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# **Outlook for Economic Activity and Prices**

October 2008

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

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

The environment surrounding Japan's economic activity and prices from fiscal 2008 to 2010 is attended by a significant level of uncertainty, arising from the range of possible developments in the global financial situation and how these affect the real economy, as well as developments in commodity prices. When making future projections of economic activity and prices under these circumstances, careful assessment of risk factors becomes even more important than usual given that the probability of the baseline scenario being realized is not as high as in the past. Due consideration has been paid to these issues in forming the outlook for economic activity and prices detailed below.

#### I. Outlook for Economic Activity

Economic activity in Japan has become increasingly sluggish due to the effects of earlier increases in energy and materials prices and the leveling-off of exports. Compared with the interim assessment conducted in July, both exports and domestic private demand in the first half of fiscal 2008 seem to have been weaker, against the backdrop of a slowdown in overseas economies and a decline in real purchasing power reflecting deterioration in the terms of trade.

The Bank's projection from the second half of fiscal 2008 through fiscal 2010 is that increased sluggishness in economic activity will likely remain until around the middle of fiscal 2009. During this period, domestic private demand is likely to be relatively weak due mainly to the earlier deterioration in the terms of trade. Exports are also expected to weaken somewhat against the backdrop of the slowdown in overseas economies and the appreciation of the yen. Thereafter, the growth rate is expected to pick up gradually, as the effects of earlier increases in energy and materials prices abate and overseas economies move out of their deceleration phase, although the timing is likely to be sometime after the middle of fiscal 2009.

The rates of real GDP growth for fiscal 2008 and fiscal 2009 are likely to be around 0 percent and around 0.5 percent, respectively, and the growth rate for fiscal 2010 is expected

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<sup>&</sup>lt;sup>1</sup> The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on October 31, 2008.

to be around the potential growth rate.<sup>2</sup>

The key features of the outlook are as follows.

#### A. Overseas Economies

Growth in overseas economies is likely to continue to slow in coming quarters. In the United States, the sharp decline in housing prices has continued and lending attitudes of financial institutions have become tighter. The resultant tightening of financial conditions has exerted downward pressure on private demand in spite of the low level of the policy interest rate. The growth rate of the U.S. economy is expected to remain low over the next several quarters, given the negative feedback loop operating between financial markets and the real economy. Growth in European economies is also likely to remain slow due to worsening export conditions and tighter financial conditions in addition to weaker private demand in the area due to earlier increases in energy and materials prices. Growth rates in Asian emerging economies are also likely to decline somewhat reflecting worsening export conditions.

Further ahead, the outlook largely depends on how the financial crises in the United States and Europe and the subsequent fallout are resolved. In this context, developments in the U.S. economy in particular have an important bearing. It is projected that the U.S. economy will gradually return onto a sustainable growth path as the adjustments in the housing market progress and measures introduced to stabilize the financial system start to take effect. However, this will likely occur in the latter half of the projection period. Reflecting this, recovery in the growth rate of overseas economies as a whole is not likely to become evident before around the middle of fiscal 2009.

#### **B.** The Corporate Sector

In the corporate sector, the earning environment for firms is likely to remain severe in coming quarters as the effects of the slowdown in overseas economies and the appreciation of the yen are felt on top of earlier increases in materials prices. Business fixed investment is likely to remain sluggish over the next several quarters. However, it is unlikely to drop

<sup>&</sup>lt;sup>2</sup> The Bank's estimate of the current potential growth rate is around 1.5 percent or somewhat higher.

significantly because, so long as firms expect global demand to continue to grow over the medium to long term, they are unlikely to feel their capital stocks to be excessive and also because they are expected to push forward with investment plans to save on energy and resources. Thereafter, growth in business fixed investment will likely pick up gradually, assisted by improved business conditions as the effects of earlier increases in materials prices dissipate and overseas economies move out of their deceleration phase.

#### C. The Household Sector

Growth in private consumption is likely to be sluggish over the next several quarters, reflecting the rises in energy and food prices and the deterioration of the employment and income situation. Thereafter, growth in private consumption is expected to recover gradually, as the pace of increase in energy and food prices moderates and the employment and income situation improves.

#### **D.** Financial Conditions

The current low level of interest rates is likely to support private demand by providing accommodative financial conditions. The level of short-term real interest rates remains low relative to the potential growth rate. Medium- to long-term interest rates have declined reflecting market participants' views on the prospects for the economy. In evaluating financial conditions, developments in credit spreads and availability of funds are also important. In this regard, liquidity pressures remain comparatively low and credit spreads in financial markets generally narrow relative to U.S. and European markets. However, the influence of the turmoil in global financial markets has been emerging in Japanese financial markets as can be seen in nervous conditions in money markets and significant declines in stock prices. Firms' fund-raising conditions, as reflected in financial institutions' lending attitudes and investors' willingness to invest in CP and corporate bonds, are also likely to increase in severity reflecting the decline in corporate profits and the increase in credit costs at financial institutions until around the middle of the projection period.

#### II. Outlook for Prices

Given this economic outlook, the environment surrounding prices can be summarized as

follows. The level of resource utilization, in terms of labor and production capacity, is currently at or somewhat below its historical average. Going forward, aggregate supply and demand conditions are expected to loosen, with real GDP growth falling short of the potential growth rate over the next several quarters. Thereafter, resource utilization is projected to recover gradually as the economy moves out of its current sluggish phase. Meanwhile, it is likely that unit labor costs (labor costs per unit of output) will remain relatively weak. Short-term inflation expectations in the private sector currently seem to be relatively high following rises in the prices of frequently purchased items. Judging from developments in other indicators such as long-term interest rates, however, medium-term inflation expectations appear still to be stable and second-round effects -- price inflation in excess of that required to pass through increases in import prices -- have not emerged.

Looking at price indices, the pace of increase in the domestic corporate goods price index (CGPI) will largely depend on developments in the prices of commodities such as crude oil and on exchange rates; however, it is likely to stabilize so long as commodity prices do not start to surge again.

The rate of increase in the consumer price index (CPI) for all items excluding fresh food is expected to decline gradually, as prices of energy and food stabilize with the output gap remaining negative and wages weak, while medium-term inflation expectations are likely to remain stable. On a fiscal year-on-year basis, the CPI (excluding fresh food) is projected to rise by around 1.5 percent in fiscal 2008, remain more or less flat in fiscal 2009, and register an increase in the range of 0.0-0.5 percent in fiscal 2010.

#### III. Upside and Downside Risks

The outlook above, considered the most likely projection by the Bank, is subject to both upside and downside risks with regard to economic activity and prices, and these require close attention especially when the outlook for economic activity and prices is extremely uncertain, as at present.

The following upside and downside risks bear upon the outlook for economic activity.

The first risk concerns the ongoing financial crises in the United States and Europe and their impact. Since the U.S. subprime mortgage problem surfaced in the summer of 2007, losses incurred by U.S. and European financial institutions have continued to expand against the backdrop of significant declines in the prices of securitized products and the increase in impaired assets that has accompanied deteriorating real economic conditions. Lending attitudes of financial institutions have therefore tightened and strains in financial markets have intensified significantly, as seen in the expansion of various credit spreads along with the drying up of liquidity. Looking forward, if strains in financial markets intensify further, the risk-taking capacity of financial institutions and investors may decline and this could result in even tighter financial conditions and a worsening negative feedback loop between financial markets and the real economy, causing lower economic growth in the United States and Europe. Even after strains in financial markets have eased as a result of the various measures taken by governments and central banks, there is a high probability that the impact of such shifts in the risk-taking behavior of financial institutions and investors will persist.

The second risk concerns developments in emerging economies and commodity-exporting countries. In China, the economy continues to show high growth, albeit at a somewhat slower pace, and, depending on developments in macroeconomic policy, the economic growth rate may exceed expectations. There is also a risk of the growth rate falling below expectations if China proves more susceptible than anticipated to slower growth in industrialized economies. In other emerging economies, there are both upside and downside risks, depending on developments in global financial markets, industrialized economies, and commodity prices. In commodity-exporting countries, increased expenditure on, for example, infrastructure investment may push up growth rates. On the other hand, if commodity prices continue to fall, this may restrain these countries' expenditure and result in weaker economic growth.

The third risk concerns developments in energy and materials prices. Although the prices of crude oil and other commodities have recently fallen back, it is assumed that, in the medium term, they will rise moderately, supported by growing demand especially in emerging economies. If, however, world economic growth should exceed its sustainable level, commodity prices may rise more than expected, potentially causing increased

inflationary pressures across the world. This could also raise the specter of a subsequent economic slowdown. Moreover, higher commodity prices would mean an increase in the outflow of income going abroad from countries, such as Japan, that are commodity importers, and this could have a negative impact on the expenditure of Japanese firms and households. On the other hand, a continued fall in commodity prices would support domestic private demand by improving the terms of trade, and thereby lead to higher economic growth. It should be noted, however, that, if such a fall in commodity prices were exclusively the result of slower growth of the world economy, it would inevitably be accompanied by a decrease in exports.

The fourth risk concerns firms' expectations of future growth. In this outlook, it is assumed that firms' expectations of global demand over the medium to long term will remain unaffected by the current sluggishness in the economy, and thus that business fixed investment will recover at a moderate pace. However, if the slowdown in overseas economies becomes significant or prolonged, firms' growth expectations may weaken, causing the projections, especially those concerning business fixed investment, to deviate downward.

The fifth risk concerns developments in financial conditions. There is a possibility that, if increased strains in global financial markets should result in significant fallout in Japanese financial markets, or if financial institutions tighten their lending attitudes, pressures acting to depress the real economy from the financial side may become more marked. From a longer-term perspective, attention should continue to be paid to the risk that prolonged accommodative financial conditions together with a gradual rise in the growth rate may lead to larger swings in economic and financial activity as well as in prices. Looking back on worldwide economic developments since around the middle of this decade, while the world economy has enjoyed a sustained run of higher growth with a prolonged period of accommodative financial conditions, it has also seen imbalances accumulate on both the real and financial sides of the economy. The current financial turmoil worldwide, the surge in energy and materials prices, and the subsequent slowdown in world economic growth may be considered part of the process of correcting these imbalances.

Turning to the outlook for inflation, it should be noted that there are also considerable

uncertainties attending inflation that could cause it to deviate either upward or downward from the rate projected. If any of the above-mentioned upside or downside risk factors affecting the level of economic activity should materialize, prices may be expected to respond accordingly. There are also the following risk factors that are specific to prices. The first of these concerns changes in the inflation expectations of households and the price-setting behavior of firms. If the prices of frequently purchased consumer goods and services should continue to rise, consumers' inflation expectations may remain at a high level. Firms may continue passing previous increases in materials prices through to sales prices, generating the risk of a rise in medium-term inflation expectations. In either case, prices would deviate above the projection. On the other hand, given the severity of competition in the goods and services markets, it is possible that firms will strengthen their cost reduction efforts and the extent of pass-through may not be as large as expected. The second risk concerns developments in import prices. Considerable uncertainty surrounds developments in commodity prices such as crude oil, leaving the potential for movement in either direction. If the downside risks to the world economy should materialize, this may lead to a further fall in commodity prices and a subsequent decline in consumer prices. Fluctuations in foreign exchange rates can affect consumer prices not only by influencing the level of economic activity but also through changes in import prices.

#### IV. Conduct of Monetary Policy

To realize sustainable growth with price stability, the Bank assesses the economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy, taking account of the "understanding of medium- to long-term price stability" -- that is, the level of inflation that each member of the Policy Board understands, when conducting monetary policy, as being consistent with price stability over the medium to long term.<sup>3</sup>

The first perspective involves assessing the most likely outlook for economic activity and prices through fiscal 2010. It is expected that, from the middle of fiscal 2009, growth will gradually rise toward its potential but that until then increased sluggishness in economic

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<sup>&</sup>lt;sup>3</sup> The "understanding of medium- to long-term price stability " reviewed in April 2008, expressed in terms of the year-on-year rate of change in the CPI, falls in the range approximately between 0 and 2 percent, with most Policy Board members' median figures at around 1 percent.

activity will remain. The year-on-year rate of change in the CPI (excluding fresh food) is likely to decline gradually from the current level of around 2.5 percent to be more or less flat in fiscal 2009 and register an increase in the range of 0.0-0.5 percent in fiscal 2010. In sum, Japan's economy, in the longer run, is most likely to return onto a sustainable growth with price stability. However, this outlook is largely dependent on the future course of the world economy. Given recent developments in the world economy and global financial markets, it needs to be noted not only that it will take some time for the world economy to make the requisite adjustments and for the necessary conditions for Japan's economic recovery to be satisfied, but also that the level of uncertainty in the outlook has increased.

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. As noted earlier, those that demand attention are the increasing downside risks to the economy stemming from uncertainties regarding future developments in global financial markets, the U.S. and European financial systems, and overseas economies. It should also be noted that, if there should be an increase in the severity of the lending attitudes of Japanese financial institutions, there would be a risk of a downward pressure also being exerted on Japan's real economy from the financial side. Regarding the outlook for prices, attention should be paid to upside risks stemming from further increases in energy and materials prices as well as changes in consumers' inflation expectations and the price-setting behavior of firms. The upside risks to prices, however, seem to have decreased compared with the past. On the other hand, there is also a possibility that the rate of increase in prices will decline more than expected, if downward risks to the economy materialize or commodity prices fall further.

Based on the examination from the two perspectives described above, it is expected that Japan's economy, in the longer run, will return onto a path of sustained growth with price stability. However, the level of uncertainty in the outlook and downside risks to the economy have both increased.

The Bank will carefully assess the future outlook for economic activity and prices, closely considering the likelihood of its projections as well as factors posing upside or downside risks, and will implement monetary policy appropriately. At the current juncture,

particularly close attention should be paid to the risk of downward deviation in economic activity due to developments in the U.S. and European financial systems and global financial markets as well as their subsequent impact on the real economy.

In a period of increased strains in financial markets, one important contribution a central bank can make is to ensure stability in financial markets through its provision of liquidity. Stability in financial markets is a vital precondition for low interest rates to produce their maximal monetary easing effect. Continuing to carefully monitor market developments and keeping in close contact with overseas central banks, the Bank will do its utmost to ensure market stability by conducting appropriate money market operations.

(Appendix 1)

## Forecasts of the Majority of Policy Board Members

y/y % chg.

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2008	+0.1 to +0.2	+4.3 to +4.8	+1.5 to +1.6
	[+0.1]	[+4.6]	[+1.6]
Forecasts made in July 2008	+1.2 to +1.4	+4.7 to +5.0	+1.7 to +1.9
	[+1.2]	[+4.8]	[+1.8]
Fiscal 2009	+0.3 to +0.7 [+0.6]	-1.4 to -0.4 [-0.8]	-0.2 to +0.2 [0.0]
Forecasts made in July 2008	+1.4 to +1.6 [+1.5]	+1.8 to +2.0 [+1.8]	+1.0 to +1.2 [+1.1]
Fiscal 2010	+1.5 to +1.9	-0.3 to +0.5	+0.1 to +0.5
	[+1.7]	[+0.3]	[+0.3]

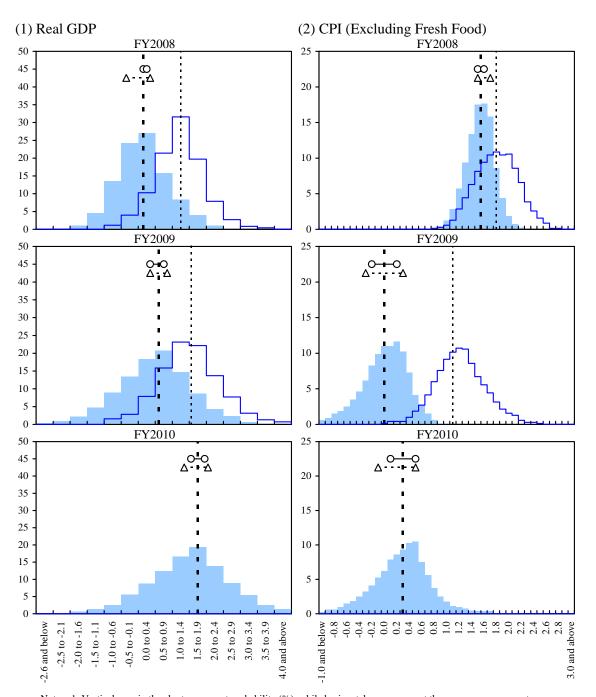
Notes: 1. Figures in brackets indicate forecast medians.

- 2. The forecasts of the majority of Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate, namely the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest and lowest figures excluded. It should be noted that the range does not indicate the forecast errors.
- 3. Individual Policy Board members make the above 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 forecasts of all Policy Board members may be summarized as follows.

y/y % chg

	Real GDP	Domestic CGPI	CPI (excluding fresh food)
Fiscal 2008	-0.4 to +0.3	+4.0 to +4.8	+1.5 to +1.7
Forecasts made in July 2008	+1.1 to +1.5	+4.6 to +5.2	+1.5 to +2.0
Fiscal 2009	+0.3 to +0.8	-1.5 to -0.2	-0.3 to +0.3
Forecasts made in July 2008	+1.4 to +1.7	+1.7 to +2.4	+1.0 to +1.3
Fiscal 2010	+1.3 to +2.0	-0.3 to +0.6	-0.1 to +0.5

## **Risk Balance Charts**



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 2008, and solid lines represent those in July 2008.

