Takehiro Sato: Recent developments in economic activity, prices and monetary policy

Speech by Mr Takehiro Sato, Member of the Policy Board of the Bank of Japan, at a meeting with business leaders, Gunma. 6 February 2013.

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I. Introduction

At the Monetary Policy Meeting (MPM) held on January 21 and 22, 2013, the Policy Board of the Bank of Japan decided to take additional steps to provide monetary accommodation decisively. Specifically, the Bank decided to introduce (1) the "price stability target" set at 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI) and (2) the "open-ended asset purchasing method" (i.e., to purchase assets without setting any termination date) under the Asset Purchase Program. The Bank also decided to release a joint statement with the government (Chart 1).

As was already noted in the statement on monetary policy released on January 22, 2013, I voted against the 2 percent price stability target. However, since policy decisions are made by majority vote of the Policy Board members at the MPM, the aforementioned decisions at the January MPM were made accordingly. In my remarks today, I will reflect on the conduct of monetary policy in the future, taking note of the measures to achieve the 2 percent "price stability target" that has just been introduced.

II. Recent conduct of monetary policy

A. From the "price stability goal in the medium to long term" to the "price stability target"

The "price stability target" – introduced by the Bank as a numerical value – is set at 2 percent in terms of the year-on-year rate of change in the CPI. This target replaces the "price stability goal in the medium to long term" introduced by the Bank in February 2012, which the Bank had judged to be in a positive range of 2 percent or lower in terms of the year-on-year rate of change in the CPI and 1 percent for the time being.

The major changes to the expressions regarding price stability from February 2012 are as follows. First, the Bank deleted the phrase "medium to long term"; and second, the Bank changed its wording from "goal" to "target" The changes reflect a situation in which awareness of the importance of flexibility in the conduct of inflation-targeting policy has been increasing.

More specifically, even inflation-targeting countries do not change their monetary policy stance mechanically in accordance with their target inflation rates (Chart 2). This reflects lessons learned from bitter experience in the past, when many credit bubbles grew under the perception that prices had been stabilized, which created a large downswing in economic activity and prices after the bubbles burst. In addition, especially after the Lehman shock, many major countries have emphasized flexibility in the conduct of monetary policy by, for example, publicly articulating the importance of paying due attention to financial system stability (Chart 3).

Given these developments, the phrase "medium to long term" is no longer necessary and the difference between a "goal" and a "target" is no longer a substantive issue.

B. Why has the price stability target been set at 2 percent?

As indicated in the statement on monetary policy released on January 22, 2013, the Bank recognizes that an inflation rate consistent with price stability on a sustainable basis will rise

as efforts made by a wide range of entities toward strengthening the competitiveness and growth potential of Japan's economy make progress (Chart 4). The 2 percent target looks rather high, given the current rate of inflation/deflation. However, the Bank decided that it was appropriate to set the target before confirming the product of the efforts made by a wide range of entities to strengthen the competitiveness and growth potential of the economy. The expected inflation rate of households, firms, and financial markets has been formed based on the past inflation rate that has been consistently lower than in other countries (Chart 5). As efforts made by the government, the Bank, and the private sector toward strengthening the growth potential of the economy make progress, the inflation rate will gradually increase and the expected inflation rate of households, firms, and the markets will likely rise accordingly. Furthermore, by setting a challenging target of 2 percent, the Bank expects to influence the expectations of a broad range of economic entities and to promote efforts toward strengthening the competitiveness and growth potential of the economy, thereby influencing the expected inflation rate of households, firms, and the markets.

At the same time, should prices overshoot 2 percent, the Bank should be able to anchor the expected inflation rate by clarifying its target, and this will contribute to the achievement of price stability on a sustainable basis.

Nevertheless, it is important for the Bank to continue to ensure credibility in its conduct of monetary policy in order to anchor the year-on-year CPI inflation rate at 2 percent. As the Governor of the Bank mentioned at his regular press conference after the January MPM, I dissented from setting the 2 percent price stability target with another Policy Board member, Mr. Takahide Kiuchi, for the following reasons. First, a 2 percent CPI inflation rate far exceeds the pace of price growth that is considered to be consistent with price stability on a sustainable basis. Second, it might impair the credibility of monetary policy to set the target before the efforts made by a wide variety of entities toward strengthening the growth potential of the economy achieve progress. However, as I explained at the beginning of my remarks today, I am in a position to execute the Bank's policy decisions and responsible for their execution as a member of the Policy Board. The Policy Board members, including myself, are now facing the challenge of achieving the 2 percent price stability target as well as raising the credibility of the Bank's goal.

C. An inflation rate of 2 percent was very high in japan in the past

What is the implication of the 2 percent inflation rate in Japan? Following the two oil shocks in the 1970s and 80s, an inflation rate above 2 percent in the Japanese economy was rather unusual. The times when the inflation rate exceeded 2 percent are generally regarded as periods when the Japanese economy confronted a difficult situation on the whole (Chart 6). Excluding the effect of consumption tax hike, the economy did not experience an inflation rate above 2 percent in the last quarter-century except for the period from April 1990 through December 1992 – when Japan faced a residual effect from the asset bubble economy in the late 1980s – and the period from July through September 2008 – just before the Lehman shock occurred. While the former period was marked by demand-pull inflation, this was due to the residual effect of the abnormal elevation of asset prices, whose collapse had produced the financial crisis of the late 1990s. This became a major cause of the protracted stagnation of the Japanese economy. The latter period was a time of typical cost-push inflation, which resulted in an outflow of purchasing power due to deterioration in the terms of trade and lowered the national economic welfare. Therefore, defining and aiming at an inflation rate that has rarely been achieved in the past two decades as the inflation rate consistent with price stability on a sustainable basis not only forces a substantial change in the Bank's way of thinking but also imposes a challenge.

As for the numerical expression for price stability, the Bank had not specified it up until the mid-2000s. In October 2000, shortly after lifting the zero interest rate policy, the Bank

released a document titled “On Price Stability”, in which it concluded that “it is not deemed appropriate to define price stability by numerical values”[1] It was only in March 2006 that the Bank for the first time began employing a numerical expression for price stability: it indicated the level of inflation within the range between 0 and 2 percent as a union of ranges of inflation rates that each member of the Policy Board understood as being consistent with price stability over the medium to long term – namely, the “understanding of medium- to long-term price stability”[2] It was about six years later that the Bank in February 2012 introduced “the price stability goal in the medium to long term” – rolling out a specific numerical expression that could represent the consensus among all the Policy Board members as the inflation rate judged to be consistent with price stability sustainable over the medium to long term, instead of presenting the union of ranges of inflation rates of each Policy Board member.[3]

In the meantime, the Japanese economy has remained in a mild deflationary situation, although the degree has varied with time. The major reason why the Bank required time to formulate a numerical expression for price stability was due to the lack of a decisive measure to elevate the inflation rate under the constraints of the zero lower-bound on the nominal policy interest rate. While an inflation-targeting policy is generally assumed to be a framework for containing a higher inflation rate within the targeted level in overseas economies, it has long been recognized in Japan as a measure for raising the extremely low inflation rate to the targeted level. However, monetary policy conduct in a time of deflation is much more difficult than that under inflation, as expressed by the metaphor of “pushing on a string”.

At a time when Japan faces rising headwinds such as population aging and population decline, setting the price stability target at 2 percent is rather challenging. A decline in the total working population at an annual rate of a little less than 1 percent is expected to continue. This implies that Japan’s GDP will drop at an annual rate of a little less than 1 percent, if nothing is done to overcome the headwinds. In such circumstances, in order to raise the output gap to a level that is consistent with the 2 percent inflation rate, it is necessary to boost demand by promoting further progress to strengthen the economy’s growth potential. Furthermore, we will have to face the reality of the flattening of the Phillips curve – the slower responsiveness of prices to the improvement of the output gap – due to globalization and the progress in IT (Chart 7). Thus, the achievement of the price stability target becomes increasingly challenging.

D. The need for a recovery in wages

And yet, why has the Japanese economy consistently failed to exit from deflation for more than a decade? During the early phase of deflation in the late 1990s, this was mainly due to the substantial fall in asset prices, the subsequent credit crunch caused by the financial crisis, and the preservation of excess supply caused by the delay of firms with poor productivity in exiting the market. However, since the Japanese economy has already overcome problems in its financial system, deflation since the mid-2000s has entered a new phase. Stagnant wages have become the main factor behind deflation.

Prices of goods and services are affected by the cost of production. Assuming that the cost of production consists of personnel expenses and material costs, many of the latter are determined through cross-border competition. Therefore, their price fluctuations – excluding volatility due to developments in the foreign exchange markets – should equally affect the entire global economy, and thus material costs cannot be the main reason why Japan is the

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1 See http://www.boj.or.jp/en/announcements/release_2000/k001013a.htm/.

2 See http://www.boj.or.jp/en/announcements/release_2006/mpo0603a.htm/.

3 See http://www.boj.or.jp/en/announcements/release_2012/k120214b.pdf.

only advanced economy suffering from deflation. The real cause is another factor affecting the cost of production, namely, wages.

In fact, consumer prices and wages are closely correlated (Chart 8). About half of the components of the CPI are services in terms of weight, and prices of services are generally synchronized with wages in the services industry (Chart 8). This industry is labor intensive, and prices of services are easily affected by developments in wages. Accordingly, in aiming at the 2 percent price stability target in terms of the year-on-year rate of change in the CPI, it is vital, above all, to seek a recovery in wages. However, the level of annual nominal compensation of employees in the "National Accounts" dropped by more than 10 trillion yen after the Lehman shock and has shown virtually no sign of recovery (Chart 9). In order for a recovery in wages to occur, it is important that firms maintain their labor share of income distribution when they achieve an increase in their corporate profits, the source of wages. In fact, there was an opportunity in Japan for wages to recover in the mid-2000s. This occurred when the global economy overheated – triggered by growing demand in emerging economies and supported partly by the credit bubble. At this time, many firms, especially those in manufacturing, posted record highs in their corporate profits and were expected to increase their distribution of corporate profits to employees. However, they placed a higher priority during this period on accumulating internal reserves, and thus the labor share of income distribution fell (Chart 9). As major labor unions did not strongly oppose this distribution policy, wages scarcely improved. Currently, given the situation in which firms face what have been called the "six headwinds",[4] the profits enabling firms to boost distribution are unlikely to rise, even if management wishes to increase the distribution to employees. This is due partly to the significant decline in the competitiveness of some sectors of manufacturing and the resultant halt in improvement in corporate profits, the source of wages.

E. Differences in employment adjustment between the United States and Japan

The difference in employment adjustment between the United States and Japan has some effect on developments in wages. In the United States, when firms decide to adjust their employment policy, they aggressively reduce the number of employees instead of wages, which often results in a rapid retreat from unprofitable businesses. As a result, nominal wages continue to grow at a rate of about 2–4 percent irrespective of the phase of the economic cycle, and the U.S. economy is unlikely to fall into deflation since excess supply is unlikely to continue. If we consider the Phillips curve – with the unemployment rate on the x-axis and the rate of wage inflation on the y-axis – we reach a similar conclusion (Chart 10). On the other hand, under the employment practice in Japan it is difficult to aggressively reduce the number of employees while maintaining the nominal wage growth in an economic recession. On the other hand, Japan's unemployment rate is comparatively stable partly due to the difference in labor regulations between the two countries, but the sensitivity of wage inflation to the unemployment rate is rather high. This makes employment adjustment through dismissal relatively limited even during a recession in Japan, and such employment adjustment, if any, tends to be executed mostly through wage reduction. Consequently, in Japan consolidation and reorganization of unprofitable businesses tend to take longer and the share of labor in income distribution tends to remain at a high level, and this slows the economy's metabolism and allows excess supply to be preserved easily. In Japan the cost of employment adjustment is shared widely among workers, and this type of employment practice may be one of the main factors making it difficult for the economy to exit from deflation.

[4] The headwinds in Japan are generally characterized as (1) yen appreciation; (2) comparatively high corporate taxes; (3) delay in the creation of free trade agreements (FTAs); (4) tight labor regulations such as limitations on the employment of dispatched workers; (5) tighter environmental regulations; and (6) power shortages.

Going forward, if we see supply-demand conditions tighten in the labor market with economic expansion in Japan, can we expect wages to rise in line with the correlation I have mentioned? It might sound pessimistic, but such may not be the case, as some firms in Japan have recently begun to lose their competitive edge and profit-making ability. This might reflect a gradualist approach to the streamlining of industries and unprofitable businesses, whose expected growth rates have worsened. The current situation in Japan – where the pricing power of firms has weakened and firms cannot pass on the rise in purchase prices to selling prices – clearly reflects this decline in Japanese firms' competitiveness (Chart 11).

At any rate, as the Bank aims at the 2 percent price stability target, greater fundamental strength of the economy is needed to generate a wage increase of approximately 4 percent. To this end, a wide range of entities is expected to redouble efforts to strengthen the competitiveness and growth potential of the economy.

