Takehiro Sato: Recent economic and financial developments, and monetary policy

Speech by Mr Takehiro Sato, Member of the Policy Board of the Bank of Japan, at a meeting with business leaders, Fukushima, 22 July 2013.

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I. Introduction

It has been two years and four months since the Great East Japan Earthquake took place. First of all, I would like to offer my greatest appreciation and respect to everyone who has continued to work devotedly to achieve restoration and reconstruction since the earthquake disaster. I would also like to take this opportunity to express my sincere gratitude for your cooperation with the activities of the Bank of Japan's Fukushima Branch.

Today, I will begin by focusing on the Bank's monetary policy and economic activity and prices in Japan and abroad. I will then touch briefly on the economy of Fukushima Prefecture in my closing remarks. Following my speech, I would like to hear your views on actual conditions in the local economy, including the progress in reconstruction, as well as on the Bank's conduct of monetary policy.

II. Recent conduct of monetary policy

A. Quantitative and qualitative monetary easing and market reactions

At the Monetary Policy Meeting (MPM) held on April 3 and 4, 2013, the Bank introduced quantitative and qualitative monetary easing (QQE). This policy aims to achieve the "price stability target" of 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI) at the earliest possible time, with a time horizon of about two years. To achieve this, the Bank decided on new monetary easing measures. Specifically, the monetary base and the amounts outstanding of Japanese government bonds (JGBs) as well as exchange-traded funds (ETFs) will be doubled in two years, and the average remaining maturity of JGB purchases will be more than doubled (Chart 1). Since these policy measures exceeded market expectations, the initial reaction of the foreign exchange and stock markets was positive. Thereafter, in the JGB market, long-term interest rates rose with some volatility and these developments drew public attention (Charts 2 and 3).

From late May, there was an increase in investors' risk aversion worldwide reflecting speculation that the Federal Reserve would reduce the pace of its asset purchases earlier than expected, and the foreign exchange and stock markets were affected by these developments. Investors' risk aversion was observed especially in emerging markets, but the Japanese stock and foreign exchange markets, which are considered to be sensitive to global economic fluctuations, were also affected to some degree. On the contrary, long-term interest rates in Japan were generally stable despite the rise in U.S. long-term interest rates.

Summarizing these developments in financial markets, we can point to the following.

In general, the central bank needs to communicate carefully to financial markets in the early stages of a policy change or in the course of discussion leading up to a change. This is because the message delivered by policymakers tends to be misinterpreted and financial markets tend to overreact in the early stages. Typical examples are (1) the case of the Bank's policy change at the MPM on April 3 and 4; and (2) the case of Federal Reserve Chairman Ben Bernanke's testimony to the U.S. Congress on May 22, 2013 and his press conference after the Federal Open Market Committee (FOMC) meeting on June 19. In the former case, some market participants misunderstood that the Bank of Japan had given up its commitment to the stability of short-term interest rates. In the latter case, market reaction was fairly large due to the reversal of movement until mid-May, when risk-taking activities in asset markets were active, mainly in emerging markets, due partly to speculation that the Federal Reserve would maintain the current pace of its asset purchases.

This type of initial market reaction generally becomes contained as the policy intention of the central bank permeates financial markets through close communication between the central bank and financial markets based on economic indicators. As financial markets gain better understanding of the central bank's policy intention and find a new equilibrium point, market volatility is usually contained even at the time of a policy change.

Currently, the Japanese financial markets are becoming stable on the whole as they gain further understanding of the Bank's policy intention regarding the April decision. The reaction by the U.S. financial markets is expected to moderate as they find a new equilibrium point as a result of the Federal Reserve's intensive communication with them based on economic indicators.

B. Stable bond market in Japan compared with that in the United States

When Japanese long-term interest rates rose with volatility after the policy change in April, some regarded the new policy as a failure. But it is not appropriate to judge the validity of the policy merely from the initial reaction of the rise in interest rates immediately after the introduction of QQE. The market reaction after the policy change reflects the phenomenon of "buying on rumor and selling on fact," which is observed frequently in financial markets. Market developments since end-2012 show that there has been a positive correlation between the JGB and stock markets – long-term interest rates rose when stock prices surged and long-term interest rates plunged when stock prices dropped. It can be added that Japanese long-term interest rates have been substantially contained despite the rising stock prices and fluctuations in foreign exchange rates since end-2012, given the effects of the increase in the Bank's purchases of JGBs. Moreover, the recent stability in the JGB market compares favorably with the large fluctuations in the U.S. bond market since the end of May (Chart 2).

C. Corporate and household sectors anticipate economic developments and prices

As market participants anticipate a recovery in economic activity and prices, firms and households also anticipate a recovery and change their investment and consumption activities accordingly. In this sense, it would be unfair to disregard such changes in firms' and households' activities when assessing the effects on the economy of the rise in nominal interest rates.

In fact, firms' funding activities in the corporate bond market after the introduction of QQE were more active than usual on the whole, although some firms avoided issuing new bonds due to the high volatility in the JGB market. To put it another way, it was confirmed that investor demand was steady (Chart 4).

In short, as market participants anticipate developments in economic activity and prices, firms also anticipate changes in funding conditions as well as demand in the bond market to seek investment opportunities, and investors anticipate the asset management environment in their investment decisions. Households also anticipate conditions following the economy's overcoming of deflation; this is evidenced by the increase in the proportion of fixed-rate mortgages compared to the previously dominant floating-rate mortgages. These dynamics show that the economy and financial markets are currently seeking a new equilibrium point.

Only three months have elapsed since the Bank introduced QQE. The Bank's previous monetary policy was sometimes questioned by other countries, which later revised their judgments after experiencing a situation similar to that faced by Japan after the bubble economy burst in the 1990s. It might therefore be premature to assess the effectiveness of QQE solely from the money market reaction since early April. What is important is whether the underlying trend in Japan's economic activity and prices is heading toward a recovery from a somewhat longer-term perspective after the introduction of QQE. As I will mention later, I am more optimistic about the outlook for Japan's economy than in fiscal 2012, when the Bank revised downward its outlook for economic activity and prices several times because of the European debt problem and deceleration of the Chinese economy.

D. Toward a stable JGB market

It should be noted that QQE has contradictory, two-sided policy effects on the JGB market. Massive bond purchases by the Bank lower the risk premiums in the JGB market, and this contains nominal interest rates; at the same time, once the policy effect materializes, the market's anticipation of a recovery in economic activity and prices exerts upward pressure on nominal interest rates. After the introduction of QQE, interest rates fluctuated due to these two contradictory factors, and the volatility in the JGB market rose as a result. Such high volatility, if it is prolonged, tends to prompt market participants to sell bonds for the purpose of risk management, and heavy bond sales could cause an unnecessary rise in interest rates. Given the heightened volatility in the JGB market, at the May MPM the Policy Board members discussed measures to stabilize long-term interest rates, and confirmed that for JGB purchases it was important for the Bank to conduct operations flexibly. At the end of May, the Bank clearly showed that it would conduct operations flexibly, for example by adjusting as necessary the parameters of its JGB purchases, such as frequency and allocation of purchase amounts by maturity (Chart 5).

Subsequently, at the June MPM, the Policy Board members discussed the possibility of introducing funds-supplying operations against pooled collateral with a loan duration of more than one year. Based on the discussion at the MPM, the Policy Board members concluded that it was not necessary at that time for the Bank to extend the maximum duration of loans provided through its funds-supplying operations against pooled collateral, because (1) the effect of compressing risk premiums driven by the Bank's massive JGB purchases was likely to strengthen steadily, and (2) flexible conduct of market operations was sufficiently ensured under the current guideline for the operations to contain the volatility. In other words, the current policy guideline allows a range of "about six to eight years" for the average remaining maturity of the Bank's JGB purchases. By utilizing this guideline, it would be possible to stabilize the entire yield curve by purchasing JGBs with a maturity of one to five years more intensively. As the policy guideline allows a range of "about six to eight years," I see no need for concern even if the actual remaining maturity of JGB purchases temporarily falls short of six years.