- Vertical dashed heavy lines indicate the median of the Policy Board members' forecasts (point estimates).
   O O indicates the range of the forecasts of the majority of Policy Board members. △ · · · · △ indicates the range of the forecasts of all Policy Board members.
- $3.\ Vertical\ dashed\ thin\ lines\ indicate\ the\ median\ of\ the\ Policy\ Board\ members'\ forecasts\ (point\ estimates)\ in\ July\ 2008.$
- 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 Activity, Prices, and Monetary and Financial Developments in the First Half of Fiscal 2008

#### A. Economic Developments

Looking back at economic developments in Japan during the first half of fiscal 2008, some weakness was observed in domestic private demand, which emerged due mainly to the effects of high energy and materials prices. Exports, previously the main engine of growth, also leveled off. In this situation, production remained relatively weak and economic activity became increasingly sluggish. Although a fairly large quarter-on-quarter fluctuation was observed in the growth rate of real GDP due mainly to leap-year effects, the year-on-year change, which averages out such fluctuations, showed a clear decline relative to the latter half of fiscal 2007: during the first half of fiscal 2008, the growth rate was most probably barely positive, clearly below potential (charts 1 [1] and [2]).<sup>4</sup> In addition, the coincident index of the Indexes of Business Conditions had been gradually declining (Chart 1 [3]).<sup>5</sup>

Specifically, exports began to level off especially in automobile-related products, demand for which was adversely affected by high gasoline prices, while overseas economies, in particular those of the United States and Europe, slowed (Chart 2). Domestically, corporate profits decreased and business sentiment became more cautious due mainly to the deterioration in the terms of trade accompanying higher energy and materials prices (Chart 3). Given these conditions, business fixed investment started to

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<sup>&</sup>lt;sup>4</sup> The Bank's estimate of the current potential growth rate is around 1.5 percent or somewhat higher, having risen moderately from a level of approximately 1 percent in fiscal 2003 through fiscal 2004. It should be noted, however, that these estimates of the potential growth rate as well as the output gap (conceptually the difference between actual and potential output -- to be described later) need to be treated as approximations.

<sup>&</sup>lt;sup>5</sup> The coincident index, one of the Indexes of Business Conditions (Composite Indexes), had been declining gradually since the end of last year, and since June the assessment by the Cabinet Office had been "worsening (indicating tentatively that the probability of the economy being in a contraction phase is high)" (Chart 1 [3]).

decline (Chart 4). Private consumption gradually weakened somewhat due to sluggish growth in household income and increases in energy and food prices (Chart 5). Housing investment recovered from a sharp decline caused by the coming into force of the revised Building Standard Law, but remained below its level prior to the law's enactment. Public investment remained sluggish due to tight national and local fiscal conditions. Meanwhile, imports remained relatively weak due to the influence of the sluggish domestic economy and firms' ongoing cutbacks in imports of materials reflecting the rise in import prices, and this was a factor supporting real GDP growth rates.

Given these developments in demand, from the beginning of 2008 industrial production decreased for three consecutive quarters (Chart 6). Looking at individual industries, production in many areas, for example, transportation equipment, electronic parts and devices, and general machinery decreased. Shipments also decreased for three consecutive quarters. Reflecting this, while inventories remained more or less flat, there was some deterioration in the shipment-inventory balance.

Compared with the projections in the April 2008 *Outlook for Economic Activity and Prices* (Outlook Report) as well as the projections in the interim assessment in July, economic activity in the first half of fiscal 2008 was weaker. This was due mainly to: (1) the further, though temporary, deterioration in the terms of trade mainly due to the upsurge in crude oil prices; and (2) a clear leveling-off of export growth as overseas economies, particularly those of the United States and Europe, slowed further. The

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The decline in nominal business fixed investment reported in the *Financial Statements Statistics of Corporations by Industry, Quarterly* was evident from the April-June quarter of 2008 due mainly to the substantial drop in investment by leasing companies in response to a change in the accounting standard for finance lease transactions. Most leased property had been booked as fixed assets (business fixed investment) on the lessor's side (leasing companies) and treated off the balance sheet on the lessee's side (firms). However, with the new accounting standard for lease transactions, applied from the fiscal year starting April 1, 2008, leased property is booked as liquid assets on the lessor's side and as fixed assets on the lessee's side. Since the difference is on which side business fixed investment is counted, the aggregate amount of business fixed investment will basically be unaffected. However, due to special exemptions, such as when the lessee is a small firm, lessees do not have to change their accounting procedures, and therefore there remains a negative overall impact. The method employed for calculating business fixed investment of the GDP statistics removes this negative impact.

effects of the deterioration in the terms of trade and slowing of overseas economies were reflected in the year-on-year changes in real gross domestic income (GDI) and real gross national income (GNI), measures of aggregate income formation, both of which turned clearly negative in fiscal 2008 (Chart 7).<sup>7</sup> The breakdown of the year-on-year change in real GNI showed that, until fiscal 2007, a balance was maintained with moderately higher trading losses being offset by increases in net exports and net income from the rest of the world. During the first half of fiscal 2008, however, trading losses rapidly expanded while growth in net exports slowed, leading to a clear deterioration in the balance.

Reflecting these economic developments, resource utilization in terms of labor and production capacity fell back to its historical average or somewhat lower in the first half of fiscal 2008 (Chart 8). The *Tankan* (Short-Term Economic Survey of Enterprises in Japan) composite indicator, a weighted average of the diffusion indices of production capacity and employment conditions where indices are weighted by capital and labor income shares in the national accounts, moved in a direction indicating an easing of supply and demand conditions and the shortages virtually disappeared. The estimate of the output gap (or the GDP gap) also declined to a level somewhat below its historical average in past economic cycles.

#### **B.** Price Developments

As for prices, the rates of increase in the domestic corporate goods price index (CGPI) and the consumer price index (CPI) for all items excluding fresh food rose considerably through the summer of 2008 against the backdrop of increases in prices of crude oil and other commodities (charts 9 and 10). Due mainly to increases in prices of iron and steel and petroleum products, the year-on-year rate of increase in the CGPI reached 7.3 percent in July 2008, its highest level in the 27 years since January 1981 when it posted 8.1 percent. The year-on-year rate of increase in the CPI (excluding fresh food) rose to

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<sup>&</sup>lt;sup>7</sup> Real GDI = real GDP + trading gains/losses

Real GNI = real GDI + net income from the rest of the world (for example, interest income and dividend income)

Trading gains/losses = nominal net exports / weighted average of export and import deflators - real net exports

2.4 percent in July and August 2008 due mainly to increases in energy and food prices. This was the highest rate of increase in the 16 years since it hit 2.5 percent in June 1992 (excluding the exceptional fiscal 1997 when the jump reflected a consumption tax hike). Looking at the year-on-year rate of CPI increase by item (Chart 11), there were noticeable increases in the prices of petroleum products and food products (both categorized as "goods" in the chart), eating out (categorized as "general services"), and electricity and gas charges (categorized as "public services and electricity, gas, and water charges").

The rates of increase in both the CGPI and the CPI (excluding fresh food) were higher than projected in the April Outlook Report due mainly to increases in commodity prices. At the July interim assessment, the Bank revised upward the projections for both the CGPI and the CPI, but the rate of increase in the CGPI was stronger even than the revised projection.

However, with domestic supply and demand conditions easing somewhat, firms remained reluctant to raise prices, reflecting fierce competition especially at the retail level. The year-on-year rate of change in the CPI excluding food and energy therefore stayed at around 0 percent.

#### C. Financial Market Developments

After the U.S. subprime mortgage problem surfaced in the summer of 2007, losses incurred by U.S. and European financial institutions continued to expand against the backdrop of significant declines in the prices of securitized products and the increase in impaired assets that accompanied deteriorating real economic conditions. As a result, strains in global financial markets intensified significantly, as seen in the expansion of various credit spreads. In particular, from mid-September pressures in dollar funding markets mounted, with the subsequent series of failures and rescues of U.S. and European financial institutions, and Treasury-Eurodollar (TED) spreads widened considerably (Chart 12 [1]). In response to these pressures, from September 18 the Bank of Japan and eight other central banks either put in place new, or expanded existing, temporary reciprocal currency arrangements (swap lines) with the Federal Reserve, and introduced operations or expanded their operations to provide dollar

liquidity (Chart 13). In addition, on October 8, the Federal Reserve and some other central banks reduced their policy interest rates based on their assessment that the recent turmoil in global financial markets had augmented the downside risks to future economic growth. At the meeting of the Group of Seven (G-7) finance ministers and central bank governors held on October 10, an action plan to ensure stability in global financial markets and restore confidence in the financial system was adopted, and governments and central banks subsequently announced various measures in line with it. Meanwhile, with regard to corporate finance, credit spreads on corporate bonds widened sharply in the U.S. and European markets, and financial institutions in these countries further tightened their credit standards.

Money markets in Japan remained relatively stable; however, from mid-September, the impact of the intensified strains in global financial markets began to be felt. Up until early September, the uncollateralized overnight call rate had been at around 0.5 percent and interest rates on term instruments had been relatively stable (Chart 14). From mid-September, however, uncollateralized overnight call rates exhibited greater dispersion due to increased risk aversion among market participants, and interbank rates on term instruments in some cases edged up. Interest rates on Euroyen futures and various forward rates declined from June, but more recently were more or less flat (Chart 15). Meanwhile, short-term real interest rates remained at a low level relative to the potential growth rate (Chart 16).

Long-term interest rates, stock prices, and foreign exchange rates fluctuated, mainly in response to developments in global financial markets. Long-term interest rates rose after the release of the April 2008 Outlook Report through mid-June but then declined; from early September they were more or less flat (Chart 17). Stock prices declined sharply from mid-September, in line with declines in U.S. and European stock prices, against the backdrop of concerns about the U.S. and European financial systems and the deterioration of the world economy. There was a temporary respite after governments and central banks announced various policy measures, in line with the action plan adopted at the G-7 meeting, but there were considerable fluctuations thereafter (Chart 18 [1]). The yen continued to depreciate until the summer, but appreciated later (Chart 19).

#### D. The Financial Environment

Japan's financial environment remained generally accommodative, but the financial positions of small firms and firms in certain industries showed deterioration against the backdrop of worsening business conditions. In addition, some adverse effects of the intensified strains in global financial markets began to be felt after mid-September.

On the credit supply side, lending attitudes of financial institutions remained generally accommodative. However, financial institutions became cautious in taking credit risks against the backdrop of developments in corporate profits and the real economy, and an increasing number of small firms and firms in certain industries reported that their financial positions were weak and that lending attitudes of financial institutions were severe (Chart 20). The issuing environment for CP and corporate bonds, with the exception of that for some issues by firms with low credit ratings and firms in certain industries, had been favorable on the whole until this summer. However, after mid-September, when strains in global financial markets intensified, the issuing environment deteriorated somewhat as seen in wider credit spreads (Chart 21).

On the demand side, while worsening of business conditions led to a decline in firms' cash flow, credit demand in the private sector increased moderately as increases in materials prices acted to raise demand for operating funds.

Under these circumstances, lending rates were generally at extremely low levels. Average contracted interest rates on new loans and discounts, with the monthly fluctuations smoothed out, remained more or less unchanged (Chart 22 [1]). The amount outstanding of lending by private banks increased moderately (Chart 22 [2]). The amount outstanding of CP and corporate bonds issued was above the previous year's level.

The year-on-year rate of growth in the money stock (M2) was around 2 percent, while the year-on-year rate of growth in broadly-defined liquidity, which includes investment trusts and Japanese government bonds in addition to the money stock, declined to below 1 percent due to slower growth in investment trusts (Chart 22 [3]).

The rate of increase in land prices decelerated significantly in metropolitan areas while land prices in other areas continued to fall. According to the Prefectural Land Price Survey in 2008 (as of July 1, 2008), the rates of increase of both commercial and residential land prices in the three major metropolitan areas (Tokyo, Osaka, and Nagoya) slowed significantly (Chart 23). In particular, commercial and residential land prices in the 23 wards of Tokyo fell back compared with six months ago. 8 Commercial and residential land prices outside the three major metropolitan areas also continued to fall.

# II. The Outlook for Economic Activity and Prices from the Second Half of Fiscal 2008 through Fiscal 2010

#### A. Projections for Economic Activity and Prices

Projections from the second half of fiscal 2008 show that increased sluggishness in economic activity will likely remain until around the middle of fiscal 2009, since the deceleration phase will continue in overseas economies and the effects of the earlier deterioration in the terms of trade will persist. Industrial production is expected to remain on a downtrend, due to relatively weak exports and domestic private demand.

From around the middle of fiscal 2009, exports and domestic private demand are both projected to resume their recovery trends and Japan's economic growth rate is expected to gradually approach its potential provided that: (1) global financial markets and the U.S. and European financial systems start to stabilize and overseas economies move out of their deceleration phase; and (2) commodity prices remain stable on the whole.

As for fiscal 2010, it is expected that the economy will regain its positive momentum, propelled by exports and production, and that the effects of monetary easing will also become stronger, provided that: (1) overseas economies recover their relatively high rates of growth; and (2) any increases in commodity prices remain moderate. Given that the period of sluggishness is likely to see levels of employment and production capacity utilization falling, leaving room for later rises, the growth rate for fiscal 2010 is

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<sup>&</sup>lt;sup>8</sup> Land prices are compared for areas that are surveyed in both the Land Price Publication (as of January 1, 2008) and the Prefectural Land Price Survey (as of July 1, 2008).

expected to be around the potential growth rate.

Based on the projections above, the growth rate of real GDP on a fiscal-year basis is expected to be around 0 percent in fiscal 2008, around 0.5 percent in fiscal 2009, and around 1.5 percent or somewhat higher in fiscal 2010. Compared with the projections in the April 2008 Outlook Report and in July's interim assessment, expected growth rates have been revised downward considerably for both fiscal 2008 and fiscal 2009.

Looking at the environment surrounding future price developments, until around the middle of fiscal 2009 the level of resource utilization in terms of labor and production capacity is expected to decline and supply and demand conditions are likely to continue to ease as the growth rate is expected to remain below potential. Thereafter, the level of resource utilization is expected to rise gradually. The decline in unit labor costs (labor costs per unit of real GDP) is expected to come more or less to a halt in fiscal 2008, mainly due to the decline in the growth rate of real GDP, but then to emerge again, to some extent, during the period up to fiscal 2010, since wage restraint is likely to remain despite the recovery in economic growth (Chart 24 [1]). Short-term inflation expectations in the private sector currently seem to be relatively high, due mainly to rises in the prices of frequently purchased items such as energy and food (Chart 25). Judging from developments in indicators such as long-term interest rates, however, medium- to long-term inflation expectations appear stable and second-round effects --price inflation in excess of that required to pass through increases in import prices --have not emerged.

Based on the above assessment, the upsurge in commodity prices through the summer of 2008 and their subsequent fall are expected to cause inflation rates to fluctuate, but underlying inflationary pressures are likely to remain low. Assuming that any rises in commodity prices will remain moderate even once the global economy has returned to relatively high growth, the year-on-year rate of change in the CGPI is expected to rise to around 4.5 percent in fiscal 2008 and then remain more or less flat for both fiscal 2009 and fiscal 2010. The year-on-year rate of change in the CPI (excluding fresh food) is projected to rise by around 1.5 percent in fiscal 2008, remain more or less flat in fiscal 2009, and register an increase in the range of 0.0-0.5 percent in fiscal 2010. These

projections of the rates of increase in the CGPI and the CPI for fiscal 2008 are higher and those for fiscal 2009 lower than those presented in the April 2008 Outlook Report, the reason being the upsurge in commodity prices up to the summer and their subsequent fall. Compared with the projections in the interim assessment made in July, the projected rates of increase in the CGPI and the CPI are somewhat lower for fiscal 2008, and are lower for fiscal 2009 due to the drop in commodity prices and the downward deviation of the economic growth rate.

## B. The Environment Surrounding Exports and Imports

During the past several years, Japan benefited from overseas economic growth of 5 percent or somewhat faster, mainly reflecting strong economic growth in emerging economies, particularly China, and in commodity-exporting countries (Chart 26). A slowdown in the U.S. and European economies has recently become evident, but the deceleration in overseas economies as a whole is not as rapid as in 1998 and in 2001, since emerging economies and commodity-exporting countries have generally continued to exhibit high, albeit slightly slower, growth. The projections in this Outlook Report are based on the assumption that overseas economies taken as a whole will continue to decelerate until around the middle of fiscal 2009, and subsequently move out of their deceleration phase, with the rate of growth gradually picking up. The high growth rate observed in overseas economies from 2004 to 2007 was accompanied by tightening supply and demand conditions in commodities such as crude oil, and appears also to have received some stimulation from an excessively accommodative financial environment -- facts which suggest that growth was faster than was sustainable. Looking ahead for the period through fiscal 2010, overseas economies as a whole are expected to return onto a sustainable growth path, but it is difficult to envisage growth rates of 5 percent again. Based on these prospects for overseas economies, with the impact of the appreciation of the yen, Japan's exports are expected to remain relatively weak until around the middle of fiscal 2009 but, in line with the recovery in overseas economies, to start increasing again thereafter; the increase in exports, however, is likely to be moderate relative to the pace observed in the period up to fiscal 2007.

