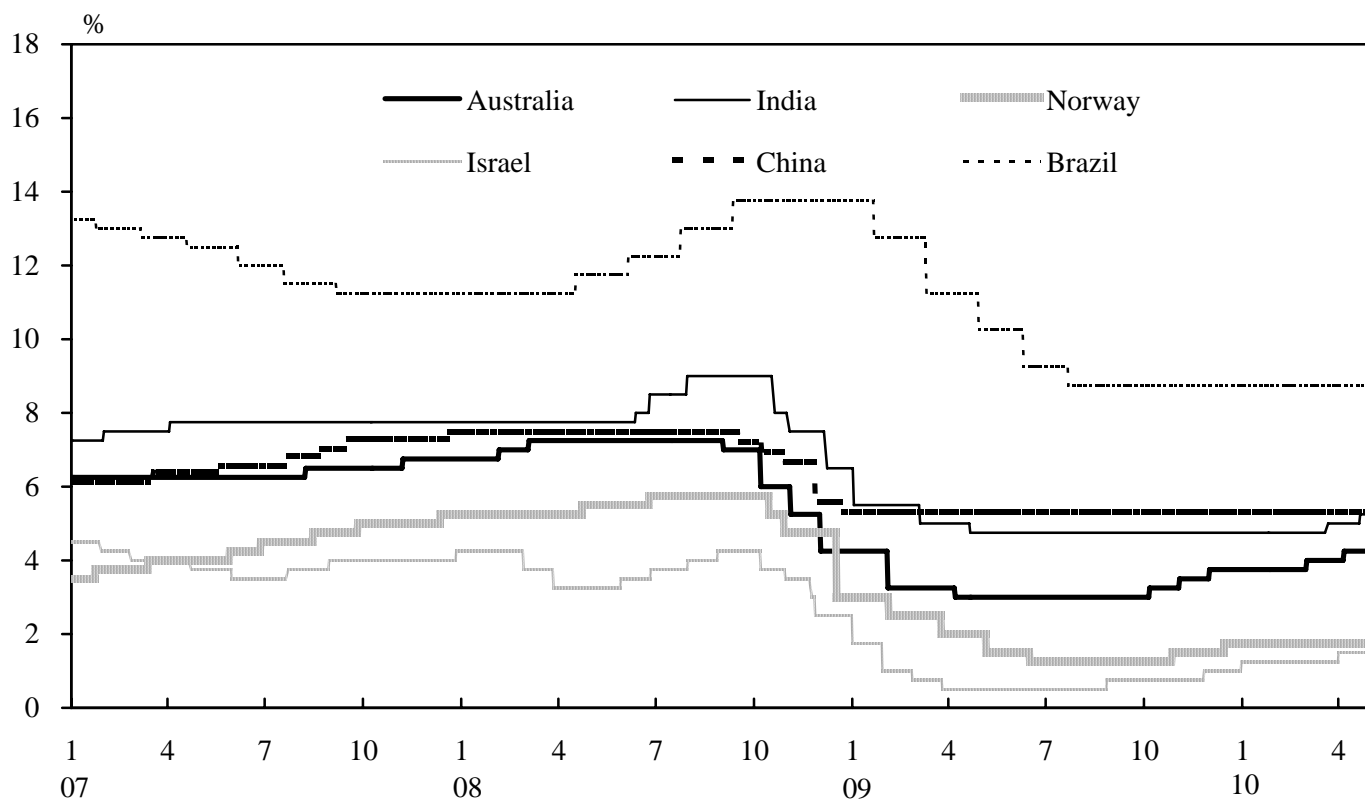
• Long-term funds-supplying operations against an extended range of collateral	Dec. 2007	Undecided
• U.S. dollar funds-supplying operations	Sep. 2008	Feb. 2010
• Outright purchases of CP and corporate bonds	Jan. 2009	Undecided
• Outright purchases of government bonds	Mar. 2009	Feb. 2010

## Policy Interest Rates

### (1) Advanced Economies



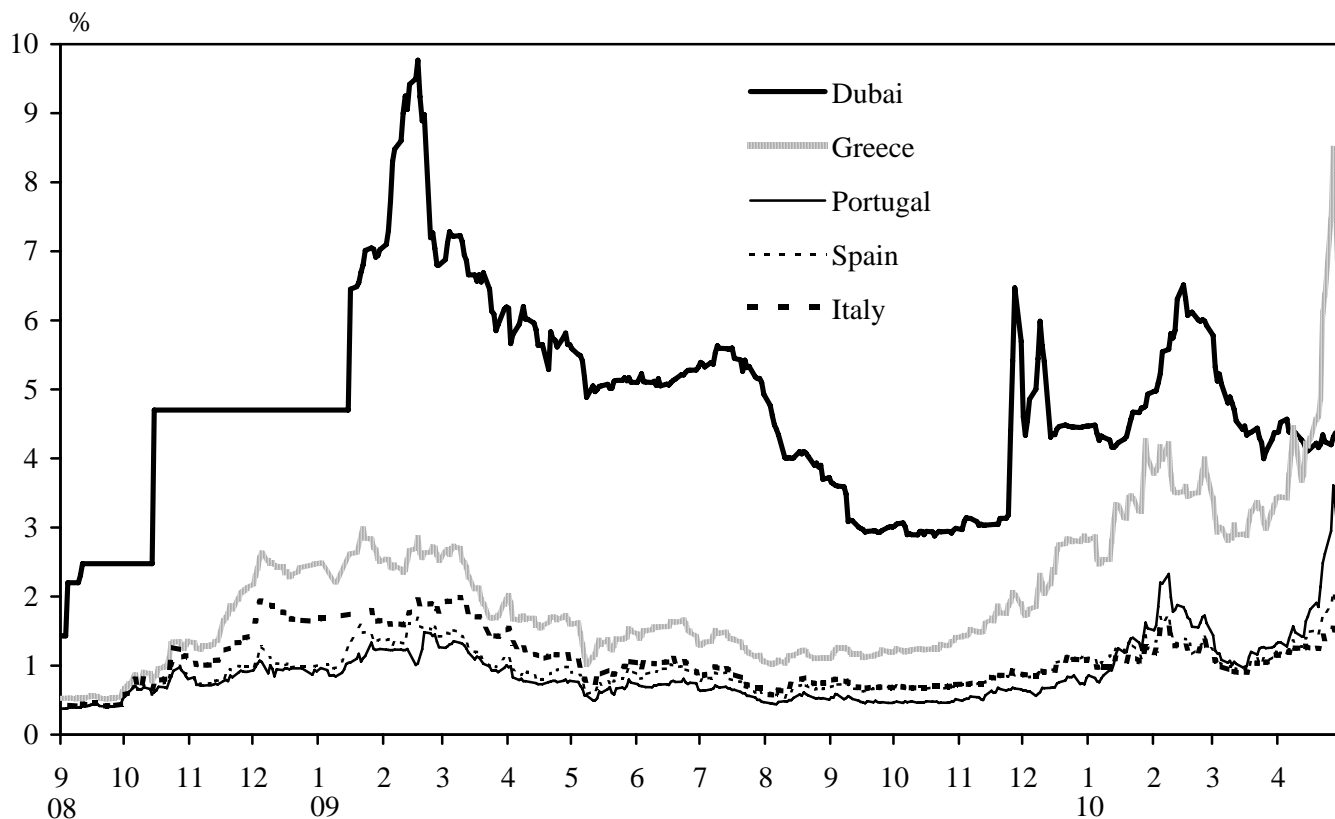
### (2) Emerging and Commodity-Exporting Economies



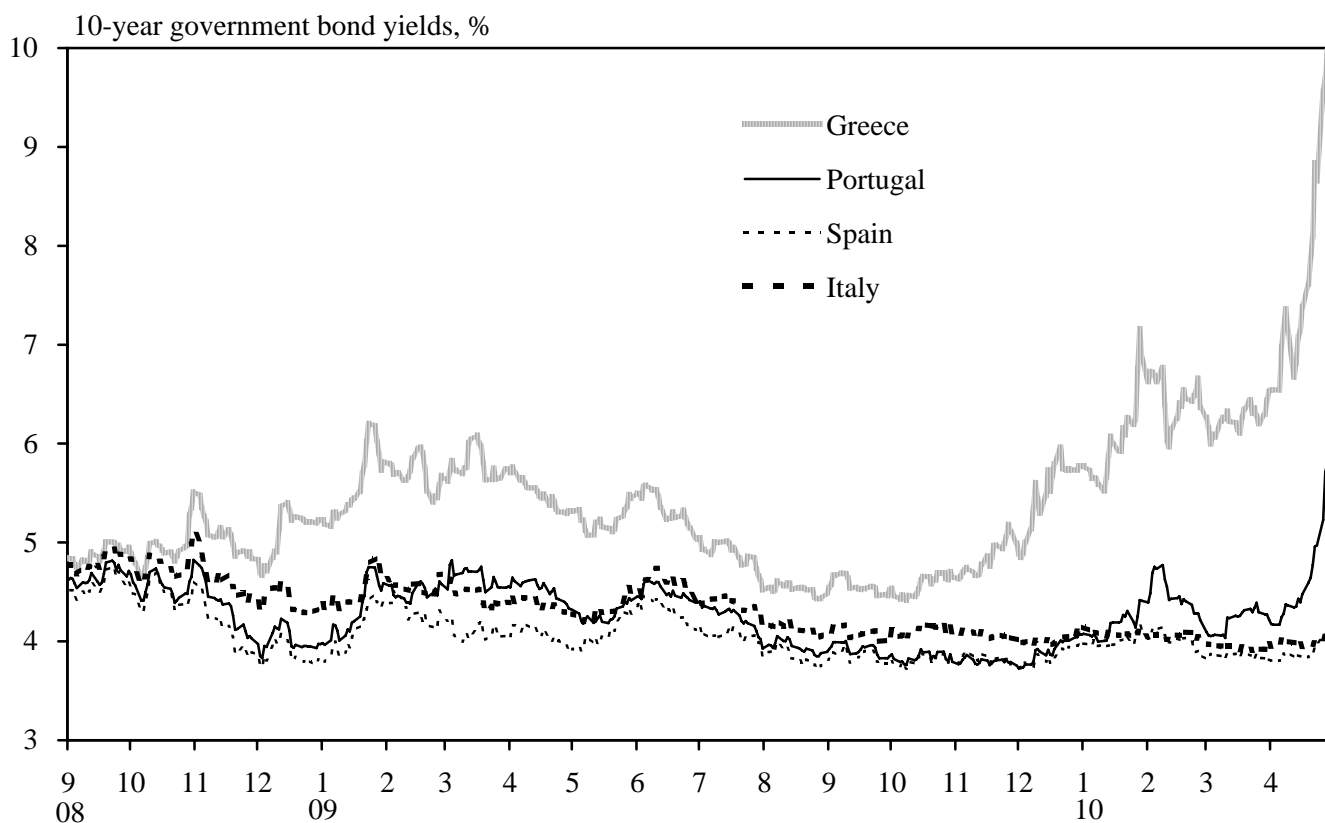
Sources: Bank of Japan; Bloomberg.

## Sovereign Risk Premiums

(1) Sovereign CDS Premiums



(2) Long-Term Interest Rates

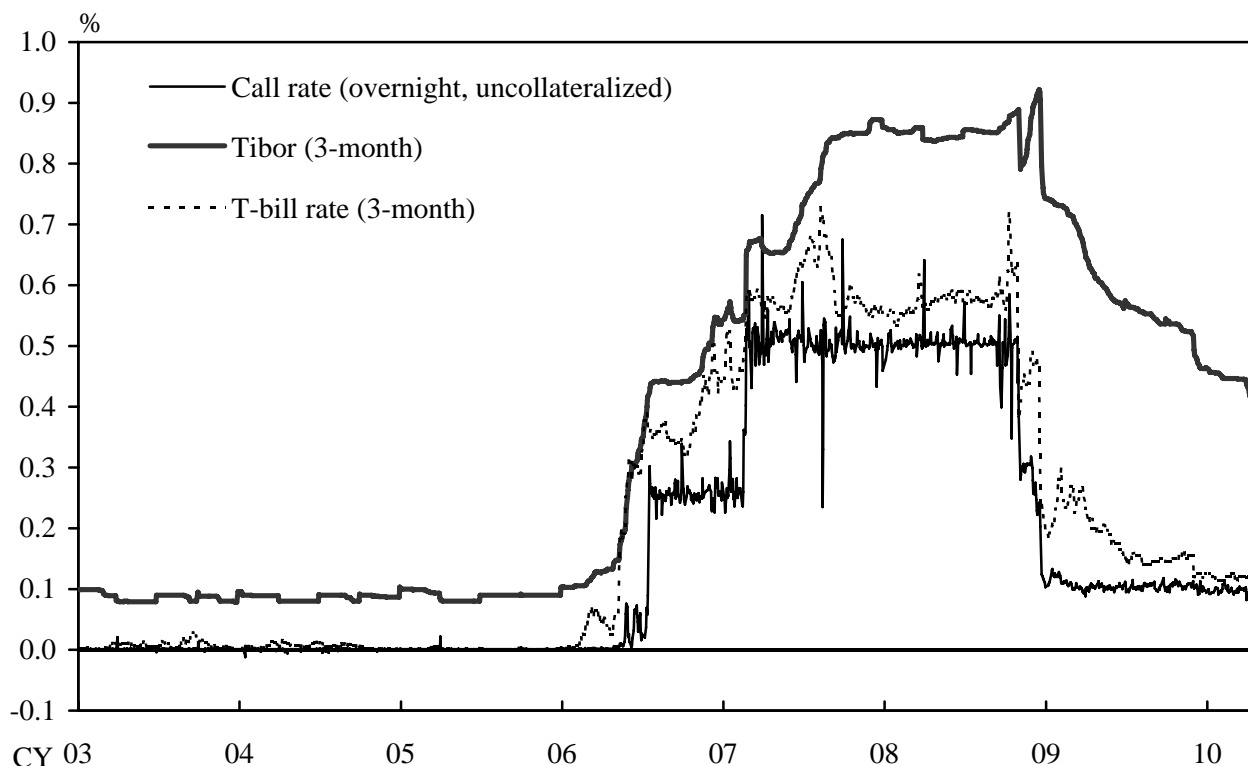


Sources: Bloomberg; Datastream.



## Short-Term Interest Rates

### (1) Short-Term Interest Rates



### (2) Policy Measures Taken by the Bank of Japan

#### 1. Reductions in the policy interest rate

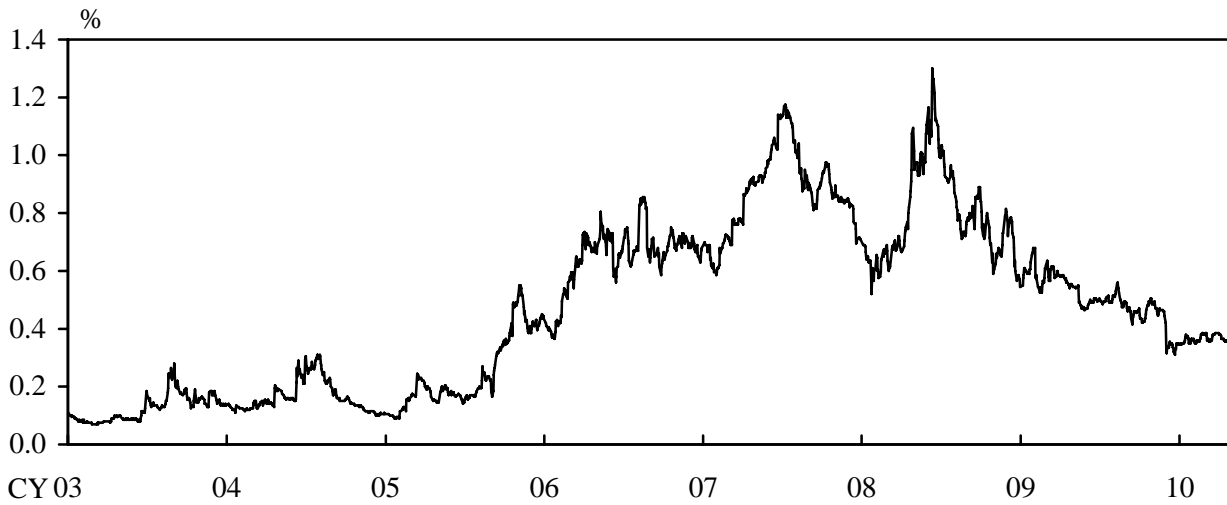
- 0.5 percent → 0.3 percent (Oct. 2008) → 0.1 percent (Dec. 2008)

#### 2. Enhancement of easy monetary conditions (To encourage a decline in longer-term interest rates)

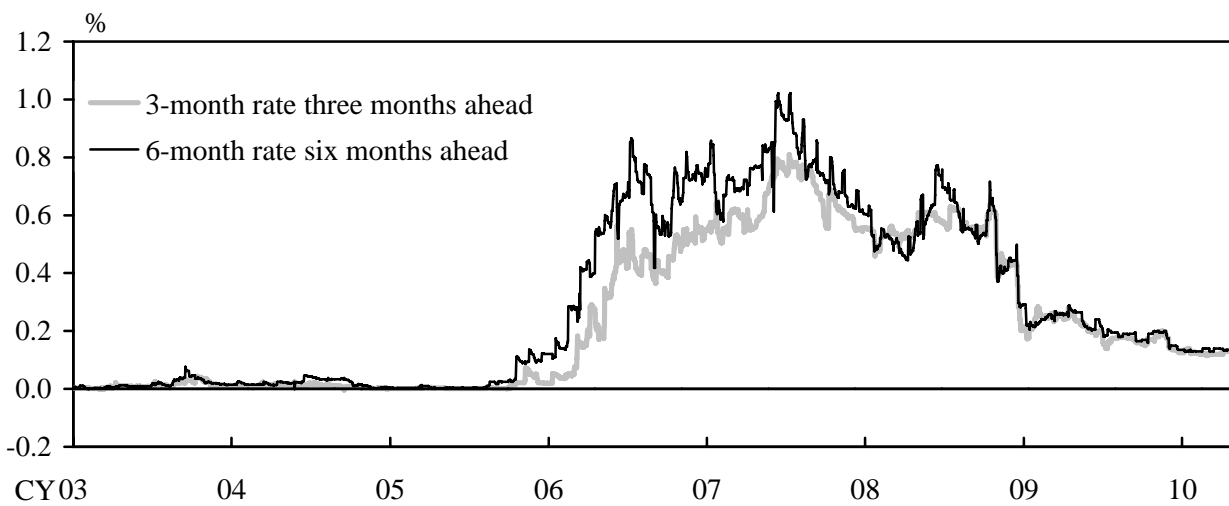
- Introduction of a fixed-rate operation (Dec. 1, 2009)
  - Loan rate: 0.1 percent
  - Duration: Three months
  - Total amount of loans: Approximately 10 trillion yen
- Expansion of the measure to encourage a decline in longer-term interest rates by substantially increasing the amount of funds to be provided through the fixed-rate operation (Mar. 17, 2010)
  - Total amount of loans: Approximately 20 trillion yen

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

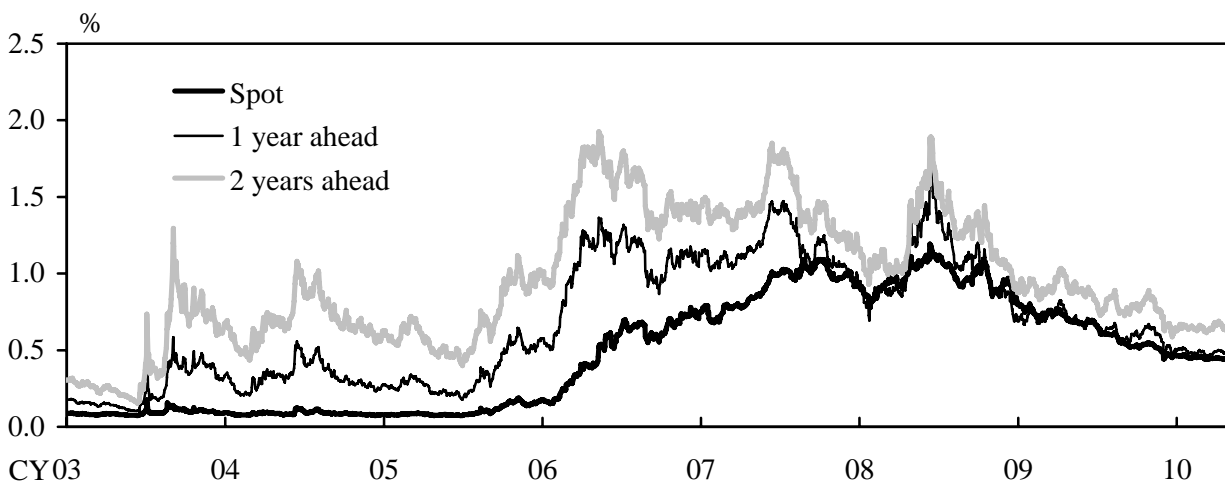
(1) Euroyen Interest Rate Futures (3-Month, Leading Contract Months)



(2) Implied Forward Rates (3-Month, 6-Month)<sup>1</sup>



(3) Implied Forward Rates (1-Year)<sup>2</sup>



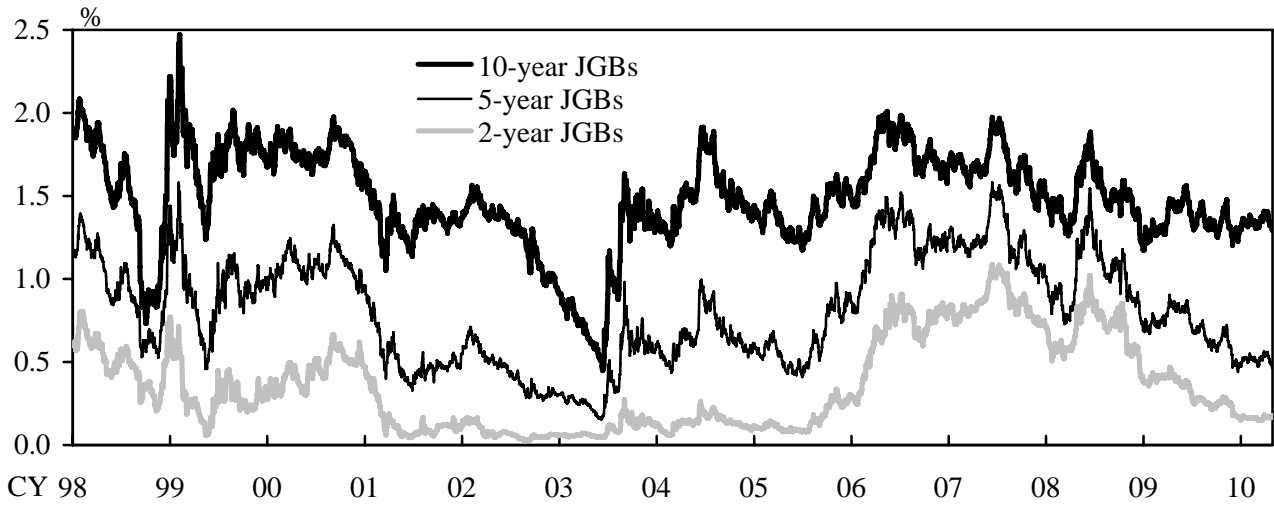
Notes: 1. Calculated from short-term government security yields.

2. Calculated from yen-yen swap rates.

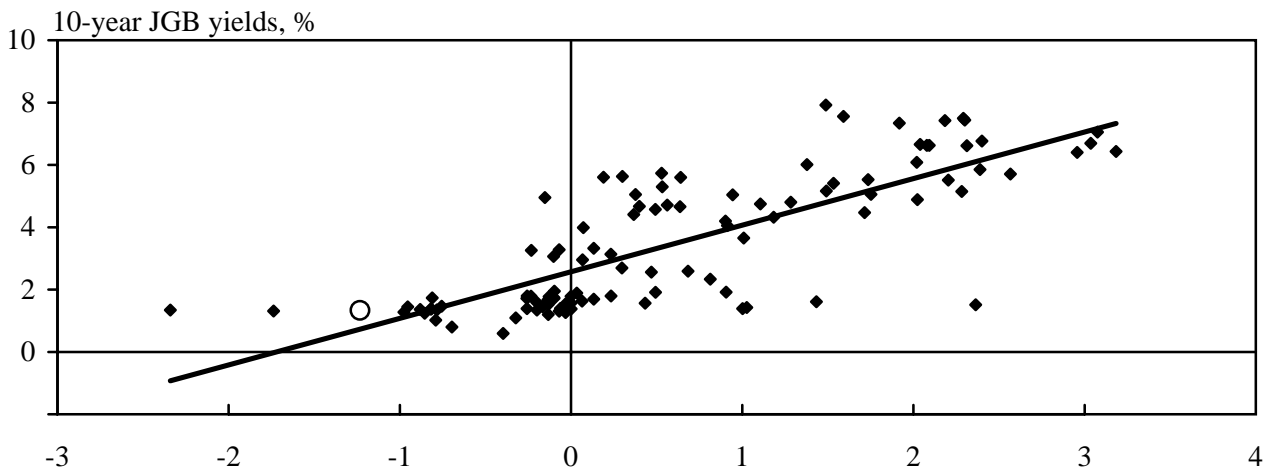
Sources: Tokyo Financial Exchange; Bloomberg.

## Long-Term Interest Rates

(1) Government Bond Yields

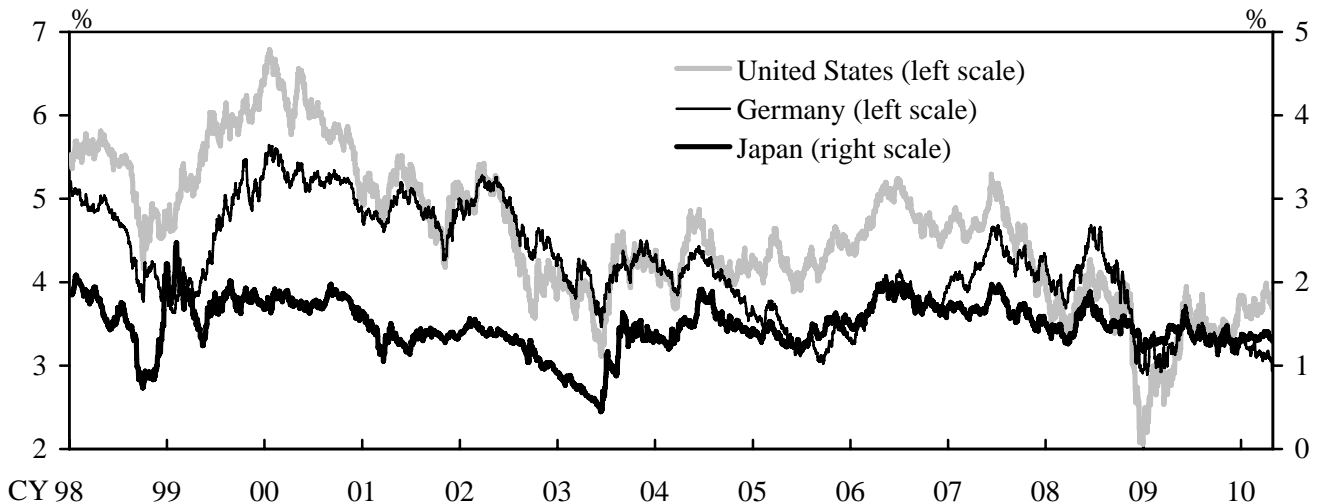


(2) Long-Term Interest Rates and Change in the CPI



Notes: 1. The CPI is adjusted to exclude the effects of changes in the consumption tax rate.  
 2. The sample period is 1983/Q3-2010/Q1. The white circle indicates the latest data.