Let me add that the Policy Board members judged that it was not necessary to introduce the funds-supplying operations against pooled collateral with a loan duration of more than one year, taking into account the following points. First, the introduction of such operations could cause misunderstanding that the Bank is encouraging financial institutions to hold JGBs even though the Bank has already introduced new measures to encourage portfolio rebalancing by financial institutions and investors. Second, since such operations contain a message regarding policy duration, the introduction of such operations could confuse market participants about the relationship between this message and the policy duration under the QQE framework – namely, to achieve the price stability target of 2 percent at the earliest possible time, with a time horizon of about two years. And third, the fund-provisioning measure to stimulate bank lending (the Stimulating Bank Lending Facility), whose first loan disbursement was made on June 20, 2013 and whose original aim was to encourage portfolio rebalancing by banks, works to reduce banks' duration risk for a maximum of three years on their liability. The facility is in this sense substitutable to some extent with the funds-supplying operations against pooled collateral with a loan duration of more than one year, and thus it was necessary to reconsider the relationship between these two measures. The Bank, however, does not completely exclude the possibility of introducing these operations, since they could be an effective tool for stabilizing the market.

E. Policy change from comprehensive monetary easing to QQE

The Bank had pursued comprehensive monetary easing through March 2013, and in April it carried out a policy change and introduced QQE soon after the new Governor and Deputy Governors took office. Questions have been voiced regarding the Policy Board members who voted unanimously to approve the policy change in April, even though comprehensive monetary easing had been promoted through March.

My understanding is that like the decision made at the MPM held on April 3 and 4, 2013, it was a major decision to introduce the 2 percent price stability target at the January MPM (Chart 6). While details of the discussions at the February and March MPMs held in the period after the price stability target was introduced but before the new Governor and Deputy Governors took office are referred to in the minutes, the topic of discussion shifted to specific measures to strengthen monetary easing with the aim of achieving the price stability target of 2 percent. In the discussions, issues were raised regarding purchases of JGBs with longer remaining maturities, and consolidation of purchases of JGBs under the Asset Purchase Program with those conducted in terms of money market operations (Chart 7).

Although the set of decisions made at the MPM held on April 3 and 4 is called a new phase of monetary easing, some of the ideas largely reflect quantitative easing and comprehensive monetary easing, adopted from March 2001 to July 2006 and from October 2010 to March 2013, respectively. For example, the setting of the main operating target for money market operations to the monetary base instead of the uncollateralized overnight call rate is similar to the framework of quantitative easing – in which the main operating target was the Bank's current account balances – on the premise that the outstanding balance of banknotes issued does not fluctuate significantly. Moreover, most of the financial assets currently being purchased are the same as those purchased during the period of comprehensive monetary easing – such as JGBs, ETFs, and Japan real estate investment trusts (J-REITs) (Chart 8).

The extension of the average remaining maturity of the Bank's JGB purchases to around seven years has consequently increased the scale of monetary easing. However, during the last phase of comprehensive monetary easing, the Bank had set the amount outstanding of the Asset Purchase Program at around 111 trillion yen by end-2014. In terms of the monetary base, this would be equivalent to around 200 trillion yen (although a range should be allowed for this number). The amount is less than the targeted amount outstanding under QQE, which is 270 trillion yen at end-2014, but one can argue that the Bank had already committed to considerably increasing the size of the monetary base. In this sense, the Bank's policies over the years should be understood as being consistent.

F. What it means to avoid an incremental approach

Since late May 2013, expectations for further monetary easing had increased in the market, in a situation where instability had been observed in financial markets at home and abroad.

However, QQE differs completely from the Bank's other monetary easing policies adopted in the past in the sense that (1) the Bank had adopted the stance of pursuing bold monetary easing all at once to achieve the price stability target of 2 percent in about two years and to avoid an incremental approach; and (2) by doing so, the Bank aims to exert influence on the expectations of firms and households as well as financial markets.

The former policy stance of avoiding an incremental approach is based on the lessons learned from the fact that Japan's economy could not overcome deflation, even though the Bank had continued to fine-tune its policies under the framework of comprehensive monetary easing in accordance with the economic cycle. Therefore, this policy stance should be regarded as a serious one. The latter policy stance of aiming to exert influence on the expectations of firms and households as well as financial markets is associated with the former policy stance. The Bank aims to drastically change such expectations by implementing all possible measures called for at the time. To do so, it is important to first implement bold monetary easing measures that go beyond market expectations and then carefully monitor their effects, rather than adopting measures in a piecemeal manner, which would have adverse effects. At the same time, the Bank does not exclude the implementation of additional measures and will not hesitate to fine-tune its policies flexibly when unexpected tail risks materialize.

The policy stance of the Bank that I have just described is not necessarily fully understood yet by market participants. Therefore, the Bank should provide a thorough explanation to the public of its policy stance through various communication channels, including dialogue with market participants.

G. The meaning of the 2 percent price stability target

I will now discuss my understanding of the price stability target of 2 percent. Generally, inflation-targeting policy is a flexible monetary policy framework and countries adopting it do not change their monetary policy stances mechanically in accordance with the achievement or undershooting of their targets. This understanding is widely shared by central banks that have adopted such a policy framework. I understand that the Bank's monetary policy framework – in which the Bank sets the 2 percent price stability target – is a flexible one, in the sense that it focuses mainly on maintaining the 2 percent target in a stable manner rather than merely on achieving the target exactly (Chart 9).

In terms of maintaining the target in a stable manner, it is almost impossible to stably maintain the inflation rate specifically at 2 percent, given the time lag required for the permeation of monetary policy effects and the uncertainty of such permeation. Rather, it is natural to think that there is an allowance of a certain range for upward and downward deviations of the actual inflation rate from the target. Of course, the degree of acceptable allowance varies depending on the view of each Policy Board member, but I think that if the inflation rate is projected to stabilize within a certain range with a median of 2 percent, then the main objective of QQE will have been fulfilled. Taking into account the trend of the inflation rate in Japan, unless inflation expectations rise soon, the possibility of achieving the price stability target of exactly 2 percent with a time horizon of about two years is not necessarily high. However, if we take the price stability target as a flexible framework with a certain range of allowance for inflation deviations, then the 2 percent target is reasonable and achievable.

I would like to emphasize that the Bank's aim under QQE is "achieving price stability, thereby contributing to the sound development of the national economy," as stipulated in the Bank of Japan Act. Specifically, the economic situation the Bank aims to bring about is not one in which prices simply rise. Rather, it is one where a virtuous circle operates in which fixed investment and private consumption grow and corporate profits increase in line with the improvement in the economic situation as a whole, and prices rise in a balanced manner in line with the improvement in the employment and income situation. The sound development of the national economy must not be put at risk in achieving 2 percent inflation merely in a superficial sense.

H. How to achieve the 2 percent inflation target

To achieve the 2 percent price stability target, the Bank assumes three channels, as follows. First, the Bank's purchases of financial assets will encourage a further downward pressure on interest rates across the yield curve and lower risk premiums of asset prices. Second, there will be a portfolio rebalancing effect. And third, the Bank's commitment to achieving the price stability target and the continuation of massive asset purchases are expected to fundamentally change the inflation expectations of firms and households as well as financial markets. I will now discuss each of these three channels in turn.

Regarding the first channel, as I mentioned earlier, risk premiums of asset prices have already been relatively contained due to the Bank's purchases of JGBs, ETFs, and J-REITs.

