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Bank of Japan

Outlook for Economic Activity and Prices

October 2010

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

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The Bank's View¹

I. Introduction

This October 2010 issue of the *Outlook for Economic Activity and Prices* (Outlook Report) presents the outlook for Japan's economy through fiscal 2012. Before going into detail on the outlook, the following points should be noted. First, the outlook for Japan's economy, reflecting economic and financial globalization, is considerably affected by developments in overseas economies and international financial markets. Second, an assessment of the financial environment is the key to determining the relationship between the outlook for economic activity as well as prices and the monetary policy. Therefore, this Outlook Report first provides some detailed explanation of the outlook for overseas economies and developments in international financial markets. It then summarizes the assessment of Japan's financial environment.

As for the outlook for economic activity and prices, the Outlook Report explains the scenario considered to be the most likely by the Bank of Japan, or its baseline scenario, focusing on the basic mechanisms of economic fluctuations. It then presents upside and downside risks associated with the outlook. In the current economic situation where uncertainty is high, these risks should be appropriately assessed. Lastly, the report describes the Bank's basic thinking on the conduct of monetary policy.

II. Overseas Economies and International Financial Markets

Overseas economies, which had plunged in the wake of the failure of Lehman Brothers in autumn 2008, leveled out around spring 2009 and recovered sharply from the second half of 2009. However, the pace of growth has been slowing somewhat since summer 2010, as inventory restocking carried out in the early phase of economic recovery has been running its course and the demand-boosting effects of fiscal policy measures have been waning. Looking at developments by region, while the U.S. economy continues to recover at a moderate pace, led in particular by exports, it has been on a slowing trend since around mid-2010 mainly due to the waning effects of fiscal stimulus measures amid a lack of momentum in private consumption and housing investment. Economic activity in Europe

¹ The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on October 28, 2010.

is recovering moderately on the whole, but there are some differences in the pace of recovery between some countries, including Germany, and peripheral countries. Emerging and commodity-exporting economies, led mainly by robust domestic demand, continue to grow at a relatively rapid pace, although it has started to slow somewhat partly due to the shifting away from accommodative monetary policies.

It is projected that overseas economies will grow at a slower pace for the time being, but the recovery trend itself will not be interrupted, and from 2011 the growth rate will start to increase again on the back of high growth in emerging and commodity-exporting economies. The growth rates of the global economy in 2010, and then in 2011 and 2012, are projected to surpass the average of the high growth rates recorded during the ten years preceding the financial crisis.² Looking at developments by region, emerging and commodity-exporting economies are likely to grow at a somewhat slower pace temporarily but maintain relatively high growth given that the virtuous circle of growth in production, income, and spending will be functioning amid continued robust domestic demand and capital inflows from overseas. Specifically, the Chinese economy is likely to continue decelerating for the time being partly due to the government's measures to restrain the increase in real estate transactions. However, the economy as a whole is expected to continue showing relatively high growth due to the continued uptrend in private consumption, housing investment, and investment in various infrastructures on the back of households' higher income levels and the progress in urbanization. Although growth in their exports is likely to decelerate, economic conditions in the NIEs and ASEAN countries are likely to follow an expanding trend, led in particular by business fixed investment and private consumption, as capital inflows from other countries continue. Meanwhile, the growth rate of the U.S. economy is expected to start increasing again from 2011, as exports, mainly to emerging and commodity-exporting economies, will likely continue increasing, and private consumption and business fixed investment will likely continue to recover at a moderate pace amid a maintained accommodative monetary environment. However, the

² According to the projections for the global economy released by the International Monetary Fund in October 2010, world GDP is forecast to expand by 4.8 percent in 2010, mainly due to the high growth in the first half of the year, which was the recovery phase following the considerable plunge. The growth rates of the global economy are projected to be 4.2 percent in 2011 and 4.5 percent in 2012. The average growth rate during the ten years preceding the financial crisis -- from 1998 to 2007 -- is estimated at 4.0 percent.

pace of economic improvement is likely to remain moderate compared with past economic recovery phases, with the impact of balance-sheet adjustments continuing. Economic activity in Europe is likely to continue to recover moderately as a whole, with the rise in exports gradually affecting domestic demand, albeit with some differences in the pace of recovery by country.

Meanwhile, in the international financial markets, global investors have become increasingly risk averse since spring 2010 as the sovereign debt problem in some European countries including Greece has become a focus of concern and uncertainty over the outlook for the global economy has heightened, especially for the United States, where a series of relatively weak economic indicators have been released. Consequently, credit spreads on corporate bonds mainly in the United States and Europe have widened temporarily since spring 2010, and stock prices in many countries including Japan have been unstable. In the foreign exchange markets, demand has increased for the yen, which is viewed as a relatively safe currency, and thus the yen has appreciated. Attention should continue to be paid to how developments in international financial markets on the back of global capital flows will affect economic activity in Japan and abroad while taking into account a change in investors' attitudes toward risks, amid a large difference in the pace of economic recovery between advanced economies and emerging and commodity-exporting economies.

III. Japan's Financial Environment

Financial conditions in Japan have continued to show signs of easing. In the money market, while the Bank is pursuing powerful monetary easing through, for example, the virtually zero interest rate policy, the overnight call rate has remained at extremely low levels, interest rates on term instruments have declined, and the yield curve has flattened further. Firms' funding costs have been declining to record-low levels as issuance rates of CP and high- and medium-rated corporate bonds have been stable at low levels and lending rates have been on a declining trend. Firms have continued to view financial institutions' lending attitudes as improving. As for demand for funds, firms' demand for external funds has continued to be weak as their cash flow has increased with a recovery in profits. Therefore, the amount outstanding of funding in the private sector, such as bank lending, has been declining on a year-on-year basis. Firms' financial positions have continued to steadily show signs of improvement as a whole, although there are some differences

between large firms and small and very small firms. As for the outlook, monetary easing effects will be strengthened with the recovery in corporate profits while Japan's financial system maintains its stability as a whole. In the future, as the effects of the Bank's powerful monetary easing policy spread further, an improvement in Japan's financial environment is likely to be encouraged, and this is expected to bolster the momentum toward self-sustaining recovery in domestic private demand.

IV. Baseline Scenario of the Outlook for Economic Activity and Prices in Japan

A. Outlook for Economic Activity

On the basis of the aforementioned developments in overseas economies and the financial environment at home and abroad, the following examines the scenario of the outlook for Japan's economy considered to be the most likely by the Bank; in other words, its baseline scenario.

With regard to the current state of Japan's economy, the economy still shows signs of a moderate recovery but the pace is slowing down as growth in exports and production has recently been decelerating. In the second half of fiscal 2010, the pace of recovery is likely to slow due to factors such as the slowdown in overseas economies and the ending of the boost from policy measures targeted at durable consumer goods, as well as the recent appreciation of the yen. Therefore, while the growth rate of Japan's economy in fiscal 2010 is expected to be at a level above the potential growth rate, it is likely to be lower than the projection in the July 2010 interim assessment.³ After entering fiscal 2011, albeit with some lingering effects of the yen's appreciation, the economy is expected to return to a moderate recovery path, given that exports are projected to continue increasing as the growth rate of overseas economies is likely to rise again, and that firms' sense of excessive capital stock and labor is likely to be dispelled gradually as corporate profits improve. In fiscal 2012, Japan's economy is expected to continue growing at a pace above its potential, as the transmission mechanism by which the strength in exports and production feeds through into income and spending will likely operate more effectively amid the continued

³ The downward deviation of the growth rate for fiscal 2010 from the projection in the July 2010 interim assessment is also largely attributable to statistical factors such as a smaller carry-over effect from fiscal 2009 on GDP growth for fiscal 2010 due to the downward revision of the GDP data for the second half of fiscal 2009.

relatively high growth in overseas economies, especially emerging and commodity-exporting economies.⁴

Somewhat detailed explanations of the outlook according to each of the corporate and household sectors are as follows.

Regarding the corporate sector, since the beginning of fiscal 2010, manufacturers' production has been increasing and their profits have been recovering rapidly mainly due to the rise in exports and the effects of various demand-boosting policy measures targeted at durable consumer goods. However, growth in exports and production has recently been decelerating mainly reflecting the shifting away from accommodative monetary policies in emerging and commodity-exporting economies and inventory adjustments in IT-related goods.⁵ Through the second half of fiscal 2010, the pace of growth in exports is expected to remain only moderate due to the aforementioned developments in overseas economies and the effects of earlier appreciation of the yen. In addition, the expected decline in demand following the boost from the extremely hot summer and the expiration of subsidies for purchasing energy-efficient cars is likely to cause a temporary decline in production. From fiscal 2011, as the growth rate of overseas economies starts to increase again, it is expected that exports will regain momentum, production will return to an increasing trend, and corporate profits will continue to improve. Against this background, firms' sense of excessive capital stock is likely to be dispelled gradually and firms' funding conditions are likely to continue improving partly due to the spread of powerful monetary easing; consequently, business fixed investment is expected to generally continue to pick up, such

⁴ Japan's potential growth rate during the projection period is estimated to be "around 0.5 percent" if a certain method based on the production function approach is used. However, the estimate of the potential growth rate is subject to a considerable margin of error, given that the estimation largely depends on the specific estimation methods employed and that it is difficult to recognize the final figures of important variables such as capital stock and labor input until *ex post* data are accumulated.

⁵ As a result of the revision to seasonal adjustments carried out in April 2010, it is likely that a portion of the significant drops in production in the October-December quarter of 2008 and the January-March quarter of 2009 is recognized as seasonal rather than actual movement. Such a seasonal adjustment method would push up future growth rates for the October-December and January-March quarters, whereas it would push down those for the April-June and July-September quarters. The assessment presented here on the future trend of production developments is in actual terms and excludes the effects of the seasonal adjustment method.

as in terms of the anticipated increase in replacement investment that had been restrained in recent years.⁶ As for the nonmanufacturing firms, the effects of the improvement in manufacturers' business performance have started to spill over gradually, and therefore corporate profits and business fixed investment in these firms are expected to pick up moderately.

As for the household sector, the unemployment rate has been on a declining trend with some fluctuations since summer 2009, but has remained high compared with the past average. On the other hand, the number of employees has begun to see a halt to declines on a year-on-year basis. As for wages, overtime payments have continued to rise on a year-on-year basis and special payments, reflecting an improvement in business performance, have surpassed the previous year's level. Against the background of such employment and income situation, private consumption has been picking up. In the first half of fiscal 2010, the effects of various policy measures targeted at durable consumer goods and of the extremely hot summer boosted household spending. In the second half of fiscal 2010, as those effects will wane, private consumption is likely to weaken temporarily. From fiscal 2011, the employment and income situation is expected to follow an improving trend, together with the improvement in corporate profits and recovery in production. Consequently, it is likely that private consumption will pick up again and the momentum for its self-sustaining recovery will gradually build toward the latter half of the projection period. Meanwhile, housing investment, which has recently stopped declining, is projected to recover moderately on the back of the improvement in the employment and income situation as well as the decline in borrowing rates.

B. Outlook for Prices

Based on the above projection for economic activity, the report examines the outlook for price developments. The consumer price index (CPI) for all items excluding fresh food is

⁶ Firms' overseas business fixed investment is expected to recover faster than domestic business fixed investment, as Japanese firms are likely to further accelerate their establishment of overseas bases.

currently declining on a year-on-year basis due to the substantial slack in the economy as a whole, but the pace of decline has been slowing.⁷

The outlook for the environment surrounding prices can be summarized as follows. Resource utilization of labor and production capacity, which reflects the aggregate supply and demand balance of goods and services, is projected to continue improving gradually as the economy follows a moderate recovery trend. Judging, for example, from the results of surveys targeted at households and firms and at economists, no significant change in medium- to long-term inflation expectations has been observed so far, and such expectations are assumed to remain stable throughout the projection period. The economists' expected rate of inflation in the medium to long term has been stable at around 1.0 percent in recent years. Commodity prices are assumed to increase moderately on the back of the continued relatively strong growth in emerging and commodity-exporting economies. Meanwhile, the recent appreciation of the yen, for the time being, is likely to exert downward pressure on domestic prices through import prices.

As for the outlook for prices on the basis of the aforementioned environment, the domestic corporate goods price index (CGPI) is expected to continue rising moderately on a year-on-year basis throughout the projection period due mainly to the improvement in the aggregate supply and demand balance and to developments in commodity prices, despite being influenced by the yen's appreciation. Under the assumption that medium- to long-term inflation expectations remain stable, the year-on-year pace of decline in the CPI is expected to continue slowing as the aggregate supply and demand balance improves. However, it will take considerable time for the supply and demand balance to improve because the drop in demand after the financial crisis was rather considerable and the pace of economic recovery has been moderate. Therefore, the slowing pace of decline in the CPI is likely to remain moderate on a year-on-year basis, and the timing of the year-on-year rate

⁷ To assess the trend change in prices, the forecast for the CPI for fiscal 2010 excludes the effects of subsidies for high school tuition, a factor that will significantly push down the year-on-year rate of change in the index for twelve months.

of change in the CPI entering positive territory is likely to be sometime in fiscal 2011. Thereafter, the rate of increase is expected to start rising through fiscal 2012.⁸

V. Upside and Downside Risks

A. Risks to Economic Activity

The aforementioned outlook is the scenario the Bank considers to be the most likely; in other words, its baseline scenario. The following upside and downside risks concerning the outlook for economic activity warrant attention.

The first risk concerns developments in advanced economies. In advanced economies including the United States, a situation has been continuing in which there is heightened uncertainty about the future. As Japan's experience after the bursting of the bubble economy indicates, in an economy that is burdened by balance-sheet adjustments, such as the United States, the virtuous circle of growth in production, income, and spending does not operate easily; and it is likely that it will continue to be more difficult for the economy to grow but easier for it to deteriorate until balance-sheet adjustments are completed. In many advanced economies, including Japan, the amount outstanding of public debt has increased considerably due to the implementation of vigorous fiscal policies. The implementation of fiscal consolidation measures, which will proceed further, particularly in Europe and the United States, might exert greater-than-expected downward pressure on the individual economies and the global economy depending on the size and speed of implementation of such measures. On the other hand, if the market evaluates efforts toward fiscal consolidation as insufficient, this could have adverse effects on economic activity through a rise in long-term interest rates and a decline in market sentiment. If the self-sustaining recovery in private domestic demand gains momentum, maintaining an accommodative financial environment longer than necessary could cause large fluctuations in economic activity and prices.

The second risk concerns developments in emerging and commodity-exporting economies.

⁸ This outlook for inflation is predicated on the 2005-base CPI. The statistics authority has announced that the base year for the CPI is scheduled to be changed to 2010 in August 2011, and year-on-year figures as far back as January 2011 are scheduled to be revised retroactively. This rebasing is likely to cause the year-on-year rate of increase in the CPI to be revised downward.

These economies are likely to somewhat slow down temporarily but maintain relatively high growth led by domestic demand. In this situation, the continued large-scale monetary easing in advanced economies and the projection that it will be protracted might accelerate capital inflows to emerging and commodity-exporting economies. If this further boosts economic conditions in these economies, Japan's economy could realize stronger-than-expected growth through the increase in exports to these economies. On the other hand, if economic and financial activity in emerging and commodity-exporting economies becomes excessive, there are risks that overheating of the economy and an ensuing sharp unwinding might lead to large fluctuations in commodity and asset prices, as well as in economic activity. Many emerging and commodity-exporting economies have been shifting away from accommodative monetary policies. While this could present a downside risk to these economies in the short term, it could have positive effects on the global economy, including Japan's economy, from the long-term perspective in terms of the sustainability of economic expansion.

The third risk concerns developments in business and household sentiment. This risk partly overlaps with the two risks described above. In the current situation of high uncertainty about economic and financial conditions, business and household sentiment might change both upward and downward, which could in turn affect economic activity. For example, amid the aforementioned downside risk, if uncertainty about the outlook for the global economy heightens further, global investors' risk aversion might intensify further. Consequently, if the foreign exchange and stock markets become unstable, Japan's economy might become weaker than expected through the deterioration in business and household sentiment. On the other hand, if accommodative monetary policies in advanced economies reduce uncertainty about the outlook for the economy and lead to stability in financial markets, Japan's economy could grow more than expected through the improvement in business and household sentiment.

The fourth risk concerns firms' medium- to long-term growth expectations. Recently, in order to capture demand for infrastructure and consumption in emerging and commodity-exporting economies, many firms have been working on developing new products and expanding their international sales network. On this point, there have been some moves toward reestablishment of the business structure from the global perspective by

taking advantage of the yen's appreciation to purchase overseas firms. If such moves accelerate, there is a possibility that firms' medium- to long-term growth expectations will rise and economic activity, particularly business fixed investment and exports, will become stronger than projected. On the other hand, if the efforts to increase the productivity of the economy as a whole are delayed and the sluggish trend in firms' growth expectations continues, there is a risk that business fixed investment in Japan could be restrained and private consumption, through a decline in households' expectations for income growth, could decrease more than expected.

B. Risks to Prices

There is also uncertainty regarding the outlook for price developments that could cause this to deviate either upward or downward from the projection. To begin with, if any of the aforementioned upside and downside risks affecting economic activity materialize, prices might be affected accordingly. There are also risks specific to prices, as follows. The first concerns firms' and households' medium- to long-term inflation expectations. While resource utilization of labor and production capacity is likely to recover in Japan, the pace is expected to remain moderate. In these circumstances, should firms and households expect a continued decline in prices, the decline in actual prices, together with wages, might accelerate.

The second risk concerns the high uncertainty in gauging the aggregate supply and demand balance and its impact on prices. When an economy experiences substantial fluctuations accompanied by structural changes in demand, as seen in the economy after the recent global financial crisis, the economy's actual supply capacity could be declining owing to the economic depreciation of existing capital stock. As a result, there is a risk of overestimating the downward pressure on prices. Moreover, there is high uncertainty regarding the degree and speed of how changes in the supply and demand balance affect prices, and this should be considered with a certain margin of error.

The third risk 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. In particular, depending on developments in emerging economies for which energy efficiency is lower than in advanced economies, and on capital

inflows to commodity markets on the back of accommodative monetary conditions in advanced economies, primary commodity prices might see large fluctuations both upward and downward. 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.

VI. Conduct of Monetary Policy

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" (hereafter "understanding") -- that is, the level of inflation that each Policy Board member understands, when conducting monetary policy, as being consistent with price stability over the medium to long term.^{9,10}

The first perspective involves assessing the baseline scenario of the outlook for economic activity and prices that is considered to be the most likely through fiscal 2012. As noted earlier, Japan's economy is likely to return to a moderate recovery path after a temporary slowdown in the pace of growth. As for prices, the year-on-year rate of decline in the CPI is expected to continue slowing. Given that the pace of improvement in the aggregate supply and demand balance is likely to be moderate, the timing of the year-on-year rate of change in the CPI entering positive territory is likely to be sometime in fiscal 2011, and thereafter the rate of increase will rise through fiscal 2012. In comprehensively assessing the outlook for economic activity and prices described above, Japan's economy is expected to continue making steady progress toward sustainable growth with price stability, although some more time is needed.

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.

⁹ The current "understanding" shows 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.

¹⁰ The Bank has made clear that it will maintain the virtually zero interest rate policy until it judges, on the basis of the "understanding," that price stability is in sight. The continuation of the virtually zero interest rate policy is subject to the condition that "no problem will be identified in examining risk factors, including the accumulation of financial imbalances."

In the area of economic activity, there are some upside risks such as faster growth in emerging and commodity-exporting economies. However, amid continued heightened uncertainty about the future, especially for the U.S. economy, attention should also be paid to downside risks to Japan's economy. Regarding the outlook for prices, there is a possibility that inflation would rise more than expected due to an increase in commodity prices brought about by high growth rates in emerging and commodity-exporting economies, while there is also a risk that the rate of inflation might fall due, for example, to a decline in medium- to long-term inflation expectations.

Based on the examination from the two perspectives described above, the Bank will continue to consistently make contributions as the central bank so that Japan's economy will overcome deflation and return to a sustainable growth path with price stability, by implementing the following three measures.

First, the Bank will maintain the virtually zero interest rate policy until it judges, on the basis of the "understanding," that price stability is in sight. It will also encourage the decline in longer-term interest rates and various risk premiums by establishing and utilizing the Asset Purchase Program. Through such "comprehensive monetary easing," the Bank will further enhance monetary easing. Second, it will continue to make determined efforts to ensure financial market stability by utilizing various funds-supplying operations. And third, the Bank will support positive efforts made by financial institutions and firms through the "fund-provisioning measure to support strengthening the foundations for economic growth." It will also contribute toward improving financial markets that suit the purpose of strengthening the foundations for economic growth. The Bank will continue to carefully examine the outlook for economic activity and prices, and take policy actions in an appropriate manner as the central bank.

This Outlook Report has explained the outlook for the economy with a focus on developments on the demand side over the period through fiscal 2012. It should be noted that an analysis from the supply side on the basis of a medium- to long-term perspective is also necessary. In Japan, the medium- to long-term factors and the structural factors such as the trend decline in the economic growth rate, low birth rate, and further population aging have a large impact on the economy, and the protracted decline in demand and

deflation are a manifestation of these fundamental problems. Vigorous activity by firms in the private sector, including financial institutions, based on entrepreneurship is of greatest importance to increasing the productivity of Japan's economy and raising growth potential. In doing so, it is essential for the government to make an effort to create an environment in which market vitality can be brought into full play. It is strongly expected that efforts made by private economic entities and the government in combination will help pave the way for steady progress toward raising growth potential. In view of such efforts, the Bank will continue to make contributions as the central bank so that the very accommodative monetary policy will be fully effective as a tool for advancing Japan's economy.

(Appendix 1)

Forecasts of the Majority of Policy Board Members

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2010	+2.0 to +2.3 [+2.1]	+0.7 to +0.9 [+0.9]	-0.5 to -0.3 [-0.4]
Forecasts made in July 2010	+2.5 to +2.7 [+2.6]	+1.2 to +1.3 [+1.2]	-0.5 to -0.2 [-0.4]
Fiscal 2011	+1.5 to +1.9 [+1.8]	+0.4 to +0.7 [+0.5]	0.0 to +0.3 [+0.1]
Forecasts made in July 2010	+1.8 to +2.1 [+1.9]	+0.5 to +0.9 [+0.8]	0.0 to +0.2 [+0.1]
Fiscal 2012	+2.0 to +2.4 [+2.1]	+0.3 to +0.8 [+0.6]	+0.2 to +0.8 [+0.6]

Notes: 1. Figures in brackets indicate the median of the Policy Board members' forecasts (point estimates).

2. The forecasts of the majority of the 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 forecast for the CPI for fiscal 2010 excludes the effects of subsidies for high school tuition, a factor that will significantly push down the year-on-year rate of change in the index for twelve months. This measure is estimated to push down the CPI (excluding fresh food) by about 0.5 percentage points.

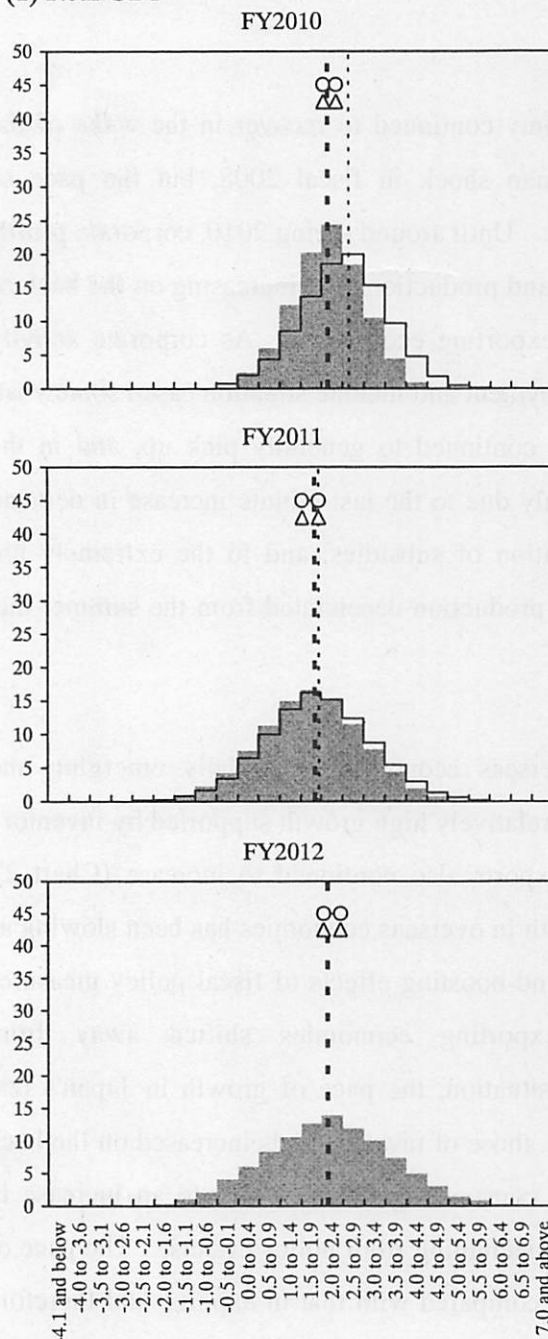
5. The range shown below includes the forecasts of all Policy Board members.

y/y % chg.

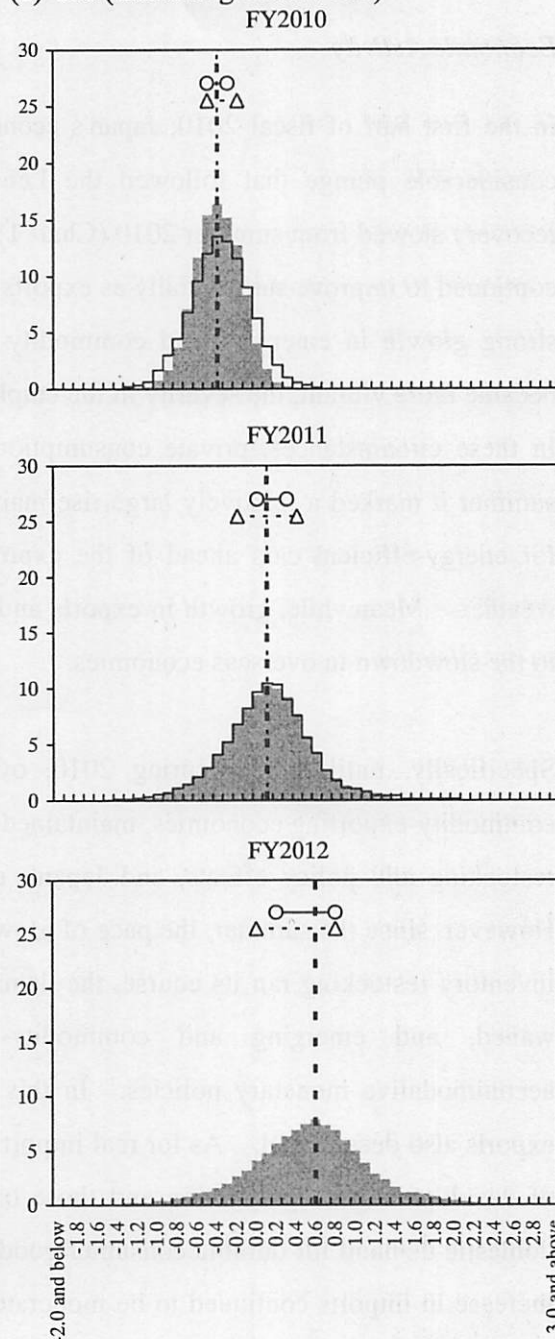
	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2010	+2.0 to +2.3	+0.5 to +0.9	-0.5 to -0.2
Forecasts made in July 2010	+2.2 to +2.7	+1.0 to +1.4	-0.5 to -0.2
Fiscal 2011	+1.5 to +1.9	+0.4 to +1.0	-0.2 to +0.4
Forecasts made in July 2010	+1.8 to +2.1	+0.5 to +1.0	-0.1 to +0.3
Fiscal 2012	+2.0 to +2.4	+0.3 to +1.0	0.0 to +0.8

Risk Balance Charts

(1) Real GDP



(2) CPI (Excluding Fresh Food)



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 October 2010, and solid lines represent those in July 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 July 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 the First Half of Fiscal 2010

Economic Activity

In the first half of fiscal 2010, Japan's economy continued to recover in the wake of the considerable plunge that followed the Lehman shock in fiscal 2008, but the pace of recovery slowed from summer 2010 (Chart 1). Until around spring 2010, corporate profits continued to improve substantially as exports and production kept increasing on the back of strong growth in emerging and commodity-exporting economies. As corporate activity became more vibrant, the severity in the employment and income situation eased somewhat. In these circumstances, private consumption continued to generally pick up, and in the summer it marked a relatively large rise mainly due to the last-minute increase in demand for energy-efficient cars ahead of the expiration of subsidies, and to the extremely hot weather. Meanwhile, growth in exports and production decelerated from the summer due to the slowdown in overseas economies.

Specifically, until around spring 2010, overseas economies, especially emerging and commodity-exporting economies, maintained relatively high growth supported by inventory restocking and policy effects, and Japan's exports also continued to increase (Chart 2). However, since the summer, the pace of growth in overseas economies has been slowing as inventory restocking ran its course, the demand-boosting effects of fiscal policy measures waned, and emerging and commodity-exporting economies shifted away from accommodative monetary policies. In this situation, the pace of growth in Japan's real exports also decelerated. As for real imports, those of raw materials increased on the back of developments in production and those of consumer goods rose due to an increase in domestic demand for durable consumer goods stemming from policy effects. The pace of increase in imports continued to be moderate compared with that in exports, and therefore net exports, in terms of the real trade balance, stayed on an increasing trend. Meanwhile, public investment continued to decline on the back of severe fiscal conditions.

In such developments in exogenous demand, corporate profits continued to improve due to sales increases resulting from the rise in production and firms' efforts to reduce costs such

as labor cost restraints (Chart 3 [1]). Business fixed investment started picking up on the back of an increase in production and a recovery in profits (Chart 3 [2]). However, as firms' sense of excessive capital stock persisted, it continued to be difficult for business fixed investment, which stayed at a low level, to gain momentum. Meanwhile, the employment and income situation remained severe -- as evidenced by the fact that the unemployment rate remained high, for example -- but the degree of severity eased somewhat. In terms of employment, the ratio of job offers to applicants continued to improve moderately, and the number of employees began to see a halt to declines on a year-on-year basis (Chart 4 [1]). As for wages, overtime payments continued to rise on a year-on-year basis due to an increase in working hours mainly in the manufacturing sector, and special payments, reflecting an improvement in business performance, surpassed the previous year's level (Chart 4 [2]). As a result, employee income turned positive on a year-on-year basis (Chart 4 [3]). Amid this employment and income situation, private consumption, notably durable goods consumption, continued to generally pick up on the back of various policy measures (Chart 5 [1]). Especially in the summer, car sales rose due to the last-minute increase in demand for energy-efficient cars ahead of the expiration of subsidies, and sales of air conditioners and beverages increased as a result of the extremely hot weather. Tobacco sales also rose due to the last-minute increase in demand ahead of the tax rise. Meanwhile, consumer sentiment followed the recovery trend until the summer but became somewhat weak thereafter partly due to the yen's appreciation and weak stock prices (Chart 5 [2]). Housing investment bottomed out against the backdrop of a decline in interest rates and progress in inventory adjustments (Chart 6).

Reflecting these developments in demand both at home and abroad, industrial production continued to increase, although the pace of increase decelerated gradually (Chart 7). On a year-on-year basis, production in many industries, especially the transport equipment and electronic parts and devices industries, continued to increase. Inventories were more or less unchanged while shipments rose, and the shipment-inventory balance recorded a clear improvement. However, the pace of increase in production -- especially in export-related industries -- decelerated from the summer on the back of the slowdown in overseas economies and the appreciation of the yen. Looking at the indices of all industrial activity, the level of those in the manufacturing sector had temporarily risen sharply but then the

year-on-year rate of increase declined gradually, while the rate of increase in the nonmanufacturing sector rose moderately (Chart 8). Against the background of such economic developments, business sentiment continued to improve and such improvements spread to a wider range of industries (Chart 3 [1]).

Reflecting these economic developments, resource utilization of labor and production capacity continued to improve (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, registered the largest negative value on record in the June 2009 *Tankan* (Short-Term Economic Survey of Enterprises in Japan); the value subsequently improved, although it remained in negative territory. The estimated negative output gap also steadily narrowed.¹¹

Prices

The decline in prices decelerated as the aggregate supply and demand balance improved gradually. The year-on-year rate of decline in the domestic corporate goods price index (CGPI) decelerated from mid-2009 and has recently been around 0 percent (Chart 10 [1]). The consumer price index (CPI) for all items excluding fresh food has continued to slow as a trend on a year-on-year basis (Charts 11 and 12).¹² The pace of decline in the CPI (excluding food and energy) has also generally decelerated. As firms' and households' medium- to long-term inflation expectations have remained stable, the effects of the gradual

¹¹ 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 possible that the negative output gap has been overestimated recently. On the other hand, it is also highly possible that the weighted average DI in 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.

¹² In terms of the CPI excluding high school tuition, which is pushing the CPI downward temporarily, the pace of decline is slowing moderately on a year-on-year basis (Chart 11 [2]). The year-on-year rate of decline in the trimmed mean CPI -- which eliminated those items for which prices are fluctuating to a considerable degree -- has also been narrowing.

improvement in the aggregate supply and demand balance have been spreading to prices with a time lag.¹³

Financial Markets

International financial markets, which had been on an improving trend, became unstable after spring 2010, mainly due to global investors' intensified risk aversion as concerns about the sovereign debt problem in European peripheral countries including Greece emerged and a series of weaker-than-expected economic indicators were subsequently released in the United States.

In the U.S. and European money markets, spreads between U.S. dollar interbank rates and short-term government securities, which had been stable at low levels, showed some widening after spring 2010 (Chart 13 [1]). Such developments appear to be attributable to increasing precautionary holding of dollar funds amid intensified risk aversion by investors. In these circumstances, the U.S. dollar funds-supplying operation, wound up at the beginning of February 2010, were reestablished in May among several countries including Japan. Investors' intensified risk aversion also affected the corporate bond market, and credit spreads on corporate bonds mainly in the United States and Europe widened somewhat (Chart 13 [2]). In European peripheral countries, there was a substantial increase from spring 2010 in credit default swap premiums and spreads for long-term interest rates against German government bonds (Chart 14). Policy rates were maintained at low levels in the United States and Europe, while emerging and commodity-exporting economies continued to shift away from accommodative monetary policies (Chart 15).

In Japan's financial markets, the money market continued to be stable despite the U.S. dollar funds market becoming unstable in the United States and Europe. The overnight call rate remained at extremely low levels and interest rates on term instruments continued to decline moderately (Chart 16 [1]). While the Bank was pursuing powerful monetary easing, there were increasing views in the market that low interest rates would continue for the time being, and thus Euroyen futures rates and implied forward rates declined (Chart 16

¹³ In relation to the CPI, see Box 1 for developments in service prices and wages in Japan and other major economies.

[2] and [3]). Long-term interest rates continued to be on a downtrend as the Bank was pursuing powerful monetary easing and U.S. and European long-term interest rates declined substantially (Chart 17). As a result, the yield curve in Japan flattened further. Stock prices in Japan fell substantially against the backdrop of U.S. and European stock prices having plunged as the sovereign debt problem in European peripheral countries became further aggravated. Japan's stock prices thereafter remained more or less unchanged as the yen's appreciation contained their rise, despite a recovery in U.S. and European stock prices (Chart 18). In the foreign exchange markets, amid global investors' intensified risk aversion and smaller differences in interest rates between Japan and other countries, demand increased for the yen, which was viewed as a relatively safe currency, and thus the yen appreciated (Chart 19).¹⁴

To further enhance monetary easing, the Bank introduced in August 2010 a six-month term in its fixed-rate funds-supplying operation against pooled collateral (hereafter the fixed-rate operation). Together with the existing three-month term, the total amount of funds to be provided through the fixed-rate operation increased to about 30 trillion yen.¹⁵ Moreover, on October 5, 2010, the Bank decided to implement comprehensive monetary easing composed of the following three measures. First, it changed the target for the uncollateralized overnight call rate from "around 0.1 percent" to "around 0 to 0.1 percent." Second, the Bank confirmed that it would maintain the virtually zero interest rate policy until it judged that price stability was in sight, and that its "understanding of medium- to long-term price stability" would be the basis of such judgment. However, continuation of the virtually zero interest rate policy would be on the condition that no problem was identified in examining risk factors, including the accumulation of financial imbalances. Third, as a temporary measure, the Bank decided to establish a program on the balance sheet to purchase various financial assets such as government securities, CP, corporate bonds, exchange-traded funds (ETFs), and Japan real estate investment trusts (J-REITs), and to conduct the fixed-rate operation. The size of the program was set at around 35

¹⁴ See Box 2 for the background to recent fluctuations in foreign exchange rates.

¹⁵ See Box 3 for developments in the asset sizes of central banks in major economies including Japan.

trillion yen, which was the sum of assets to be newly purchased -- about 5 trillion yen -- and the size of the fixed-rate operation -- about 30 trillion yen.

The Financial Environment

Financial conditions continued to show signs of easing. Issuing conditions for CP remained favorable, with credit spreads being generally stable at low levels (Chart 20). In the corporate bond market, issuing conditions for high- and medium-rated bonds remained favorable, and there were signs of improvement in issuing conditions for low-rated bonds. Credit spreads for high- and medium-rated corporate bonds were more or less unchanged at low levels (Chart 21). Those for low-rated bonds widened temporarily as the sovereign debt problem in Europe became aggravated, but then narrowed. Bank lending rates continued to decrease partly reflecting the decline in interest rates on term instruments (Chart 22 [1]). Against this backdrop, firms' funding costs declined. While stimulative effects from low interest rates were still partly constrained given current developments in economic activity and prices, such effects were beginning to strengthen in light of improved corporate profits (Chart 23).

With regard to credit supply, financial institutions' lending stance eased. Small firms viewed financial institutions' lending attitudes as improving, though the improvement was somewhat lagging behind that of large firms (Chart 24 [1]). As for credit demand, firms' need to fund working capital and fixed investment declined, and some firms reduced the on-hand liquidity that they had accumulated, due partly to the inflow of funds arising from strong corporate profits.

Given the aforementioned financial conditions for firms' funding, bank lending declined on a year-on-year basis (Chart 22 [2]). This is attributable not only to the decrease following the previous year's high level of substitution of CP and corporate bonds for loans from banks, due to the poor functioning of the markets for those products, but also to reduced demand for funds among firms. Firms' financial positions continued to show signs of improvement as a whole, and both large and small firms judged their financial positions to be less tight than the average situation after the bursting of the bubble economy (Chart 24

[2]). Meanwhile, the year-on-year rate of growth in the money stock (M2) was within a range of around 2.5-3.0 percent (Chart 22 [3]).

Land prices continued to decline in both metropolitan and nonmetropolitan areas. According to the *Land Price Survey by Prefectural Governments* as of July 1, 2010, both commercial and residential land prices in the three major metropolitan areas (Tokyo, Osaka, and Nagoya) showed a slower year-on-year decline (Chart 25). In nonmetropolitan areas, on the other hand, commercial and residential land prices declined at around the same pace as in the previous year. The fall in commercial and residential land prices in the 23 wards of Tokyo moderated and there were signs of leveling out.¹⁶

II. The Outlook for Economic Activity and Prices from the Second Half of Fiscal 2010 through Fiscal 2012

The Outlook for Economic Activity and Prices

The Bank's projections for economic activity in Japan from the second half of fiscal 2010 through fiscal 2012 are as follows. Japan's economy is likely to continue growing at a slower pace for some time but is expected to recover at a moderate pace thereafter. In the second half of fiscal 2010, the pace of recovery is likely to slow due to factors such as the slowdown in overseas economies and the ending of the boost from policy measures targeted at durable consumer goods, as well as the recent appreciation of the yen. After entering fiscal 2011, albeit with some lingering effects of the yen's appreciation, the economy is expected to return to a moderate recovery path, given that exports are projected to continue increasing as the growth rate of overseas economies is likely to rise again, and that excesses in firms' capital stock and labor are likely to be resolved as corporate profits improve. In fiscal 2012, Japan's economy is expected to grow at a pace above its potential, as the transmission mechanism by which the strength in exports and production feeds through into income and spending will likely operate more effectively amid the continued relatively high growth in overseas economies, especially emerging and commodity-exporting economies.

¹⁶ Land prices are compared on a semiannual basis for areas that are surveyed in both the *Public Notice of Land Prices* and the *Land Price Survey by Prefectural Governments*.

Expressing the outlook in terms of annual real GDP growth rate, this is projected to be in the range of 2.0-2.5 percent, 1.5-2.0 percent, and 2.0-2.5 percent in fiscal 2010, fiscal 2011, and fiscal 2012, respectively. The growth rate for fiscal 2010 is likely to be somewhat lower than the projection in the July 2010 interim assessment.¹⁷

Meanwhile, industrial production, after correcting a distortion in seasonal adjustments, is projected to take a downward turn temporarily in the October-December quarter of 2010, primarily in transport equipment. This is mainly due to the expected decline following the last-minute increase in demand for energy-efficient cars and tobacco, the ending of the boost from the extremely hot summer, and the appreciation of the yen. Production subsequently is likely to return to an increasing trend, as is real GDP.

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 from fiscal 2009, net saving in the private sector will remain considerable as the pace of recovery in business and consumer sentiment is likely to be moderate (Chart 26). Net saving is likely to be somewhat larger than the fiscal deficit, implying that the current account surplus will continue and increase moderately.

As for the outlook for prices in terms of price indices, the CGPI is expected to continue rising moderately on a year-on-year basis throughout the projection period due mainly to the improvement in the aggregate supply and demand balance and to the rise in commodity prices, despite the effects of the yen's appreciation. Looking at the CPI (excluding fresh food), the year-on-year pace of decline is expected to continue slowing as the aggregate supply and demand balance improves gradually amid stable medium- to long-term inflation expectations. There are prospects that the rate of change in the CPI could enter positive

¹⁷ The downward deviation of the growth rate for fiscal 2010 from the projection in the July 2010 interim assessment is also attributable to a smaller carry-over effect from fiscal 2009 on GDP growth for fiscal 2010, due to the downward revision of the GDP data for the second half of fiscal 2009. In addition, there is a possibility that the real GDP growth rate for the April-June quarter of 2010 is somewhat lower than the actual rate partly due to the volatility in demand-side statistics, such as the *Family Income and Expenditure Survey* and the *Survey of Household Economy*, which are used for calculating private consumption in the GDP statistics.

territory in fiscal 2011 and the rate of increase could start to rise through fiscal 2012.¹⁸ Compared with the July 2010 interim assessment, the projection for the CGPI is somewhat lower for both fiscal 2010 and fiscal 2011. The projection for the CPI is more or less unchanged for both fiscal 2010 and fiscal 2011.

Given these economic and price developments, nominal income is also expected to gradually pick up toward the latter half of the projection period.

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

The Environment Surrounding Exports

Overseas economies had continued to exhibit strong growth until around spring 2010, reflecting the restocking of inventories and the effects of policy measures. However, the pace of growth in overseas economies has been slowing somewhat since the summer, as inventory restocking and the demand-boosting effects of fiscal policy measures have been waning and emerging and commodity-exporting economies have been shifting away from accommodative monetary policies. Looking at developments by region, while the U.S. economy continues to recover at a moderate pace, led in particular by exports, it has been on a slowing trend from around mid-2010 on a lack of momentum in private consumption and housing investment in a situation where the economy faces a balance-sheet problem. Economic activity in Europe is recovering moderately as a whole, but there are some differences in the pace of recovery by country. Emerging and commodity-exporting economies, led mainly by robust domestic demand, continue to grow at a relatively rapid pace as they do not face a balance-sheet problem, unlike the United States, although the pace of growth has started to slow somewhat partly due to the shifting away from accommodative monetary policies.

¹⁸ The forecast for the CPI (excluding fresh food) for fiscal 2010 excludes the effects of subsidies for high school tuition, a factor that will significantly push down the year-on-year rate of change in the index for twelve months. Specifically, the waiver of public high school tuition and the provision of tuition aid for private high school attendance are projected to push down the CPI (excluding fresh food) by about 0.5 percentage points.

Against the background of these developments in overseas economies, Japan's exports, which continued to register high growth, have seen an evident slowdown in recent months. Looking at real exports by region, deceleration is noticeable mainly in those to emerging economies (Chart 27 [1]). In terms of goods categories, exports of motor vehicles and related goods, as well as capital goods and parts, which had been rising at a rapid pace until recently, have decelerated markedly (Chart 27 [2] and [3]). As for IT-related goods, from spring 2009, demand had been rising globally on the back of growth in emerging economies and expansion in the market for new models of IT products. Recently, however, there have been some signs that prospects for growth in final demand for and shipments of such goods have stopped improving and some firms have even made downward revisions to their projections. Consequently, inventories of liquid crystal panels and some semiconductors have become somewhat excessive on a global basis, and this has been having a negative impact on Japan's exports and production of these goods (Chart 27 [4]).

It is projected that overseas economies will grow at a slower pace for the time being, but the recovery trend itself will not be interrupted, and from fiscal 2011 the growth rate will start to increase again (Chart 28). The key to this scenario is developments in emerging and commodity-exporting economies, which have been the driving force behind the growth of the global economy in recent years. These economies are likely to grow at a somewhat slower pace temporarily, due to the shifting away from accommodative monetary policies, but maintain relatively high growth given that the virtuous circle of growth in production, income, and spending will be functioning amid continued robust domestic demand and capital inflows from overseas. In emerging and commodity-exporting economies, potential demand for consumer durable goods such as cars and electrical appliances is extremely high, reflecting the rise in people's income level. Social infrastructure remains underdeveloped and business fixed investment to expand production capacity is also strong as growth expectations are high. Furthermore, as advanced economies are expected to maintain accommodative financial conditions, capital inflows to emerging and commodity-exporting economies are likely to continue. Given these factors, strong growth in emerging and commodity-exporting economies, particularly in domestic demand, is expected to continue as long as the sense of economic overheating is restrained

appropriately. Overseas economies as a whole will likely continue recovering throughout the projection period, with the growth in emerging and commodity-exporting economies being the main engine. With regard to the U.S. and European economies, the pace of recovery is likely to remain slow for some time, with the impact of balance-sheet adjustments continuing while inventory restocking and the demand-boosting effects of fiscal policy measures wane. Nevertheless, the growth rate is expected to rise gradually as the momentum for a self-sustaining recovery in private demand is likely to increase slowly but steadily in line with progress in balance-sheet adjustments.

Meanwhile, regarding IT-related goods, the growth in global demand for personal computers and liquid crystal display televisions has been declining compared with the earlier period, and shipments of semiconductors worldwide have been leveling off (Chart 29 [1]). Consequently, the growth in shipments of IT-related goods in Asian countries has been slowing (Chart 29 [2]). Prior to this situation, however, signs of overheating were not as strong as those in the period of the so-called "IT bubble" in the early 2000s (Chart 29 [3]). Global production capacity has been restrained as a whole (Chart 29 [4]). In view of these factors, the risk of a serious oversupply seems unlikely for the time being and inventory adjustments of such goods are expected to be limited. However, supply and demand conditions in this area can often change significantly in a short period of time, and therefore possible negative effects on Japan's exports and production continue to warrant close monitoring.