F. What the central bank can do

What kind of contribution can the Bank make from the monetary policy side, in order to achieve the 2 percent price stability target? A well-balanced price hike should materialize in a situation where general prices rise in tandem with wages, as the result of a rising level of total economic activity and subsequent improvement in the output gap. Furthermore, such a price hike must be sustainable. Although the Bank has announced that price stability can be achieved through the efforts by a wide range of entities to strengthen the competitiveness and growth potential of the economy, both the government and the Bank have also been working to address the issue. At the same time, it is difficult to think that the 2 percent price stability target will be achieved merely by enhancing ongoing policy initiatives, and therefore both the government and the Bank must tackle this issue with much greater vigor.

Generally speaking, when an economy faces a deflation trap with the constraints of the zero lower-bound on the nominal policy interest rate, the plausible channels for economic stimulation and achieving a price recovery are (1) the channel through foreign exchange rates and (2) the channel through asset prices.

In terms of the former, the Bank decided at the December MPM to increase the purchases of treasury discount bills (T-Bills) and Japanese government bonds (JGBs). The Bank considers that a stronger indirect influence on foreign exchange rates will be achieved from a further decline in interest rates – narrowing or reversing the interest rate differentials between Japan and other countries – while continuing with the payment of interest on excess reserve balances at 0.10 percent. The Bank's decision at the January MPM to take additional steps to provide monetary accommodation by introducing the open-ended purchasing scheme will further strengthen this influence.

Regarding this latter policy initiative, the Bank formally launched the Loan Support Program at the December MPM to vigorously support the increase in private bank lending in terms of fund provisioning. This policy initiative relies on the efforts of private banks to boost lending, and what the Bank can do is to support these efforts by the private sector. In a situation where demand for funds has been weak for a long period of time and there is no bottleneck in the availability of funds at private banks, it has been widely observed that the effects of such a policy will be limited. Nevertheless, if such an increase in bank lending promotes real economic activity and transactions in the asset markets, some positive impact can be expected on general prices through an increase in asset prices. In particular, once upward momentum starts accumulating in the economy, the effects of the policy initiative are likely to be more pronounced. In addition, if private-sector lending promotes cross-border capital expenditures or mergers and acquisitions by firms and banks, this will indirectly induce depreciation of the yen. At any rate, I would like to emphasize the importance of exerting indirect influence on the foreign exchange markets and asset markets mainly by facilitating a further decline in interest rates.

G. Policy measures indirectly influencing foreign exchange rates under the zero interest rate

During the quantitative easing period from March 2001 through March 2006, the effects of monetary easing were likely to appear through depreciation of the yen, since Japan was the only country that had adopted a zero interest rate policy (Chart 12). From the time of the Lehman shock up to the present, however, the Bank's efforts have had limited effectiveness, given that interest rate differentials between Japan and other advanced countries have narrowed in a situation where central banks in these countries have started to adopt the zero interest rate policy as well. Nevertheless, I believe that the interest rate channel might work in this situation, albeit to a limited extent. For example, the 3-month T-Bill rate, which had been consistently higher than that in the United States, marked a recent low of 0.093 percent, edging close to the rate in the United States, reflecting the Bank's large-scale purchasing of T-Bills as part of the Asset Purchase Program even though the Bank maintained the interest on excess reserves at 0.10 percent. A favorable tailwind is also apparent in signs of change in U.S. monetary policy. For example, in December 2012 the Federal Open Market Committee (FOMC) discussed decreasing the size of its asset purchase or suspending it in the course of 2013. Against the background of such developments, the Bank is closely monitoring the extent to which both short and long-term interest rates may decline further while continuing to employ the Asset Purchase Program.

Meanwhile, steadily increasing the amount outstanding of the Asset Purchase Program is no easy task. If the asset purchases under the Asset Purchase Program are conducted smoothly as planned, the amount outstanding of the program is expected to surpass 100 trillion yen from the current 65 trillion yen by the end of 2013 (charts 13 and 14). The provision of such a large amount of funds is unprecedented for the Bank, and there is a risk that it will be unable to increase the amount outstanding of the Asset Purchase Program smoothly if private banks grow reluctant to boost excess reserves at the Bank to avoid balance-sheet expansion due to their financial strategy or other reasons such as corporate governance. It is probably the case that, in increasing the amount outstanding of the Asset Purchase Program, whether private banks submit bids for the Bank's asset purchases depends greatly on interest rate levels. Some events might be beyond the scope of expectations in an unprecedented situation, but the Bank aims to steadily increase the amount outstanding of the Asset Purchase Program by adjusting the program in a flexible manner.

H. Is a substantial increase in risky asset purchases a viable option?

On the other hand, it has been argued that the Bank should substantially increase its purchase of risky assets. In line with its comprehensive monetary easing in October 2010, the Bank has been purchasing risky assets such as corporate bonds and CP and – with government approval – exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs). Among major central banks, the Bank is the only central bank that purchases such risky assets for its own account. However, the Bank's intention in this operation is not to employ large-scale intervention in the asset markets but to work as a catalyst for the financial markets. Some argue that it is a viable option for the Bank to increase such purchases substantially by intervening in the markets on a large scale.

I consider the efficacy of this sort of policy initiative to be doubtful, as it contains the risk of eroding the Bank's capital base. If the prices of risky assets held by the Bank declined and the Bank incurred a loss, this would result in a reduction in its payments to the national treasury. If the size of the risky assets was sufficiently large compared with the size of the Bank's net capital, the Bank might fall into capital deficiency. The first outcome, reduction of payments to the national treasury, would be equivalent to an increase in fiscal spending, and because of this risk the Bank must obtain authorization from the government based on Article 43 of the Bank of Japan Act in order to purchase ETFs and J-REITs. The second outcome, capital deficiency, could lead to a larger issue, affecting the credibility of the Bank and the

yen as well as the autonomy of monetary policy, if the Bank asked the government for recapitalization or compensation for its loss. Given these issues, whether the Bank should substantially increase risky asset purchase from the current limit is a matter that involves not only the Bank but also the government. It might therefore be effective to set ex ante policy rules for loss sharing, in order to prevent purchases of risky assets from influencing the autonomy of the Bank's monetary policy.

I. Are foreign bond purchases a viable option?

At a press conference in July 2012 after becoming a Policy Board member, I remarked that foreign bond purchases might be an option for the Bank but a number of conditions must be met. For example, the Bank of Japan Act stipulates that the Bank may buy or sell foreign exchange solely as an agent of the government (Article 40); therefore, the Bank cannot make any subjective policy decisions to secure the stability of the yen (Chart 15). Can the Bank then purchase foreign bonds if it receives government authorization pursuant to Article 43 of the Bank of Japan Act – as in cases of ETF and J-REIT purchases? As stipulated in Article 40 of the Bank of Japan Act, the Bank is not allowed to buy or sell foreign exchange for the purpose of intervening in the yen market. Therefore, regardless of Article 43, it is natural to consider that the Bank cannot purchase foreign bonds for such a purpose. In that case, what about purchases by the Bank of a fixed amount of foreign bonds on a regular basis as part of money market operations? This too risks contravening Article 40, if the purpose of such purchases is considered to manipulate the foreign exchange markets.

Because of the legal restriction I have mentioned, the Liberal Democratic Party (LDP) made an election pledge in December 2012 that it would establish a joint fund by the public and private sectors to purchase foreign bonds. The net impact on the economy would be basically the same whether the government or the Bank bought foreign bonds, and therefore I think that the Bank itself need not assume the dominant role in conducting such purchases. However, it might pose a problem in terms of currency diplomacy; therefore, close coordination with foreign currency authorities is indispensable in order to achieve consensus.

J. Economic welfare would not improve if a price hike is simply driven by the yen's depreciation

Even if the yen depreciates against the U.S. dollar by 10 percent, I estimate that the rise in Japan's CPI would be far short of 1 percent, even if the accumulation of its effect for several years is taken into account. Therefore, if the core CPI – now around 0 percent – is to be raised to 2 percent solely through depreciation of the yen, a substantial depreciation is needed, and this does not seem practical. Many uncertainties remain if such a substantial depreciation of the yen is to take place through the conduct of interest rate policy. Even if it were possible, it might raise a number of issues in terms of currency diplomacy. Furthermore, a hike in import prices and deterioration in the terms of trade would cause an outflow of purchasing power. Thus, even if the inflation rate rose, it would be largely superficial and gross domestic income (GDI) as well as gross national income (GNI) would decrease; as a result, people would not feel that the economy had overcome deflation (Chart 16). In sum, although the impact of developments in exchange rates on prices is substantial, pursuing a high price stability target of 2 percent solely through the exchange rate channel is not a balanced option. What should be aimed for is a rise in prices that accompanies an increase in income.

However, it should be noted as well that underestimating the economic-stimulus effects of the ongoing depreciation of the yen on the asset markets is to take an unbalanced view. The asset markets, especially domestic stock markets, have underperformed compared to overseas markets due to the effects of the overappreciation of the yen, which has appreciated by about 40 percent in terms of the nominal effective exchange rate since the Lehman shock. Recently, however, in the process of correction of the yen's overappreciation, the valuation of domestic stock prices has been revised, and the asset markets have become

buoyant after a long period of inactivity. As I mentioned earlier, the recovery in asset prices could lead to an improvement in the output gap and in turn a rise in prices, by strengthening the risk tolerance of firms and households and then raising the level of total economic activity. Therefore, I would like to continue to draw attention to the channel in which monetary policy indirectly exerts influence on foreign exchange rates.

III. Recent economic activity and prices

A. Outlook for the global economy

According to the latest global economic outlook released by the International Monetary Fund (IMF) in January 2013, the global economy is expected to grow moderately at 3.5 percent and 4.1 percent in 2013 and 2014, respectively, and these growth rates are almost the same as or slightly above the average of the past three decades of 3.4 percent (Chart 17). In the recent past, this outlook had been revised downward mainly due to the worsening of the European debt problem and the deceleration of the Chinese economy. However, the global economy has not become subject to a considerable downward revision since summer 2012, because (1) the U.S. economy remained comparatively albeit modestly firm, (2) the tail risk receded substantially in Europe thanks to a variety of policy developments, and (3) the Chinese economy bottomed out. It is still uncertain, however, whether the global economy will return to its 4 percent growth path, which is above the average of the past three decades, in line with the IMF's outlook. While there are many reasons for the uncertainty, the main one is that the global economy is still in the phase of balance-sheet adjustment following the bursting of credit bubbles that expanded in the late 2000s, and therefore the adjustments in both the public and private sectors are likely to dampen economic performance as a whole.

B. Balance-sheet adjustment is still on track

If we review the long-term developments in the private-sector debt of major economies (as a percentage of nominal GDP), we can see that the debt's expansion and subsequent adjustment are synchronized on a global basis. Very roughly, we can observe credit cycles with ten years of expansion followed by ten years of adjustment (Chart 18-1). In the 1980s, the credit cycle was in an expansion mode with a few exceptions, and the 1990s were a period of adjustment followed by expansion again in the 2000s. Because of the global financial crisis following the Lehman shock in 2008, the expansion of private-sector debt has come to an end, and we are now in an adjustment phase on a global basis. As evident from developments in the U.S. household sector, the adjustment of excess capital stock is only halfway complete.

Meanwhile, regarding the total of private- and public-sector debt, the degree of fluctuation is smaller, and a major phase of deleveraging has not been observed except for Canada in the 1990s (Chart 18-2). This probably reflects the fact that when the private sector deleverages, public-sector debt expands.

Looking at the long-term developments in total debt, which includes both private- and public-sector debt – with the latter on a net basis – we find that (1) the debt ratio rose in many countries in the 1980s; (2) it stabilized in the 1990s as a whole; and (3) it rose in the 2000s led by Spain, the United States, and the United Kingdom, followed by Japan from around 2005. In addition, it should be pointed out that Japan does not stand out from the other countries if we look at the level of the public-sector debt on a net basis, unlike the case on a gross basis.

The fact that debt in the private and public sectors tends to have a negative correlation, and that the total debt is downwardly sticky has an implication for the relation between the debt and economic growth. In countries such as Japan, the United States, the United Kingdom, and Spain, the debt overhang in households, firms, and/or the government seems to be at a threshold point at which the debt will exert a severe restriction on the economy. Therefore, in

considering the outlook for the global economy, it must be borne in mind that the high level of total debt could remain a major impediment to global economic development.

C. The Japanese economy is expected to return to a moderate recovery path

The Japanese economy has shown some weakness since April 2012 mainly in manufacturing, because the European economy has receded and growth in the Chinese economy has slowed, and because domestic demand has been insufficient to offset the weakness in overseas demand. Although the trend of exports is still downward, the rate of decline has moderated compared to the situation during the July–September quarter of 2012. This movement is consistent with recent developments in the global Purchasing Managers' Index (PMI), which reflect the pick-up in the U.S. and the Chinese economies. Reflecting signs that the fall in exports has bottomed out, production in manufacturing is thought to be bottoming out as well (Chart 19). Looking at domestic demand components such as private consumption, the negative impact of the ending of environmentally friendly car subsidies has recently diminished, and consumption remains resilient despite several negative factors affecting income such as the decrease in winter bonuses (charts 20 and 21). The employment condition in the manufacturing sector still looks bad, but the negative spiral of weakness in manufacturing is not expected to spill over into the nonmanufacturing sector. In these circumstances, business fixed investment, which has recently shown some weakness on the whole, is projected to turn to a moderate increasing trend (Chart 22).