In this regard, some market participants have mistakenly assumed that the Bank's commitment to stabilizing short-term interest rates weakened because the Bank changed its main operating target from the uncollateralized overnight call rate to the monetary base. However, the Bank's commitment to maintaining short-term interest rates at a low level by generating a massive amount of financial institutions' excess reserves has not changed at all. Purchases of medium- to long-term JGBs amounting to about 50 trillion yen at an annual pace alone are not sufficient to meet the policy guideline of increasing the monetary base at an annual pace of about 60-70 trillion yen. Therefore, it is implied that to fill the gap the Bank will purchase a certain amount of treasury discount bills (T-Bills) and/or conduct short-term funds-supplying operations. The scale of T-Bill purchases is not mentioned in the guideline for money market operations, because the Policy Board members consider that, given the experience of comprehensive monetary easing, the provision of short-term funds should be left to the discretion of the Bank's staff, so that it can respond flexibly to potential fluctuations in short-term interest rates.

When the Bank announced immediately after the MPM held on April 3 and 4 that it would introduce QQE and aim to achieve the price stability target of around 2 percent in about two years, market participants anticipated that short-term interest rates two years ahead might not be around 0 percent, and this affected medium- to long-term interest rates. Such a phenomenon may be observed again. On this issue, I expect that the effects of the automatic adjustment function of QQE will emerge and financial markets will be able to cope with price developments on their own. To elaborate on this, once the probability of achieving the 2 percent price stability target rises, this will inevitably be incorporated in medium- to long-term interest rates to some extent; on the other hand, if the probability of achieving the target remains low, such interest rates will continue to be contained. The important point is that the Bank should contain the level of medium- to long-term interest rates at a level below that consistent with market participants' outlook for economic activity and prices by proceeding with JGB purchases and lowering risk premiums. So far, massive JGB purchases by the Bank have contained various factors that have exerted upward pressure on interest rates, and the effect of reducing risk premiums is expected to strengthen cumulatively as the amount of purchases increases (Chart 10).

As for the second channel, the portfolio rebalancing effect is aimed at stimulating economic activity and asset markets. The Bank generates large amounts of financial institutions' excess reserves through its massive purchases of JGBs from them and induces them to rebalance their portfolios from JGBs to risk assets with higher expected returns. The Bank decided to extend the average remaining maturity of JGB purchases at the MPM held on April 3 and 4 so that the portfolio rebalancing effect can strengthen.

The portfolio rebalancing effect works as follows. The Bank's asset purchases do not change the size of private financial institutions' balance sheets, but the composition of their balance sheets changes on the asset side. In other words, private financial institutions' holdings of JGBs and other assets decrease, and their current account balances at the Bank increase accordingly. From the viewpoint of private financial institutions' asset management, the profitability of their portfolios as a whole decreases since their assets under management decline and their current account balances at the Bank increase. Private financial institutions are then expected to shift their portfolios to assets with higher expected returns such as risk assets and to increase lending to secure profits (Chart 11).[1]

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[1] It should be noted that when private financial institutions shift their assets to those with higher expected returns, their current account balances held at the Bank do not decrease accordingly, as some mistakenly assume. In fact, overall current account balances held at the Bank are not affected by transactions among individual private financial institutions. For example, when a private financial institution purchases stocks from a counterparty and reduces its own current account balance at the Bank, the current account balance of the counterparty that sells the stocks increases accordingly; thus, there is no change in the current account balances at the Bank as a whole.

In this way, the Bank aims to generate massive excess reserves of financial institutions to encourage a change in the investment behavior of banks, life insurance companies, and pension funds. It is no simple matter to discuss whether portfolio rebalancing will spread among all investors, as there are also individual regulatory and accounting factors at work. In addition, such changes would not occur immediately. Nevertheless, I look forward to the progress in rebalancing despite the institutional constraints.

Finally, for the third channel, inflation expectations are generally formed with an element of adaptive expectations (that is, expectations are formed by adjusting them based on previous data) and inflation expectations of firms and households as well as financial markets are likely to be low in a situation of persistent low inflation or deflation, as in Japan. However, the year-on-year rate of change in the CPI (all items less fresh food) in Japan is currently 0 percent due to (1) cost-push factors such as rises in fuel prices due to the recent weakening of the yen and in electricity charges, as well as (2) a halt in the decline in prices of TVs and IT-related goods such as personal computers. In this situation, the year-on-year rate of change in the CPI (all items less fresh food) is expected to turn positive this summer from the current level of around 0 percent.

If actual inflation remains in positive territory, inflation expectations of firms and households as well as financial markets might shift upward accordingly. Some reports – such as the *Consumer Confidence Survey* released by the Cabinet Office, the *Opinion Survey on the General Public's Views and Behavior* released by the Bank, and surveys conducted on economists and market participants – already suggest a rise in inflation expectations, although it is hard to gauge the extent to which this is caused by the scheduled consumption tax rate hikes. The Bank expects a mechanism of a feedback loop between inflation expectations and the actual inflation rate – in which a rise in inflation expectations causes a rise in actual inflation and vice versa – to operate and medium-term inflation expectations to rise accordingly.

I. Wages and prices

In considering channels more in line with economic activity, a wage increase – as well as the narrowing of the output gap – is indispensable for achieving the 2 percent price stability target (Chart 12). At a meeting with business leaders in Gunma Prefecture on February 6, 2013, I stated that a significant wage increase of approximately 4 percent was consistent with achieving 2 percent inflation. However, considering the slowdown in the pace of increase in labor productivity in recent years, I came to realize that the wage increase needed might be lower – approximately 2 percent. The reason is that a wage increase consistent with achieving a certain inflation rate is higher when the pace of increase in labor productivity is high, and lower when the pace is low (Chart 13).

As for the supply and demand conditions in the labor market consistent with achieving a wage increase of 2 percent, judging from the wage Phillips curve – with the unemployment rate on the x-axis and the rate of wage inflation on the y-axis – which excludes a rise in inflation expectations, the unemployment rate would be roughly 3.0 percent to 3.5 percent. As the most recent unemployment rate is 4.1 percent, achieving the range of approximately 3.0 percent to 3.5 percent is not impossible.

It is still uncertain whether such a situation close to full employment can be reached within about two years – the period in which the Bank aims to achieve the price stability target under QQE. Developments in employment and wages tend to lag behind economic growth, and therefore, once the economy returns to a moderate recovery path, a considerable time lag is expected for its effects to spread to wages. Nevertheless, as I mentioned, an inflation-targeting policy is generally a flexible monetary policy framework. As mentioned, what I think is important is not mechanically achieving the inflation rate specifically of 2 percent in two years, but creating a situation in which 2 percent inflation is in sight in about two years, as a result of the tightening of supply and demand conditions in the labor market.

J. Creating a more favorable environment for firms to increase their base salary

As the importance of a wage increase in overcoming deflation has become widely recognized, the government has taken the unprecedented action of appealing to the business community, urging its members to raise wages. In fact, increases in bonus payments have already been observed in particular industries and firms, and some nonmanufacturing firms are giving indications of raising their base salary, as their employment situation has tightened reflecting a drive to obtain new personnel. However, many firms remain hesitant to increase their base salary due to concerns about a rise in fixed costs. For the nonmanufacturing firms just mentioned, the increase in base salary has been limited to full-time employees and a majority of the workers who are part-timers have not yet received such benefits.

The issue of widespread achievement of such an increase in base salary is deeply connected to the issue of ensuring flexibility in the employment systems and practices, and thus it might not be easy to form a consensus on these matters. Nevertheless, Japan's economy has recently increased its robustness, and therefore economic developments are expected to support such structural reforms in the labor market. I will now discuss Japan's economy.