Against the backdrop of continued growth in overseas economies, particularly in emerging and commodity-exporting economies, Japan's exports are expected to follow an upward trend in the projection period on the whole. In the near future, however, the pace of increase is likely to remain moderate due to the effects of the slowdown in overseas economies and the appreciation of the yen, as well as inventory adjustments in IT-related sectors.

Firms' Profits and Spending Behavior

Regarding the corporate sector, corporate profits, especially in manufacturing industries, have continued to improve (Chart 30). For some time following the Lehman shock, firms

made efforts to restrain the decline in their profits through a reduction in costs such as labor costs. Firms' profits subsequently started to rise on the back of sales growth in tandem with the increase in exports and production.

As for the outlook, in the manufacturing sector, corporate profits are expected to continue recovering, with production remaining on the uptrend as overseas economies continue to recover. However, profits of manufacturing firms might become sluggish temporarily due mainly to the appreciation of the yen, the slowdown in overseas economies, and the expected decline following the last-minute increase in demand for energy-efficient cars. While profits of nonmanufacturing firms are also expected to keep improving, it is likely that the improvement in their business performance will lag behind that of manufacturing firms, given the ongoing cost reduction efforts by firms and the moderate recovery in domestic demand. Therefore, it is likely to take some more time for positive activity in the corporate sector as a whole to strengthen.

Business fixed investment is showing signs of picking up as production continues to recover and firms' sense of excessive capital stock is dispelled gradually. The pick-up in business fixed investment is expected to gradually become more evident with firms' medium- to long-term growth expectations being maintained as the capacity utilization rate rises (Chart 31). The fact that the amount of business fixed investment in fiscal 2009 relative to capital stock is at a very low level also suggests that, as long as firms' growth expectations do not become largely negative, business fixed investment in fiscal 2010 will start to increase (Chart 32). However, the pace of increase is likely to remain moderate in fiscal 2010 and is expected to start rising somewhat from fiscal 2011. If the recovery trend of the economy continues, firms' medium- to long-term growth expectations are expected to rise gradually, but the pace would likely be moderate. Therefore, the level of business fixed investment relative to cash flow is likely to remain constrained (Chart 33). By industry, in the manufacturing sector, as exports and production recover, the capacity utilization rate is likely to rise and the recovery in business fixed investment is expected to become more pronounced. In the nonmanufacturing sector, firms, especially retailers, are likely to maintain their restrained investment stance for the time being mainly due to a moderate recovery in private consumption. On the other hand, investment -- especially in

environmental protection and for replacement -- by firms involved in social infrastructure such as electricity and railroads is projected to increase steadily.

Meanwhile, firms' overseas business fixed investment is expected to recover earlier than domestic business fixed investment (Chart 34 [1]). As emerging and commodity-exporting economies have become a driving force in the global economy, Japanese firms are likely to further accelerate their establishment of overseas bases, including sites for developing mass-produced items targeted at local residents, and the overseas production ratio is projected to rise steadily (Chart 34 [2] and [3]). It is likely that a production of high-mix, low-volume capital goods, as well as research and development functions of new products and advanced technologies, will continue to serve as the important roles of domestic bases (Chart 34 [4]). In this way, along with the expansion of overseas bases, firms will likely reconfigure the system of the international division of labor by maintaining the functions of domestic production and exports to a certain degree.

The motivation for entering some Asian emerging economies is attributed not only to inexpensive labor and the economies' growth potential but also to the increasing attractiveness of those economies as bases for exports, partly due to free trade agreements they concluded with other countries. Not only manufacturers of finished products but also parts manufacturers with sophisticated technologies are actively moving into those Asian emerging economies, and the phenomena of "the deepening of cooperation and division in production" and "profits due to concentration" are expanding there. The improvement in local workers' skills and productivity is said to be remarkable. As this situation suggests, the factors that could affect Japanese manufacturing firms' management strategies seem to be not only the expansion of overseas markets and the appreciation of the yen, but also the increasing competitiveness of emerging economies in terms of technological level and business environment.

The Employment and Income Situation and Households' Spending Behavior

The employment and income situation has remained severe, but the degree of severity has eased somewhat. While the unemployment rate has remained high, non-scheduled hours

worked have been increasing, the ratio of job offers to applicants has risen moderately, and the number of employees has begun to see a halt to declines on a year-on-year basis. As for wages, overtime payments have continued to rise on a year-on-year basis and special payments, reflecting an improvement in corporate profits, have recently been marking a year-on-year increase.

As for the outlook, while the sense of excessive workforces lingers, the pace of improvement in the employment and income situation will likely remain only modest, and it seems some more time is needed before an increase in compensation of employees becomes evident.

Looking at the labor supply and demand situation, labor productivity, when viewed in terms of labor productivity per worker, clearly remains below the past trend (Chart 35 [1] and [2]).¹⁹ This suggests that there is still an excess of workers relative to demand. 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 continuing to restrain employment. In terms of labor supply, the labor force participation rate at the time of an economic downturn declines because the number of people who exit the labor market increases as it is difficult to gain employment. When economic activity recovers, on the other hand, the labor force participation rate rises as the number of people entering the labor market rises due to an increase in job opportunities. Therefore, if the economy follows a moderate recovery trend, there is a possibility not only of a rise in labor demand but also of increased participation in the labor

¹⁹ Estimates of the trend in labor productivity are subject to a certain margin of error. For example, while the decline in manufacturing employment has persisted 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, an increase in labor productivity as a whole becomes moderate, thus speeding up a recovery in employment.

market, or in other words labor supply.²⁰ The unemployment rate is also likely to remain high and follow only a slight downtrend throughout the projection period (Chart 35 [3]).

Meanwhile, wages per employee have recently been positive on a year-on-year basis due to an increase in working hours and a rise in special wages reflecting improvement in corporate profits. However, amid a strong sense of excessive employment, firms maintain their stance of restraining labor costs. The labor income share has declined from its recent peak but remains considerably higher than the levels seen around 2004-07 (Chart 36). Given this relatively high level, the labor income share is expected to stay on a moderate downtrend. Therefore, it is likely to be sometime in the latter half of the projection period before wages per employee realize a stable and continued increase. As for income transfer from the government to households, households' disposable income was underpinned to a considerable extent due to various subsidies and the handout of cash benefits in fiscal 2009 (Chart 37 [1]). In fiscal 2010, while child allowances have started to be provided, the total amount of income transferred to households is expected to decline compared with fiscal 2009.

In the aforementioned employment and income situation, private consumption, notably durable goods consumption, continues to generally pick up partly due to the effects of various policy measures. In the second half of fiscal 2010, private consumption is likely to weaken temporarily due to the expected decline in car sales following the expiration of subsidies for energy-efficient cars. From fiscal 2011, as the improvement in the employment and income situation progresses, it is likely that private consumption will slowly gain firmness and the momentum for its self-sustaining recovery will gradually build. However, the pace of recovery in consumption is unlikely to gain momentum because there

²⁰ There is high uncertainty as to what extent entry to the labor market will increase in accordance with an economic recovery. Recently, while the population's aging has been putting downward pressure on the potential labor force, there has been an increased desire for employment among women in particular, and structural changes in the market to facilitate such desire. How the balance between those various factors plays out could affect the potential supply capacity of labor and eventually the developments in supply and demand in labor market, as well as wages. For details, see Kawata and Naganuma, "Labor Force Participation Rate in Japan," Bank of Japan Review Series, 2010-E-7.

is a possibility that the improvement in employees' compensation will remain only moderate and anxiety over the future will persist -- for example, regarding fiscal deficits.

Considering the aforementioned outlook in terms of the propensity to consume, this is expected to slightly decline throughout the projection period (Chart 37 [2]). The reason is that when expected future income is not likely to increase much, then even if disposable income increases due to income transfers, a considerable proportion of such an increase is likely to go to savings.²¹ Moreover, anxiety over the future against a backdrop of such factors as the large fiscal deficit is likely to 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 the population's aging, may rise slightly throughout the projection period in accordance with the decline in the propensity to consume. 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 aforementioned projection. On the other hand, if firms become more capable of 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 has recently stopped declining. The number of housing starts, a leading indicator, bottomed out in the July-September quarter of 2009 and have been picking up since then. This is attributable to the fact that adjustments of condominium prices have been making progress due to low borrowing rates (Chart 6 [2]) and, in conjunction with the various policy support measures, an environment is gradually developing in which pent-up demand is likely to materialize. Inventory adjustments have also made good progress (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 buy secondhand ones or renovate. Taking these points into account, the pace of increase in housing investment is likely to remain moderate.

²¹ Studies and surveys by various 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.

The Environment Surrounding Prices

Looking at the recent price environment at the retail level, consumers' preference for inexpensive goods remains deeply ingrained and price competition among firms continues. However, the DIs for input and output prices in the *Tankan* have been leveling out on the back of the pick-up in the economy and the increase in commodity prices (Chart 38). Looking at average purchase prices of goods calculated on the basis of the *Family Income and Expenditure Survey*, some prices declined at a slower pace or started to rise (Chart 39).²² Against this backdrop, consumer prices (excluding fresh food) have been moving more or less in line with the forecast in the July 2010 interim assessment.

Looking at the future price environment, the state of utilization of employment and production capacity, which reflects the aggregate supply and demand balance of goods and services, has been improving gradually with the economy's moderate recovery trend (Chart 40 [1]). It should be noted, however, that there is high uncertainty in terms of gauging the aggregate supply and demand balance. When an economy experiences substantial fluctuations accompanied by structural changes in demand, its actual supply capacity could be declining owing to the economic depreciation and the reduction of capital stock (Chart 40 [2]).²³ In this case, if the degree of economic slack is judged 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.

²² 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.

²³ Looking at the potential growth rate in detail, capital stock has recently started to decline on the back of a low level of business fixed investment, and the pace of decline in potential workers has been accelerating due to a widening mismatch between labor supply and demand. Therefore, Japan's current potential growth rate appears to be quite low. Regarding the outlook, as capital stock and the number of potential workers are likely to recover gradually, the potential growth rate is also expected to increase moderately. During the projection period, the potential growth rate is likely to be "around 0.5 percent" on average. See Box 4 for estimates and points to be considered on the potential growth rate.

Unit labor costs (labor costs per real GDP) are likely to stay on a declining trend as a result of firms' persistent stance of restraining labor costs, but the pace of decline in unit labor costs is expected to moderate gradually with a recovery in employment and wages (Chart 41).

Meanwhile, medium- to long-term inflation expectations have remained stable. 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 one year from now" has been slightly below 0 percent, while the "expected rate of inflation over the next five years" has remained relatively stable at a slightly positive level (Chart 42 [1]). Economists' expected rate of inflation in the medium to long term has been stable at around 1.0 percent in recent years (Chart 42 [2]).

Commodity prices have been increasing moderately as a trend with some fluctuations, due mainly to high growth in emerging and commodity-exporting economies (Chart 43). While there are both upside and downside uncertainties regarding the outlook, commodity prices are assumed to increase moderately throughout the projection period on the back of the continued relatively strong growth in emerging and commodity-exporting economies.²⁴ Meanwhile, the recent appreciation of the yen, for the time being, is likely to exert downward pressure on domestic prices through import prices.

It is expected that the aggregate supply and demand balance will improve gradually as medium- to long-term inflation expectations remain stable. The year-on-year pace of decline in the CPI (excluding fresh food) is expected to continue slowing. There are prospects that the rate of change in the CPI could enter positive territory in fiscal 2011 and the rate of increase could start rising through fiscal 2012 (Chart 44).

Another issue to be noted in monitoring future developments in the CPI is the revision of

²⁴ There is a risk that economic activity in emerging and commodity-exporting economies might overheat depending on their future conduct of macroeconomic policy. In this case, commodity prices could increase. This could in turn generate upward pressure on prices in Japan, while it could also pose a downside risk to Japan's domestic private demand through deterioration in the terms of trade.

the base year for the CPI. Given that considerable time has passed since 2005 -- the current base year for the CPI -- the change in durable consumer goods prices, for which index levels have dropped significantly in the interim, has made a smaller negative contribution to the total index. As a result, there is an increasing tendency for the year-on-year decline in the CPI as a whole to appear small. 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, is likely to be revised downward from the current outlook. Moreover, given that the weight of durable consumer goods has increased due to demand-boosting policy measures, the impact of those goods on the overall index could become large. The base-year change from 2005 to 2010 is scheduled to take place in August 2011, and the year-on-year rate of change prior to December 2010 is not scheduled to be revised retroactively.

(Box 1) Developments in Service Prices and Wages

In comparing long-term developments in the consumer price indexes (CPIs) in Japan, the United States, and the euro area by goods and services, the rate of change in goods prices and service prices has generally been low in Japan. Service prices have been conspicuously sluggish (Box 1 Chart [1]). Comparing the changes in the CPI in Japan with those in the United States by goods prices and service prices, most of the distinction can be explained by the difference in the rate of change in service prices.

Given that the service industry is more labor intensive than the goods industry, service prices are susceptible to wage changes. Therefore, the somewhat weak developments in service prices over a period of many years in Japan might be mainly attributable to the fact that the growth rate of wages in service-related industries has been lower compared with those in the United States and Europe.

While many factors -- such as the degree of tightness in supply and demand conditions reflecting economic conditions, as well as the difference in medium- to long-term inflation expectations -- could be behind the aforementioned developments, there is also a possibility that the difference in the adjustment mechanism in labor markets during the economic downturn might have had an effect.

Looking at the labor market in Japan, firms -- which faced the challenge of reducing labor costs for a long period following the bursting of the bubble economy -- had focused on reductions not only in employment (i.e., an increase in unemployment) but also in nominal wages, while workers placed the highest priority in containing cuts in employment and consequently accepted a reduction in wages.²⁵ In fact, a comparison of Japan's labor supply and demand-related indicators with those of the United States and the euro area shows that, while the labor cost per worker in Japan has fallen substantially compared with that in the United States and the euro area due to labor cost restraints by firms, the unemployment rate in Japan has remained at a lower level (Box 1 Chart [2]). On the other

²⁵ Adjustments in nominal wages have been made in the form of a reduction in bonuses and regular wages, as well as an increase in the ratio of part-time workers.

hand, during the recent phase of economic slowdown, it has been characteristic in the United States and the euro area for job cutbacks to be made rapidly in a short period, and unemployment rates have surged while wage changes have been relatively small. However, in the United States, the growth rates of wages and prices have recently been slowing amid an elevated unemployment rate, and these developments warrant attention.

(Box 2) Background to Recent Fluctuations in Foreign Exchange Rates

Looking back at developments in the nominal effective exchange rates of various currencies after the Lehman shock, currencies such as the Japanese yen and Swiss franc -- which are viewed as relatively safe and offer low interest -- appreciated substantially due to intensified risk aversion by global investors on the back of the heightened anxiety worldwide over financial systems and a rapid deterioration in business sentiment, as well as a narrowing of the international interest rate spread (Box 2 Chart [1]). On the other hand, the euro depreciated from autumn 2009, triggered by an increased awareness of the sovereign debt problem in European peripheral countries. Meanwhile, emerging and commodity-exporting countries' currencies, such as the Australian dollar, Brazilian real, and Korean won, depreciated substantially immediately after the Lehman shock. Thereafter, the Australian dollar and Brazilian real appreciated substantially due to high growth in their economies, while the Korean won appreciated by a relatively small extent.

Since summer 2010, the nominal effective exchange rates of emerging and commodity-exporting economies have risen substantially, with the Australian dollar reaching a record high since 1983 against the U.S. dollar and the Thai baht hovering at around the highest level since 1997 (Box 2 Chart [2]). The Japanese yen and Swiss franc have appreciated because they are viewed as relatively safe currencies, and both countries' interest rate differential with the U.S. interest rate has narrowed. The euro, amid continued awareness of the sovereign debt problem in European peripheral countries, has been more or less unchanged. On the other hand, the U.S. dollar has been depreciating, and has fallen against almost all major currencies. Meanwhile, some emerging economy currencies, such as the Chinese renminbi, have depreciated in conjunction with the U.S. dollar. Taking into account these developments in foreign exchange rates since summer 2010, the largest factor behind the fluctuation in rates appears to have been the uncertainty about the U.S. economic outlook.

(Box 3) Asset Sizes of the Major Central Banks

In order to address the financial crisis following the failure of Lehman Brothers in fall 2008, the Federal Reserve Board (FRB), the European Central Bank (ECB), and the Bank of England (BOE) lowered their policy rates to a level of virtually zero, and increased liquidity provision to cope with the decline in functioning of the interbank markets. Moreover, to restore liquidity in markets experiencing widespread dysfunction, they implemented measures such as asset purchasing. As a result, the asset sizes of the central banks expanded rapidly and the ratios of their asset sizes to nominal GDP increased by some 10 percentage points each (Box 3 Chart). The high level of asset sizes is being maintained at present, with the ratio of asset size to nominal GDP at around 15 percent for the FRB and the BOE, and about 20 percent for the ECB.

The Bank of Japan's ratio of asset size to nominal GDP had also previously increased rapidly, mainly as the Bank lowered the policy rate to 0.5 percent in 1995 and increased liquidity provision in response to the financial crisis in 1997-98. Thereafter, since liquidity provision increased further as a result of the introduction of the zero interest rate and quantitative easing policies, the ratio of asset size to nominal GDP rose further to about 30 percent at its peak in 2004-05. This marked an increase of about a 20 percentage points compared with 1995, when the policy rate was lowered to 0.5 percent -- a level almost equivalent to the current policy rates of the other major central banks. Subsequently, in accordance with the lifting of the quantitative easing policy, the ratio declined but increased once again as the Bank undertook aggressive liquidity provision to cope with the economic and financial situation following the failure of Lehman Brothers, and the ratio now stands at around 25 percent.

The Bank of Japan is currently the largest among major central banks both in terms of asset size relative to the size of the economy and the increase in the size of its assets between the inception of an extremely low level of policy rate -- virtually a zero interest rate -- and the peak.

(Box 4) Estimation of Potential Growth Rate

The potential growth rate is defined as an indicator of the sustainable economic growth path over the medium to long term. A country's economic growth rate will be determined by the economy's supply capacity in the medium to long term, and thus the potential growth rate could be considered as the growth rate of the supply capacity. Since the potential growth rate is, as its name implies, a "potential" concept that cannot be observed objectively, it has to be estimated through some means or other. The following outlines the estimation method used by the Bank and points to keep in mind when interpreting the estimated potential growth rate.

1. Estimation Method of Potential Growth Rate

The Bank, like other central banks, estimates the potential growth rate using the method known as the "production function approach."²⁶ In this approach, GDP is assumed to be determined by the production factor inputs such as capital and labor and by the total factor productivity (TFP). The relationship between the three is generally expressed in the Cobb-Douglas production function.²⁷ The GDP growth rate that corresponds to the potential inputs of each production factor is considered as the potential growth rate. Specifically, the potential growth rate is estimated as follows.

Step 1: Measurement of the capital stock (Box 4 Chart [1])

The Bank uses capital stock data in the Japan Industrial Productivity Database. These capital stock data are measured by taking account of the economic depreciation of capital stock due partly to technologies becoming obsolete, and are deemed desirable to estimate the potential growth rate.

²⁶ For detailed estimation method, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.

²⁷ $Y = (1 - \alpha) K + \alpha L + TFP$ where Y represents GDP, K the capital input, L the labor input, and TFP is the total factor productivity (all expressed in logarithms). The constant α expresses labor's share, and $1 - \alpha$ is capital's share. In the actual estimation of the potential growth rate, the past average is often used for α .

Step 2: Measurement of the potential labor input (Box 4 Chart [2], [3], and [4])

Potential labor input is determined by the potential number of workers and the potential number of hours the workers can work (potential working hours). As for the potential number of workers, first estimate the trend of labor force participation rate by gender and by age group,²⁸ and then estimate the weighted average of those against the population of each gender and age group to obtain the macro trend of the labor force participation rate. It is then multiplied by the potential employment rate (1 minus the structural unemployment rate) and the population aged 15 years and over to obtain the potential number of workers.²⁹ Potential working hours are obtained by estimating the trend of regular working hours and overtime hours, separately for full-time workers and part-time workers, and then by computing the weighted average.³⁰

Step 3: Estimation of TFP (Box 4 Chart [5])

TFP is estimated by computing the weighted average of actual capital input and labor input by capital share and labor share, and by subtracting the result from actual GDP. However, as TFP obtained by this method is subject to fluctuations in quarterly GDP data, it is smoothed by the HP filter.

Step 4: Estimation of potential growth rate

The potential growth rate is estimated by computing the weighted average of the capital stock growth rate obtained in Step 1 and potential labor input growth rate obtained in Step 2 by capital share and labor share, and by adding the smoothed TFP growth rate.

²⁸ The Hodrick-Prescott (HP) filter is used in estimating the trend of the labor force participation rate.

²⁹ The structural unemployment rate is estimated based on the relationship between the employment rate and the vacancy rate.

³⁰ The estimation method for the trend of regular working hours has been slightly revised based on data accumulated after the publication of "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3. Specifically, the trend of the regular working hours for part-time workers, previously flat, has been changed to a downtrend.

³¹ With respect to the potential growth estimation method and its uncertainty, see "Measuring Potential Growth in Japan: Some Practical Caveats," Bank of Japan Review Series, 2010-E-1, and Box 2 (Uncertainty about the Measurement of the Potential Growth Rate and the Output Gap) in *Outlook for Economic Activities and Prices*, April 2009.

2. Points to Be Considered on Potential Growth Rate

First, since potential growth rate is estimated by a specific method using various statistics, different results could be obtained depending on the statistics used or estimation methods employed.³¹ For example, using the HP filter to smooth the real GDP time-series data is the most simple potential growth estimation method, but the potential growth rate obtained through this estimation does not necessarily correspond to that obtained by the production function approach (Box 4 Chart [6]).

Second, while the potential growth rate shows the sustainable economic growth path over the medium to long term, it could be influenced by short-term economic fluctuations. For example, if business fixed investment declines due to an economic slowdown, the growth rate of capital stock will decline. If the mismatch between labor supply and demand widens as a result of an economic downturn, the potential number of workers will also decline. Moreover, TFP could also be affected not only by the pace of technological change in the medium to long term but also by economic fluctuations in the short term. In any event, an economic downturn will put downward pressure on the potential growth rate in the short term. In fact, in the latter half of the 1990s through the beginning of the 2000s, as well as in a recent phase, a cyclical decline in the potential growth rate has been observed (Chart 40 [2]).

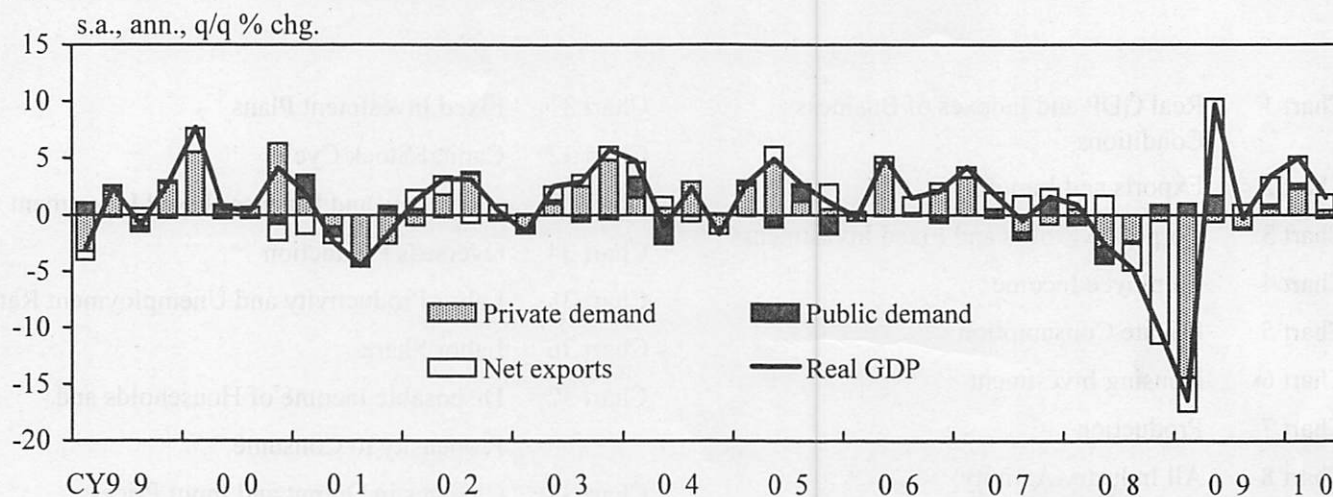
Third, and most importantly, it is quite difficult to accurately recognize the most recent figures of variables that determine the estimated potential growth rate, such as capital stock, the trend in the labor force participation rate, the structural unemployment rate, the trend in working hours, and TFP. Therefore, if being estimated again a few years later when data have been accumulated, it might differ significantly from the currently estimated potential growth rate. While this is a point of note that holds true all the time, in the present phase where the economy has experienced a significant fluctuation caused by the Lehman shock, it is particularly difficult to accurately gauge the aforementioned variables on a real-time basis. In addition, fundamental data such as GDP could be revised substantially *ex post*, which naturally could lead to a significant change in the potential growth rate *ex post*. Taking these points into account, it should be noted that the estimate of potential GDP, especially for the present phase, is subject to a considerable margin of error.

Charts

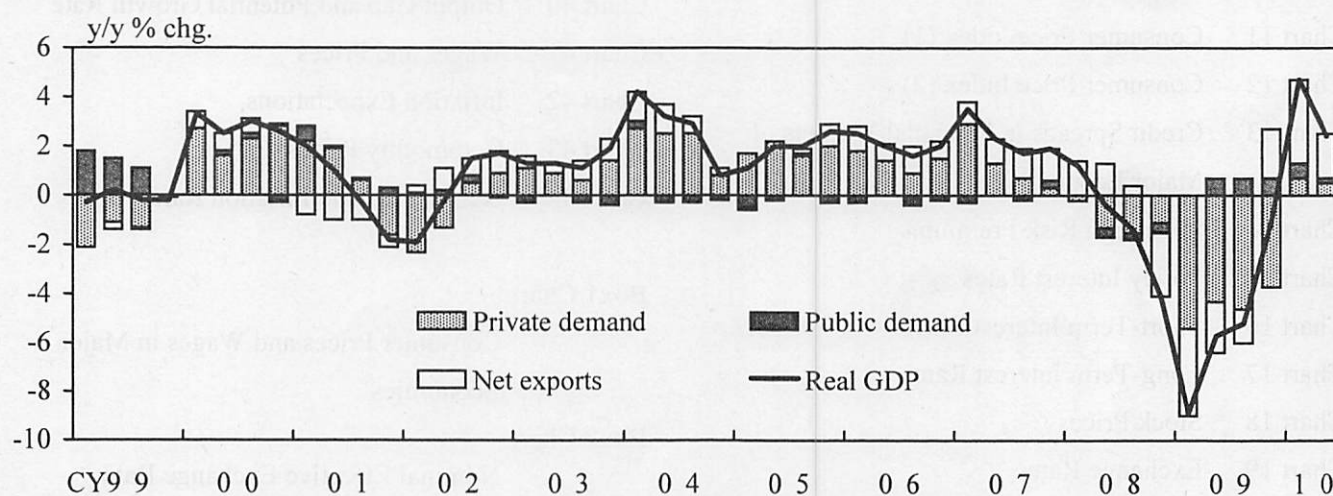
Chart 1	Real GDP and Indexes of Business Conditions	Chart 31	Fixed Investment Plans
Chart 2	Exports and Imports	Chart 32	Capital Stock Cycle
Chart 3	Corporate Profits and Fixed Investment	Chart 33	Cash Flow and Business Fixed Investment
Chart 4	Employee Income	Chart 34	Overseas Production
Chart 5	Private Consumption	Chart 35	Labor Productivity and Unemployment Rate
Chart 6	Housing Investment	Chart 36	Labor Share
Chart 7	Production	Chart 37	Disposable Income of Households and Propensity to Consume
Chart 8	All Industry Activity	Chart 38	Changes in Output and Input Prices
Chart 9	Resource Utilization	Chart 39	Goods Prices Facing Consumers
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Chart 11	Consumer Price Index (1)	Chart 41	Wages and Prices
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Chart 13	Credit Spreads in Financial Markets of Major Economies	Chart 43	Commodity Prices
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Chart 17	Long-Term Interest Rates	Box2 Chart	Nominal Effective Exchange Rates
Chart 18	Stock Prices	Box3 Chart	Central Bank Asset Sizes
Chart 19	Exchange Rates	Box4 Chart	Estimation of Potential Growth Rate
Chart 20	CP Market	Reference	Economic Assessment by Region (Regional Economic Report)
Chart 21	Corporate Bond Market		
Chart 22	Bank Lending and Money Stock		
Chart 23	Interest Rates and Economic Activity		
Chart 24	Corporate Finance-Related Indicators		
Chart 25	Land Prices		
Chart 26	Investment-Saving Balance		
Chart 27	Real Exports by Region		
Chart 28	Overseas Economies		
Chart 29	Cycle of Global Demand for IT-Related Goods		
Chart 30	Corporate Profits		

Real GDP and Indexes of Business Conditions

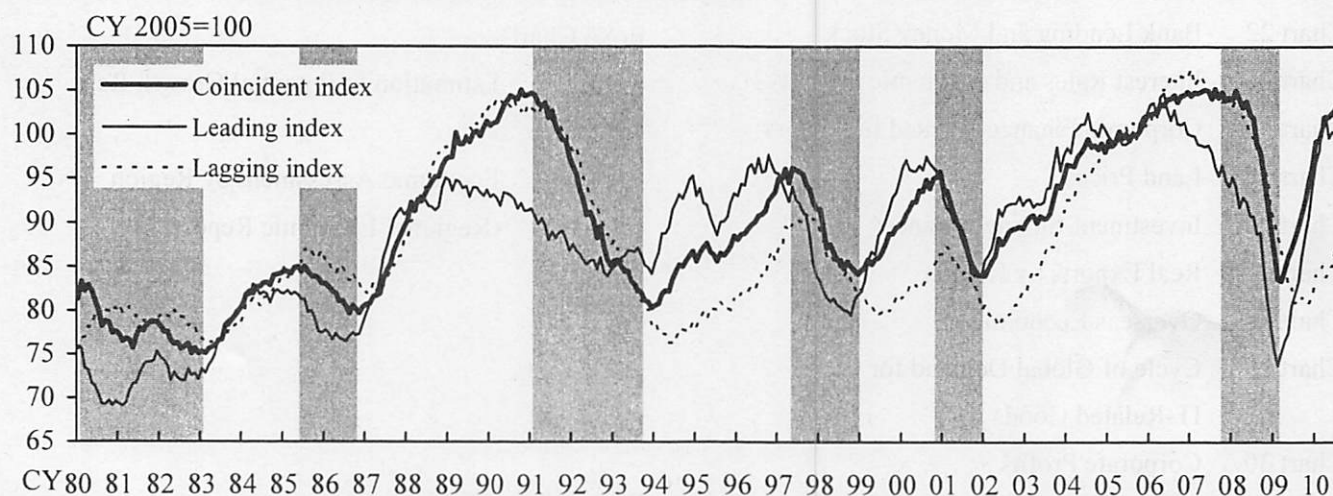
(1) Real GDP (Quarter-on-Quarter Changes)



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



(3) Indexes of Business Conditions (Composite Indexes)

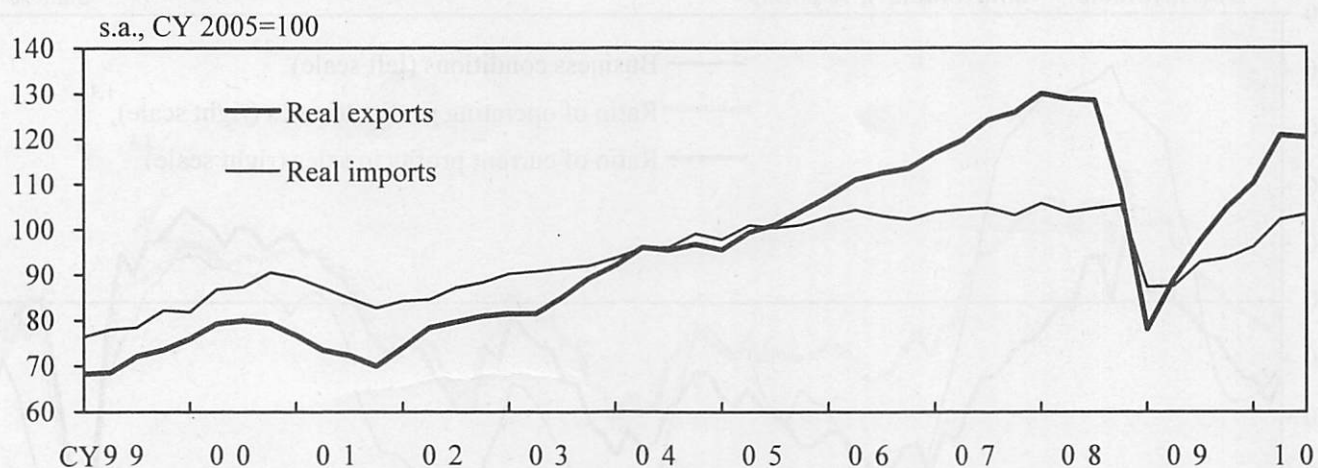


Note: Shaded areas indicate recession periods.

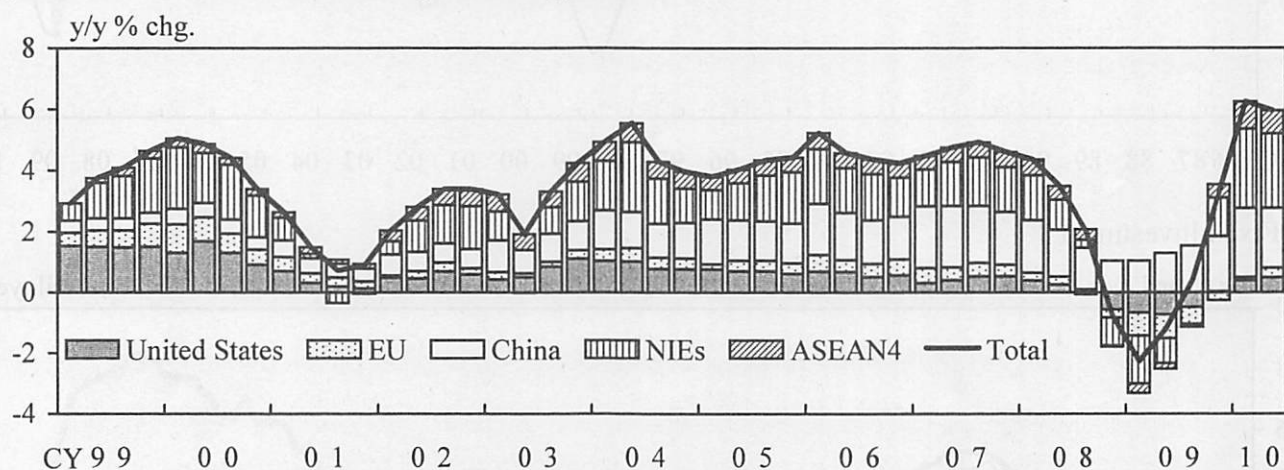
Source: Cabinet Office, "National Accounts," "Indexes of Business Conditions."

Exports and Imports

(1) Real Exports and Real Imports

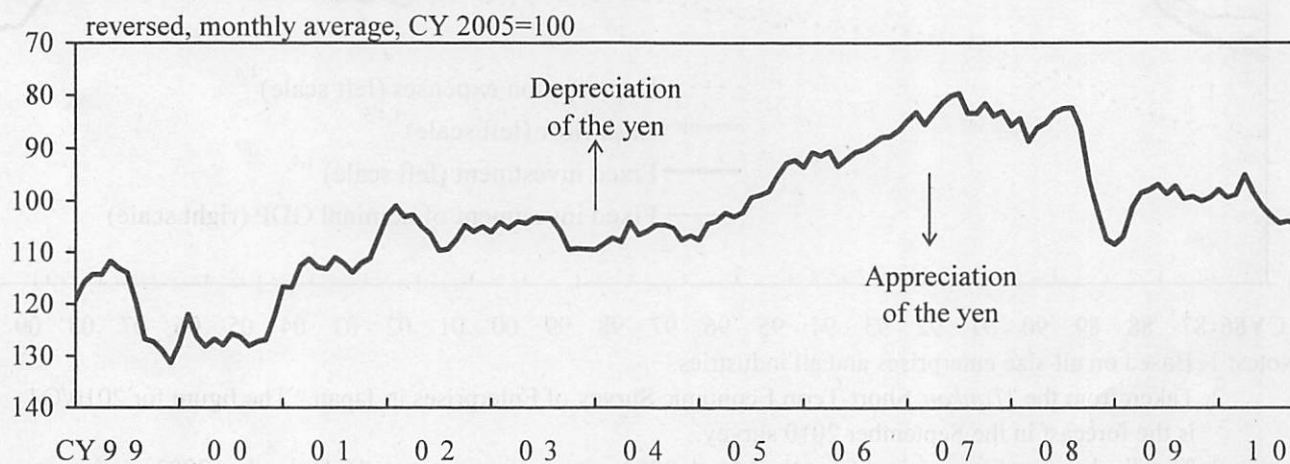


(2) Real GDP Growth Rates of Major Trading Partners



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

(3) Real Effective Exchange Rate of the Yen



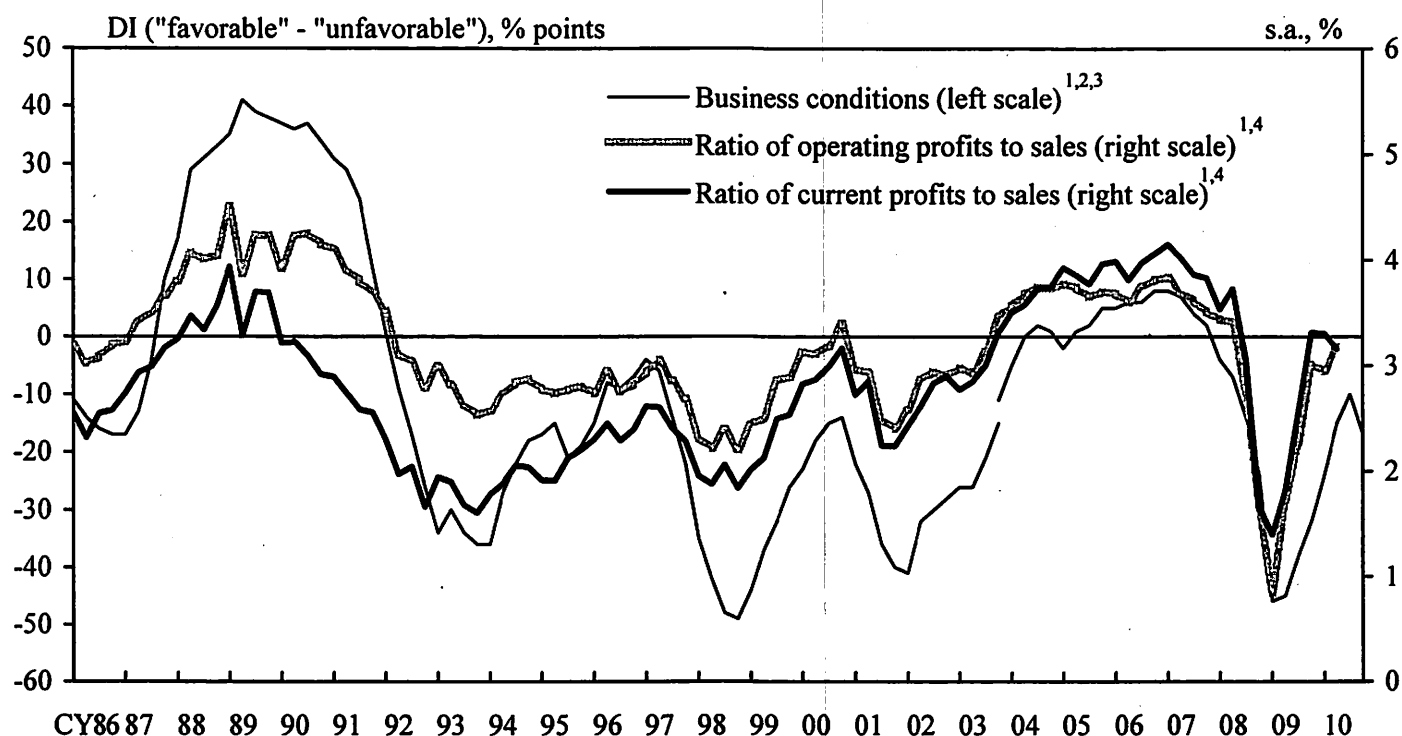
Note: The effective exchange rate is based on the broad index of the BIS effective exchange rate.

The figure for October 2010 has been calculated using the Bank of Japan's nominal effective exchange rate of the yen.

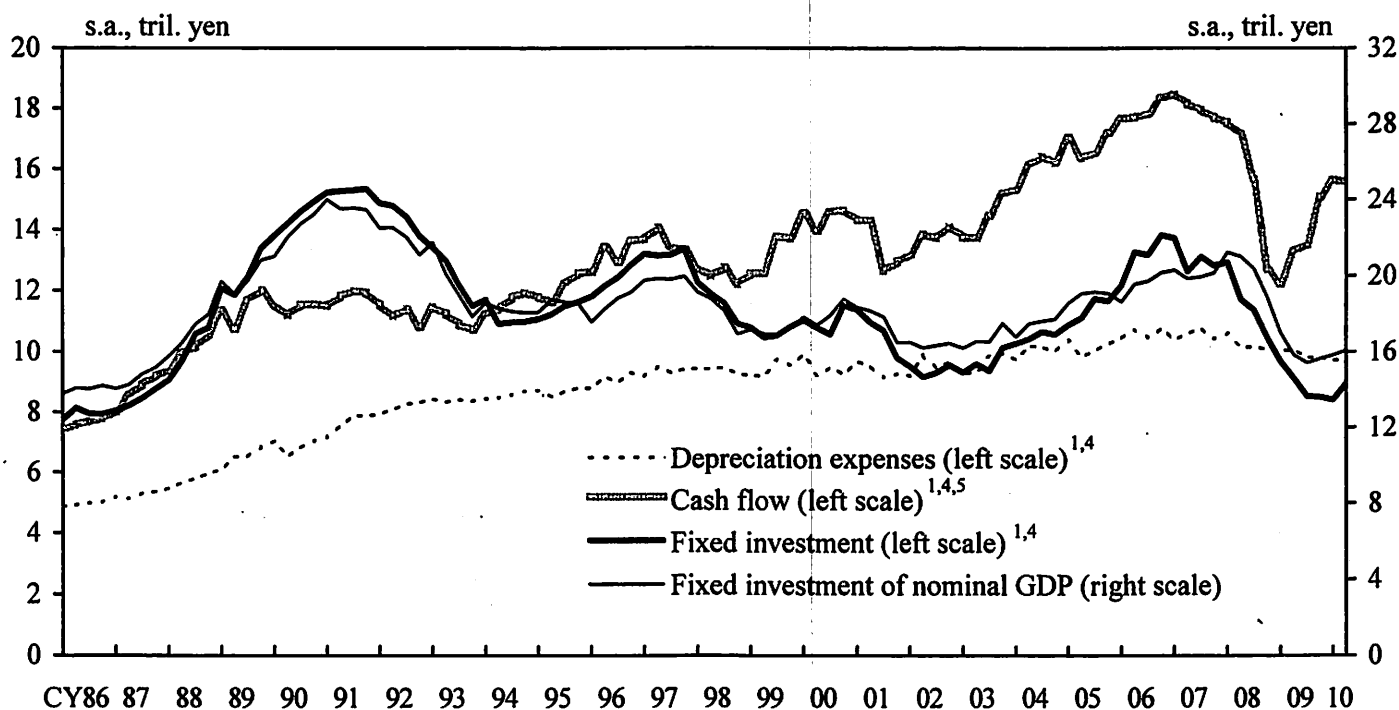
Sources: Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index"; Bank for International Settlements; CEIC.

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/Q4 is the forecast in the September 2010 survey.