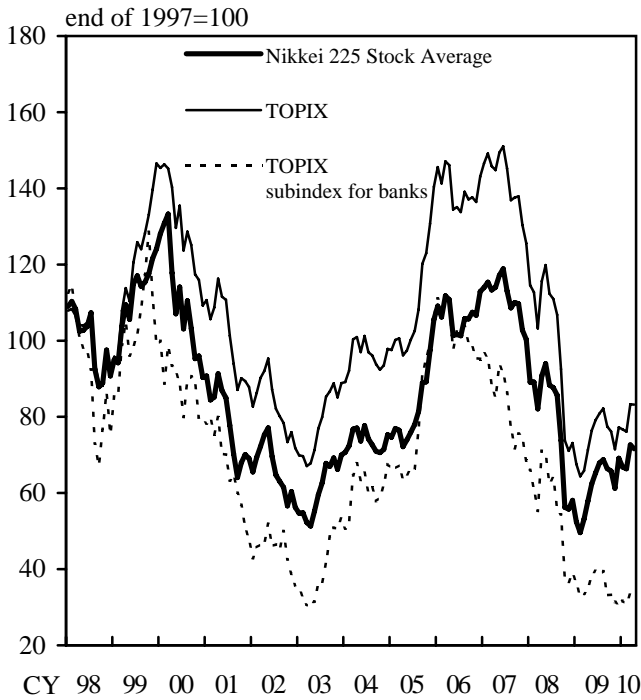
(3) Long-Term Interest Rates in Major Countries (10-Year Government Bond Yields)



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

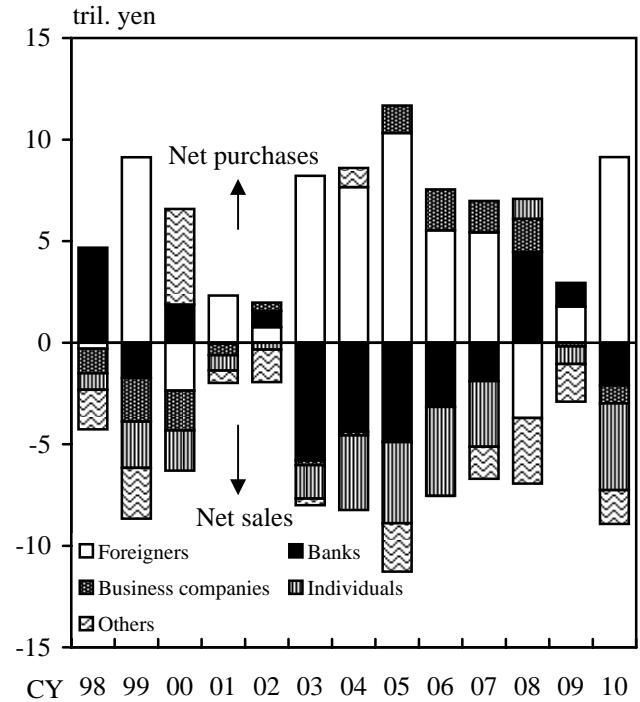
## Stock Prices

(1) Stock Prices



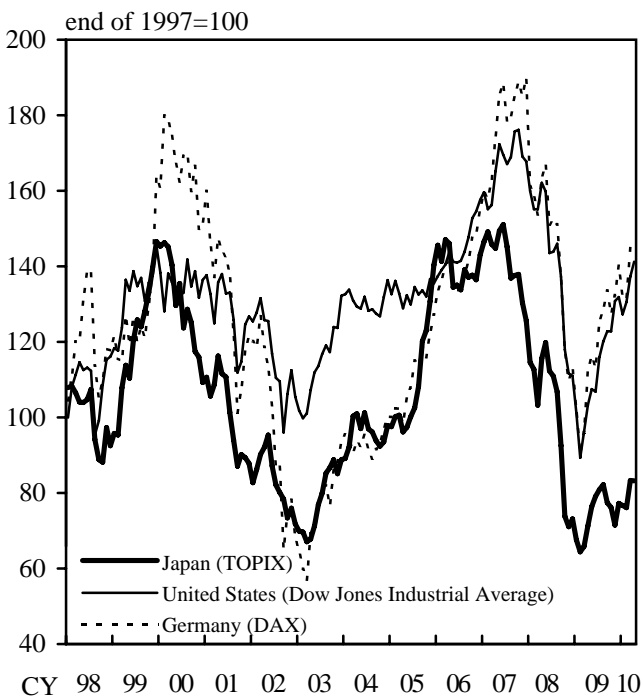
Note: Data are at end of month.

(2) Trading Volume by Investor Type



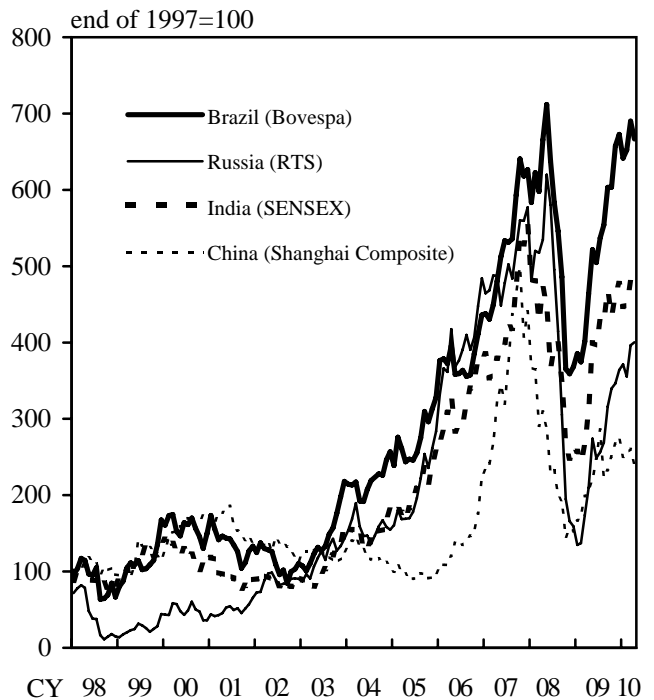
Notes: 1. Figures are the sum of the first and second sections of the Tokyo, Osaka, and Nagoya stock exchanges.  
2. Figures for 2010 are those of January-March in terms of annual amount.

(3) Stock Prices in Major Countries



Note: Data are at end of month.

(4) Stock Prices in the BRIC Economies

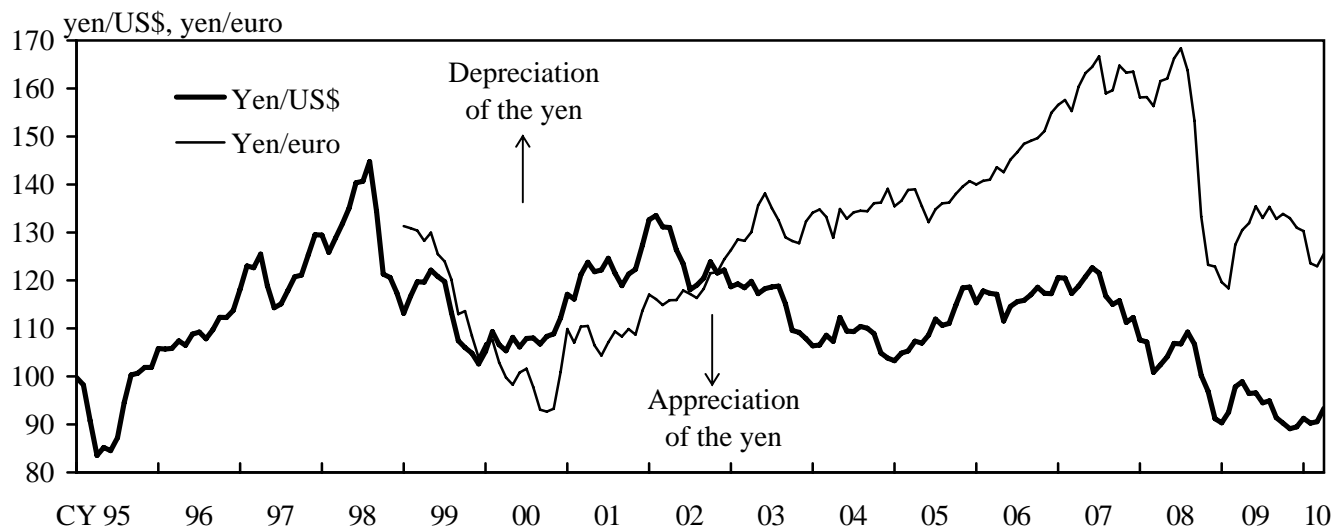


Note: Data are at end of month.

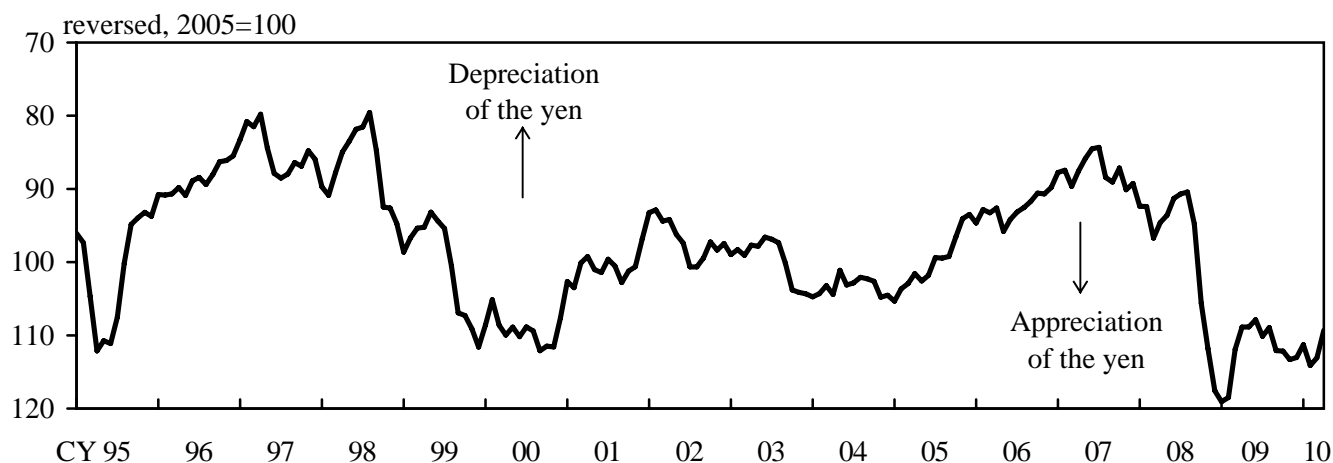
Sources: Nikkei Inc.; Tokyo Stock Exchange; Bloomberg.

## Exchange Rates

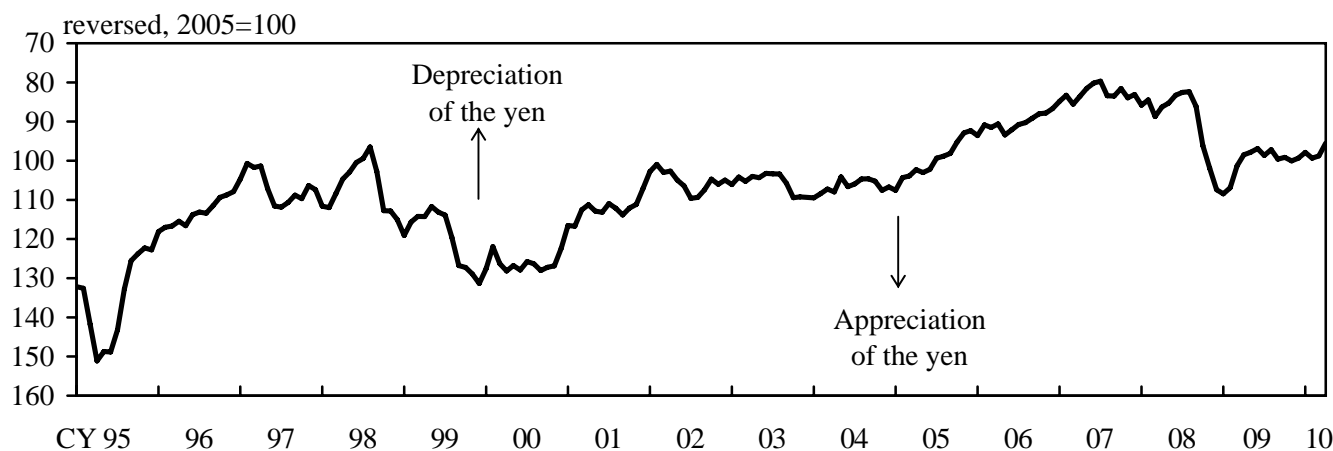
(1) Yen/US\$ and Yen/Euro



(2) Nominal Effective Exchange Rate



(3) Real Effective Exchange Rate

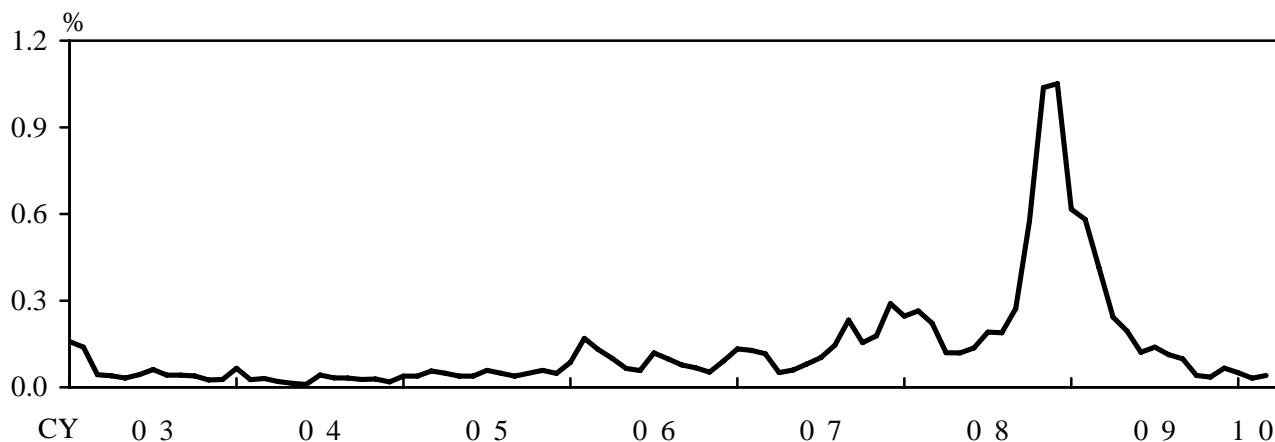


Note: The effective exchange rates are based on the broad indices of the BIS effective exchange rate. Figures for April 2010 have been calculated using the Bank of Japan's nominal effective exchange rate of the yen.

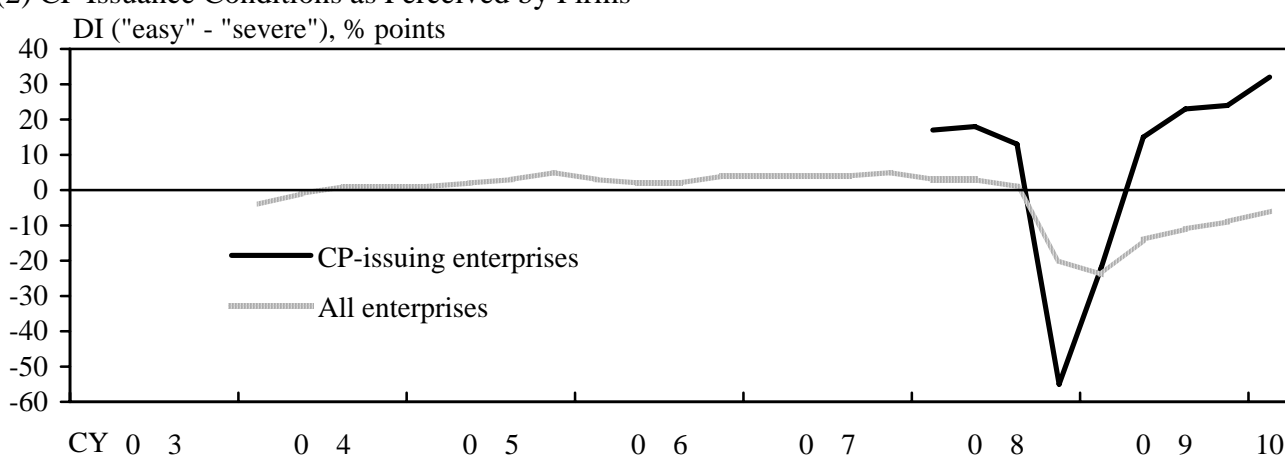
Sources: Bank for International Settlements; Bank of Japan.

### CP Market

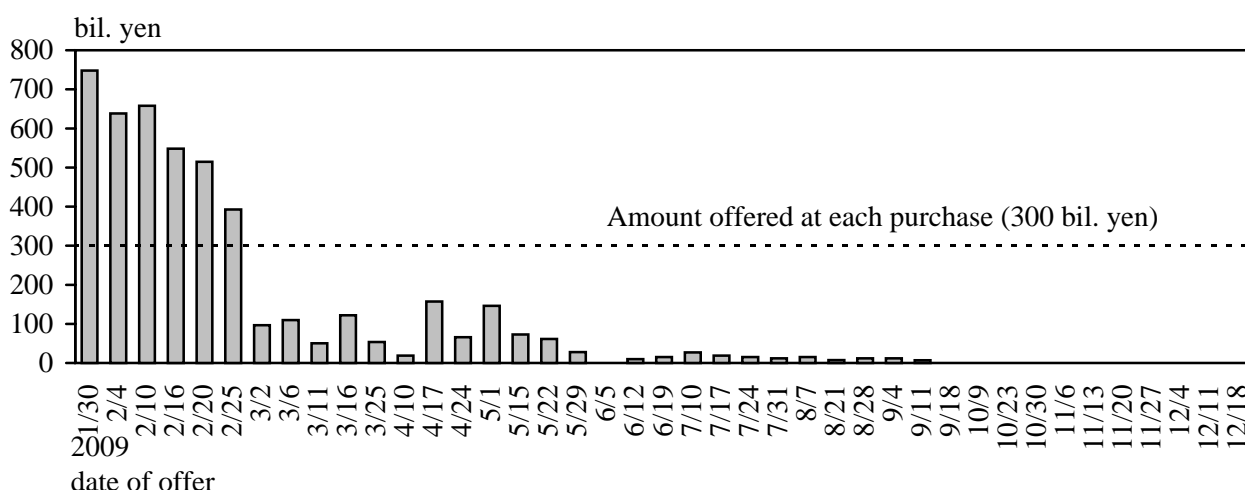
(1) Spread for CP (3-Month)<sup>1</sup>



(2) CP Issuance Conditions as Perceived by Firms<sup>2</sup>



(3) Amounts of Competitive Bids for CP Purchases

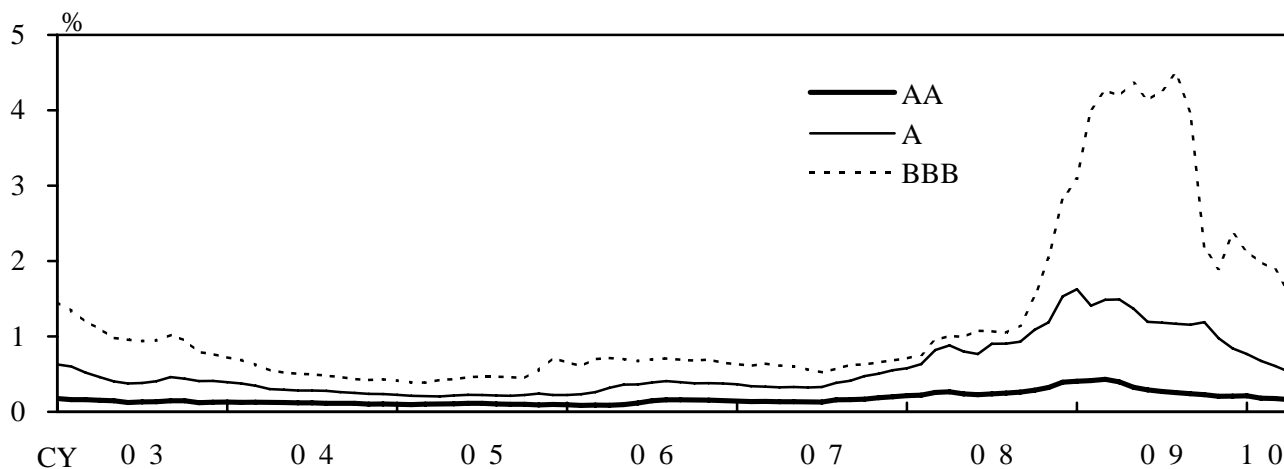


Notes: 1. Figures up to September 2009 are the average issuance rate of CP (rated a-1 or higher) minus the short-term government security yield. Figures from October 2009 are the average issuance rate of CP (rated a-1) minus the short-term government security yield.  
 2. Based on large enterprises and all industries. The DI of the "CP-issuing enterprises" are calculated only using enterprises with a reported record in the Bank's *Tankan* that showed the fact that they issued "Commercial Paper" at least once in the past two years. Those of the "All enterprises" are calculated from all reporting enterprises to answer the "Conditions for CP Issuance" regardless of whether they have actually issued CP.

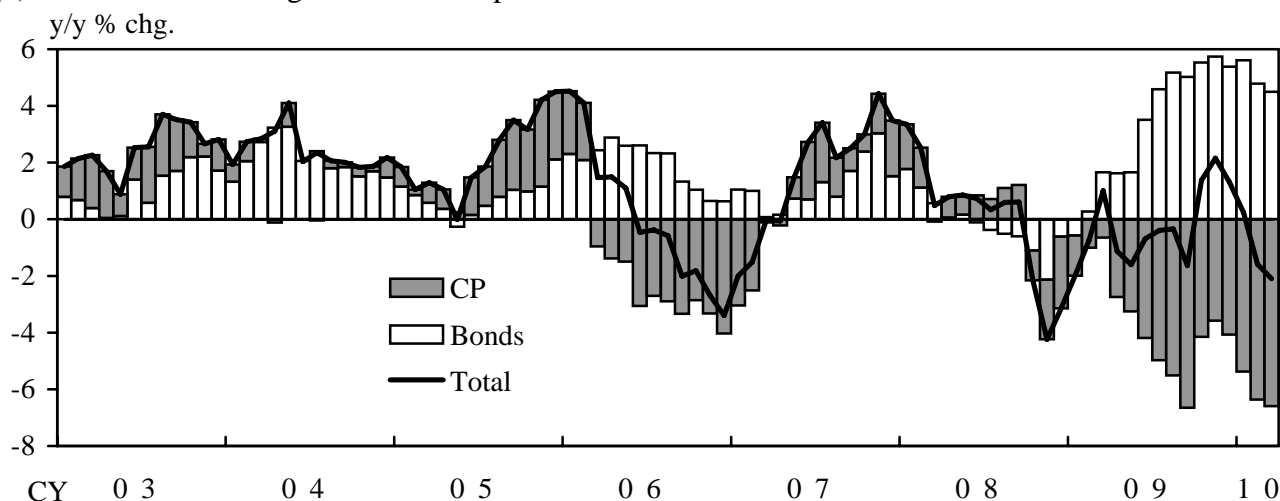
Sources: Bank of Japan, "Average Yields on Newly Issued Domestic Commercial Paper," *Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Japan Securities Depository Center; Bloomberg.

## Corporate Bonds Market

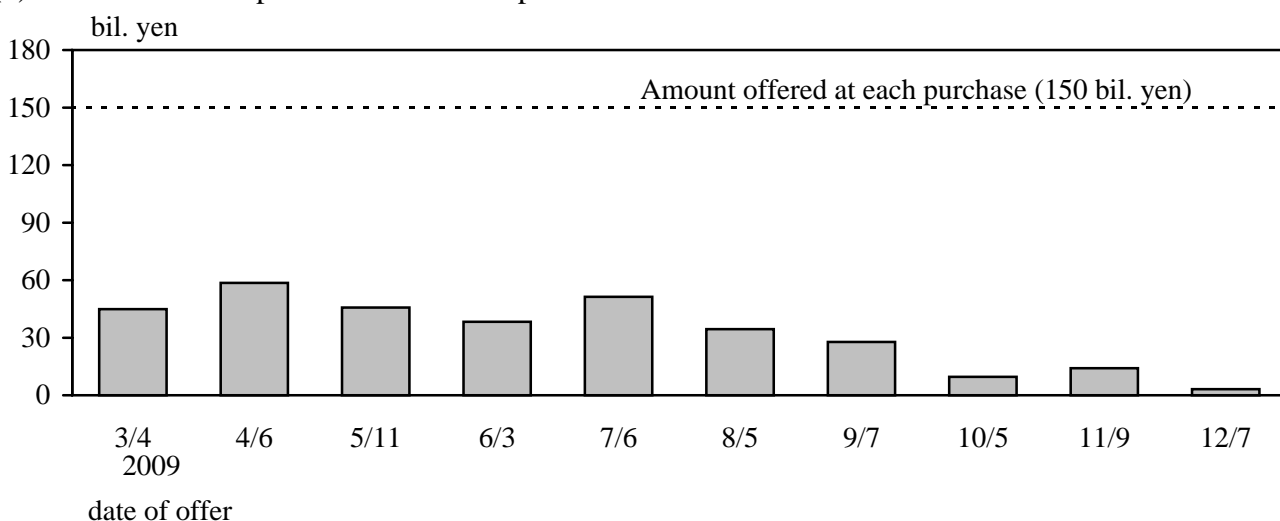
(1) Spread for Corporate Bonds (5-Year)<sup>1,2</sup>



(2) Amount Outstanding of CP and Corporate Bonds



(3) Amounts of Competitive Bids for Corporate Bond Purchases



Notes: 1. The spread for corporate bonds is the corporate bond yield minus the government bond yield.  
 2. The indicated ratings of corporate bonds are of R&I.

Sources: Bank of Japan; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.