According to the production forecast survey by the Ministry of Economy, Trade and Industry (METI), it is becoming harder to identify the basic trend of production due to quirks in the seasonal adjustment unique to the January–March quarter and the Chinese New Year holidays in February. Nevertheless, at a minimum production is unlikely to show a further substantial decline. As overseas economies are somewhat more likely to return to a moderate growth path – unlike in the period up to summer 2012, when there were high tail risks – and the domestic economy is expected to enjoy the impact of fiscal stimulus measures, some degree of economic improvement is expected from the April–June quarter onward, though it should be temporary. Although care should be taken to avoid undue optimism, the economic recession that began in April 2012 seems to have ended in November, resulting in a "mini-recession" of eight months. Still, due attention should continue to be paid to tail risks, as it is difficult to foresee the effects of the fiscal drag in the United States even after the temporary resolution of issues related to the fiscal cliff and the debt ceiling, and it is possible that risk aversion will reintensify worldwide depending on developments in political events such as elections in Europe. In addition, the recovery path of the global economy should be fundamentally moderate, as a result of the adjustment of excess debt that has been accumulated globally, as I mentioned earlier. Given all these developments in demand both at home and abroad, in the recently conducted interim assessment of the October 2012 *Outlook for Economic Activity and Prices*, growth prospects are projected to be somewhat lower for fiscal 2012 but higher for fiscal 2013 compared with the October forecasts (Chart 23).

As for prices, the inflation rate for the core CPI (all items less fresh food) is currently around 0 percent on a year-on-year basis. Going forward, several factors are likely to affect price movements. One is the increased price competition in nondurable goods such as processed food among supermarkets, which renders the price trend somewhat weak. Another is the expected decline in the index due to the reversal of developments in energy prices, which surged last year, and in durable consumer goods prices, whose rate of decline slowed reflecting the change in the survey specifications that was made around the same time last year. Furthermore, the widening of the negative output gap caused by the earlier weak economic activity is likely to adversely affect price developments going forward with some time lag. All these factors are likely to increase the negative year-on-year margin of the core CPI inflation rate. The Bank has just set the 2 percent price stability target, but the outlook for prices is highly unfavorable for the time being.

Even so, the recent depreciation of the yen and changes in asset prices, such as the rise in stock prices, are expected to positively affect price developments through the improvement in the real economy. At any rate, it is important to foster a proactive effect on the real economy by fully implementing not only monetary policy but all available measures.

IV. Concluding remarks

I would like to conclude this speech by briefly touching on the economy of Gunma Prefecture.

The pick-up in the prefecture's economic activity has come to a pause, and its economy remains more or less unchanged, owing to the prolonged deceleration in overseas economies. Compared with other prefectures in Japan, however, economic conditions in the prefecture are favorable on the whole, led by a healthy transportation equipment industry.

As for the outlook, Gunma Prefecture's economy is likely to pick up moderately again as overseas economies start recovering and as exports increase.

The prefecture enjoys a strong industrial foundation, with regional characteristics such as a very low vulnerability to natural disasters including earthquakes, bountiful water resources, and good access to the Tokyo metropolitan area. Due mainly to vigorous promotion by the prefectural government and cities of the advantages of Gunma Prefecture as a convenient site for corporate back-up facilities, the number and area size of new factories in the prefecture have reached the highest levels in Japan for the past several years.

Furthermore, Gunma Prefecture has great potential in the area of tourism. The prefecture enjoys ample resources including rich natural surroundings such as the famous Oze Marsh, historic and cultural assets such as the Tomioka Silk Mill – which has applied to join the World Heritage List – and the major hot spring resorts of Kusatsu, Minakami, Ikaho, and Shima. Regional efforts have been made to attract more tourists to the prefecture from all over Japan and abroad. I hope that these and other efforts will promote even further the development of tourism in Gunma Prefecture.

Chart 1

January 22, 2013
Cabinet Office
Ministry of Finance
Bank of Japan

Joint Statement of the Government and the Bank of Japan
on Overcoming Deflation and Achieving Sustainable Economic Growth

The Government and the Bank of Japan decided to release the attached statement jointly. They will strengthen their policy coordination in order to overcome deflation and achieve sustainable economic growth.

Attachment

Joint Statement of the Government and the Bank of Japan
on Overcoming Deflation and Achieving Sustainable Economic Growth

1. In order to overcome deflation early and achieve sustainable economic growth with price stability, the Government and the Bank of Japan will strengthen their policy coordination and work together as follows.

2. The Bank of Japan conducts monetary policy based on the principle that the policy shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy, and is responsible for maintaining financial system stability. The Bank aims to achieve price stability on a sustainable basis, given that there are various factors that affect prices in the short run.

The Bank recognizes that the inflation rate consistent with price stability on a sustainable basis will rise as efforts by a wide range of entities toward strengthening competitiveness and growth potential of Japan's economy make progress. Based on this recognition, the Bank sets the price stability target at 2 percent in terms of the year-on-year rate of change in the consumer price index.

Under the price stability target specified above, the Bank will pursue monetary easing and aim to achieve this target at the earliest possible time. Taking into consideration that it will take considerable time before the effects of monetary policy permeate the economy, the Bank will ascertain whether there is any significant risk to the sustainability of economic growth, including from the accumulation of financial imbalances.

3. The Government will, in order to revitalize Japan's economy, not only flexibly manage macroeconomic policy but also formulate measures for strengthening competitiveness and growth potential of Japan's economy, and promote them strongly under the leadership of the Headquarters for Japan's Economic Revitalization. Those measures include all possible decisive policy actions for reforming the economic structure, such as concentrating resources on innovative research and development, strengthening the foundation for innovation, carrying out bold regulatory and institutional reforms and better utilizing the tax system.

In addition, in strengthening coordination between the Government and the Bank of Japan, the Government will steadily promote measures aimed at establishing a sustainable fiscal structure with a view to ensuring the credibility of fiscal management.

4. The Council on Economic and Fiscal Policy will regularly review the progress in the conduct of macroeconomic policies including monetary policy, the current condition and future prospects of prices in the context of the price stability target under those policies, economic and fiscal situation including employment conditions, and progress in economic structural reform.

Chart 2-1

Monetary Policy Framework (1)

	Country/area	Name/price indicator	Numerical value	Set by	Period
Countries adopting inflation targeting	United Kingdom	Target Consumer Prices Index (CPI) (all items)	2 percent	Government	Reasonable time period (medium term)
	Canada	Target Consumer Price Index (CPI) (total)	2 percent (midpoint of the target range of 1-3 percent)	Government and central bank	Usually between six and eight quarters
	Australia	Target Consumer Price Index (CPI) (all groups)	2-3 percent	Government and central bank	Medium term
	New Zealand	Target Consumers Price Index (CPI) (all groups)	Near 2 percent (midpoint of the target of between 1 percent and 3 percent)	Government and central bank	Medium term
	Sweden	Target Consumer Price Index (CPI)	2 percent	Central bank	Normally two years
Countries not adopting inflation targeting	United States	Longer-run goal Personal Consumption Expenditures Price Index (PCEPI)	2 percent	Central bank	Longer run
	Euro area	Quantitative definition of price stability Harmonized Index of Consumer Prices (HICP)	Below, but close to, 2 percent	Central bank	Medium term
	Switzerland	Definition of price stability Consumer Price Index (CPI)	Less than 2 percent per annum	Central bank	Medium and long term

Chart 2-2

Monetary Policy Framework (2)

	Country/Area	Revision frequency	Accountability mechanism when inflation deviates from the target, goal, etc	Notes (flexibility)
Countries adopting inflation targeting	United Kingdom	At least once every twelve months	If the target is missed by more than 1 percentage point on either side, the Governor of the Bank must write an open letter to the Chancellor explaining why inflation has increased or fallen to such an extent.	A target of 2 percent does not mean that inflation will be held at this rate constantly.
	Canada	Currently every five years	N/A	The Bank can adjust somewhat the target horizon, depending on the nature and duration of the shocks hitting the economy.
	Australia	Around the time when the Governor is appointed or reappointed and when the prime minister changes.	N/A	The objective is to keep inflation within the target range, on average, over the cycle. This formulation allows for natural short-run variation.
	New Zealand	When the Governor is appointed or reappointed, the Governor and the Minister of Finance conclude a "Policy Targets Agreement" for setting the target.	When inflation is outside or is projected to be outside the target range, the Bank must explain the reasons and procedures for recovery. On the advice of the Minister, the Governor may be removed if his/her performance for achieving the policy targets has been inadequate.	For a variety of reasons, the actual inflation will vary from the target, due to, for example, exceptional movements in international commodity prices, and changes in indirect taxes.
	Sweden	N/A	N/A	Temporary deviation from the target is acceptable. The Riksbank has set a tolerance band around the target of plus/minus 1 percentage point.
Countries not adopting inflation targeting	United States	The Federal Open Market Committee aims to reaffirm it each January.	N/A	The Federal Open Market Committee takes a balanced approach to inflation and employment.
	Euro area	N/A	N/A	A wide range of indicators needs to be monitored in order to assess the outlook for price stability.
	Switzerland	N/A	N/A	Temporary deviation from the definition as a result of one-off factors, such as a sudden surge in oil prices or strong exchange rate fluctuations, is acceptable.

Chart 3

Giving Flexibility to Monetary Policy Frameworks in Considering Financial Systems

(Federal Reserve Board)

"Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals."

("FOMC Statement of Longer-Run Goals and Policy Strategy," January 25, 2012)

(Reserve Bank of Australia)

"This statement also records our common understanding of the Reserve Bank's longstanding responsibility for financial system stability.…Without compromising the price stability objective, the Reserve Bank seeks to use its powers where appropriate to promote the stability of the Australian financial system."

("Statement on the Conduct of Monetary Policy," September 30, 2010)

(Bank of Canada)

"At the time of the last renewal of the inflation-targeting agreement, however, the Bank recognized that because the effects of financial imbalances on output and inflation could manifest themselves over a long period of time, some flexibility might be needed with regard to the time horizon over which inflation should be expected to return to target. While this flexibility might involve sacrificing some inflation performance over the usual policy horizon, it would lead to greater financial, economic and, ultimately, price stability over a somewhat longer horizon."

("Renewal of the Inflation-Control Target: Background Information," November 9, 2011)

(Reserve Bank of New Zealand)

"The PTA (Policy Targets Agreement) also includes a stronger focus on financial stability, by including asset prices in the range of indicators the Bank monitors, and requiring the Bank to have regard to the soundness and efficiency of the financial system in setting monetary policy. 'I believe that the existing policy targets agreement has served New Zealand well and there are benefits in maintaining consistency in the agreement,' Mr English says. 'Therefore, I did not feel that any major changes were required.' However, the Global Financial Crisis has focused some attention on monetary policy frameworks, and I want to ensure the PTA continues to reflect best international practice."

("New Policy Targets Agreement signed today," September 20, 2012)

Chart 4

Additional Steps Taken by the Bank of Japan to Provide Monetary Accommodation Decisively

(January 22, 2013)

1. Introduction of the "Price Stability Target"

The Bank recognizes that the inflation rate consistent with price stability on a sustainable basis will rise as efforts by a wide range of entities toward strengthening competitiveness and growth potential of Japan's economy make progress. Based on this recognition, the Bank sets the price stability target at 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI).

Under the price stability target specified above, the Bank will pursue monetary easing and aim to achieve this target at the earliest possible time. Taking into consideration that it will take considerable time before the effects of monetary policy permeate the economy, the Bank will ascertain whether there is any significant risk to the sustainability of economic growth, including from the accumulation of financial imbalances.

2. Introduction of the "Open-Ended Asset Purchasing Method"

- The Bank will pursue aggressive monetary easing, aiming to achieve the above-mentioned price stability target, through a virtually zero interest rate policy and purchases of financial assets, as long as the Bank judges it appropriate to continue with each policy measure respectively.
- With respect to the Asset Purchase Program, after completing the current purchasing method, from January 2014, the Bank will introduce a method of purchasing a certain amount of financial assets every month without setting any termination date.
  - Particularly, for some time, following the introduction of this method, the amount of monthly purchases is specified at about 13 trillion yen, 2 trillion yen of which is JGBs.

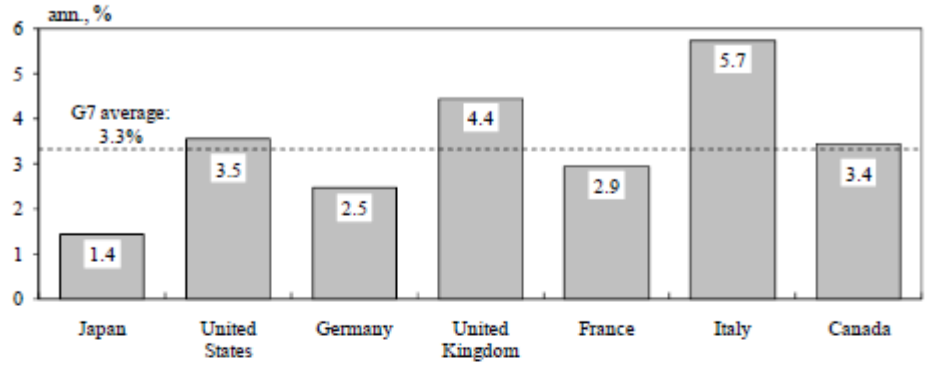
(Joint statement of the Government and the Bank of Japan)

The Bank and the Government released a statement titled "Joint Statement of the Government and the Bank of Japan on Overcoming Deflation and Achieving Sustainable Economic Growth."