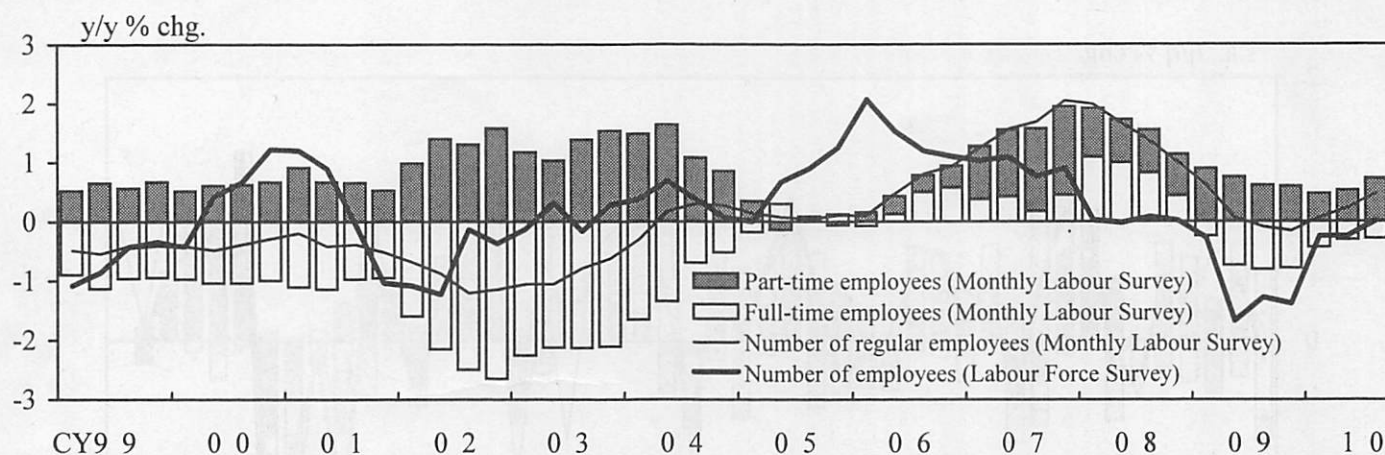
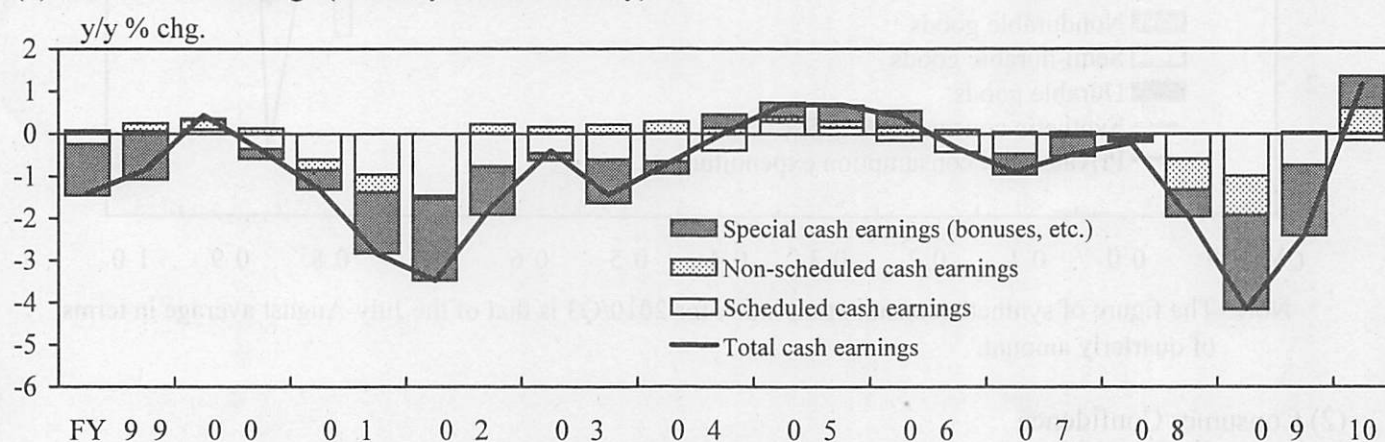
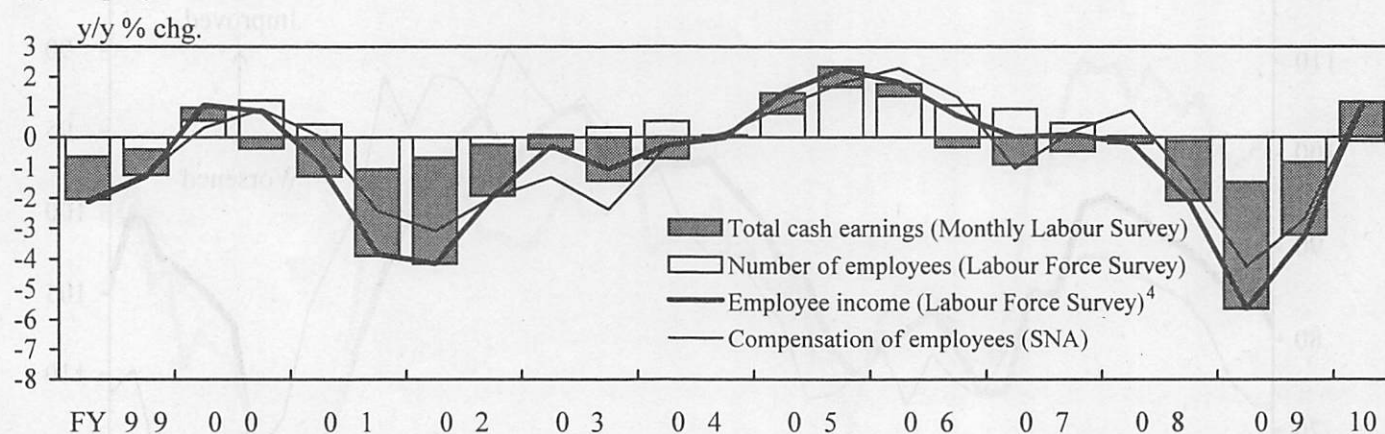
3. The Tankan has been revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on a new basis.

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^{1,2}(2) Total Cash Earnings (Monthly Labour Survey)^{1,3}(3) Employee Income^{1,3}

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

2. Figures for 2010/Q3 are the July-August averages.

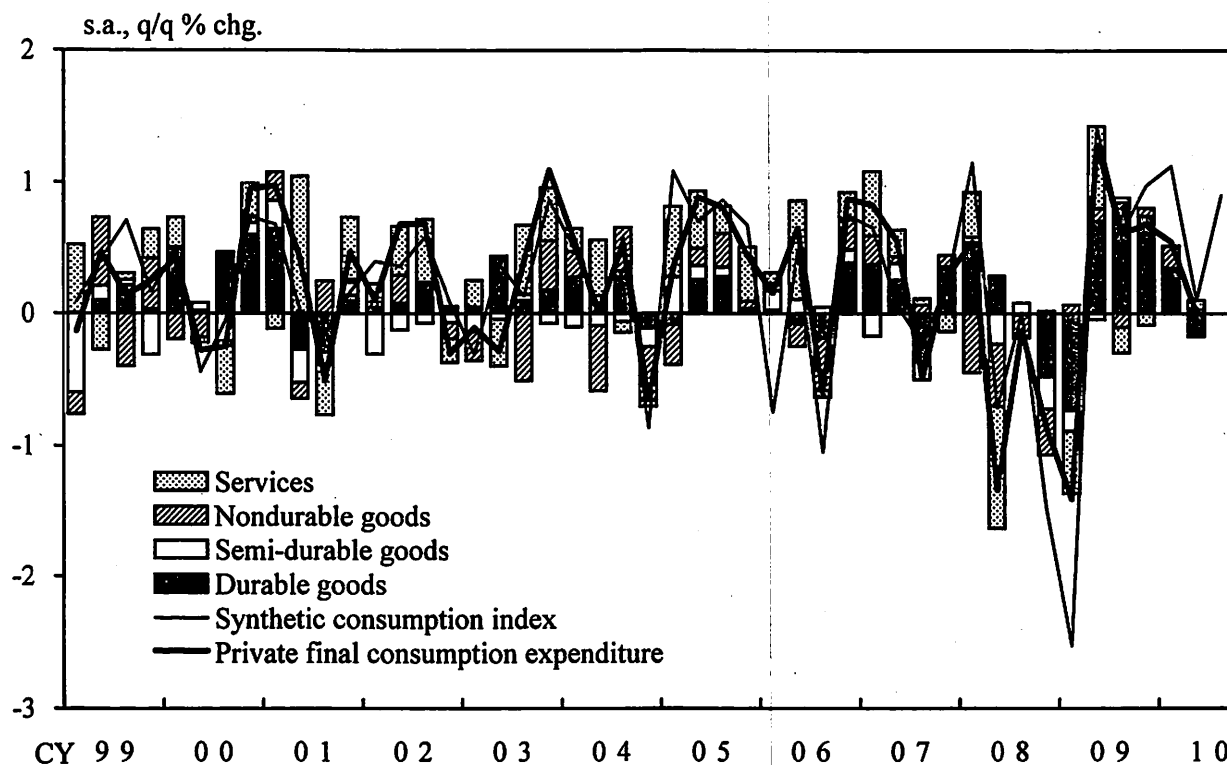
3. Figures for the first half of fiscal 2010 are the April-August averages, except for the figure for compensation of employees, which is using the 2010/Q2 figure.

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."

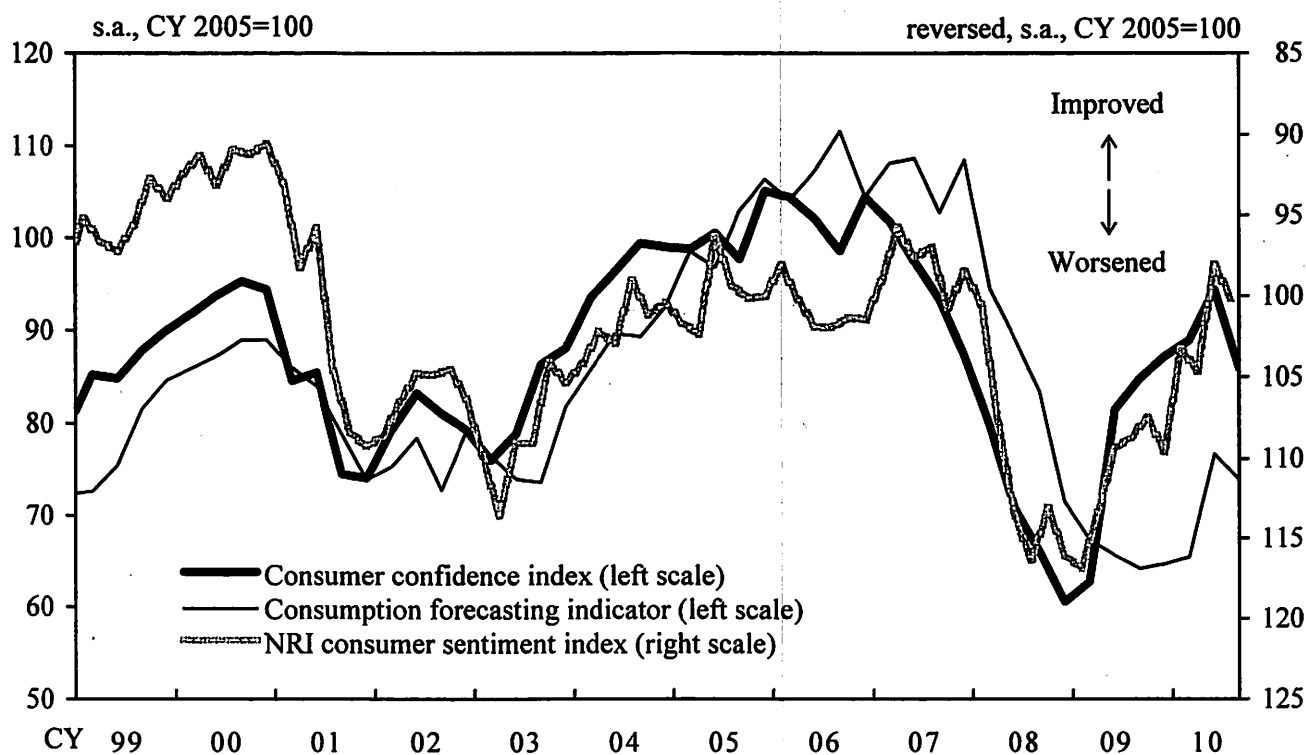
Private Consumption

(1) Breakdown of Real Private Final Consumption Expenditure



Note: The figure of synthetic consumption index for 2010/Q3 is that of the July-August average in terms of quarterly amount.

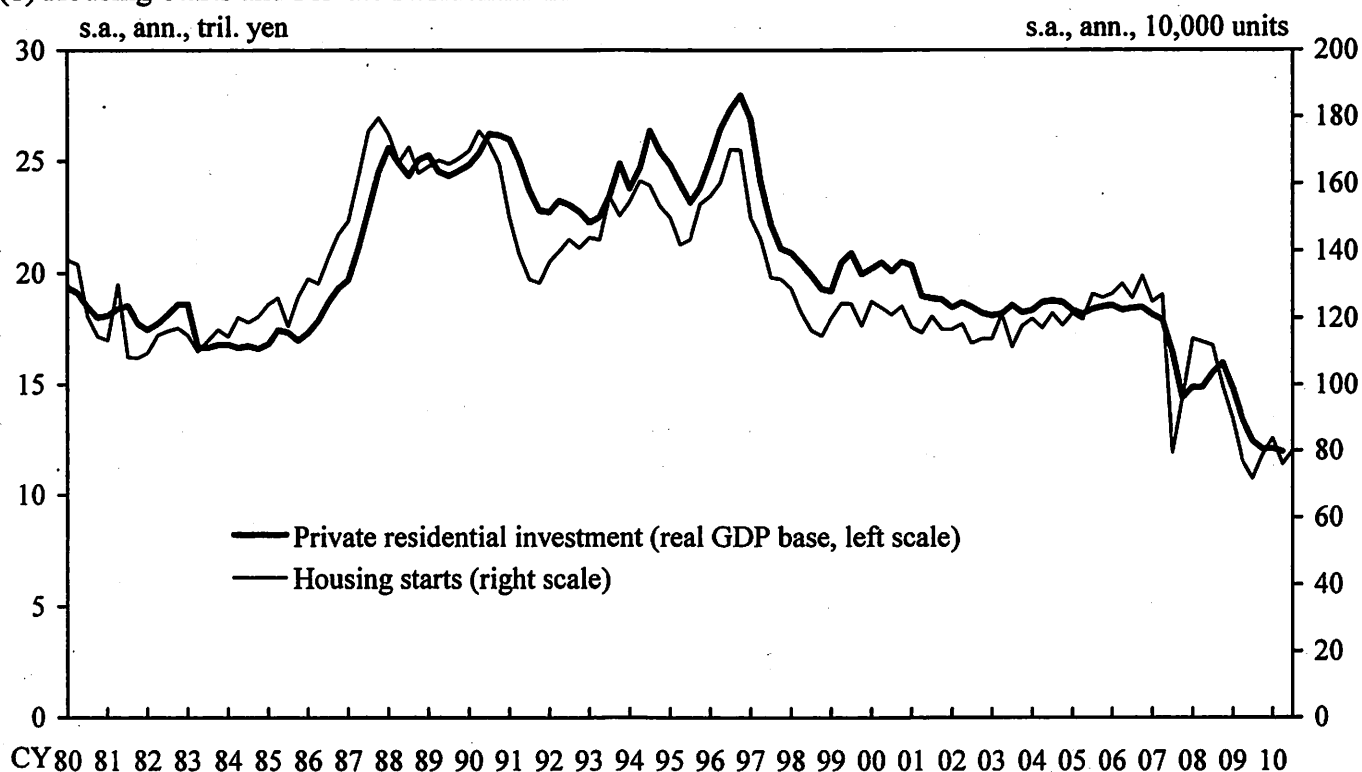
(2) Consumer Confidence



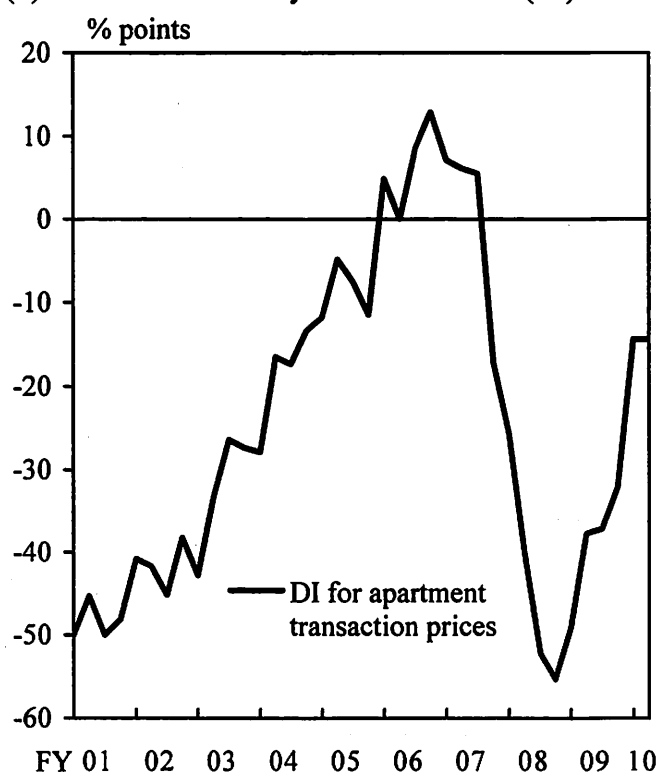
Sources: Cabinet Office, "National Accounts," "Consumer Confidence Survey," "Synthetic Consumption Index"; Nikkei Inc., "Consumption Forecasting Indicator"; Nippon Research Institute (NRI), "Consumer Sentiment Survey."

Housing Investment

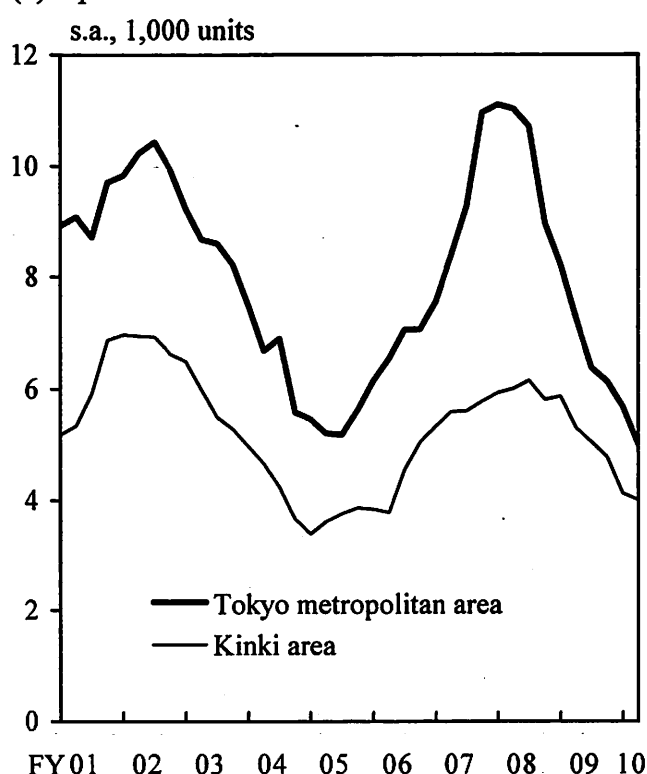
(1) Housing Starts and Private Residential Investment¹



(2) Real Estate Industry Diffusion Index (DI)²



(3) Apartment Stock



Notes: 1. The figure of housing starts for 2010/Q3 is the July-August average.

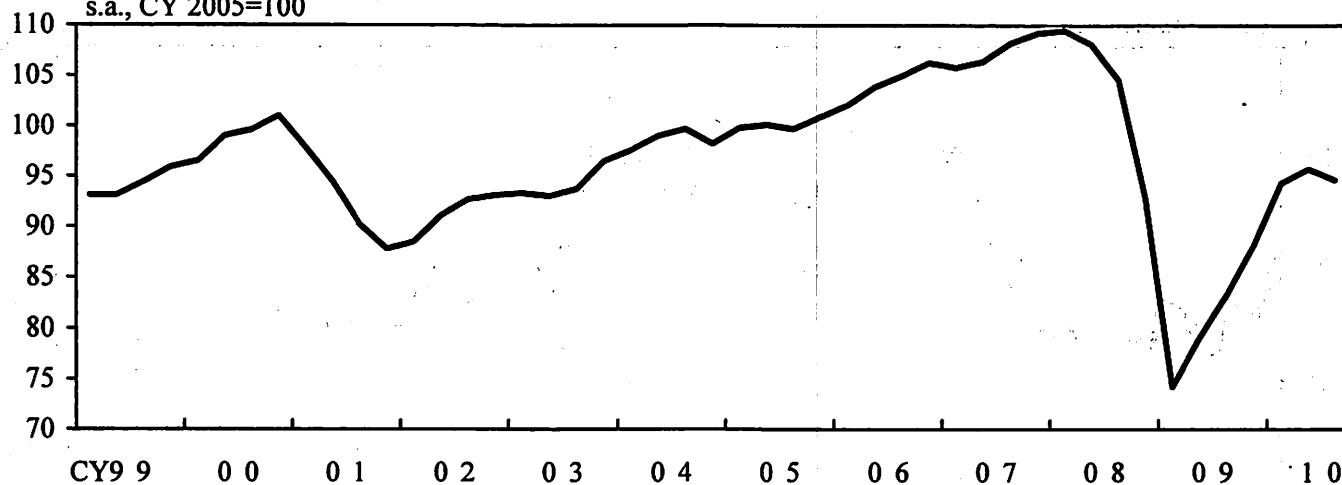
2. $DI = [(\text{"rise"} \times 2 + \text{"slightly rise"}) - (\text{"slightly fall"} + \text{"fall"} \times 2)] \div 2 \div \text{total} \times 100$

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.

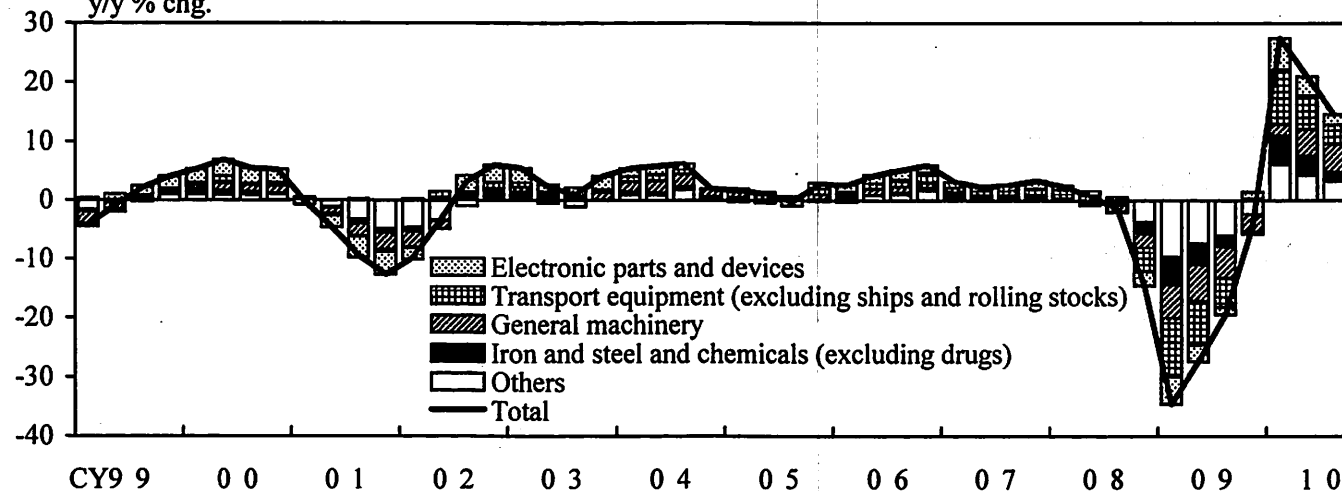
Production

(1) Industrial Production¹

s.a., CY 2005=100

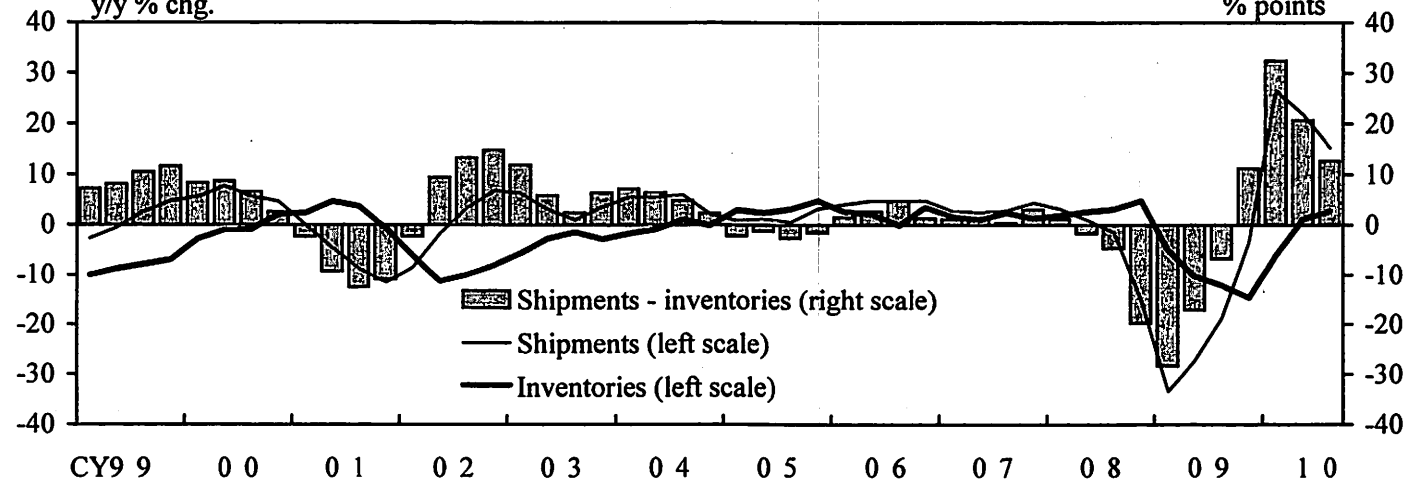
(2) Production (Breakdown by Industry)^{1,2}

y/y % chg.

(3) Shipment-Inventory Balance (Mining and Manufacturing)¹

y/y % chg.

% points

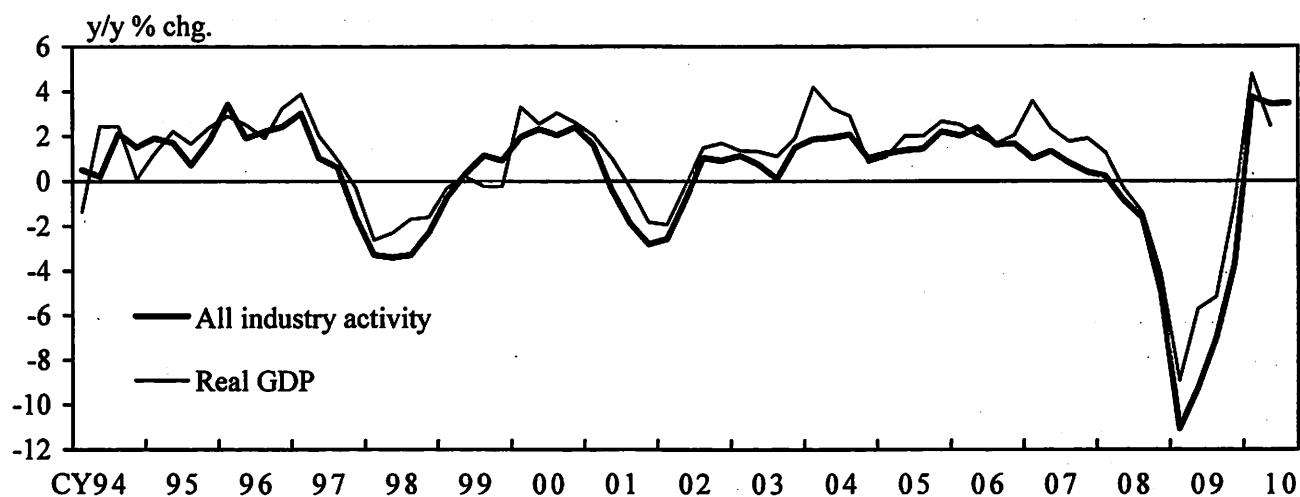
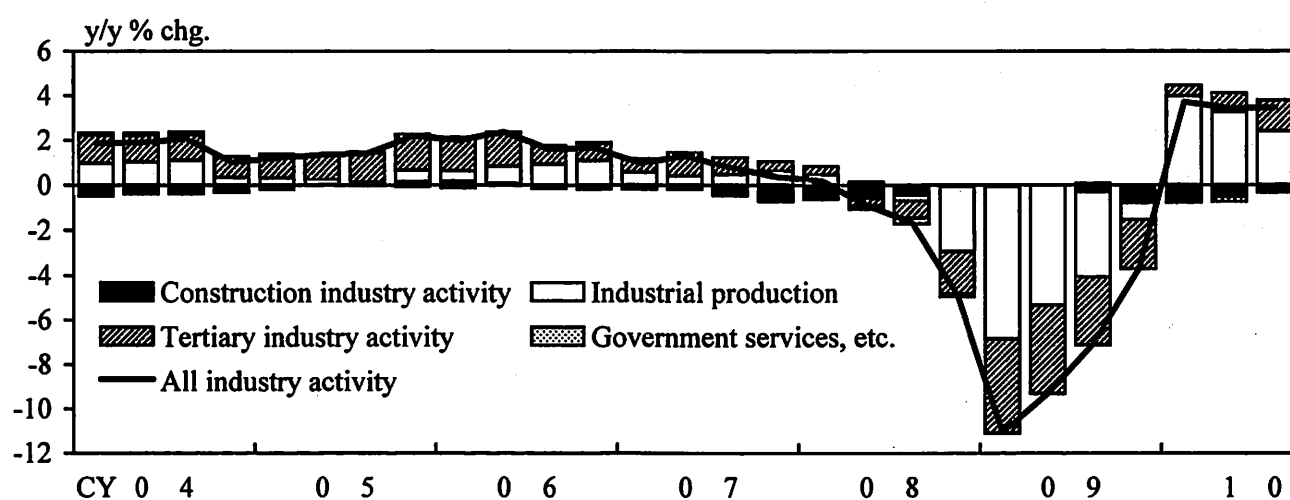
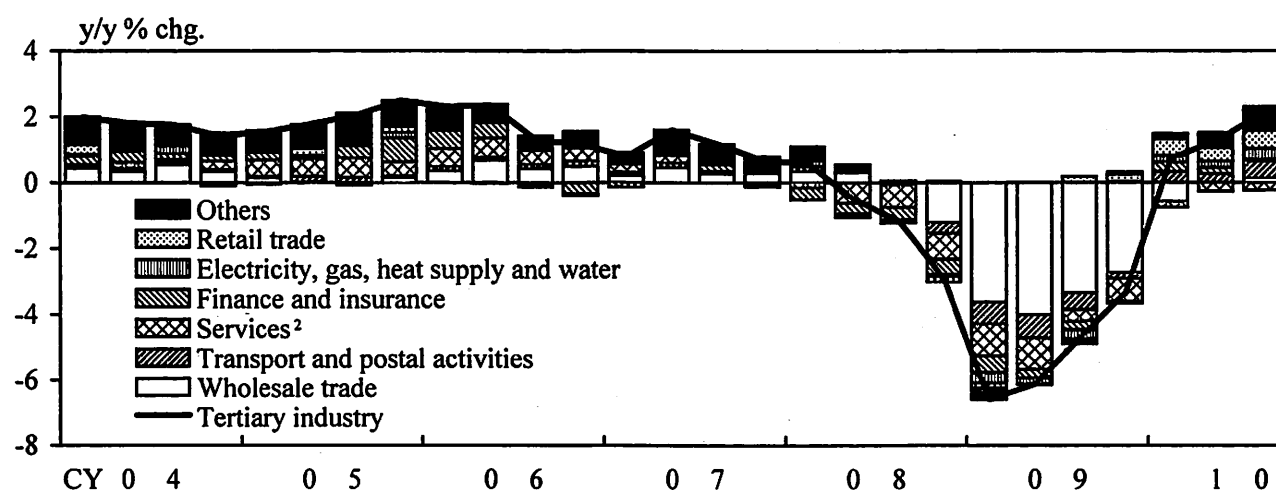


Notes: 1. Figures for 2010/Q3 are the July-August averages, except for the figure for inventories, which is the value of August.

2. Figures up to CY 2003 are on the 2000 base.

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

All Industry Activity

(1) All Industry Activity and Real GDP¹(2) All Industry Activity¹(3) Tertiary Industry Activity¹

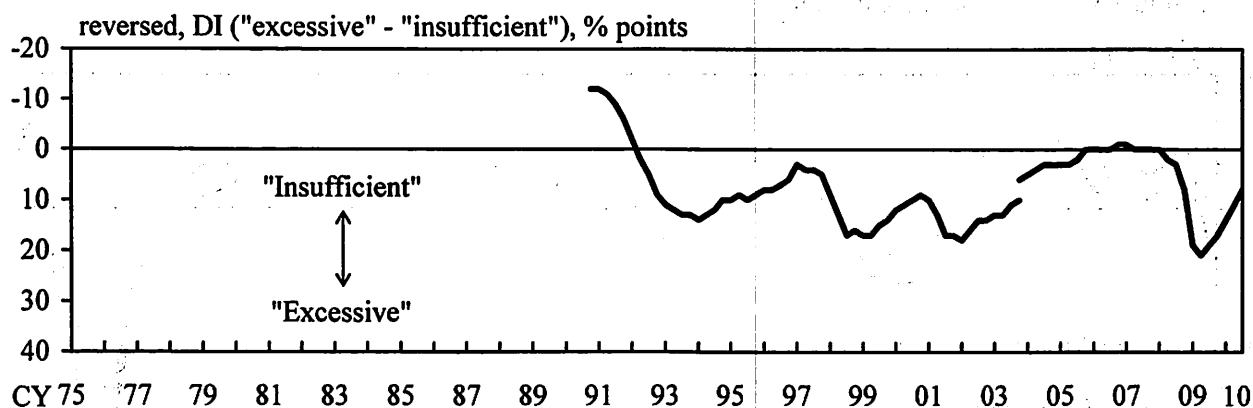
Notes: 1. Figures for 2010/Q3 are the July-August averages.

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

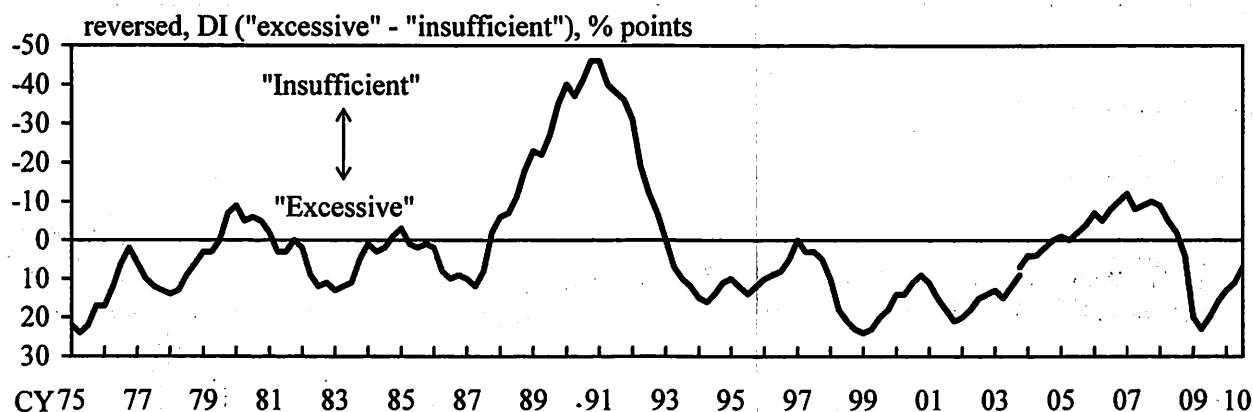
Sources: Ministry of Economy, Trade and Industry, "Indices of All Industry Activity," "Indices of Tertiary Industry Activity"; Cabinet Office, "National Accounts."

Resource Utilization

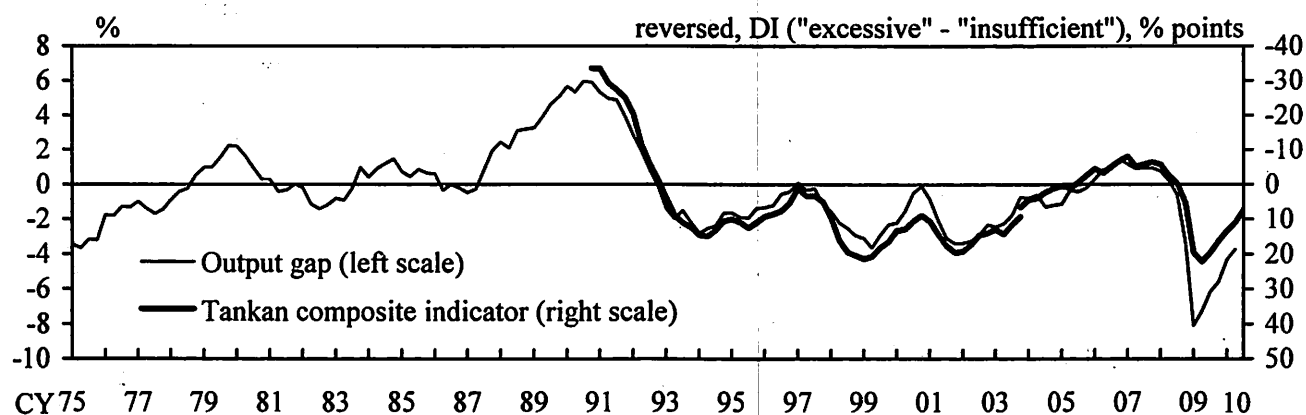
(1) Production Capacity DI



(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.

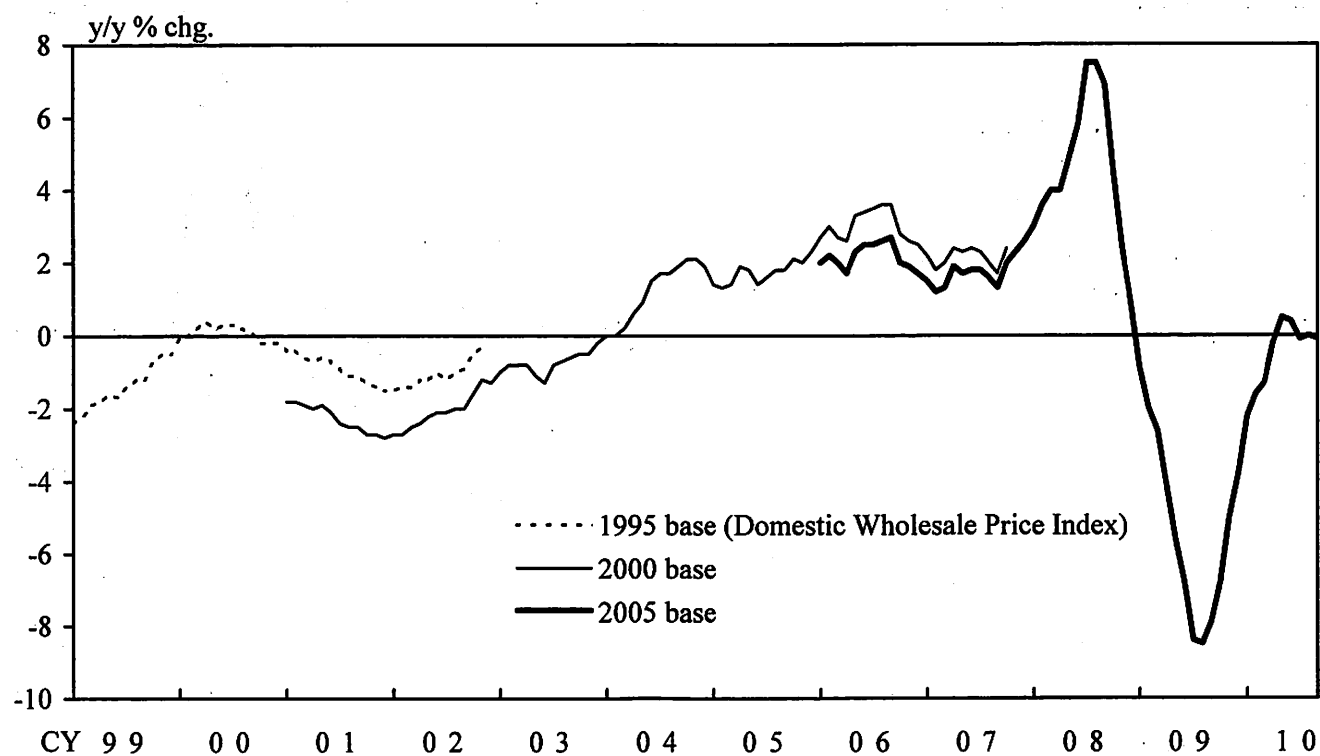
2. By use of the *Tankan*, the Tankan composite indicator is calculated as the average of the DI of production capacity and employment conditions, weighted by capital and labor shares in the National Accounts (fiscal 1990-2008 average). The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.

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.

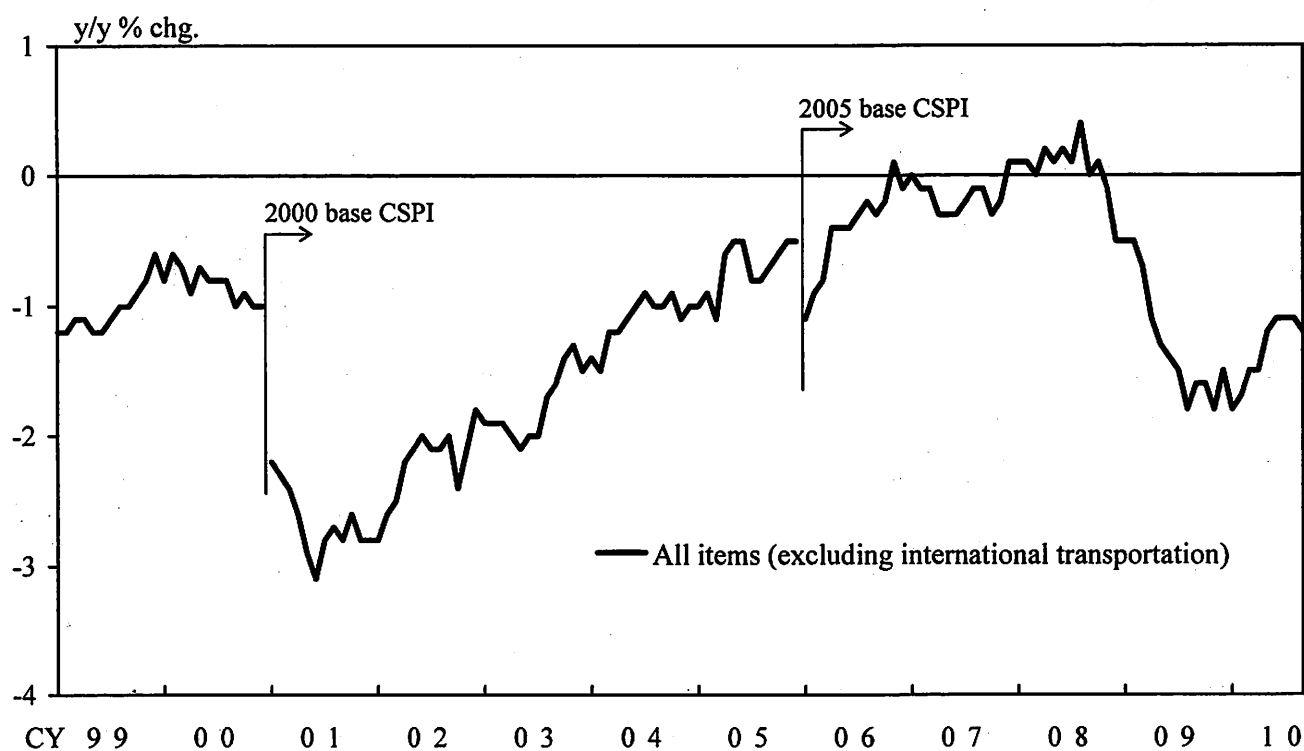
Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy,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

Corporate Prices

(1) Domestic Corporate Goods Price Index



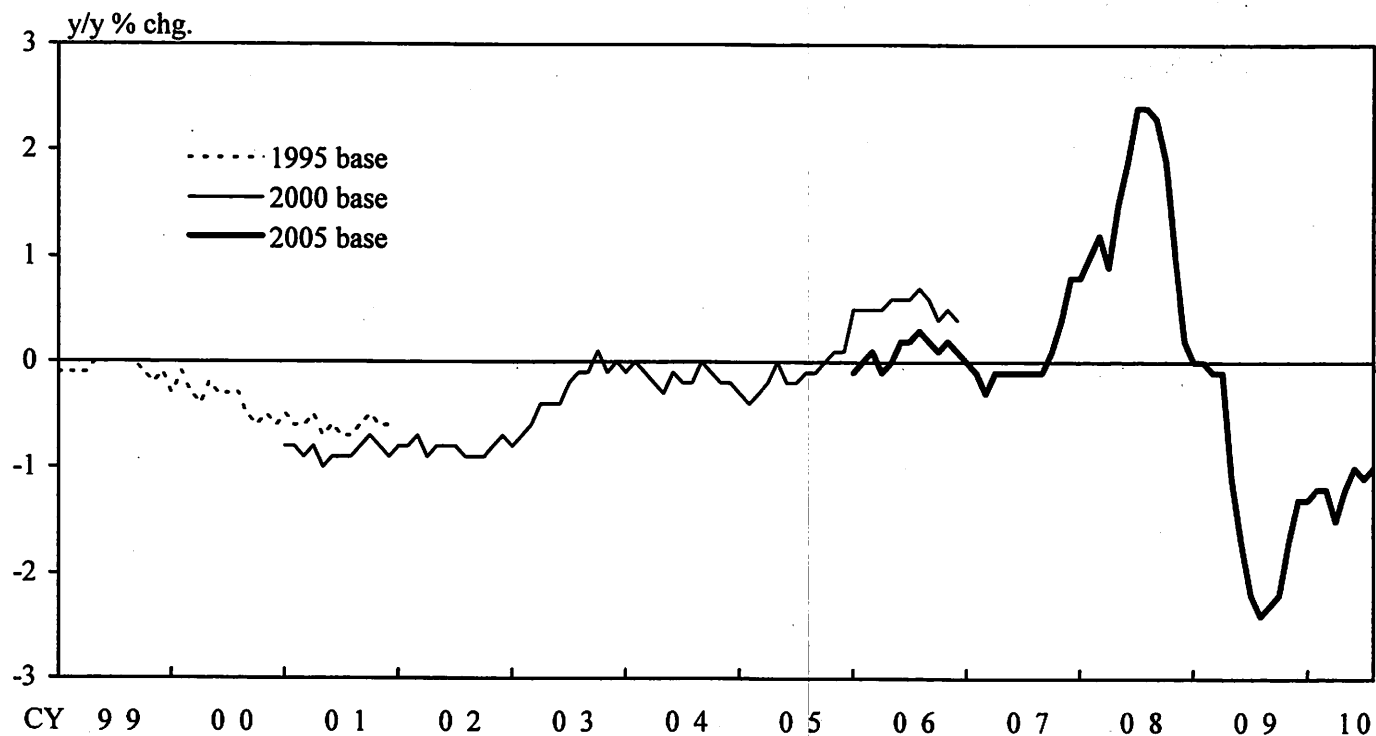
(2) Corporate Services Price Index



Source: Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Index,"
 "Corporate Services Price Index."

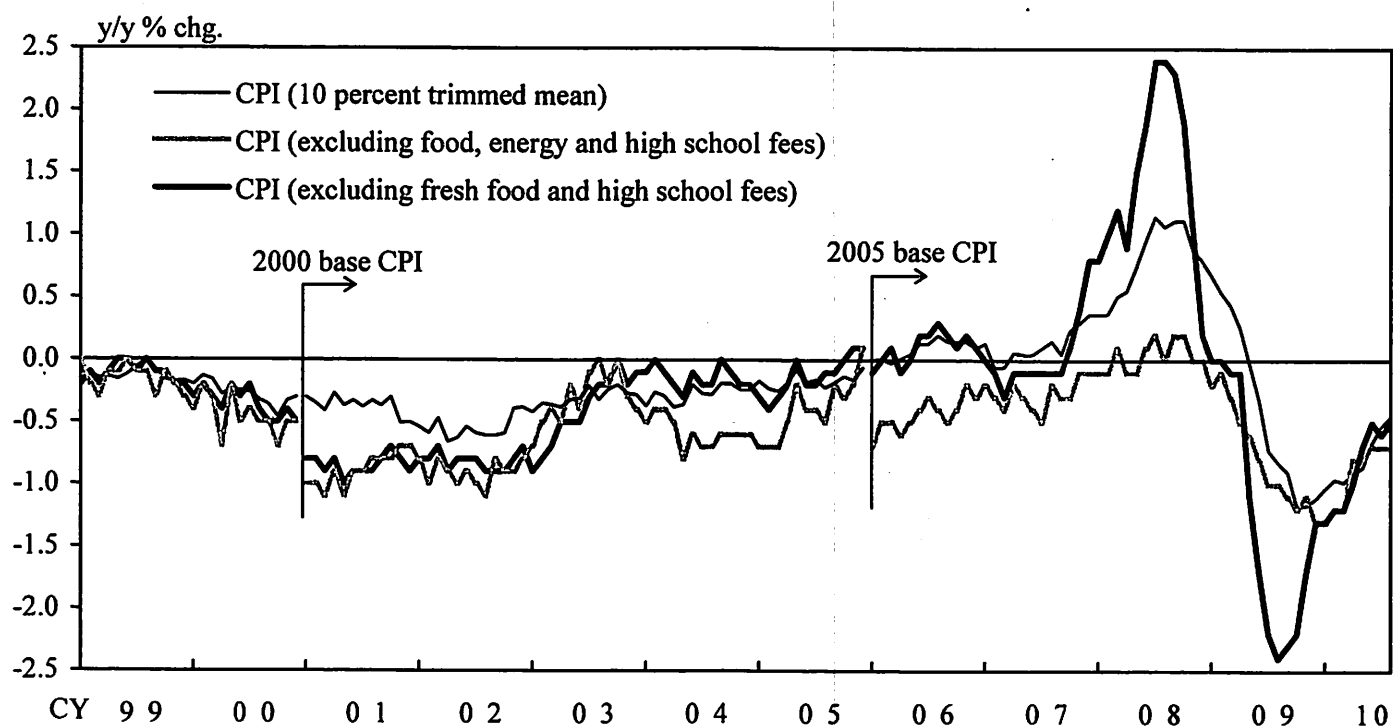
Consumer Price Index (1)

(1) Consumer Price Index



Note: Excluding fresh food.