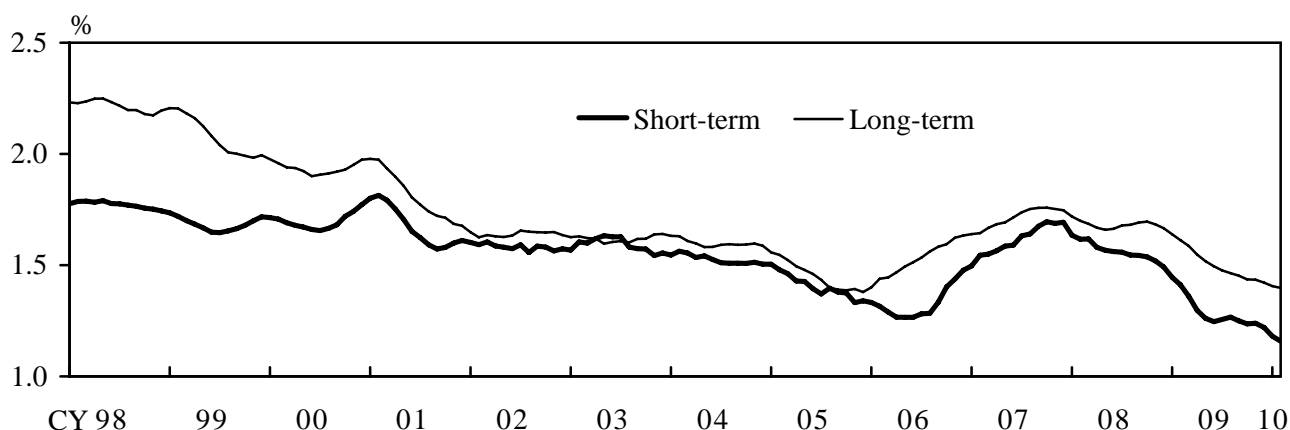
## Measures by the Bank of Japan to Facilitate Corporate Financing

<p><u>Outright purchases of CP and ABCP</u></p> <ul style="list-style-type: none"> <li>• CP and ABCP that are eligible as the Bank's collateral, a-1 rated, and with a residual maturity of up to 3 months. The outstanding amount of CP (including ABCP) purchased by the Bank shall not exceed 3 trillion yen.</li> <li>• Peak of amount outstanding: 1.6 trillion yen as of Mar. 2009</li> </ul>	<p>Introduction: Jan. 2009 Completion: Dec. 2009</p>
<p><u>Outright purchases of corporate bonds</u></p> <ul style="list-style-type: none"> <li>• Corporate bonds that are eligible as the Bank's collateral, A rated or higher, and with a residual maturity of up to 1 year. The outstanding amount of corporate bonds purchased by the Bank shall not exceed 1 trillion yen.</li> <li>• Peak of amount outstanding: 0.3 trillion yen as of Sep. 2009</li> </ul>	<p>Introduction: Feb. 2009 Completion: Dec. 2009</p>
<p><u>Special funds-supplying operations to facilitate corporate financing</u></p> <ul style="list-style-type: none"> <li>• Operations that provide funds at a fixed rate (0.1 percent) for an unlimited amount against the value of corporate debt pledged to the standing pool of eligible collateral.</li> <li>• Peak of amount outstanding: 7.5 trillion yen as of Mar. 2009</li> </ul>	<p>Introduction: Dec. 2008 Completion: Mar. 2010</p>
<p><u>Expansion in the range of corporate debt as eligible collateral</u></p> <ul style="list-style-type: none"> <li>• Easing the criteria on credit ratings from "A-rated or higher" to "BBB-rated or higher."</li> <li>• Amount outstanding: 9.3 trillion yen as of the end of Mar. 2010 -- 3.9 trillion yen as of the end of Nov. 2008</li> </ul>	<p>Introduction: Dec. 2008 Valid through: Dec. 2010</p>



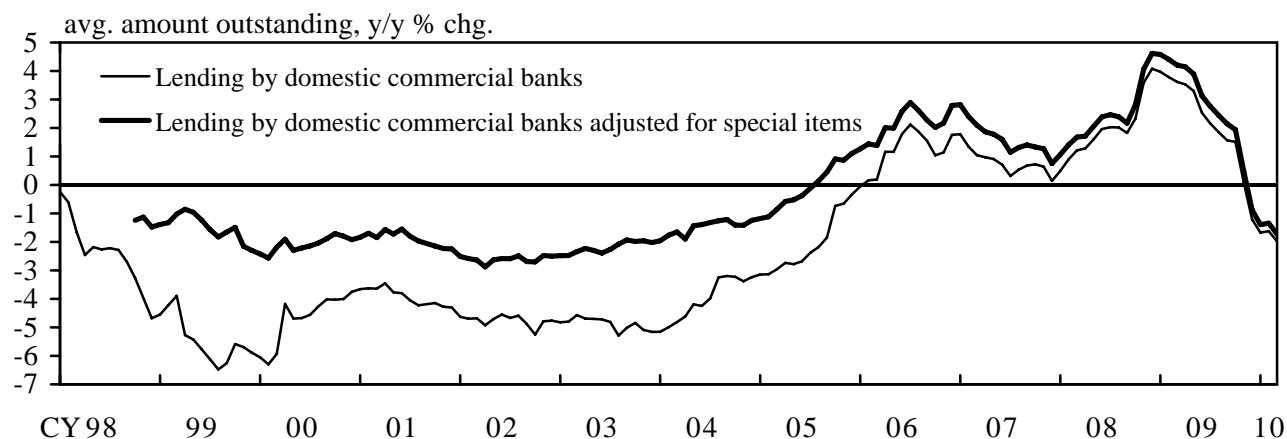
## Bank Lending and Money Stock

### (1) Average Contracted Interest Rates on New Loans and Discounts



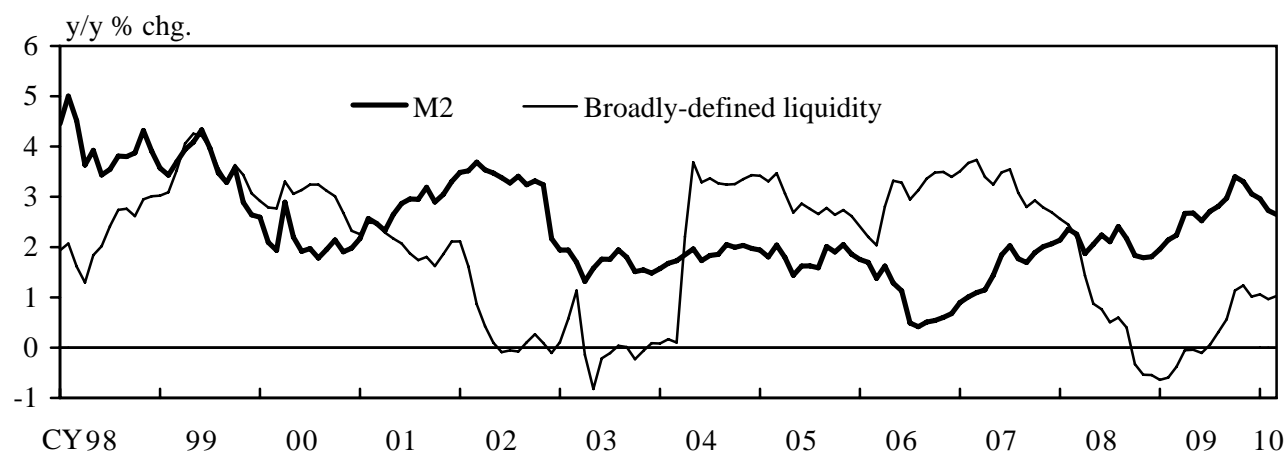
Note: Figures are the six-month backward moving average.

### (2) Lending by Domestic Commercial Banks



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

### (3) Money Stock



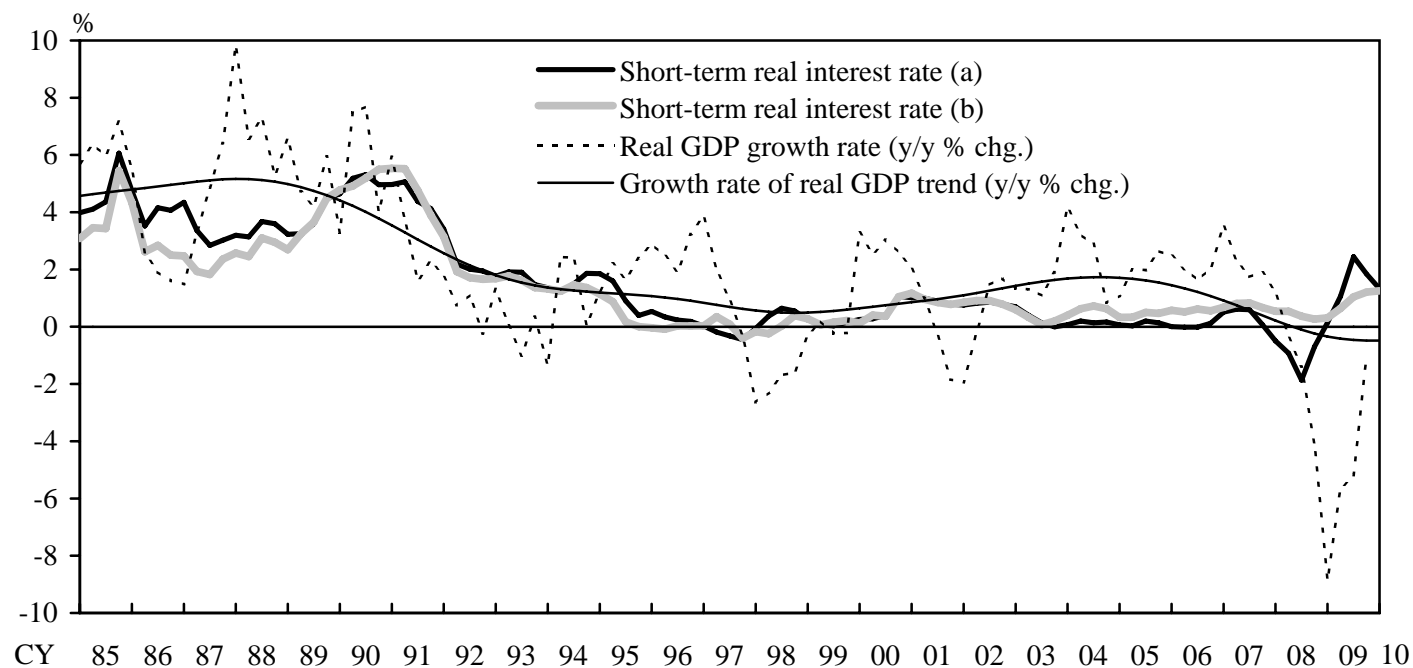
Notes: 1. Figures for M2 up to March 2004 are the former series of the figures for M2+CDs.

2. Figures for broadly-defined liquidity up to March 2004 are the former series of the figures for broadly-defined liquidity, subtracting the figures for repurchase agreements and those for securities lending with cash collateral transactions.

Source: Bank of Japan, "Principal Figures of Financial Institutions," "Money Stock," "Average Contracted Interest Rates on Loans and Discounts."

## Interest Rates and Economic Activity

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

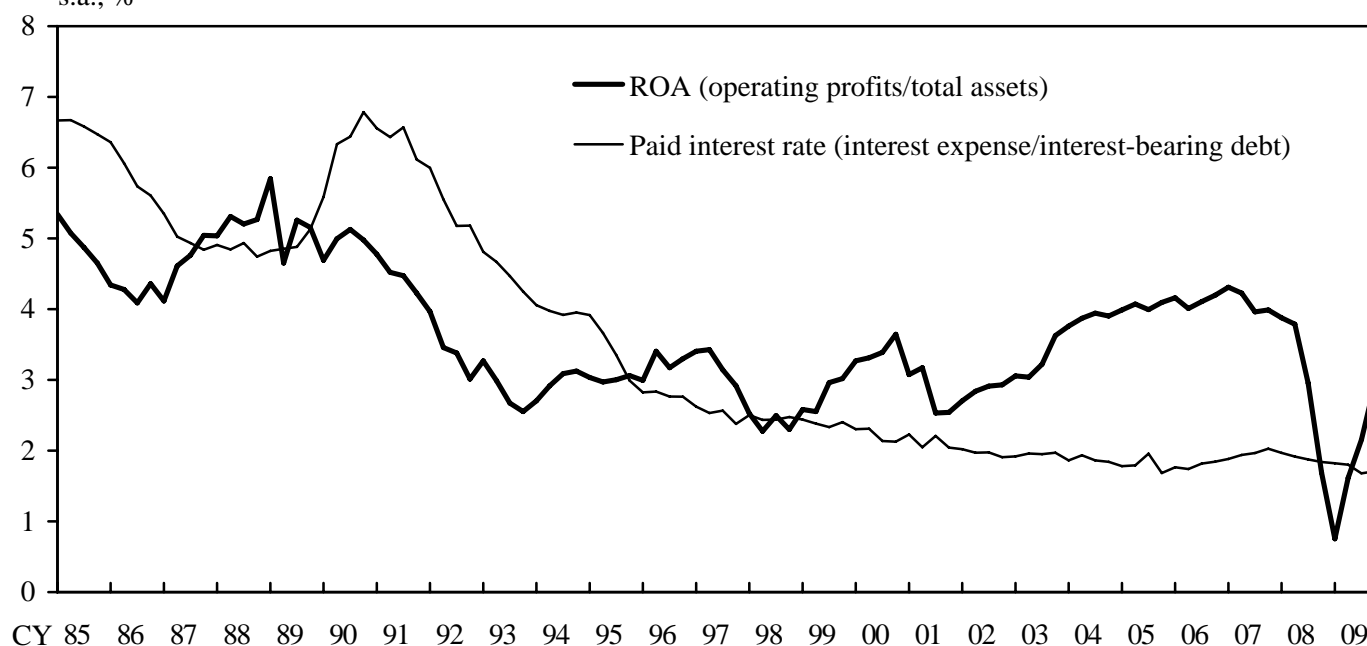


- Notes: 1. Short-term real interest rate (a) = call rate (overnight, uncollateralized) - y/y % chg. in the CPI (excluding fresh food)  
 2. Short-term real interest rate (b) = call rate (overnight, uncollateralized) - y/y % chg. in the CPI (excluding food [alcoholic beverages are excluded from food] and energy)  
 3. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.  
 4. Real GDP trend is calculated by applying the HP filter.

### (2) ROA and Paid Interest Rate

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

s.a., %



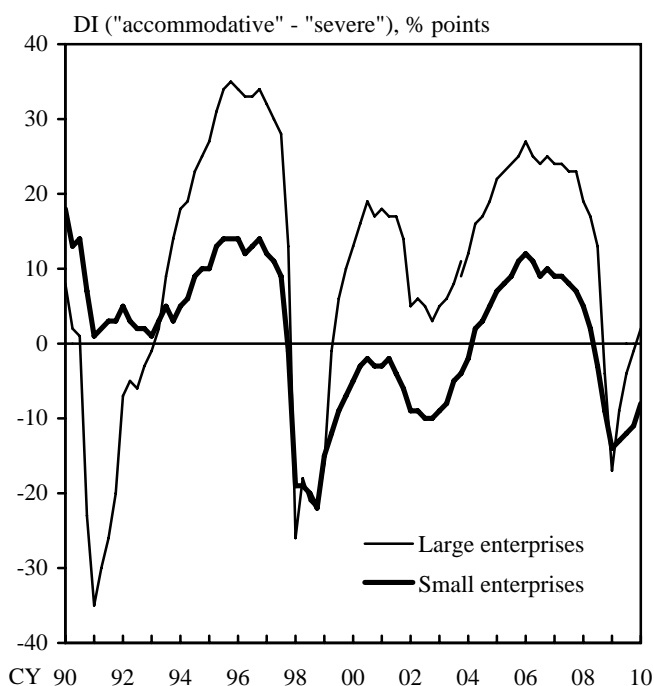
Note: Interest-bearing debt = long- and short-term borrowings + corporate bonds + bills receivable discounted outstanding

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.

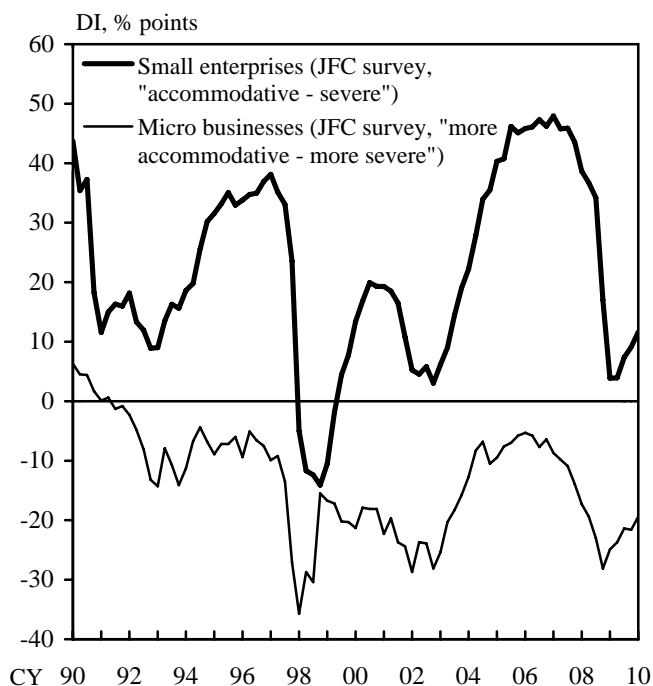
## Corporate Finance-Related Indicators

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

(a) *Tankan*

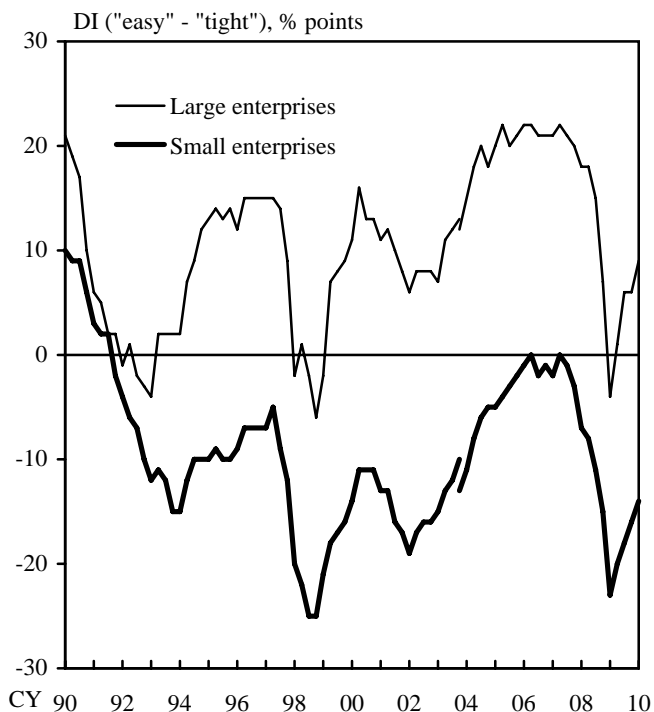


(b) Other Surveys

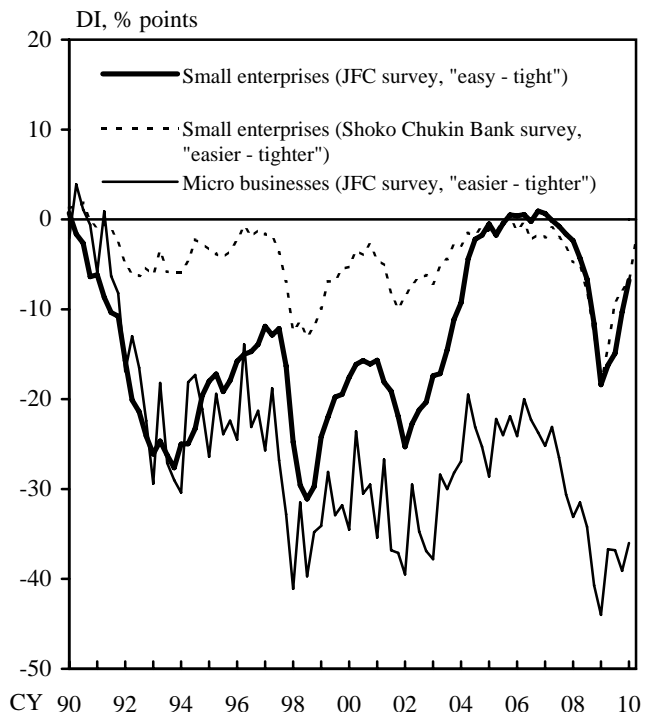


### (2) Financial Position

(a) *Tankan*



(b) Other Surveys



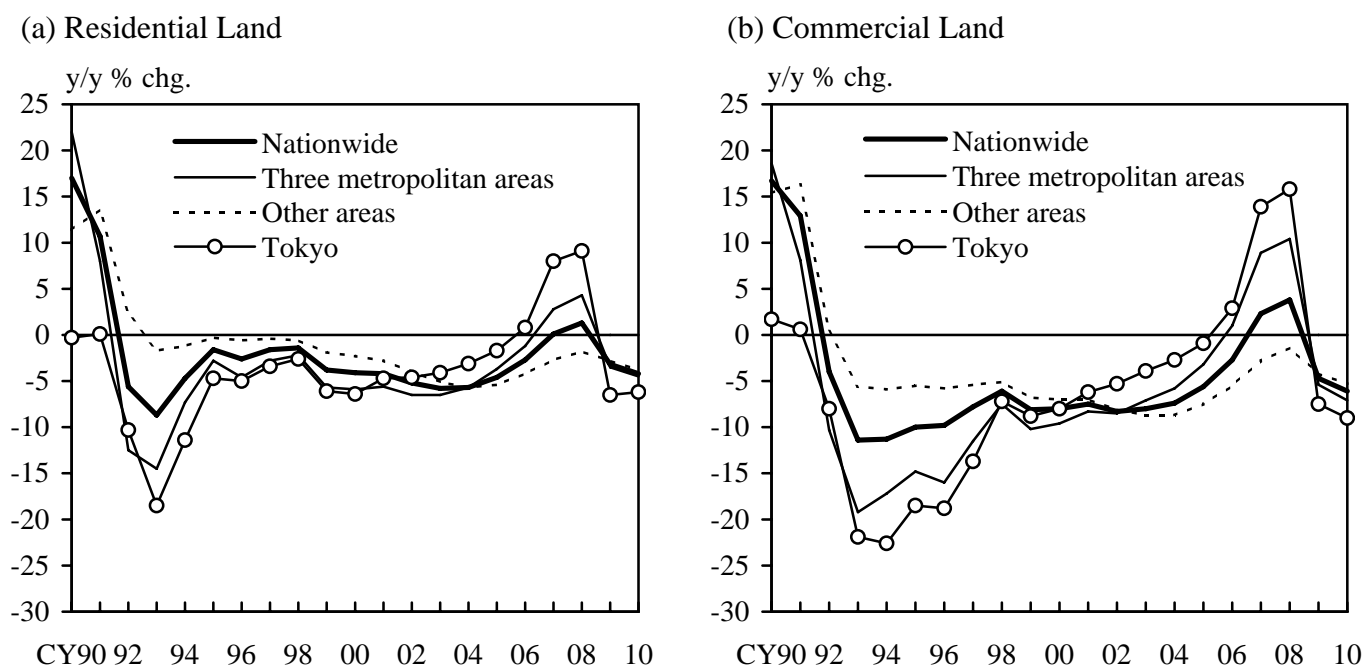
Note: Data of the *Tankan* are based on all industries. The *Tankan* has been revised from the March 2004 survey.

Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on a new basis.

Sources: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Shoko Chukin Bank, Ltd., "Business Survey Index for Small and Medium-Sized Businesses"; Japan Finance Corporation (JFC), "Monthly Survey of Small Businesses in Japan," "Quarterly Survey of Small Businesses in Japan (For Micro Businesses)."

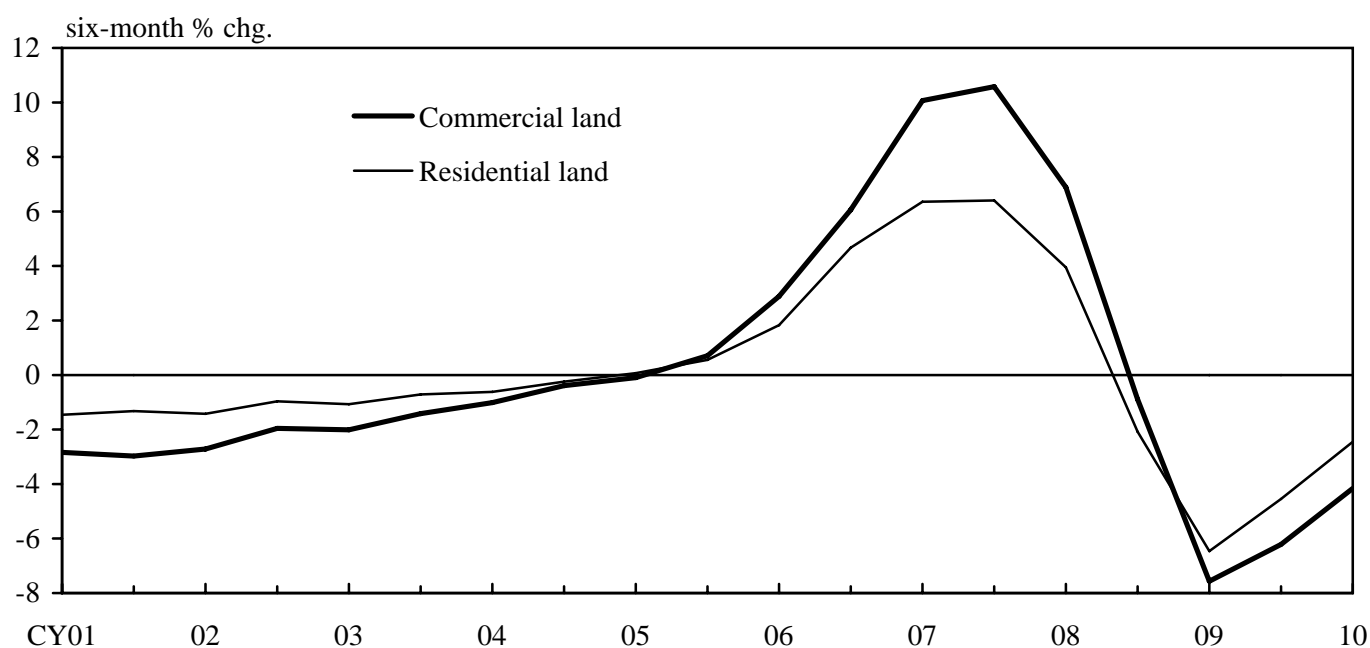
## Land Prices

### (1) Land Price Publication (As of January 1)



Note: Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures), and the Nagoya area (Aichi and Mie prefectures). Other areas: Other than the three metropolitan areas.