III. Economic activity and prices in Japan and abroad

A. The current state of and outlook for Japan's economy

Even after the Lehman shock, Japan's economy faced a series of headwinds such as the Great East Japan Earthquake and the flooding in Thailand in 2011, as well as the deceleration of the Chinese economy from 2012. However, it has overcome such shocks and a path toward a self-sustained recovery is finally in view. A high degree of uncertainty remains concerning the global economy, and I see risks to the economic outlook as somewhat tilted to the downside. However, the external environment as a whole is expected to exert positive effects on Japan's economy unless a tail risk affecting the global economy emerges. Therefore, I believe that the present offers a window of opportunity for Japan's economy to overcome deflation (Chart 14).

Exports had lagged behind domestic demand, which has started to increase its resilience, but have been picking up led by exports of automobiles to the United States. Production of manufacturing firms followed a moderate increasing trend in the April-June quarter of 2013, and is expected to continue to do so in the July-September quarter judging from interviews with firms (Chart 15). Although the deceleration of the Chinese economy – which I will discuss later – is a major concern, it is not a serious obstacle to the recovery of Japan's economy as long as the robustness of the U.S. economy is maintained.

Private consumption for the January-March quarter of 2013 seemed to be supported by an improvement in sentiment and wealth effects. Private consumption is expected to continue increasing, as household sentiment has remained firm on the whole even amid the recent turmoil in financial markets, and as the employment and income situation improves moderately (Chart 16). According to anecdotal information, negative effects on consumption of high-end goods and services have not been observed to a large degree despite the recent turmoil in financial markets. The contribution of public investment to the economy is expected to increase again from the July-September quarter, supported by the effects of various economic measures (Chart 17). In these circumstances, coincident indicators of machinery investment – such as shipments of capital goods and the aggregate supply of capital goods – suggest that business fixed investment, which had been sluggish, is finally showing some signs of picking up from the April-June quarter. Investment for energy-saving and disaster prevention as well as pent-up demand for maintenance and replacement of business equipment seem to be emerging (Chart 18). Business fixed investment is expected to increase moderately as shown by firms' business fixed investment plans in the June 2013 *Tankan* (Short-Term Economic Survey on Enterprises in Japan).

Although there are disparities among demand components, they have shown some positive developments, and in this situation Japan's economy has become increasingly robust – albeit gradually. In these circumstances, the employment and income situation, which had lagged behind other demand components, is expected to improve gradually.

B. Outlook for and risks facing the global economy

The prerequisite for Japan's economy to return to a self-sustained growth path is that overseas economies move out of the deceleration phase that has continued since 2012 and return to a moderate recovery path. On this point, the resilience in the U.S. economy even under the fiscal drag is a positive factor, but it is a matter of concern that the Chinese and other emerging economies have not yet shown clear signs of acceleration in growth. The World Economic Outlook, updated in July by the International Monetary Fund (IMF), shows that the growth rates of these economies will increase gradually from 2013 to 2014, but these economic projections were revised downward from the April update (Chart 19). However, the U.S. economy – which is increasing its robustness – is expected to firmly propel the global economy even in a situation where emerging economies are losing their role as the driving force in the global economy. Therefore, on the whole, there is almost no considerable change in the outlook that the global economy will return to a moderate recovery path.

The U.S. economy experienced a soft patch during the April-June quarter of 2013 due to the effects of fiscal austerity measures. From the July-September quarter, as the effects dissipate to some extent, the U.S. economy is likely to exhibit relatively high growth on the back of firm consumer sentiment and a pick-up in the housing market (Charts 20 and 21). The fact that the debt ceiling problem has been delayed until autumn 2013 at the earliest due to higher-than-expected federal government revenues is judged to be one of the factors reducing the immediate tail risk.

The European economy still lags behind, but the situation does not call for a further downward revision to the economic outlook. This is because (1) European countries are shifting away from and softening fiscal austerity measures; (2) exports from Europe are improving to some extent; and (3) business and household sentiment is starting to show some signs of improvement (Charts 22 and 23).

As for emerging economies, on the other hand, an issue of concern is that the pace of capital flows into these economies has been decelerating and an outflow of funds from these economies has been observed, amid a shift toward low-risk investments in global financial markets caused by emerging speculation about an earlier-than-expected reduction by the Federal Reserve in the pace of its asset purchases. Behind the speculation lies the fact that the U.S. economy has continued to recover steadily, and this itself is a positive factor for the global economy, including emerging economies. Nevertheless, I am paying careful attention to whether the speculation causes an abrupt change in capital flows, leading to a downturn in some emerging economies, or causes difficulty in funding conditions (Chart 24).

Furthermore, in China, it has been clearly observed that the government is placing a high priority on coping with structural problems, such as population-related issues and the excess capacity problem, rather than on pursuing strong economic growth. Thus, we should not expect the growth rate to recover noticeably for the time being (Chart 25). The labor market is firm even though the annualized GDP growth rate is less than 8 percent, and this suggests that the potential growth rate in China is decreasing. Therefore, the Chinese authorities are concerned about inflation, even in a situation where the economic growth rate has not increased (Chart 26). In June 2013, short-term interest rates surged temporarily, but this reflects the fact that the Chinese authorities had clearly shown an intention of encouraging financial institutions to strengthen their liquidity risk management in view of rapid credit expansion, in addition to the tightening of the supply-demand conditions for funds toward the end of the first half of the fiscal year (Chart 27). This stance of the Chinese authorities will strengthen the quality of economic growth, contributing to stability in the global economy in the medium to long term.

Taking into consideration the developments I have just mentioned, the global economy is expected to return to a moderate recovery path, supported by accommodative financial conditions, amid the weakening downward pressure from the fiscal side in countries such as the United States. We can point to the following factors as signaling a return of the global economy to such a recovery path: (1) steady household sentiment worldwide; (2) a globally favorable shipment-inventory balance in manufacturing; and (3) adjustment in the stance of fiscal austerity in Europe. By region, I am focusing especially on the U.S. economy, which is supported by the recovery in housing investment, as the driving force of the global economy. As for accommodative financial conditions, they are mainly attributable to an improvement in the funding conditions of financial institutions. The tail risk that the European debt problem will lead to global financial market turmoil and a significant global economic downturn has decreased on the whole, although considerable uncertainty remains. The recent stability in prices of primary commodities is another positive factor (Chart 28).

The two main risk factors to the outlook for the global economy that warrant attention are (1) as mentioned earlier, the effects of the reduction in the pace of asset purchases by the Federal Reserve on global financial markets, especially on emerging economies' markets; and (2) the global disinflationary trend. The effects on global financial markets are expected to dissipate moderately with the expansion of global economic growth, and as the Federal Reserve's policy intention gradually permeates the markets. On the other hand, I am paying attention to the global disinflationary trend – particularly whether the recent decline in the inflation rate in the United States is temporary as assumed by the Federal Reserve.

IV Concluding remarks

Lastly, I would like to touch on economic activity in Fukushima Prefecture.

Economic activity in the prefecture has been picking up reflecting factors such as an improvement in overseas demand and growth in demand related to post-disaster restoration and reconstruction. Public investment has continued to increase significantly at a pace far exceeding that of Japan as a whole, mainly due to decontamination work and construction orders related to restoration following the earthquake disaster. Housing investment has also been increasing significantly, supported in part by reconstruction of homes and demand from evacuees to transfer their residence (Chart 29). The situation for tourism remains severe, but there are signs of gradual improvement mainly in the area around Aizu, due to a historical TV drama series featuring the region. The Tohoku Rokkon Festival held in Fukushima Prefecture in early June was also very successful.

As for the outlook, economic activity in the prefecture is expected to gradually show clear signs of picking up due partly to signs of an increase in production, in a situation where demand related to post-disaster restoration and reconstruction is expected to remain strong.