(2) Trend Changes in Consumer Prices



Notes: 1. Alcoholic beverages are excluded from food.

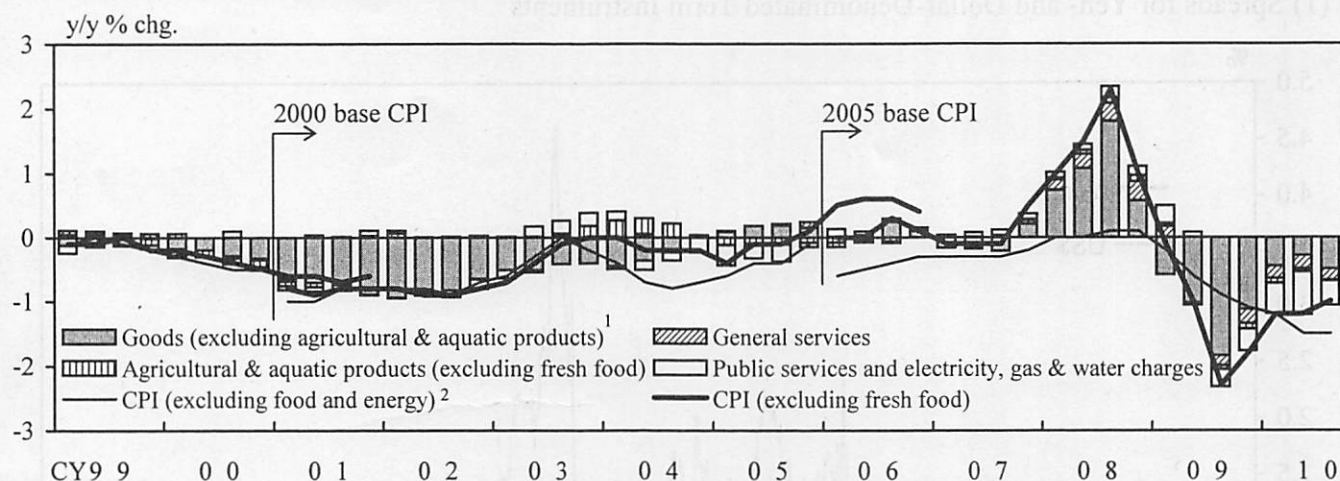
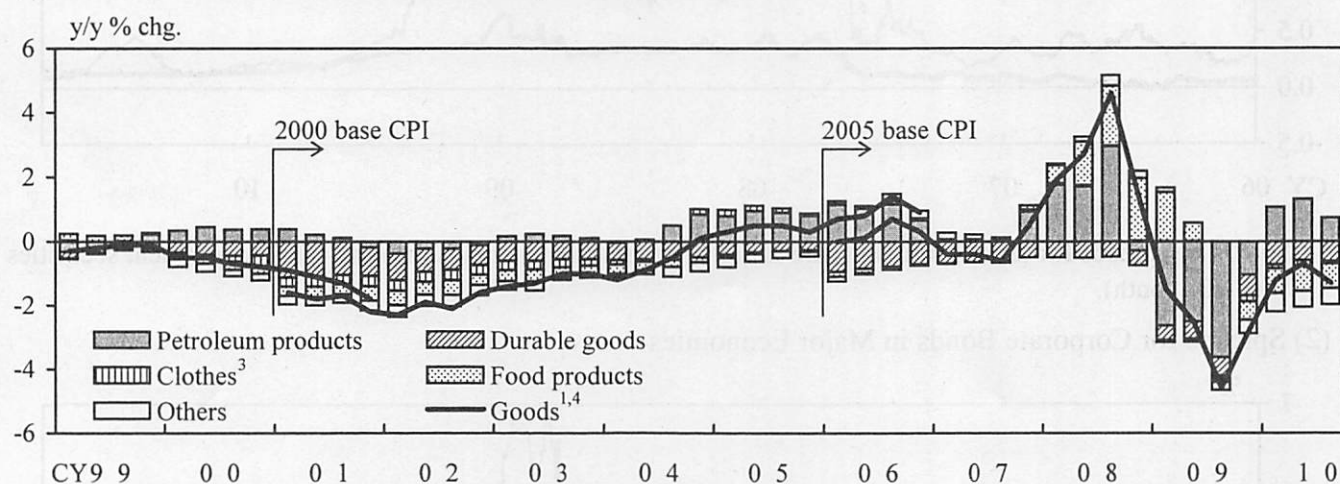
2. High school fees: high school fees (public) and high school fees (private).

3. Figures for the 10 percent trimmed mean are weighted averages of items after excluding (trimming) items in both the upper and lower 10 percent tails by weight with the highest and lowest year-on-year rates of price changes.

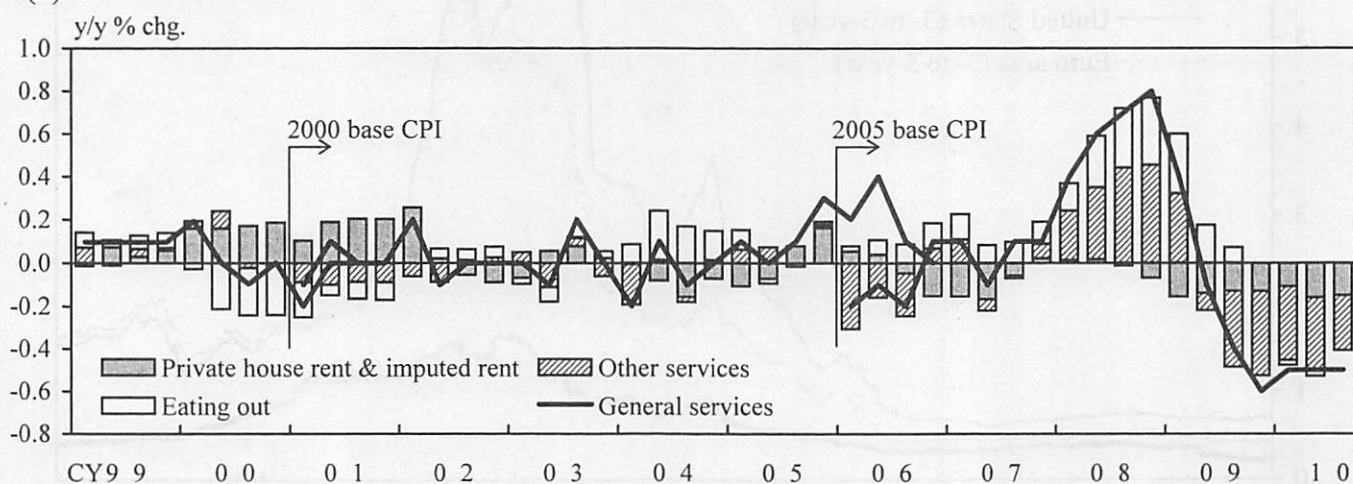
Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."

Consumer Price Index (2)

(1) Consumer Price Index Excluding Fresh Food

(2) Goods Excluding Agricultural and Aquatic Products¹

(3) General Services



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

2. Alcoholic beverages are excluded from food.

3. Including shirts, sweaters & underwear.

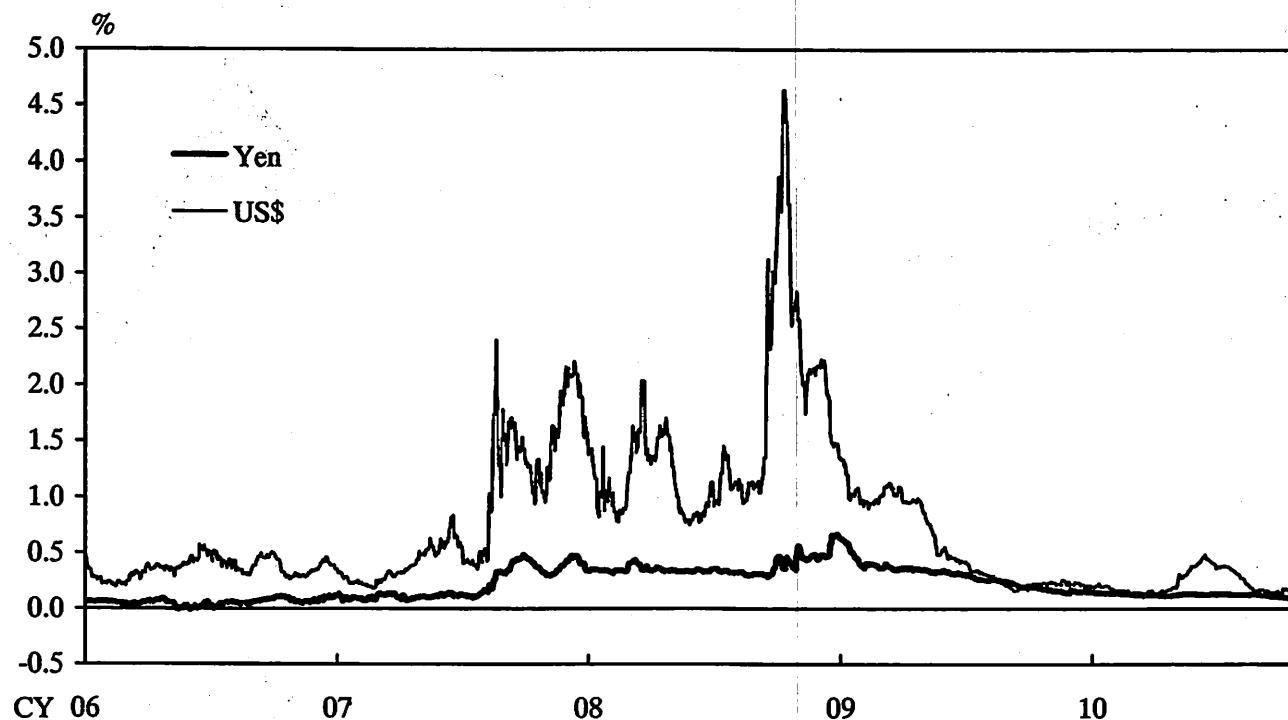
4. Excluding agricultural & aquatic products.

5. Figures for 2010/Q3 are the July-August averages.

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

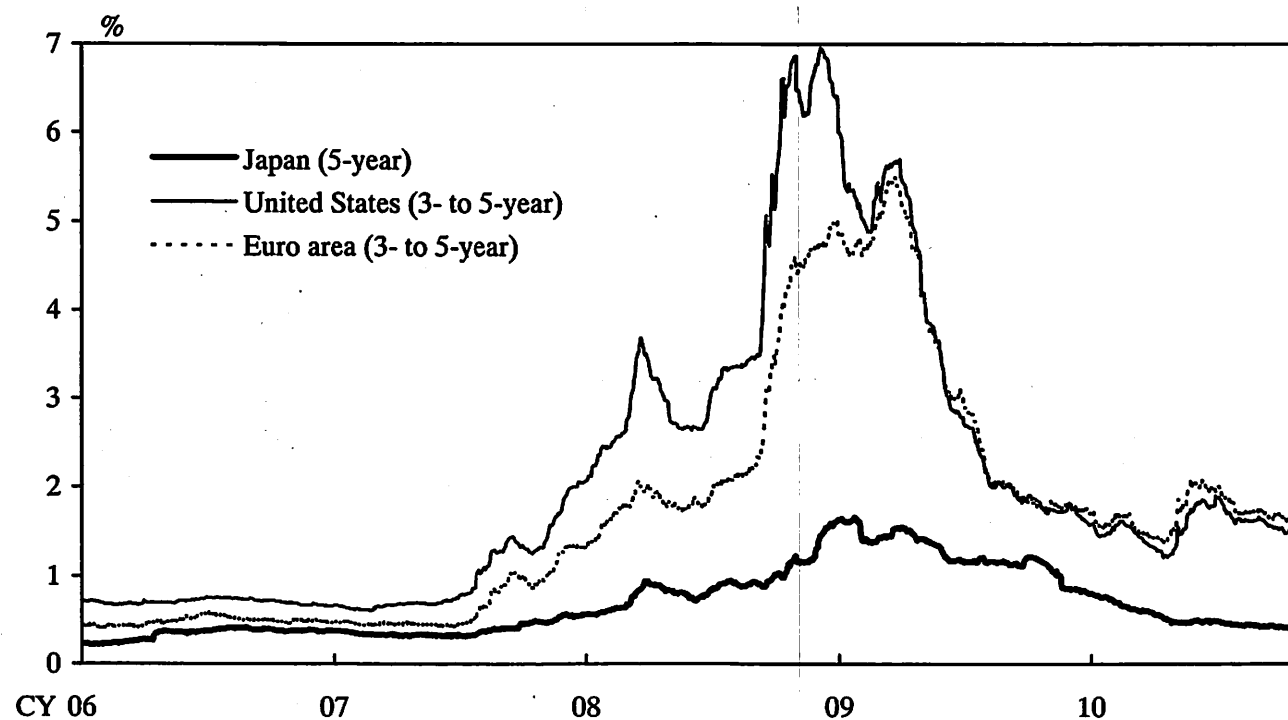
Credit Spreads in Financial Markets of Major Economies

(1) Spreads for Yen- and Dollar-Denominated Term Instruments



Note: The spreads for term instruments are Libor (3-month) minus yields on short-term government securities (3-month).

(2) Spreads for Corporate Bonds in Major Economies



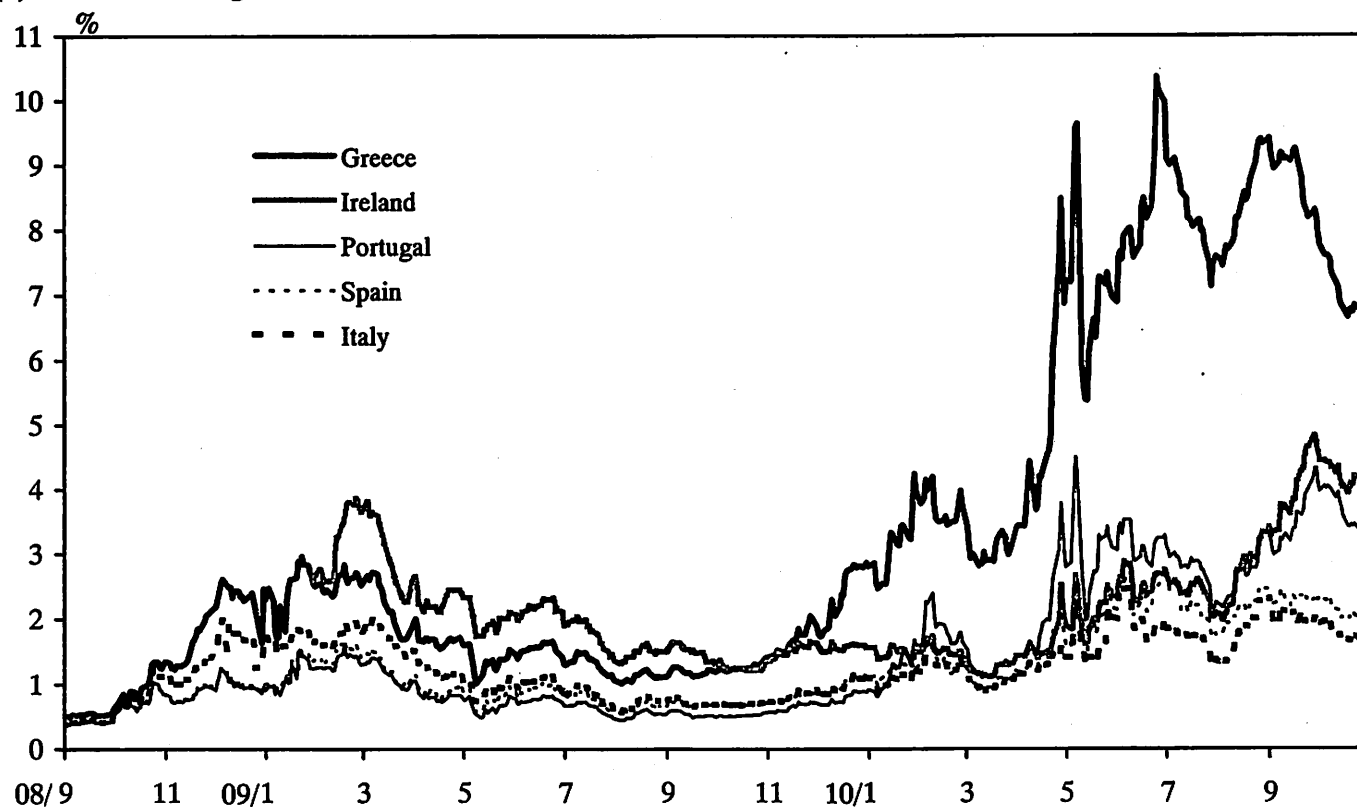
Notes: 1. The spreads for corporate bonds (rated A) are the corporate bond yields minus the government bond yields.

2. The indicated ratings of corporate bonds in Japan are of R&I, and those in the United States and the euro area are of Moody's, S&P, and Fitch.

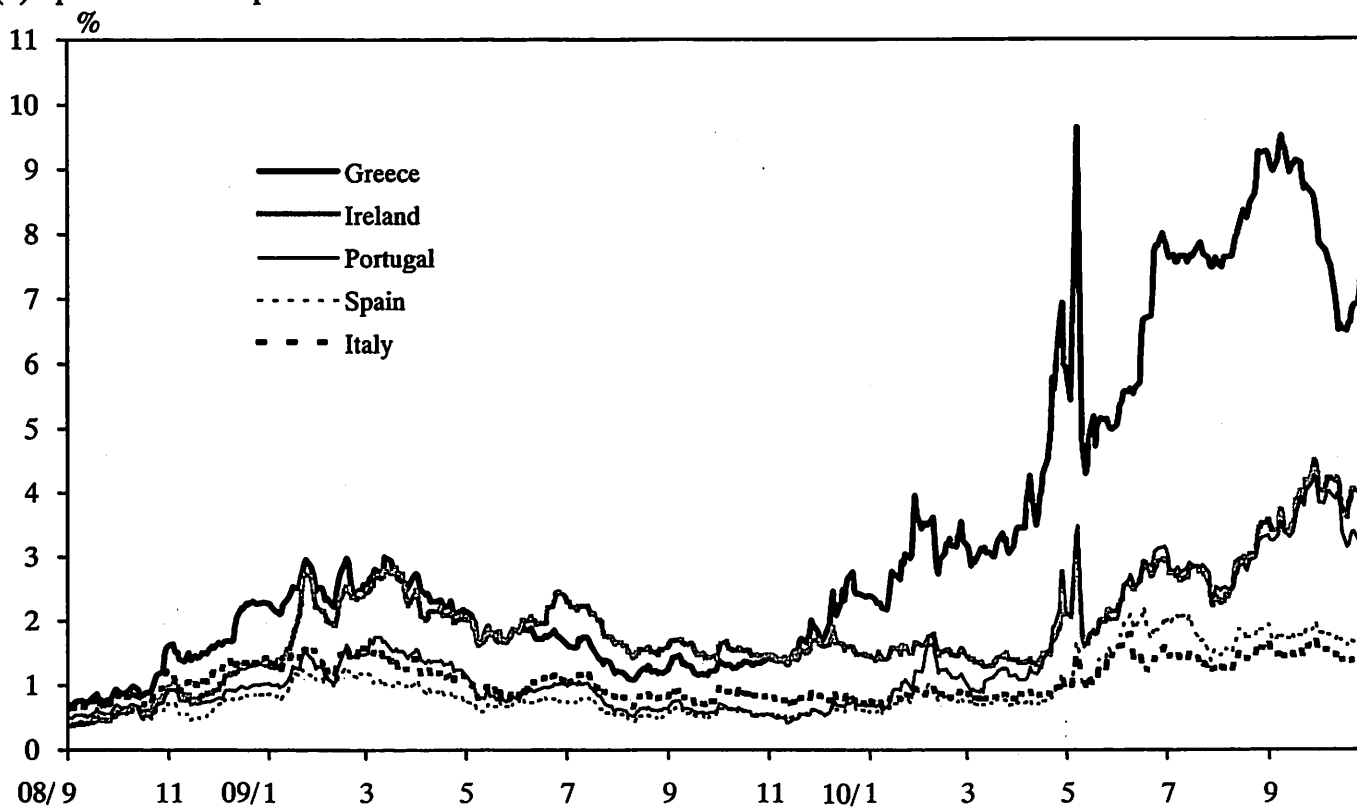
Sources: Japan Securities Dealers Association; Bloomberg.

Sovereign Risk Premiums

(1) 5-Year Sovereign CDS Premiums



(2) Spreads for European Government Bonds

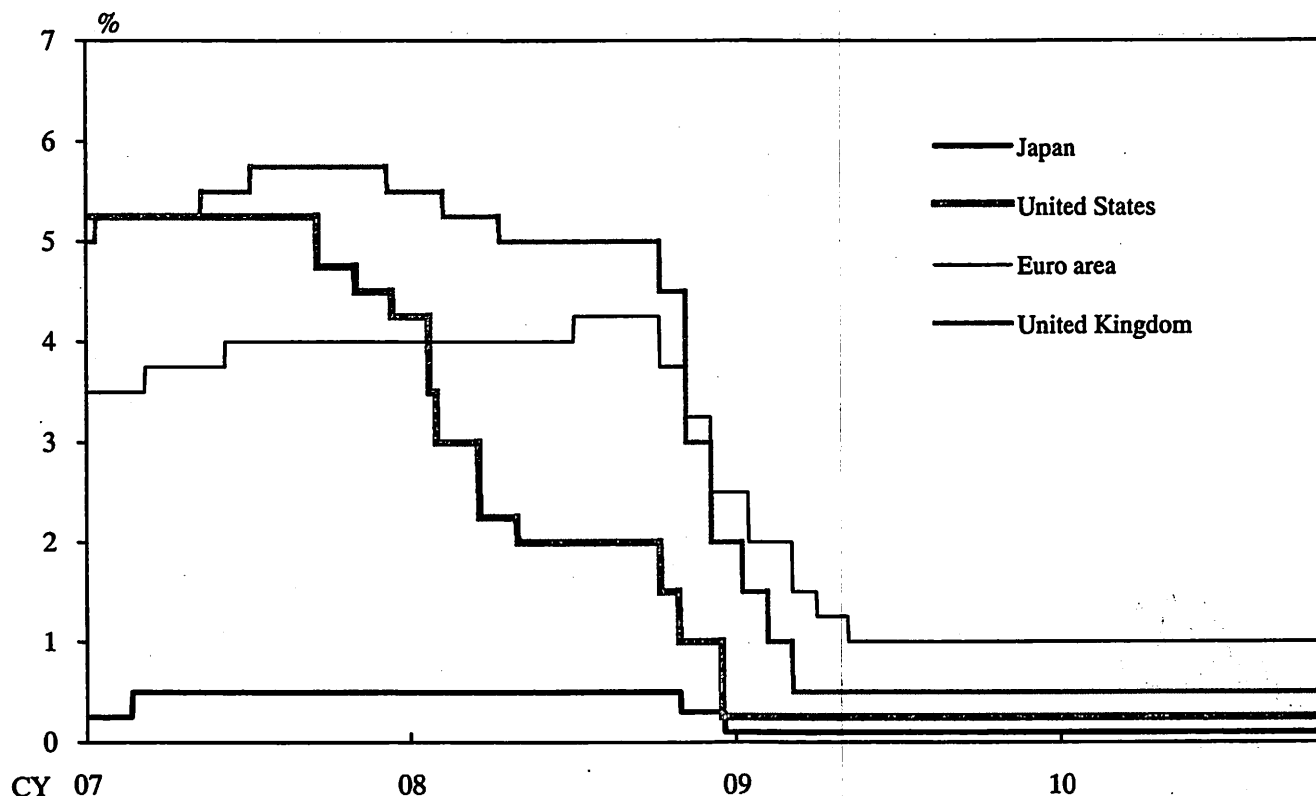


Note: The yield spreads for 10-year government bonds issued by European countries minus those issued by Germany.

Source: Bloomberg.

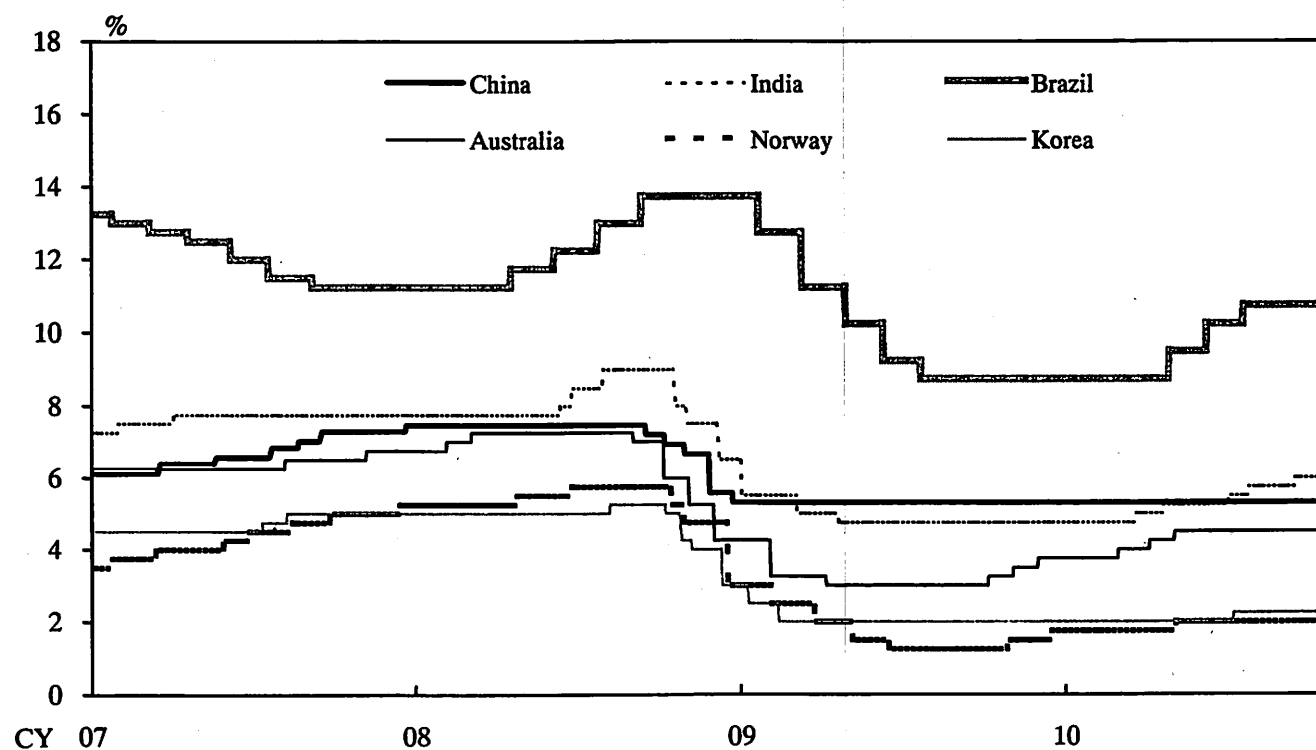
Policy Interest Rates

(1) Advanced Economies



Note: In the United States, from December 16, 2008, the target range for the federal funds rate is 0 to 0.25 percent and the interest rate applied to reserve balances is 0.25 percent. In Japan, from October 5, 2010, the Bank encouraged the uncollateralized overnight call rate to remain at around 0 to 0.1 percent and the interest rate applied to the complementary deposit facility is 0.1 percent.

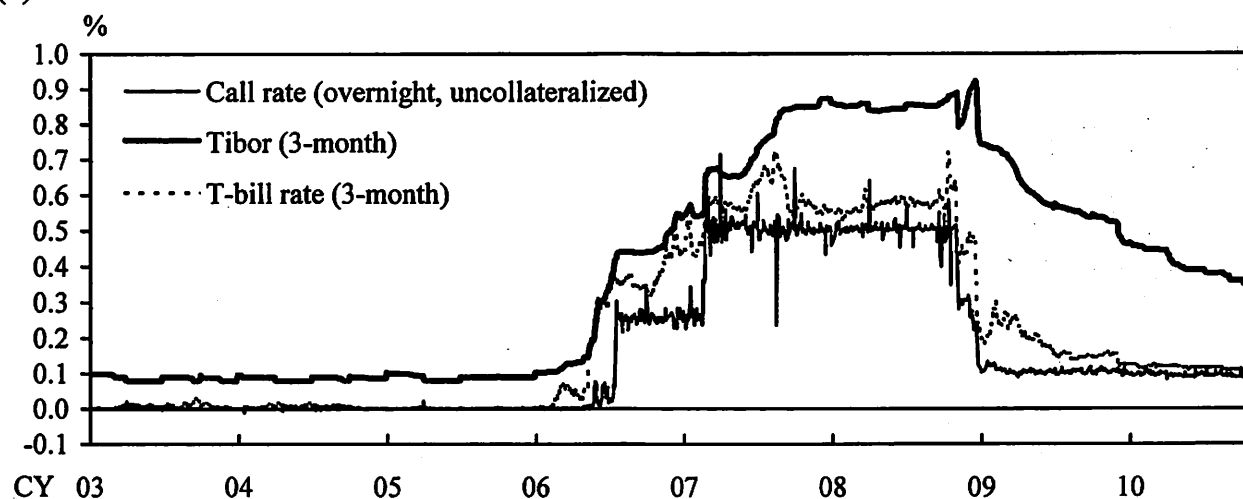
(2) Emerging and Commodity-Exporting Economies



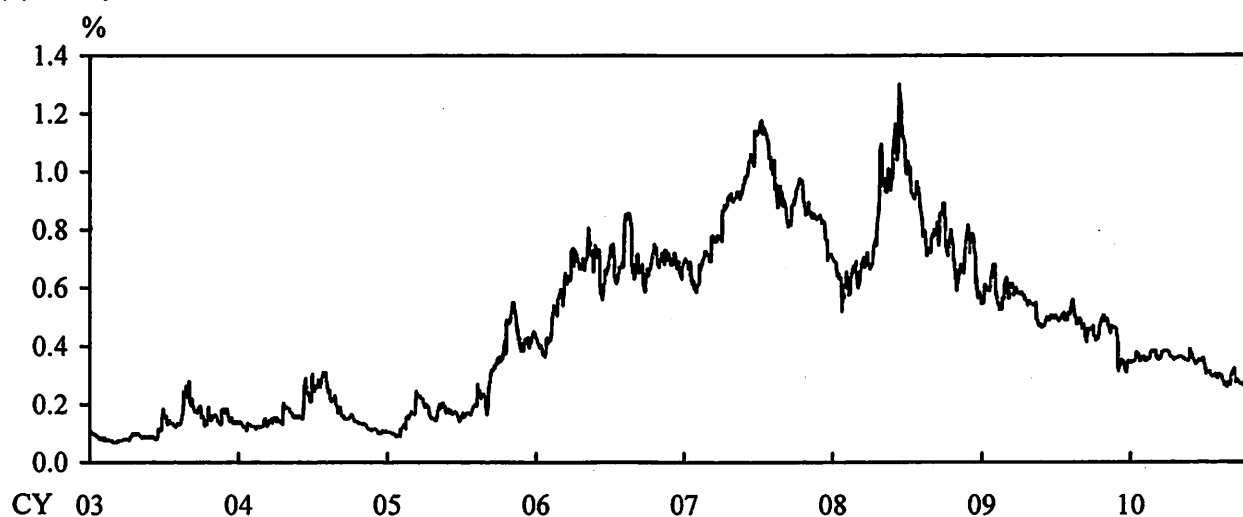
Sources: Bank of Japan; Bloomberg.

Short-Term Interest Rates

(1) Short-Term Interest Rates

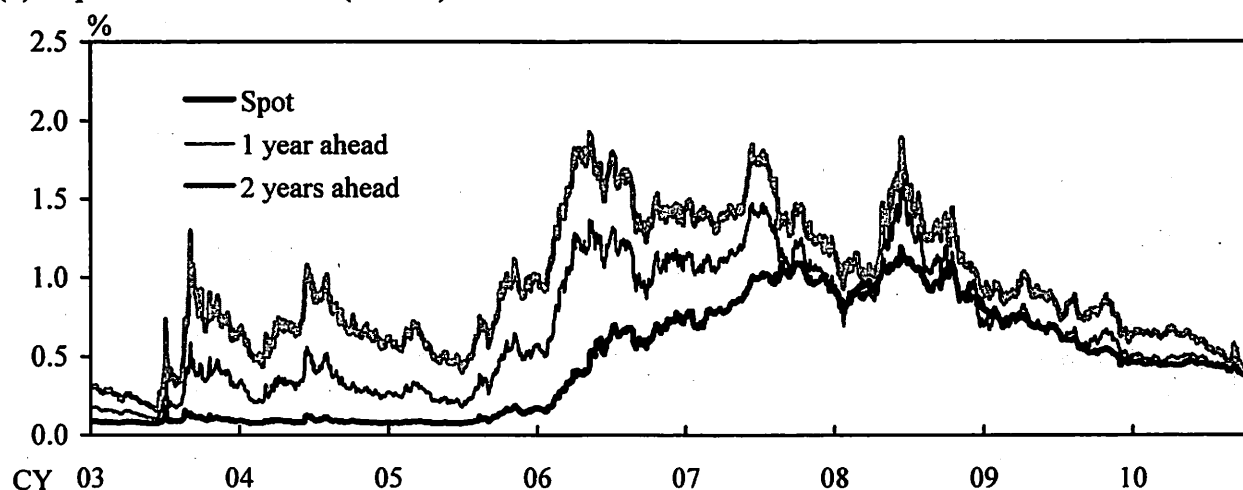


(2) Euroyen Interest Rate Futures



Note: Calculated from those for 3-month, leading contract months.

(3) Implied Forward Rates (1-Year)

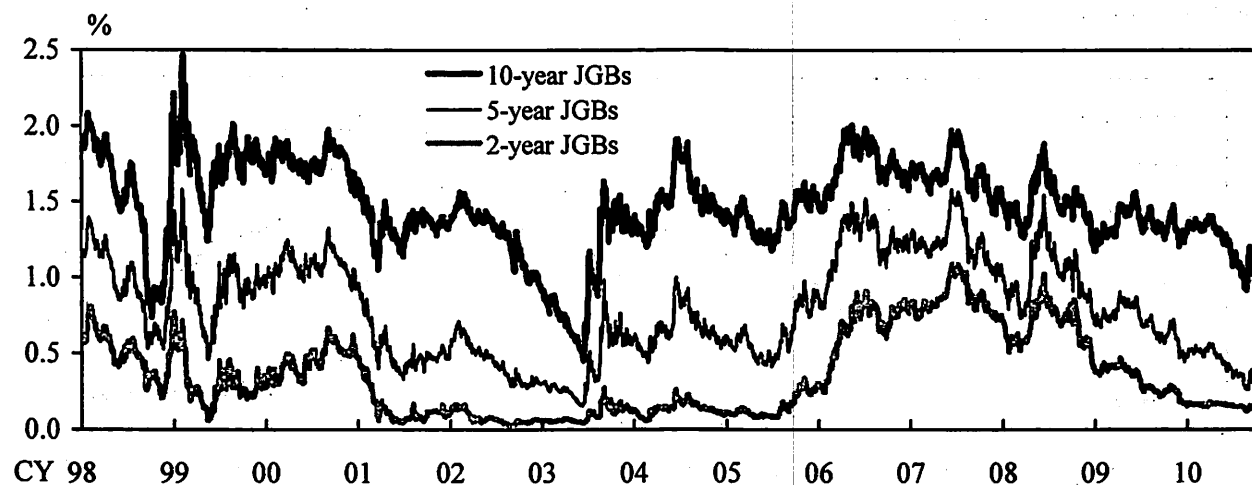


Note: Calculated from yen-yen swap rates.

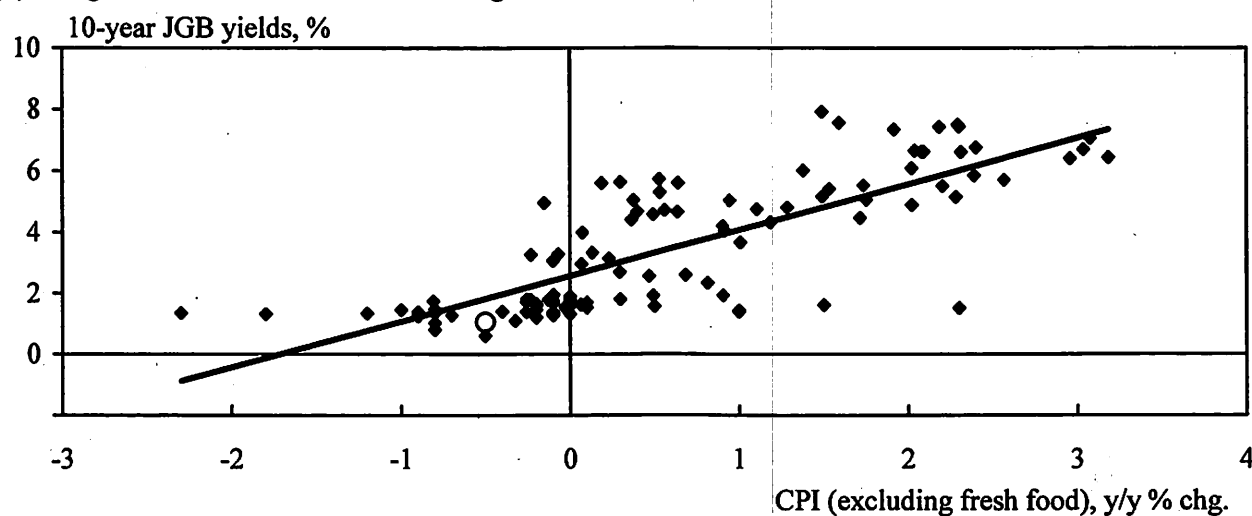
Sources: Bank of Japan; Tokyo Financial Exchange; Bloomberg.

Long-Term Interest Rates

(1) Government Bond Yields

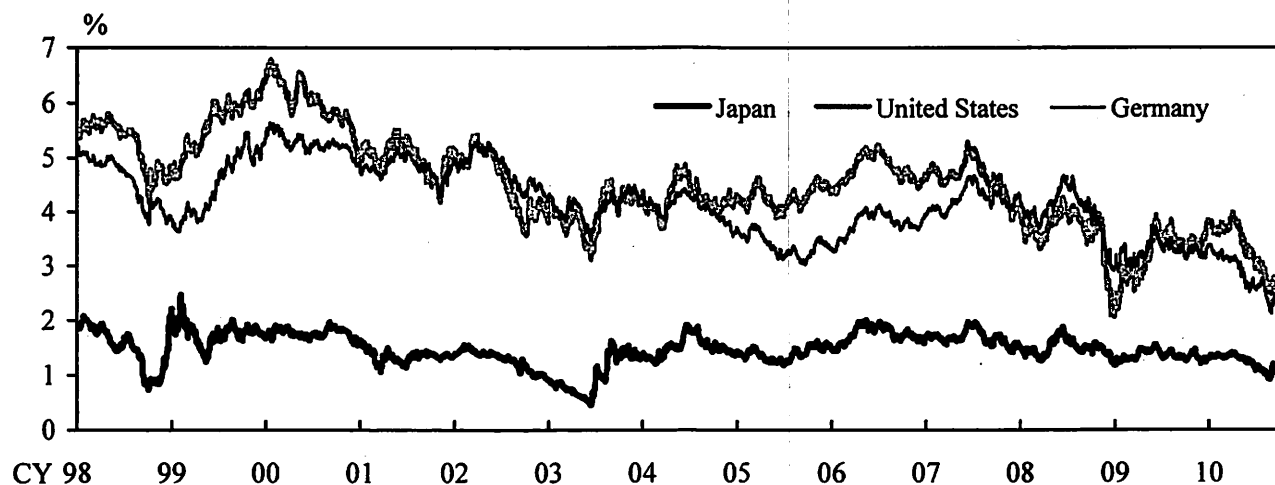


(2) Long-Term Interest Rates and Change in the CPI



- Notes: 1. The CPI is adjusted to exclude the effects of changes in the consumption tax rate.
From 2001/Q1 onward, high school fees are excluded.
2. The sample period is 1983/Q3-2010/Q3. Figures for 2010/Q3 are the July-August averages.
The white circle indicates the latest data.

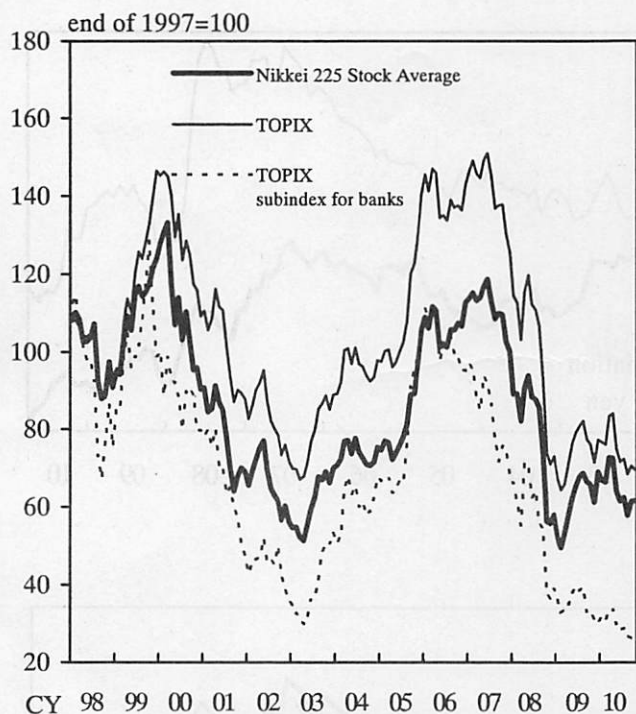
(3) Long-Term Interest Rates in Major Countries (10-Year Government Bond Yields)



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

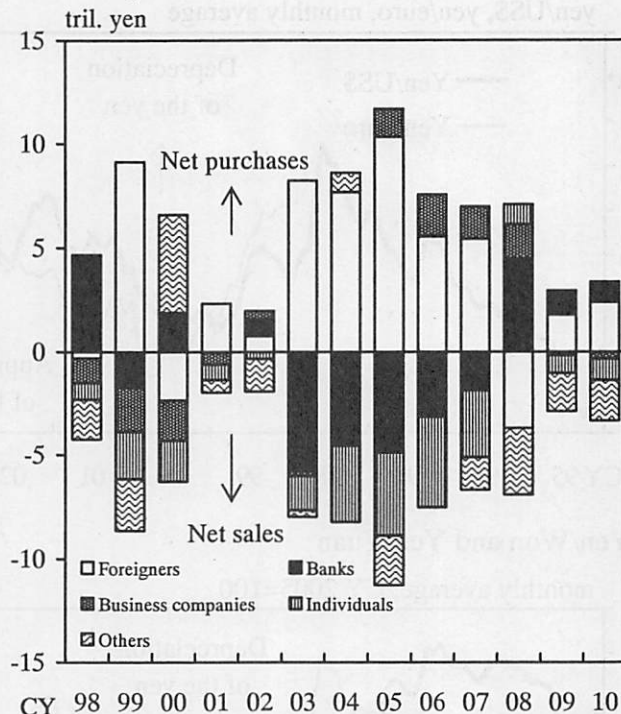
Stock Prices

(1) Stock Prices



Note: The data are as of month-end.

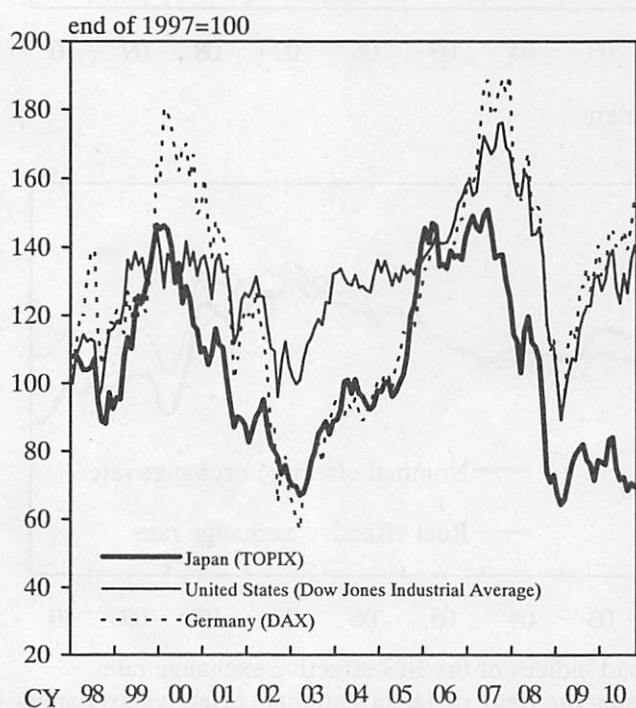
(2) Trading Volume by Investor Type



Notes: 1. Figures are the sum of the first and second sections of the Tokyo, Osaka, and Nagoya stock exchanges.

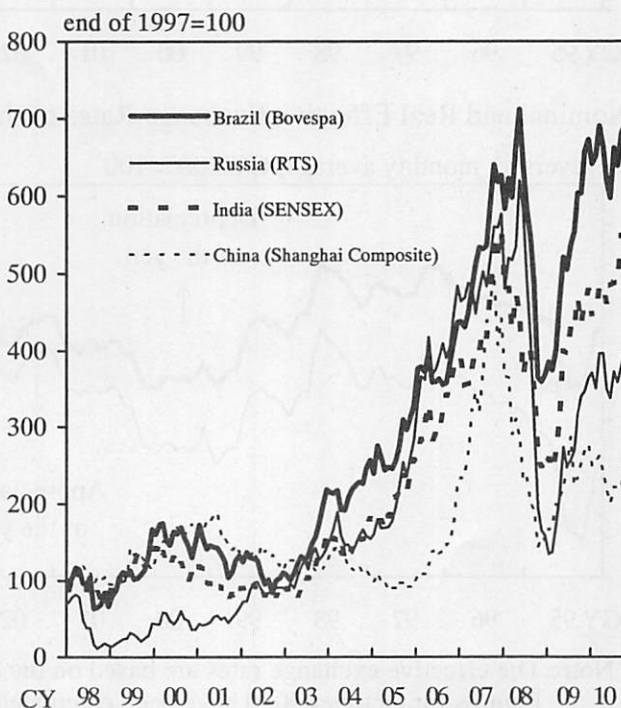
2. Figures for 2010 are those of January-September in terms of annual amount.