### (2) Land Prices in 23 Wards of Tokyo

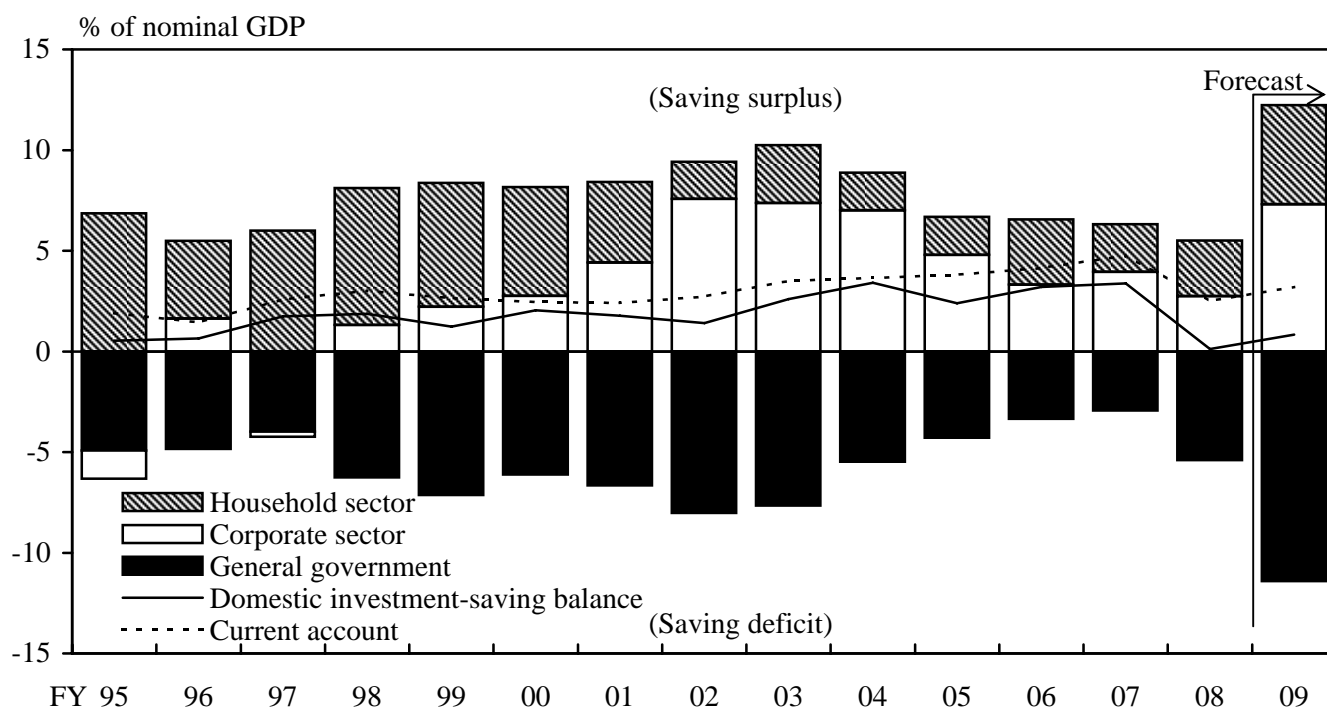


Note: Figures in the chart are six-month percentage change in land prices available in both "Land Price Publication" and "Prefectural Land Price Survey" (as of July 1) (residential: 52 points, commercial: 40 points).

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

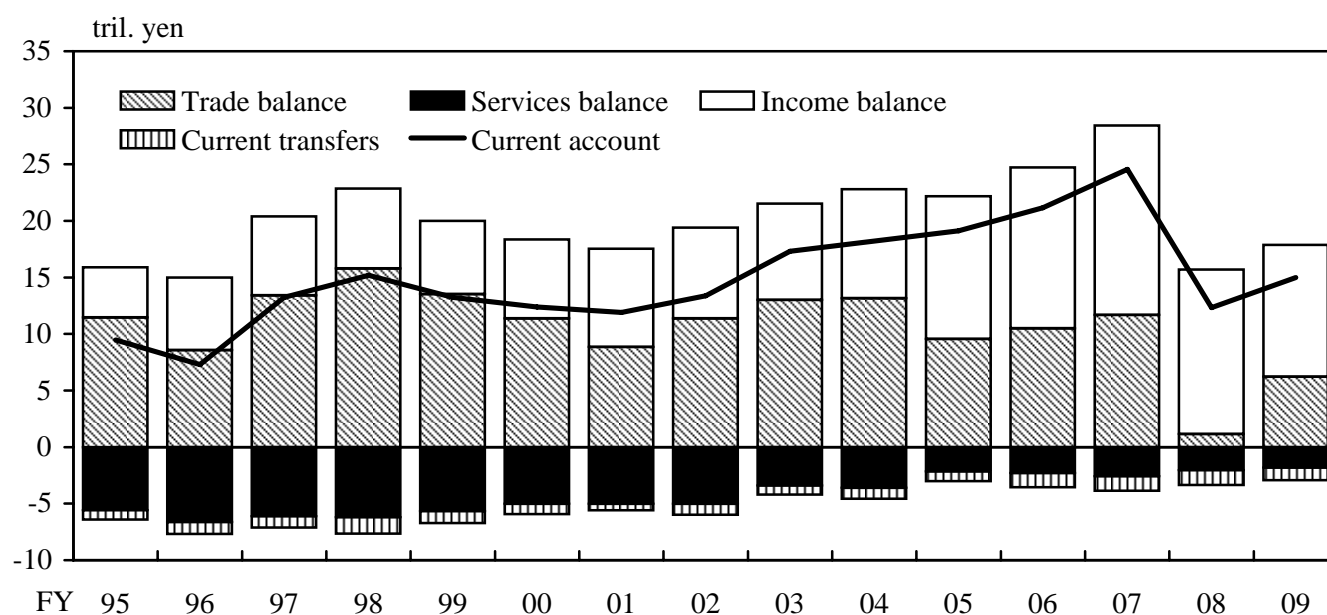
## Investment-Saving Balance

## (1) Investment-Saving Balance



Note: The forecast is made by the Research and Statistics Department, Bank of Japan. For the forecasting procedure, see Chart 25 in "Outlook for Economic Activity and Prices" (April 2009). "The Medium- to Long-Term Projections for Comparative Analysis of Alternative Economic Scenarios and Fiscal Assumptions" is referred to for the general government, and nominal disposal income estimated in Chart 44 is used for the household sector.

## (2) Current Account

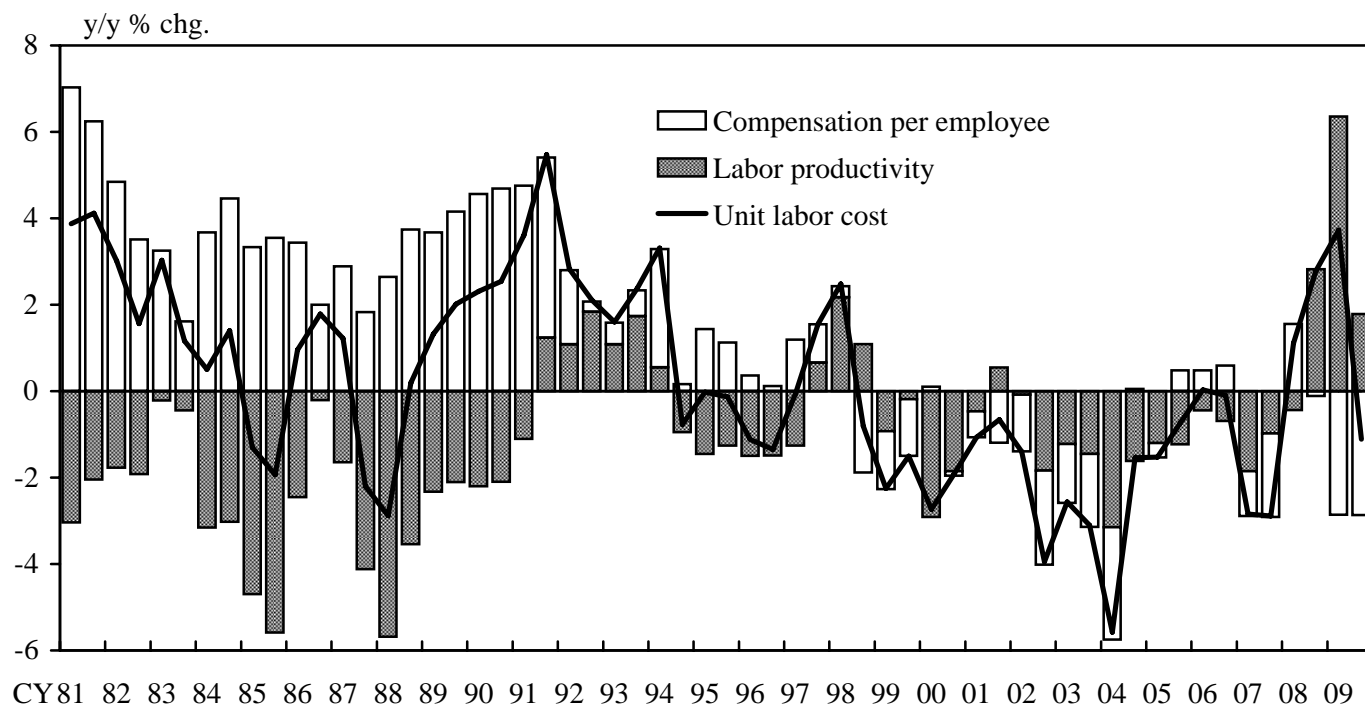


Note: Figures for fiscal 2009 are calculated by use of the average year-on-year rate of change in the period from April 2009 to February 2010.

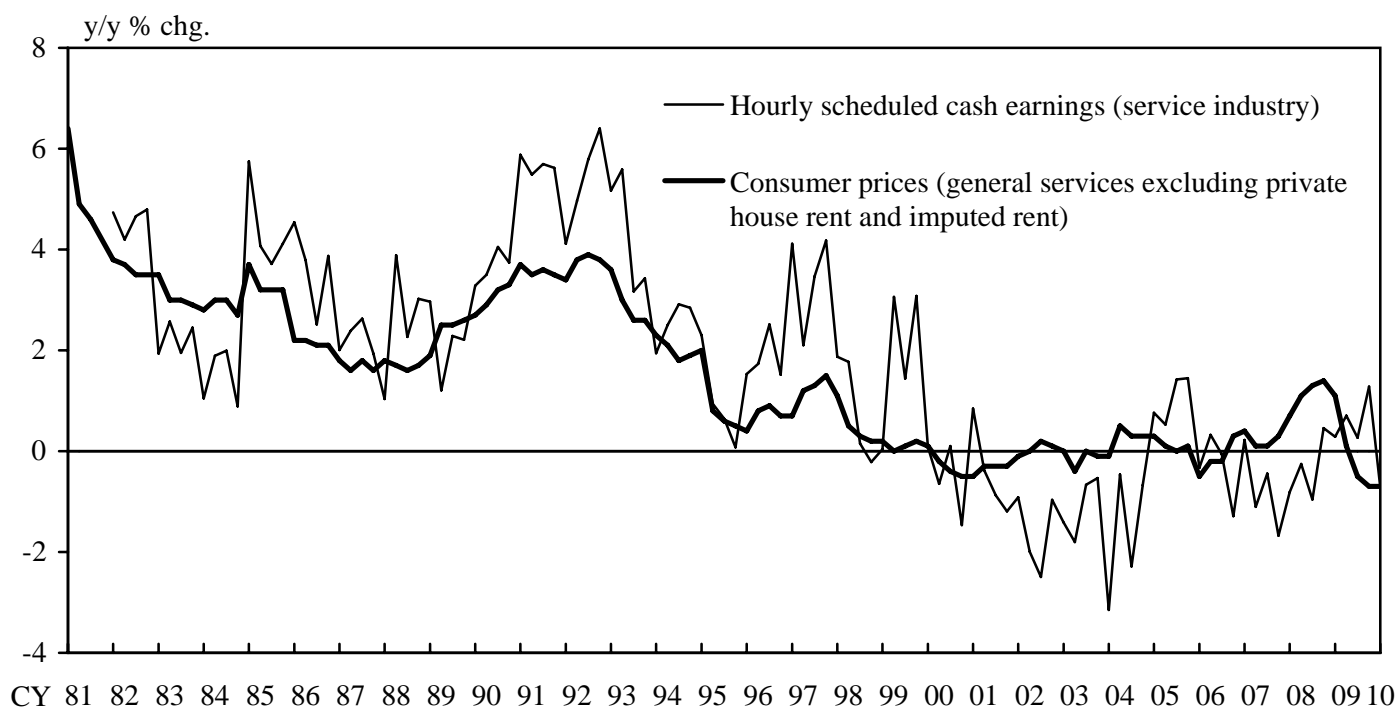
Sources: Cabinet Office, "National Accounts," "The Medium- to Long-Term Projections for Comparative Analysis of Alternative Economic Scenarios and Fiscal Assumptions"; Ministry of Finance and Bank of Japan, "Balance of Payments."

## Wages and Prices

### (1) Unit Labor Cost



### (2) Service Prices and Wages<sup>1,2</sup>



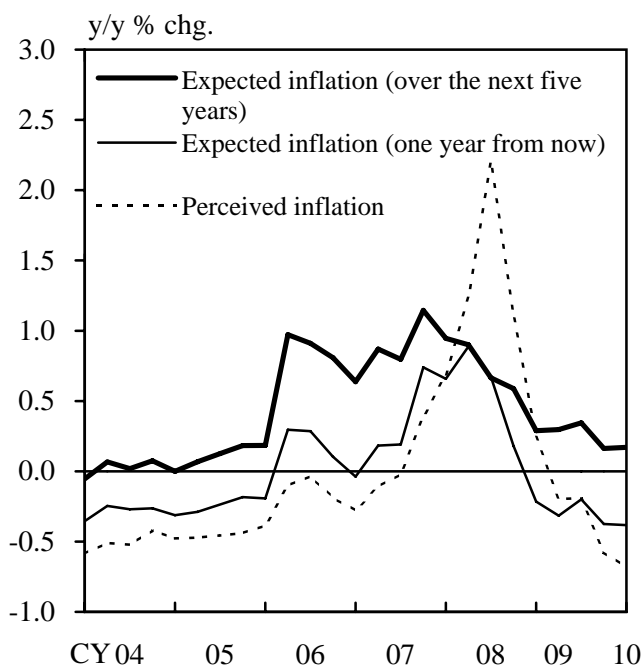
Notes: 1. Wages are the sum of wages in "eating and drinking places" and "services" of the previous industrial classification up to 2000. From 2001, they include "eating and drinking places, accommodations," "medical, health care and welfare," "education, learning support," "compound services," and other services. Data are for establishments with at least 30 employees.

2. Figures for 2010/Q1 are the January-February averages.

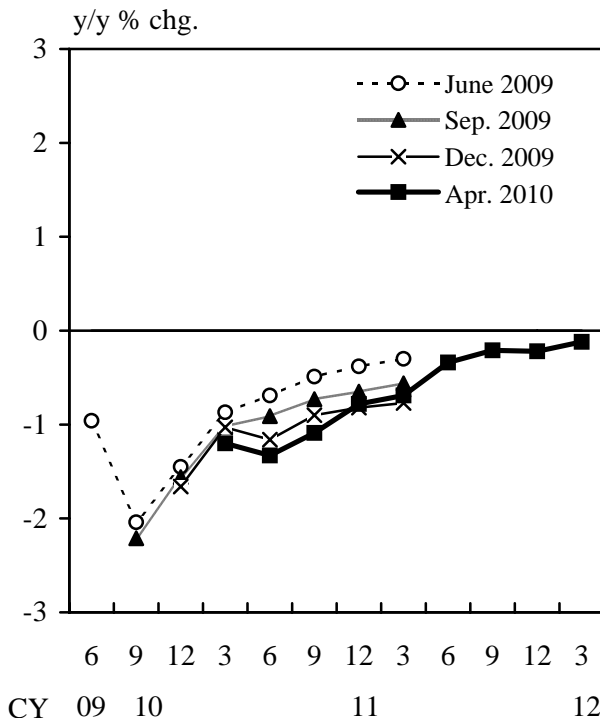
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey," "Consumer Price Index."

## Inflation Expectations

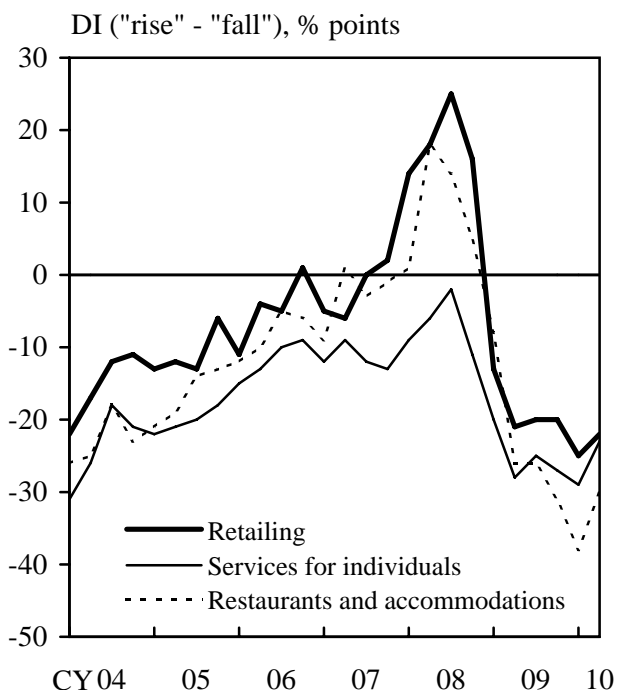
(1) Households<sup>1</sup>



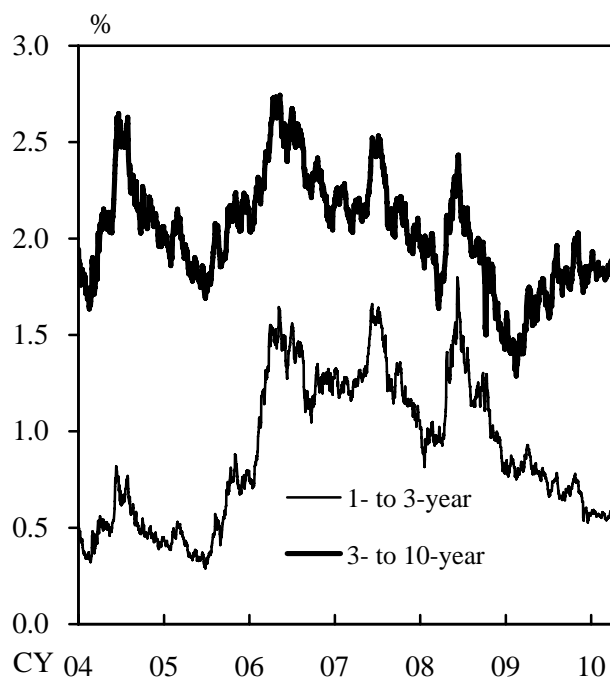
(2) Economists (ESP Forecast)<sup>2</sup>



(3) Firms (*Tankan*)<sup>3</sup>



(4) Implied Forward Rates<sup>4</sup>



Notes: 1. Figures are estimated based on the results of "Opinion Survey on the General Public's Views and Behavior," using a modified Carlson-Parkin method. For details, see Sekine, Yoshimura, and Wada (2008), "On Inflation Expectations," Bank of Japan Review Series, 2008-J-15 (available in Japanese only).

2. Figures are the average of economists' projections in the ESP Forecast for the year-on-year CPI inflation rate.

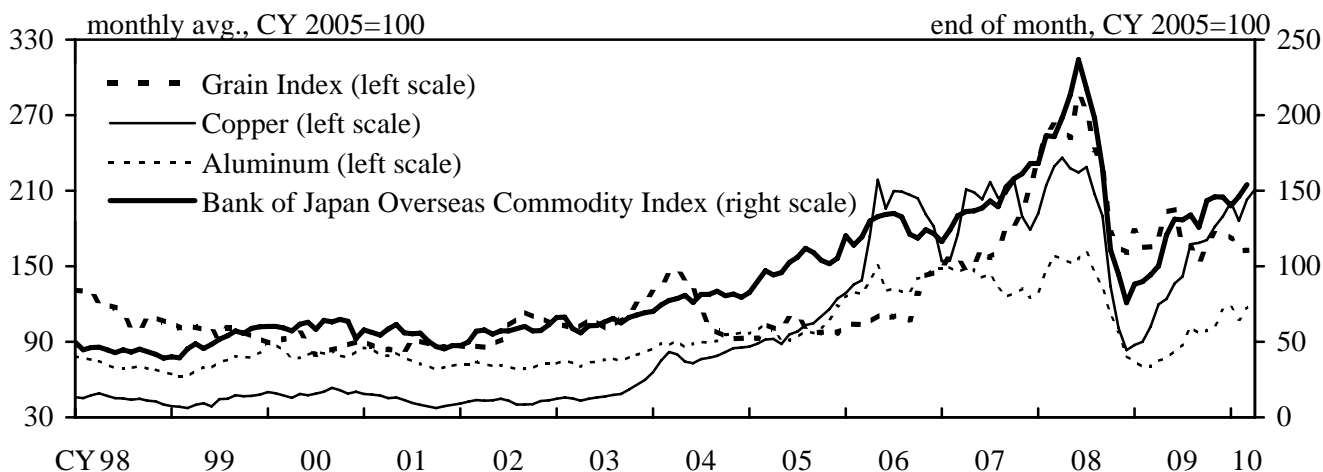
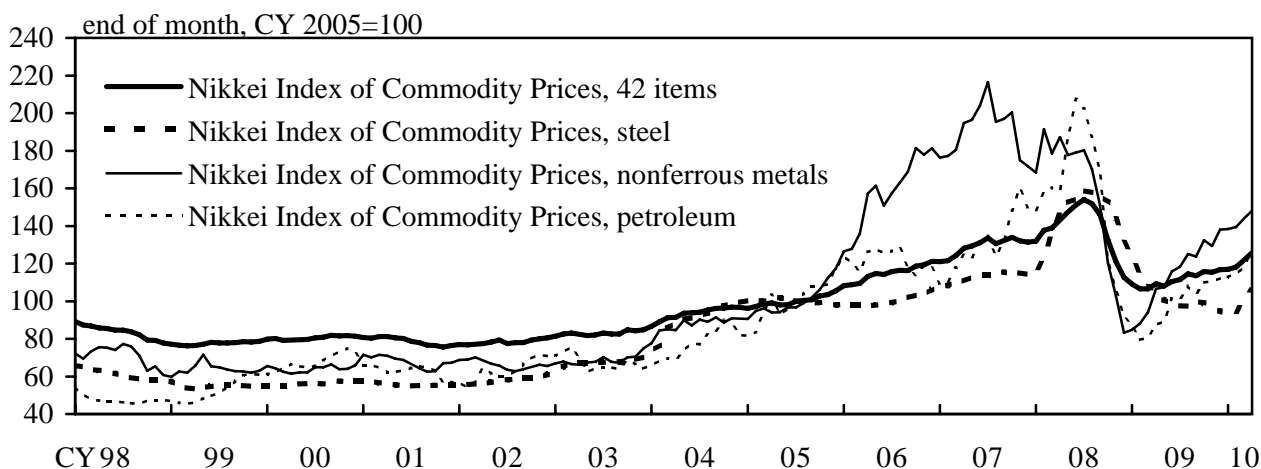
3. Change in output prices of all-size enterprises (forecasts of one quarter ahead) in the *Tankan*.

4. Figures are calculated from yen-yen swap rates.

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

## Commodity Prices

## (1) Oil Prices

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

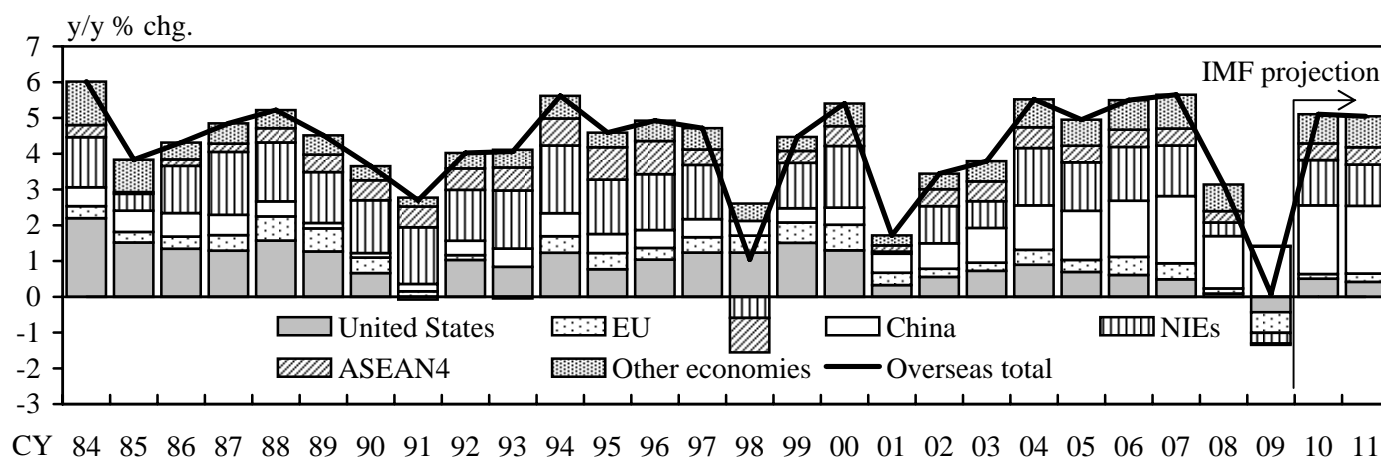
- Notes: 1. The Grain Index is the weighted average of prices of three selected items (wheat, soybeans, and corn) in overseas commodity markets. The weights are based on the value of imports in the Trade Statistics of Japan.
2. Steel: steel bars, H sections, steel plates, etc. Nonferrous metals: unwrought copper, unwrought aluminum, etc. Petroleum: gasoline, kerosene, gas oil, fuel oil C.

Sources: Bank of Japan, "Bank of Japan Overseas Commodity Index"; Nikkei Inc., etc.



## Overseas Economies

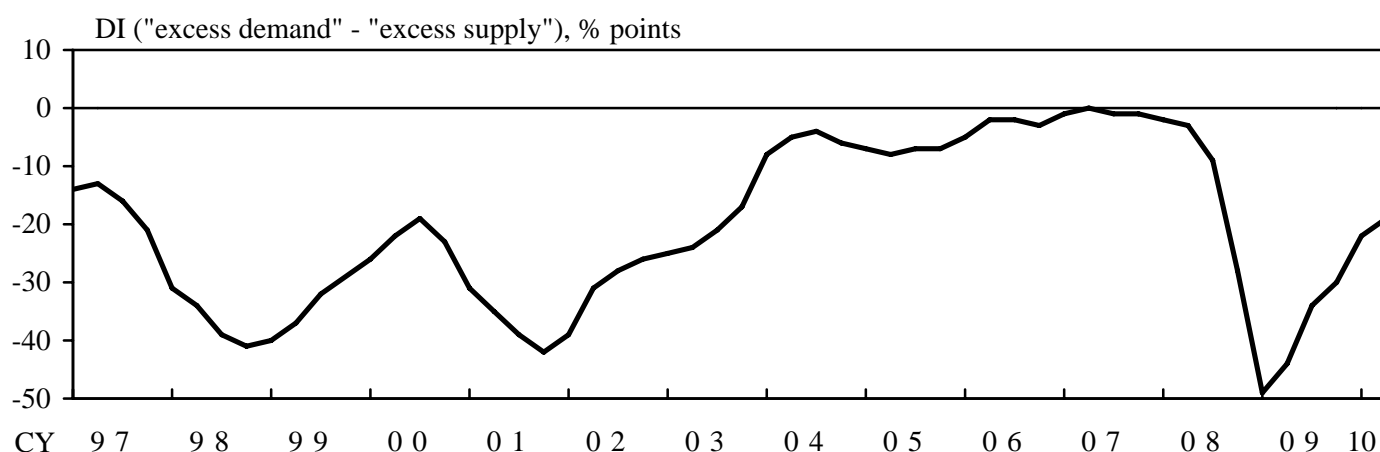
(1) Real GDP Growth Rates of Overseas Economies<sup>1</sup>



(2) Percentage Shares of the Number of Economies Recording Positive Real GDP Growth



(3) Overseas Supply and Demand Conditions for Products DI<sup>2,3</sup>



Notes: 1. Real GDP growth rate of the overseas total is the weighted average of real GDP growth rates by values of exports from Japan to each economy.