This scenario is accompanied by considerable uncertainty. Since the U.S. subprime mortgage problem surfaced in the summer of 2007, losses incurred by U.S. and European financial institutions have continued to expand against the backdrop of significant declines

in the prices of securitized products and the increase in impaired assets that has accompanied deteriorating real economic conditions. Lending attitudes of U.S. and European financial institutions have therefore tightened and strains in global financial markets have intensified significantly, as seen in the expansion of various credit spreads along with the drying up of liquidity. Looking forward, if strains in financial markets intensify further, the risk-taking capacity of financial institutions may decline and this could result in even tighter financial conditions and a worsening negative feedback loop between financial markets and the real economy, causing lower economic growth in the United States and Europe. Such a slowdown would affect other regions, including Asia, through stagnant trade and a sharp contraction in risk money, which would in turn impose a considerable downside risk on the world economy. In this case, Japan's economy would also be affected since: (1) economic adjustments would deepen mainly due to weaker exports, production, and business fixed investment; and (2) the further fall in prices of commodities would exert downward pressure on consumer prices. Even after strains in financial markets have eased as a result of the various measures taken by governments and central banks, there is a high probability that the impact of such shifts in the risk-taking behavior of financial institutions and investors will persist.

On the other hand, if, for example, the U.S. and European financial systems seemed set to stabilize quickly, an earlier recovery in the U.S. and European economies and stronger growth momentum in emerging economies as well as in commodity-exporting countries could cause overseas economic growth to exceed the projections. In such a case, however, there would be the risk of rekindling increases in commodity prices if insufficient worldwide progress were made in measures to save on energy and resources. In other words, the growth rate of the world economy may overshoot temporarily, but increased global inflationary pressure would then be likely to inhibit subsequent growth. In Japan, the positive effects from growth in net exports in such a situation could be outweighed by the negative effects from larger trading losses, causing the net impact on the spending behavior of firms and households to be negative.

Meanwhile, imports have continued to be relatively weak. This is attributable to the

<sup>&</sup>lt;sup>9</sup> On the whole, movements in commodity prices tend to be highly correlated with global economic growth, albeit with a slight lag (Chart 27).

weakness in domestic demand as well as to firms' efforts, against the backdrop of high commodity prices, to reduce their use of imported materials per unit of output (Chart 28). This kind of behavior by firms can be regarded as a structural factor reflecting their long-run efforts to adapt to the "new structure of prices." As a result, imports are unlikely to increase for some time to come, and this will likely support the growth rate of real GDP.

## C. Firms' Profits and Spending Behavior

Looking at aggregate income formation, the year-on-year changes in real GDI and real GNI have recently turned negative reflecting the increase in trading losses mentioned above. In this situation, a decline in corporate profits has become evident. According to the September *Tankan*, current profits at firms (on an all-industry, all-size basis) are projected to fall for the second consecutive year (Chart 3). Profits of large firms, which continued to increase until fiscal 2007, are also expected to decline in fiscal 2008. The weakness in profits is largely attributable to the sharp rise in energy and materials prices.

There is, however, a large difference in the level of profits between large firms and small to medium-sized firms. During the period of economic recovery that started in 2002, large firms managed to expand sales without raising their break-even point by holding down fixed costs and the variable cost ratio, and in fiscal 2006 and fiscal 2007 recorded profits that were extremely high by historical standards (Chart 29). In contrast, the situation for small and medium-sized firms is more severe since they were unable to raise their profits as much during the recovery so that the current downturn in profits has hit them harder.

Looking ahead, although sales growth will likely remain weak reflecting the sluggishness in the economy, corporate profits are likely to gradually stop declining through the first half of fiscal 2009, since the terms of trade are expected to improve after the fall in commodity prices. Thereafter, the positive effects from the improvement in the terms of trade will likely abate, but profits are expected to recover as increases in exports and production gradually become evident.

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 $<sup>^{10}\,</sup>$  The low break-even point ratio means that profits are high relative to sales.

In relation to business fixed investment, corporate profits have been on a downtrend and there is greater uncertainty about future developments in exports. circumstances, not only some small and medium-sized firms but also some large firms have been putting off their fixed investment. Reflecting these developments, business fixed investment is likely to remain relatively weak over the next several quarters. However, assuming that firms basically maintain their expectations regarding the medium- to long-term growth of global demand, and especially of demand in emerging economies, firms, particularly large firms, are likely to continue to implement their strategic investment plans and it is likely that a sharp drop in overall business fixed investment will be avoided. The generally sound financial positions of firms and the expected progress in investments to save on energy and resources in response to high resource prices are factors that are also likely to mitigate any decline in business fixed investment (charts 30 and 31 [1]). In addition, the capital stock cycle shows that business fixed investment to date has stayed within a range consistent with the expected growth rate of around 1.5 percent and currently there seems to be no excessive build-up of capital stocks (Chart 32).

As for the outlook through fiscal 2010, given the aforementioned assumptions with regard to overseas economies and commodity prices and with a resultant gradual increase in the effects of monetary easing, growth in business fixed investment is expected to recover gradually. However, if the drop in business fixed investment in fiscal 2008 and fiscal 2009 turns out to be limited, then fixed investment is unlikely to grow as fast in fiscal 2010 as it did during fiscal 2003 to fiscal 2006.<sup>11</sup>

Turning to uncertainties affecting future business fixed investment, in coming quarters it is the downside risks stemming from developments in overseas economies that demand the most attention. If the downturn in overseas economies leads firms to lower their medium-term expectations of global demand growth, they will start to feel that their capital stocks are excessive and there will be a risk of large-scale adjustments in

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<sup>&</sup>lt;sup>11</sup> Since the level of capital stock was extremely low prior to fiscal 2003, merely restoring it to a level consistent with the potential growth rate required high growth in business fixed investment during fiscal 2003 to fiscal 2006.

business fixed investment. On the other hand, looking ahead through fiscal 2010, a rapid recovery in overseas economies could combine with the effects of monetary easing to cause business fixed investment to exceed projections.

#### D. The Employment and Income Situation and Households' Spending Behavior

With regard to the employment situation, the year-on-year rate of change in the number of employees in the *Labour Force Survey* has been around 0 percent since the start of 2008 (Chart 33 [1]). The year-on-year rate of increase in the number of regular employees in the *Monthly Labour Survey* peaked around the end of 2007 and has been declining since then. The year-on-year rate of change in the labor input -- calculated as the number of employees multiplied by the number of hours worked per employee -- has turned negative, mainly reflecting the decline in overtime hours worked (Chart 34 [1]).

Reflecting the continued sluggishness in economic activity and in line with declining production, over the next several quarters the number of employees is unlikely to increase and supply and demand conditions in the labor market are expected to ease. The labor input may have become more susceptible to changes in economic developments, reflecting an increase in the proportion of non-regular employees. In fact, estimation of the cross-correlation between changes in the number of employees and changes in real GDP indicates that the degree of simultaneity has become stronger (Chart 34 [2]). Meanwhile, given that firms currently do not have a strong sense that employee numbers are in excess, the employment situation is unlikely to undergo any significant adjustment so long as firms' expectations of medium-term growth are maintained. Looking ahead through fiscal 2010, supply and demand conditions in the labor market are expected to start improving again since the working-age population -- the number of persons from 15 to 64 years of age -- will continue to decrease by around 1 percent a year while the number of those in employment is expected to recover.

<sup>&</sup>lt;sup>12</sup> This estimate may not be fully robust, since there is some question about the validity of a simple comparison between the period from the 1980s to 1990s (during which not only were working hours reduced but there were also periods of substantial fluctuation, such as the bubble) and the period from 2000 onward (when there were no sustained phases of significant economic recession).

The year-on-year rate of change in nominal wages per worker has remained only slightly positive against the backdrop of the weakness in economic activity and the decline in corporate profits (charts 33 [2] and [3]). In coming quarters, growth in wages is expected to remain sluggish given that firms will likely continue to face severe business conditions, and supply and demand conditions in the labor market will likely continue to loosen. Looking ahead through fiscal 2010, supply and demand conditions in the labor market are likely to improve, as mentioned earlier, but in the economy as a whole the aggregate supply and demand balance is projected to remain slacker than its historical average. Under these circumstances, wage growth is expected to be limited since downward pressure from wage restraint by firms, although moderating somewhat, is likely to remain in place.

Private consumption has been relatively weak, as household income has hardly increased whereas consumer prices have risen. Growth in private consumption is likely to be sluggish over the next several quarters with real disposable income continuing to decline as a result of price increases. If substantial adjustments in employment are avoided and households' permanent income -- i.e., households' medium-term expected income -- decreases only slightly, private consumption will not fall to the full extent of the decline in real income, and hence the propensity to consume will likely rise temporarily above its trend (Chart 35 [1]). Thereafter, the inflation rate is projected to decline, with household income resuming its upward trend sometime in fiscal 2009. As a result, private consumption is expected to pick up gradually. However, should the pace of increase in the propensity to consume accelerate temporarily in fiscal 2008, the subsequent correction would mean that the pace of recovery in private consumption in fiscal 2009 and fiscal 2010 would likely be very moderate.

Consumer sentiment has recently deteriorated substantially. A glance at the recent past reveals two instances, in 1997-1998 and 2001, when consumer sentiment deteriorated to a broadly equivalent extent; however, whereas in the former there was a fall in private consumption, in the latter it remained steady (Chart 35 [2]). The difference was most conspicuous in durable goods. In 1997-1998, households experienced a decline in their permanent income due to growing concerns over the financial system. By

contrast, in 2001, there appears to have been no such decline in permanent income, and firms' introduction of reasonably priced goods provided increased incentives for consumers to spend. In the current situation, private consumption is unlikely to decline to the extent suggested by developments in consumer sentiment due to the following factors: (1) the deterioration in consumer sentiment is largely attributable to price rises, with little impact apparent from any downswing in permanent income; and (2) the introduction of new products and price declines in digital appliances will likely continue to stimulate demand. Attention should be paid, however, to the substantial uncertainty of these factors.

Housing investment is likely to be somewhat weak going forward, against the backdrop of the rise in prices of condominiums, sluggish growth in household income, and expectations of future falls in land prices (Chart 36). However, factors such as the increase in the number of households in response to diversified lifestyles and the influx of population into metropolitan areas from the countryside have been bolstering potential housing demand. If this potential demand remains more or less unchanged, housing investment is unlikely to face a sharp decline going forward so long as households' permanent income does not turn downward. Through fiscal 2010, the employment and income situation will likely improve gradually and the effects of low interest rates are expected to become stronger with the progress in price adjustments. As these factors activate potential demand, housing investment is projected to start increasing gradually.

#### E. The Environment Surrounding Price Changes

Looking at recent developments in consumer prices, in the wake of price increases by manufacturers, price increases have been spreading at the retail level even though retailers facing fierce competition have been strongly resisting such increases (charts 37 and 38).<sup>13</sup> Reflecting these developments, the year-on-year rate of increase in the CPI

<sup>&</sup>lt;sup>13</sup> In terms of the number of rising/falling items among the 521 items comprising the CPI (excluding fresh food), since August 2006 the proportion of items in the index whose price increased has exceeded the proportion of those whose price decreased. The gap between the two in August 2008 expanded to 27.4 percentage points (58.3 percent of items registered price increases; 30.9 percent price decreases). This trend is confirmed even when the prices of energy and food, which have been surging lately, are disregarded.

(excluding fresh food) has risen to more than 2 percent. However, a breakdown by item shows that price rises continue to be particularly large for energy (petroleum products as well as electricity and gas charges) and food (food products, agricultural and aquatic products, and eating out), while price rises of other items have generally been marginal. The rises in the prices of energy and food seem to be attributable to two factors: the rise in costs has been particularly large; and the price elasticity of demand for these products, which are daily necessities, is low. A breakdown of the CPI by item characteristic reveals that, while there was a conspicuous increase in the prices of items classified as basic expenditures, which could be regarded as daily necessities, the price increase for items classified as selective expenditures remained very moderate (Chart 39). This tendency can be confirmed also from the fact that the increase in the prices of frequently purchased items has been high, while that of infrequently purchased items, such as durable consumer goods, remains low. The marked increase in the prices of frequently purchased items may have pushed up consumers' perceptions of inflation by more than the increase in the overall index.

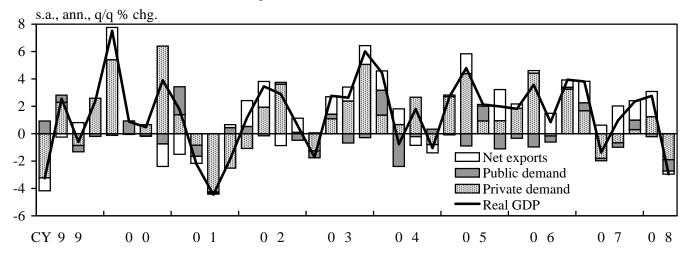
As for the outlook, it is likely that the year-on-year rate of increase in the CPI (excluding fresh food) will decline gradually from its peak of around 2.5 percent in the summer of 2008, but stay around 1 percent in the second half of fiscal 2008, with the effects of the rise in commodity prices during the period up to summer 2008 persisting. Entering fiscal 2009, the CPI is projected to trend further downward on a year-on-year basis due to the negative contribution of price declines in petroleum products, the moderation of increases in food prices, the easing of the aggregate supply and demand balance in the economy, and sluggish private consumption (Chart 40). As for fiscal 2010, even if commodity prices turn gradually upward with an increase in global economic growth, the year-on-year increase is likely to be very moderate since the supply and demand balance will remain slacker than its historical average and medium-term inflation expectations are likely to remain stable. Consequently, on a fiscal year basis, the year-on-year rate of change in the CPI (excluding fresh food) is projected to rise by around 1.5 percent in fiscal 2008, remain more or less flat in fiscal 2009, and register an increase in the range of 0.0-0.5 percent in fiscal 2010.

The above projections are subject to uncertainties that could cause the inflation rate to

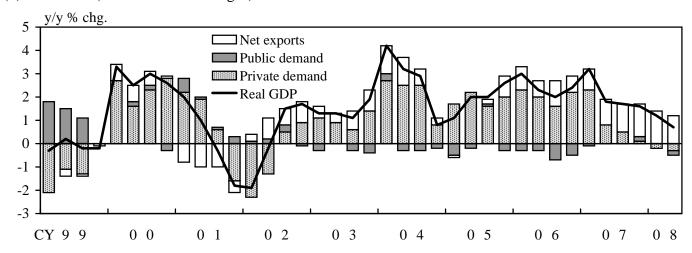
deviate either upward or downward, depending on the level of real economic activity. If downside risks to the global economy should materialize, this may lead to a further fall in commodity prices and to a downswing in the CPI on a year-on-year basis. Possible upward or downward risks specific to prices are as follows: (1) increases in prices of items such as food may fall below expectations as a result of cost reduction efforts at the retail and distribution level; and (2) conversely, cost-push price increases may cause underlying inflationary pressures to rise through second-round effects. Regarding the latter risk, at present there are no signs that cost-push price increases have led to a trend increase in inflationary pressures. Nevertheless, attention should continue to be paid to the inflation expectations of households and the price-setting behavior of firms. Even if upside or downside risks to the global economy do not materialize, there remains considerable risk of substantial upward or downward fluctuations in commodity prices, such as crude oil, in response to their supply conditions as well as the extent of improvements in resource efficiency. Fluctuations in foreign exchange rates can affect consumer prices not only by influencing the level of economic activity but also through changes in import prices.

## Real GDP and Indexes of Business Conditions

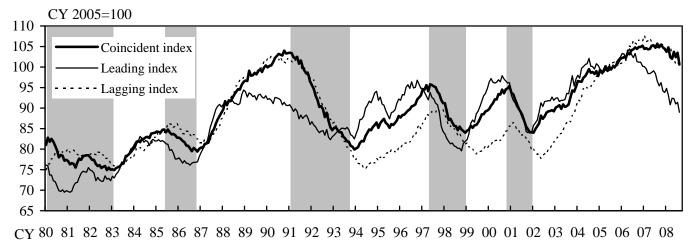
## (1) Real GDP (Quarter-on-Quarter Changes)



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



## (3) Indexes of Business Conditions (Composite Indexes)

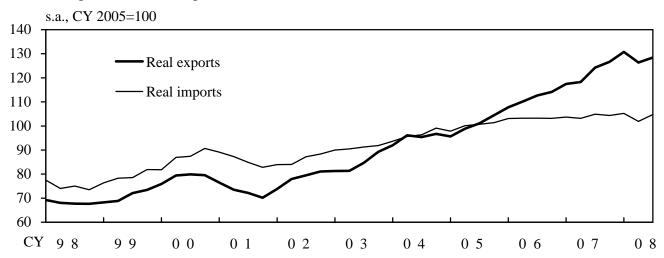


Note: Shaded areas indicate recession periods.