It should be noted, however, that the effects of the earthquake disaster – and especially of the nuclear power plant accident – remain and a number of issues must be overcome to achieve economic reconstruction in the prefecture. According to statistics released by the prefectural government, about 150,000 residents are still displaced. Harmful rumors persist, and their effects continue to spread to industries such as food, agriculture, and tourism. Production activities are recovering, but the level of industrial production since the earthquake disaster has consistently been about 10 percentage points below the national average (Chart 30). There are challenges for the employment situation as well, such as the mismatch between supply and demand in the labor market and the employment situation for disaster victims.

To overcome these challenges, it is important above all to proceed as promptly as possible with environmental restoration and rebuilding of the daily lives of evacuees in a broad sense, by achieving progress in decontamination work and restructuring in the evacuation zones, among others. From the viewpoint of ensuring economic reconstruction in the prefecture, it is particularly important to foster growing firms and vibrant industries that generate employment opportunities. Worthy of note in this regard are the efforts to foster new growth areas from a medium-term perspective contained in the Plan for Revitalization in Fukushima Prefecture, released by the Fukushima prefectural government. Directions for revitalization described in the plan include (1) the medical industry cluster project, such as investment in a new drug research center, as well as (2) the renewable energy promotion project, for example, expansion of renewable energy and clustering and fostering of renewable energy-related industries. Also called for are the rebuilding and revitalization of the agriculture, forestry, fisheries, and tourism industries.

Fukushima Prefecture has long enjoyed a high degree of regional attractiveness and other advantages that support growth. These include (1) geographical proximity to the Tokyo metropolitan area, a very large market; (2) a strong manufacturing sector, as shown by the fact that the prefecture posts the largest value of shipments of manufactured goods in the Tohoku region; and (3) a range of tourist resources such as rich natural surroundings and hot spring resorts as well as local agricultural products. If the efforts described in the Plan for Revitalization in Fukushima Prefecture draw fully on the region’s attractions and advantages, the prefectural economy can be restored even more strongly and more rapidly. It is therefore deeply hoped that the range of cooperative efforts among industry, government, and academia progress steadily and support the economy’s reconstruction and further development.

Chart 1

Quantitative and Qualitative Monetary Easing (QQE)

1. Adoption of the monetary base control

• The monetary base will increase at an annual pace of about 60-70 tril. yen.

2. Increase in JGB purchases and their maturity extension

• With a view to influencing interest rates across the yield curve, the Bank will purchase JGBs so that their amount outstanding will increase at an annual pace of about 50 tril. yen.

• JGBs with all maturities will be made eligible for purchase, and the average remaining maturity of the Bank's JGB purchases will be extended from slightly less than three years to about seven years -- equivalent to the average maturity of the amount outstanding of JGBs issued.

3. Increase in ETF and J-REIT purchases

• With a view to lowering risk premia of asset prices, the Bank will purchase ETFs and J-REITs so that their amounts outstanding will increase at an annual pace of 1 tril. yen and 30 bil. yen, respectively.

4. Continuation of the QQE

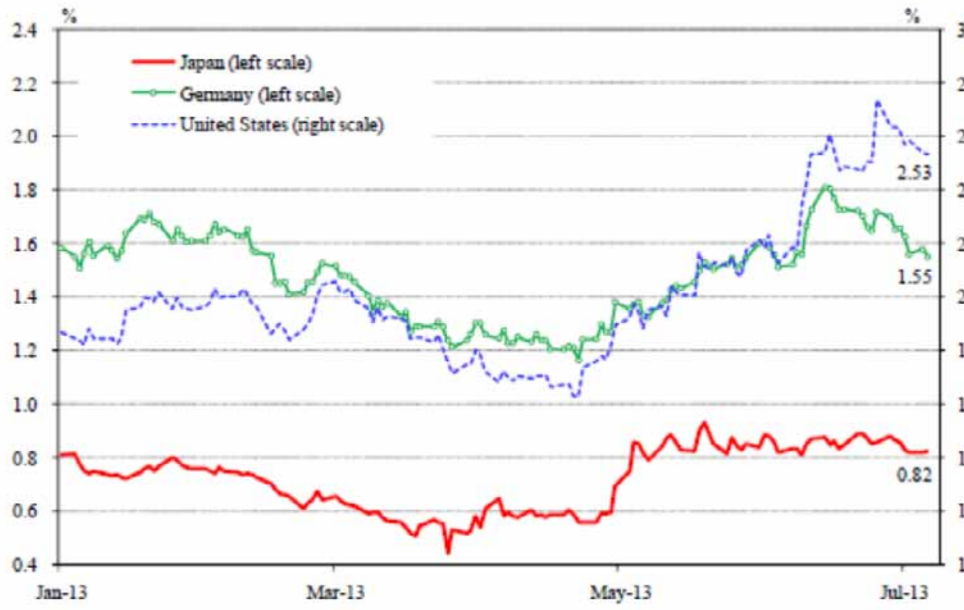
• The Bank will continue with the QQE, aiming to achieve the price stability target of 2%, as long as it is necessary for maintaining that target in a stable manner.

• The Bank will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.