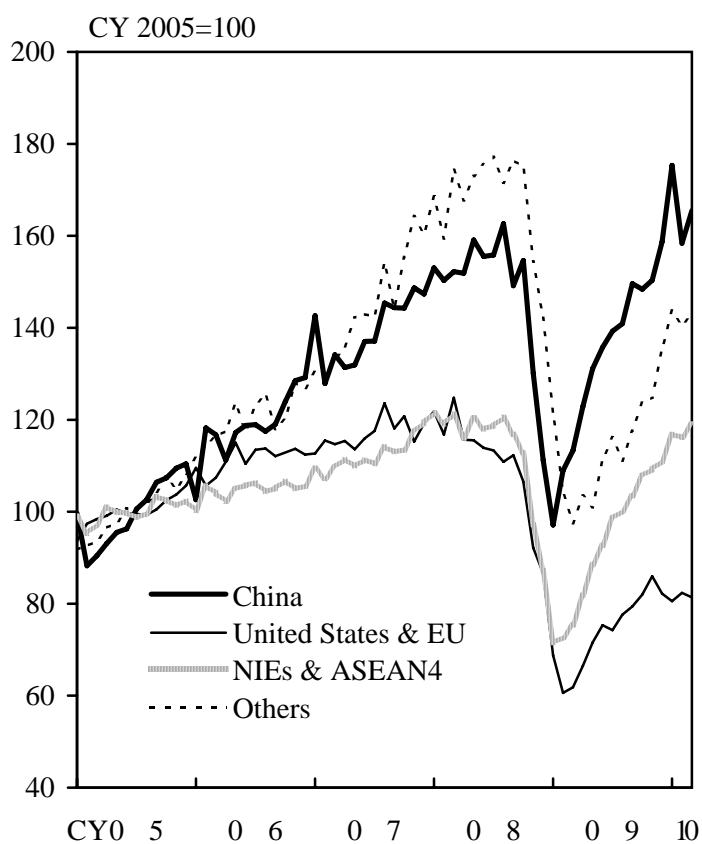
2. Figures of the DI are based on all-size enterprises and all industries.

3. Figures of the DI for 2010/Q2 are the forecasts in the March 2010 survey.

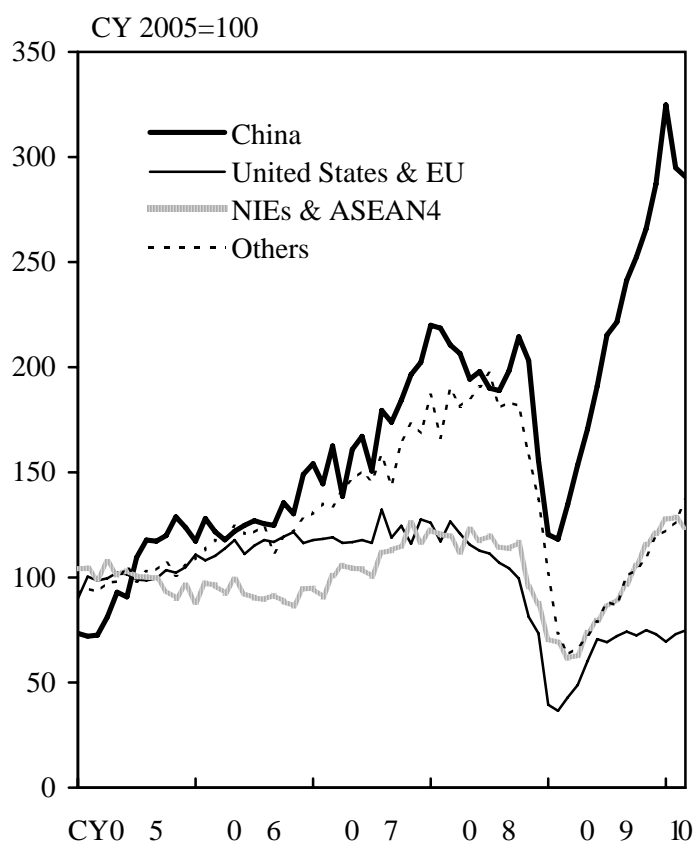
Sources: IMF, "World Economic Outlook"; Ministry of Finance, "Trade Statistics"; Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

## Real Exports by Region

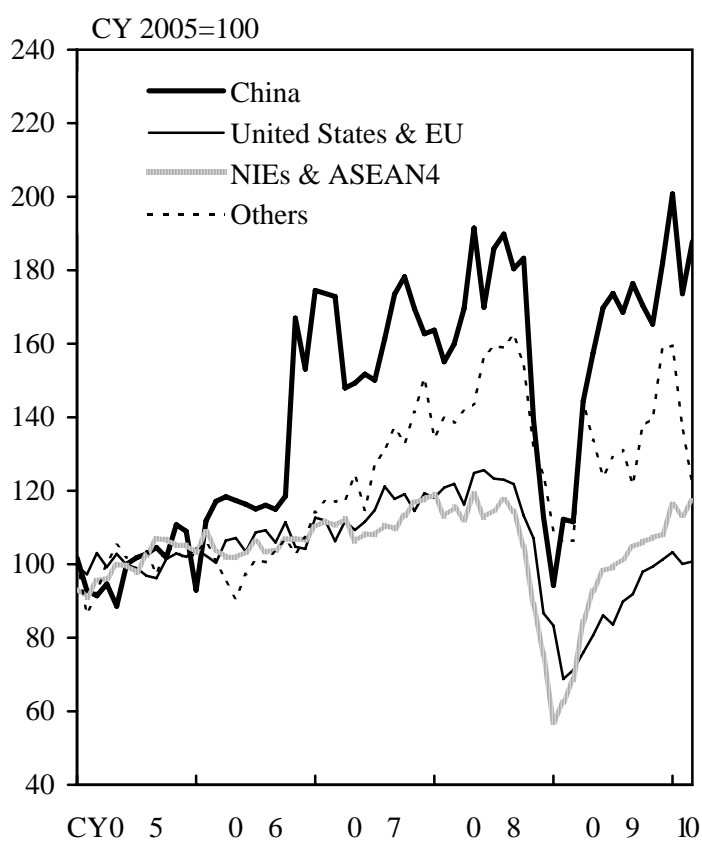
(1) All Goods



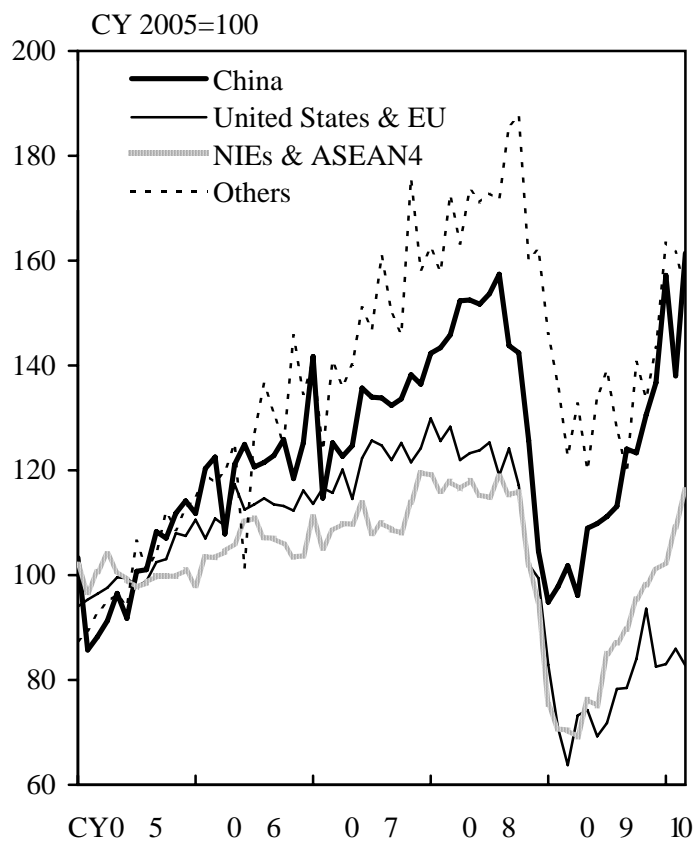
(2) Motor Vehicles and their Related Goods



(3) IT-Related Goods

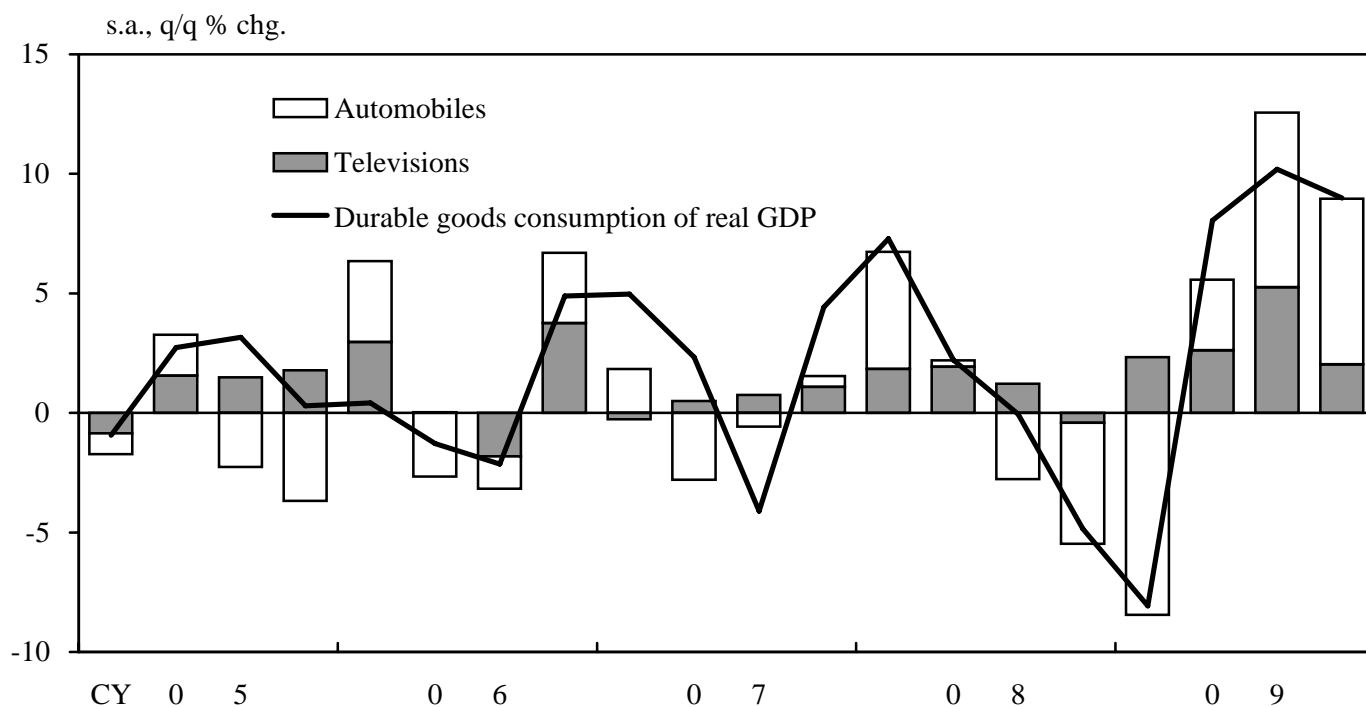


(4) Capital Goods and Parts



## Durable Goods Consumption

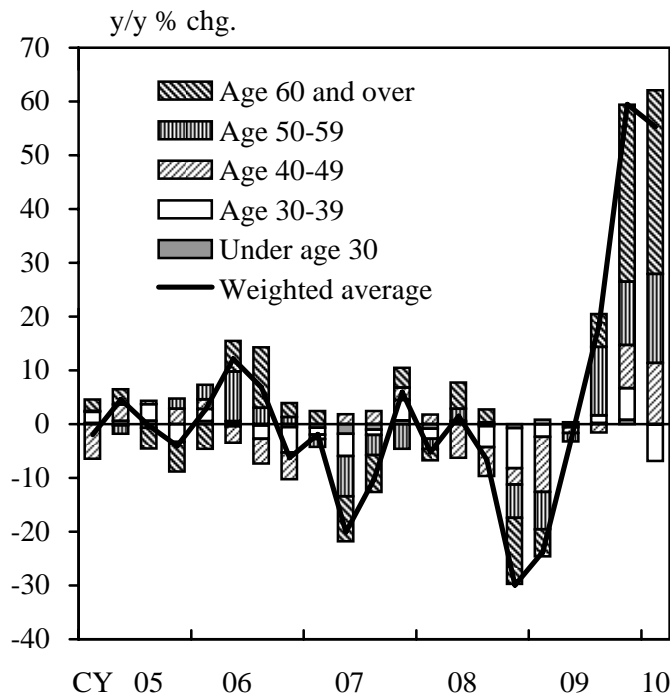
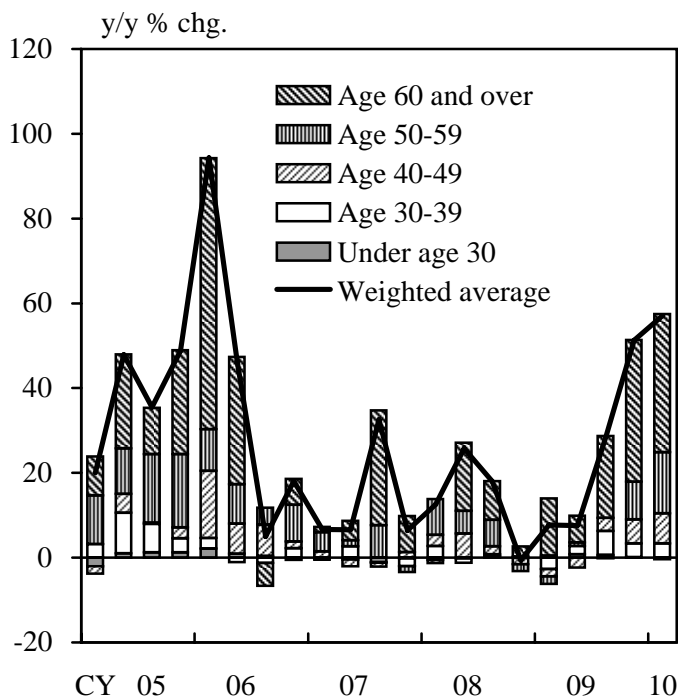
(1) Breakdown of Real Durable Goods Consumption<sup>1</sup>



(2) Consumption Expenditure on Televisions and Automobiles by Age Group<sup>2</sup>

(a) Televisions

(b) Automobiles



Notes: 1. Contributions of televisions and automobiles in real durable goods consumption are estimated as follows:  
 (1) real consumption expenditures on these goods are estimated based on the estimation method of GDP statistics;  
 and (2) their contributions to the total are approximated by the use of weights of final consumption expenditure by items calculated with "Closing Stocks of Major Consumer Durables for the Households" in the National Accounts.  
 2. Age groups are based on two-or-more-person households. Figures for 2010/Q1 are the January-February averages.

Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index," "Survey of Household Economy"; Ministry of Economy, Trade and Industry, "Current Survey of Production"; Ministry of Finance, "Trade Statistics"; JEITA, "Domestic Shipments of Major Consumer Electronic Equipment."

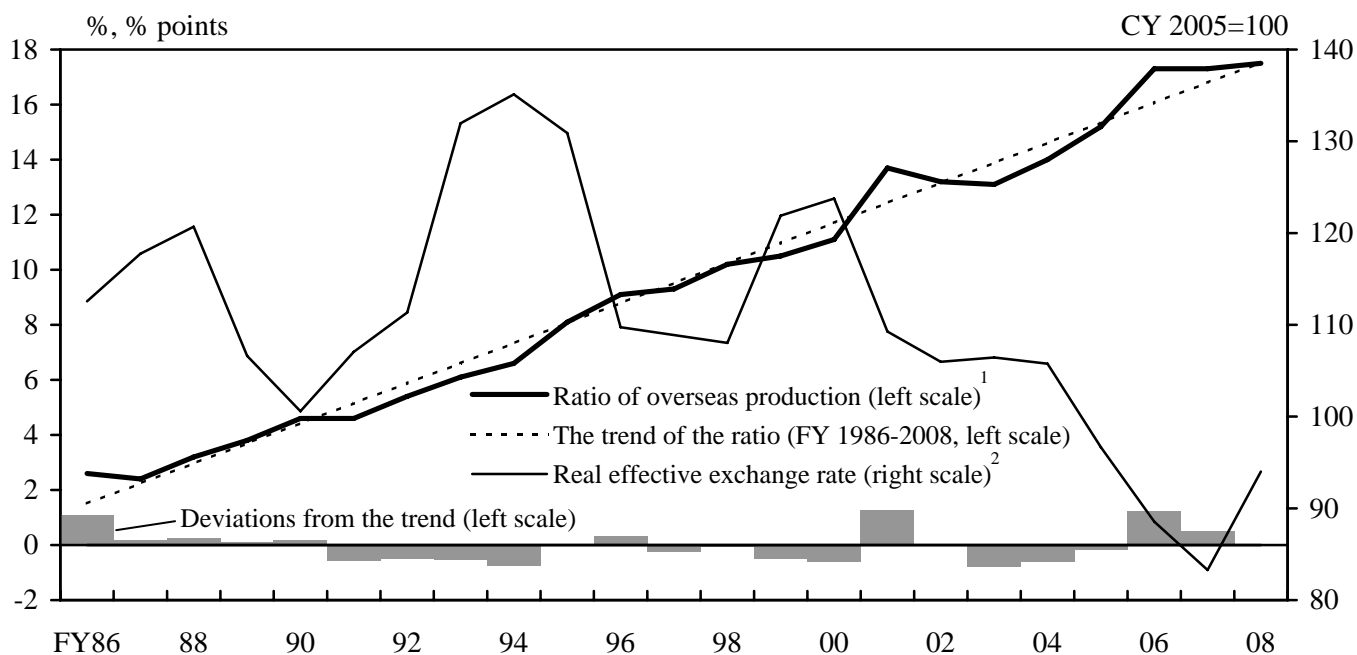
## Overseas Production

(1) Ratios of Overseas Business Fixed Investment by Manufacturing Enterprises  
(Overseas Business Fixed Investment<sup>1</sup>/Domestic Business Fixed Investment<sup>2</sup>)

Notes: 1. Tangible fixed assets (excluding land) acquired by overseas subsidiaries of Japanese enterprises with capital stock of 100 million yen or more.

2. Taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly." Figures are based on all-size enterprises.

## (2) Ratios of Overseas Production by Manufacturing Enterprises and Exchange Rate



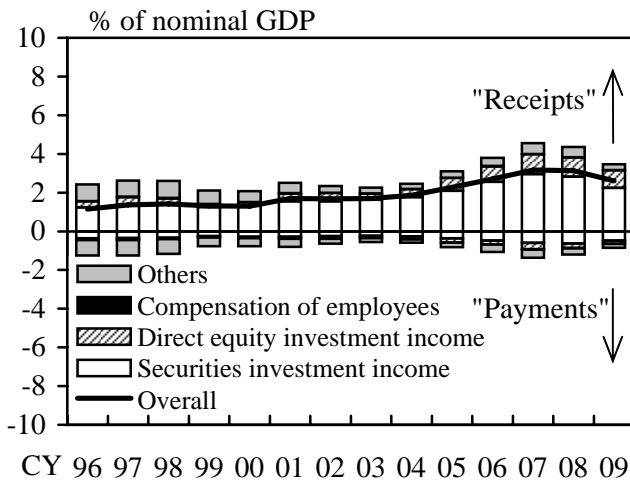
Notes: 1. Figure for fiscal 2008 is an estimate by responding companies.

2. Figures are based on the broad indices of the BIS effective exchange rate and prior to 1994 are calculated using the narrow indices.

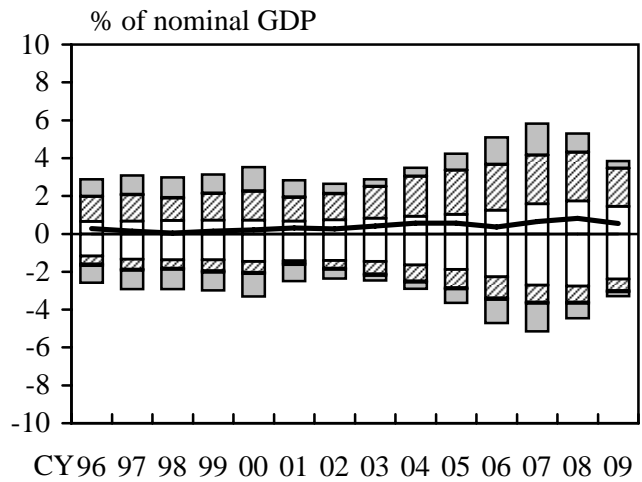
Sources: Ministry of Economy, Trade and Industry, "Quarterly Survey of Overseas Subsidiaries"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Cabinet Office, "Annual Survey of Corporate Behavior"; BIS, "Effective Exchange Rate Indices."

### Income Account

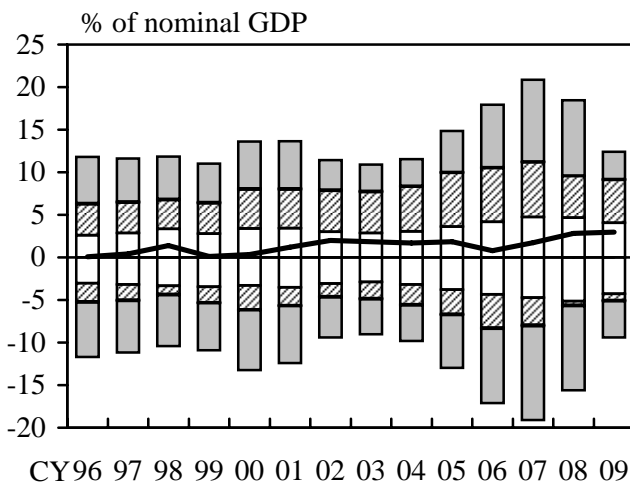
(1) Japan



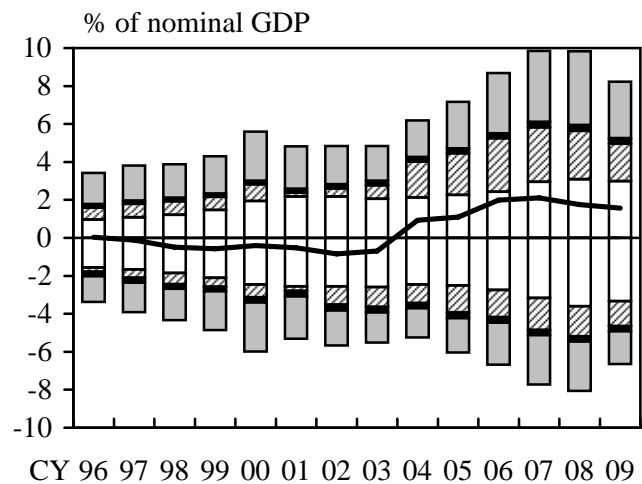
(2) United States<sup>1</sup>



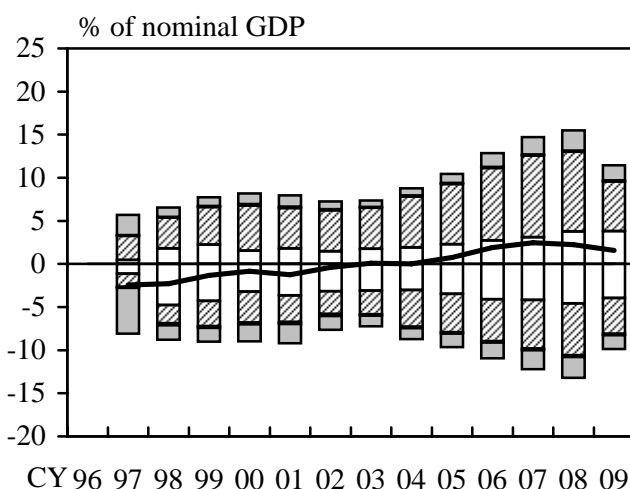
(3) United Kingdom<sup>1</sup>



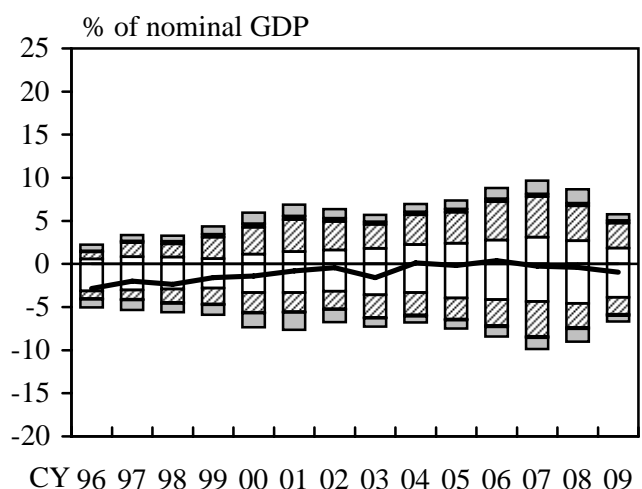
(4) Germany<sup>1</sup>



(5) Sweden<sup>1,2</sup>



(6) Finland<sup>1</sup>



Notes: 1. Figures for 2009 are calculated based on the annualized values of income accounts in 2009/Q1-Q3.

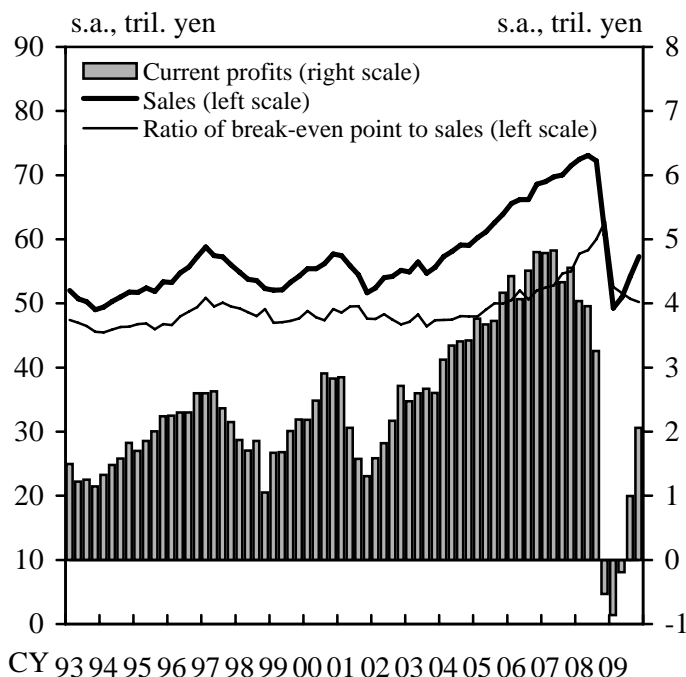
2. Figure of nominal GDP for 2009 is an estimate by IMF.

Sources: Cabinet Office, "National Accounts"; Ministry of Finance and Bank of Japan, "Balance of Payments"; IMF, "Balance of Payments Statistics," "World Economic Outlook."