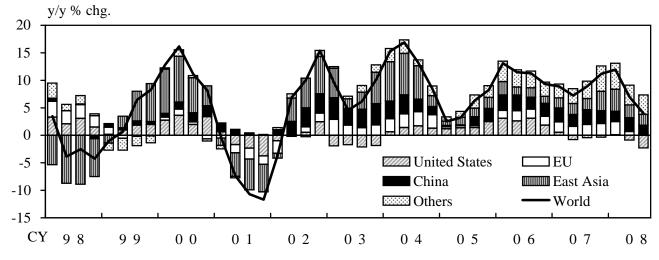
Source: Cabinet Office, "National Accounts," "Indexes of Business Conditions."

# **Exports and Imports**

## (1) Real Exports and Real Imports

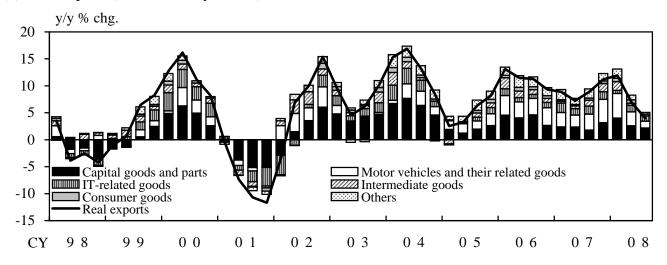


## (2) Real Exports (Breakdown by Region)



Note: Data for East Asia: NIEs and ASEAN4.

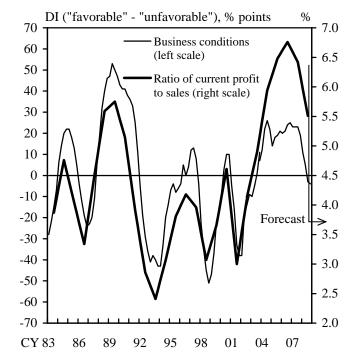
## (3) Real Exports (Breakdown by Goods)



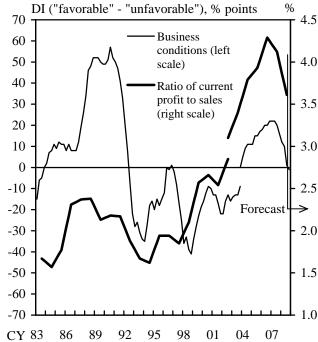
Sources: Ministry of Finance, "The Summary Report on Trade of Japan"; Bank of Japan, "Corporate Goods Price Index."

## **Current Profits**

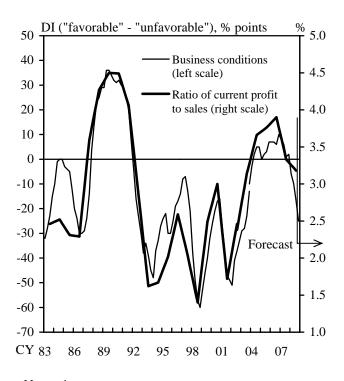
#### (1) Large Manufacturing Enterprises



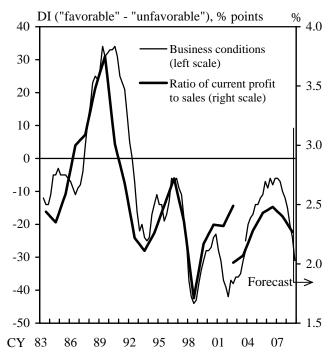
#### (2) Large Nonmanufacturing Enterprises



#### (3) Small Manufacturing Enterprises



#### (4) Small Nonmanufacturing Enterprises



Notes: 1. Figures for the ratio of current profit to sales are on a fiscal-year basis, plotted at the Q3 of each year. Figures for FY 2008 are the forecasts in the September 2008 survey.

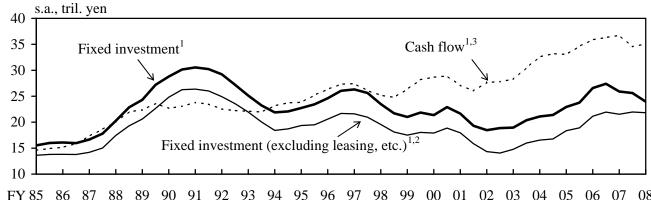
- 2. In the March 2004 survey, the *Tankan* underwent major revisions, including the addition of new sample enterprises to the survey. The data show some discontinuities that coincided with these timings.
- 3. Figures for business conditions DI on a new basis are from the December 2003 survey.
- 4. Figures for ratio of current profit to sales on a new basis are from FY 2002.

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

## **Fixed Investment**

## (1) Fixed Investment and Cash Flow

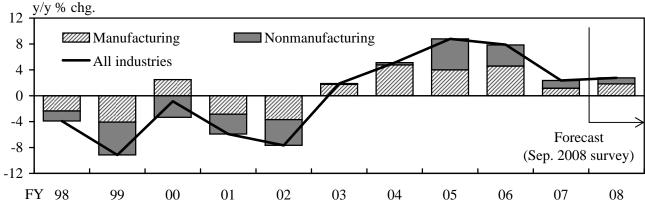
(Financial Statements Statistics of Corporations by Industry, Quarterly)



Notes: 1. All enterprises excluding finance and insurance.

- 2. Up to 2004/Q1, excluding business services. From 2004/Q2, excluding leasing, miscellaneous rental and leasing goods, advertising, and miscellaneous business services.
- 3. Cash flow = depreciation expenses + current profits/2.
- 4. Figures for the first half of FY 2008 are calculated on the assumption that the year-on-year growth rate of 2008/Q3 is the same as that of 2008/Q2.

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

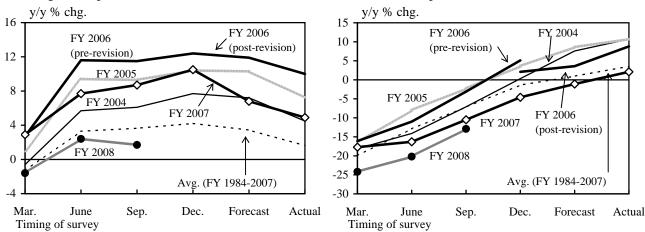


Note: Figures up to FY 2002 include land purchasing expenses and exclude software investment. Figures from FY 2003 exclude land purchasing expenses and include software investment.

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

#### (a) Large Enterprises

#### (b) Small Enterprises



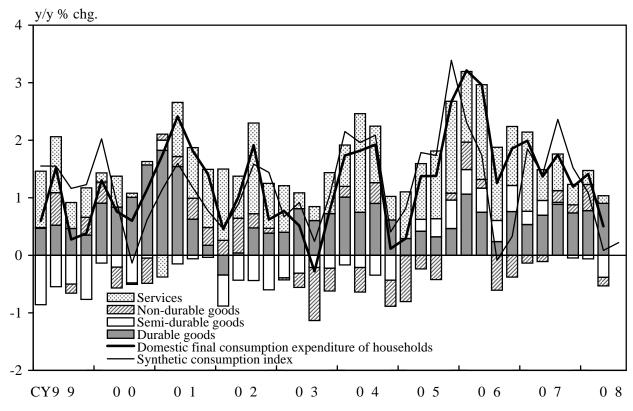
Notes: 1. Figures include land purchasing expenses and exclude software investment.

2. In the March 2007 survey, regular revisions were made to the sample enterprises.

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

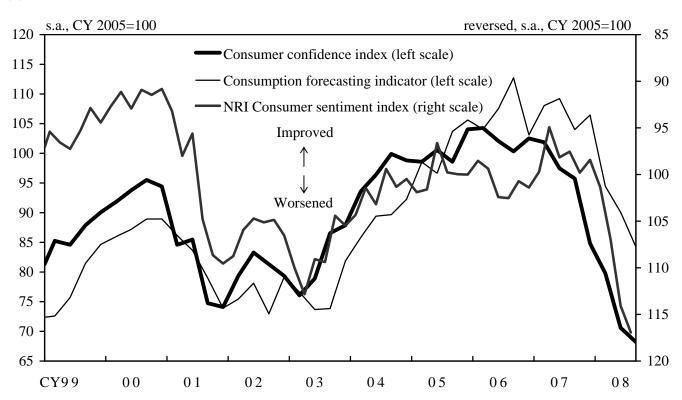
# **Private Consumption**

## (1) Breakdown of Real Domestic Final Consumption Expenditure of Households



Note: Figure for the synthetic consumption index for 2008/Q3 is the July-August average.

#### (2) Consumer Confidence



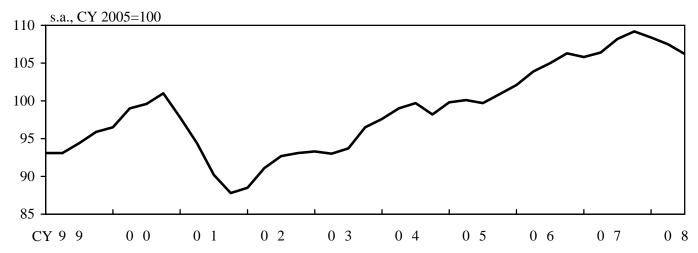
Sources: Cabinet Office, "National Accounts," "Consumer Confidence Survey,"

"Synthetic Consumption Index"; Nikkei Inc., "Consumption Forecasting Indicator";

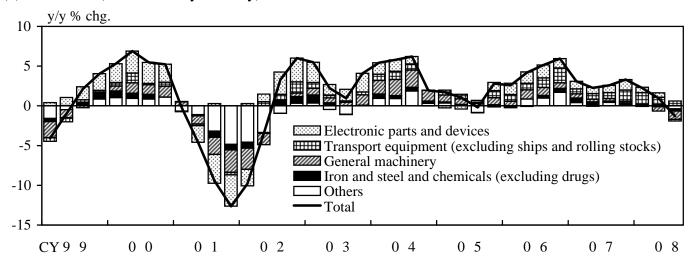
Nippon Research Institute (NRI), "Consumer Sentiment Survey."

# Production

## (1) Industrial Production

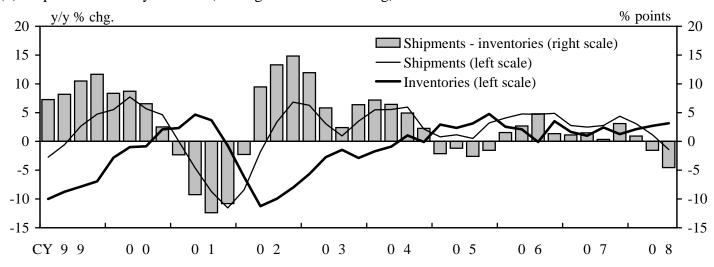


## (2) Production (Breakdown by Industry)



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

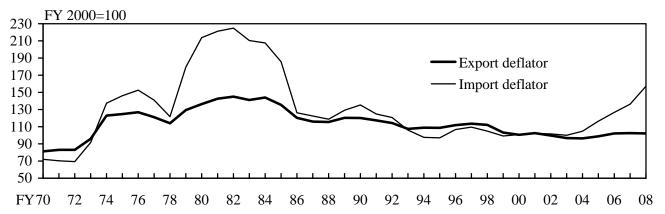
## (3) Shipment-Inventory Balance (Mining and Manufacturing)



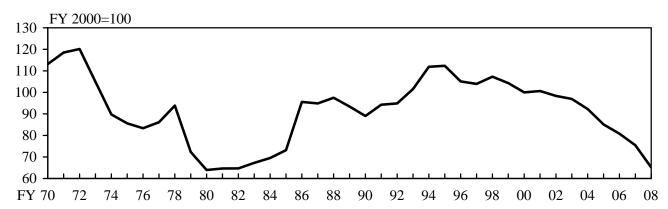
Source: Ministry of Economy, Trade and Industry, "Indices of Industrial Production."

### **Aggregate Income Formation**

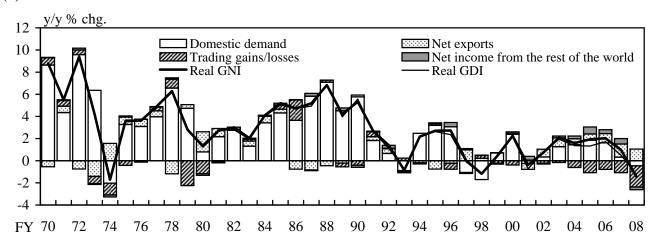
#### (1) Export Deflator and Import Deflator<sup>1</sup>



### (2) Terms of Trade Index (Export Deflator/Import Deflator)<sup>1</sup>



# (3) Real GDI and Real GNI<sup>2,3,4</sup>



Notes: 1. Figures are on a National Accounts basis unless otherwise stated. Figures for FY 2008 are averages of Q2 figures and Q3 figures. Q3 figures are estimated using year-on-year changes of export/import price indices.

- 2. Figures for FY 2008 are those of 2008/Q2.
- 3. Figures of components indicate contributions to changes in real GNI.
- 4. Real GDP = domestic demand + net exports

Real GDI = real GDP + trading gains/losses

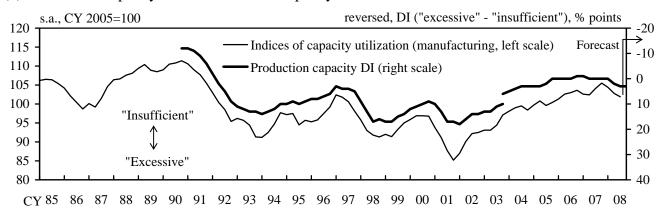
Real GNI = real GDI + net income from the rest of the world

= real GDP + trading gains/losses + net income from the rest of the world

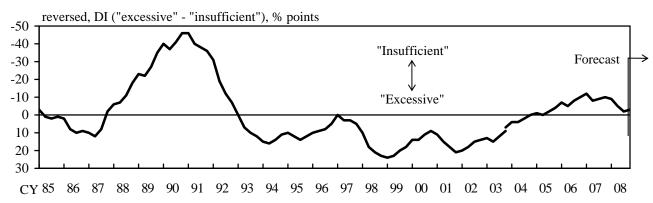
Sources: Cabinet Office, "National Accounts"; Bank of Japan, "Corporate Goods Price Index."

#### Resource Utilization

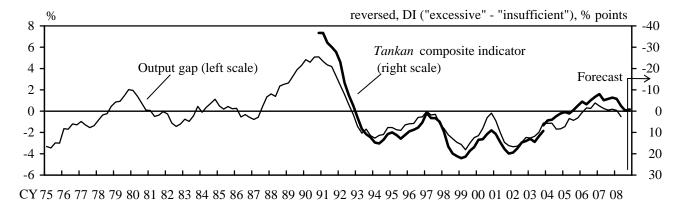
#### (1) Production Capacity DI and Indices of Capacity Utilization<sup>1,2</sup>



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



### (3) Tankan Composite Indicator and Output Gap 1,3

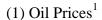


Notes: 1. Production capacity DI and employment conditions DI are based on all-size enterprises and all industries. The *Tankan* has been revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on a new basis.

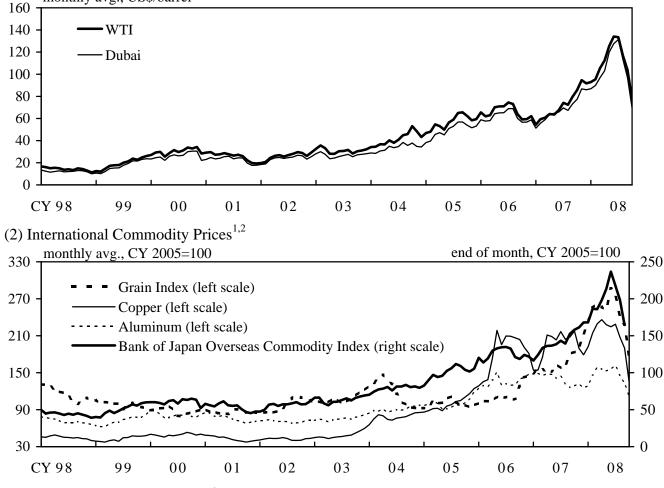
- 2. Figure for indices of capacity utilization for 2008/Q3 is the July-August average.
- 3. The *Tankan* composite indicator is calculated as the average of the diffusion indices of production capacity and employment conditions, weighted by capital and labor shares in the national accounts (FY 1990-2006 average). The output gap is estimated by the Research and Statistics Department, Bank of Japan.

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.

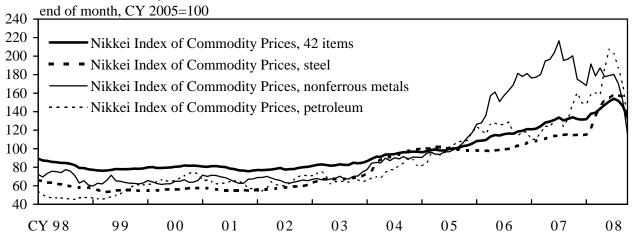
### **Commodity Prices**



monthly avg., US\$/barrel







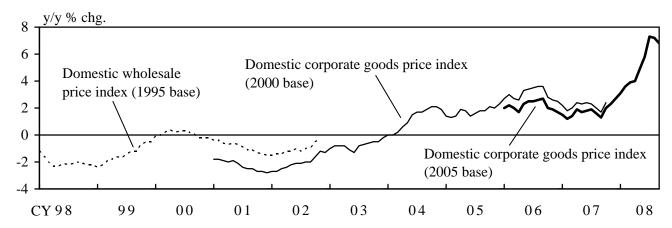
Notes: 1. Figures for October 2008 are the averages up to October 30.