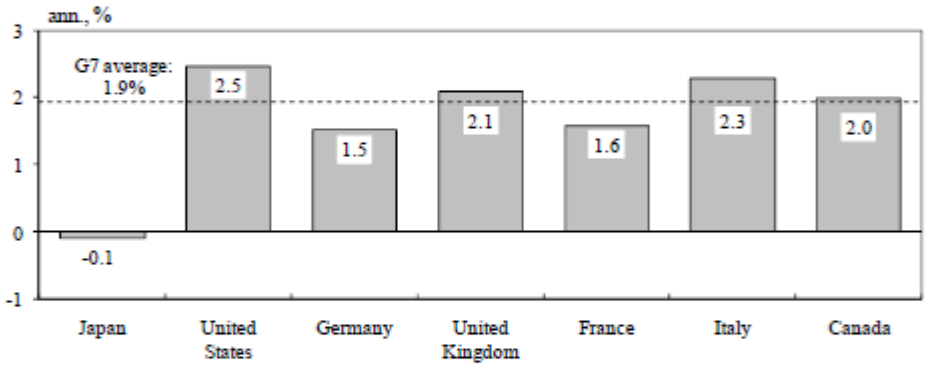
Chart 5

Consumer Price Indexes in Advanced Economies

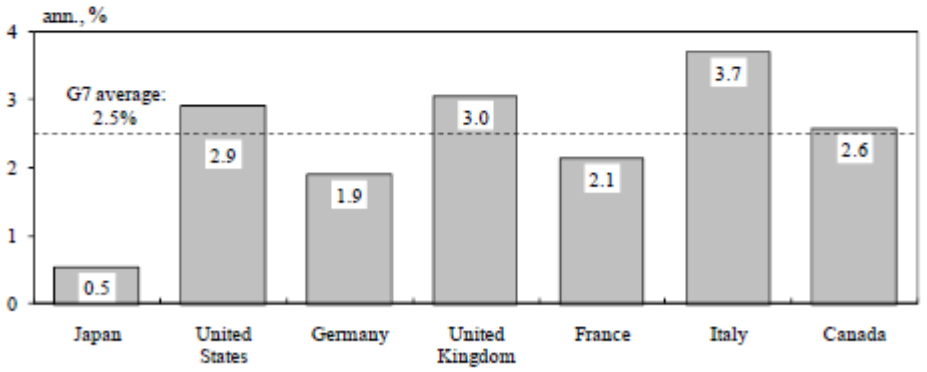
1. (1) CY 1985-1995



2. (2) CY 1996-2011



3. (3) CY 1985-2011

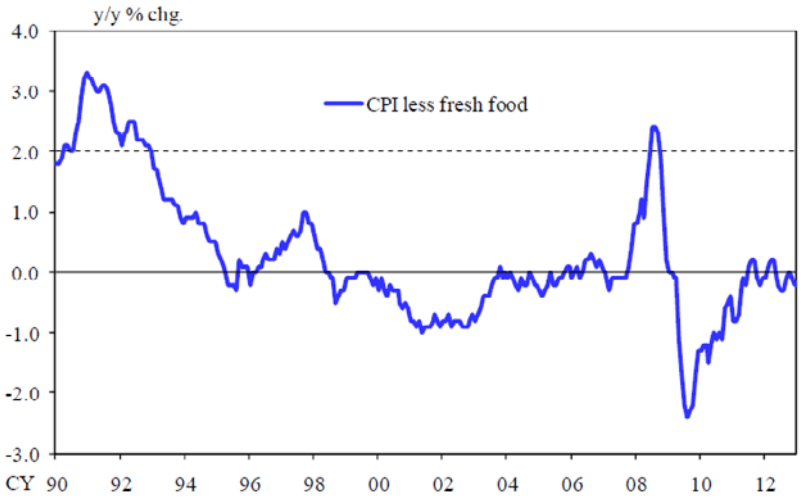


Notes: 1. Figures are the averages of the year-on-year rates of change in the CPI (all items) during the specified periods.
2. Figures for Germany prior to 1991 are those for the former West Germany.

Source: Organization for Economic Co-operation and Development.

Chart 6

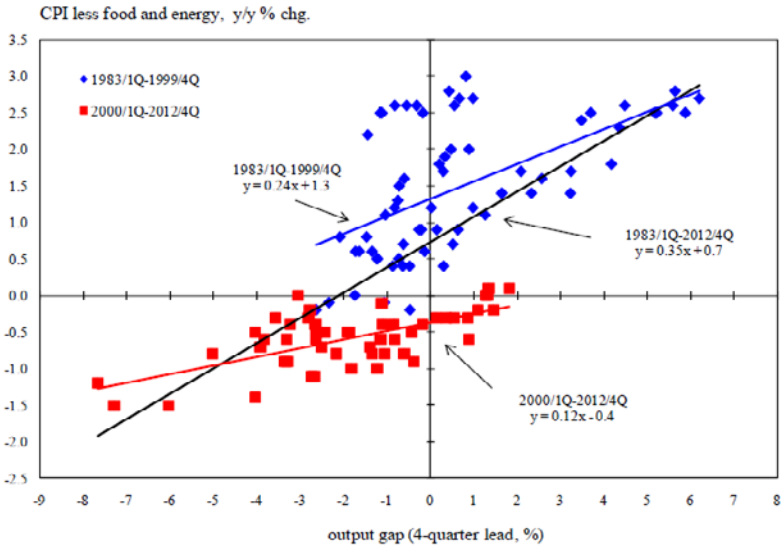
Consumer Price Index



Note: Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.
Source: Ministry of Internal Affairs and Communications.

Chart 7

Output Gap and Inflation Rate



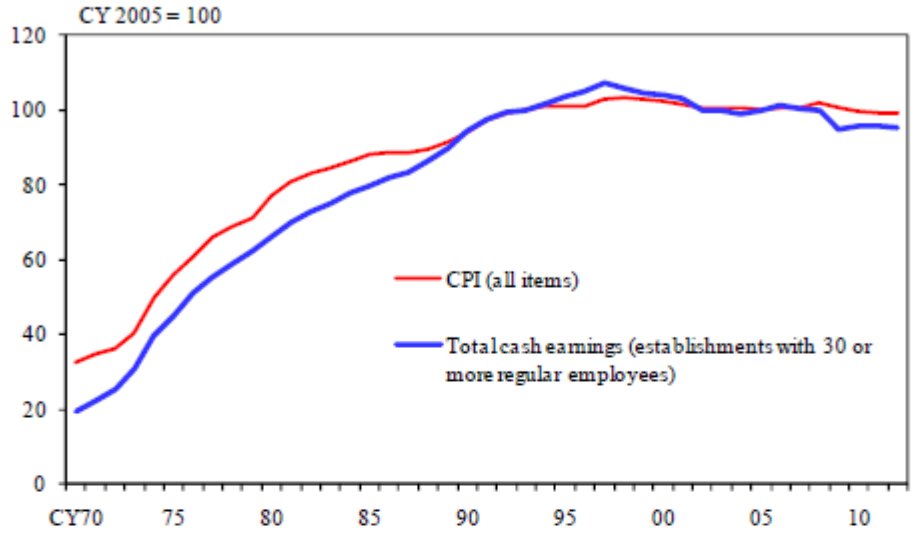
Notes: 1. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.
2. The output gap is estimated by the Research and Statistics Department of the Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.
3. The number of lags is chosen so that the cross-correlation between the output gap and the CPI is maximized.

Source: Ministry of Internal Affairs and Communications, Cabinet Office, etc.

Chart 8

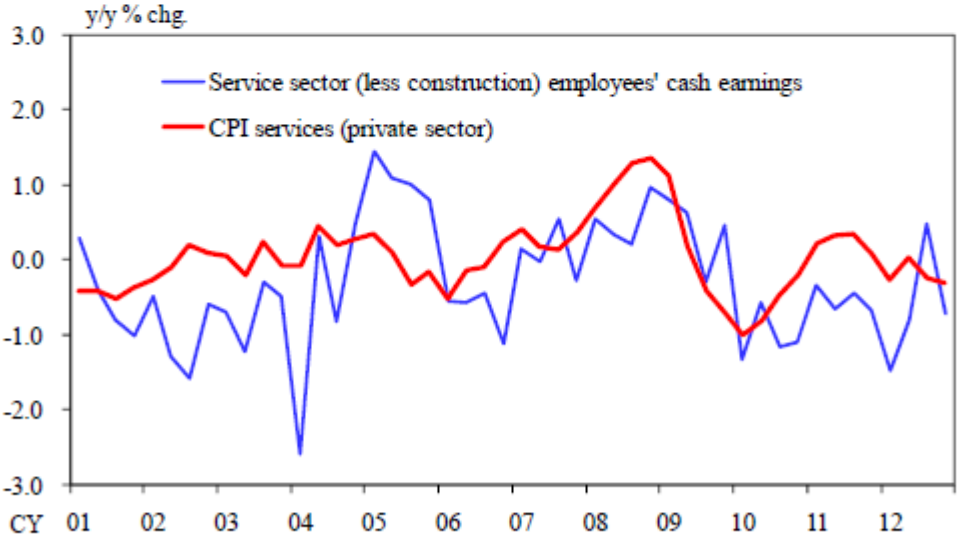
Consumer Price Index and Nominal Wages

(1) CPI and Nominal Wages



Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labor and Welfare.

(2) CPI Services Prices and Service Sector Wages



Notes: 1. Service sector (less construction) cash earnings = scheduled cash earnings of nonmanufacturing firms with full or part-time workers of five or more/total hours worked. Figures for the service sector (less construction) exclude those for "manufacturing," "mining and quarrying of stone and gravel," and "construction."

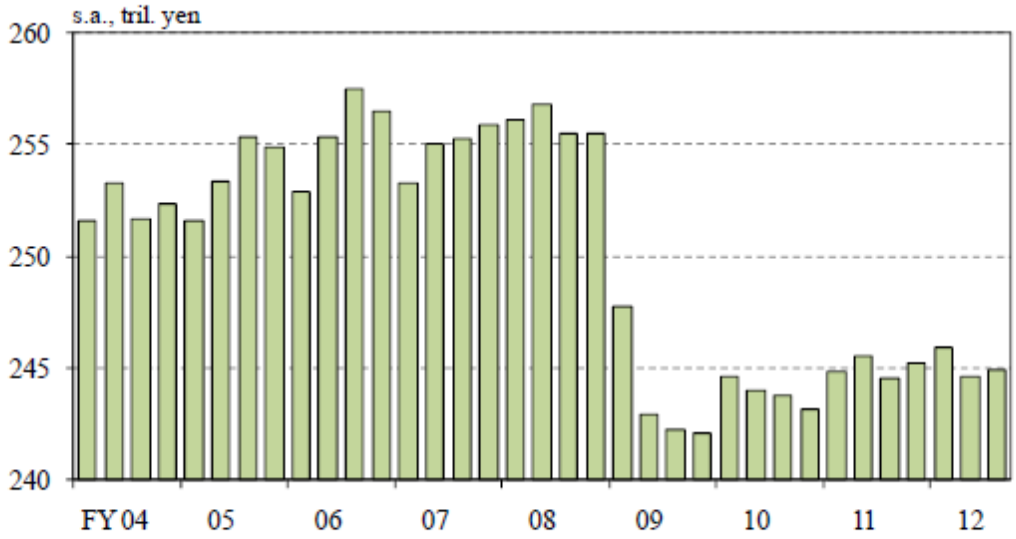
2. Figures for CPI services (private sector) exclude those for "public sector," and "rent."

Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labor and Welfare.

Chart 9

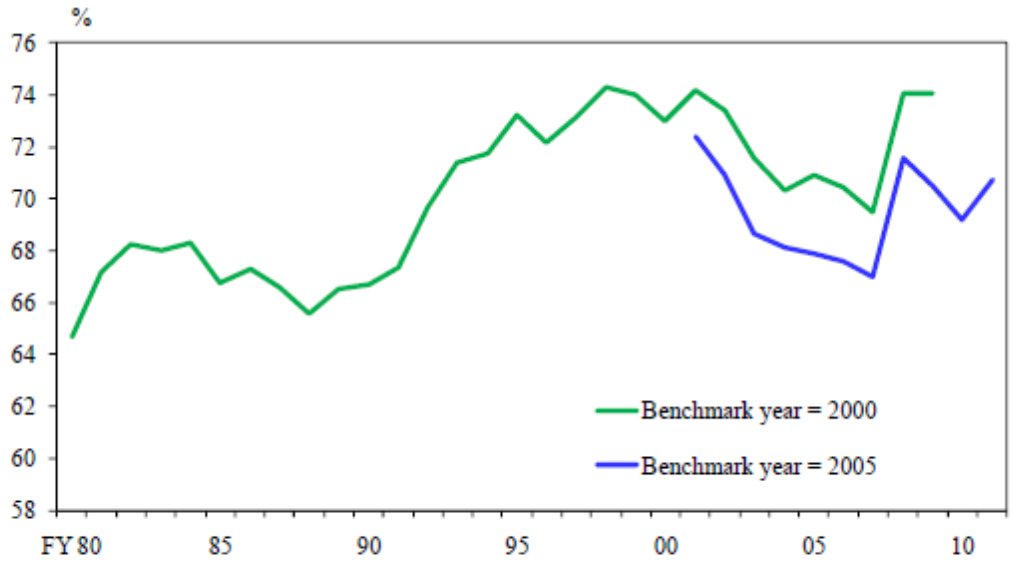
Compensation of Employees and Labor Share of Income Distribution

(1) Compensation of Employees at Current Prices



Note: Figures are based on GDP and annualized.
Source: Cabinet Office.