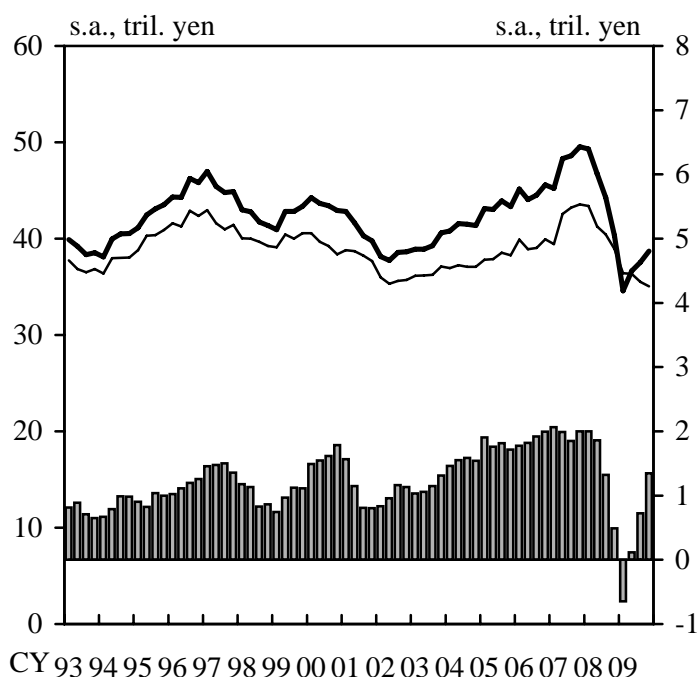
## Ratio of Break-Even Point to Sales and Current Profits

### (1) Manufacturing

#### (a) Large Enterprises

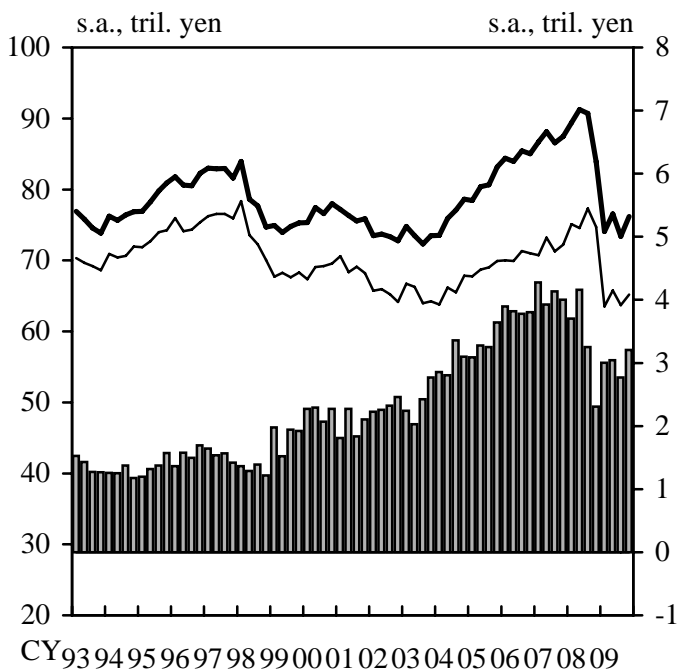


#### (b) Medium-Sized and Small Enterprises

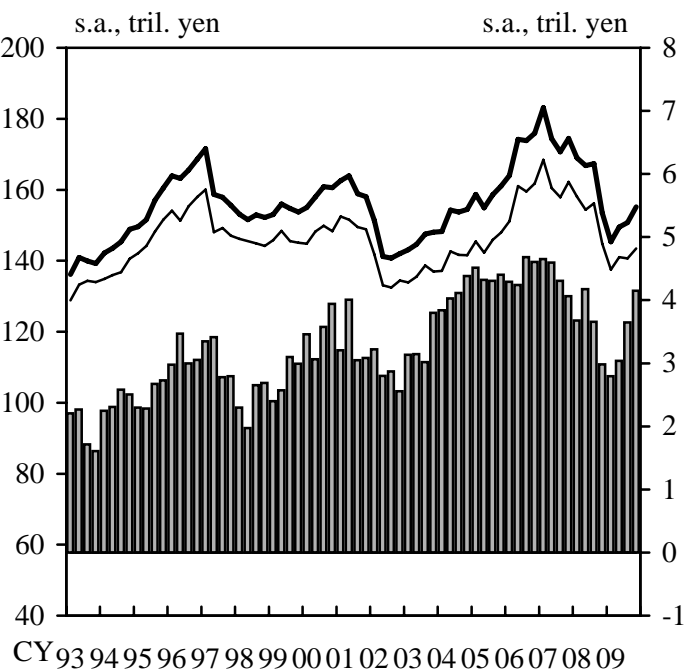


### (2) Nonmanufacturing

#### (a) Large Enterprises



#### (b) Medium-Sized and Small Enterprises



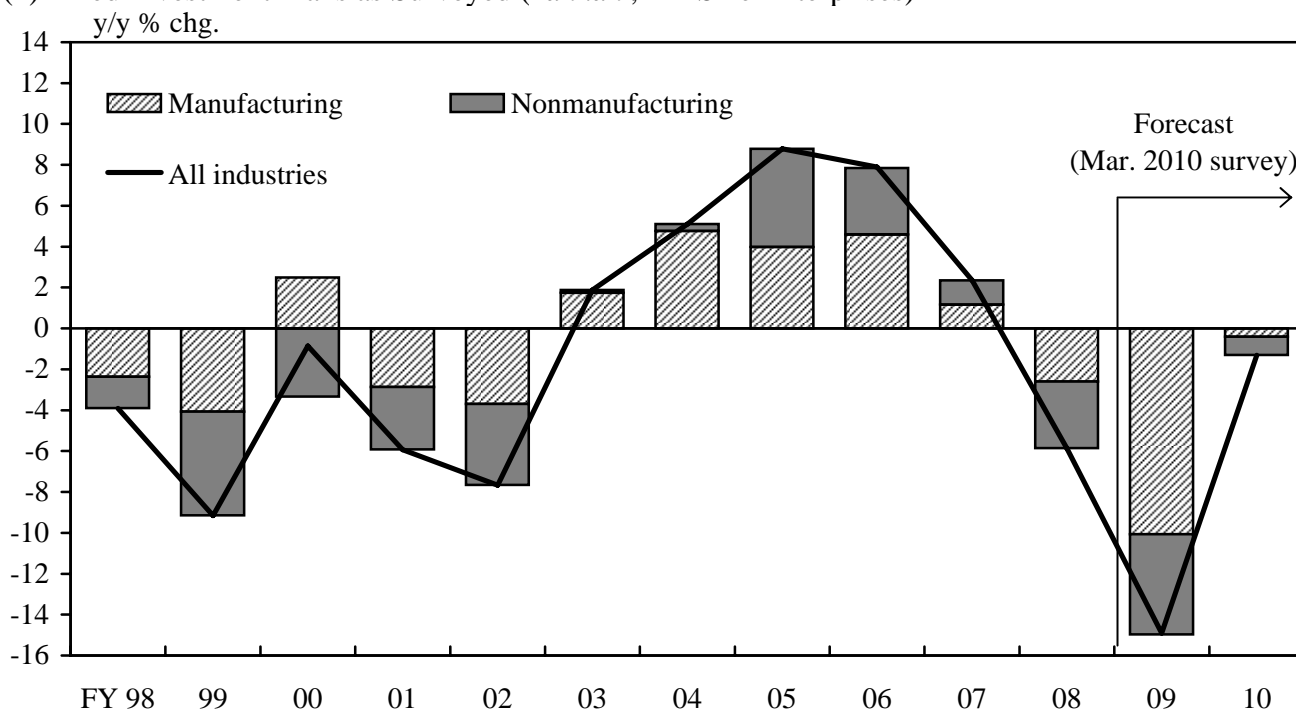
Notes: 1. For the particular definitions of figures, see Chart 32 in "Outlook for Economic Activity and Prices" (April 2009).

2. "Large enterprises" refers to enterprises with capital stock of 1 billion yen or more, and "medium-sized and small enterprises" refers to enterprises with capital stock of 10 million yen or more but less than 1 billion yen.

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

## Fixed Investment Plans

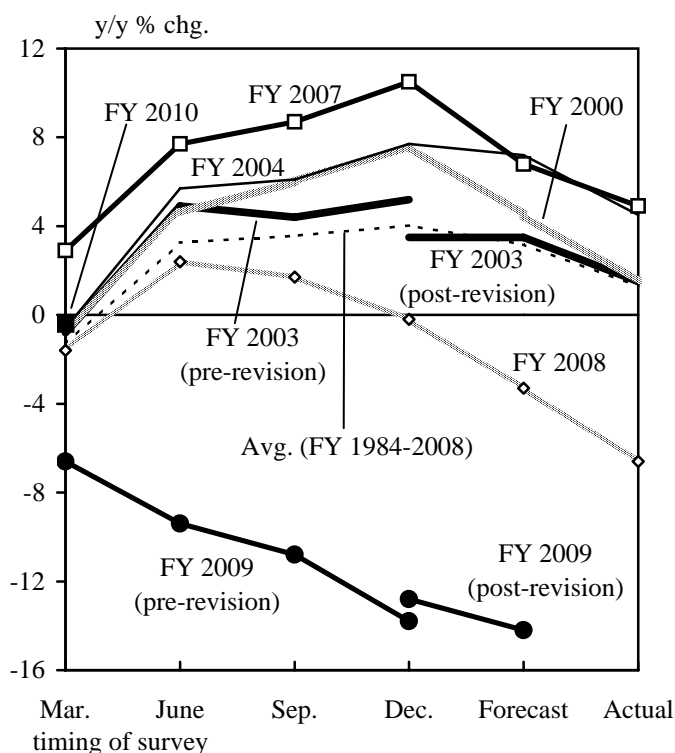
(1) Fixed Investment Plans as Surveyed (*Tankan*, All-Size Enterprises)



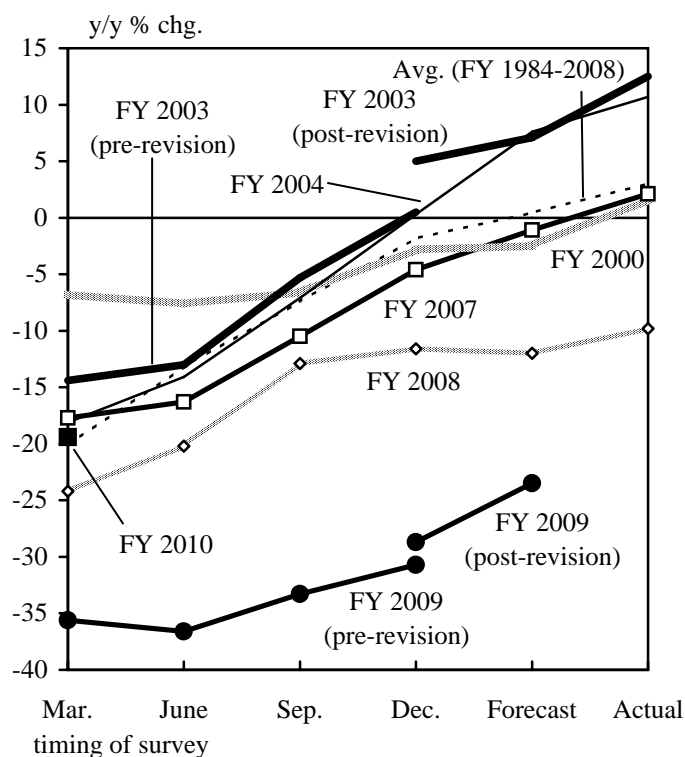
Note: Figures up to fiscal 2002 include land purchasing expenses and exclude software investment.  
 Figures from fiscal 2003 exclude land purchasing expenses and include software investment.

(2) Developments of Fixed Investment Plans (*Tankan*, All Industries)

(a) Large Enterprises



(b) Small Enterprises

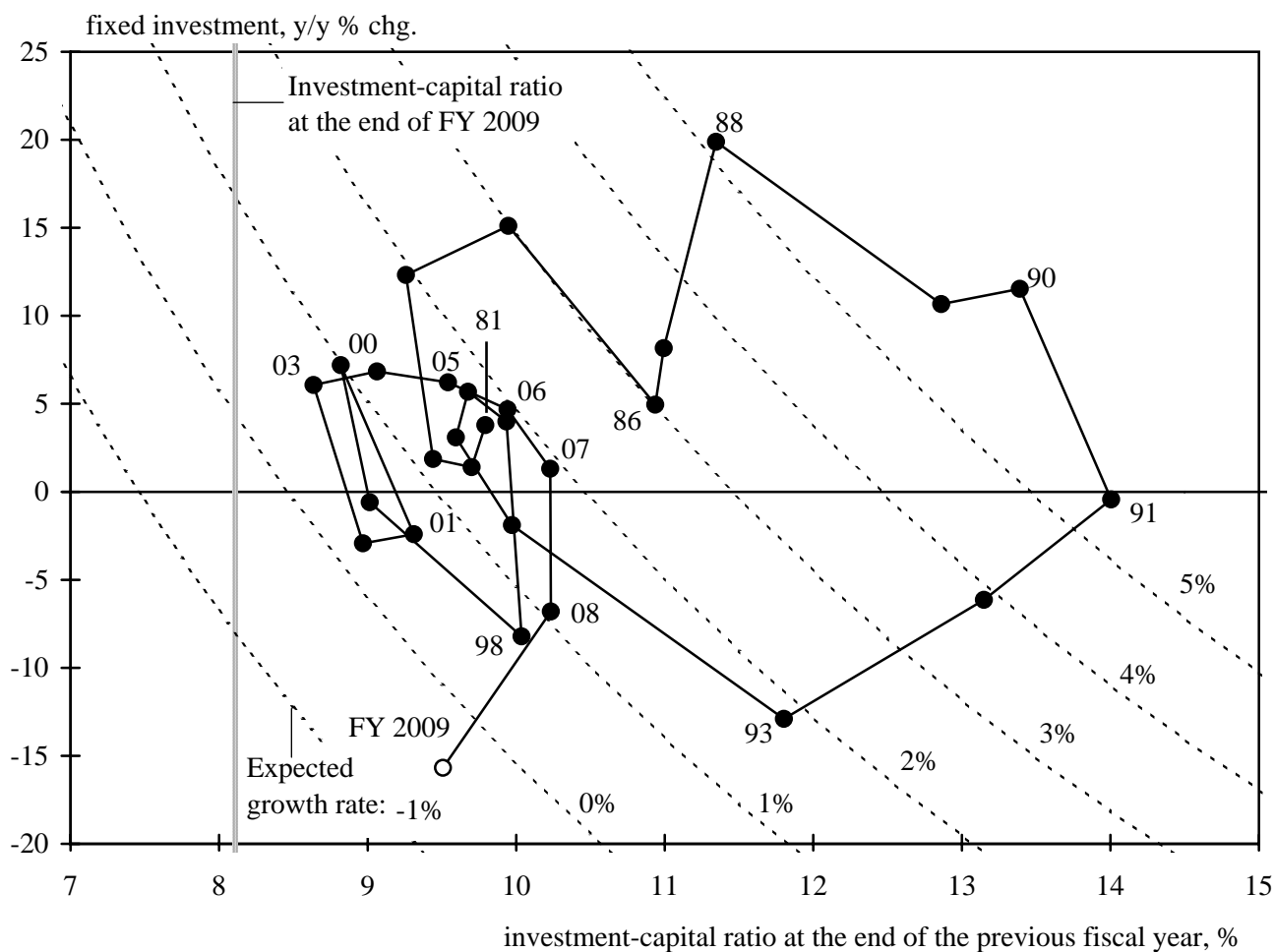


Notes: 1. Figures include land purchasing expenses and exclude software investment.

2. In the March 2004 survey, the *Tankan* underwent major revisions, including the addition of new sample enterprises to the survey. In the March 2010 survey, regular revisions were made to the sample enterprises. The data show some discontinuities coincided with these timings.

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

## Capital Stock Cycle



1. Capital stock cycle in the chart shows the relationship between the investment-capital ratio and the year-on-year rate of change in fixed investment.
2. As these variables have the following relation, a hyperbolic curve can be drawn for a given expected growth rate.
 
$$\text{Year-on-year rate of change in fixed investment (y-axis)} \times \text{investment-capital ratio at the end of the previous fiscal year (x-axis)} = \text{expected growth rate} + \text{trend growth rate of capital coefficient} + \text{depreciation rate}$$
3. 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.

Note: Figures for fiscal 2009 are calculated on the assumption that the quarter-on-quarter rate of change in fixed investment in 2010/Q1 is zero.

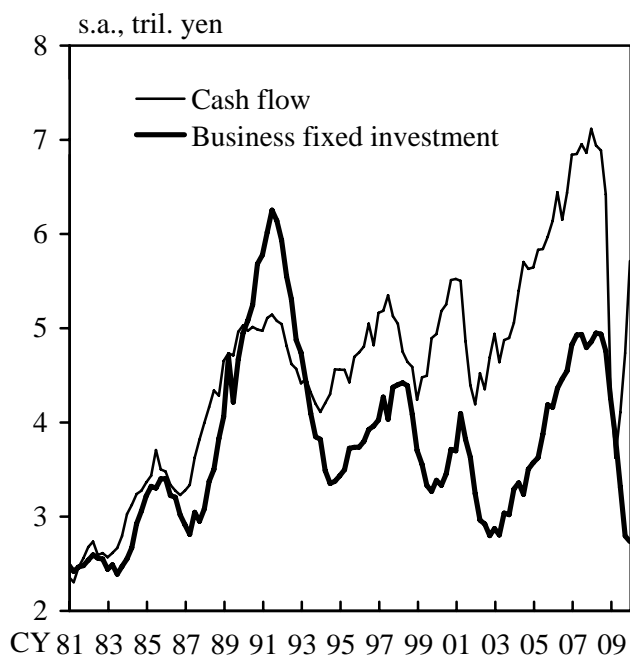
Sources: Cabinet Office, "National Accounts," "Annual Report on Gross Capital Stock of Private Enterprises," "Preliminary Quarterly Estimates of Gross Capital Stock of Private Enterprises";  
 Ministry of Economy, Trade and Industry, "Census of Manufactures";  
 Research Institute of Economy, Trade and Industry, "Japan Industrial Productivity Database 2009."



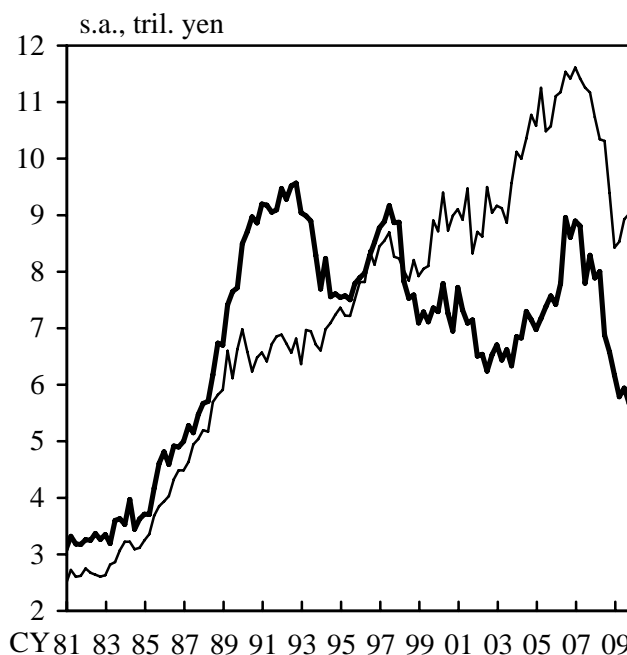
## Cash Flow and Business Fixed Investment

### (1) Cash Flow and Business Fixed Investment<sup>1,2</sup>

(a) Manufacturing

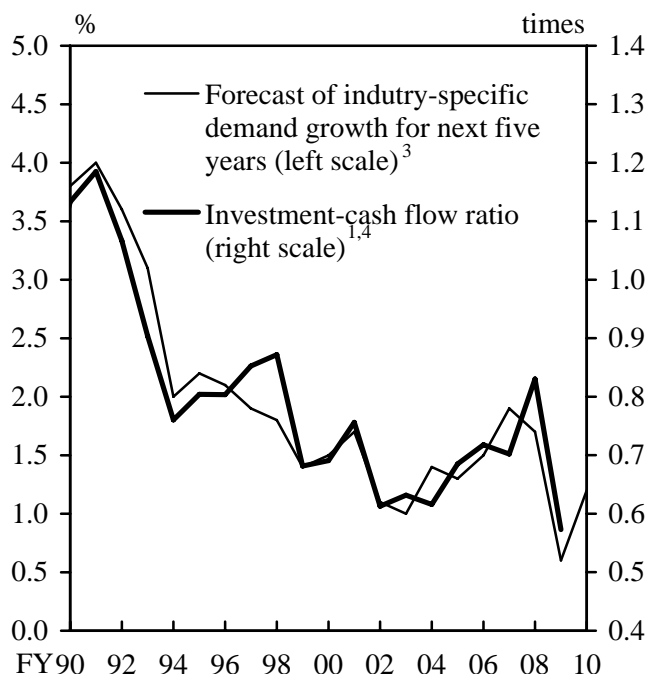


(b) Nonmanufacturing

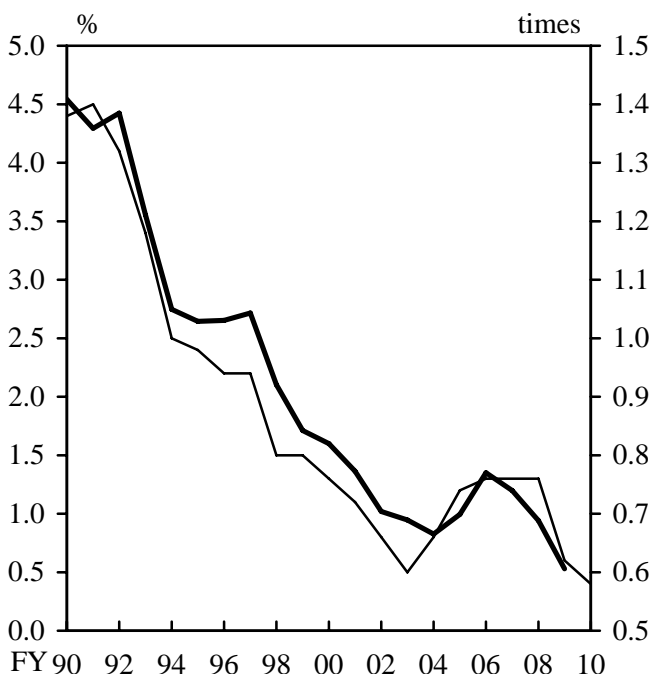


### (2) Investment-Cash Flow Ratio and Expected Growth Rate

(a) Manufacturing



(b) Nonmanufacturing



Notes: 1. Based on all-size enterprises.

2. Cash flow = depreciation expenses + current profits/2

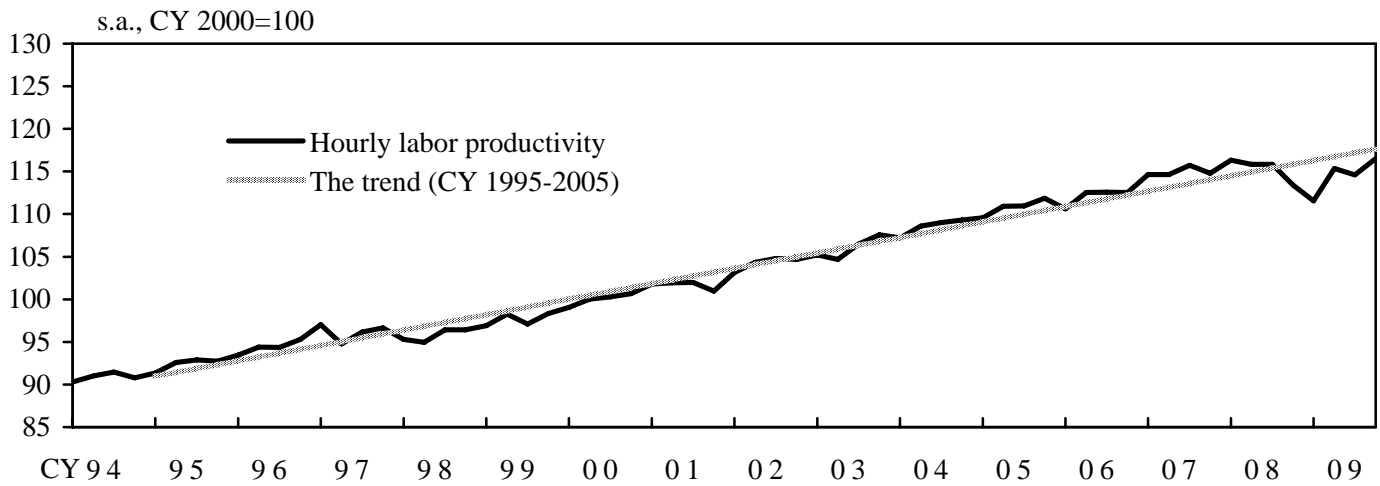
3. Real annual growth rates surveyed in January or February in the previous fiscal year.

4. Figures for fiscal 2009 are the 2009/Q2-Q4 averages.

Sources: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Cabinet Office, "Annual Survey of Corporate Behavior."