- 2. 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.
- 3. Steel: steel bars, H sections, steel plates, etc. Nonferrous metals: unwrought copper, unwrought aluminum, etc. Petroleum: gasoline, kerosene, gas oil, fuel oil C. Figures for October 2008 are those as of October 24.

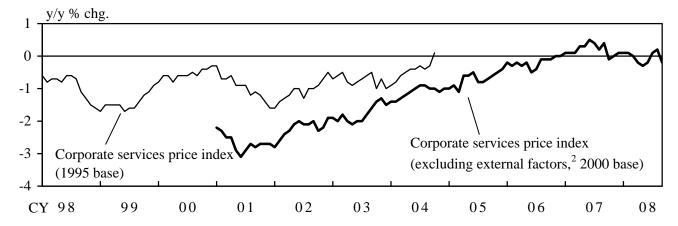
Sources: Bank of Japan, "Bank of Japan Overseas Commodity Index"; The Nihon Keizai Shimbun, etc.

#### **Prices**

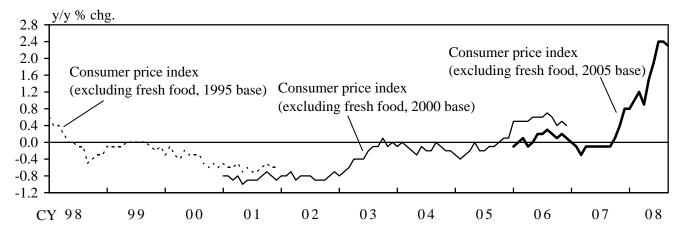
### (1) Domestic Corporate Goods Price Index<sup>1</sup>



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



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



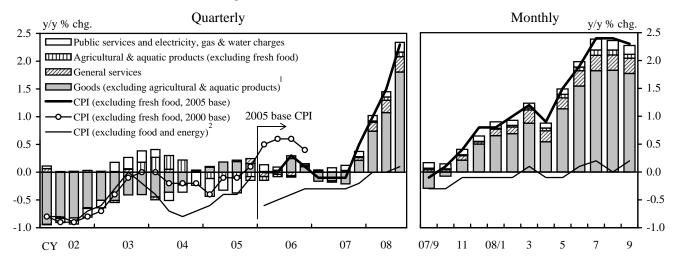
Notes: 1. Adjusted to exclude the effect of a change in the consumption tax rate.

2. External factors: international air passenger transportation, ocean liner, ocean tramper, ocean tanker, oceangoing ship chartering services, and international air freight.

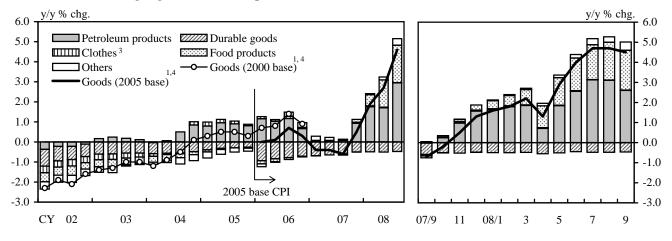
Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Index," "Corporate Services Price Index."

#### Consumer Price Index

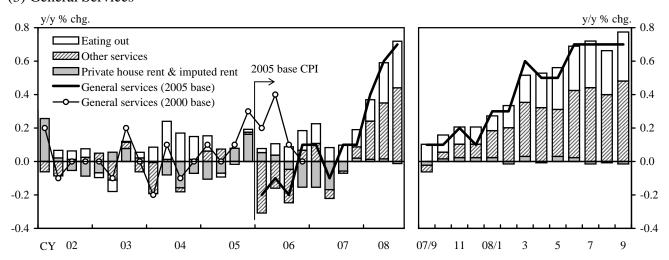
#### (1) Consumer Price Index (Excluding Fresh Food)



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



#### (3) General Services



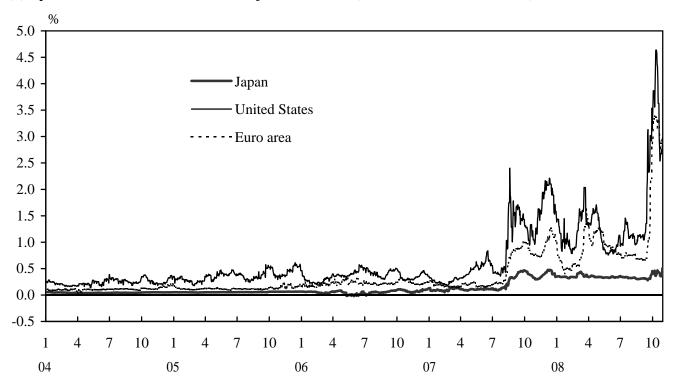
Notes: 1. The items are basically the same as the definition published by the Ministry of Internal Affairs and Communications. However, electricity, gas & water charges are excluded from goods.

- 2. Alcoholic beverages are excluded from food. Energy: electricity, gas manufactured & piped, liquefied propane, kerosene, and gasoline.
- 3. Including shirts, sweaters & underwear.
- 4. Excluding agricultural & aquatic products.

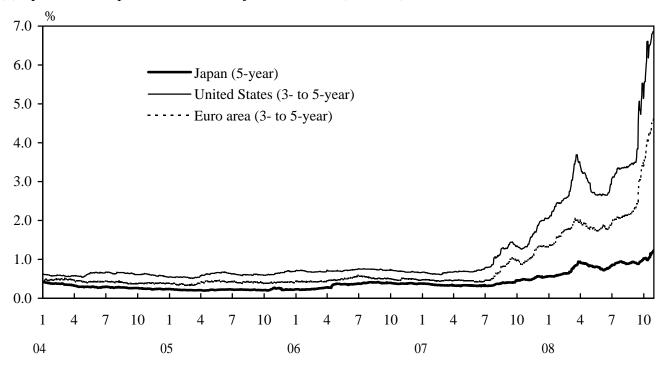
Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."

# Credit Spread in Major Economies

(1) Spread for Term Instruments in Major Economies (LIBOR - TB/FB, 3-Month)



(2) Spread for Corporate Bonds in Major Economies (A-Rated)



Notes: 1. The spread for corporate bonds is the corporate bond yield minus the government bond yield.

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

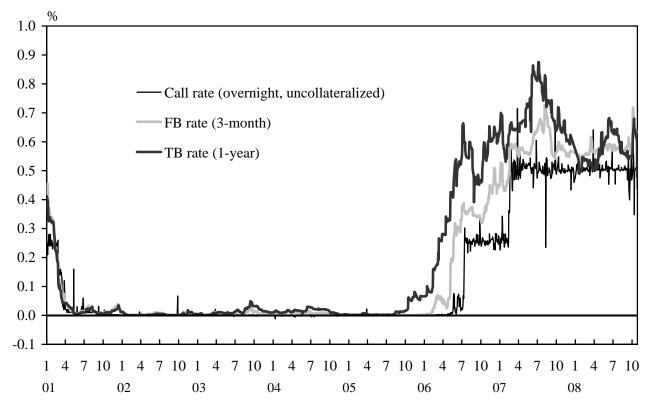
Sources: Japan Securities Dealers Association; Merrill Lynch; Bloomberg; Japan Bond Trading Co., Ltd.

# **Introduction of U.S. Dollar Funds-Supplying Operations**

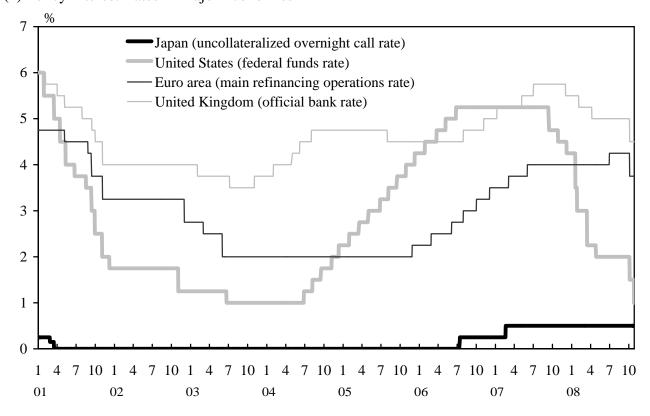
Dec. 12, 2007	The Federal Reserve (Fed) established foreign exchange swap lines with the European Central Bank (ECB) and the Swiss National Bank (SNB). With these swap lines, the ECB and the SNB introduced U.S. dollar funds-supplying operations.		
Mar. 11, 2008	The Fed increased the swap authorization limits with the ECB and the SNB.		
May 2, 2008	The Fed increased the swap authorization limits with the ECB and the SNB. With these swap lines, the ECB and the SNB expanded the U.S. dollar funds-supplying operations.		
July 30, 2008	The Fed increased the swap authorization limit with the ECB. The ECB and the SNB expanded the U.S. dollar funds-supplying operations.		
Sep. 18, 2008	The Fed increased the swap authorization limits with the ECB and the SNB. The Fed also established foreign exchange swap lines with the Bank of Japan (BOJ), the Bank of England (BOE), and the Bank of Canada (BOC). With these swap lines, the ECB and the SNB expanded the U.S. dollar funds-supplying operations, while the BOJ, the BOE, and the BOC introduced U.S. dollar funds-supplying operations.		
Sep. 24, 2008	The Fed established foreign exchange swap lines with the Reserve Bank of Australia, Sveriges Riksbank, Danmarks Nationalbank, and Norges Bank.		
Sep. 26, 2008	The Fed increased the swap authorization limits with the ECB and the SNB. The ECB, the SNB, and the BOE expanded the U.S. dollar funds-supplying operations.		
Sep. 29, 2008	The Fed significantly increased the swap authorization limits with the aforementioned central banks. The term of the swap arrangement was extended until the end of April 2009, from the end of January 2009.		
Oct. 13, 2008	The ECB, the SNB, and the BOE introduced the U.S. dollar funds-supplying operations, in which the counterparties of these operations could borrow any amount they wished against the appropriate collateral at a fixed rate. Accordingly, the Fed increased the swap authorization limits with these central banks to accommodate whatever quantity of U.S. dollar funding was demanded. The BOJ announced it would be considering the introduction of similar measures.		
Oct. 14, 2008	The BOJ introduced the U.S. dollar funds-supplying operations, in which the counterparties of these operations could borrow any amount they wished against the appropriate collateral at a fixed rate. The Fed increased the swap authorization limits with the BOJ to accommodate whatever quantity of U.S. dollar funding was demanded.		
Oct. 28, 2008	The Fed established a foreign exchange swap line with the Reserve Bank of New Zealand.		
Oct. 29, 2008	The Fed established foreign exchange swap lines with the Banco Central do Brasil, the Banco de Mexico, the Bank of Korea, and the Monetary Authority of Singapore.		

### **Short-Term Interest Rates**

#### (1) Short-Term Interest Rates



#### (2) Policy Interest Rates in Major Economies

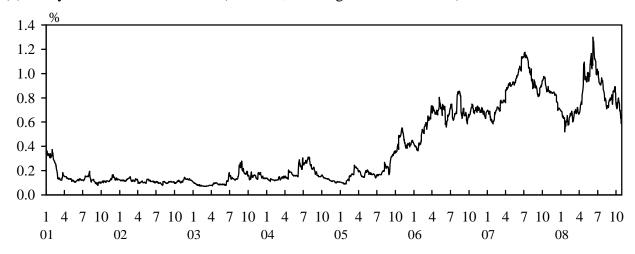


Note: The policy interest rate of Japan is considered zero percent, while the operating target of money market operations was the outstanding balance of current accounts at the Bank of Japan.

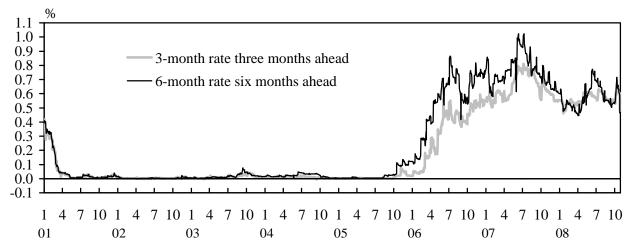
Sources: Bank of Japan; other central banks; Bloomberg.

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

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

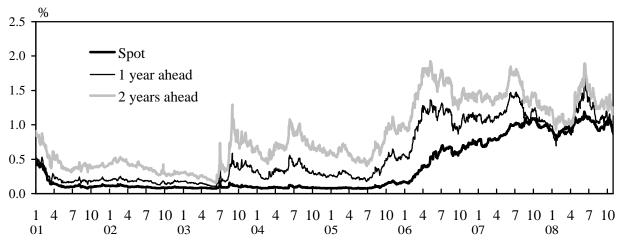


#### (2) Implied Forward Rates (3-Month, 6-Month)



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

#### (3) Implied Forward Rates (1-Year)

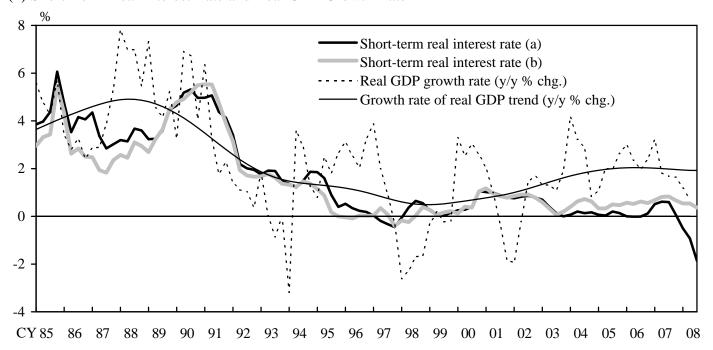


Note: Calculated from yen-yen swap rates.

Sources: Tokyo Financial Exchange; Reuters; Bloomberg.

### Interest Rates and Economic Activity

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

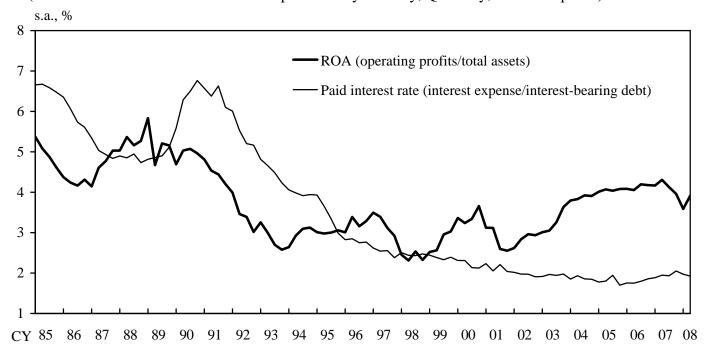


Notes: 1. Short-term real interest rate (a) = call rate (overnight, uncollateralized) - y/y % chg. in the consumer price index (excluding fresh food)

- 2. Short-term real interest rate (b) = call rate (overnight, uncollateralized) y/y % chg. in the consumer price index (excluding food [alcoholic beverages are excluded from food] and energy)
- 3. Real GDP trend is calculated by applying the HP filter.

#### (2) ROA and Paid Interest Rate

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

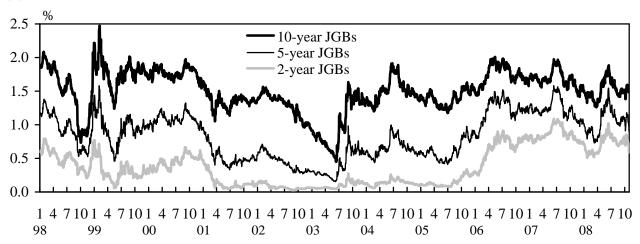


Note: Interest-bearing debt = long- and short-term borrowings + corporate bonds + bills receivable discounted outstanding

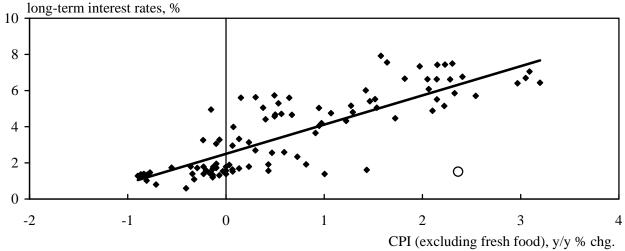
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Bank of Japan.

### **Long-Term Interest Rates**

#### (1) Government Bond Yields



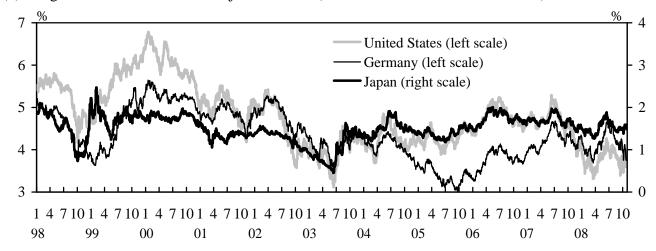
#### (2) Long-Term Interest Rates and Change in the Consumer Price Index



Notes: 1. Long-term interest rates are 10-year JGB yields.