(3) Stock Prices in Major Countries



Note: The data are as of month-end.

(4) Stock Prices in the BRIC Economies

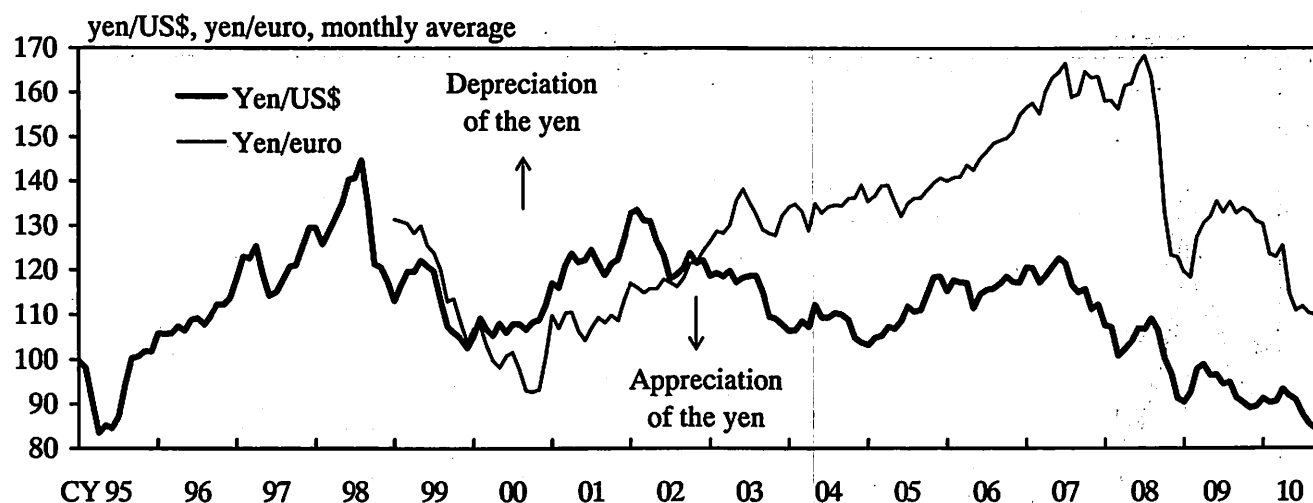


Note: The data are as of month-end.

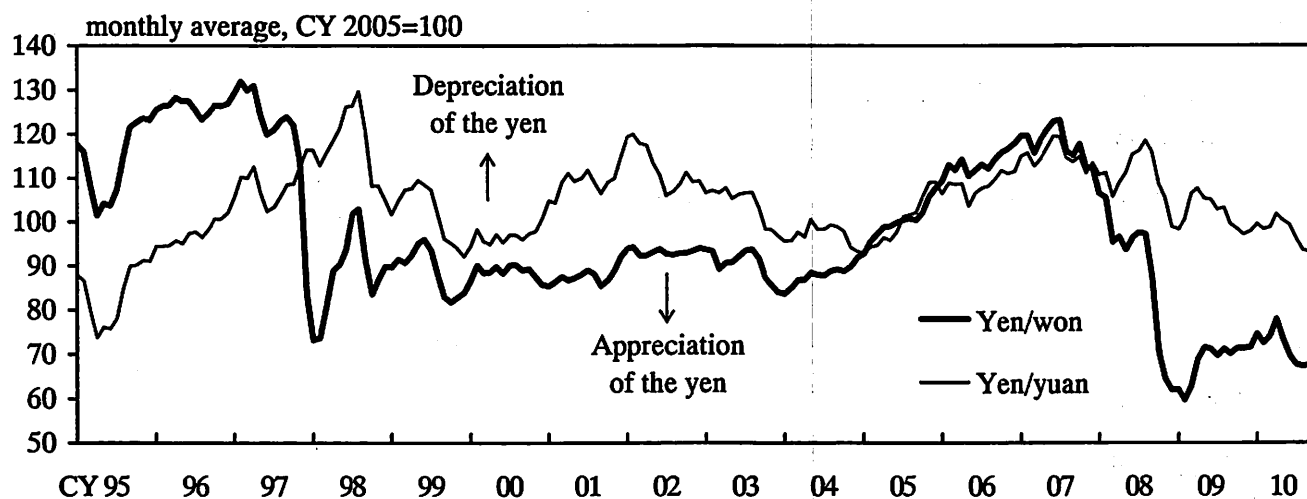
Sources: Nikkei Inc.; Tokyo Stock Exchange; Bloomberg.

Exchange Rates

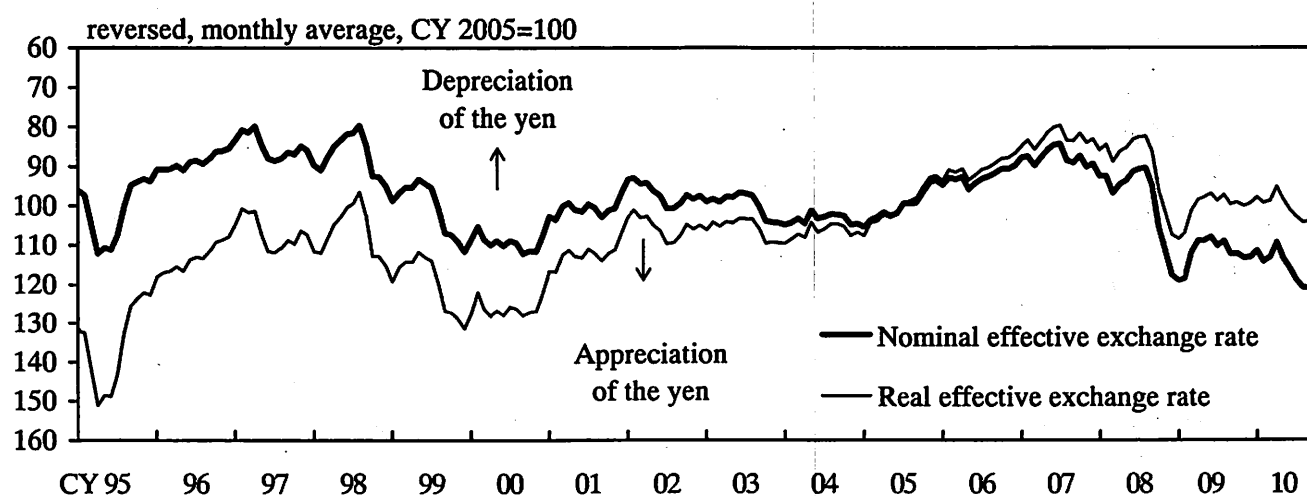
(1) Yen/US\$ and Yen/Euro



(2) Yen/Won and Yen/Yuan



(3) Nominal and Real Effective Exchange Rates of the Yen

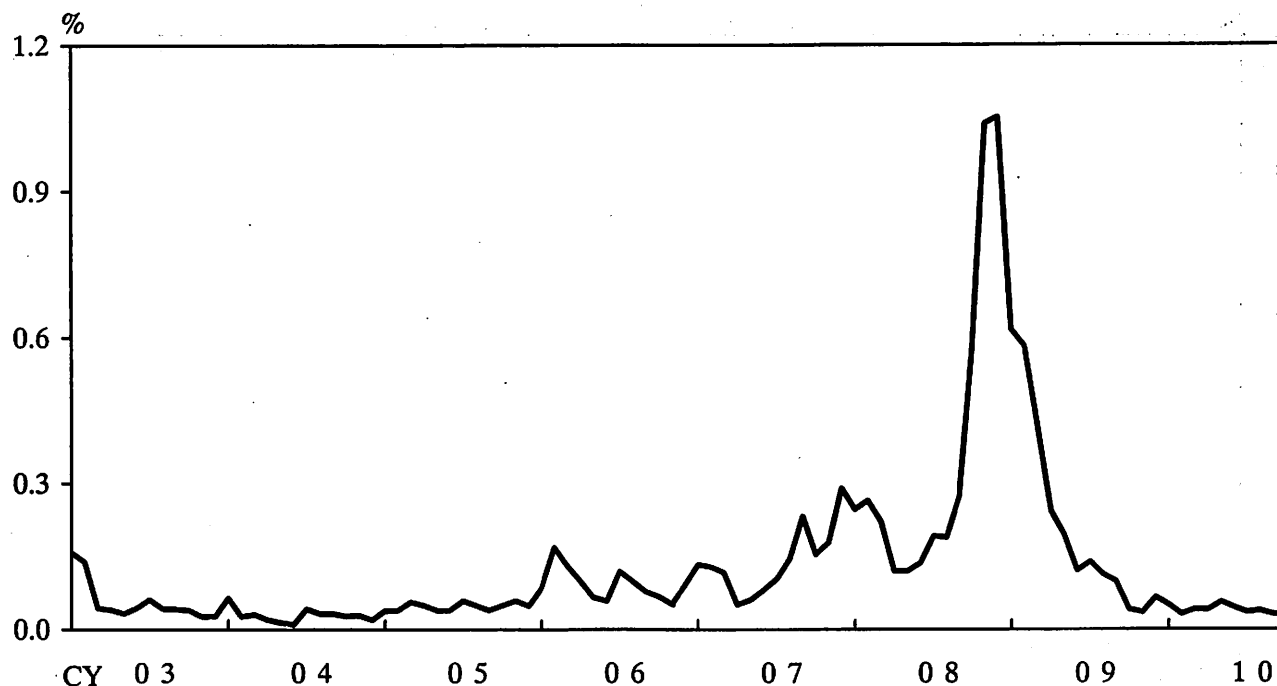
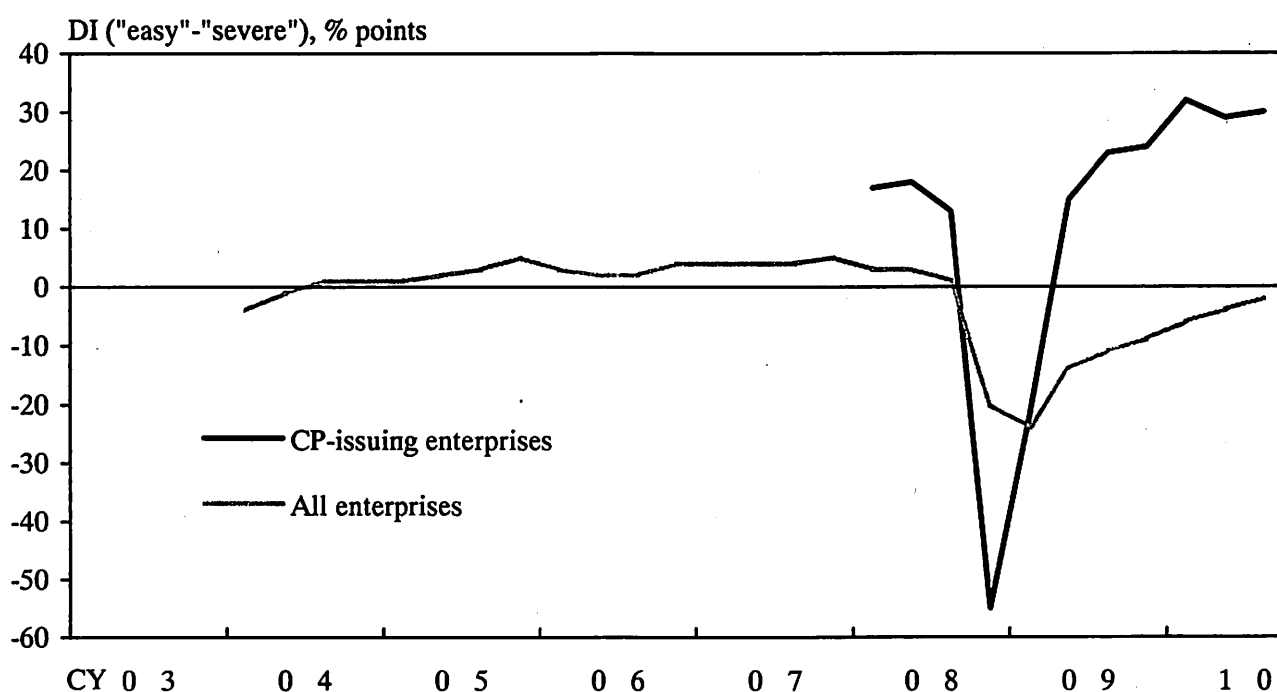


Note: The effective exchange rates are based on the broad indices of the BIS effective exchange rate.

Figures for October 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; Bloomberg.

CP Market

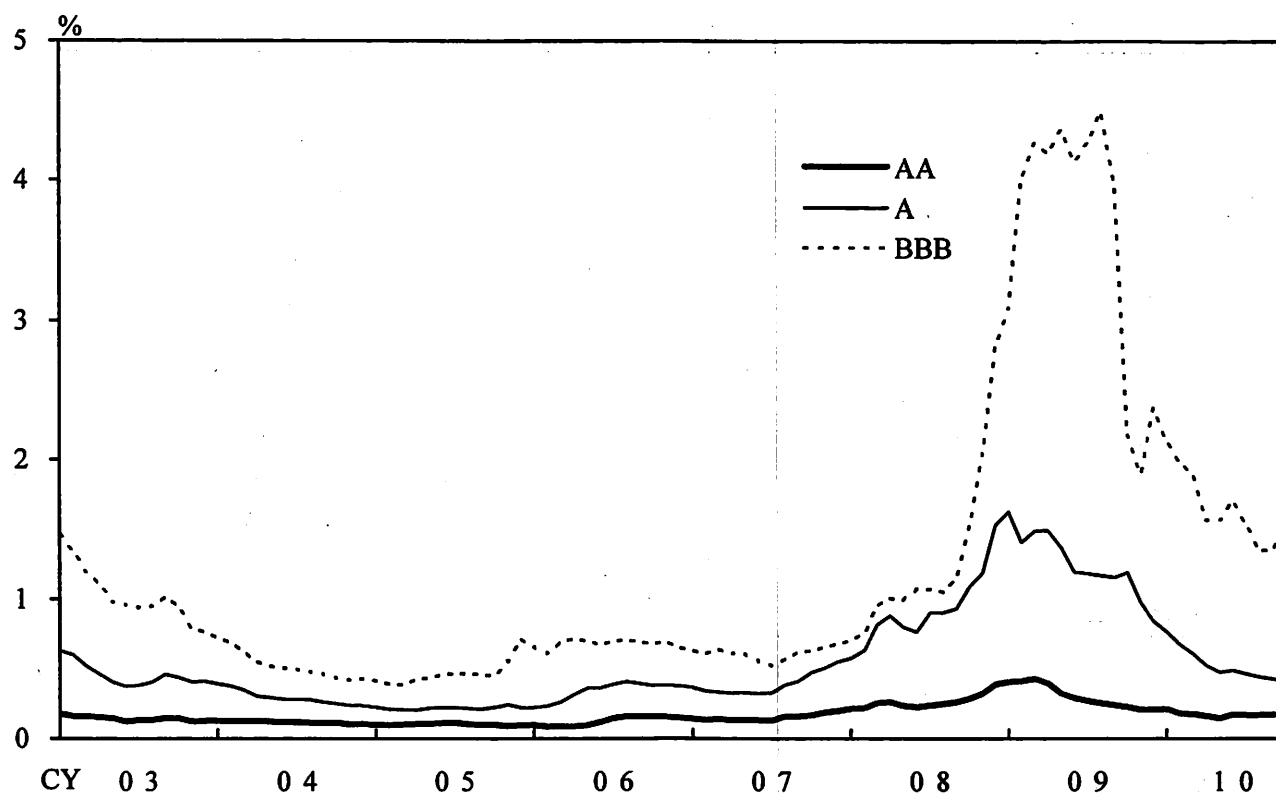
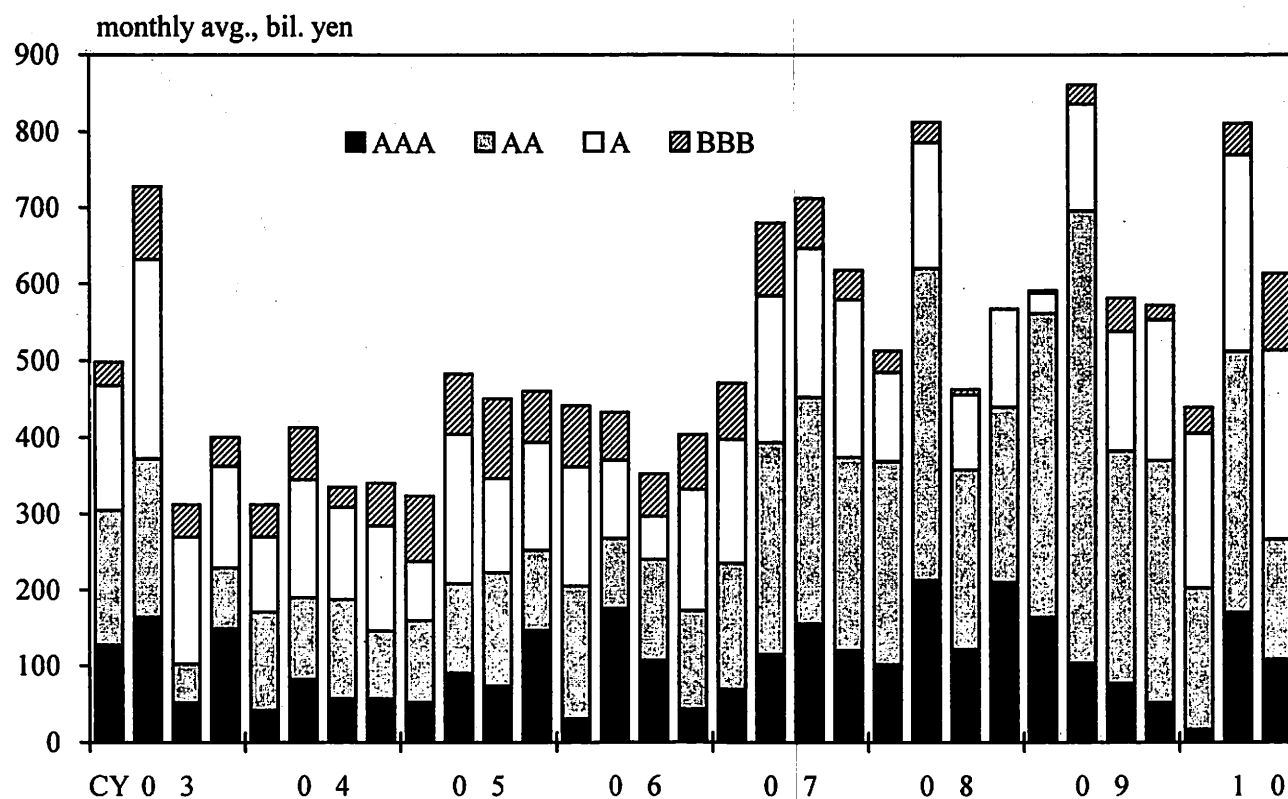
(1) Spreads for CP¹(2) CP Issuance Conditions as Perceived by Firms²

Notes: 1. Figures up to September 2009 are the average issuance rate of CP (3-month, rated a-1 or higher) minus the yield on treasury discount bills (3-month). Figures from October 2009 are the average issuance rate of CP (3-month, rated a-1) minus the yield on treasury discount bills (3-month).

2. Based on large enterprises and all industries. DI of the "CP-issuing enterprises" is calculated using only enterprises that had reported issuing CP at least once in the past two years. DI of the "all enterprises" is calculated from all enterprises that answered "Conditions for CP Issuance" regardless of whether they had 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 Bond Market

(1) Spreads for Corporate Bonds^{1,2}(2) Amount of Corporate Bonds^{3,4}

Notes: 1. The spreads for corporate bonds are the corporate bond (5-year) yields minus the government bond (5-year) yield.

2. The indicated ratings of corporate bonds are of R&I.

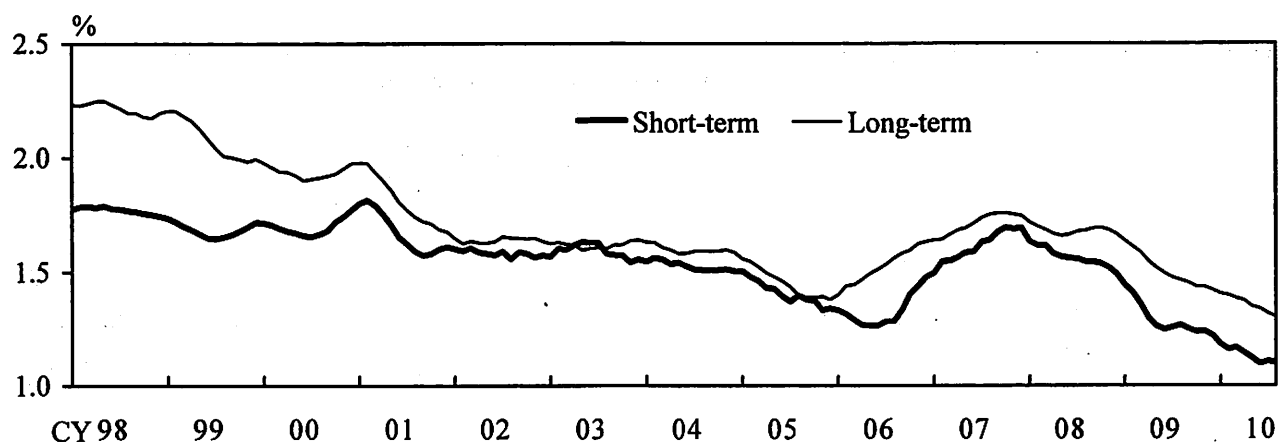
3. Figures are the sum of straight bonds issued in domestic markets, based on the launch date.

4. Bonds issued by banks are excluded.

Sources: Japan Securities Dealers Association; I-N Information Systems; Bloomberg.

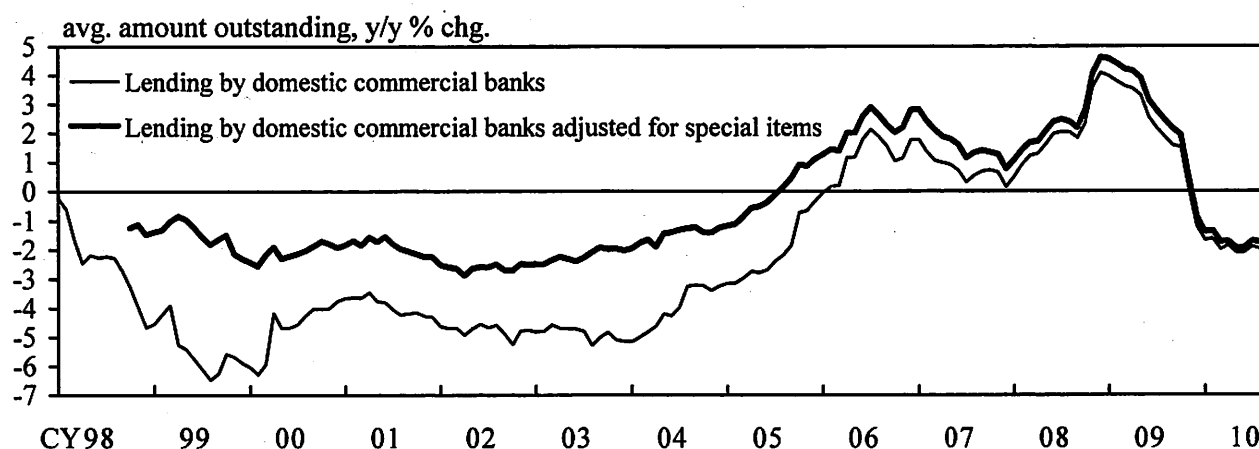
Bank Lending and Money Stock

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



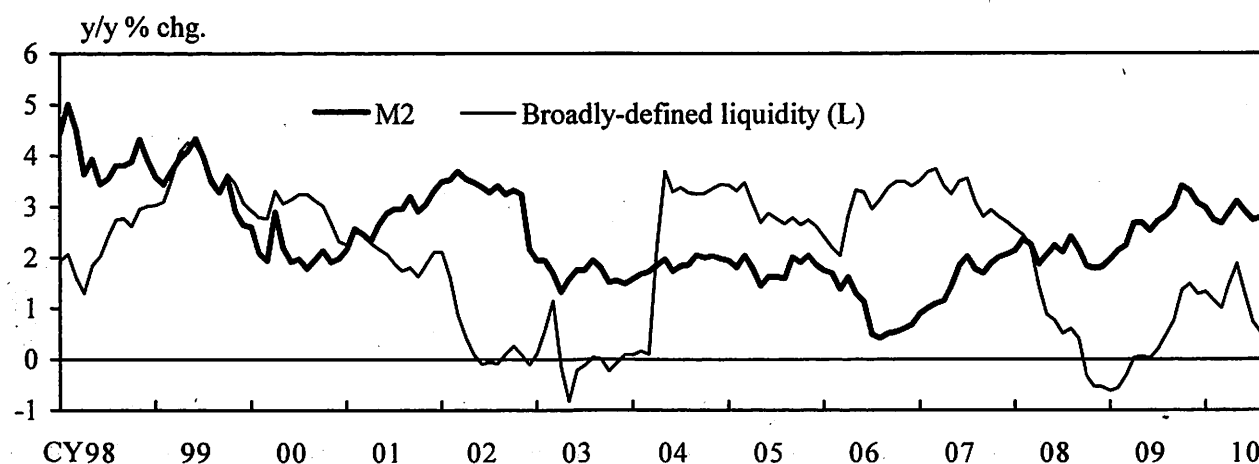
Note: Figures are the six-month backward moving average.

(2) Lending by Domestic Commercial Banks



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

(3) Money Stock



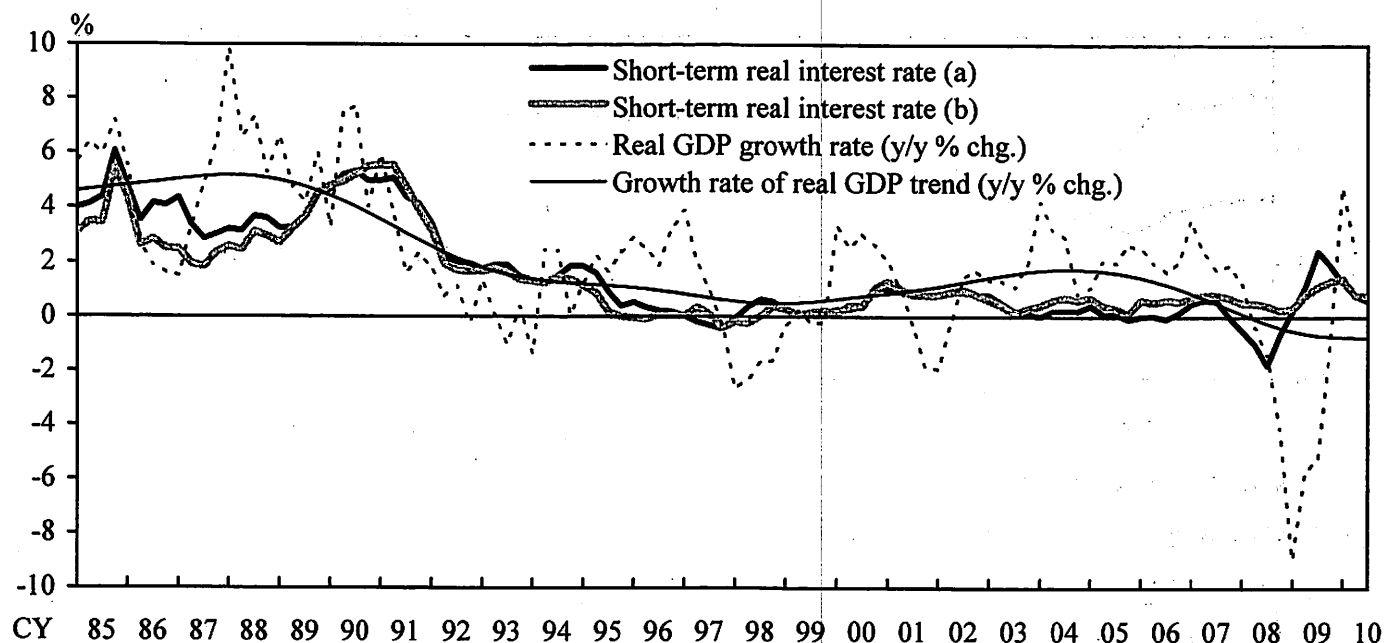
Notes: 1. Figures for M2 up to March 2004 are the former series of the figures for M2+CDs.

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."

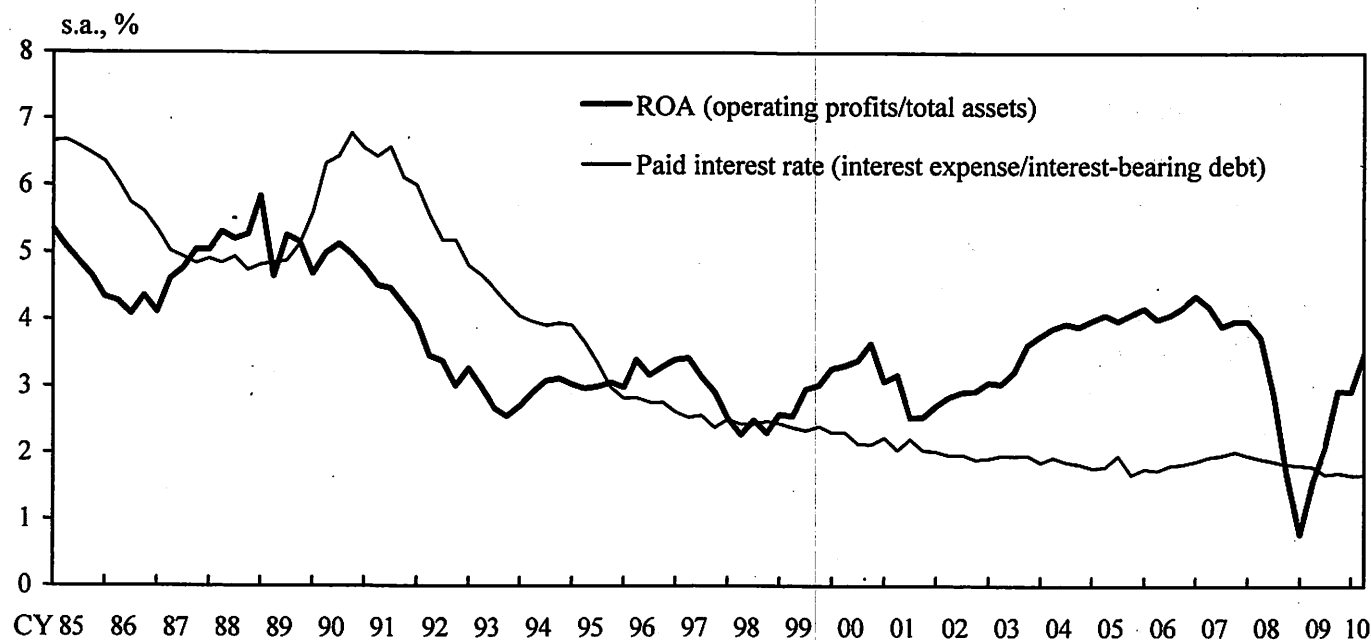
Interest Rates and Economic Activity

(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 effects of changes in the consumption tax rate. From 2001/Q1, high school fees are excluded.
 4. Real GDP trend is calculated by applying the HP filter.

(2) ROA and Paid Interest Rate



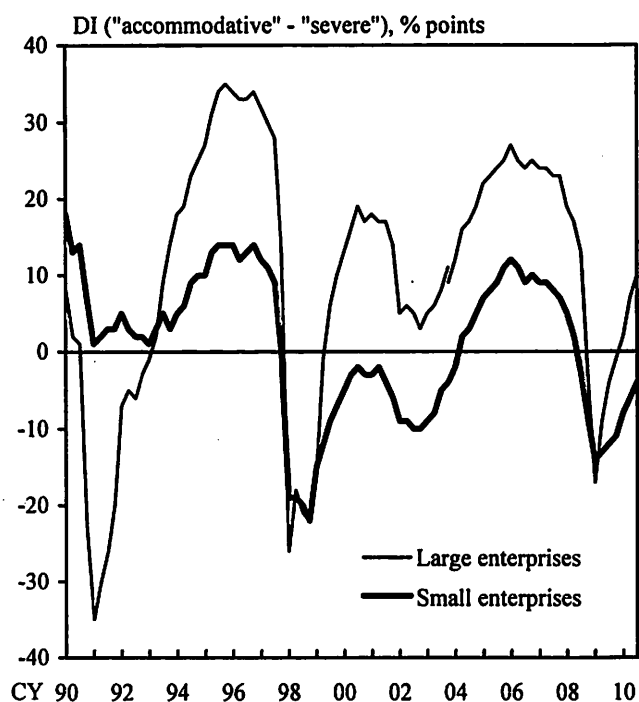
- Notes: 1. Taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly." Based on all-size enterprises and all industries. Figures exclude finance and insurance.
 2. Interest-bearing debt = long- and short-term borrowings + corporate bonds + bills receivable discounted outstanding.

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.

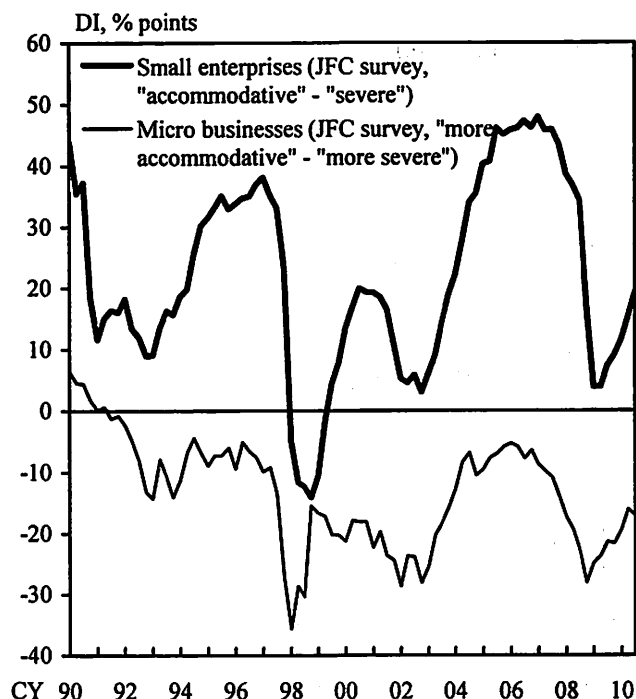
Corporate Finance-Related Indicators

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

(a) *Tankan*

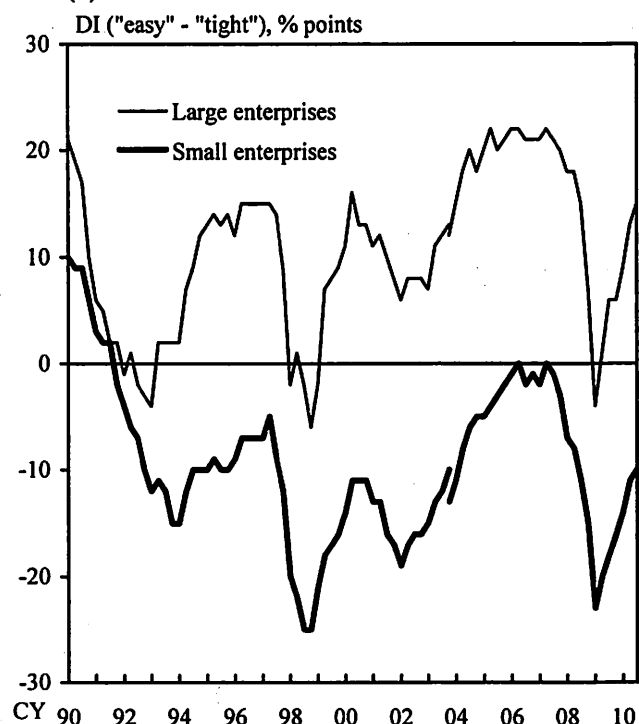


(b) Other Surveys

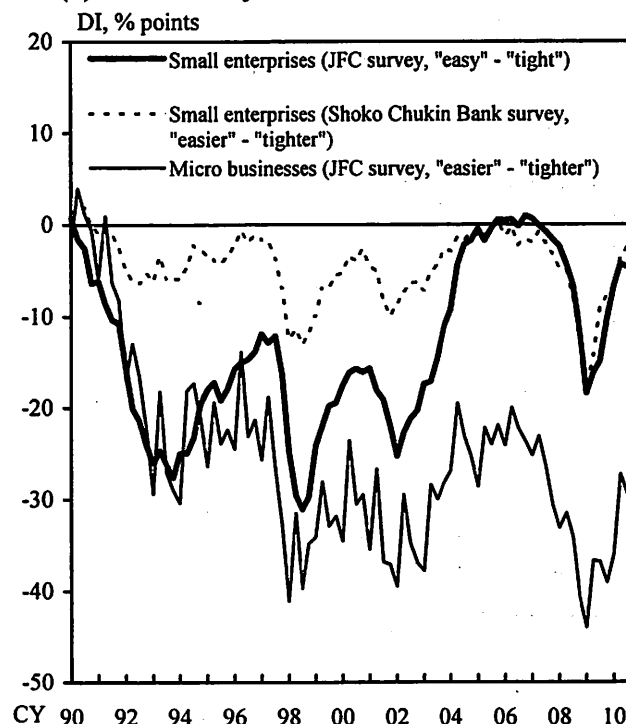


(2) Financial Position

(a) *Tankan*



(b) Other Surveys



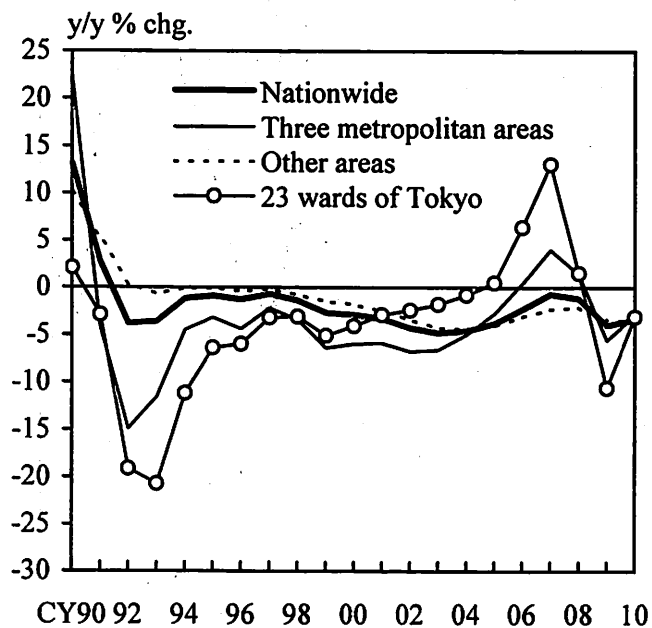
Note: Data of the *Tankan* are based on all industries. The *Tankan* has been revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on a new basis.

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)."

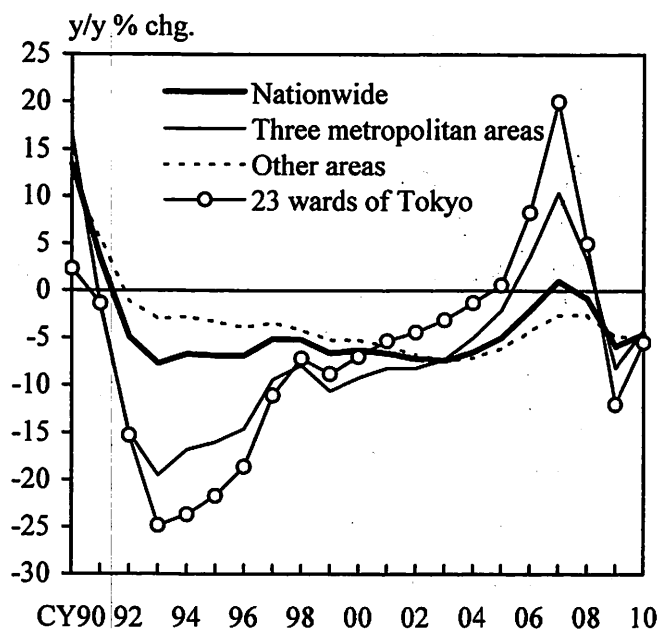
Land Prices

(1) Land Price Survey by Prefectural Governments

(a) Residential Land



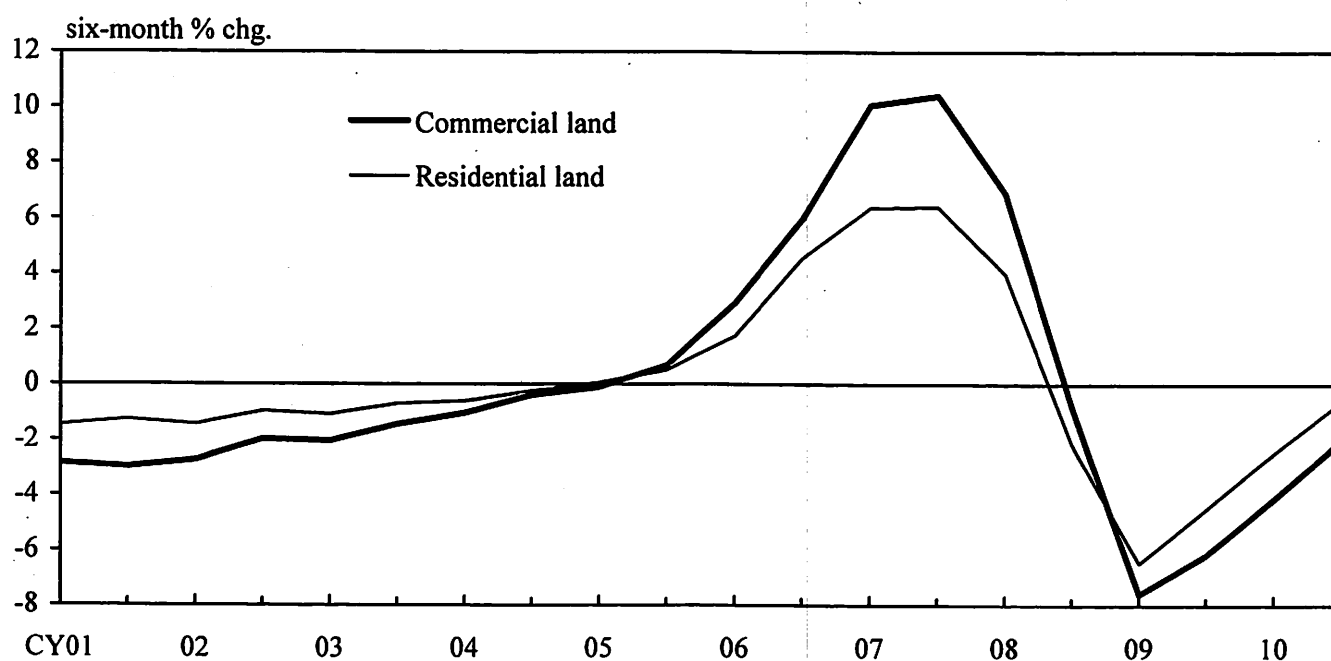
(b) Commercial Land



Notes: 1. Figures are as of July 1.

2. 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

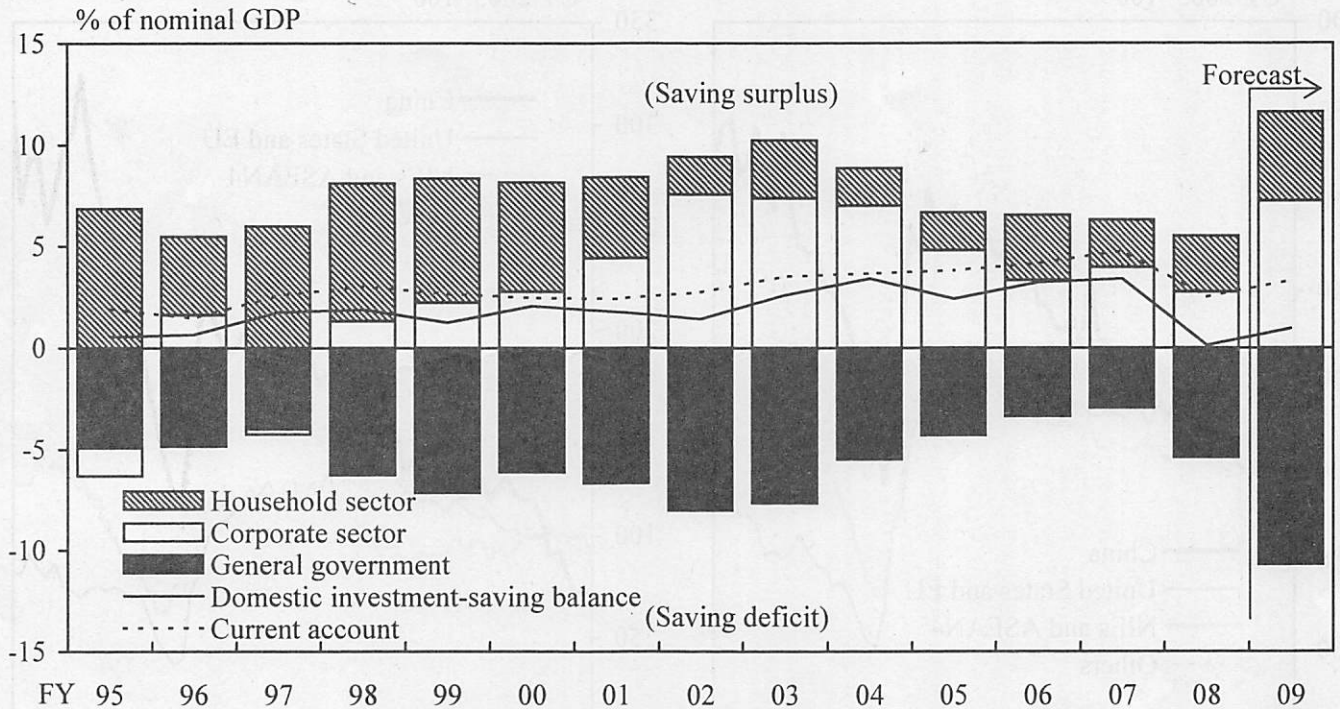


Note: Figures in the chart are six-month percentage change in land prices available in both "Public Notice of Land Prices" and "Land Price Survey by Prefectural Governments" (residential: 49 points; commercial: 39 points).

Source: Ministry of Land, Infrastructure, Transport and Tourism, "Public Notice of Land Prices," "Land Price Survey by Prefectural Governments."