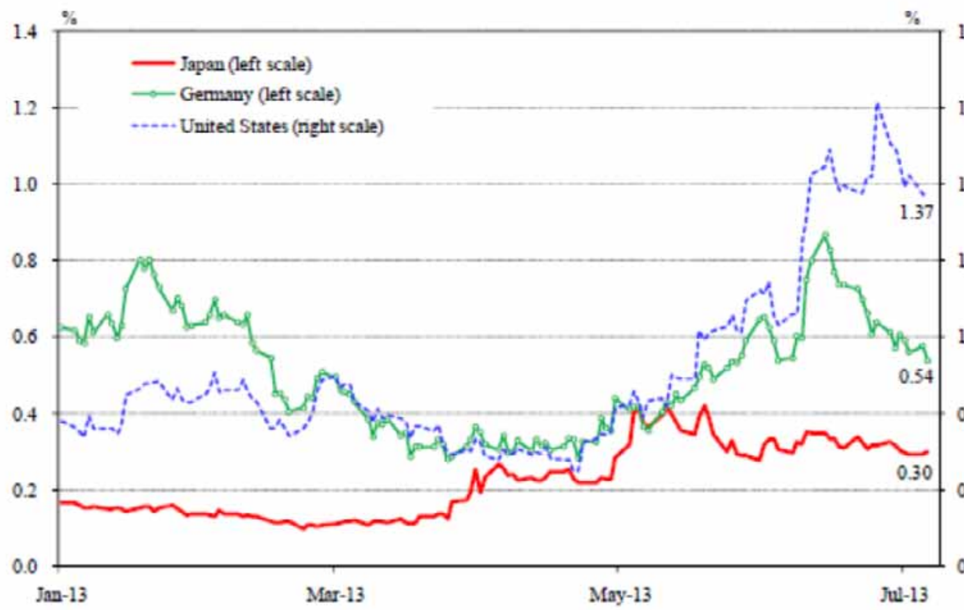
Chart 2

Government Bond Yields in Japan, Germany, and the United States

(1) 10-Year Bonds



(2) 5-Year Bonds

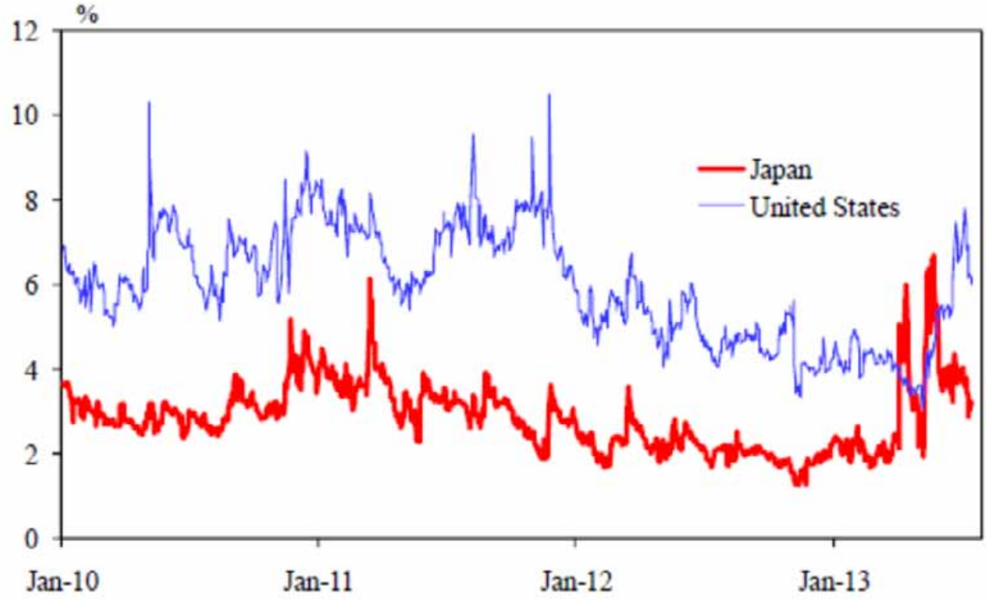


Note: As of July 16, 2013.
Source: Bloomberg.

Chart 3

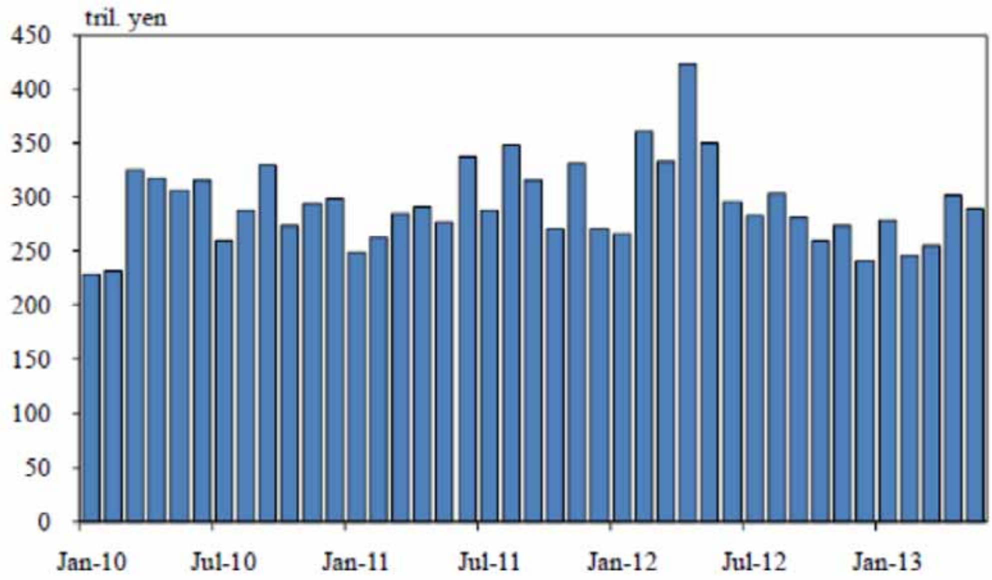
Liquidity in Bond Markets

(1) Implied Volatility of Long-Term Bond Futures Options



Note: As of July 16, 2013.

(2) Trading Volume of Over-the-Counter Bonds (Gross Basis)

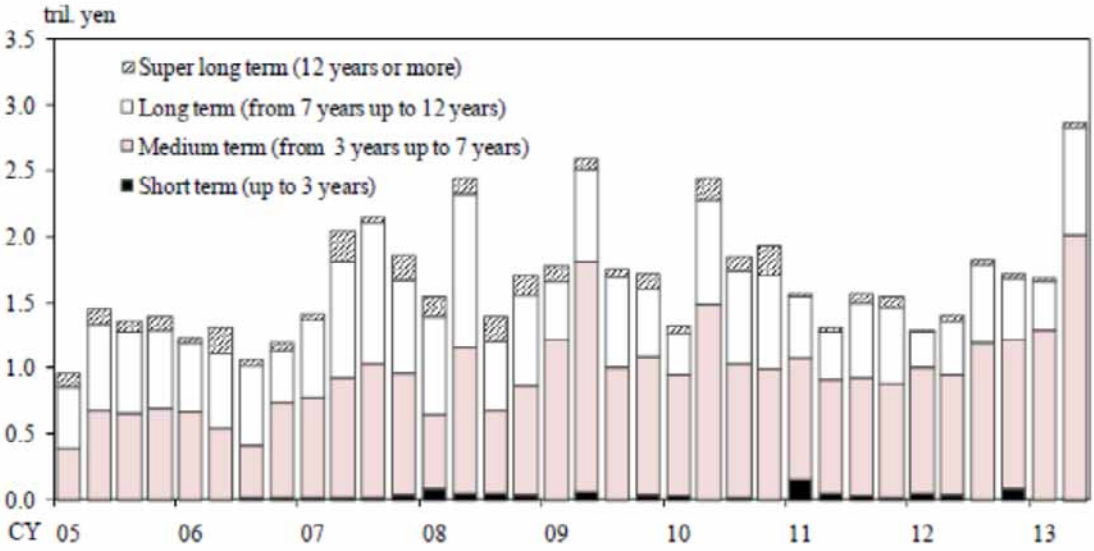


Sources: Bloomberg; Japan Securities Dealers Association.

Chart 4

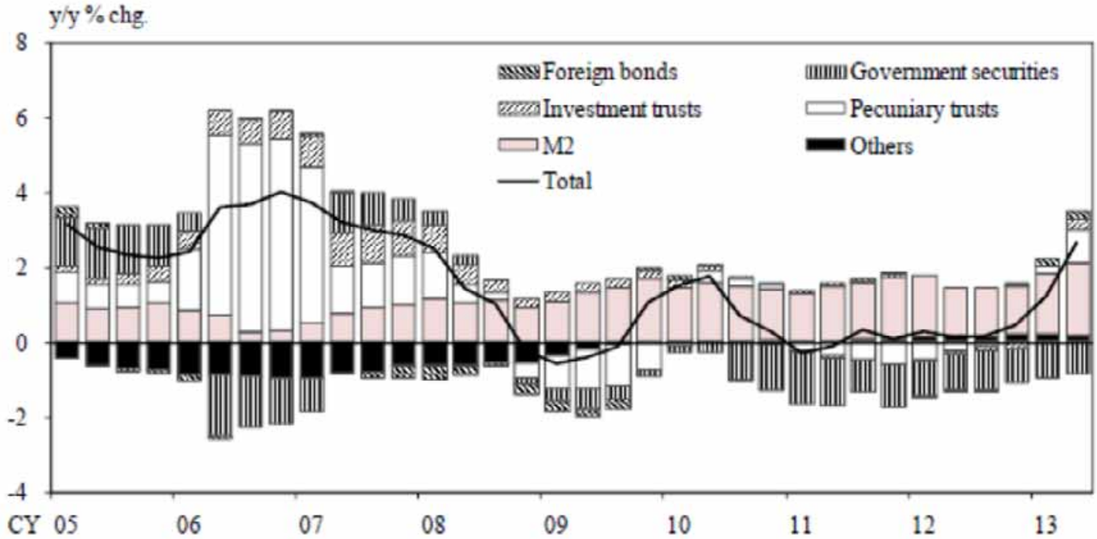
Amount Outstanding of Corporate Bonds and Money Stock

(1) Amount Outstanding of Corporate Bonds



Note: Figures are for publicly-offered domestic corporate bonds (bonds issued by banks are excluded). Figures are calculated at the date of decision of issuance conditions.