- 2. The CPI is adjusted to exclude the effects of changes in the consumption tax rate.
- 3. The sample period is 1983/Q3-2008/Q3. The white circle indicates the latest data.

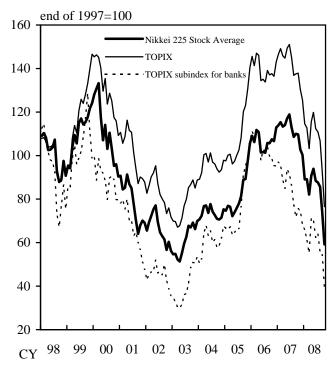
#### (3) Long-Term Interest Rates in Major Countries (10-Year Government Bond Yields)



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

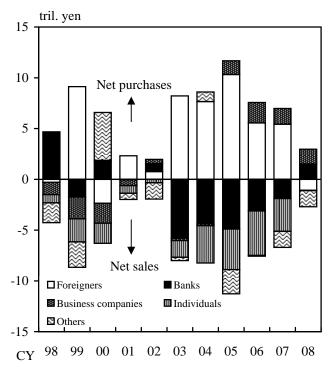
#### **Stock Prices**

#### (1) Stock Prices



Note: Data are at end of month. Figures for October 2008 are the latest available data.

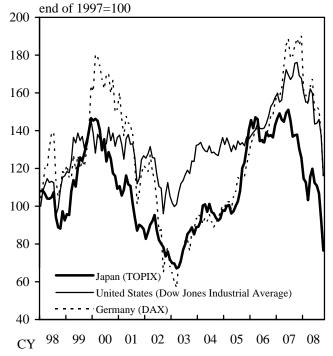
#### (2) Trading Volume by Investor Type



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

2. Figures for 2008 are those of January-September in terms of annual amount.

#### (3) Stock Prices in Major Countries



Note: Data are at end of month. Figures for October 2008 are the latest available data.

#### (4) Stock Prices in the BRIC Economies

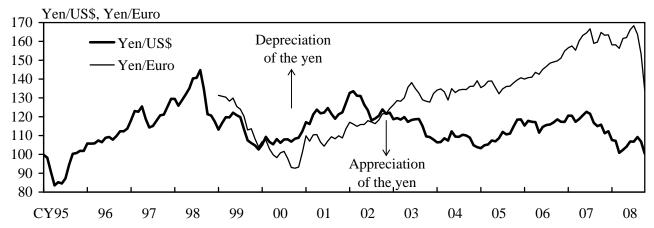


Note: Data are at end of month. Figures for October 2008 are the latest available data.

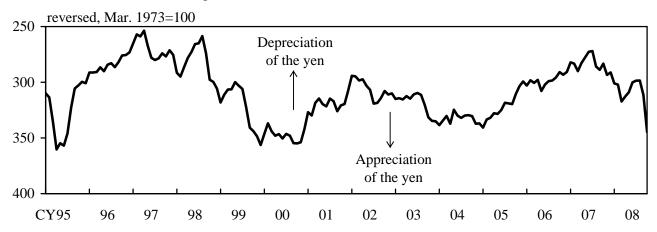
Sources: The Nihon Keizai Shimbun; Tokyo Stock Exchange; Bloomberg.

### **Exchange Rates**

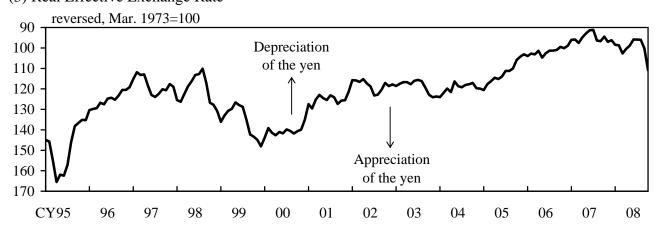
### (1) Yen/US\$ and Yen/Euro<sup>1</sup>



### (2) Nominal Effective Exchange Rate<sup>1,2</sup>



### (3) Real Effective Exchange Rate<sup>1,3</sup>



Notes: 1. Monthly average. Figures for October 2008 are averages up to the latest available data.

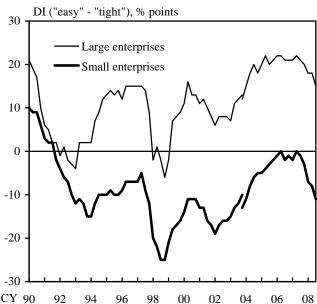
- 2. The nominal effective exchange rate is a weighted average of the yen's exchange rates against 15 currencies that have a large share among Japanese total exports.
- 3. The real effective exchange rate is a weighted average of the yen's real exchange rates against 15 currencies that have a large share among Japanese total exports. The yen's real exchange rates are calculated from the nominal exchange rates and price indexes of the relevant countries.

Source: Bank of Japan.

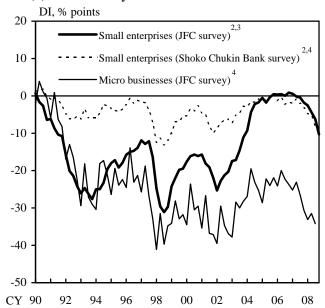
### Corporate Finance-Related Indicators

#### (1) Financial Position

(a) Tankan <sup>1</sup>



#### (b) Other Surveys



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

(a) Tankan 1

-40

CY 90

92

94

DI ("accommodative" - "severe"), % points

20

10

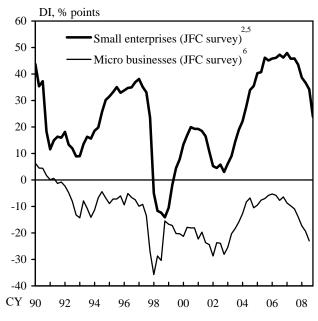
-10

-20

-30

Large enterprises
—Small enterprises

#### (b) Other Surveys



Notes: 1. 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.

2. Figures are quarterly averages of monthly data. Figures for 2008/Q4 are those of October 2008.

08

- 3. DI of "easy" "tight."
- 4. DI of "easier" "tighter."

96

5. DI of "accommodative" - "severe."

98

00

02

04

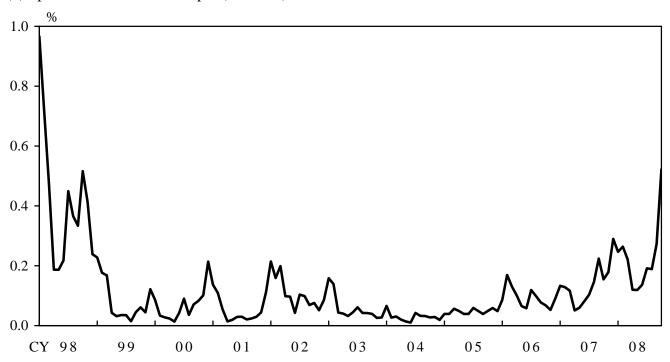
06

6. DI of "more accommodative" - "more severe."

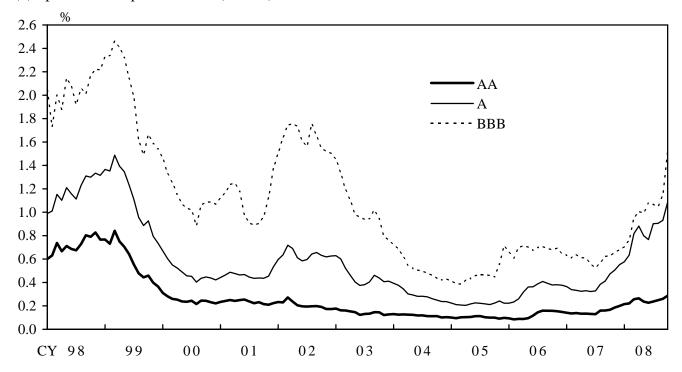
Sources: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Shoko Chukin Bank, Ltd., "Business Survey Index for Small and Medium-Sized Businesses"; Japan Finance Corporation (JFC), "Monthly Survey of Small Businesses in Japan", "Quarterly Survey of Small Businesses in Japan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

# Credit Spread in Japan

# (1) Spread for Commercial Paper (3-Month)<sup>1,2,3</sup>



# (2) Spread for Corporate Bonds (5-Year)<sup>3,4,5</sup>



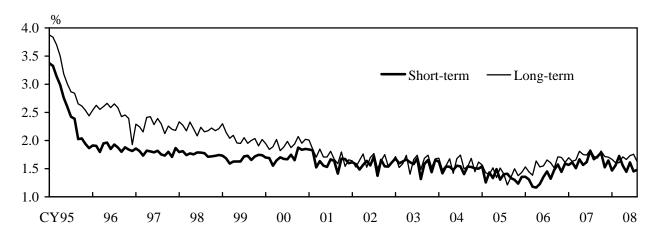
Notes: 1. The spread for CP is the average issuance rate of CP minus the TB/FB yield.

- 2. CP ratings are A-1 or above.
- 3. The spreads for both CP and corporate bonds in October 2008 are averages up to the latest available data.
- 4. The spread for corporate bonds is the corporate bond yield minus the government bond yield.
- 5. The indicated ratings of corporate bonds are of R&I.

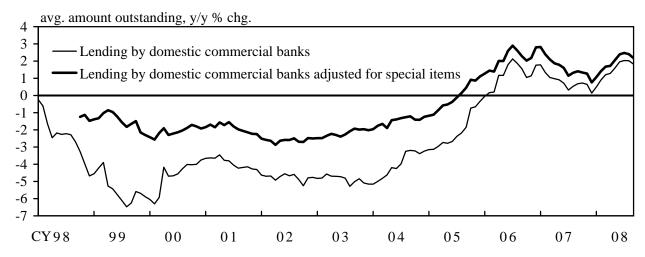
Sources: Bank of Japan; Japan Bond Trading Co., Ltd.; Japan Securities Dealers Association.

### Bank Lending and Money Stock

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

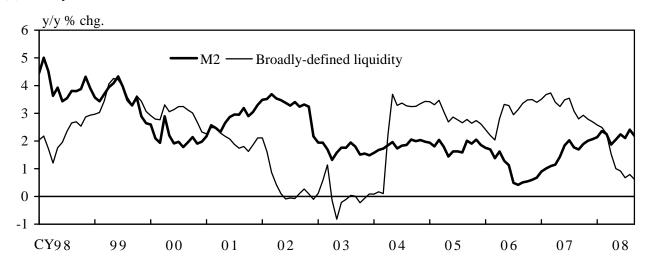


#### (2) Lending by Domestic Commercial Banks



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."

08

#### **Land Prices**

#### (1) Prefectural Land Price Survey (As of July 1)

#### (a) Residential Land (b) Commercial Land y/y % chg. y/y % chg. 25 Nationwide Nationwide 20 20 Three metropolitan areas Three metropolitan areas 15 - - Other areas 15 - - Other areas 23 wards of Tokyo -23 wards of Tokyo 10 10 5 5 0 0 -10 -10 -15 -15

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

-20

-25

-30

CY90

92

94

98

00

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

96

98

00

02

06

08

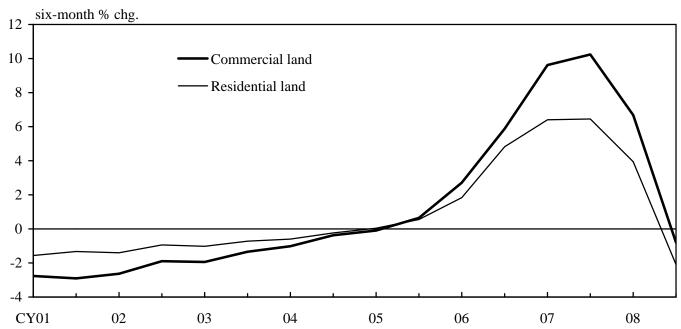
-20

-25

-30

CY90

92

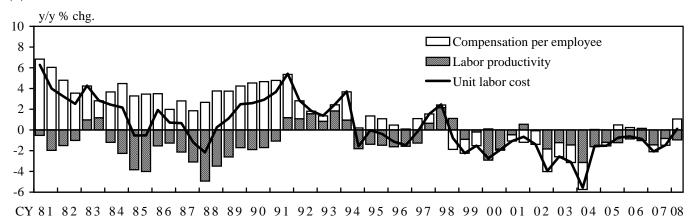


Note: Figures in the chart are six-month percentage change in land prices available in both "Land Price Publication" and "Prefectural Land Price Survey" (residential: 58 points, commercial: 44 points).

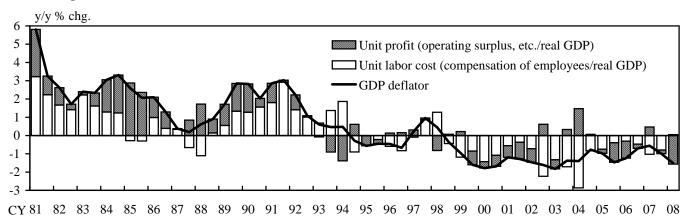
Source: Ministry of Land, Infrastructure and Transport, "Land Price Publication," "Prefectural Land Price Survey."

### Wages and Prices

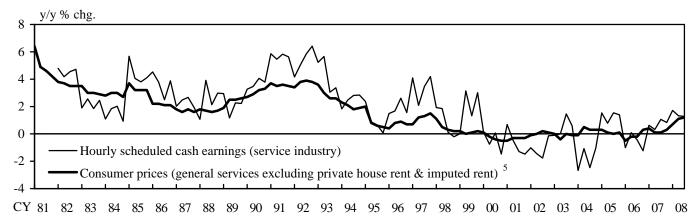
#### (1) Unit Labor Cost<sup>1</sup>



### (2) Decomposition of GDP Deflator in Terms of Distribution<sup>1,2</sup>



### (3) Service Prices and Wages<sup>3,4</sup>



Notes: 1. Up to 1994, fixed-based series are used (base year=1995). From 1995, chain-linked series are used (base year=2000).

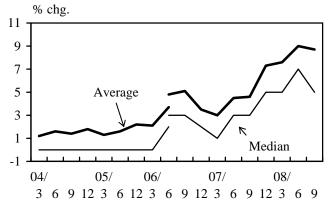
- 2. Operating surplus, etc., includes (i) operating surplus and mixed income, (ii) consumption of fixed capital, (iii) taxes on production and imports, (iv) subsidies, and (v) statistical discrepancy.
- 3. Figures for 2008/Q3 are those of the July-August average.
- 4. Wages are the sum of "eating and drinking places" and "services" of the previous industrial classification up to 2000. From 2001, they are the sum of "eating and drinking places," "accommodations," and "miscellaneous education learning support," and "services" of the new industrial classification.

  Data are for establishments with at least 30 employees.
- 5. Adjusted to exclude the effects of changes in the consumption tax rate.

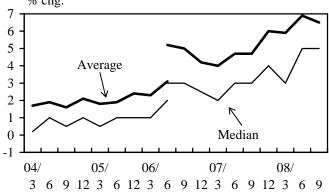
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey," "Consumer Price Index."

#### **Outlook for Prices**

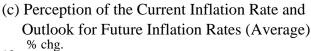
- (1) Households (Opinion Survey on the General Public's Views and Behavior)
- (a) Changes in the Price Levels One Year from Now

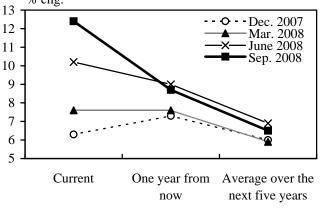


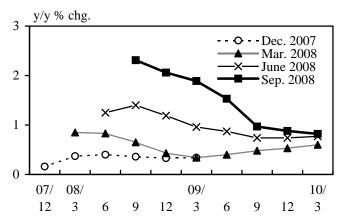
(b) Changes in the Price Levels per Year on Average over the Next Five Years % chg



(2) Economists (ESP Forecast)

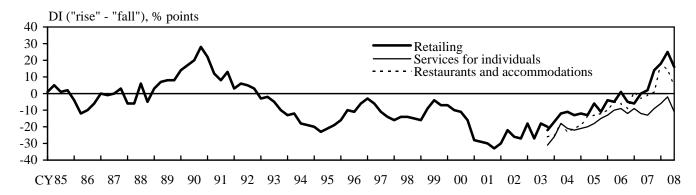






Note: Figures for (1) are calculated by excluding 0.5 percent of the highest and the lowest figures, respectively. The survey was not conducted in September 2005. The survey method was changed in September 2006. A preliminary survey was conducted under the new method in June 2006.

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



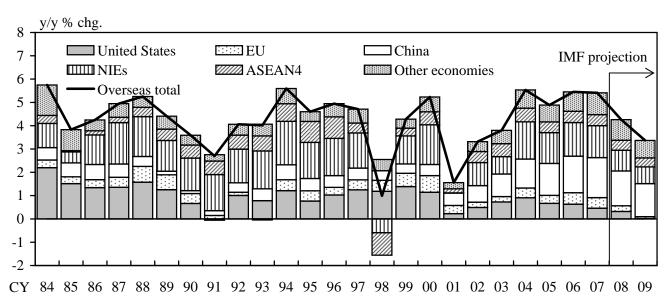
Notes: 1. All-size enterprises.