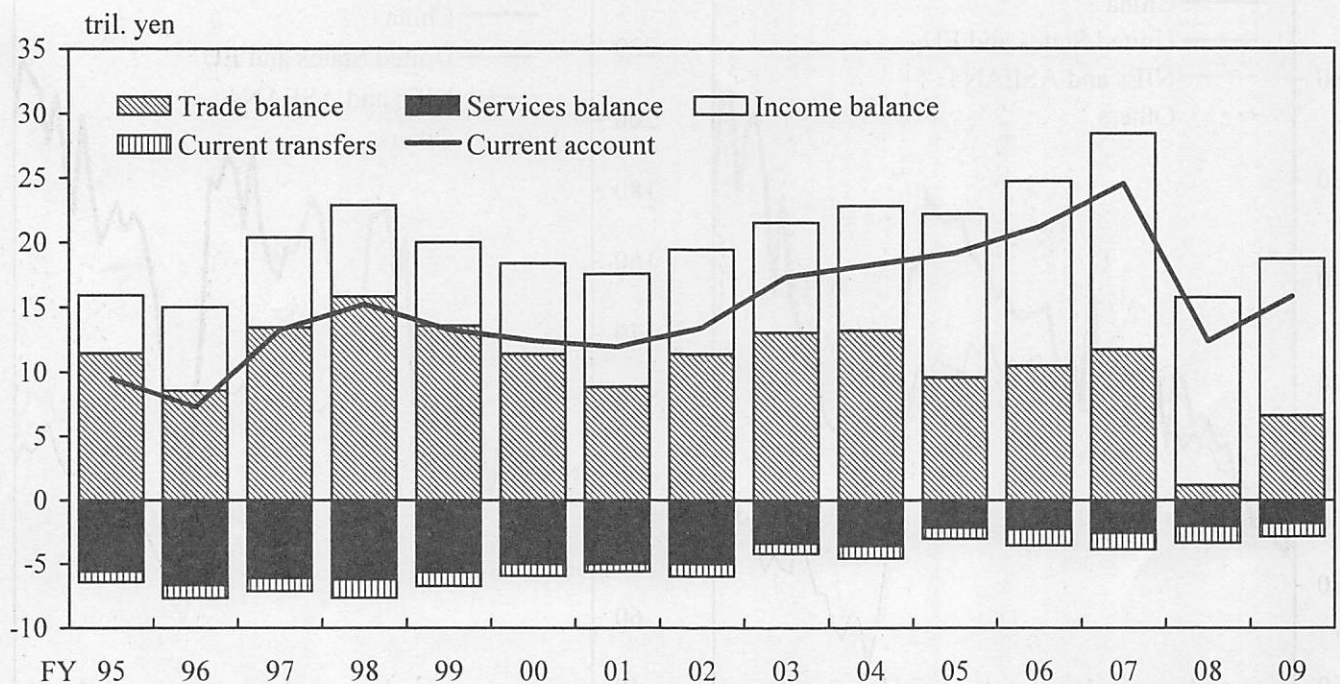
Investment-Saving Balance

(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)." For the forecast of fiscal 2009, "Economic and Fiscal Projections for Medium to Long Term Analysis" is referred to for the general government, and nominal disposal income estimated in Chart 37 is used for the household sector.

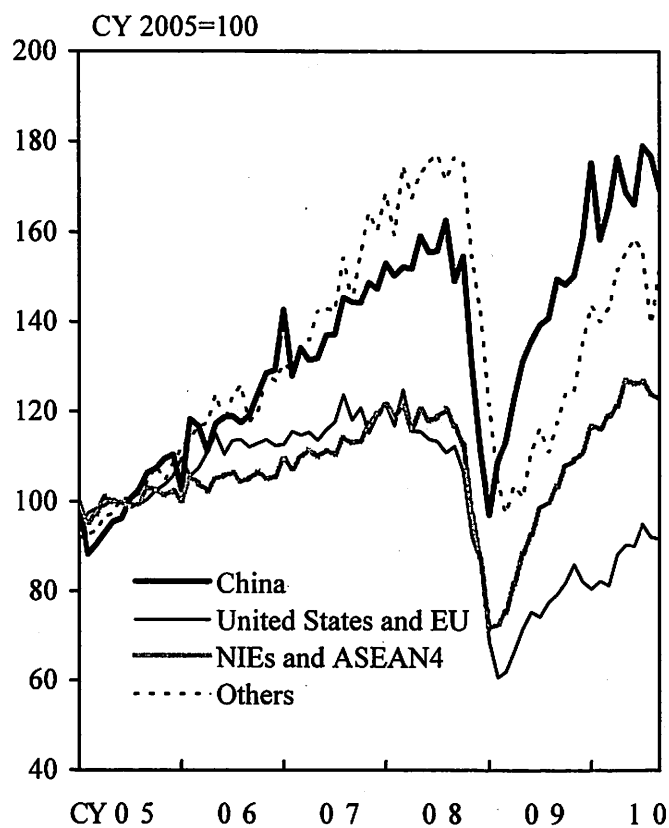
(2) Current Account



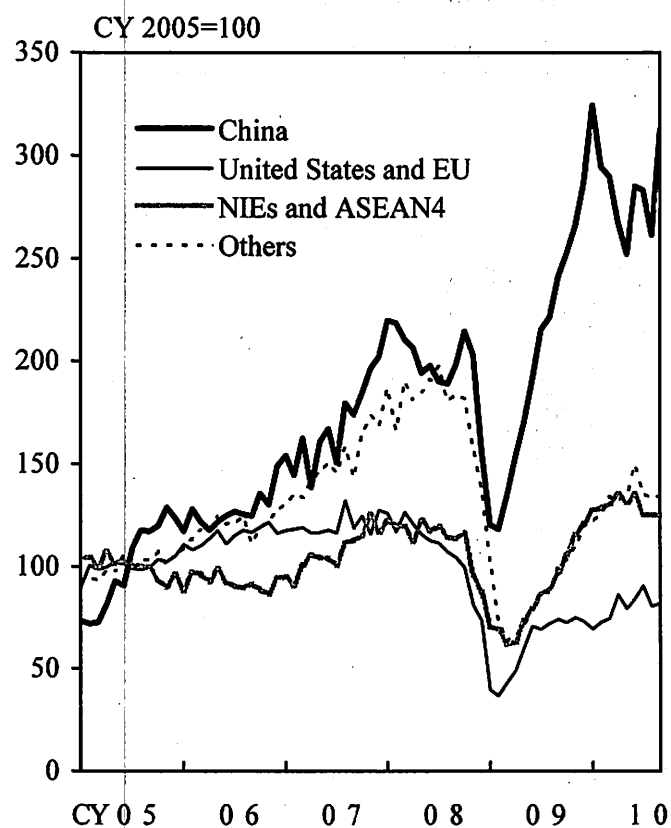
Sources: Cabinet Office, "National Accounts," "Economic and Fiscal Projections for Medium to Long Term Analysis"; Ministry of Finance and Bank of Japan, "Balance of Payments."

Real Exports by Region

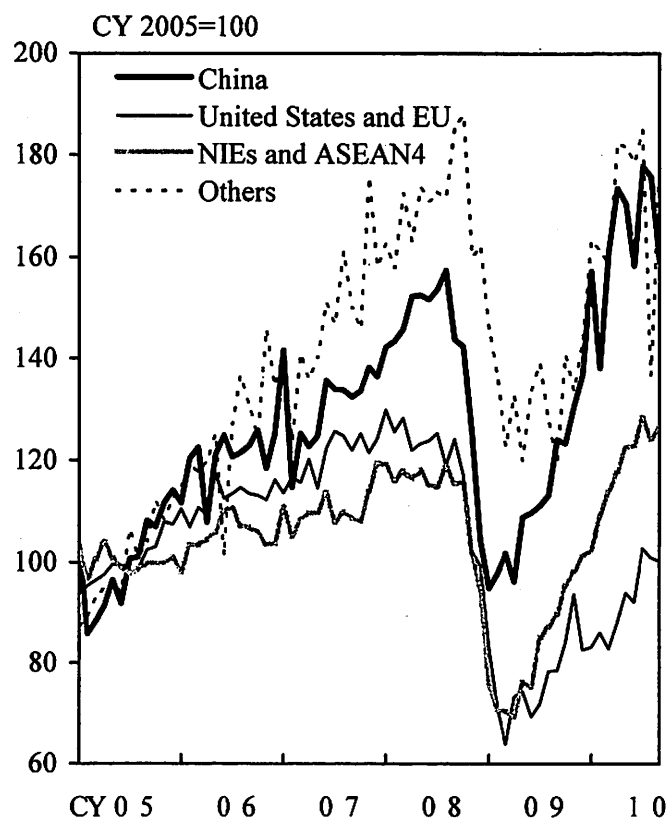
(1) All Goods



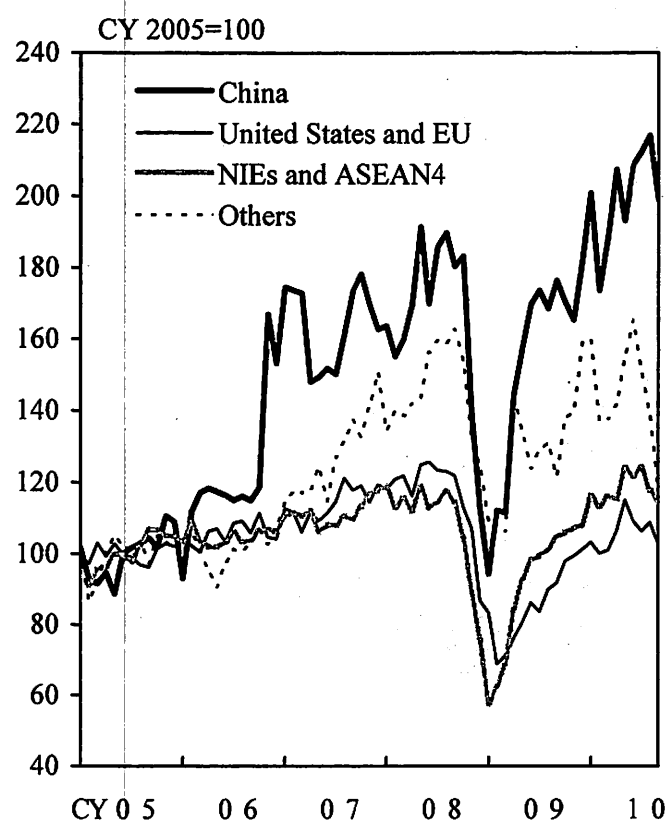
(2) Motor Vehicles and Related Goods



(3) Capital Goods and Parts

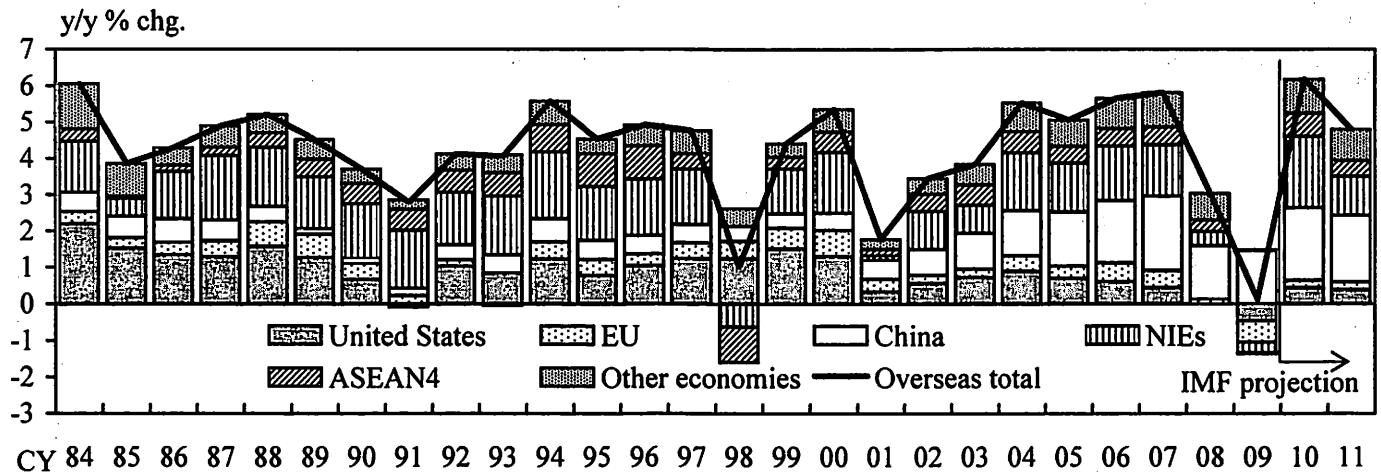


(4) IT-Related Goods



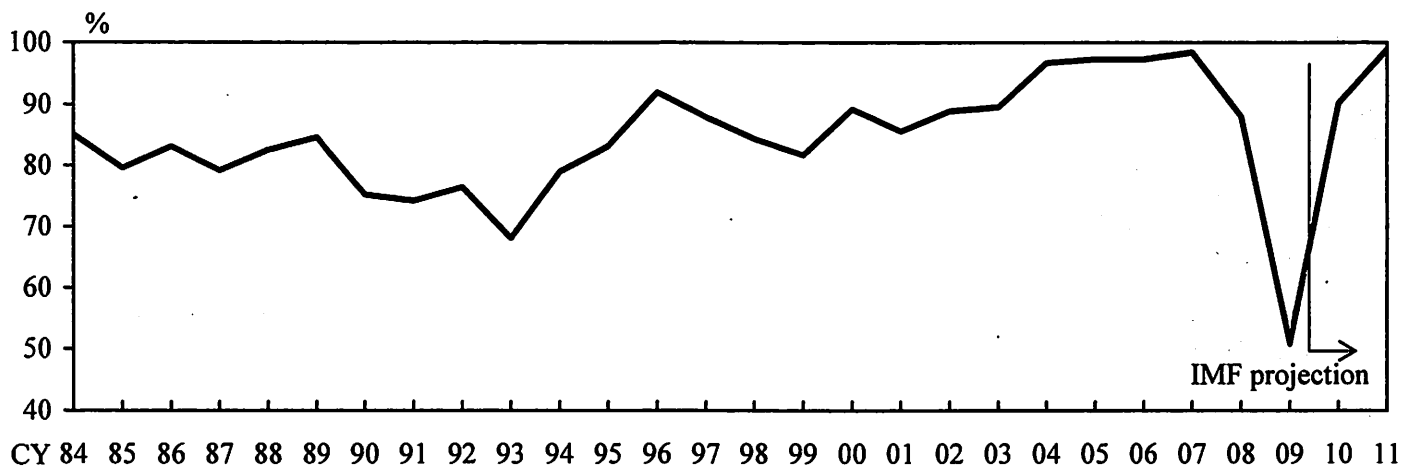
Overseas Economies

(1) Real GDP Growth Rates of Overseas Economies

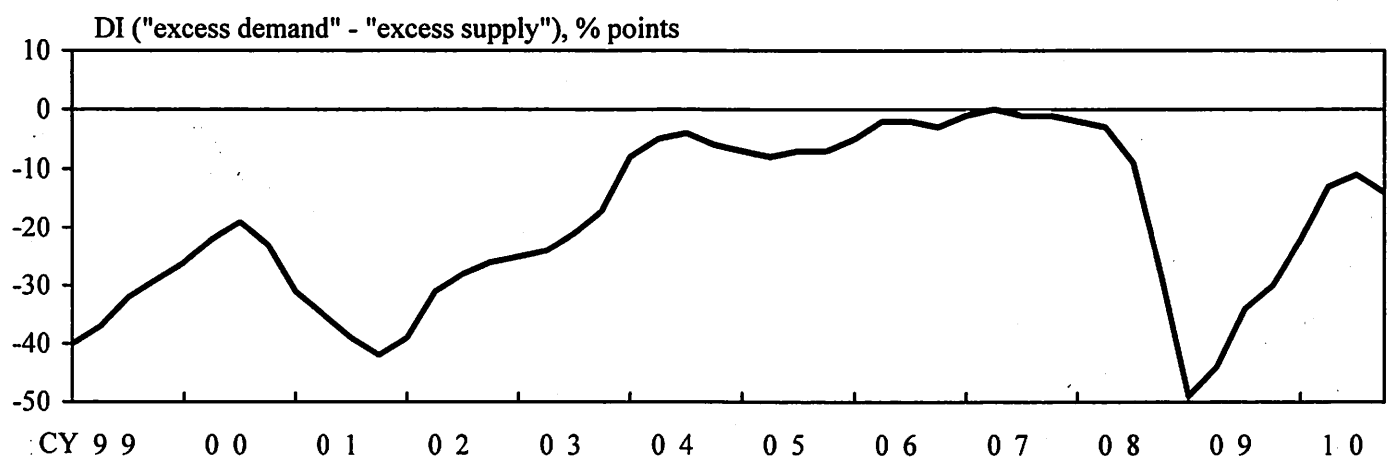


Note: Real GDP growth rate of the overseas total is the weighted average of real GDP growth rates by values of exports from Japan to each economy.

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



(3) Overseas Supply and Demand Conditions for Products DI



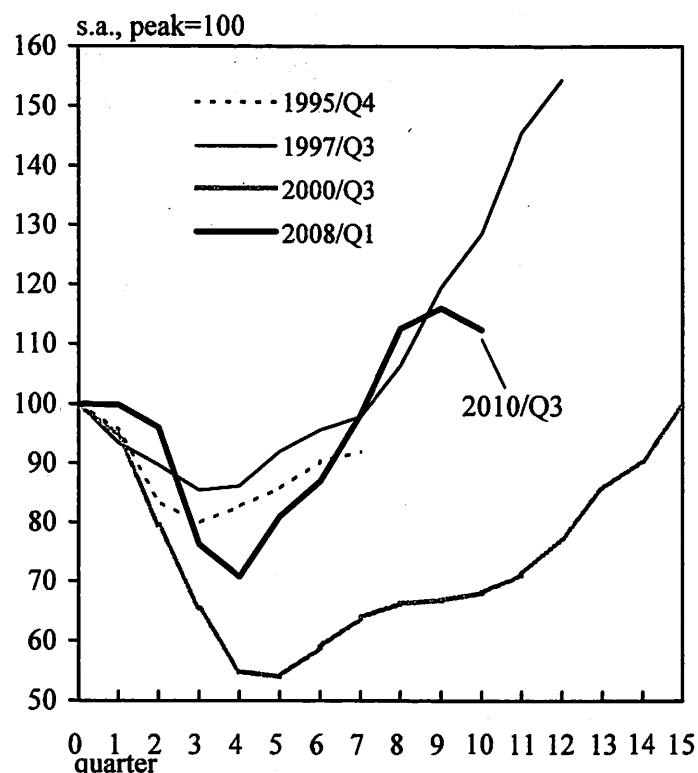
Notes: 1. The figure of the DI is based on all-size enterprises and all industries.

2. The figure of the DI for 2010/Q4 is the forecast in the September 2010 survey.

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

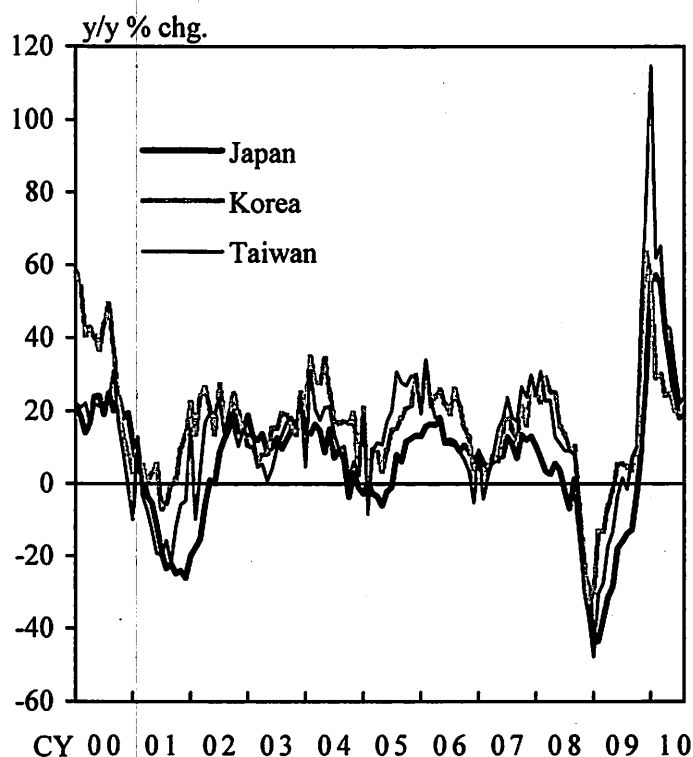
Cycle of Global Demand for IT-Related Goods

(1) Comparisons of World Semiconductor Shipments in Business Cycles

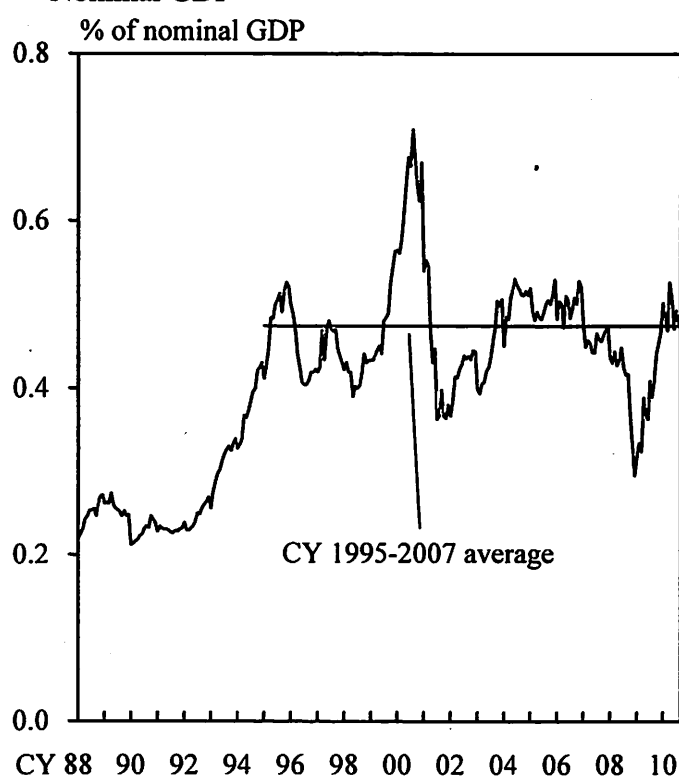


Note: The figure for 2010/Q3 is the July-August average converted into a quarterly amount.

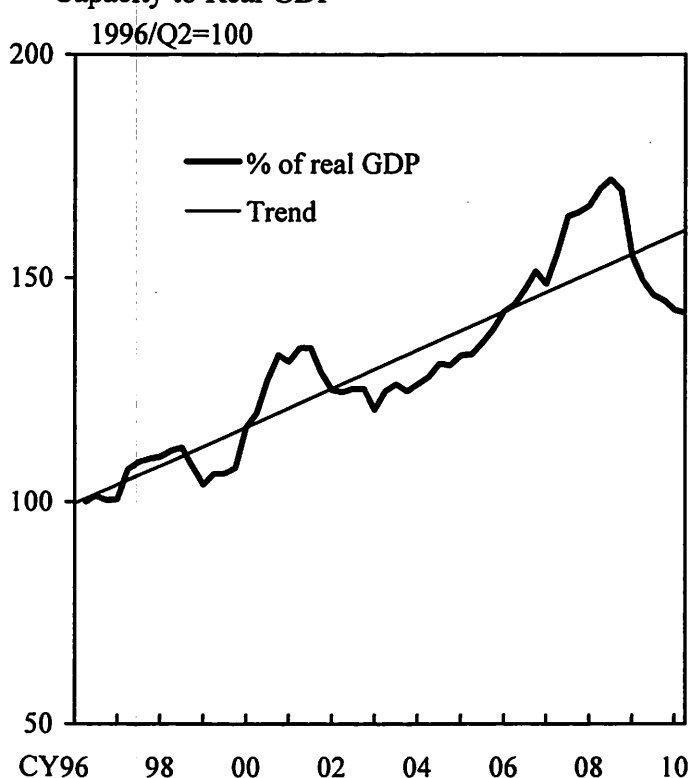
(2) Shipments of IT-Related Goods in Japan, Korea, and Taiwan



(3) Ratios of World Semiconductor Shipments to Nominal GDP



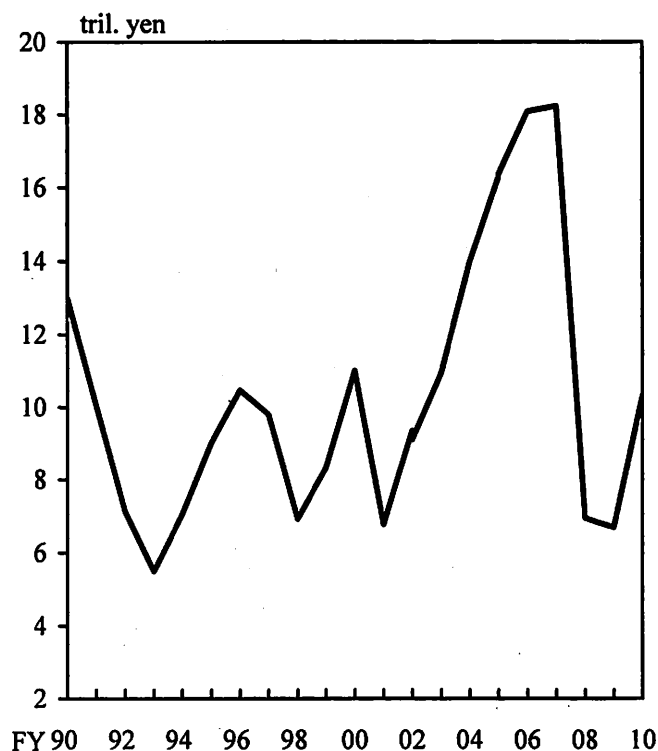
(4) Ratios of World Semiconductor Production Capacity to Real GDP



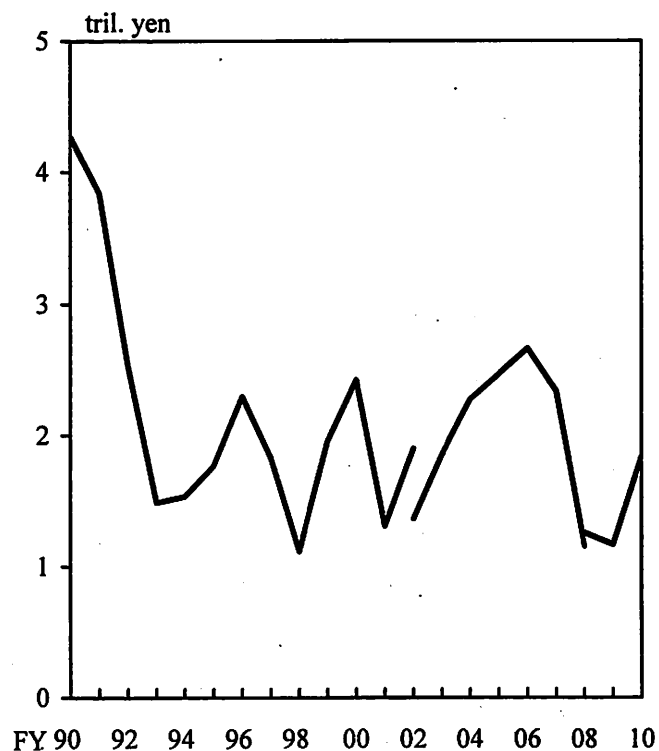
Sources: WSTS; CEIC; Ministry of Economy, Trade and Industry, "Indices of Industrial Production"; IMF, "World Economic Outlook"; SICAS.

Corporate Profits

(1) Large Manufacturing Enterprises



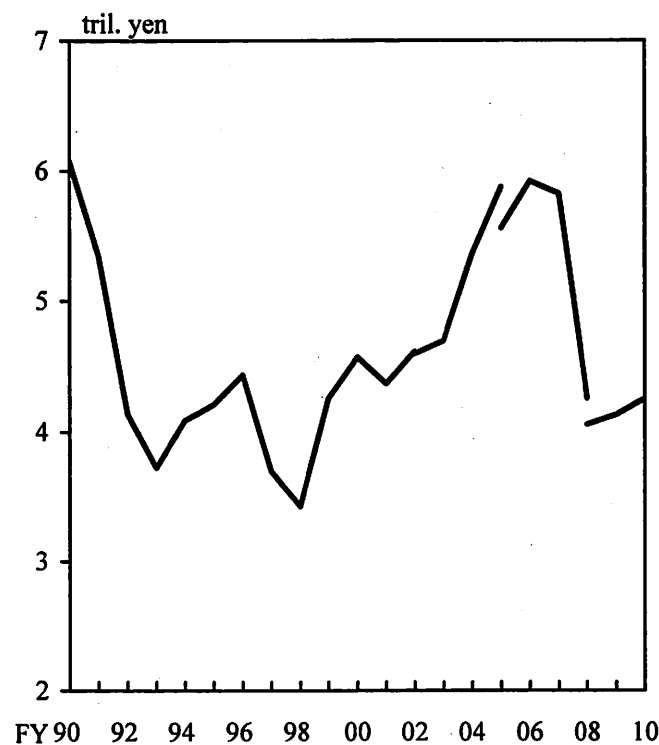
(2) Small Manufacturing Enterprises



(3) Large Nonmanufacturing Enterprises



(4) Small Nonmanufacturing Enterprises



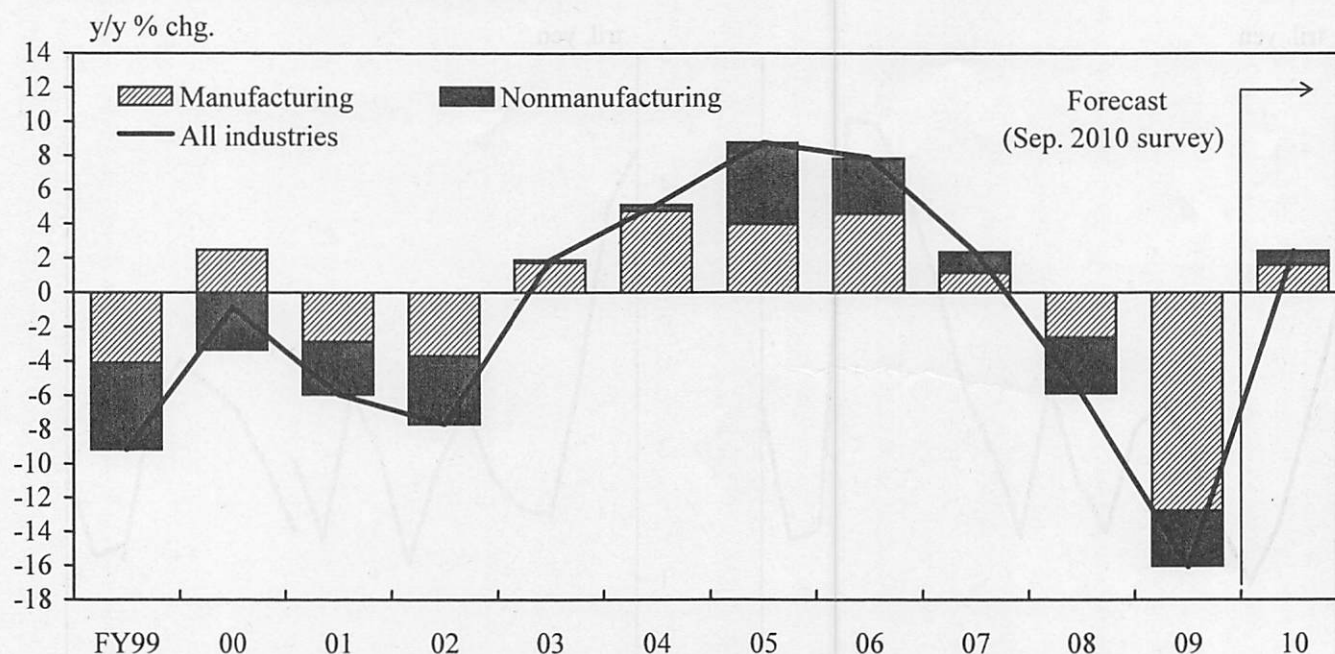
Notes: 1. Based on current profits.

2. Figures for fiscal 2010 are the forecasts in the September 2010 survey.

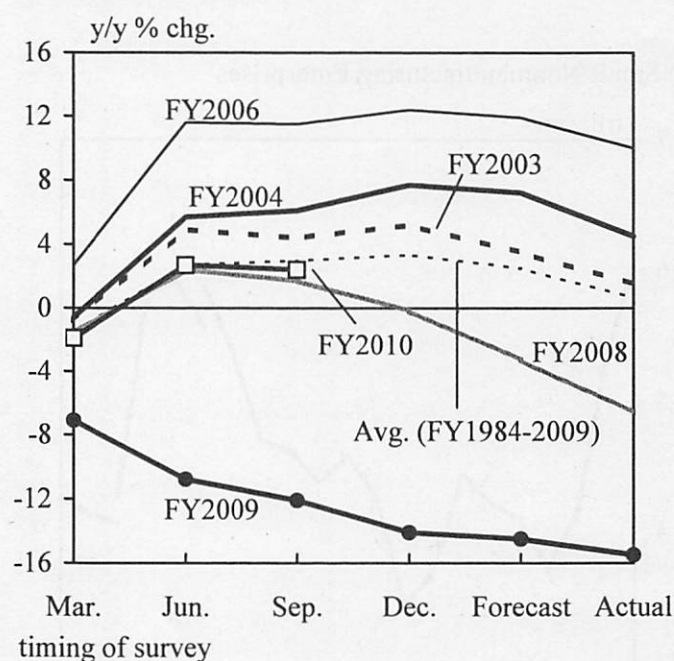
3. In the March 2004 survey, the *Tankan* underwent major revisions, including the addition of new sample enterprises to the survey. In the March 2007 survey and the March 2010 survey, regular revisions were made to the sample enterprises. The data show some discontinuities that coincided with these timings.

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

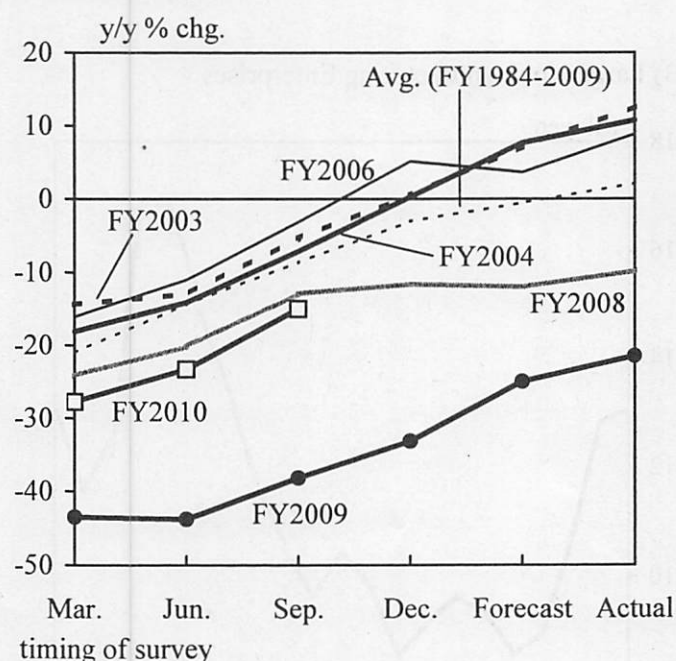
Fixed Investment Plans

(1) Fixed Investment Plans as Surveyed^{1,2,3}(2) Developments of Fixed Investment Plans^{2,4,5,6}

(a) Large Enterprises



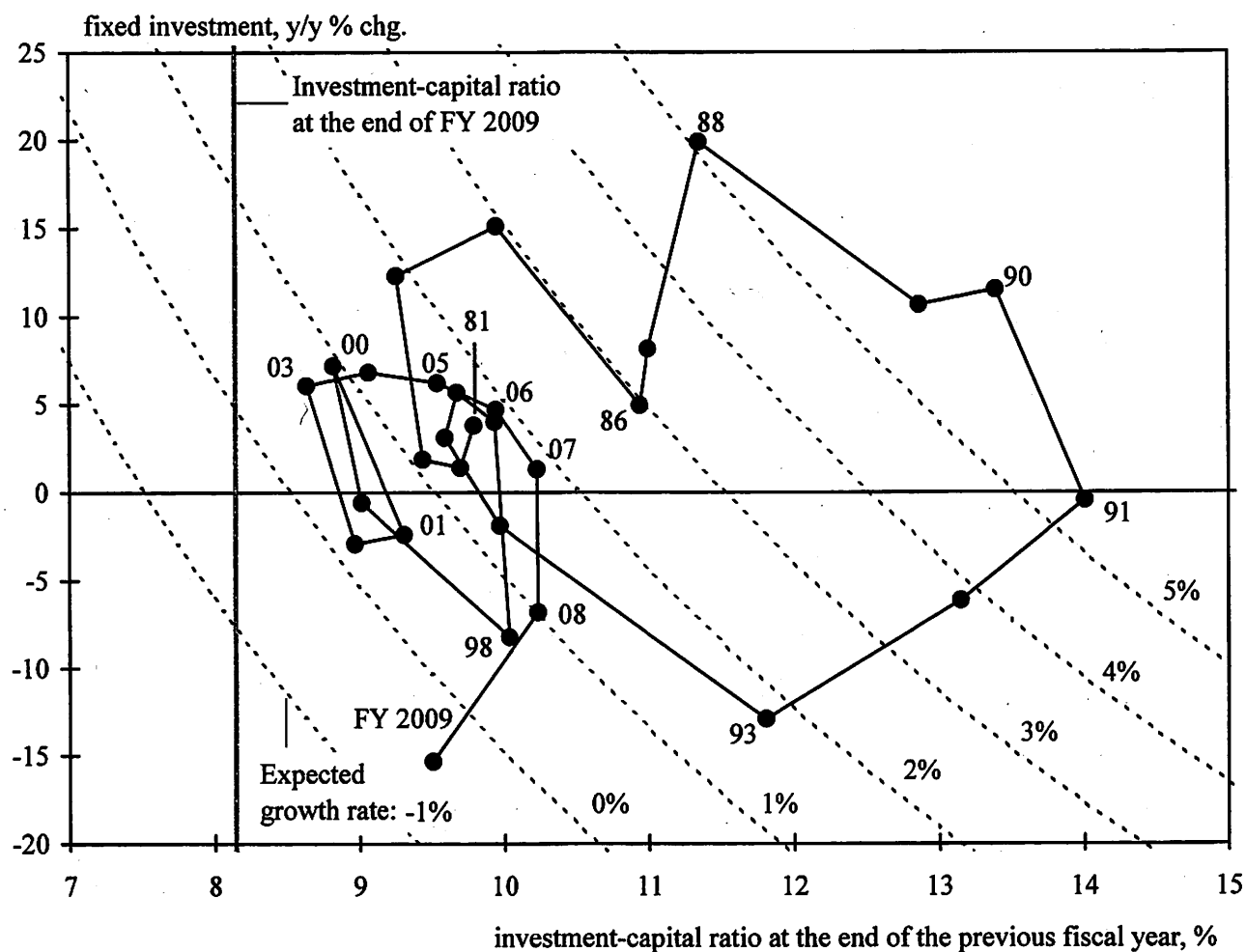
(b) Small Enterprises



- Notes: 1. Figures are based on all-size enterprises in "Tankan, Short-Term Economic Survey of Enterprises in Japan."
 2. Figures up to fiscal 2008 are based on the previous accounting standard for lease transactions, and figures from fiscal 2009 onward are based on the new standard.
 3. 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.
 4. Figures are based on all industries in "Tankan, Short-Term Economic Survey of Enterprises in Japan."
 5. Figures include land purchasing expenses and exclude software investment.
 6. Sample enterprises were revised in the March 2004 survey, March 2007 survey, and March 2010 survey. Therefore, for fiscal 2003, 2006, and 2009, figures up to the December survey are based on the previous data sets, and the figures of forecasts and actual results are based on the new basis.

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.

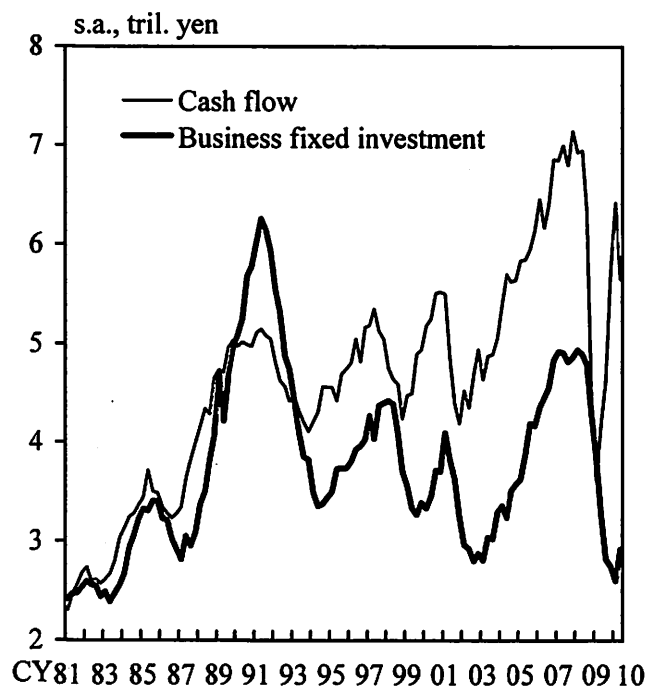
$$\text{Year-on-year rate of change in fixed investment (y-axis)} \times \text{investment-capital ratio at the end of the previous fiscal year (x-axis)} = \text{expected growth rate} + \text{trend growth rate of capital coefficient} + \text{depreciation rate}$$
3. The phase of fixed investment at a certain time can be evaluated in relation to the hyperbolic curve corresponding to the expected growth rate at that time.

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."

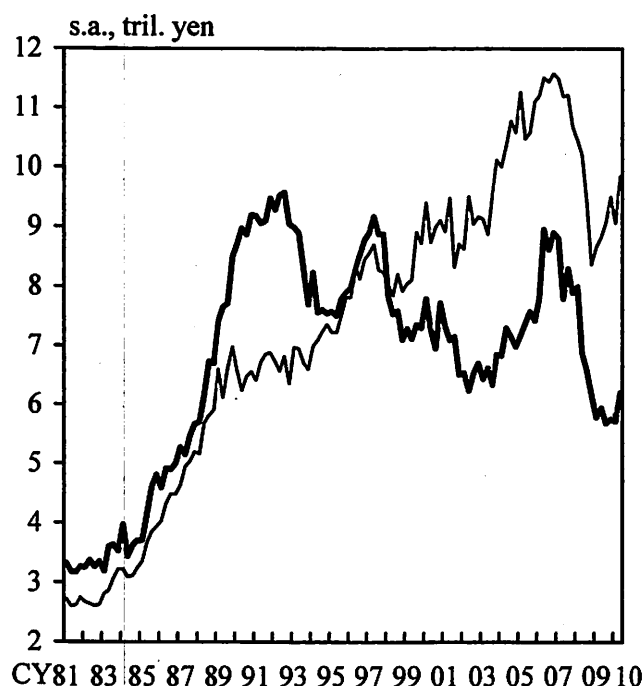
Cash Flow and Business Fixed Investment

(1) Cash Flow and Business Fixed Investment^{1,2}

(a) Manufacturing

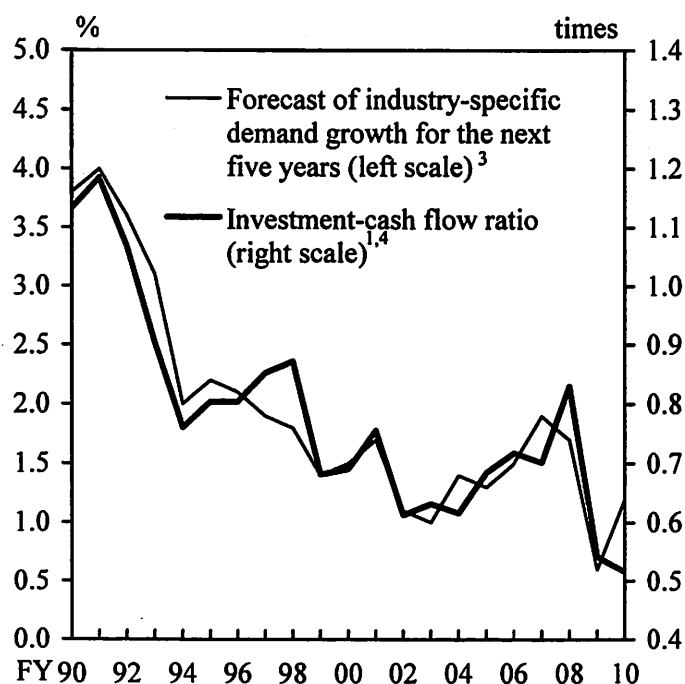


(b) Nonmanufacturing

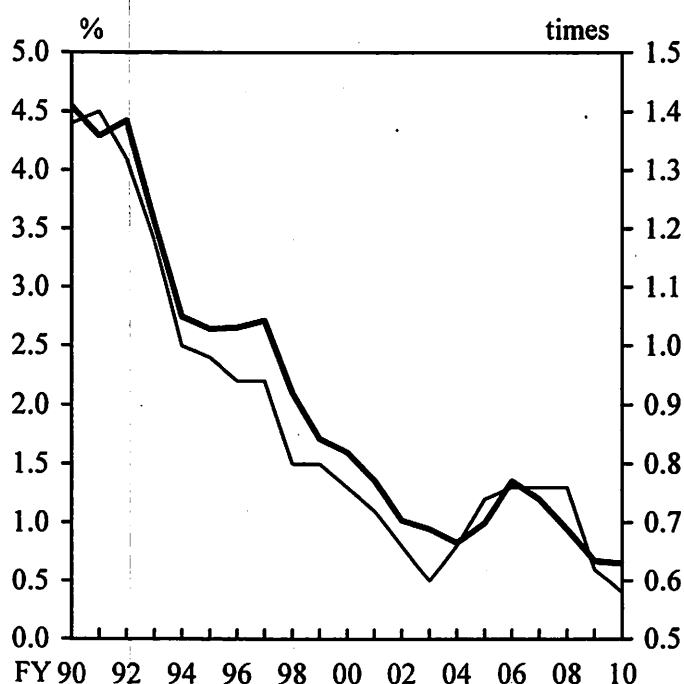


(2) Investment-Cash Flow Ratio and Expected Growth Rate

(a) Manufacturing



(b) Nonmanufacturing



Notes: 1. Based on all-size enterprises.

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

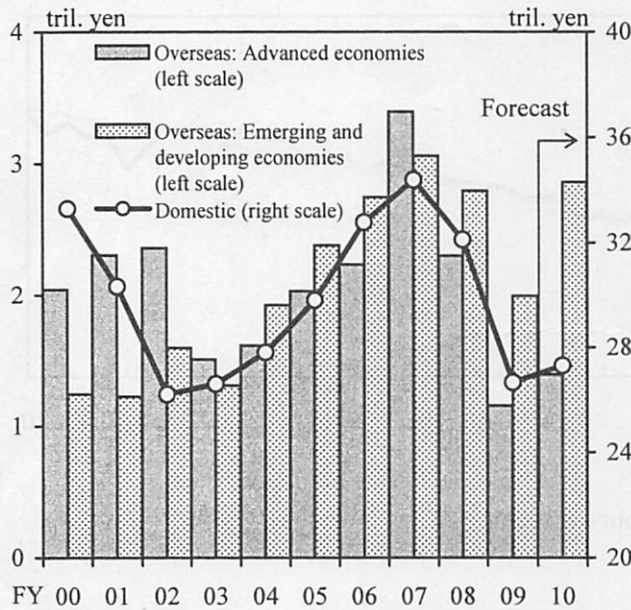
3. Real annual growth rates surveyed in January or February in the previous fiscal year.