(2) Labor Share

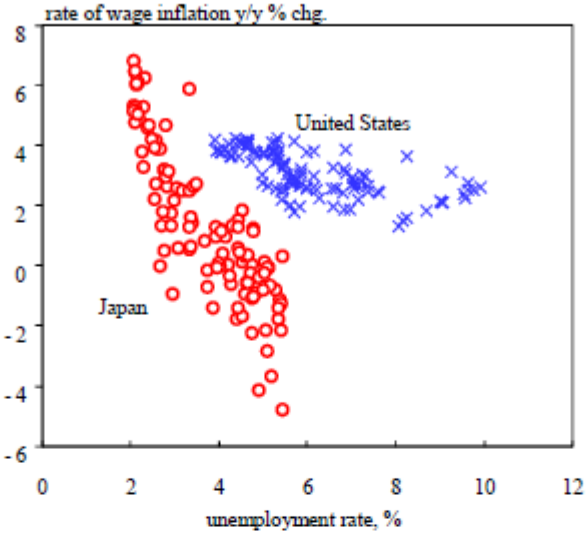


Note: Labor share = compensation of employees/national income.
Source: Cabinet Office.

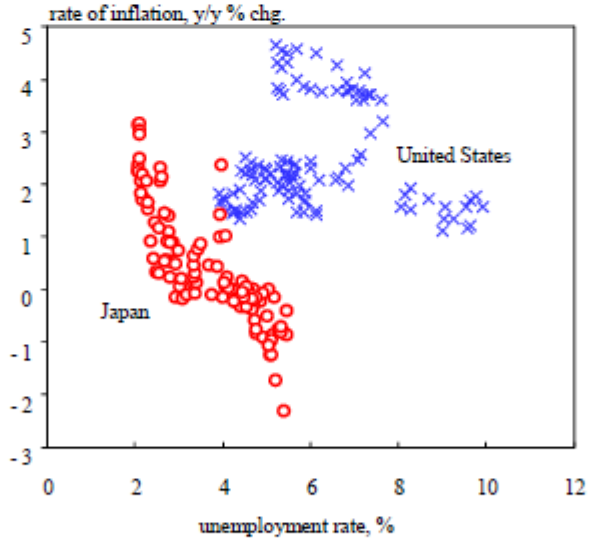
Chart 10

Phillips Curve in Japan and the United States

(1) Rate of Wage Inflation and Unemployment Rate



(2) Rate of Inflation and Unemployment Rate



Notes: 1. The period covers the period from 1985/1Q through 2012/3Q.
2. The wage is the hourly wage. Figures for wages in Japan are calculated as "total cash earnings (establishment with 30 or more employees)" divided by "total hours worked." Figures for wages in the United States use "average hourly earnings of production and nonsupervisory employees: total private."
3. The consumer price index (CPI) for all items less fresh food and personal consumption expenditures excluding food and energy are used for figures for the inflation rate in Japan and the United States, respectively.
4. Figures for the CPI in Japan are adjusted to exclude the effects of changes in the consumption tax rate in 1989 (from 0 percent to 3 percent) and in 1997 (from 3 percent to 5 percent).

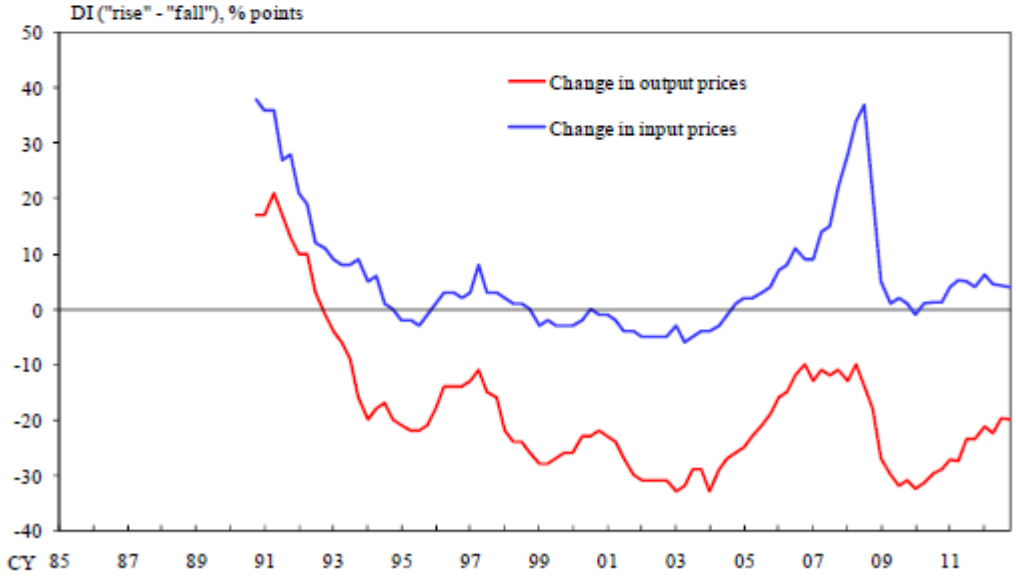
Sources: Ministry of Health and Welfare; Ministry of Internal Affairs and Communications; U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics.

Chart 11

Pricing Power of Firms

(1) Retailing (All-Sized Enterprises)

(2) Services for Businesses and Individuals (All-Sized Enterprises)



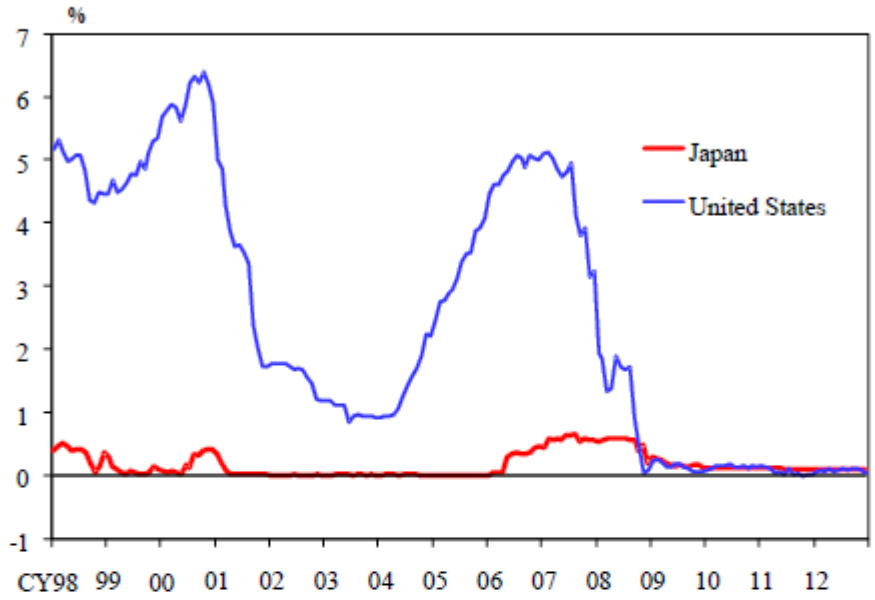
Note: Figures from 2010 are weighted averages of the services for businesses and individuals by the number of reporting companies.

Source: Bank of Japan.

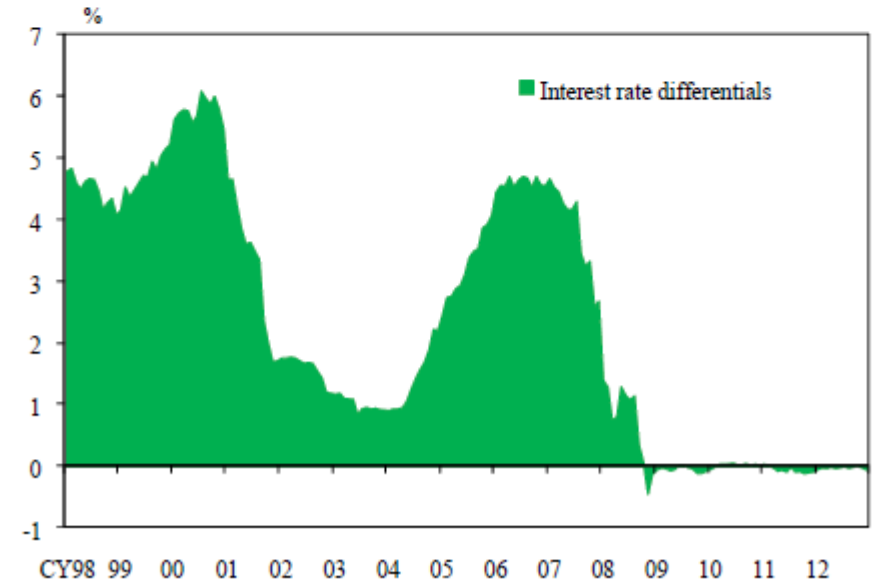
Chart 12

Interest Rate Differentials between Japan and the United States

(1) T-Bill Rates (3-month)



(2) Interest Rate Differentials (3-month)

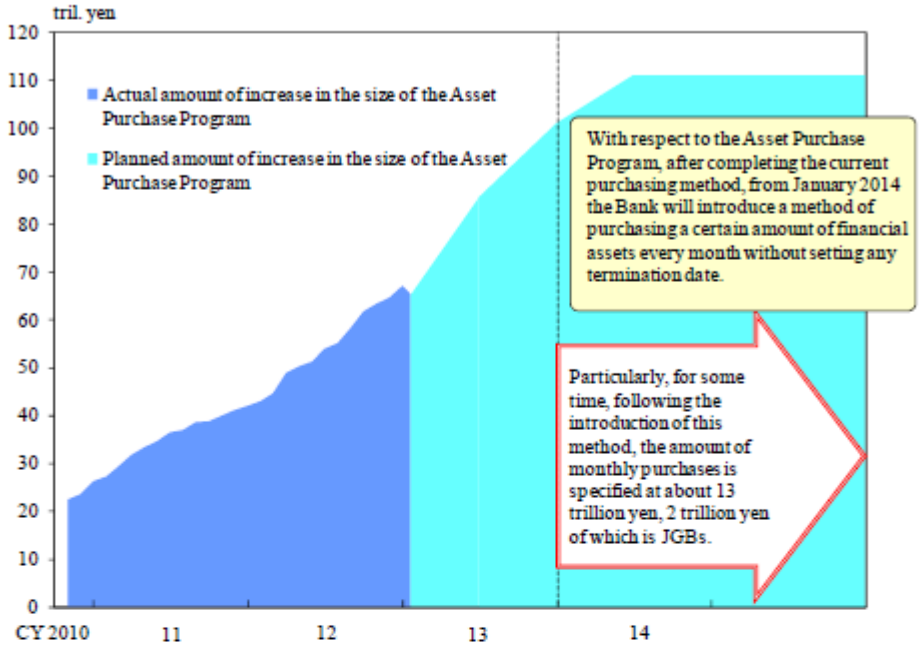


Note: Interest rate differentials (3-month) = U.S. T-Bill rates - Japan T-Bill rates.
Source: Bloomberg.

Chart 13

Asset Purchase Program

(1) Amount of the Asset Purchase Program



(2) Breakdown of the Asset Purchase Program

tril. yen

	Started in Oct. 2010	Amount outstanding (as of Jan. 20)	Program size (end-Dec. 2013)	From Jan. 2014
Total size	About 35	65.3	About 101	
Asset purchases	5.0	40.2	76.0	
JGBs	1.5	24.6	44.0	
T-Bills	2.0	9.4	24.5	
CP	0.5	1.8	2.2	
Corporate bonds	0.5	2.9	3.2	
ETFs	0.45	1.5	2.1	
J-REITs	0.05	0.11	0.13	
Fixed rate operation	30.0	25.0	25.0	

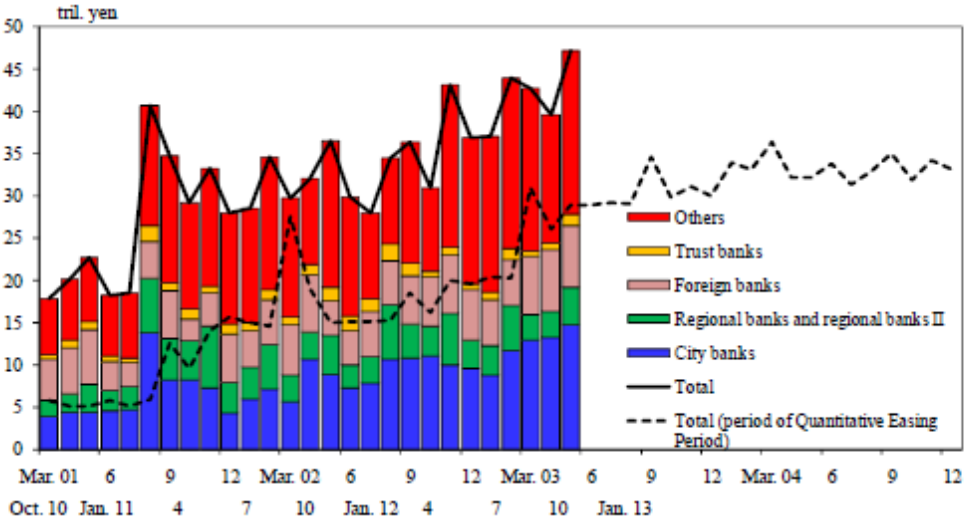
Open-ended asset purchasing method (the amount of monthly purchases is specified at about 13 trillion yen, 2 trillion yen of which is JGBs)

Note: In addition to purchases under the Program, the Bank of Japan regularly purchases JGBs at the pace of 21.6 trillion yen per year.