(2) Money Stock (Broadly-Defined Liquidity)



Sources: Bank of Japan; I-N Information Systems.

Chart 5

Outright Purchases of JGBs

Breakdown of Outright Purchases of JGBs (May 30, 2013, Financial Markets Department)

per month, tril. yen

Residual maturity	Up to 1 year	More than 1 year and up to 5 years	More than 5 years and up to 10 years	More than 10 years
Released on April 4	0.22	3.0	3.4	0.8
Released on April 18 (monthly schedule for May 2013)	0.22 (0.11) <2 times>	3.0-3.5 (0.6-0.7) <5 times>	3.0-3.5 (0.6-0.7) <5 times>	0.8-1.2 (0.2-0.3) <4 times>
Released on May 30 (monthly schedule after June 2013)	About 0.22 (About 0.11) <About 2 times>	About 3.0-4.2 (About 0.5-0.7) <About 6 times>	About 2.7-3.6 (About 0.45-0.6) <About 6 times>	About 1.0-1.5 (About 0.2-0.3) <About 5 times>

Note: Figures in parentheses indicate size per auction. Figures in angular brackets indicate the number of auctions per month.

Source: Bank of Japan.

Chart 6

Introduction of the "Price Stability Target" and Joint Statement of the Government and the Bank of Japan (January 22, 2013)

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.

(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 7

Minutes of the Monetary Policy Meetings (MPMs)

(1) Minutes of the MPM on February 13 and 14 (excerpts; emphasis added)

- Some members referred to the following as options for the Bank if there was a need for additional monetary easing in the future: (1) lowering the interest rate applied under the complementary deposit facility; (2) purchasing JGBs with longer remaining maturities under the [Asset Purchase] Program; and (3) increasing the size of purchases of risk assets.
- A few of these members said that, if JGBs with longer remaining maturities became eligible for purchases, in considering issues as providing clarity, one approach might be to consolidate purchases of JGBs under the Program with those conducted in terms of money market operations, although careful examination of the benefits and costs accompanying the consolidation was necessary.

(2) Minutes of the MPM on March 6 and 7 (excerpts; emphasis added)

- [S]ome members said that accumulation of the amount outstanding of the Program through the fixed-rate funds-supplying operation against pooled collateral would likely become more difficult as the amount of funds the Bank provided increased further. They continued that it was therefore highly likely that the Bank would need to take drastic measures to address this issue at some point. One of the these members added that such measures should be considered not in terms of mere technical revisions to the operational method, but as part of future additional monetary easing measures.
- With regard to the various points discussed at this meeting -- including the stance on the operation of the Program -- one member added that these should not be discussed simply as technical matters, and that the time might be approaching for the Bank to reconsider the scheme of monetary policy -- that is, the comprehensive monetary easing framework and its concept.

Chart 8

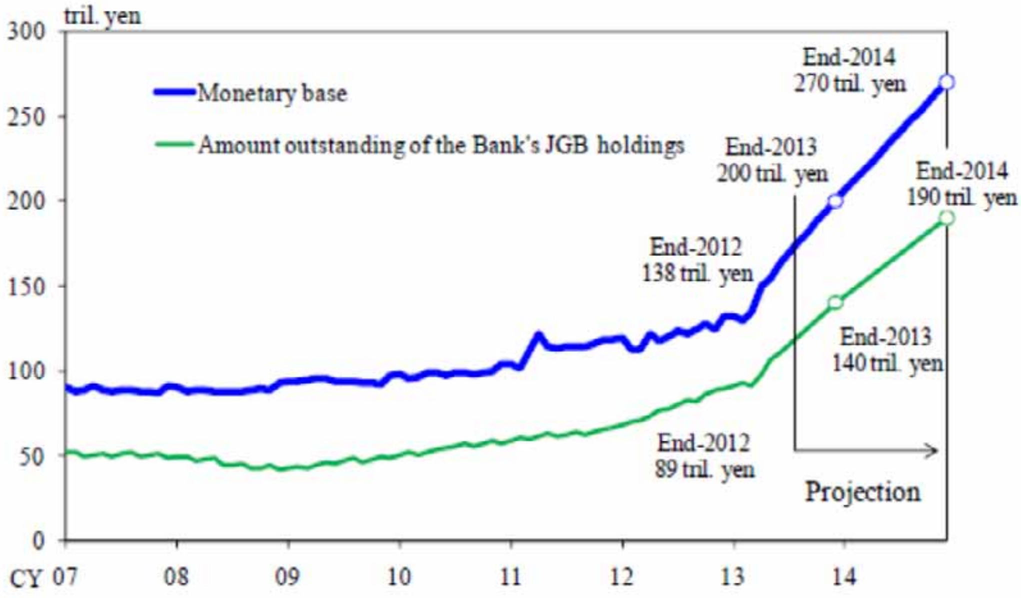
Monetary Base Target and the Bank's Balance Sheet

(1) Monetary Base Target and the Bank's Balance Sheet Projection

tril. yen

	End-2012 (actual)	End-2013 (projected)	End-2014 (projected)
Monetary base	138	200	270
Breakdown of the Bank's Balance Sheet			
JGBs	89	140	190
CP	2.1	2.2	2.2
Corporate bonds	2.9	3.2	3.2
Exchange-traded funds (ETFs)	1.5	2.5	3.5
Japan real estate investment trusts (J-REITs)	0.11	0.14	0.17
Loan Support Program	3.3	13	18
Total assets (including others)	158	220	290
Banknotes	87	88	90
Current deposits	47	107	175
Total liabilities and net assets (including others)	158	220	290

(2) Monetary Base Target and Increase in JGB Purchases



Source: Bank of Japan.