4. Figures for fiscal 2010 are those of 2010/Q2.

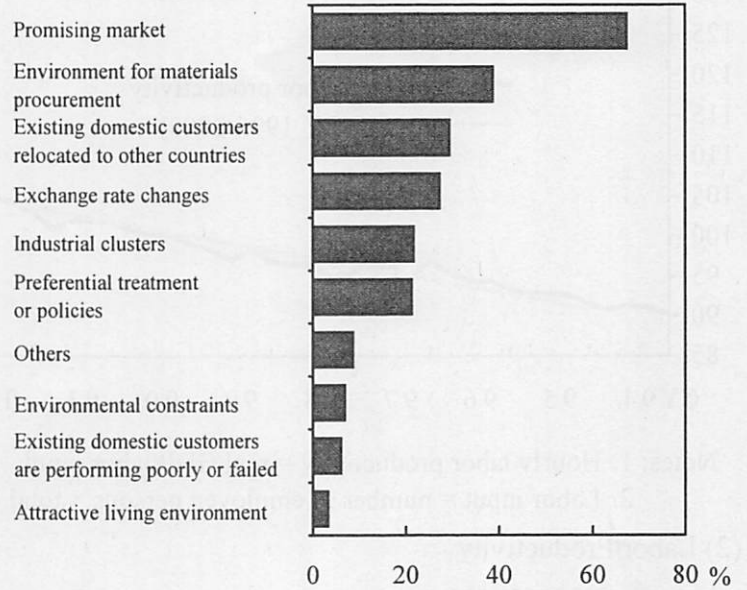
Sources: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Cabinet Office, "Annual Survey of Corporate Behavior."

Overseas Production

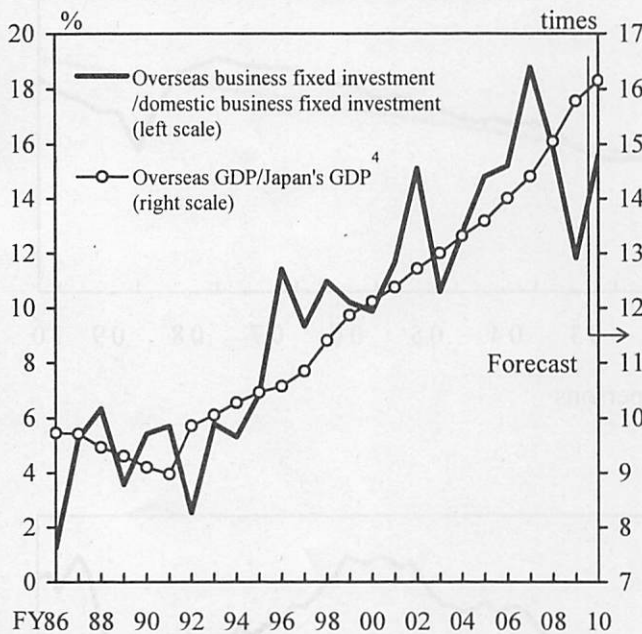
(1) Overseas and Domestic Business Fixed Investment^{1,2}



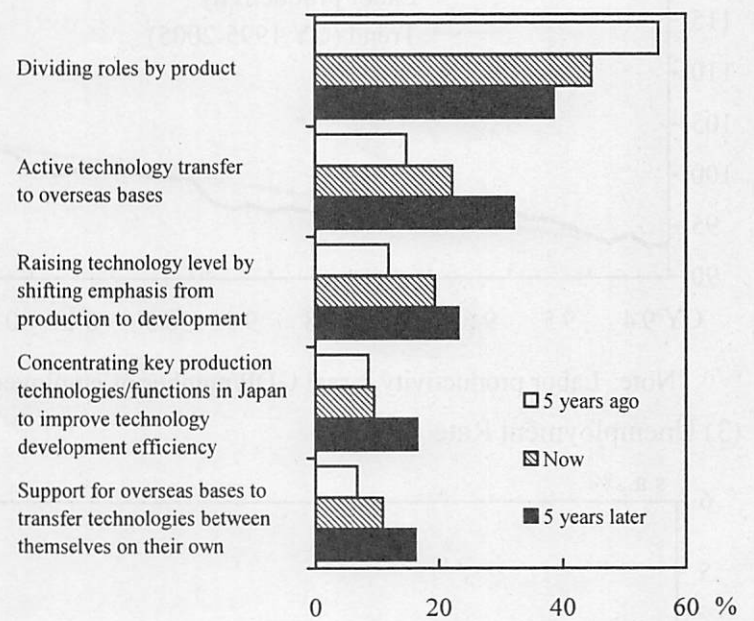
(2) Reasons for Relocation of Production Bases to Overseas (for the Next Five Years)³



(3) Ratios of Overseas Business Fixed Investment and Expansion of Overseas Market



(4) Roles of Domestic Bases in Production³



Notes: 1. Figures of overseas business fixed investment up to fiscal 2008 are taken from the "Survey of Overseas Business Activities." Figures from fiscal 2009 are calculated using the growth rate of capital spending overseas taken from the "Survey on Planned Capital Spending" in the June 2010 survey.

2. Figures of domestic business fixed investment are calculated using the "Tankan, Short-Term Economic Survey of Enterprises in Japan." The figure for fiscal 2010 is the forecast in the September 2010 survey. Figures include land purchasing expenses and exclude software investment, based on all industries and large enterprises.

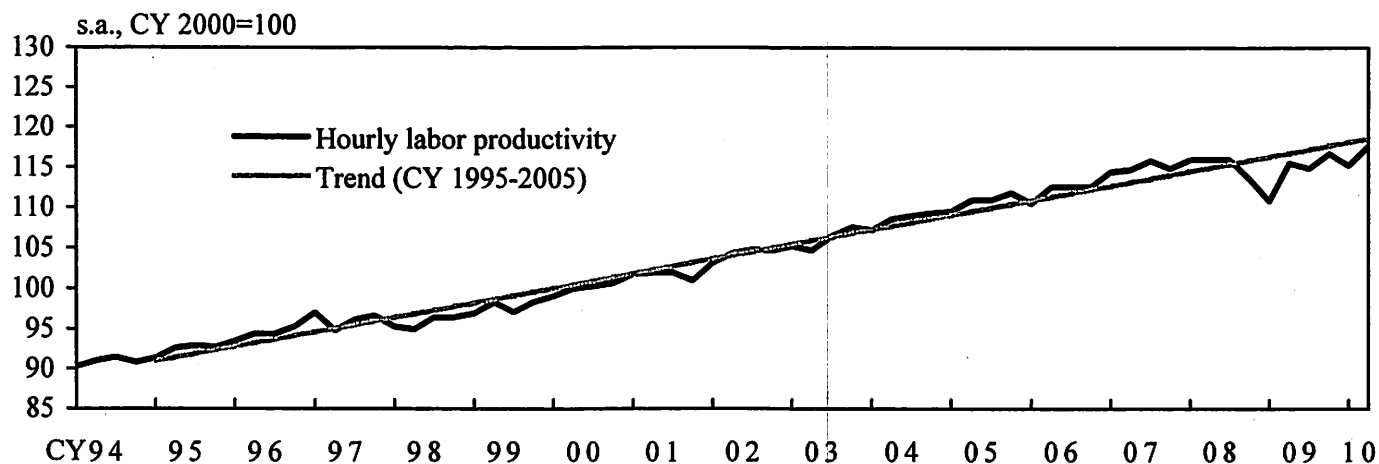
3. Surveyed in January 2010.

4. Taken from the "World Economic Outlook (calendar year basis)."

Sources: Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities," "White Paper on Manufacturing Industries (Monodzukuri)"; IMF, "World Economic Outlook"; Development Bank of Japan, "Survey on Planned Capital Spending"; Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

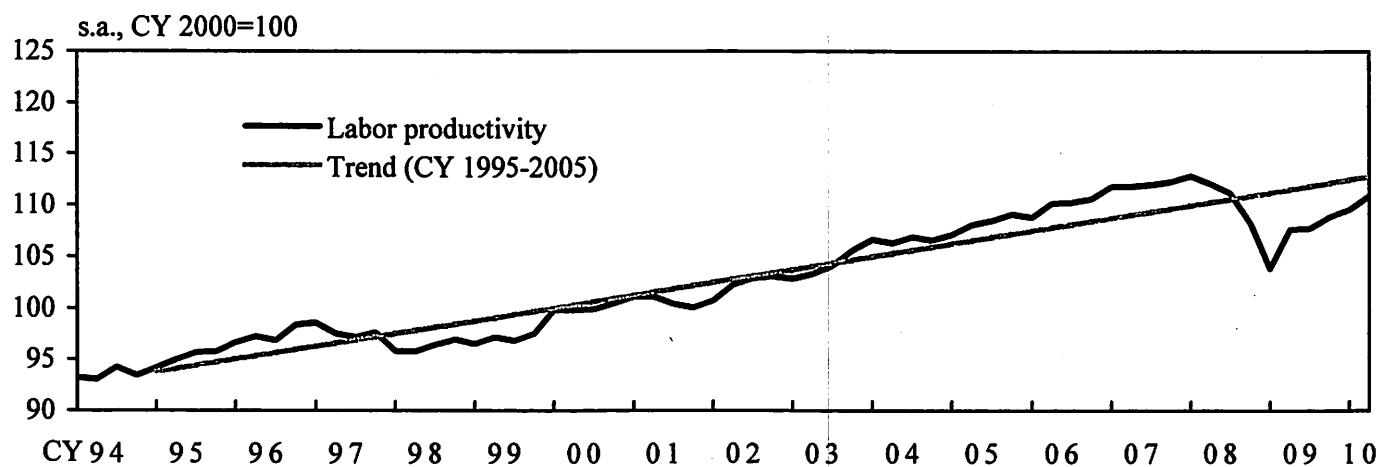
Labor Productivity and Unemployment Rate

(1) Hourly Labor Productivity



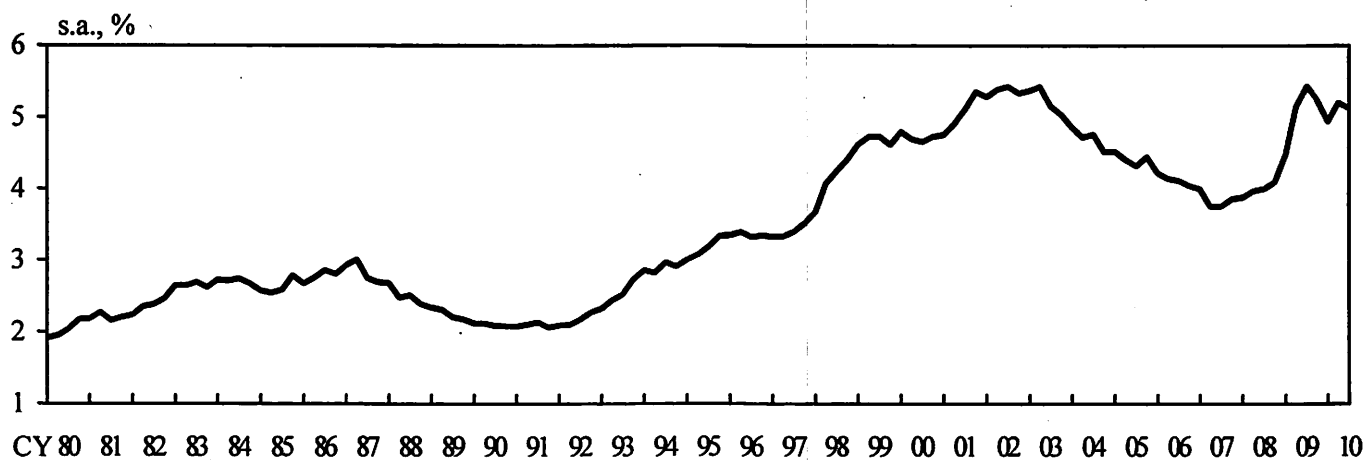
- Notes: 1. Hourly labor productivity = real GDP/labor input
2. Labor input = number of employed persons × total hours worked

(2) Labor Productivity



Note: Labor productivity = real GDP/number of employed persons

(3) Unemployment Rate

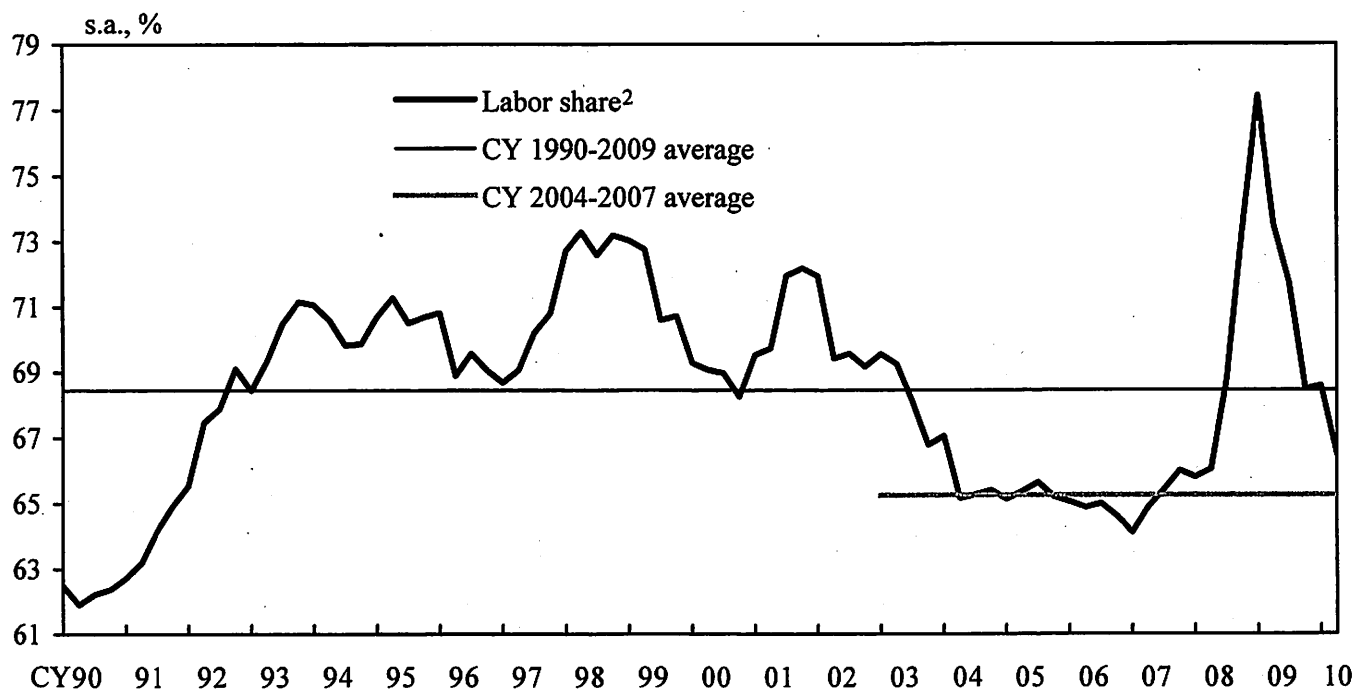


Note: The figure for 2010/Q3 is the July-August average.

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, Quarterly¹



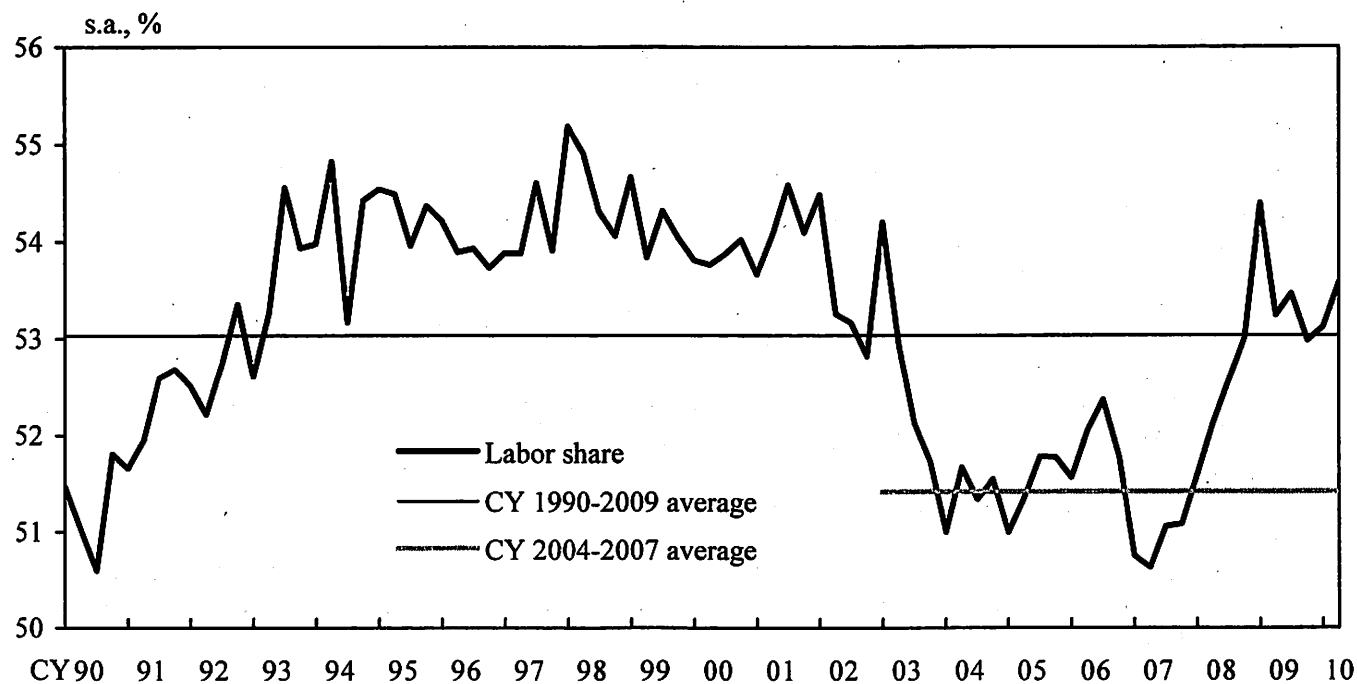
Notes: 1. Figures are based on all-size enterprises and all industries (excluding finance and insurance).

2. Labor share = nominal wages / nominal labor productivity $\times 100$

3. Nominal wages = personnel expenses / number of staffs

4. Nominal labor productivity = (personnel expenses + operating profits + depreciation expenses) / number of staffs

(2) National Accounts



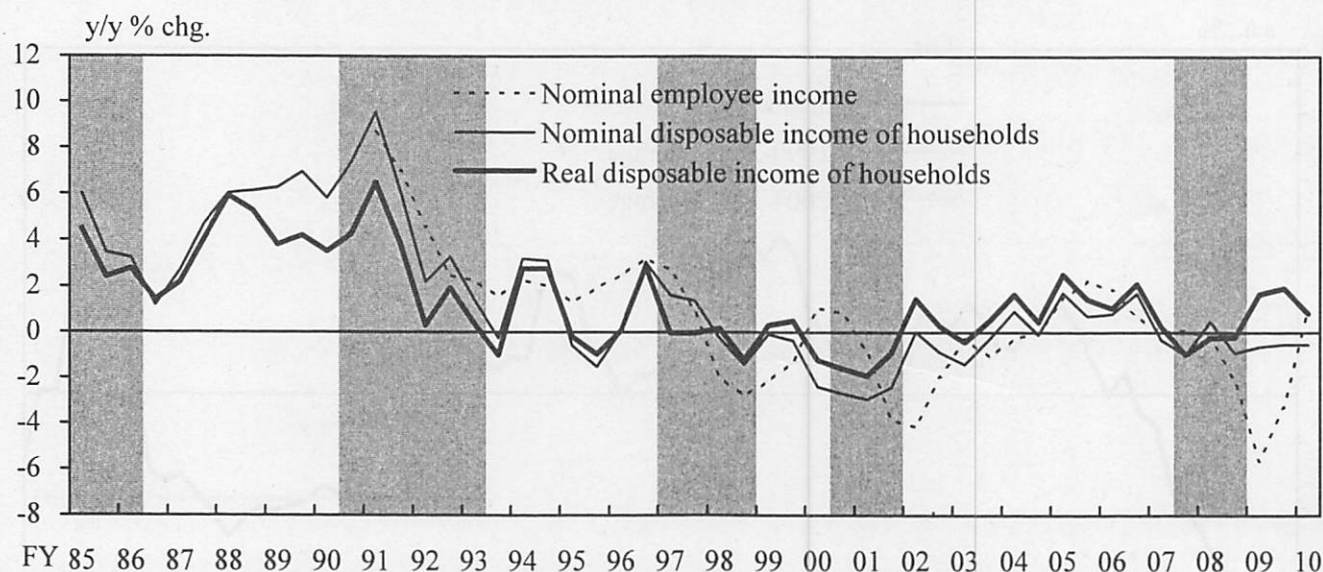
Note: Labor share = compensation of employees / nominal GDP $\times 100$

Sources: Cabinet Office, "National Accounts";

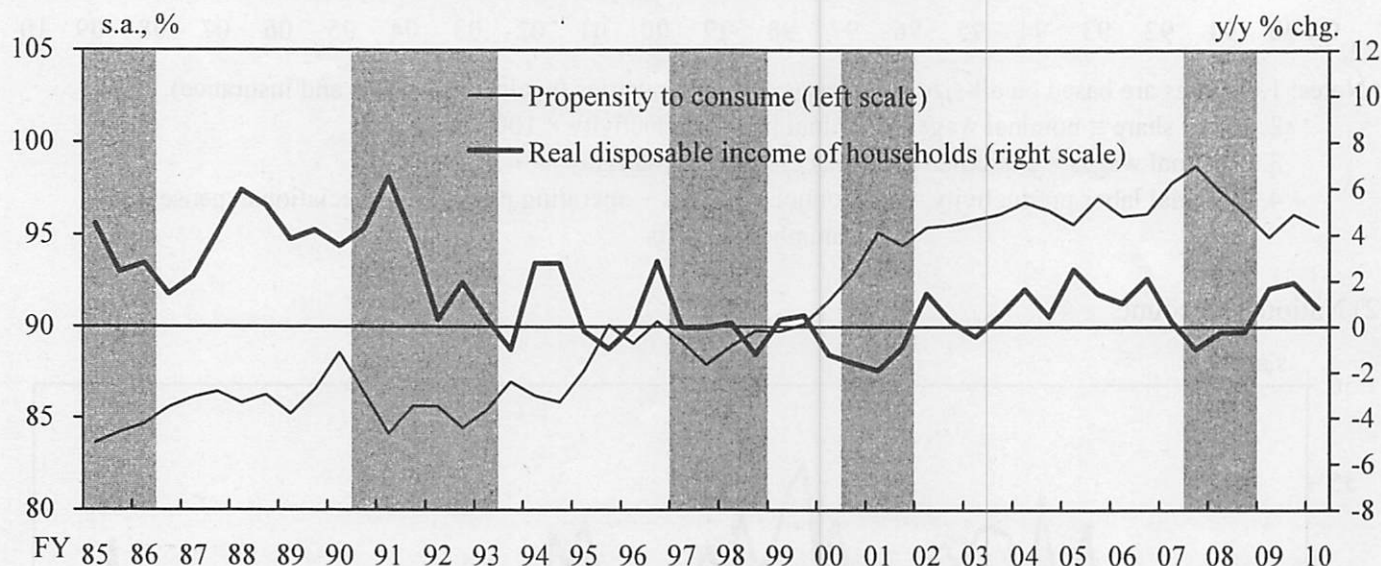
Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

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.

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). Figures for the first half of fiscal 2010 are the April-August averages.

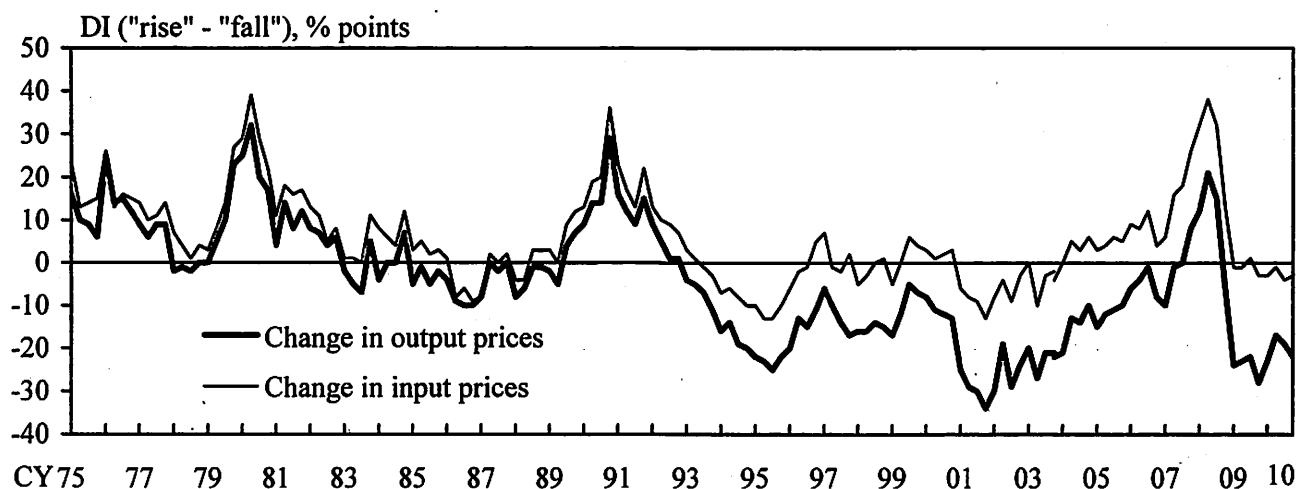
3. Figures for both nominal and real disposable incomes of households for fiscal 2009 and the first half of fiscal 2010 are estimated by the Research and Statistics Department, Bank of Japan. They include estimated transfers of income from the government to households through the economic policy packages consisting of the fixed-sum benefit; the tax reduction and subsidies for eco-friendly cars; the eco-point system for household electrical appliances; the child allowance; etc.

4. Figures for propensity to consume for fiscal 2009 and the first half of fiscal 2010 are estimated by the Research and Statistics Department, Bank of Japan. Propensity to consume is calculated as consumption of households divided by disposable income.

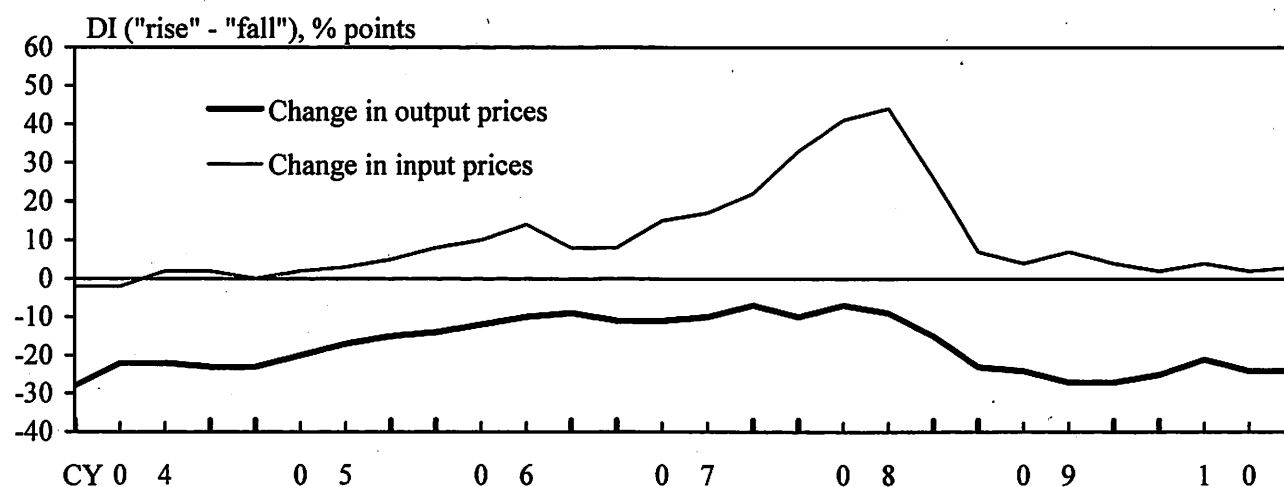
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey," "Consumer Price Index"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Annually," "The Supplementary Budget for FY 2009," "The Summary of Revenues and Expenditures for FY 2009," "The Budget for FY 2010"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," etc.

Changes in Output and Input Prices

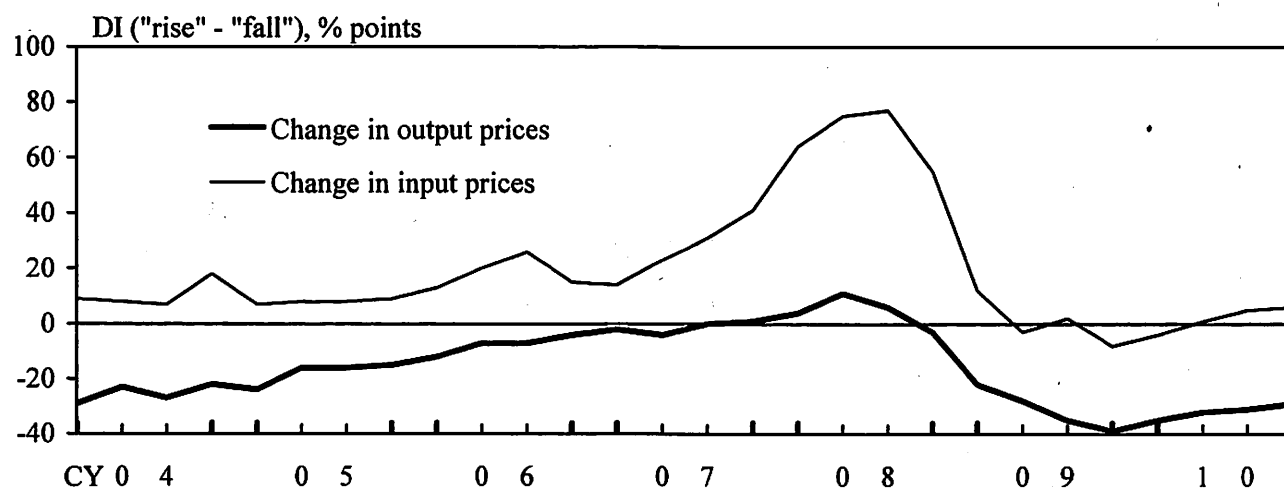
(1) Retailing



(2) Services for Individuals



(3) Accommodations, Eating & Drinking Services



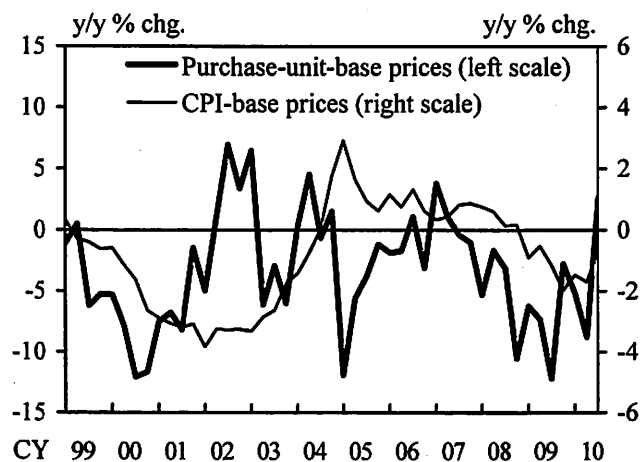
Notes: 1. Figures are based on all-size enterprises. Figures for 2010/Q4 are the forecasts in the September 2010 survey.

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.

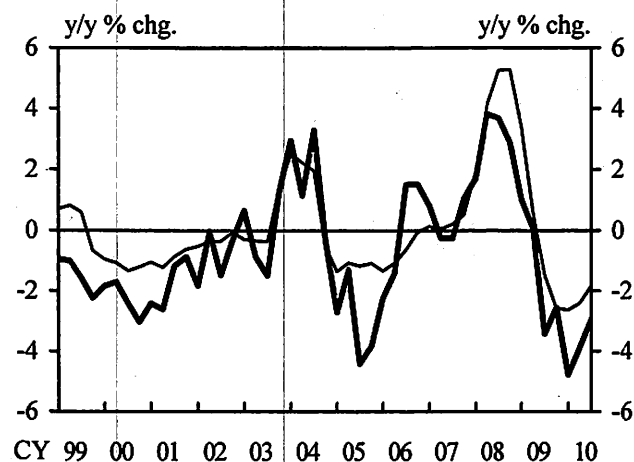
Source: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan."

Goods Prices Facing Consumers

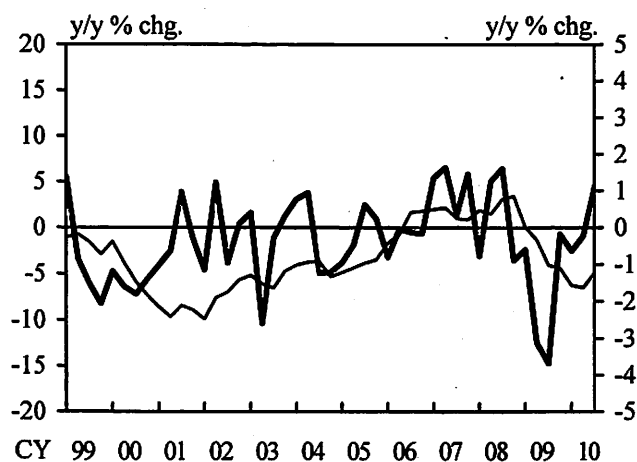
(1) Clothes



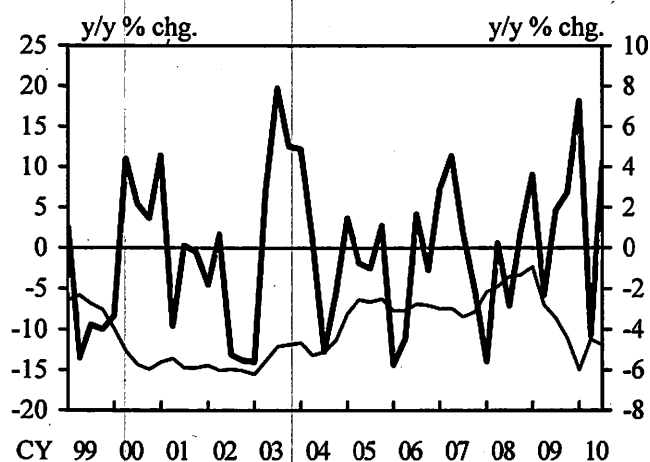
(2) Food Products, Agricultural & Aquatic Products



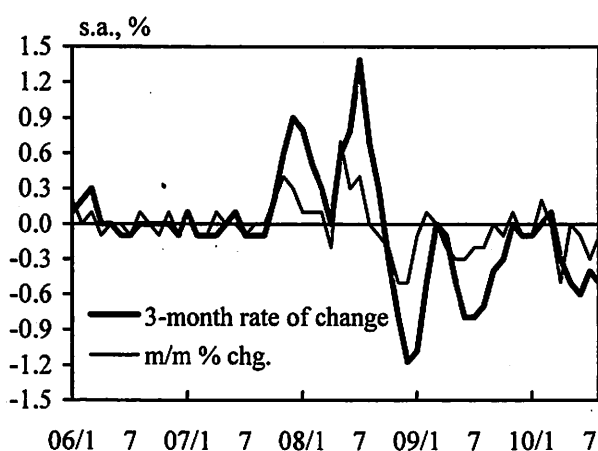
(3) Other Goods



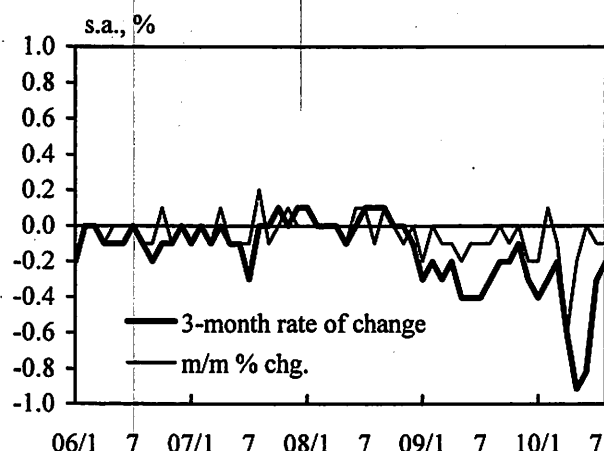
(4) Durable Goods



(Ref. 1) CPI Excluding Fresh Food



(Ref. 2) CPI Excluding Food and Energy



Notes: 1. Items continuously available in both the CPI and the "Family Income and Expenditure Survey" 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.

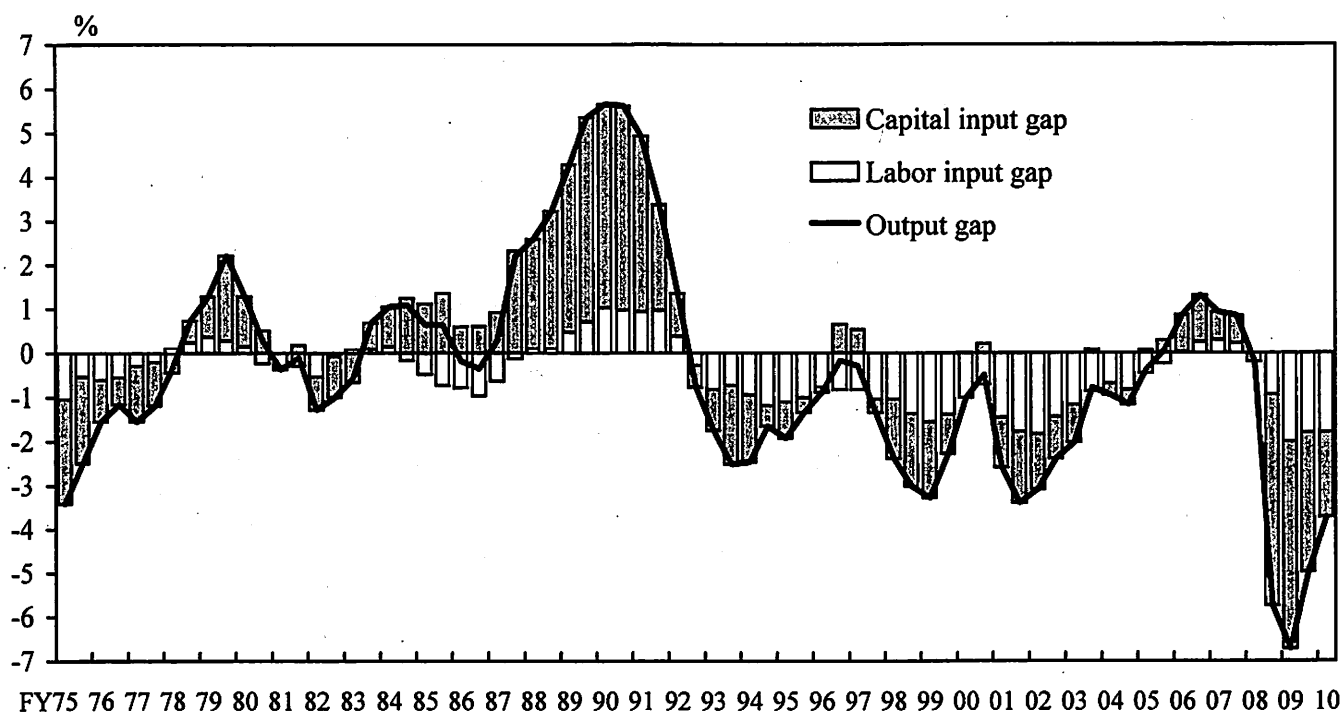
3. Agricultural & aquatic products in (2) exclude fresh food. Other goods in (3) exclude clothes (including shirts, sweaters & underwear); food products; agricultural & aquatic products; durable goods; petroleum products; and electricity, gas & water charges. Food in Ref. 2 excludes alcoholic beverages.

4. Figures for 2010/Q3 in (1)-(4) are the July-August averages.

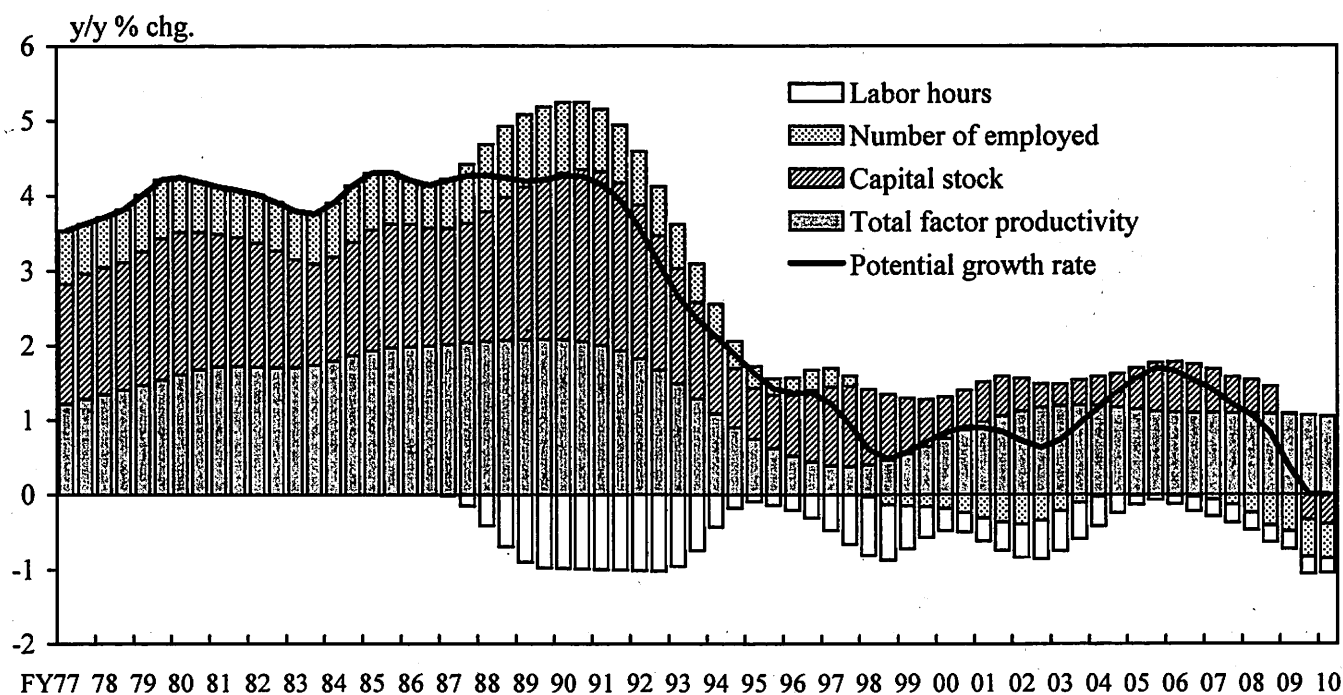
Source: Ministry of Internal Affairs and Communications, "Consumer Price Index," "Family Income and Expenditure Survey."

Output Gap and Potential Growth Rate

(1) Output Gap



(2) Potential Growth Rate



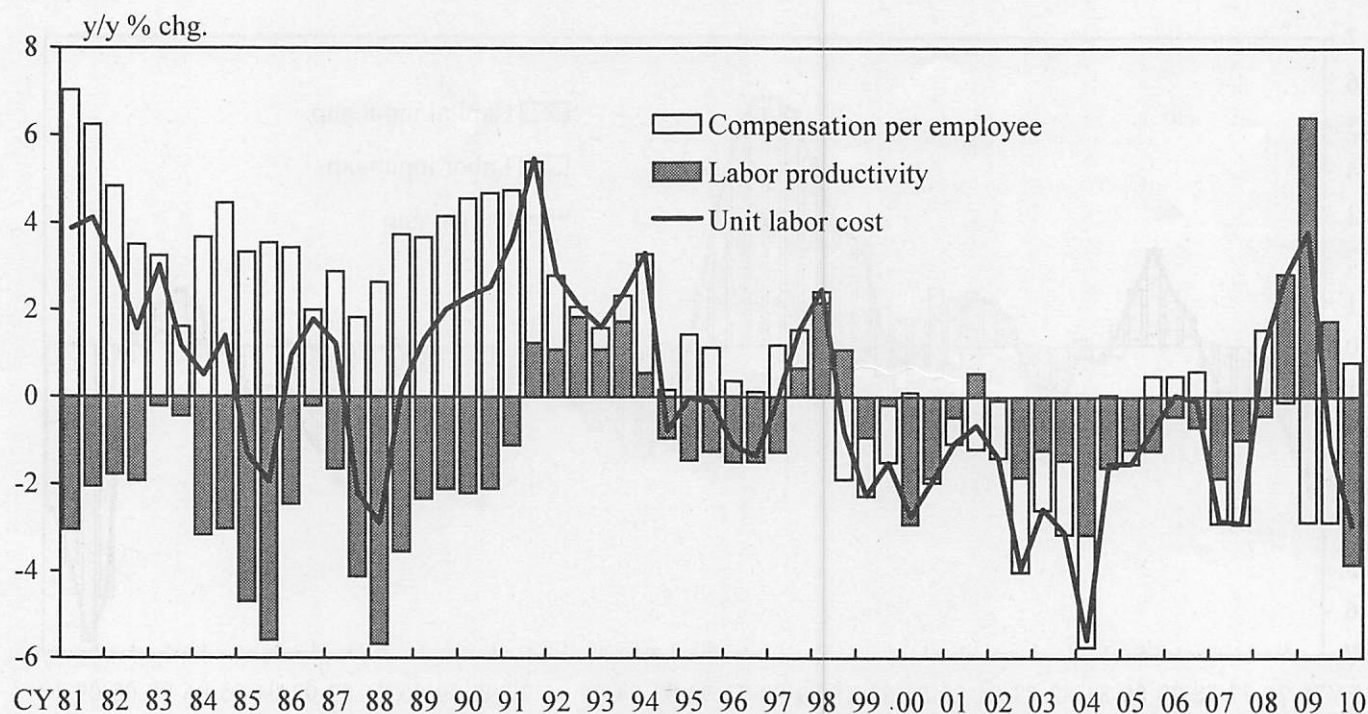
Notes: 1. The output gap and the potential growth rate are estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.