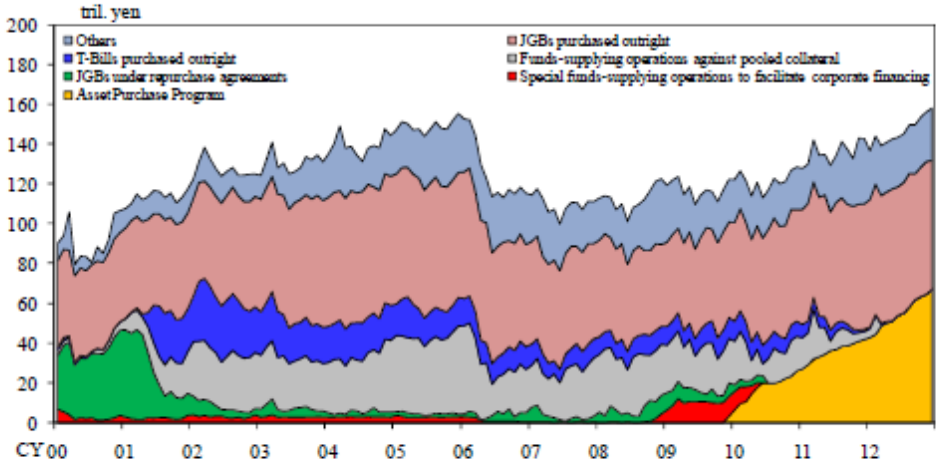
Chart 14

Outstanding Balance of BOJ Accounts and the Asset Purchase Program

(1) Comparison of the Outstanding Balance of BOJ Accounts between the Periods of Quantitative Easing and Comprehensive Monetary Easing



(2) Developments in the Asset Purchase Program



Notes: 1. "Asset Purchase Program" includes fixed-rate funds-supplying operations against pooled collateral.

2. "Special funds-supplying operations to facilitate corporate financing" includes outright purchases of CP (including purchases of asset backed securities), outright purchases of corporate bonds, and purchase of CP with repurchase agreements.

3. "Funds-supplying operations against pooled collateral (excluding "fixed-rate funds-supplying operations against pooled collateral")" includes outright purchases of bills and outright purchases of bills collateralized by corporate debt obligations.

4. "JGBs under repurchase agreements" includes borrowing of JGBs against cash collateral (JGB repos).

5. "Others" includes T-Bills underwritten.

Source: Bank of Japan.

Chart 15

Argument for Purchasing Foreign Bonds

(1) Bank of Japan Act (Article 40, excerpt)

Article 40 The Bank of Japan may, when necessary, buy and sell foreign exchange on its own account or as an agent handling national government affairs pursuant to Article 36, paragraph 1, and it may also buy and sell foreign exchange on behalf of foreign central banks, etc. (foreign central banks and those equivalent thereto; the same shall apply hereinafter) or international institutions (international institutions of which Japan has a membership, including the Bank for International Settlements; the same shall apply hereinafter) as their agent in order to cooperate with them as the central bank of Japan.

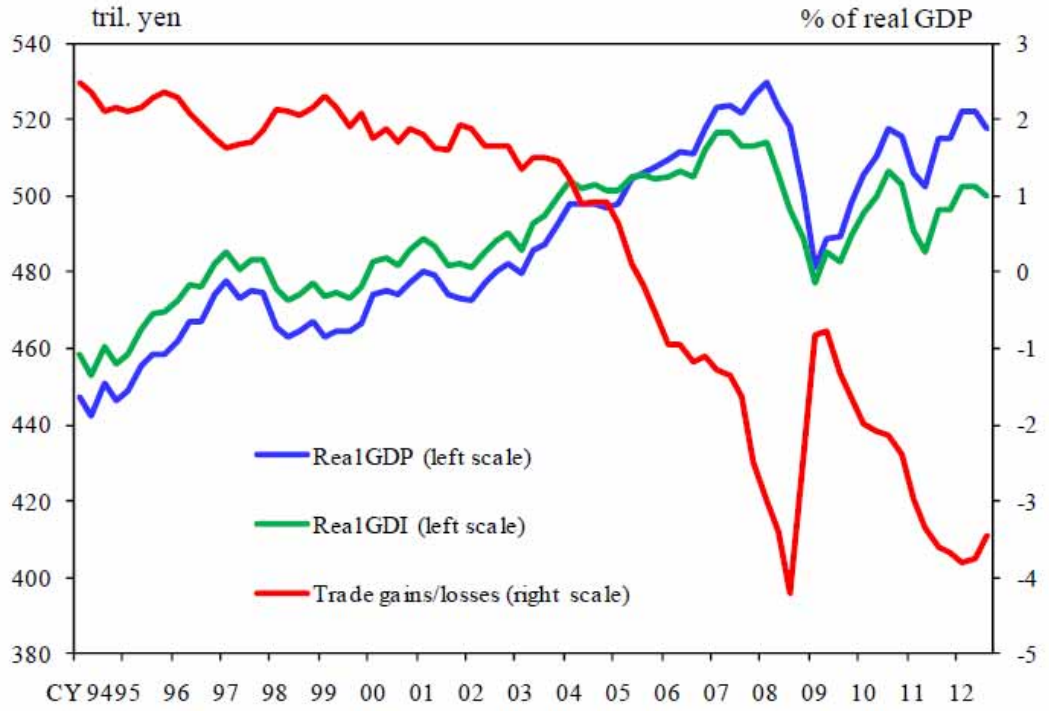
(2) The Bank of Japan shall buy and sell foreign exchange as an agent handling national government affairs pursuant to Article 36, paragraph 1, when the purpose of the buying and selling is to stabilize the exchange rate of Japanese currency.

(2) Bank of Japan Act (Article 43, excerpt)

Article 43 The Bank of Japan may not conduct any business other than that specified by this Act as the business of the Bank; provided, however, that this shall not apply to the case where such business is necessary to achieve the Bank's purpose specified by this Act and the Bank has obtained authorization from the Minister of Finance and the Prime Minister.

Chart 16

Real GDP and Real GDI

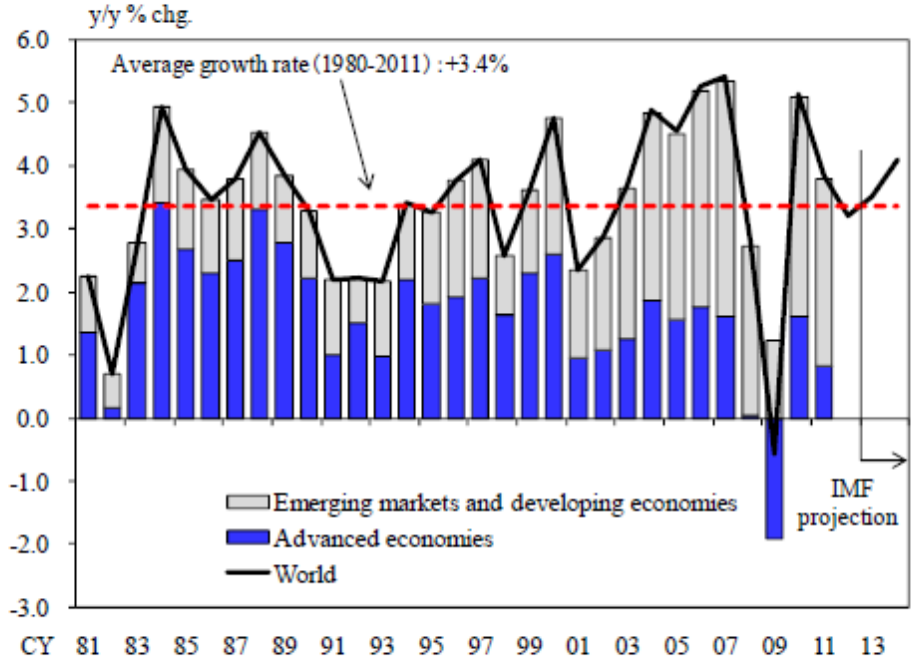


Note: real GDI = real GDP + trade gains/losses.
Source: Cabinet Office.

Chart 17

Overseas Economies

(1) Real GDP Growth Rate of the World Economy



(2) IMF Projections (as of Jan. 2013)

real GDP growth rate, %

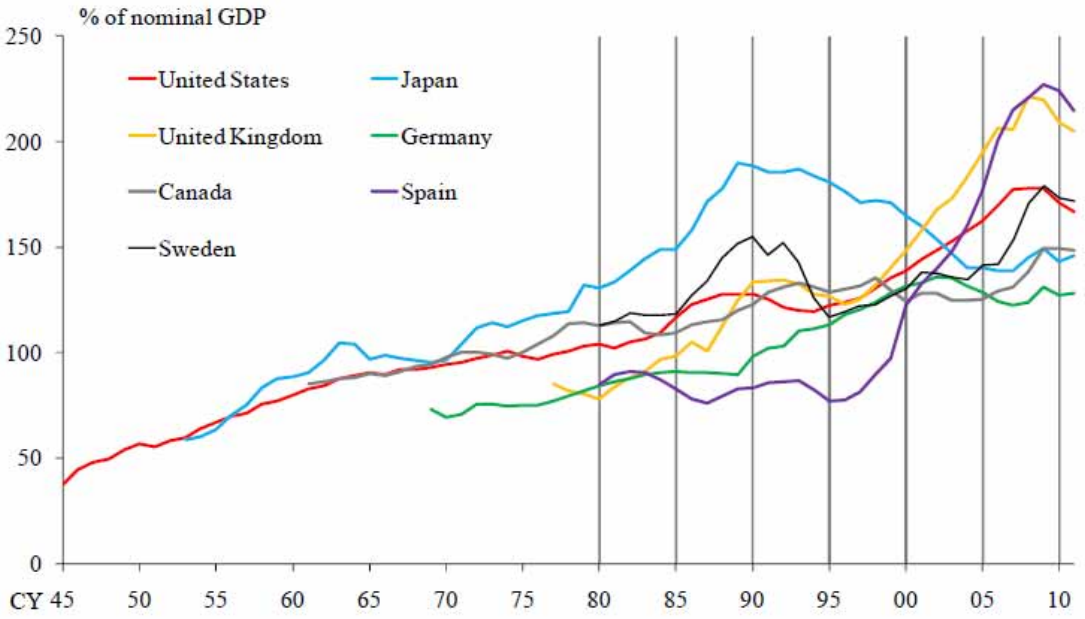
CY	2011	2012	2013 projection	2014 projection
World	3.9	3.2	3.5 (-0.1)	4.1 (-0.1)
Advanced economies	1.6	1.3	1.4 (-0.2)	2.2 (-0.1)
United States	1.8	2.3	2.0 (-0.1)	3.0 (0.1)
Euro area	1.4	-0.4	-0.2 (-0.3)	1.0 (-0.1)
Japan	-0.6	2.0	1.2 (0.0)	0.7 (-0.4)
Emerging Markets and developing economies	6.3	5.1	5.5 (-0.1)	5.9 (0.0)
Developing Asia	8.0	6.6	7.1 (-0.1)	7.5 (0.0)
China	9.3	7.8	8.2 (0.0)	8.5 (0.0)
Brazil	2.7	1.0	3.5 (-0.4)	4.0 (-0.2)

Notes: 1. Figures are calculated using GDP based on purchasing power parity (PPP) shares of the world total from the IMF.
2. The numbers in parentheses are the difference from October 2012 WEO projections.

Source: International Monetary Fund.

Chart 18-1

Private Debt



Notes: 1. Private sector includes households and nonfinancial corporations. Figures are based on the "Flow of Funds."

2. Debt is the sum of loans and fund-raising in the financial market (e.g., CP and corporate bonds).

3. For Japan, the private sector includes households and private nonfinancial corporations. Loans by nonfinancial institutions are not included.