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

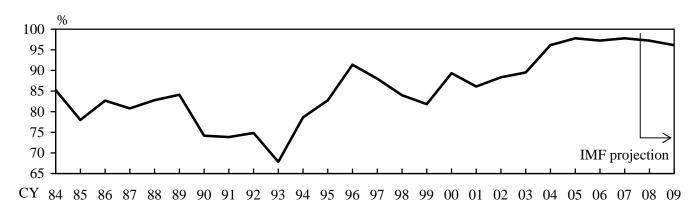
Sources: Bank of Japan, "Opinion Survey on the General Public's Views and Behavior," "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Economic Planning Association, "ESP Forecast."

#### Overseas Economies

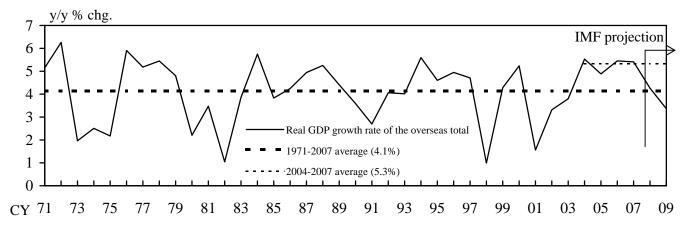
(1) Real GDP Growth Rates of Overseas Economies<sup>1</sup>



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



(3) Real GDP Growth Rate of Overseas Economies (Long-Term Time Series)<sup>1,2</sup>



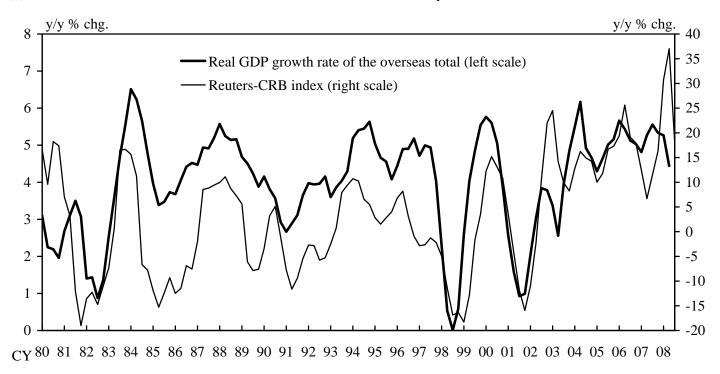
Notes: 1. Real GDP growth rate of the overseas total is the weighted average of real GDP growth rates by values of exports from Japan to each economy.

2. Data up to 1979 are based on the UN data, and data since 1980 are based on the IMF data.

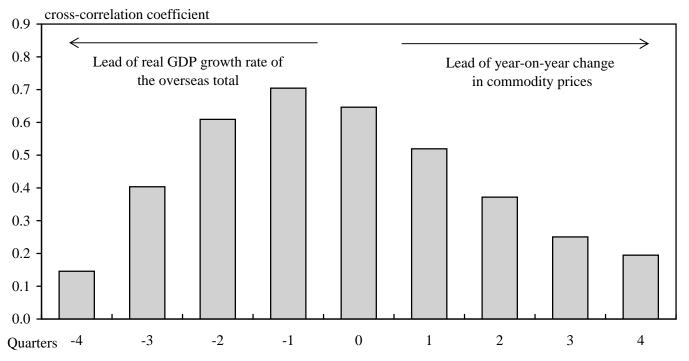
Sources: IMF, "World Economic Outlook"; Ministry of Finance, "The Summary Report on Trade of Japan"; United Nations (UN), "National Accounts Main Aggregates," etc.

### Growth Rate of Overseas Economies and Commodity Prices

(1) Real GDP Growth Rate of Overseas Economies and Commodity Prices<sup>1</sup>



(2) Cross-Correlation between the Real GDP Growth Rate of Overseas Economies and Commodity Prices<sup>1,2</sup>



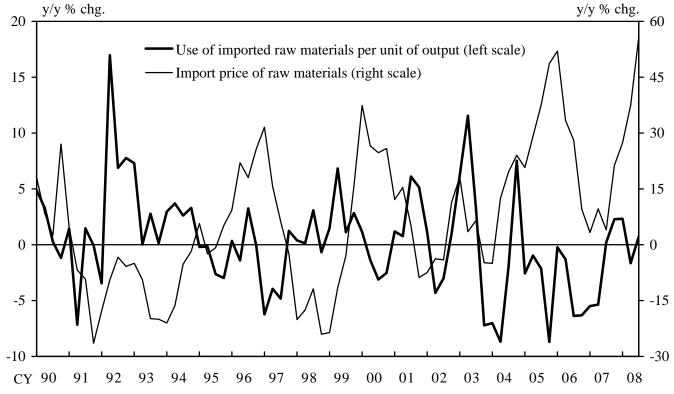
Notes: 1. Real GDP growth rate of the overseas total is the weighted average of real GDP growth rates in overseas economies weighted by values of exports from Japan to each economy.

2. Sample period is from 1990/Q1 to 2008/Q2.

Sources: IMF, "World Economic Outlook"; Ministry of Finance, "The Summary Report on Trade of Japan," etc.

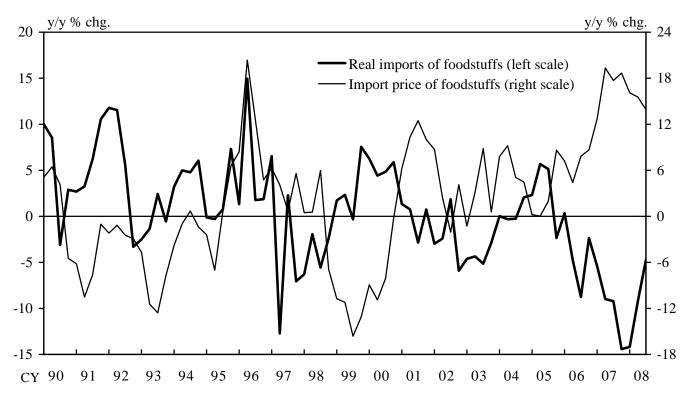
### Real Imports by Goods Categories

#### (1) Raw Materials



Note: Use of imported raw materials per unit of output = real imports of raw materials/industrial production.

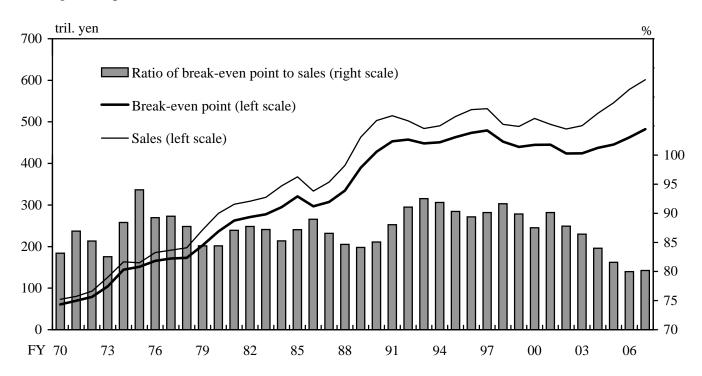
#### (2) Foodstuffs



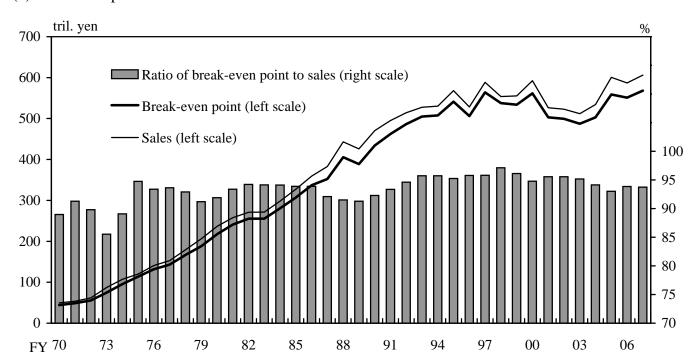
Sources: Ministry of Finance, "The Summary Report on Trade of Japan";
Bank of Japan, "Corporate Goods Price Index";
Ministry of Economy, Trade and Industry, "Indices of Industrial Production."

#### Ratio of Break-Even Point to Sales

#### (1) Large Enterprises



#### (2) Small Enterprises



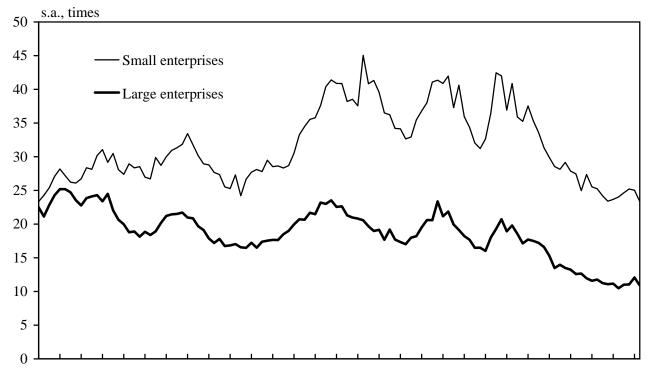
Notes: 1. "Large enterprises" refers to firms with capital stock of 1 billion yen or more, and "small enterprises" refers to firms with capital stock of 10 million or more but less than 100 million yen.

- 2. Figures exclude electricity, gas, and heat supply and water.
- 3. Break-even point = fixed cost/marginal profit ratio
- 4. Fixed cost = personnel expenses + depreciation and amortization expenses + net non-operating expenses + selling, general and administrative expenses  $\times$  0.7
- 5. Marginal profit ratio = 1 variable cost ratio = 1 (sales fixed cost current profit)/sales

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

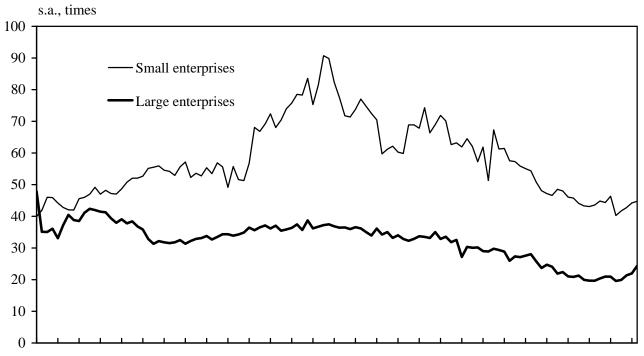
### Ratio of Interest-Bearing Debt to Cash Flow

#### (1) Manufacturing Enterprises



CY80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08

#### (2) Nonmanufacturing Enterprises



CY80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08

Notes: 1. Figures are adjusted for sample changes.

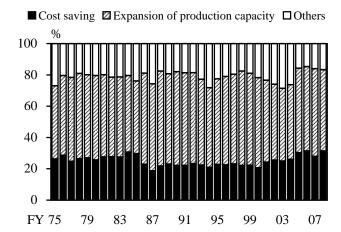
- 2. "Large enterprises" refers to firms with capital stock of 1 billion yen or more, and "small enterprises" refers to firms with capital stock of 10 million or more but less than 100 million yen.
- 3. Interest-bearing debt = long-term and short-term loans + corporate bonds.
- 4. Cash flow = depreciation expenses + current profits/2.

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

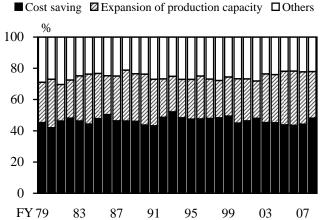
#### Motives for Fixed Investment

#### (1) Motives for Fixed Investment

#### (a) Large Enterprises (All Industries)

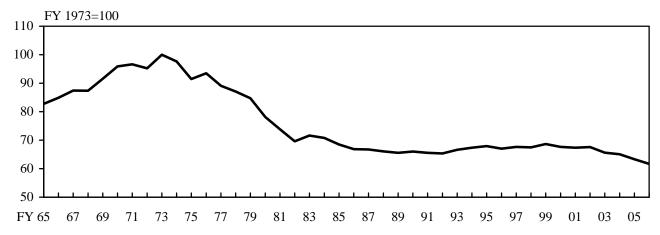


#### (b) Small Enterprises (Manufacturing)

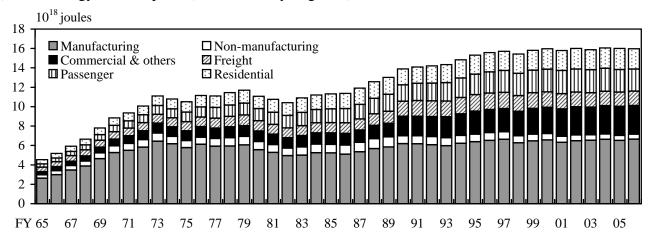


Notes: 1. Figures for "cost saving" include labor saving, energy saving, rationalization, maintenance and repair, etc. Figures for "expansion of production capacity" include expansion of production capacity, development and upgrading of products, etc. 2. Figures for fiscal 2008 are for planned fixed investment.

#### (2) Final Energy Consumption/Real GDP



#### (3) Final Energy Consumption (Breakdown by Segment)

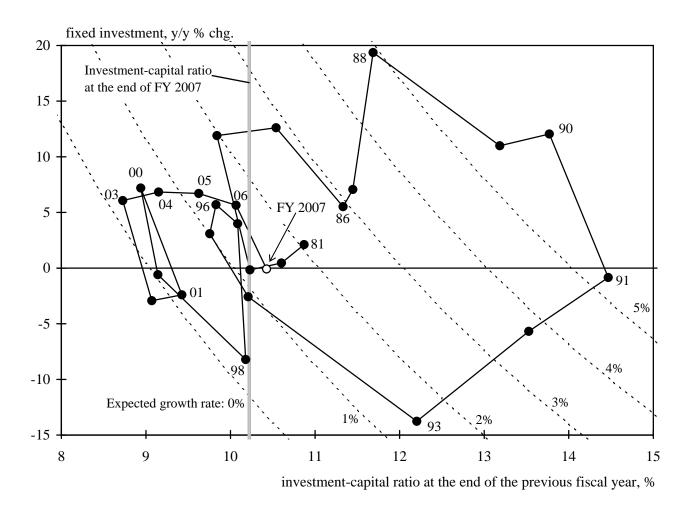


Note: Non-manufacturing: Agriculture, forestry & fishery, construction, mining.

Commercial & others: Wholesaling & retailing, restaurants & accommodations, services, etc.

Sources: Development Bank of Japan, "Survey on Planned Capital Spending";
Japan Finance Corporation, "Survey on Capital Investments by Manufacturing SMES";
Agency for Natural Resources and Energy, "General Energy Statistics," "Annual Energy Report";
Cabinet Office, "National Accounts."

### 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.

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

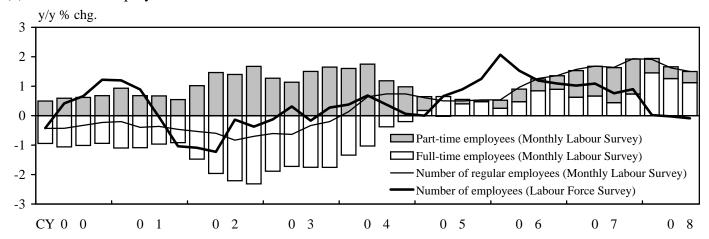
"Preliminary Quarterly Estimates of Gross Capital Stock of Private Enterprises";

Ministry of Economy, Trade and Industry, "Census of Manufactures";

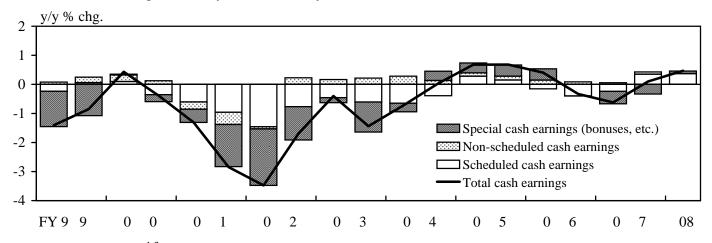
Research Institute of Economy, Trade and Industry, "Japan Industrial Productivity Database 2008."

#### **Labor Market Conditions**

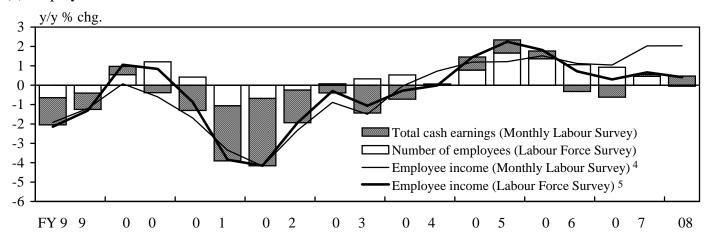
### (1) Number of Employees<sup>1,2</sup>



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



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



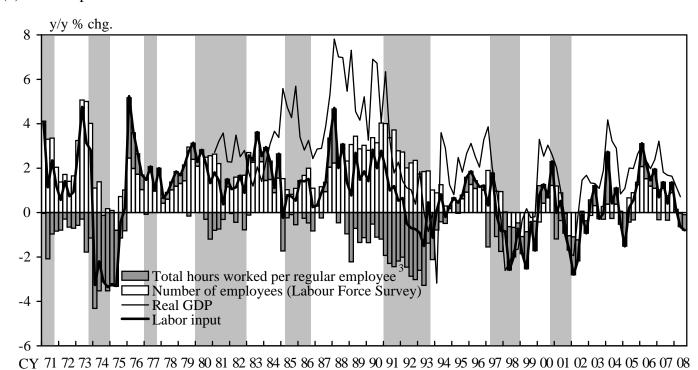
Notes: 1. Data from "Monthly Labour Survey" are for establishments with at least five employees.