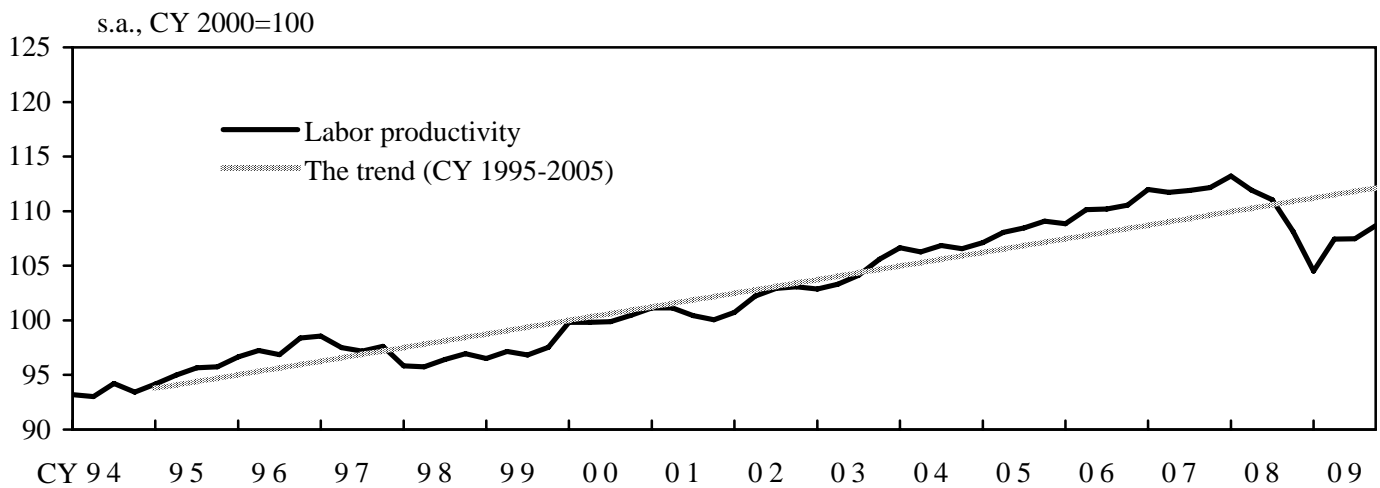
## Labor Productivity and Unemployment Rate

### (1) Hourly Labor Productivity (Real GDP/Labor Input)

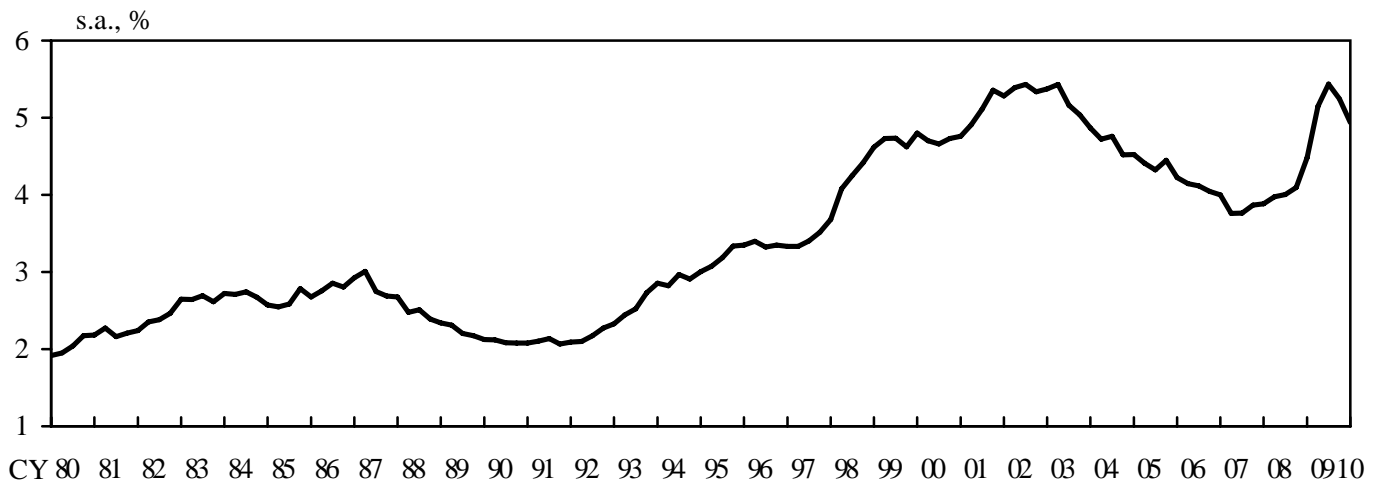


Note: Labor input = number of employed person × total hours worked

### (2) Labor Productivity (Real GDP/Number of Employed Person)



### (3) Unemployment Rate



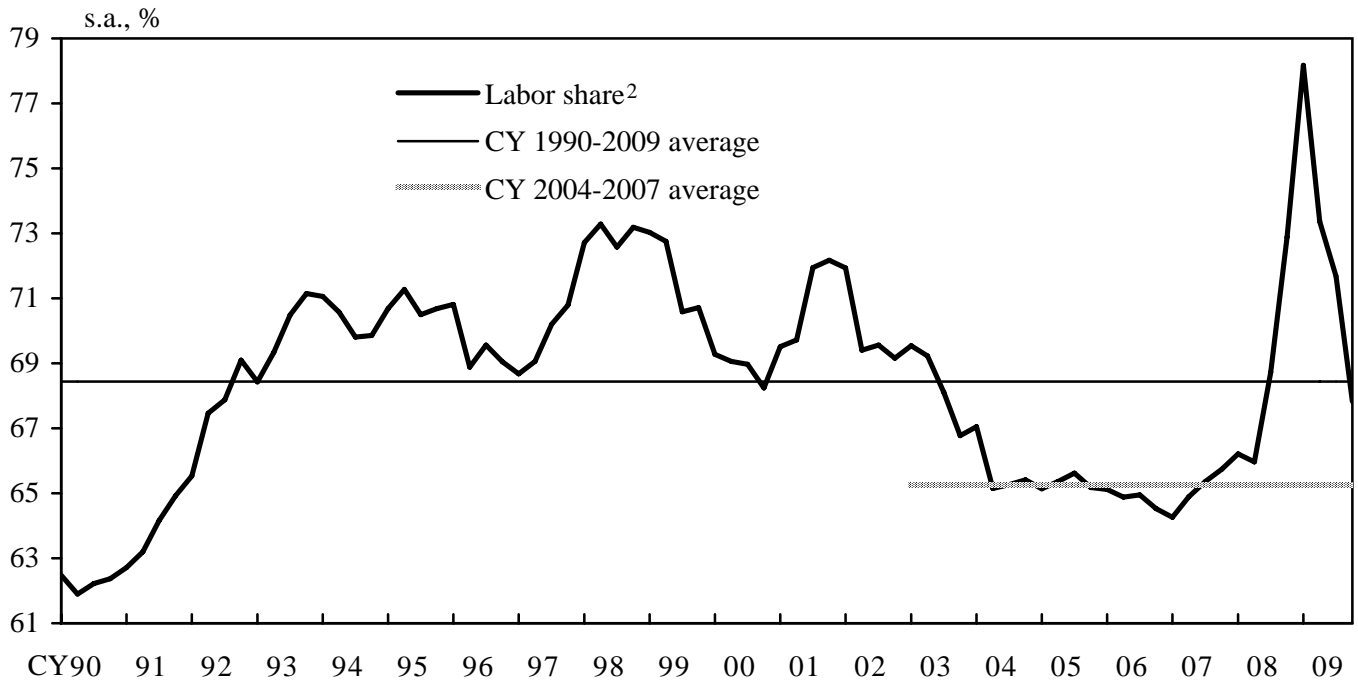
Sources: Cabinet Office, "National Accounts";

Ministry of Internal Affairs and Communications, "Labour Force Survey";

Ministry of Health, Labour and Welfare, "Monthly Labour Survey."

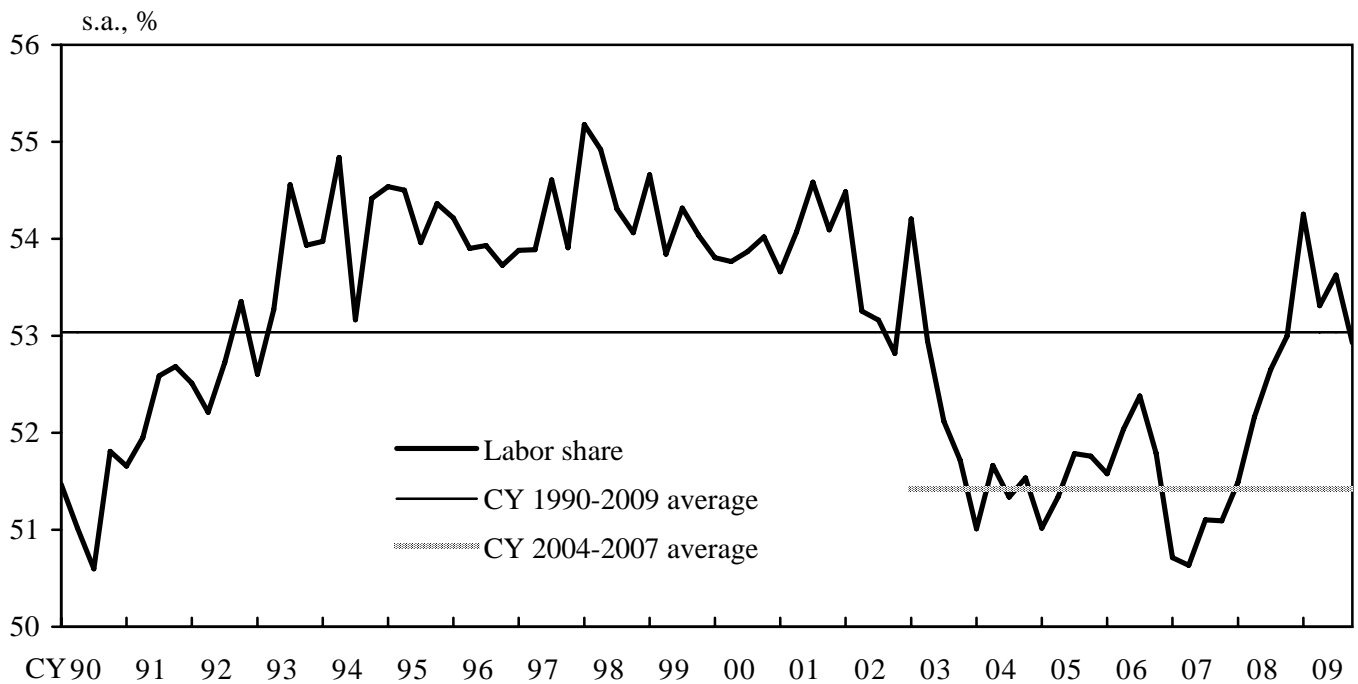
## Labor Share

### (1) Financial Statements Statistics of Corporations by Industry, Quarterly<sup>1</sup>



- Notes: 1. Figures are based on all-size enterprises and all industries.  
 2. Labor share = nominal wages / nominal labor productivity × 100  
 3. Nominal wages = personnel expenses / number of staffs  
 4. Nominal labor productivity = (personnel expenses + operating profits + depreciation expenses) / number of staffs

### (2) National Accounts



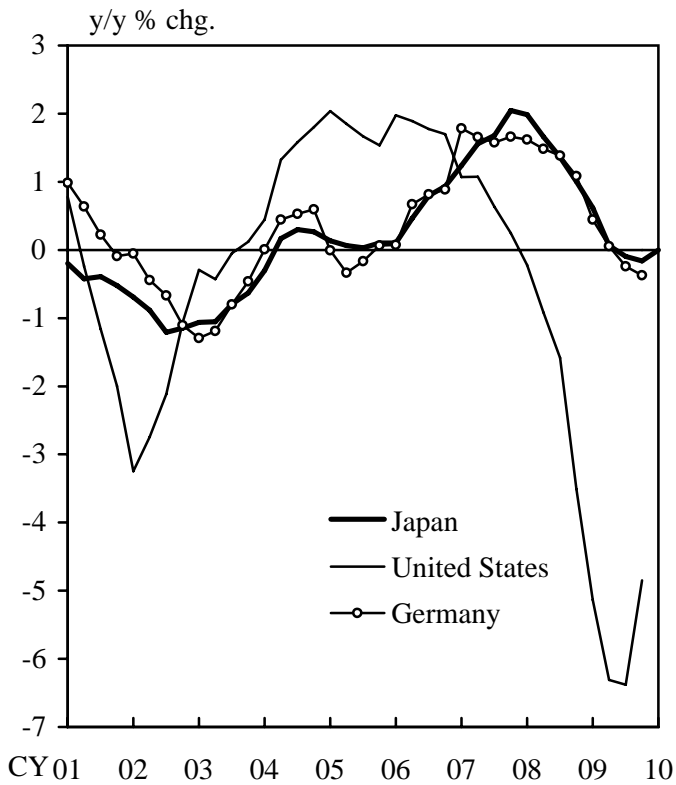
Note: Labor share = compensation of employees / nominal GDP × 100

Sources: Cabinet Office, "National Accounts";

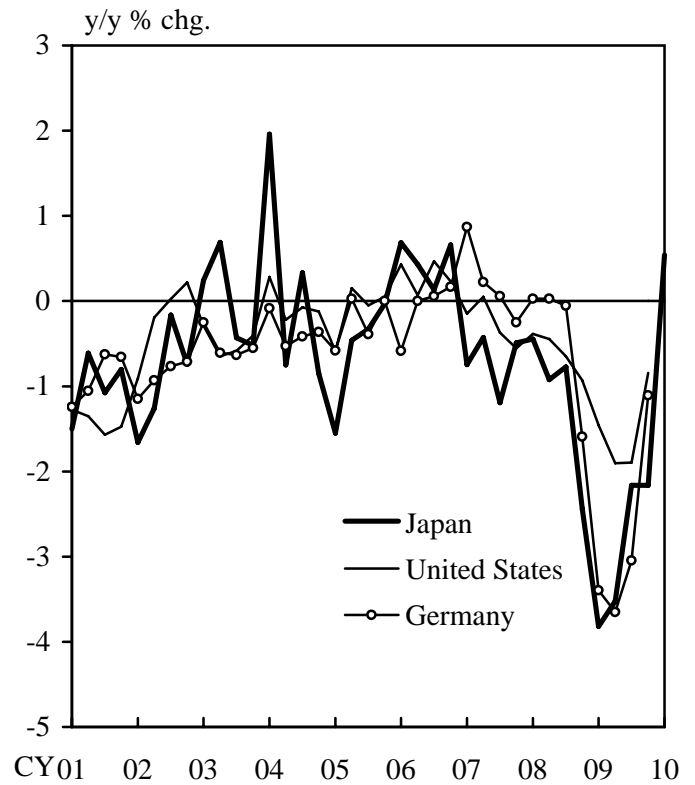
Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

## International Comparison of Employment and Wage Adjustments

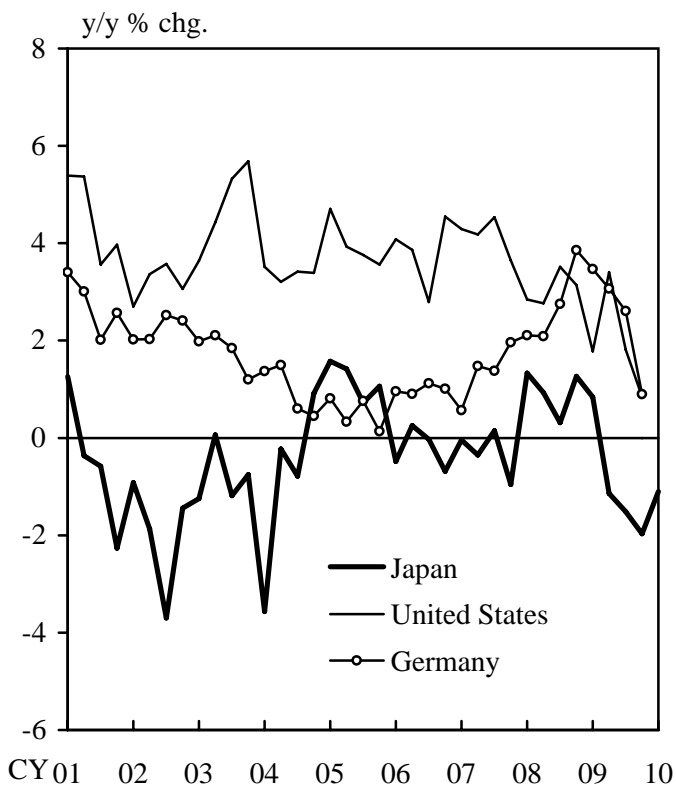
(1) Number of Employees



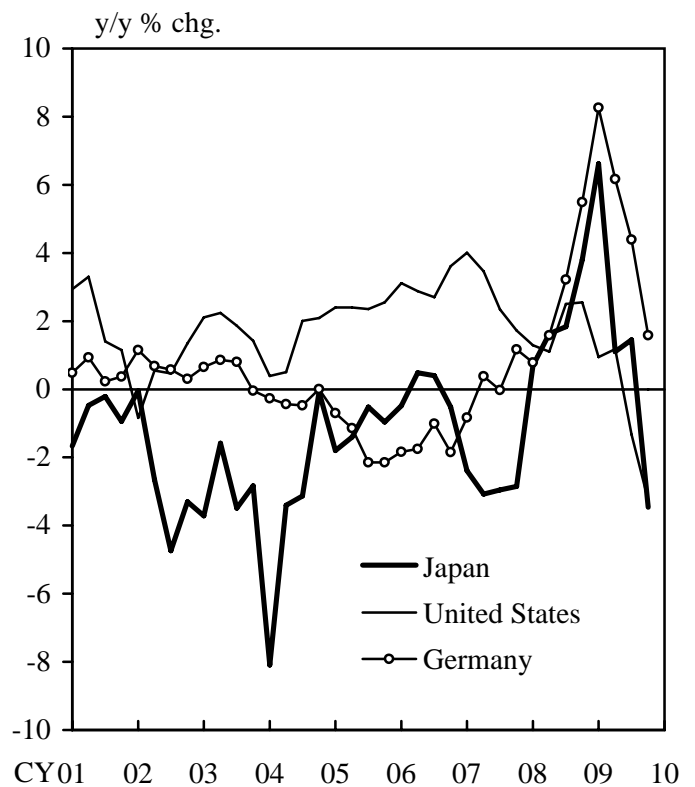
(2) Total Hours Worked



(3) Hourly Wages



(4) Unit Labor Cost



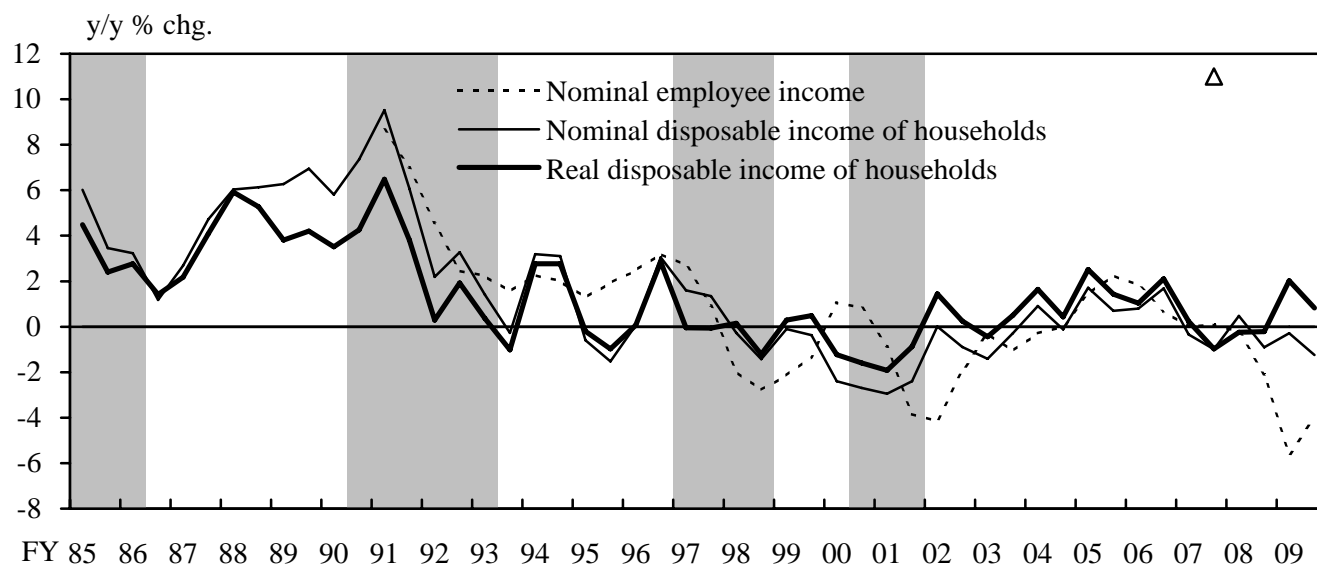
Notes: 1. Unit labor cost = compensation of employees / real GDP

2. Japan's figures for 2010/Q1 are the January-February averages.

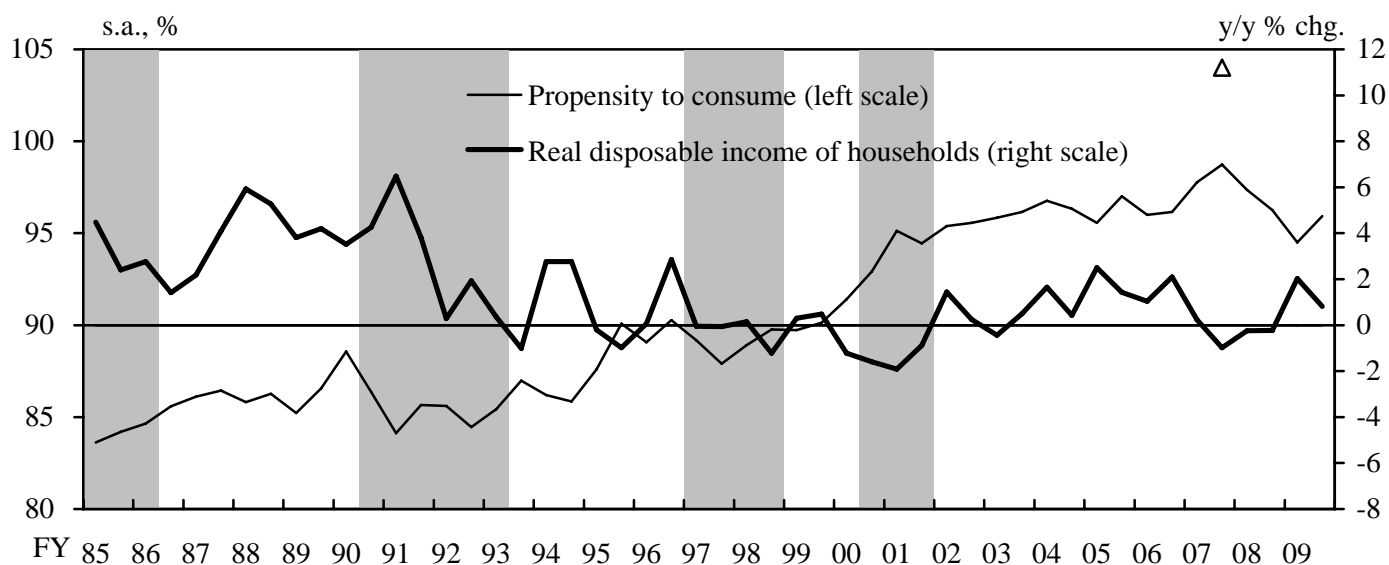
Sources: Cabinet Office; Ministry of Health, Labour and Welfare; BEA; BLS; Eurostat.

## Disposable Income of Households and Propensity to Consume

### (1) Employee Income and Disposable Income of Households



### (2) Real Disposable Income of Households and Propensity to Consume

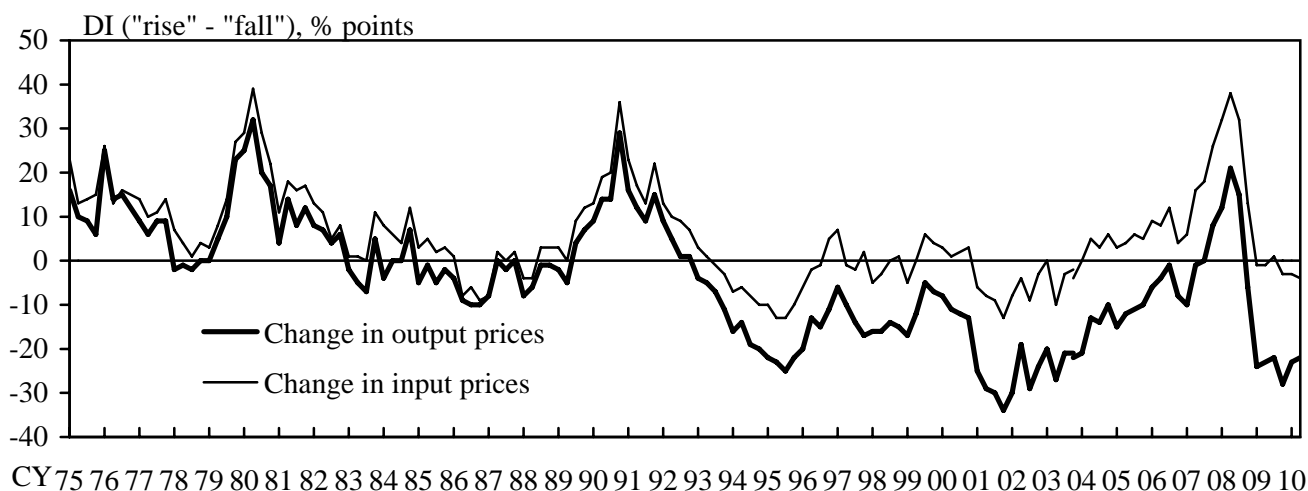


- Notes:
1. Shaded areas indicate recession periods. Triangle shows the last peak.
  2. Nominal employee income is calculated as the number of employees (Labour Force Survey) multiplied by total cash earnings for establishments with at least five employees (Monthly Labour Survey). The figure for the second half of fiscal 2009 is the October 2009-February 2010 average.
  3. Figures for both nominal and real disposable incomes of households for fiscal 2009 are estimated by the Research and Statistics Department, Bank of Japan. They include estimated transfers of income from the government to households through the economic policy packages consisting of the fixed-sum benefit; the tax reduction and subsidies for eco-friendly cars; the eco-point system for household electrical appliances; etc.
  4. The figure for propensity to consume for fiscal 2009 is estimated by the Research and Statistics Department, Bank of Japan. Propensity to consume is calculated as consumption of households divided by disposable income.

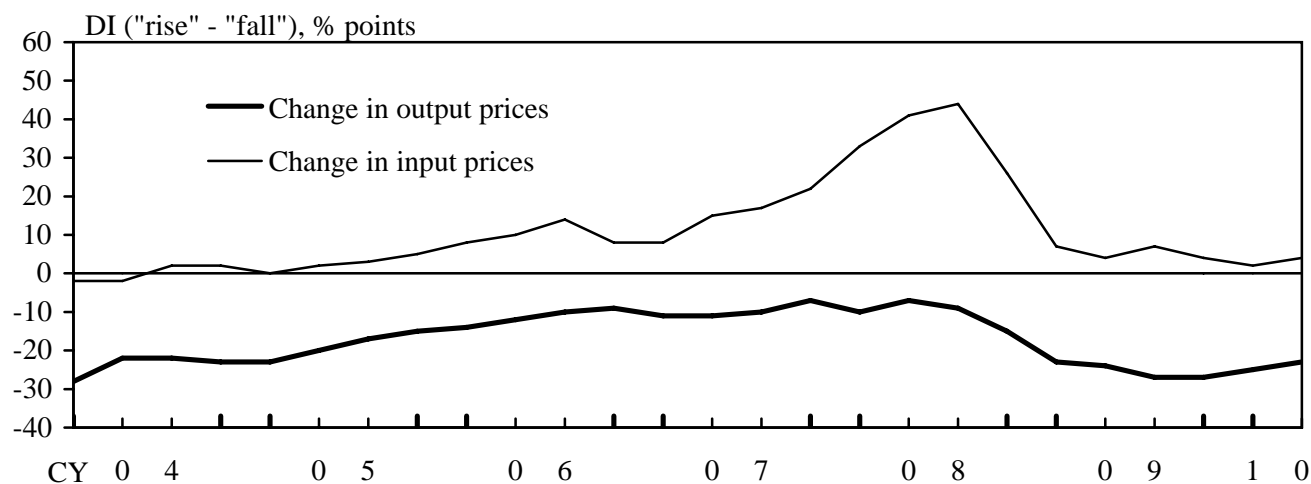
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey," "Estimates of Local Tax Revenue," "Consumer Price Index"; Ministry of Finance, "Survey of the Amount Settled of Tax and Stamp Revenues," "Financial Statements Statistics of Corporations by Industry, Annually," "The Supplementary Budget for FY 2009"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey."