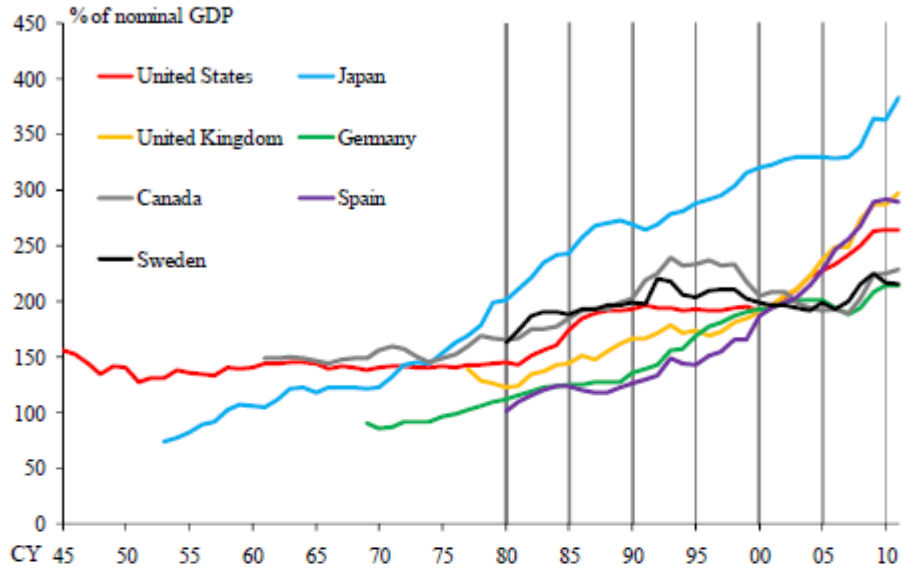
4. For Sweden, loans between nonfinancial institutions are not included.

Sources: U.S. Bureau of Economic Analysis; Federal Reserve; Bank of Japan; Office for National Statistics; Deutsche Bundesbank; European Commission; Eurostat; Statistics Canada; Statistics Sweden; Organisation for Economic Co-operation and Development; International Monetary Fund.

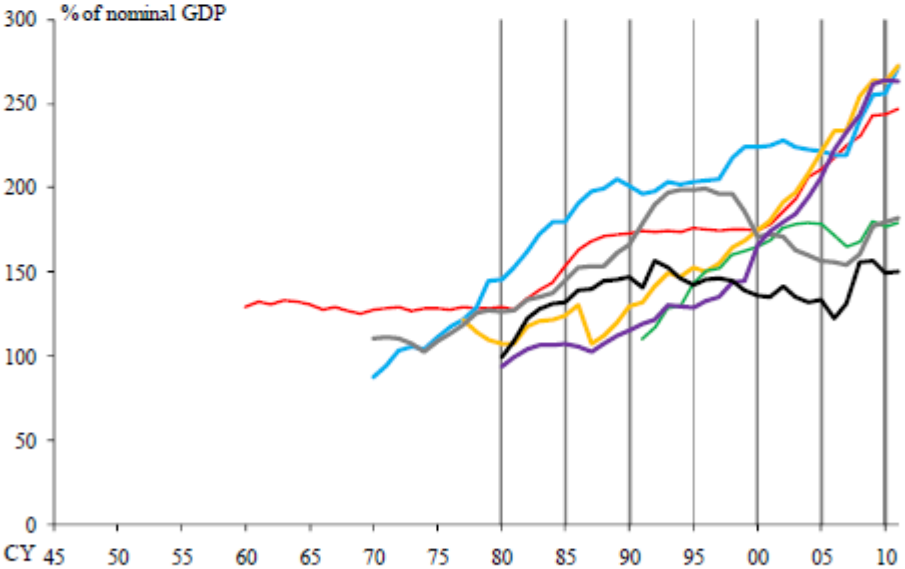
Chart 18-2

Total Debt

(1) Total Debt (Private Plus Public)



(2) Total Debt (Private Plus Public [Net Basis])



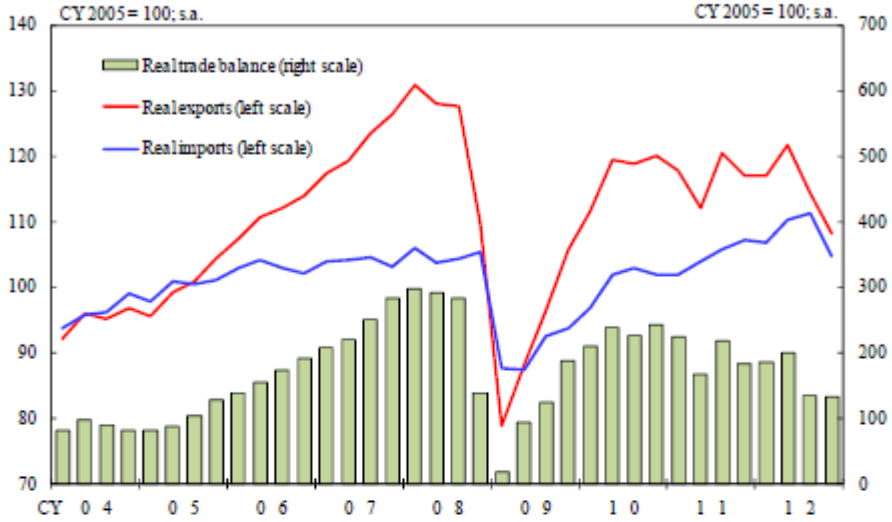
Notes: Figures for gross public debt are taken from the statistics of each country. Figures for net public debt are taken from the OECD statistics. Total debt is the sum of public (both net and gross) and private debt taken from the statistics of each country.

Sources: U.S. Bureau of Economic Analysis; Federal Reserve; Bank of Japan; Office for National Statistics; Deutsche Bundesbank; European Commission; Eurostat; Statistics Canada; Statistics Sweden; Organisation for Economic Co-operation and Development; International Monetary Fund.

Chart 19

External Balance[1] and Production

(1) Real Exports, Real Imports, and Real Trade Balance[2]

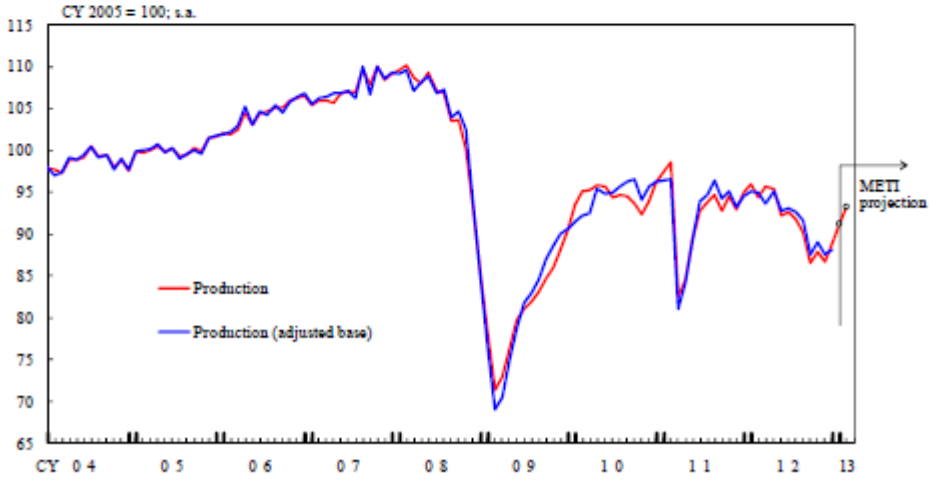


Notes: 1. Seasonally adjusted by X-12-ARIMA.

2. Real exports/imports are the value of exports and imports in the "Trade Statistics" deflated by the "Export and Import Price Index." From May 2012 and onward, deflators are calculated by extending the 2005 base deflators using monthly changes of the 2010 base price indices. "Real trade balance" is defined as real exports minus real imports.

Sources: Minstry of Finance, Bank of Japan

(2) Production



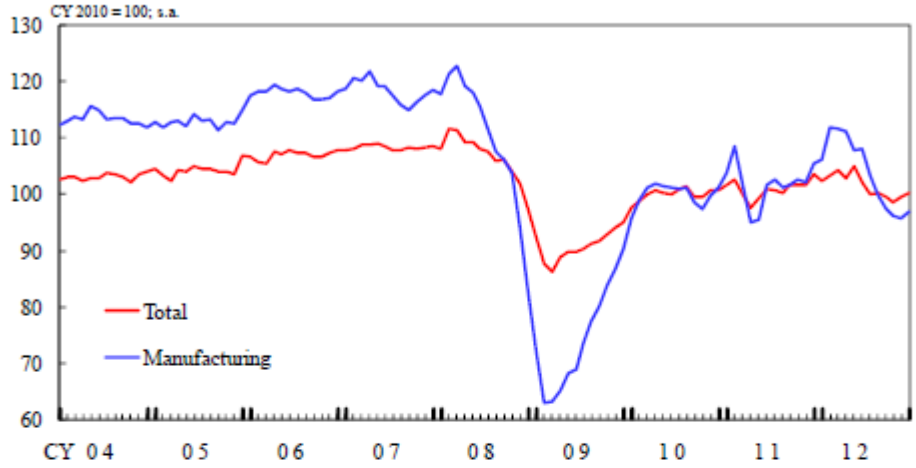
Note: Industrial production (adjusted base) is calculated by detecting large fluctuations after the Lehman shock as outliers (estimation by the Research and Statistics Department of the Bank of Japan).

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

Chart 20

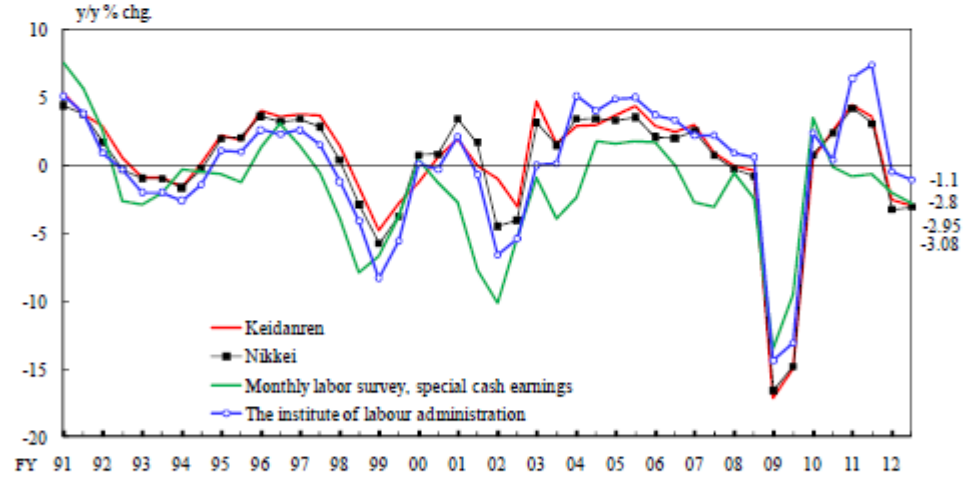
Non-Scheduled Hours Worked[2] and Surveys of Bonus Payments

(1) Non-Scheduled Hours Worked[2]



Notes: Data are for establishments with at least five employees.
Sources: Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare.

(2) Surveys of Bonus Payments



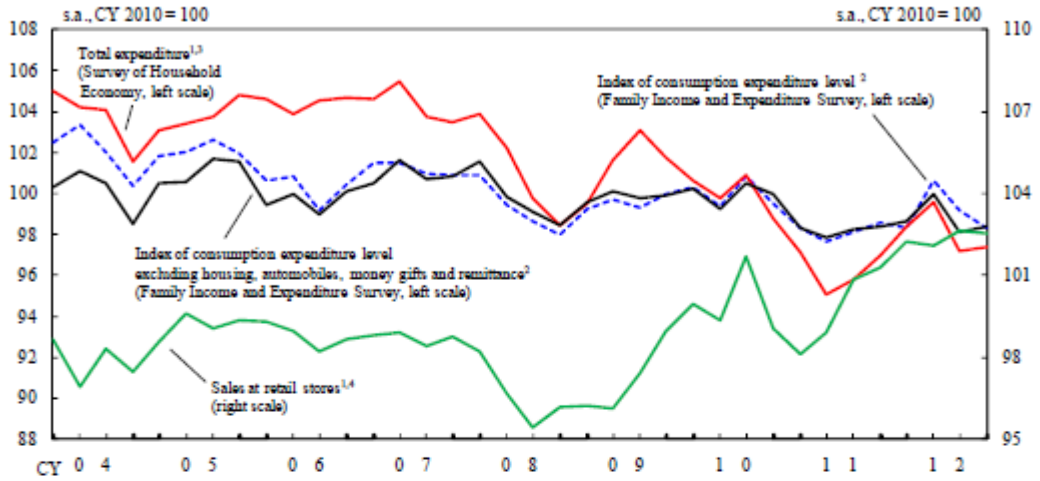
Notes: 1.Figures for "Monthly Labour Survey" are year-on-year changes in special cash earnings for months of bonus payments (Summer: June-August. Winter: November-January).
2. Data from "Monthly Labour Survey" are for establishments with at least five employees. The figure for the winter bonus payments for FY2012 is November-December average.
3. Figures for "Keidanren" are based on 247 large enterprises belonging to 21 major industries. Figures for the winter bonus payments for FY2012 are based on the final tabulation released on 12/26.
4. Figures for "Nikkei Inc." are based on listed companies and selected non-listed companies, summed up to 3759 companies. Figures for the winter bonus payments for FY2012 are based on the final tabulation released on 12/3.
5. Figures for "The institute of labour administration" are based on listed companies in TSE first section whose labour unions join in major single industry unions. The winter bonus payments for FY2012 are based on September 12 tabulation.