- 2. Figures for 2008/Q3 are those of the July-August average.
- 3. Figures for the first half of FY 2008 are those of the April-August average.
- 4. Calculated as the number of regular employees (Monthly Labour Survey) multiplied by total cash earnings (Monthly Labour Survey).
- 5. Calculated as the number of employees (Labour Force Survey) multiplied by total cash earnings (Monthly Labour Survey).

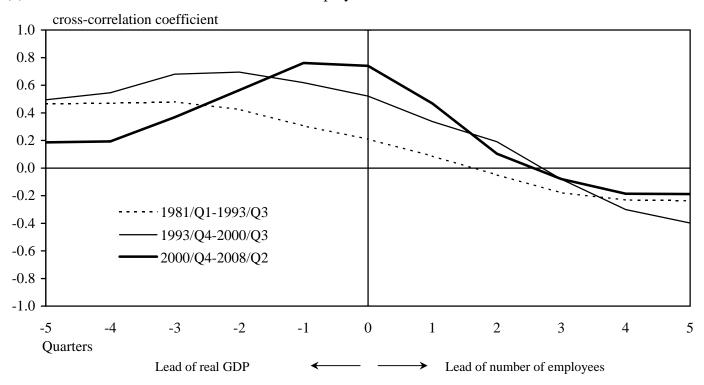
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey";
Ministry of Internal Affairs and Communications, "Labour Force Survey."

### Labor Input

# (1) Labor Input and Real $\mbox{GDP}^{1,2}$



(2) Cross-Correlation between the Number of Employees and Real GDP<sup>4</sup>



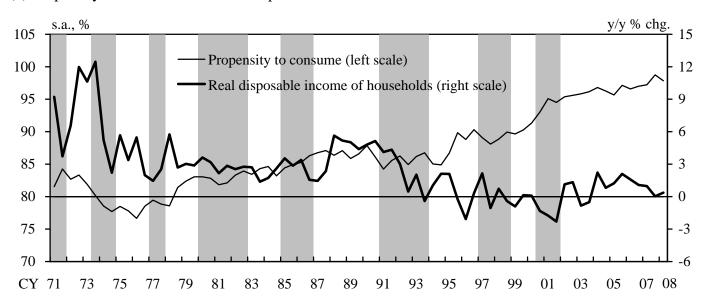
Notes: 1. Shaded areas indicate recession periods.

- 2. Figures for 2008/Q3 are those of the July-August average.
- 3. Data are for establishments with least 30 employees.
- 4. Cross-correlation is calculated in terms of year-on-year growth rates.

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

### Private Consumption and Consumer Confidence

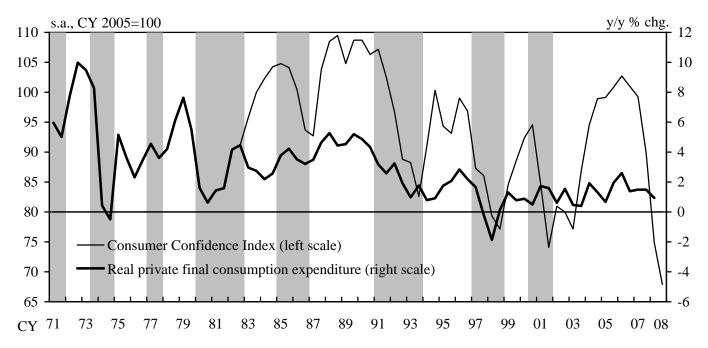
#### (1) Propensity to Consume and Real Disposable Income of Households



Notes: 1. Shaded areas indicate recession periods.

- 2. Disposable income of households is deflated by the private final consumption expenditure deflator.
- 3. Figures for real disposable income of households after FY 2007 are estimated with the information on dividend payouts by *The Nihon Keizai Shimbun*, and tax data by the Ministry of Finance and the Ministry of Internal Affairs and Communications.
- 4. Propensity to consume is on a National Account basis.

#### (2) Consumer Confidence Index and Real Private Final Consumption Expenditure



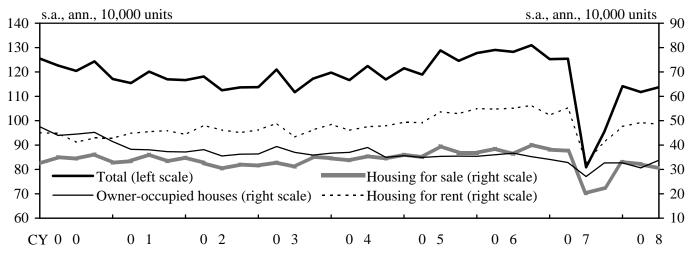
Notes: 1. Shaded areas indicate recession periods.

2. Consumer Confidence Index for the second half of CY 2008 is that of 2008/Q3.

Sources: Cabinet Office, "National Accounts," "Consumer Confidence Survey";
Ministry of Finance, "Survey of the Amount Settled of Tax and Stamp Revenues";
Ministry of Internal Affairs and Communications, "Estimates of Local Tax Revenue";
Bank of Japan, "Flow of Funds Accounts"; *The Nihon Keizai Shimbun*.

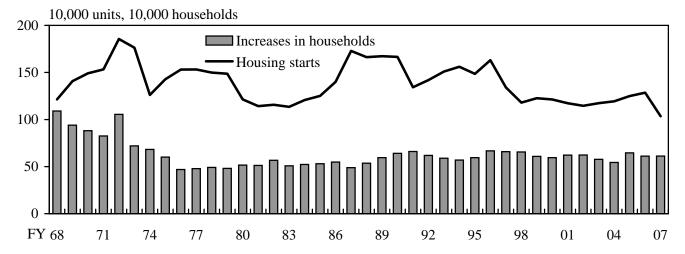
### **Housing Investment**

#### (1) Housing Starts

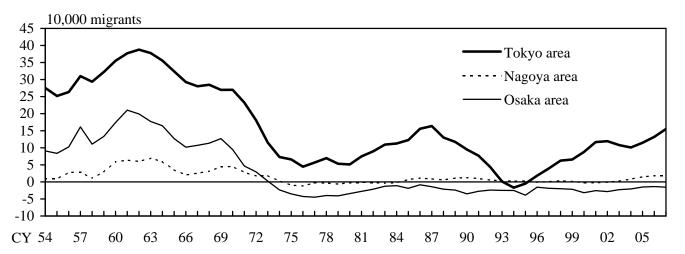


Note: Figures for 2008/Q3 are those of July-August averages.

#### (2) Housing Starts and Increases in Households



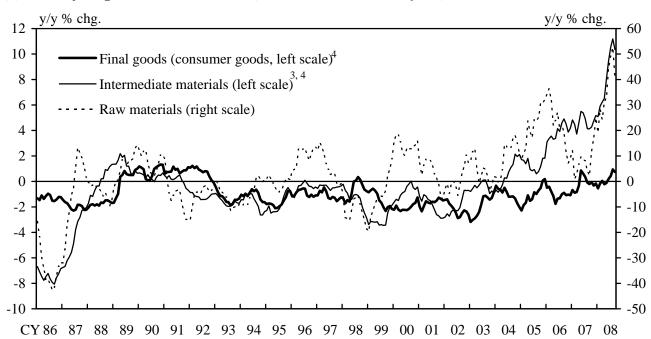
#### (3) Net Migration into the Three Metropolitan Areas



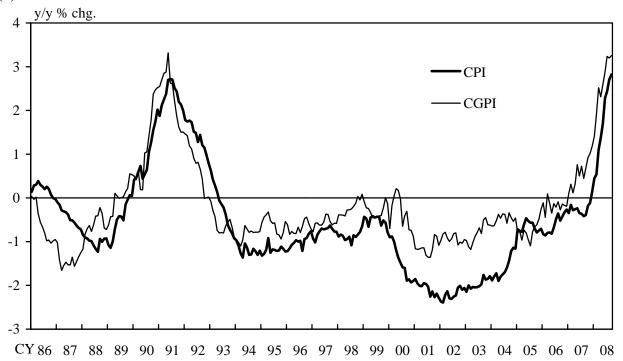
Sources: Ministry of Land, Infrastructure and Transport, "Statistics on Building Construction Starts";
Ministry of Internal Affairs and Communications, "Population, Demographics and Number of Households Derived from the Basic Resident Registers," "Report on Internal Migration Derived from the Basic Resident Registers."

### Price Developments by Stage of Demand

(1) CGPI by Stage of Demand and Use (Domestic Goods and Imports)<sup>1,2</sup>



(2) Common Goods for the CPI and the CGPI<sup>1,2,5</sup>

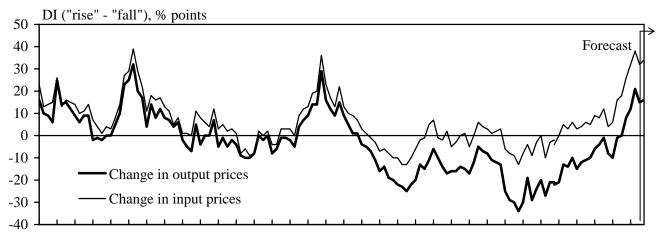


- Notes: 1. Adjusted to exclude the effects of changes in the consumption tax rate.
  - 2. Figures of the CGPI for CY 1986-99 are those of the WPI.
  - 3. Figures for intermediate materials are the weighted averages of "group" level indices based on the weights of consumer goods.
  - 4. Petroleum & coal products are excluded from intermediate materials and final goods.
  - 5. Figures are the weighted averages of common goods for the CPI and the CGPI based on the weights in the CPI (base year=2005). However, omitted goods, newly included goods in the 2000 base and 2005 base, agricultural & aquatic products, petroleum & coal products and tobacco are excluded from the figures.

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

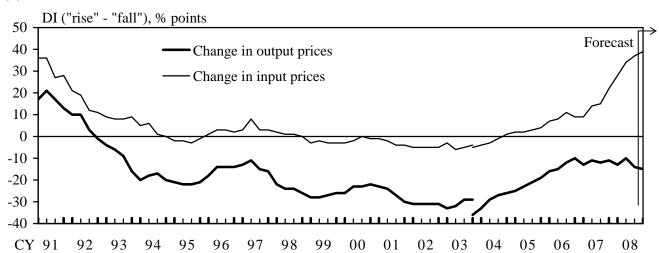
# Change in Output Price and Input Price

#### (1) Retailing



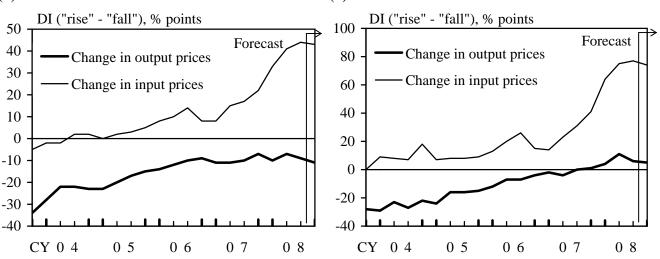
CY 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08

#### (2) Services



#### (3) Services for Individuals

#### (4) Restaurants and Accommodations

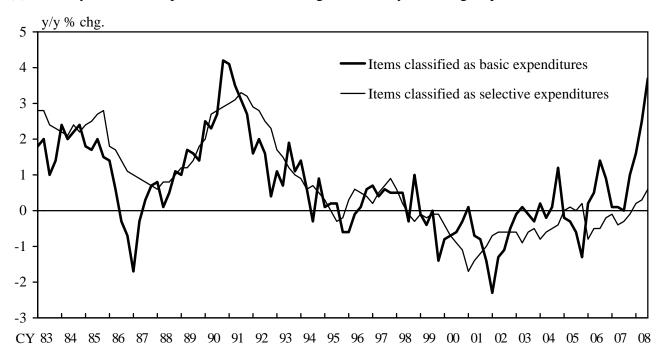


Note: Figures are based on all-size enterprises. The *Tankan* has been revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on a new basis.

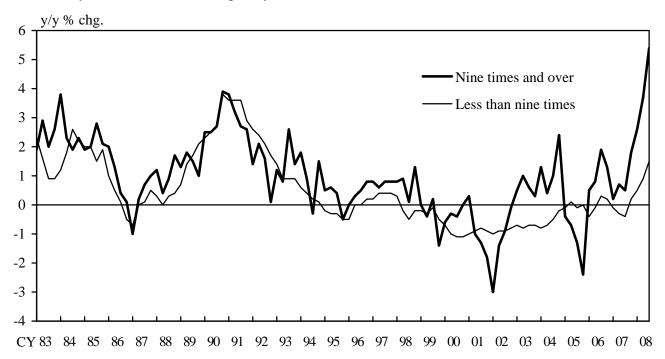
Source: Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

### Consumer Price Index by the Characteristics of Items

(1) Index by Goods Groups Classified According to Elasticity to Living Expenditure 1,2



(2) Index by Annual Purchase Frequency Classes<sup>1</sup>



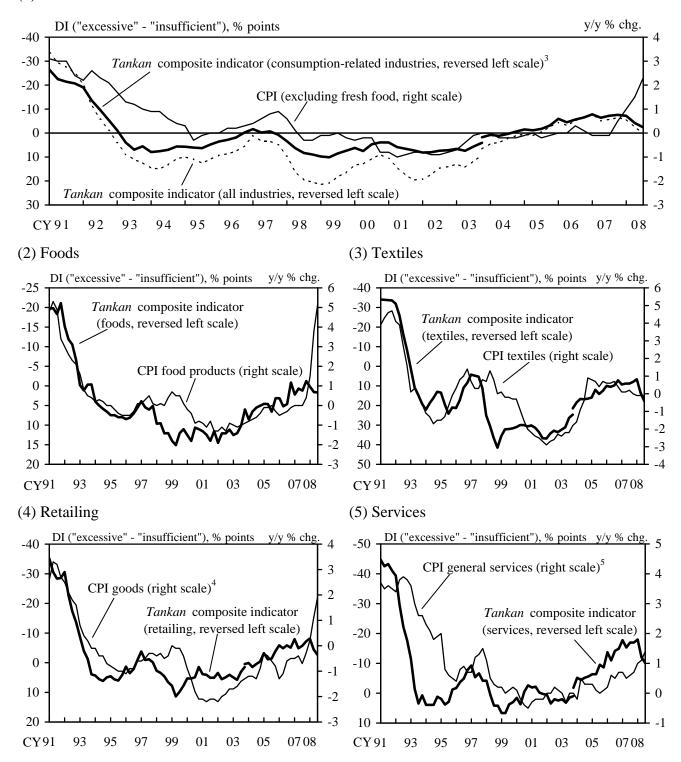
Notes: 1. Adjusted to exclude the effects of changes in the consumption tax rate.

2. CPI items are classified into two categories based on the expenditure elasticity of items (an indicator that shows the percentage change in each item when total expenditures change by 1 percent): namely, items whose elasticity is less than one are regarded as basic expenditures (such as food products and electricity) and items whose elasticity is one or over are regarded as selective expenditures (such as personal computers).

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

#### Resource Utilization and CPI

#### (1) CPI and Resource Utilization



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

- 2. The *Tankan* composite indicator is calculated as the average of the diffusion indices (all enterprises) of production capacity and employment conditions, weighted by capital and labor shares.
- 3. The *Tankan* composite indicator of consumption-related industries is calculated as the average of the sectoral indicators, weighted by sectoral shares in the private consumption in the Input-Output Table.
- 4. Excluding petroleum products, and agricultural and aquatic products.
- 5. Excluding mobile telephone charges, private house rent, and imputed rent.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index," "Input-Output Table"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Cabinet Office, "National Accounts."

# **Economic Assessment by Region (Regional Economic Report)**

Region	Assessment in October 2008	Revision of assessment from July to October	Assessment in July 2008
Hokkaido	The economy is in a somewhat severe situation.	Downward	Economic activity is sluggish.
Tohoku	Weakness of economic activity is becoming widespread.	Downward	The economy seems to have stopped recovering.
Hokuriku	Economic growth is sluggish.	Downward	The economy is slowing at a somewhat faster pace.
Kanto- Koshinetsu	Economic growth is sluggish.	Downward	The economy is slowing.
Tokai	The economy has continued to be at a high level, although it is on a downtrend.	Downward	The economy continues to be at a high level, although the slowdown in the pace of growth has become apparent recently.
Kinki	Economic growth is sluggish.	Downward	The economy is slowing.
Chugoku	Economic activity is more or less flat, although some weakness is observed.	Downward	The economy continues to recover gradually as a whole, but the pace of recovery has become slower recently.
Shikoku	Economic activity is somewhat weak.	Downward	Economic activity is flat.
Kyushu- Okinawa	Economic growth is sluggish.	Downward	The sluggishness of the economy is becoming increasingly apparent.

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/chiiki0810.htm).

Source: Bank of Japan, "Regional Economic Report (Summary) October 2008."