## Changes in Output and Input Prices

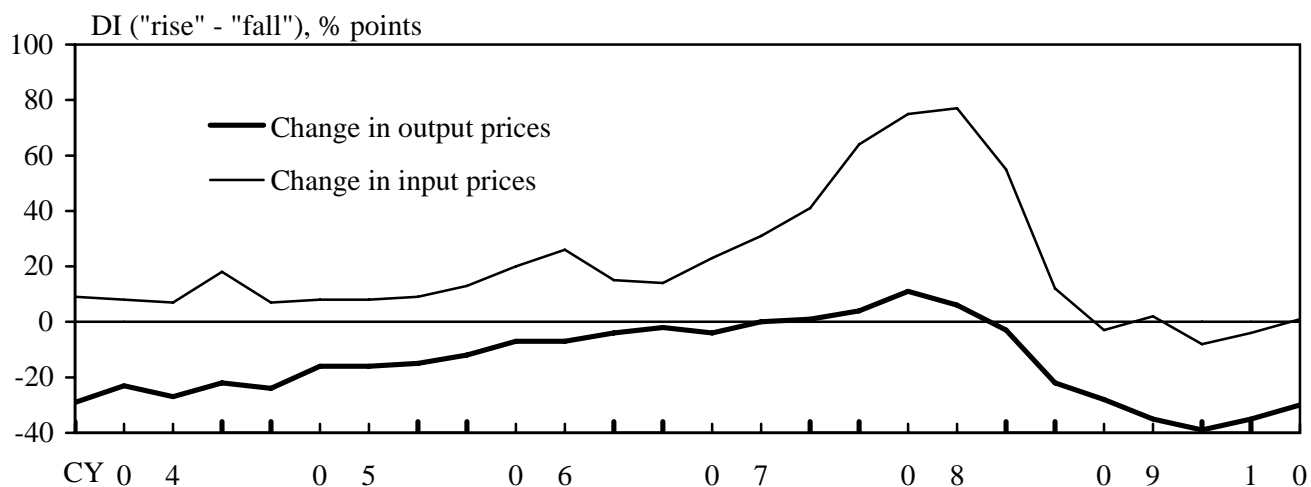
### (1) Retailing



### (2) Services for Individuals



### (3) Accommodations, Eating & Drinking Services



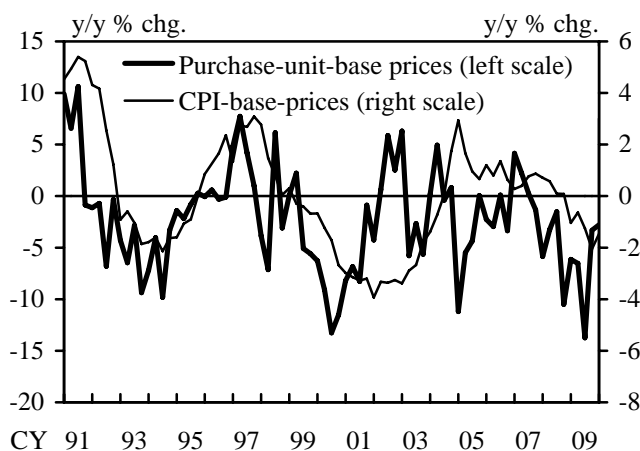
Notes: 1. Figures are based on all-size enterprises. Figures for 2010/Q2 are the forecasts in the March 2010 survey.

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

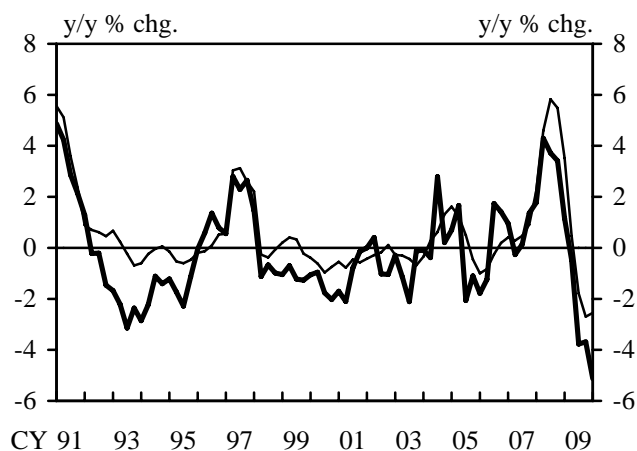
Source: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan."

## Goods Prices Facing Consumers

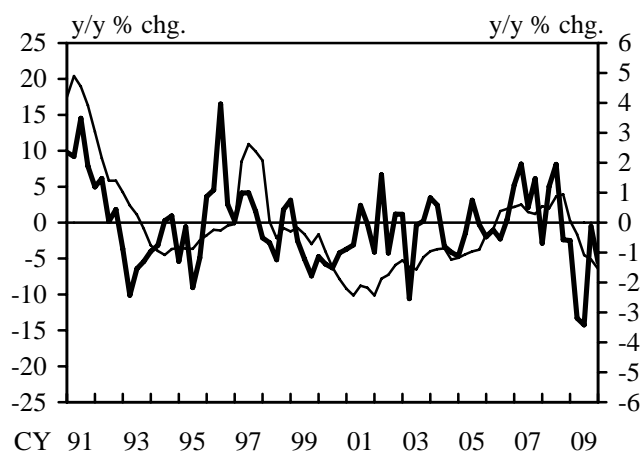
(1) Clothes



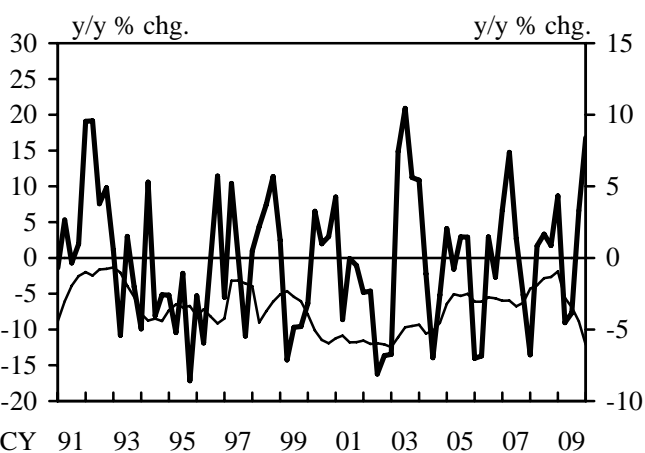
(2) Food Products, Agricultural & Aquatic Products



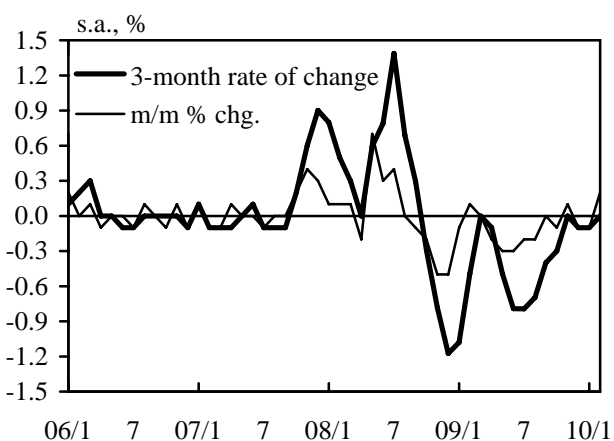
(3) Other Goods



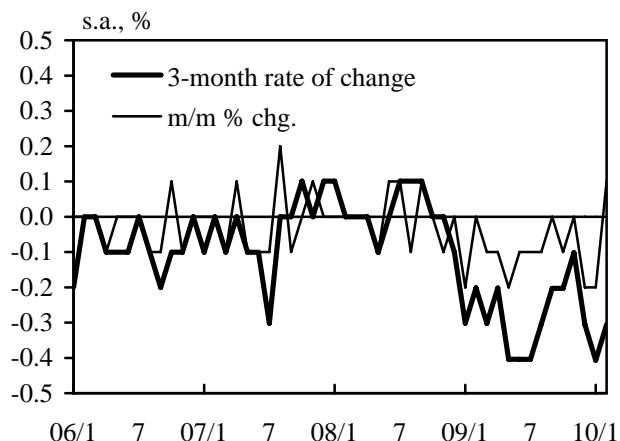
(4) Durable Goods



(Ref. 1) CPI Excluding Fresh Food



(Ref. 2) CPI Excluding Food and Energy



Notes: 1. Items continuously available in both of the Ministry of Internal Affairs and Communication's two kinds of statistics are selected for each group.

2. Definitions of the items are basically the same as those published by the Ministry of Internal Affairs and Communications.

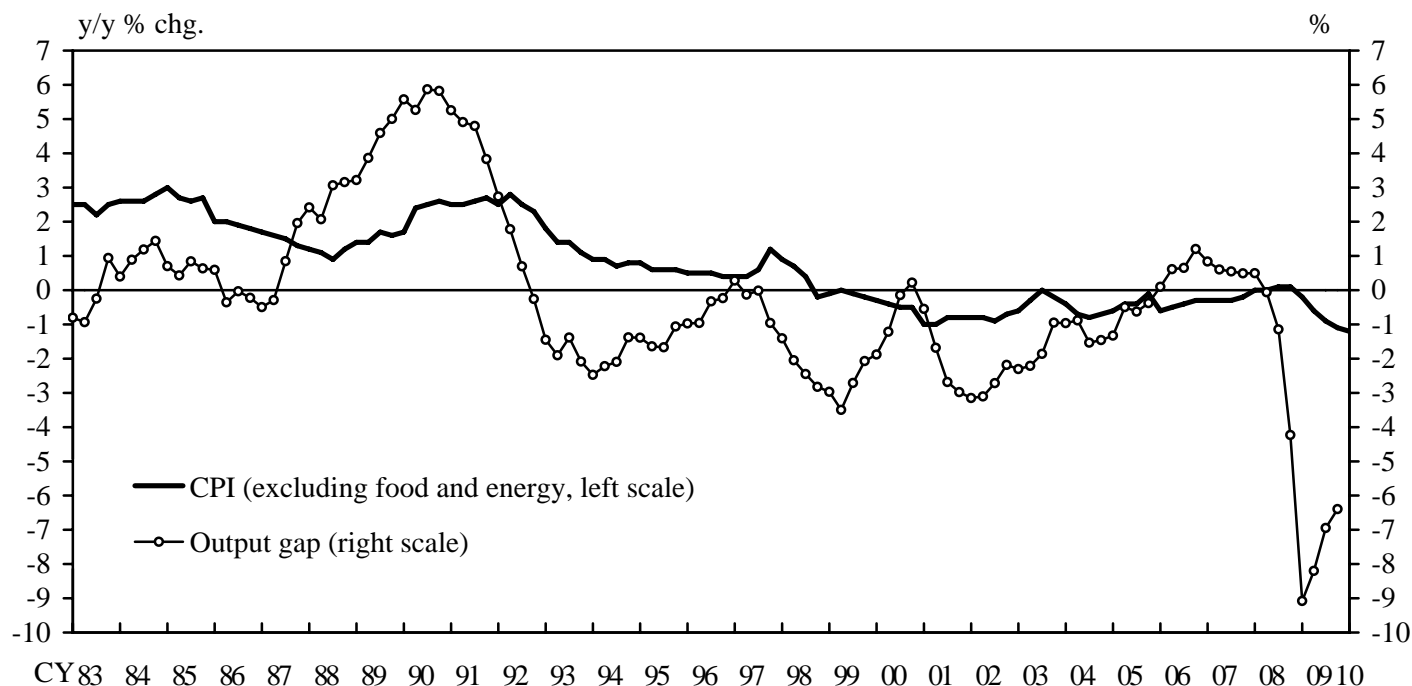
3. Agricultural & aquatic products in (2) exclude fresh food. Other goods in (3) exclude clothes (including shirts, sweaters & underwear); food products; agricultural & aquatic products; durable goods; petroleum products; and electricity, gas & water charges. Food in Ref. 2 excludes alcoholic beverages.

4. Figures for 2010/Q1 in (1)-(4) are the January-February averages.

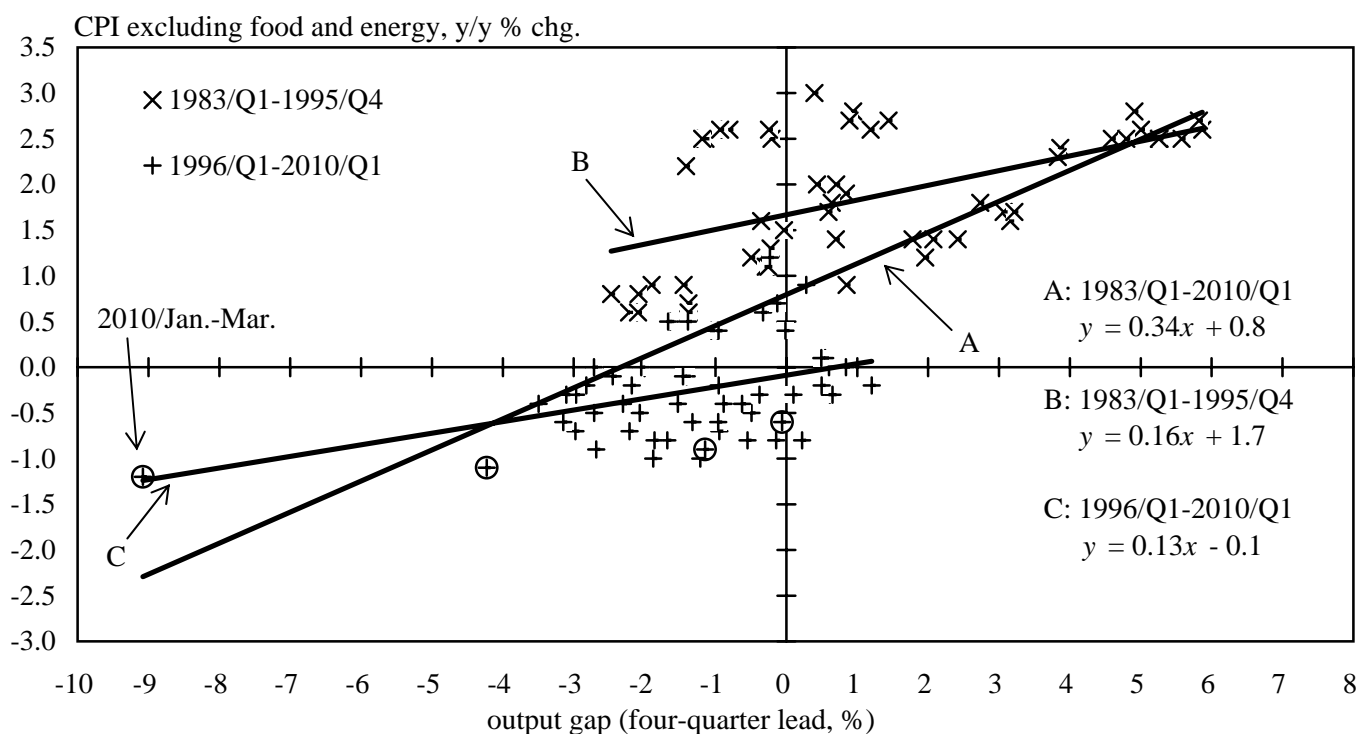
Source: Ministry of Internal Affairs and Communications, "Consumer Price Index," "Monthly Report on the Family Income and Expenditure Survey."

# Output Gap and Inflation Rate

## (1) Output Gap and CPI



## (2) Phillips Curve



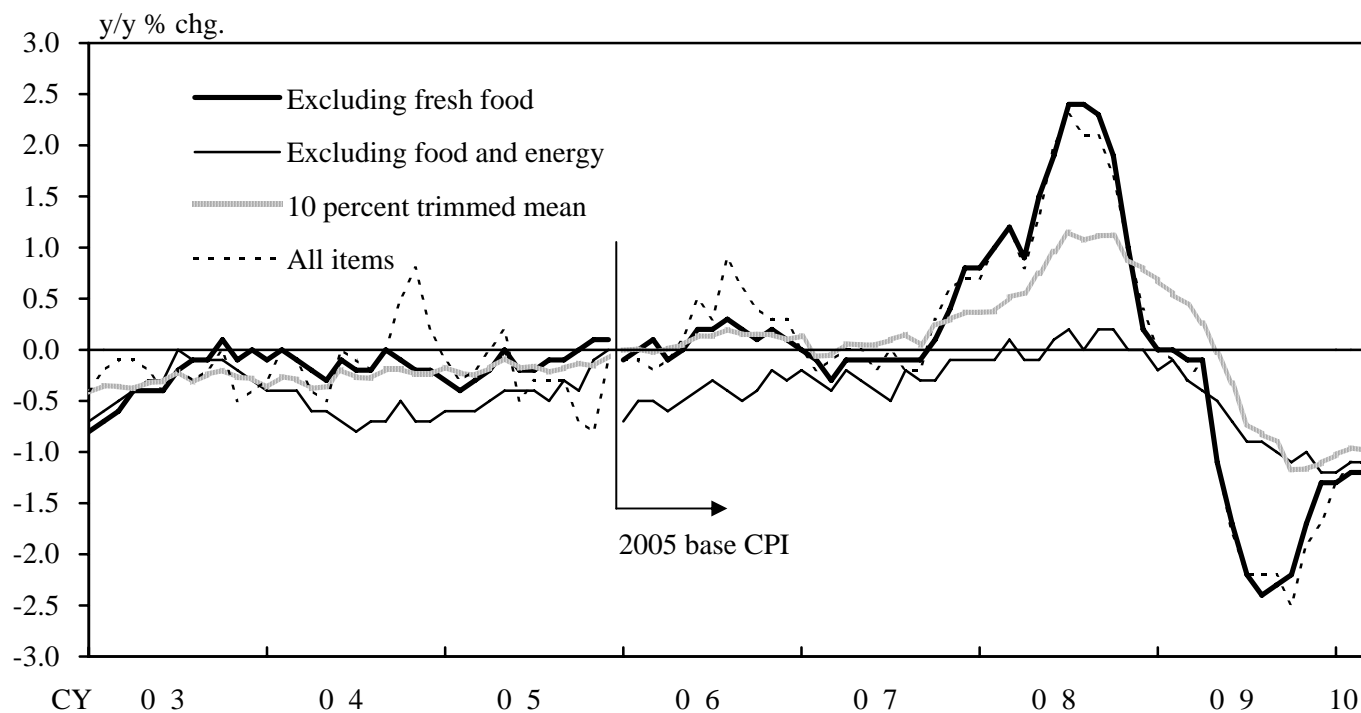
- Notes: 1. CPI excluding food and energy is adjusted to exclude the effect of a change in the consumption tax rate.
- 2. Alcoholic beverages are excluded from food.
- 3. The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate" (Bank of Japan Review Series, May 2006).
- 4. The circled marks in (2) are positions in fiscal 2009.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index," etc.



## Comparison of CPIs

## (1) CPIs



## (2) Ability to Track the Trend Changes in Prices

All items	Excluding fresh food	Excluding food and energy	10 percent trimmed mean
0.619	0.559	0.567	0.429

Notes: 1. Figures indicate the deviations (root mean squared errors) of year-on-year changes in CPIs from the trend change in the CPI (all items). The trend is computed by applying the HP filter. The smaller the figure, the greater the ability to track the trend change in the CPI (all items).

2. The sample period is January 1982-February 2010.

## (3) Ability to Forecast the Change in the CPI (All Items) One Year Ahead

Excluding fresh food	Excluding food and energy	10 percent trimmed mean
0.861	0.781	1.419
[0.173]	[0.087]	[0.127]

Notes: 1. Figures indicate the estimate figures of  $\beta$  in the following regression equation. The nearer the figure to 1, the greater the ability to forecast the change in the CPI (all items) one year ahead. Figures in brackets are standard deviation.

2. The regression equation is  $\gamma_{t+12} - \gamma_t = \alpha + \beta(\gamma_t^{core} - \gamma_t) + \varepsilon_t$ , where  $\gamma$  denotes the monthly year-on-year change in the CPI (all items) and  $\gamma^{core}$  refers to that in one of the CPIs on a monthly basis.

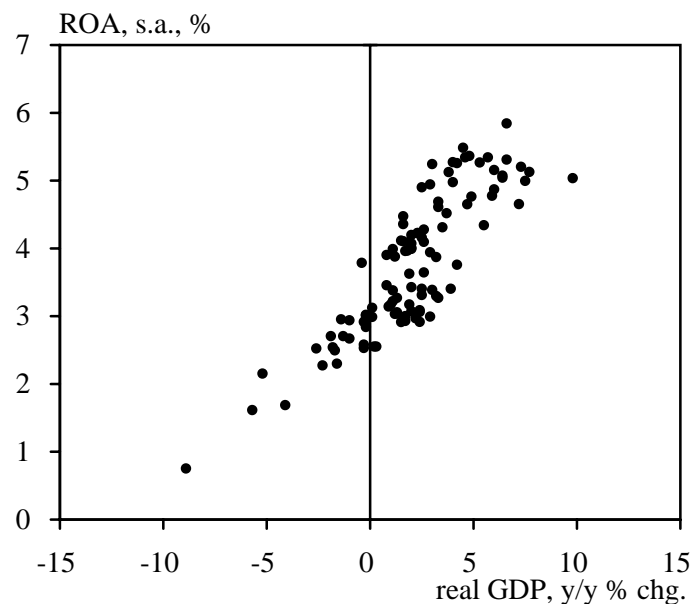
3. The sample period is January 1982-February 2010.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan.

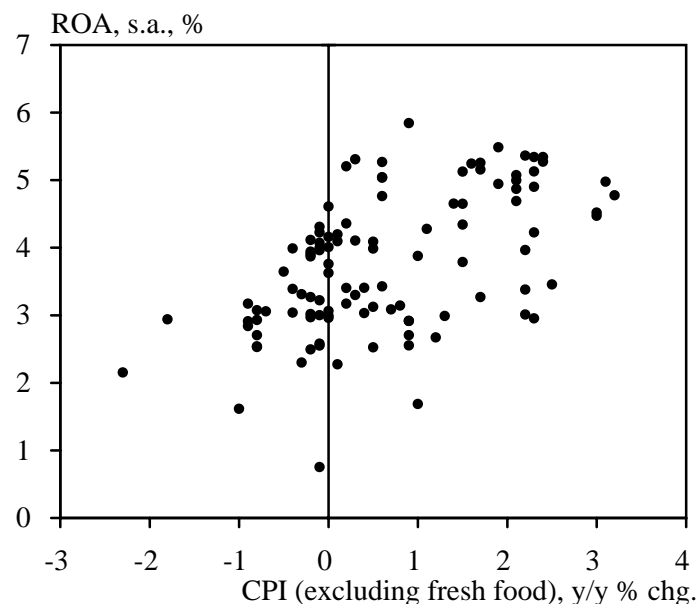
## Relationships among Nominal Values, Real Values, and Prices

### (1) Corporate Profits and Real Economic Growth / Prices

(a) Corporate Profits and Real Economic Growth



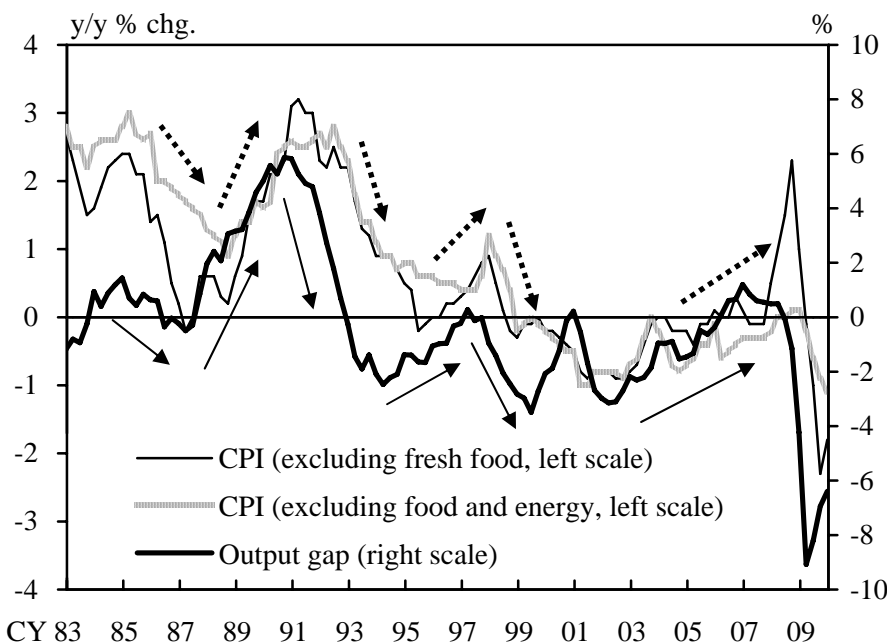
(b) Corporate Profits and Prices



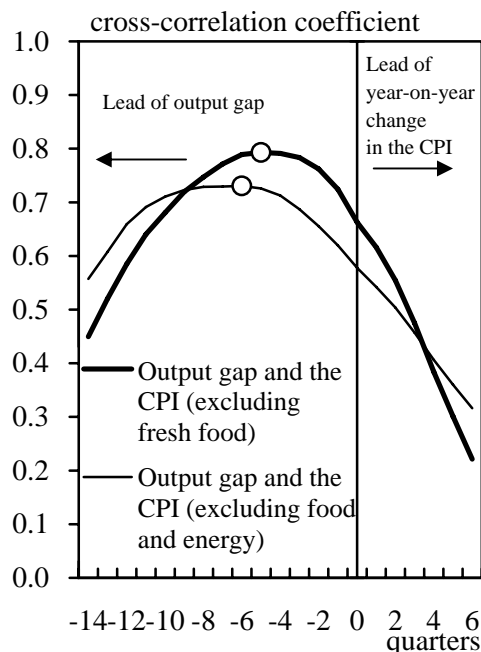
- Notes: 1. The sample period is 1983/Q1-2009/Q4.  
 2. ROA (operating profits/total assets) is based on all-size enterprises and all industries.  
 3. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.

### (2) Aggregate Supply-Demand Balance and Prices

(a) Output Gap and the CPI












(b) Cross-Correlation



- Notes: 1. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.  
 2. The output gap is estimated by the Research and Statistics Department, Bank of Japan.  
 3. The sample period is 1983/Q1-2008/Q3. The white circle indicates the peak in each curve.

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

## Economic Assessment by Region (Regional Economic Report)

Region	Assessment in January 2010	Difference between assessments	Assessment in April 2010
Hokkaido	The economy has shown signs of picking up, although it remains stagnant.		The economy is increasingly showing signs of picking up, although it remains stagnant.
Tohoku	The economy, especially the manufacturing industry, has shown signs of picking up, although economic conditions as a whole remain severe.		The economy is increasingly showing signs of picking up, although economic conditions as a whole remain severe.
Hokuriku	The economy has shown some signs of picking up, although economic conditions as a whole remain severe.		The economy is picking up moderately, although economic conditions as a whole remain severe.
Kanto-Koshinetsu	The economy has picked up moderately, although differences among regions and industries remain.		The economy has continued picking up, although differences among regions and industries remain.
Tokai	The economy has picked up as a whole, although differences among industries and firms remain large.		The economy has continued picking up, and differences among industries and firms have been moderating gradually.
Kinki	The economy, with some lingering severity in employment, has picked up moderately.		The economy, with some severity in employment, is picking up steadily.
Chugoku	The economy, having leveled out, has shown some signs of picking up.		The economy is picking up.
Shikoku	Economic conditions have remained more or less unchanged as a whole, although there are some signs of picking up.		Economic conditions have remained more or less unchanged as a whole, although there are some signs of picking up.
Kyushu-Okinawa	The economy has picked up, albeit moderately.		The economy has picked up moderately as a whole, although differences among regions remain.

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/chiiki1004.htm](http://www.boj.or.jp/en/type/ronbun/chiiki_rep/chiiki1004.htm)).

Source: Bank of Japan, "Regional Economic Report (Summary) April 2010."