Sources: Ministry of Health, Labour and Welfare,; Keidanren; Nikkei Inc.; The Institute of Labour Administration.

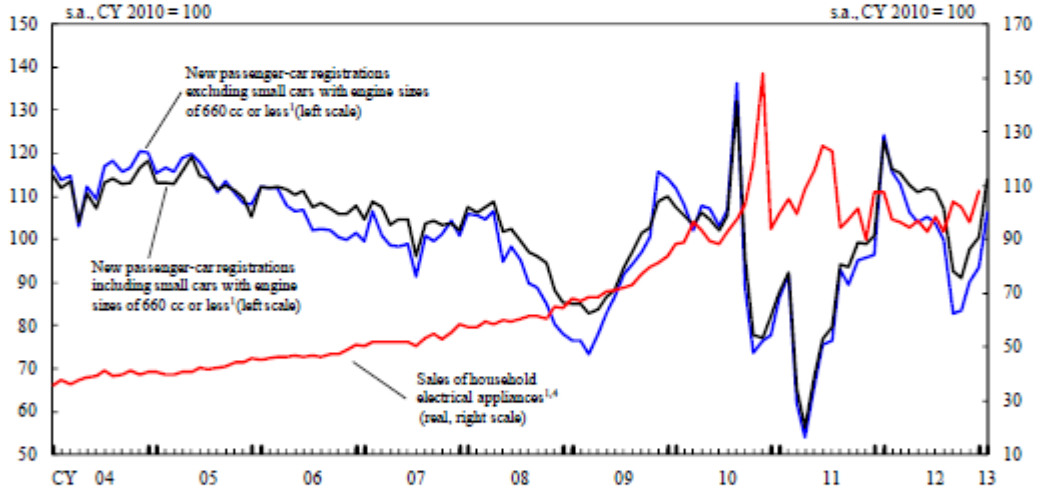
Chart 21

Indicators of Private Consumption

(1) Household Spending (Real)[5]



(2) Sales of Durable Goods

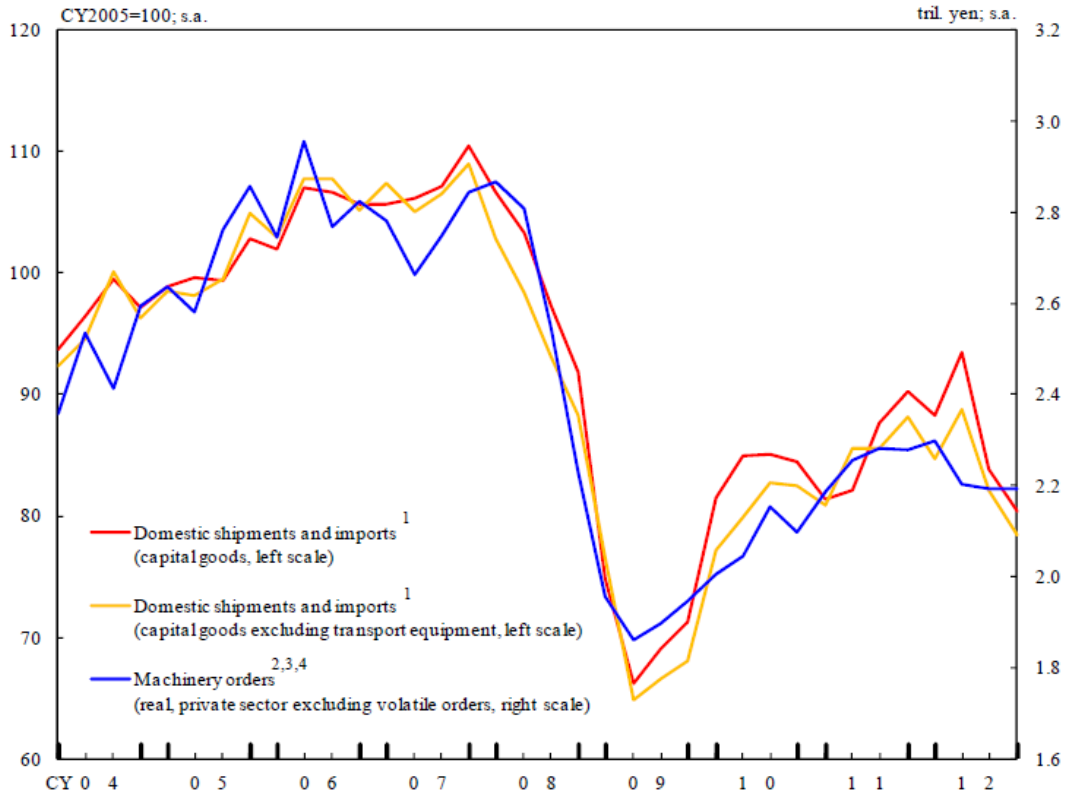


Notes: 1. Total expenditure, sales at retail stores, sales of household electrical appliances and new passenger-car registrations are seasonally adjusted by X-12-ARIMA.
2. "Index of consumption expenditure level" is based on two-or-more-person households, and is adjusted using the distribution of household by number of household members and age group of household head.
3. "Total expenditure" is based on two-or-more-person households, and is deflated by the "consumer price index (CPI)" excluding imputed rent.
4. "Sales at retail stores" is deflated by the CPI for goods (excluding electricity, gas & water charges). "Sales of household electrical appliances" is calculated as follows: indices of retail sales, of machinery and equipment in the "Current Survey of Commerce" are deflated by the geometric means of the corresponding CPI.
5. Figures for 2012/Q4 are those of October-November averages in quarterly amount.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index," "Monthly Report on the Family Income and Expenditure Survey," "Survey of Household Economy";
Ministry of Economy, Trade and Industry, "Current Survey of Commerce";
Japan Automobile Dealers Association, "Domestic Sales of Automobiles";
Japan Mini Vehicles Association, "Sales of Mini Vehicles."

Chart 22

Machinery Investment



Notes: 1. Figures for 2012/Q4 are October-November averages.
2. Machinery orders (real) are deflated by the consumer goods price index (CGPI) for capital goods (domestic goods).
3. Figures up to fiscal 2004 are estimated by the Cabinet Office.
Volatile orders: orders for ships and those from electric power companies.
4. Figures for 2012/Q4 are October-November averages in terms of quarterly amount.

Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Bank of Japan.

Chart 23-1

Outlook for Economic Activity and Prices: Interim Assessment (as of Jan 2013)

Baseline scenario

(Outlook for Economic Activity)

Japan's economy is expected to level off more or less for the time being, and thereafter, it will return to a moderate recovery path as domestic demand remains resilient partly due to the effects of various economic measures and overseas economies gradually emerge from the deceleration phase.

(Outlook for Prices)

The year-on-year rate of change in the CPI is expected to turn negative due to the reversal of the previous year's movements, and thereafter, it is likely to be around 0 percent again. The CPI is expected to start rising gradually thereafter as the aggregate supply and demand balance improves.

- Compared with the forecasts presented in the October 2012 Outlook for Economic Activity and Prices, growth prospects will likely be somewhat lower for fiscal 2012, but they will likely be higher for fiscal 2013 partly due to the effects of various economic measures. Growth prospects for fiscal 2014 will likely be broadly in line with the October forecasts. The year-on-year rate of change in the CPI will likely be broadly in line with the October forecasts.

Forecasts of the Majority of Policy Board Members

y/y chg.

	Real GDP	Domestic CGPI	CPI (all items less fresh food)
Fiscal 2013	+2.3	+0.8	+0.4
Forecasts made in Oct. 2012	(+1.6)	(+0.5)	(+0.4)
Fiscal 2014	+0.8	+4.1	+2.9
Forecasts made in Oct. 2012	(+0.6)	(+4.2)	(+2.8)
Excluding the effects of the consumption tax hike		+1.2	+0.9
Forecasts made in Oct. 2012		(+1.3)	(+0.8)

Upside and Downside Risks

(Outlook for Economic Activity)

1. Developments in global financial markets and overseas economy, including the prospects for the European debt problem, the momentum toward recovery for the U.S. economy, the possibility of emerging and commodity-exporting economies making a smooth transition to the sustainable growth path, and the effects of the recent bilateral relationship between Japan and China.
2. Uncertainty with regard to firm's and households' medium to long-term growth expectation
3. Uncertainty with regard to the effect of consumption tax hike
4. Various problems regarding Japan's fiscal sustainability

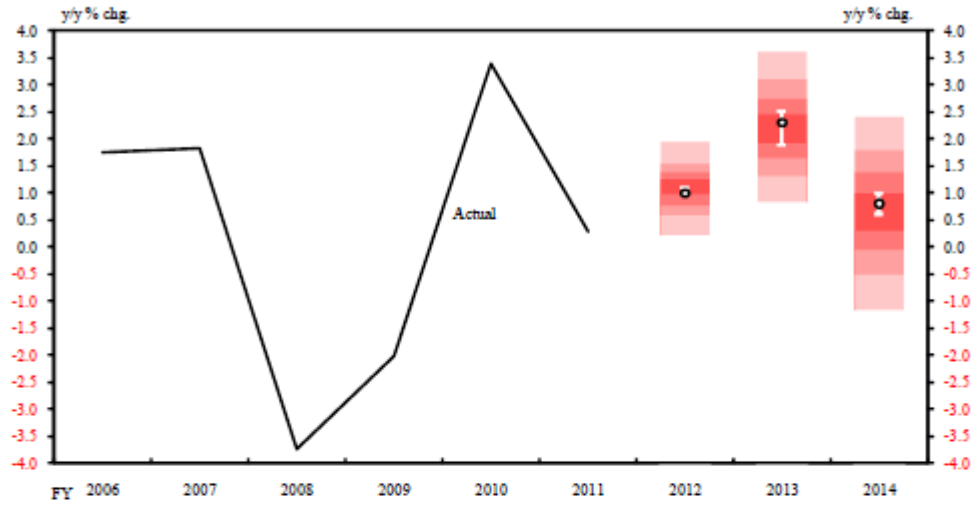
(Outlook for Prices)

1. Uncertainty associated with the responsiveness of prices to aggregate supply and demand
2. Developments in firms' and households' medium- to long-term inflation expectations
3. Developments in import prices

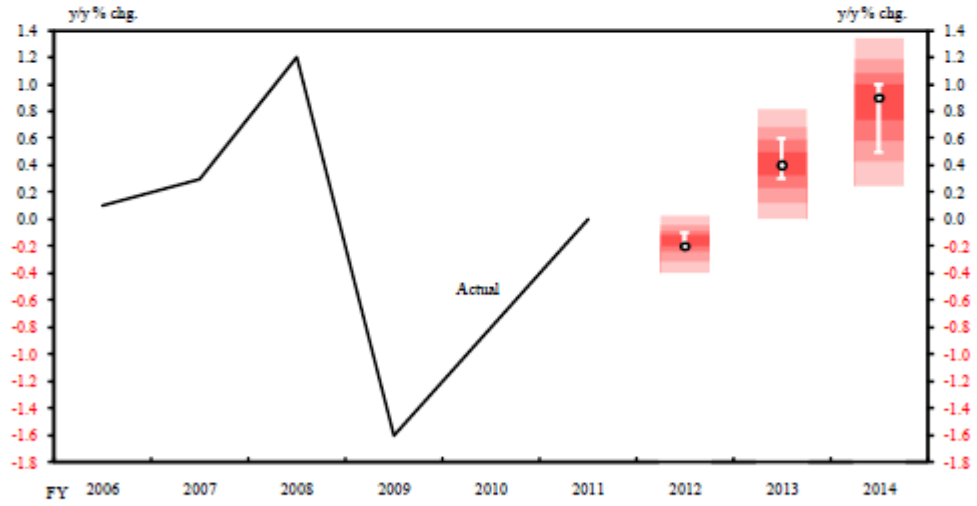
Chart 23-2

Forecast Distribution Charts of Policy Board Members: Interim Assessment (as of Jan. 2013)

(1) Real GDP



(2) CPI (All Items Less Fresh Food)



Notes: 1. Based on the aggregated probability distributions (i.e., the Risk Balance Charts) compiled from the distributions of individual Policy Board members, the Forecast Distribution Charts are compiled as follows. First, upper and lower 10 percentiles of the aggregated distributions are trimmed and second, colors indicated below are used to show the respective percentiles of those distributions.

Upper 40% to lower 40%	Upper 30 to 40% & lower 30 to 40%	Upper 20 to 30% & lower 20 to 30%	Upper 10 to 20% & lower 10 to 20%

2. 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*.
3. The circles in the bar charts indicate the median of the Policy Board members' forecasts (point estimates). The vertical lines in the bar charts indicate the range of the forecasts of the majority of Policy Board members.
4. The forecast for the CPI excludes the direct effects of the scheduled consumption tax hikes.