2. Figures for the first half of fiscal 2010 are those of 2010/Q2.

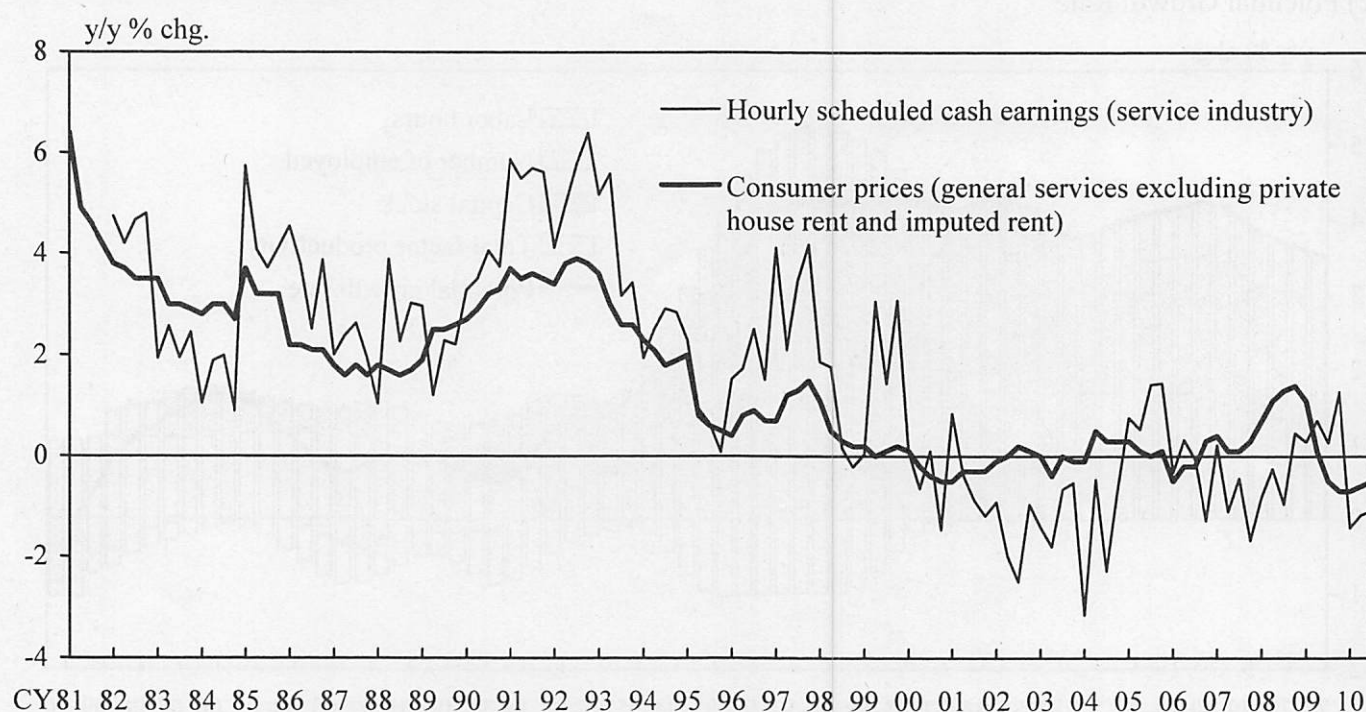
Sources: Cabinet Office, "National Accounts"; Cabinet Office and Ministry of Finance, "Business Outlook Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy,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

Wages and Prices

(1) Unit Labor Cost



(2) Service Prices and Wages^{1,2}



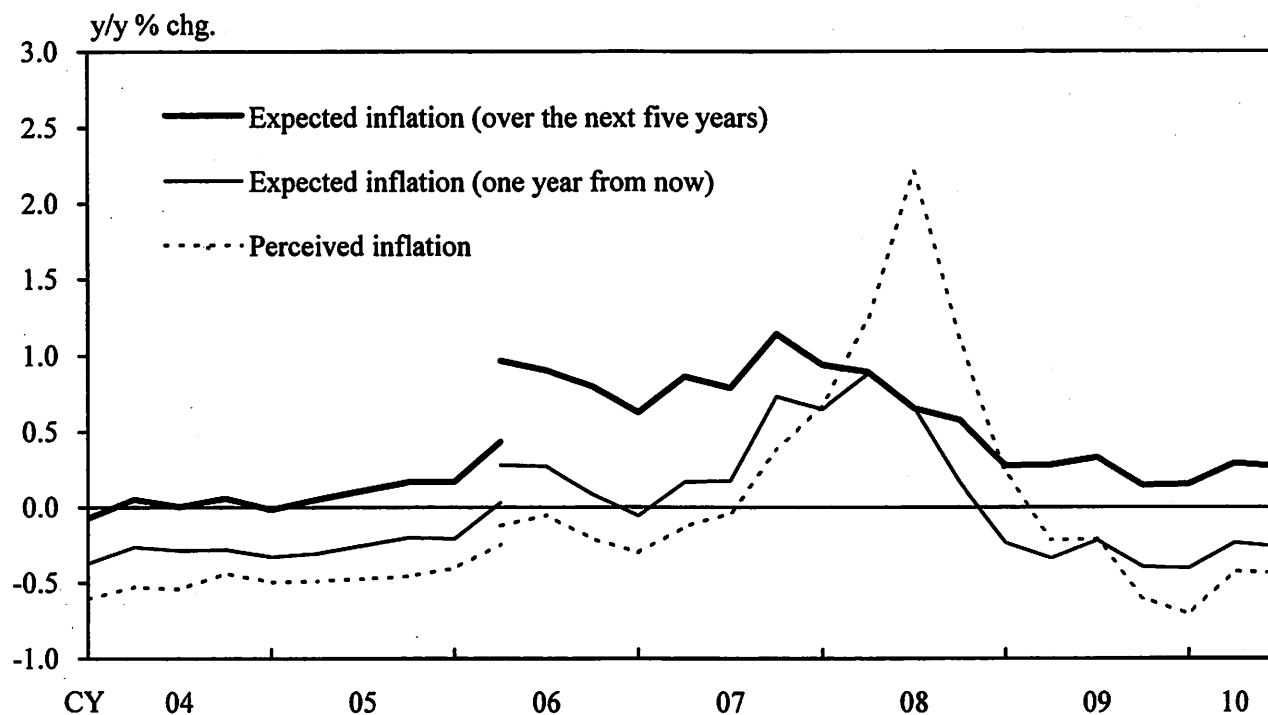
Notes: 1. Wages are the sum of wages in "eating and drinking places" and "services" of the previous industrial classification up to 2000. From 2001, they include "eating and drinking places, accommodations," "medical, health care and welfare," "education, learning support," "compound services," and other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

2. Figures for 2010/Q3 are the July-August averages.

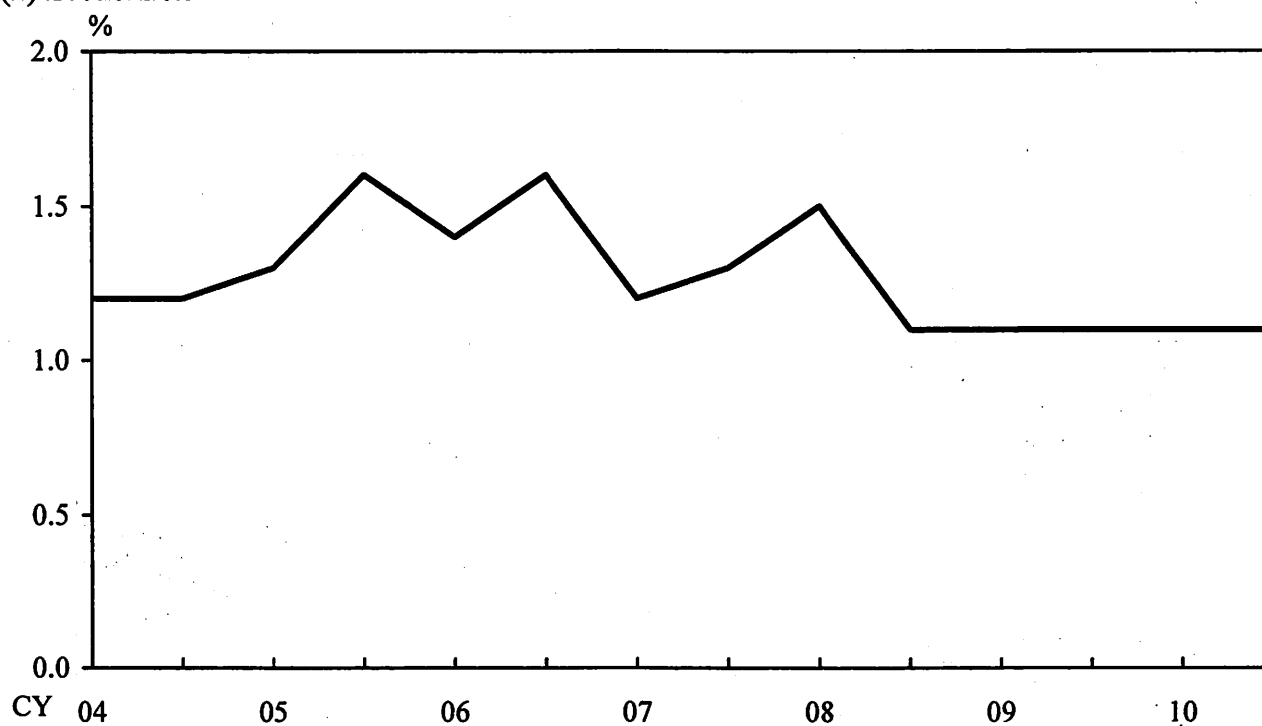
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey," "Consumer Price Index."

Inflation Expectations

(1) Households¹



(2) Economists²



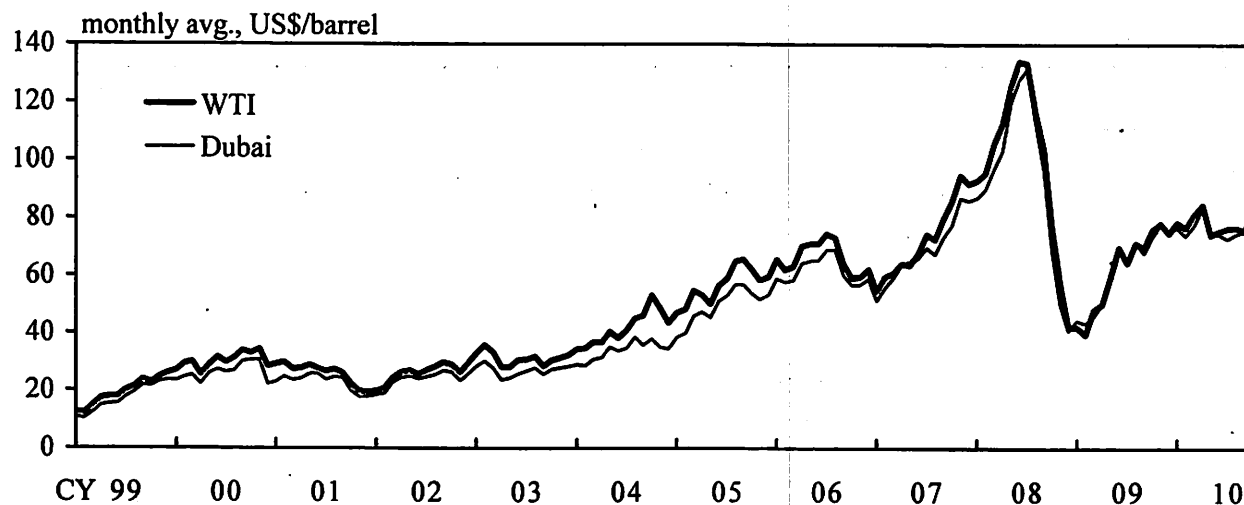
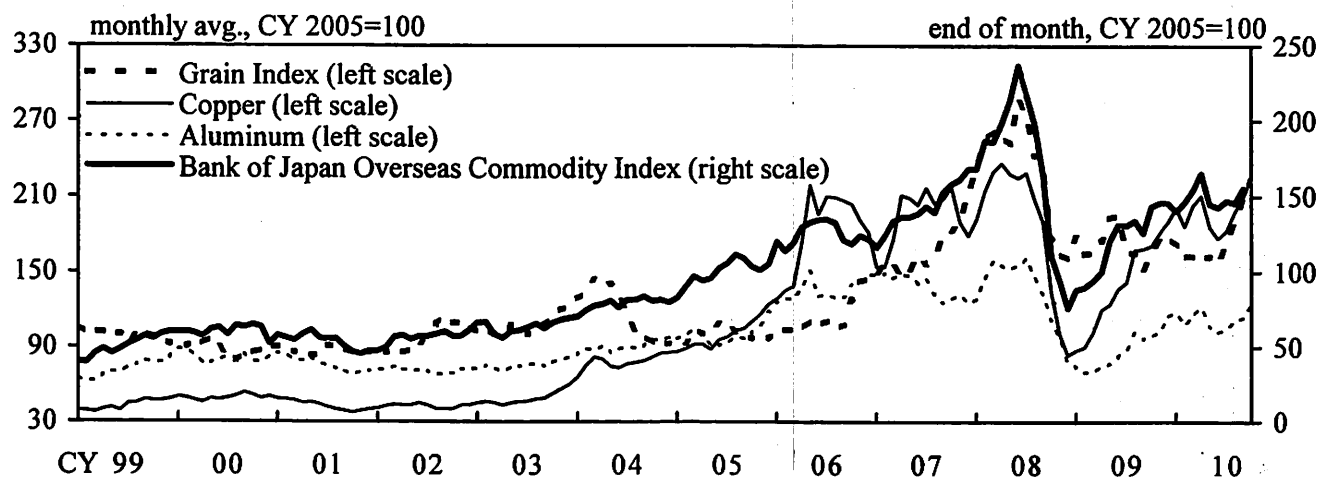
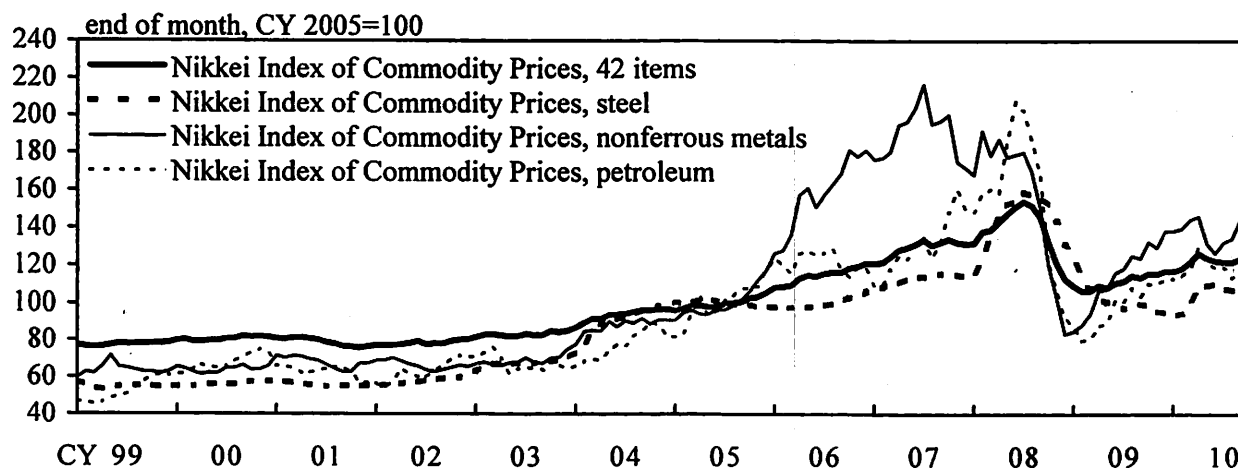
Notes: 1. Figures are estimated based on the results of "Opinion Survey on the General Public's Views and Behavior," using a modified Carlson-Parkin method. For details, see "On Inflation Expectations," Bank of Japan Review Series, 2008-J-15 (available in Japanese only).

2. Figures are the average of economists' projections for the year-on-year CPI inflation rate (forecasts of six to ten years ahead) every April and October in the "Consensus Forecasts."

Sources: Bank of Japan, "Opinion Survey on the General Public's Views and Behavior"; Consensus Economics, "Consensus Forecasts."

Commodity Prices

(1) Oil Prices

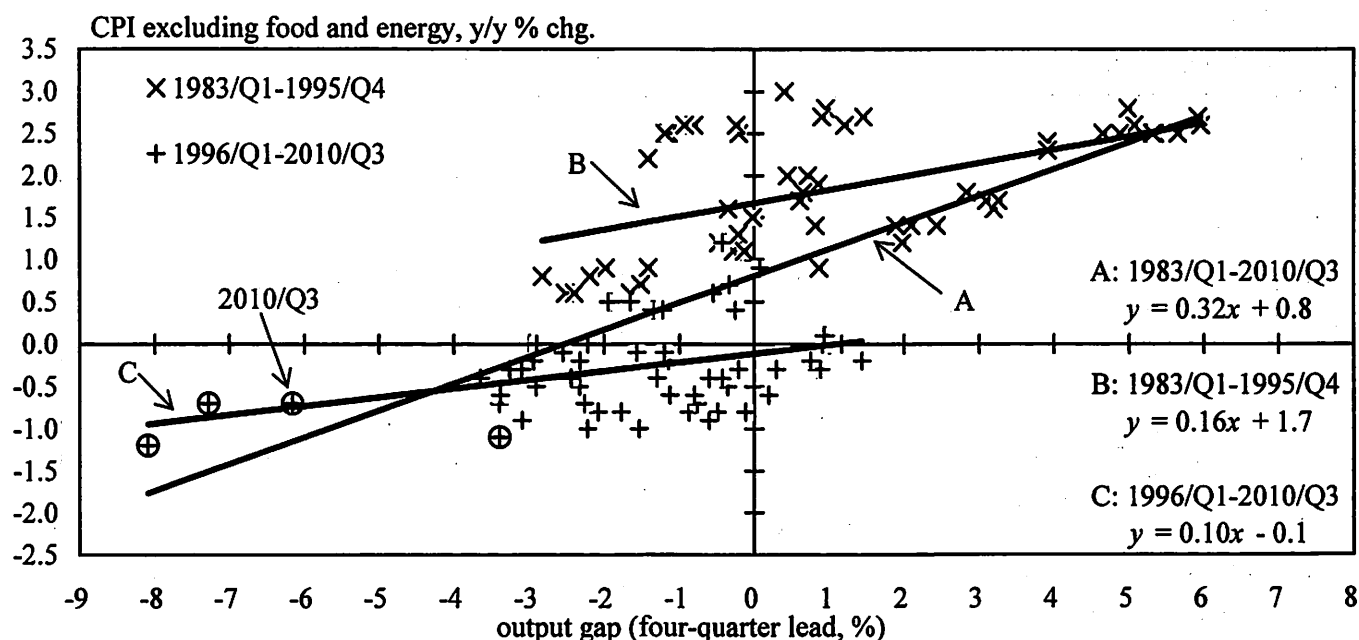
(2) International Commodity Prices¹(3) Domestic Commodity Prices²

- 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.

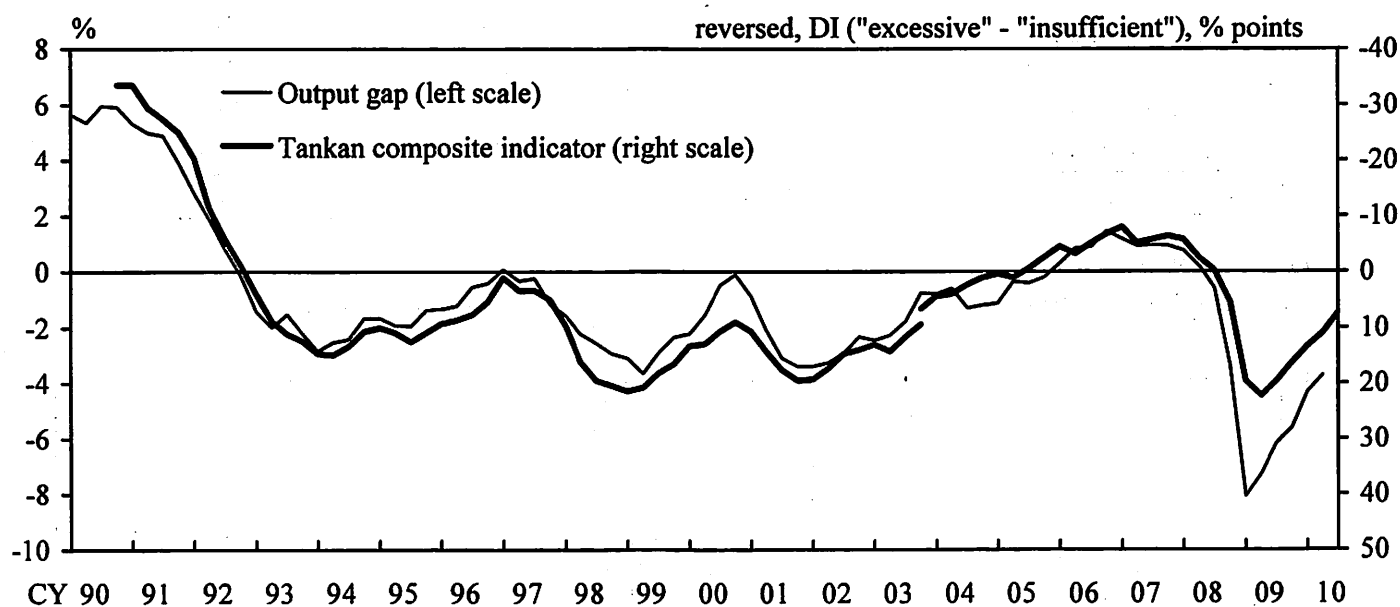
Sources: Bank of Japan, "Bank of Japan Overseas Commodity Index"; Nikkei Inc., etc.

Output Gap and Inflation Rate

(1) Phillips Curve



(2) Tankan Composite Indicator and Output Gap



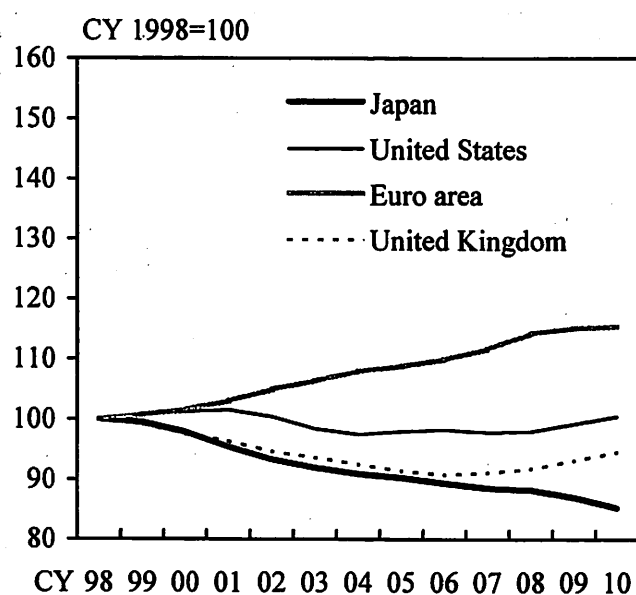
- Notes:
1. The circled marks in (1) are the latest four positions. The figure for 2010/Q3 is the July-August average.
 2. Alcoholic beverages are excluded from food. From 2010/Q2, figures for the CPI exclude high school fees.
 3. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.
 4. 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, 2006-E-3.
 5. Figures of the DI are based on all-size enterprises and all industries.
 6. 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.
 7. 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).

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

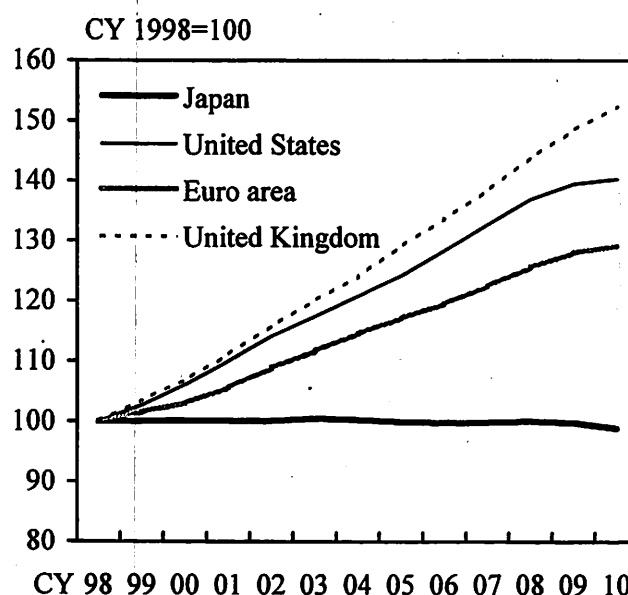
Consumer Prices and Wages in Major Economies

(1) Consumer Price Index in Terms of Goods and Services

(a) Goods



(b) Services



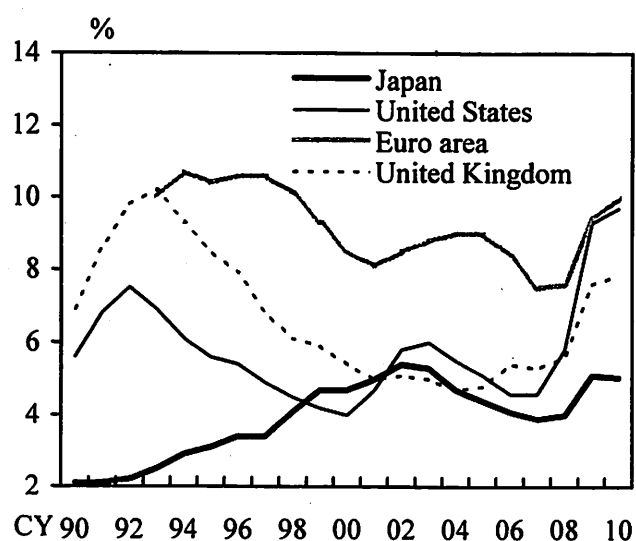
(c) Spreads for Cumulative Changes in the Consumer Price Index

spreads for cumulative changes from 1998 to 2010, % points

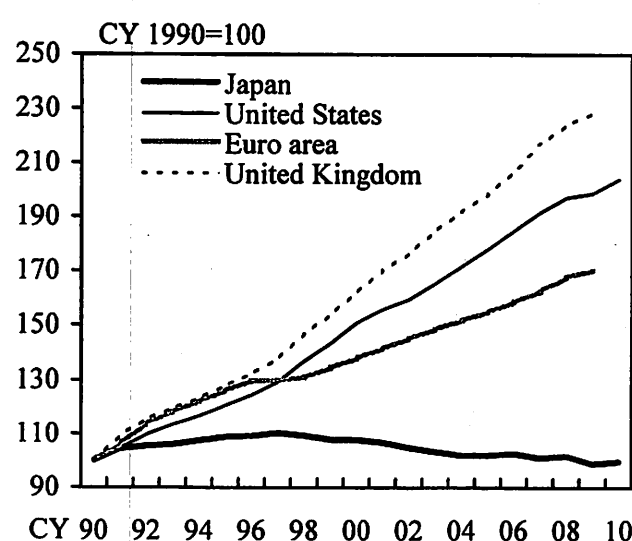
	United States	Euro area	United Kingdom
Consumer price index	-33.9	-28.4	-26.7
Contribution of goods	-5.6	-13.7	-2.6
Contribution of services	-28.4	-14.7	-24.1

(2) Unemployment Rates and Labor Costs

(a) Unemployment Rates



(b) Labor Costs per Employee



Notes: 1. Consumer price indexes exclude food and energy.

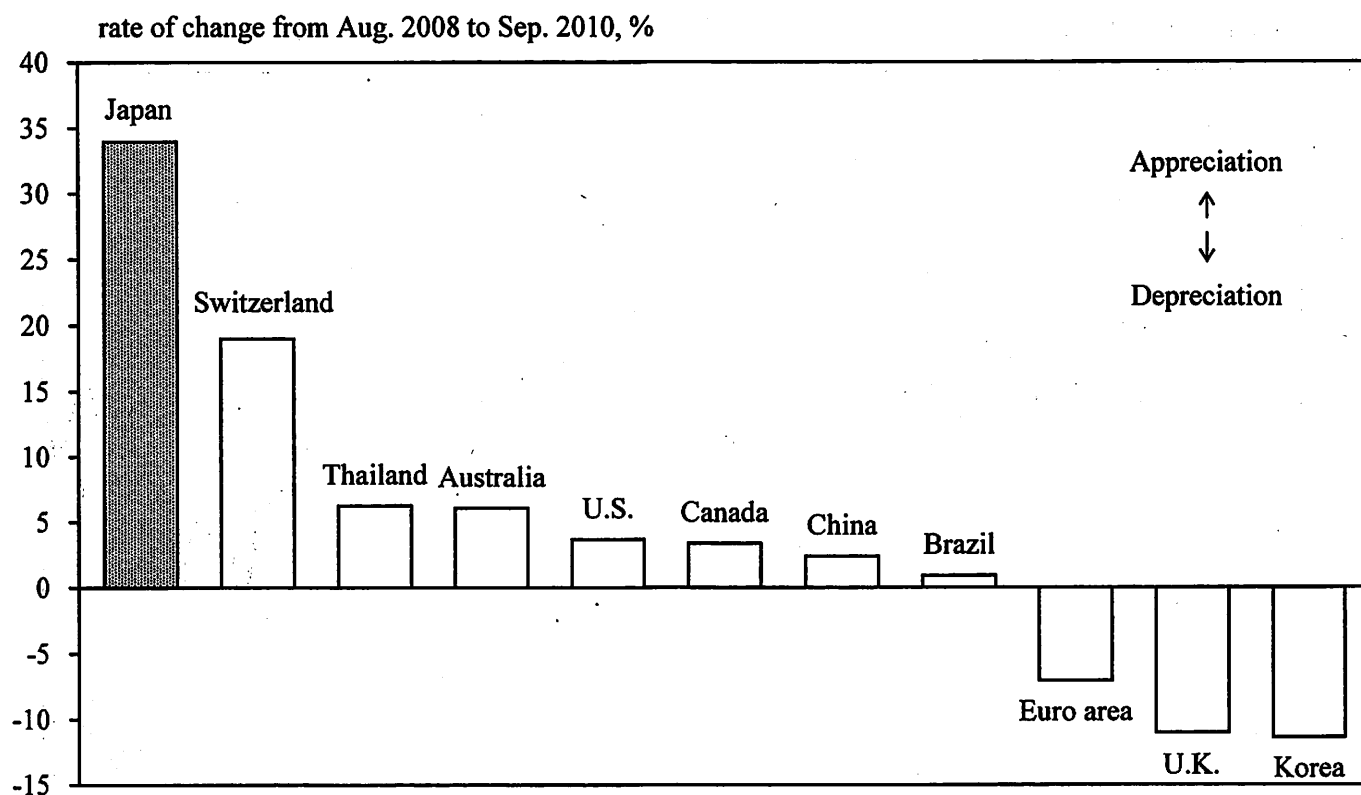
2. Figures for 2010 are the January-June averages.

3. The spreads for cumulative changes in the consumer price index are those of Japan minus those of the United States, euro area, and the United Kingdom.

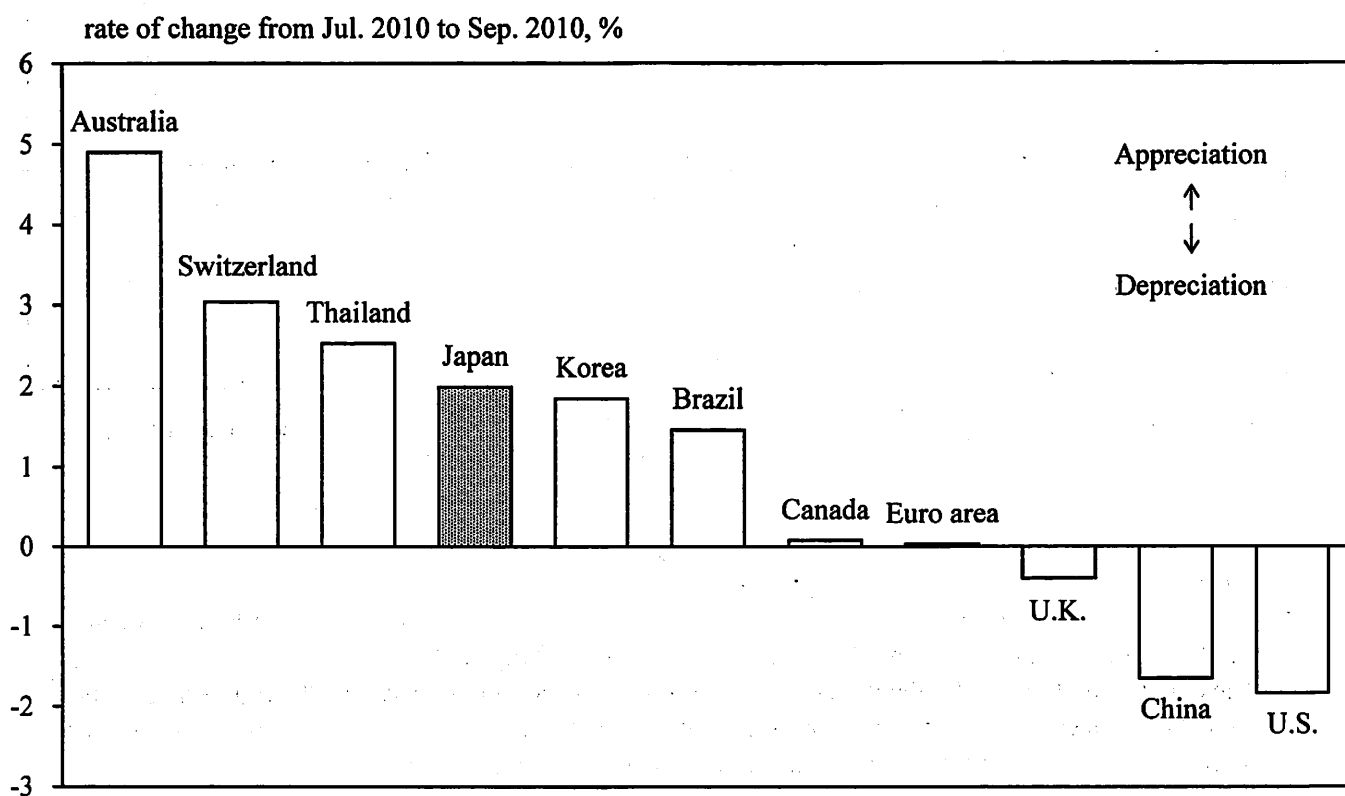
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index," "Labour Force Survey"; Bureau of Labor Statistics; Eurostat; Office for National Statistics; OECD.

Nominal Effective Exchange Rates

(1) From the Failure of Lehman Brothers

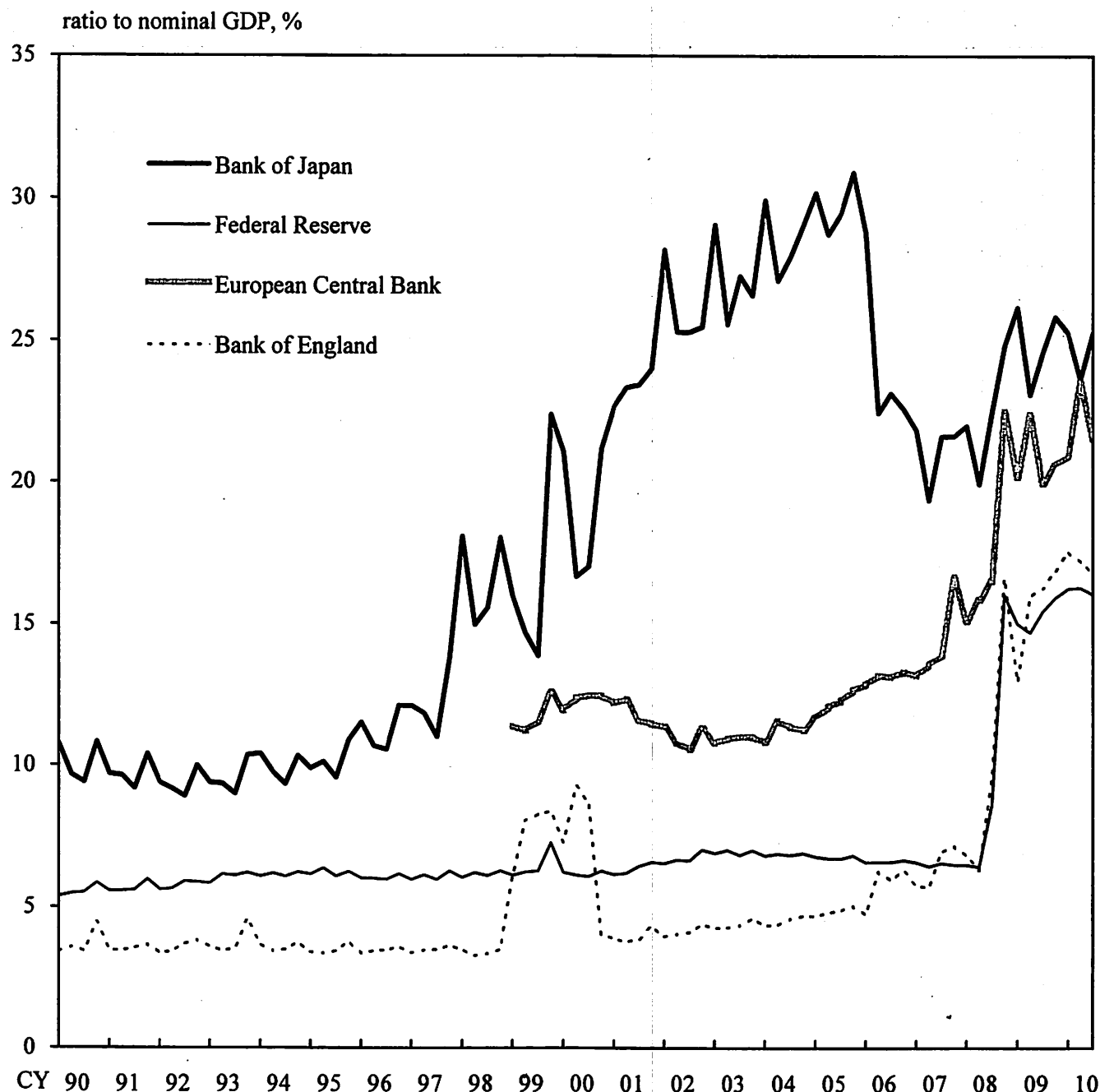


(2) From the Summer of 2010



Note: The effective exchange rates are based on the broad indices of the BIS effective exchange rate.
Source: Bank for International Settlements.

Central Bank Asset Sizes



Notes: 1. Figures of nominal GDP for 2010/Q3 are those of 2010/Q2.

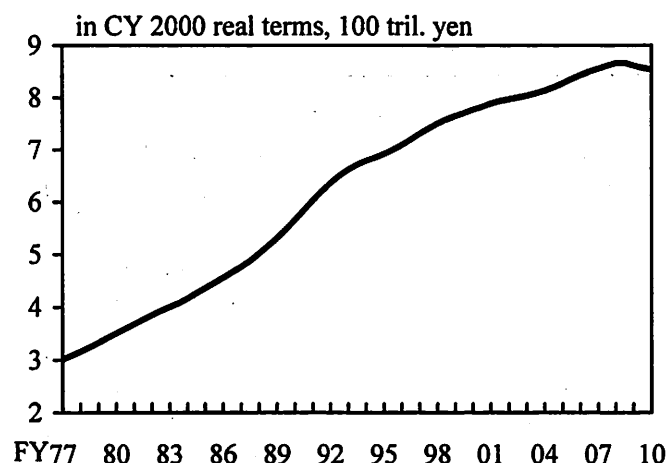
2. The data for the Federal Reserve's balance sheet up to 2002/Q3 are based on "Flow of Funds Accounts," and from 2002/Q4 are based on "Factors Affecting Reserve Balances."

3. The data for the Bank of England's balance sheet show a discontinuity between 2006/Q1 and Q2, and the balance sheet increased temporarily from 1999 to 2000 reflecting a technical factor associated with participation in the TARGET system, the settlement and clearing system for the euro.

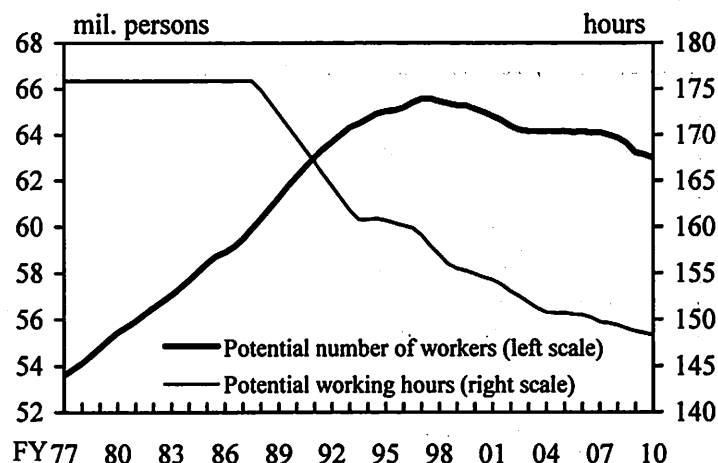
Sources: Cabinet Office; Bank of Japan; FRB; ECB; BOE; BEA; Eurostat; ONS.

Estimation of Potential Growth Rate

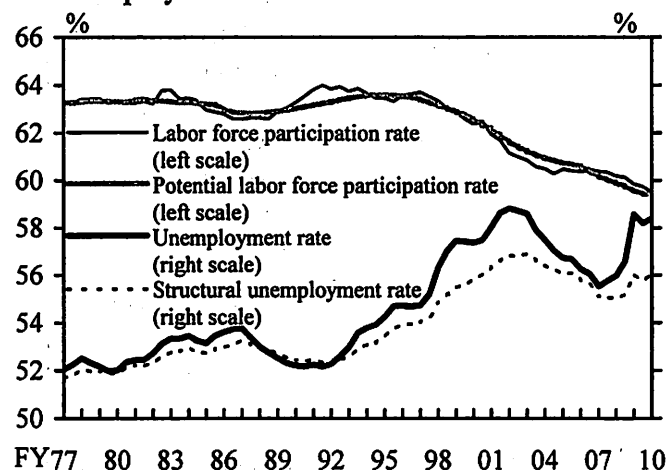
(1) Capital Stock



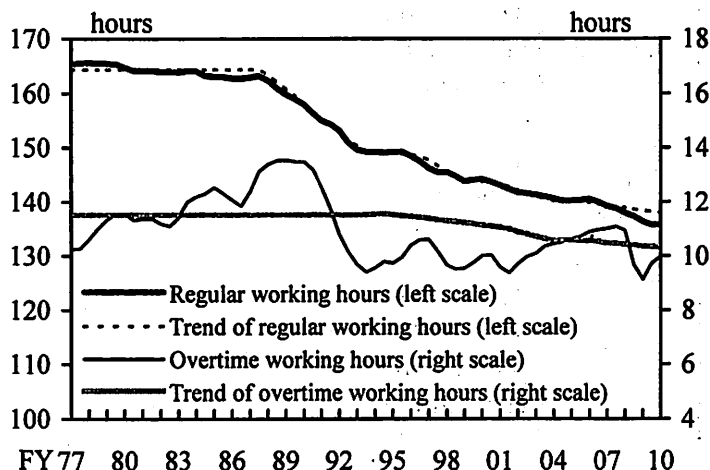
(2) Potential Labor Input



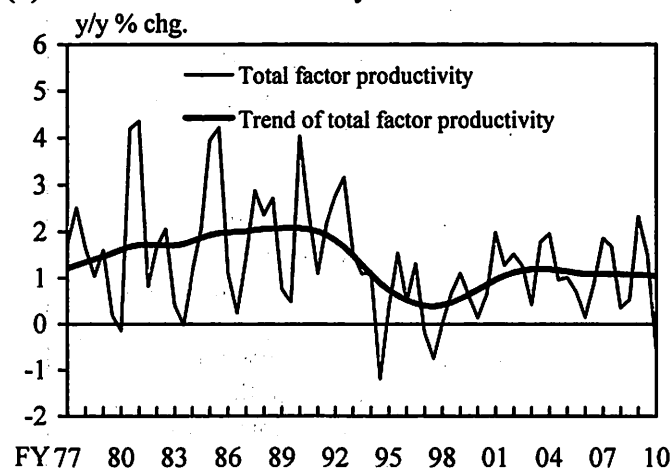
(3) Labor Force Participation Rate and Unemployment Rate



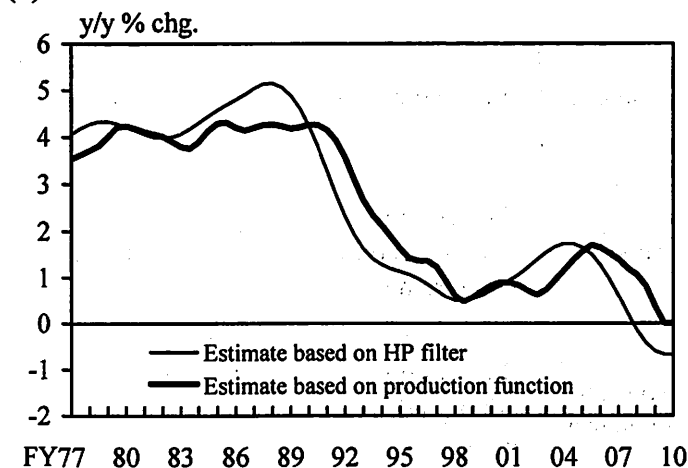
(4) Working Hours per Worker



(5) Total Factor Productivity



(6) Estimates of Potential Growth Rate



Notes: 1. Figures for the first half of fiscal 2010 are those of 2010/Q2.

2. The capital stock for calendar 2007-2010 is estimated by the Research and Statistics Department, Bank of Japan.

3. The smoothing parameter for the HP filter is 1,600.

Sources: Research Institute of Economy, Trade and Industry, "Japan Industrial Productivity Database 2009"; Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service," etc.

Economic Assessment by Region (Regional Economic Report)

Region	Assessment in July 2010	Difference between assessments	Assessment in October 2010
Hokkaido	The economy is picking up steadily, although economic conditions as a whole remain severe.	⇒	The economy has continued picking up, although economic conditions as a whole remain severe.
Tohoku	The economy is increasingly showing signs of picking up.	⇒	The economy is picking up.
Hokuriku	The economy is picking up steadily, although there remains some severity in economic conditions.	⇒	The economy has continued picking up as a whole, although there remains some severity in economic conditions.
Kanto-Koshinetsu	The economy is recovering moderately, although differences among regions and industries remain.	⇩	The economy is recovering moderately, but improvements have slowed. Differences among regions and industries also remain.
Tokai	The economy has continued picking up as a whole, as the pace of increase in production has started to accelerate again after slowing temporarily.	⇩	The economy has continued picking up, but the pace of improvement seems to have recently slowed sharply.
Kinki	The economy, with some severity in employment, is recovering moderately.	⇒	The economy, with some severity in employment, is recovering moderately.
Chugoku	The economy is recovering moderately.	⇩	The economy is recovering moderately, but the pace of recovery has been slowing.
Shikoku	The economy is picking up moderately, although economic conditions as a whole remain severe.	⇒	The economy is picking up moderately, although economic conditions as a whole remain severe.
Kyushu-Okinawa	The economy is recovering moderately, although differences among regions remain.	⇒	The economy is recovering moderately, although the employment and income situation remains severe.

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/chiiki1010.htm).

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