Chart 9-1

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 9-2

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 10

Factors Affecting Long-Term Interest Rates

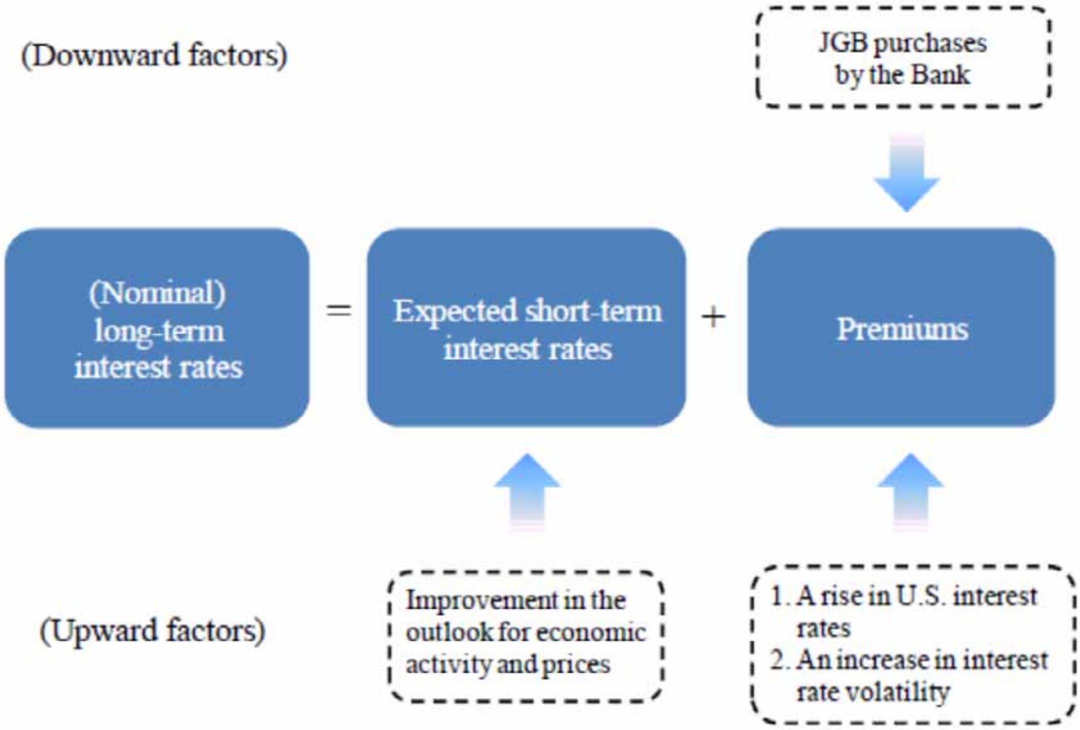


Chart 11

Change in the Balance Sheets of the Bank and Private Financial Institutions

Example: Initial Change of Balance Sheets Brought by the Bank's Asset Purchases

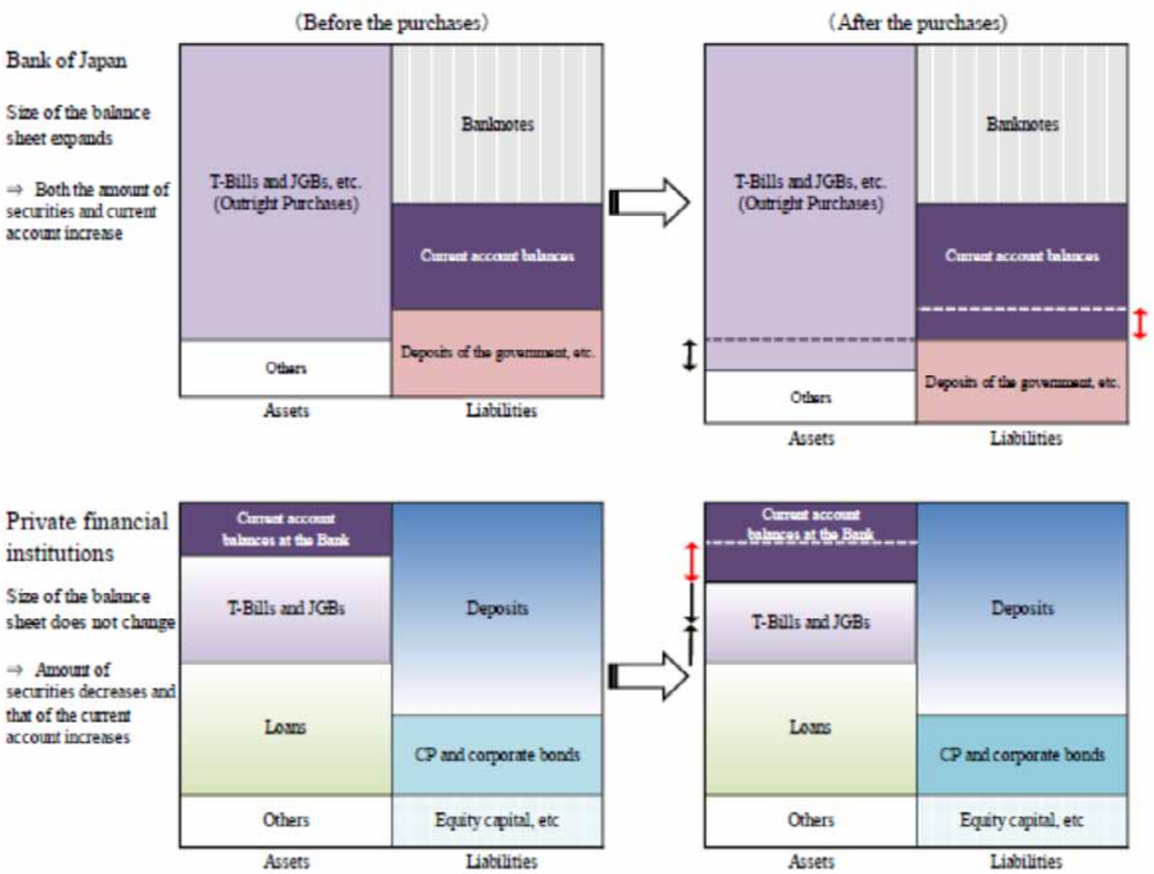
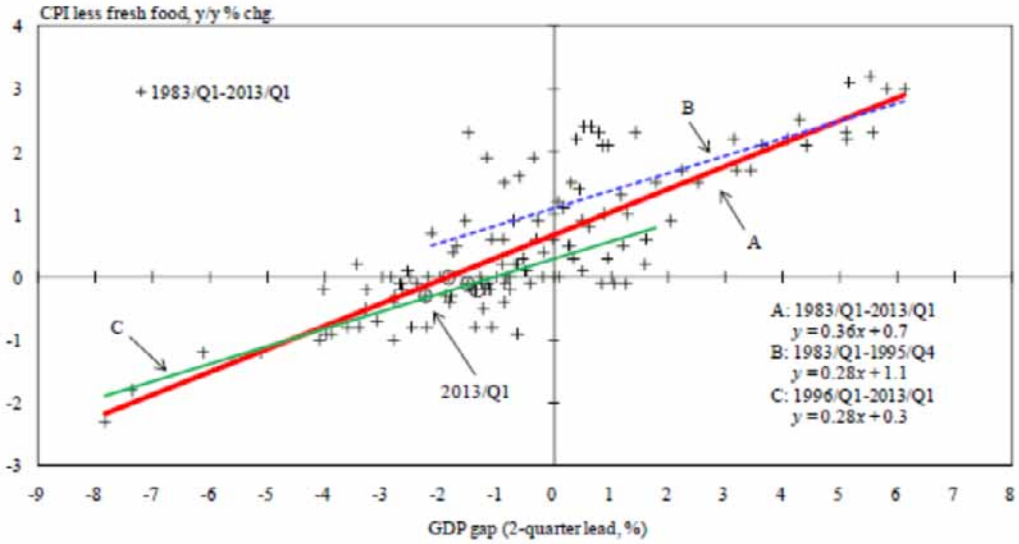


Chart 12

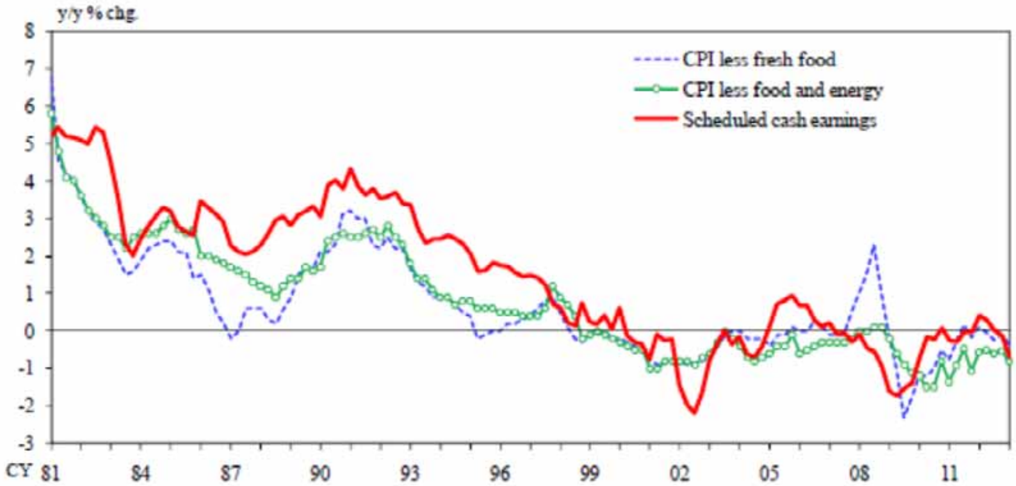
Wages and Prices (1)

(1) Phillips Curve (CPI Less Fresh Food)



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

(2) CPI and Scheduled Cash Earnings

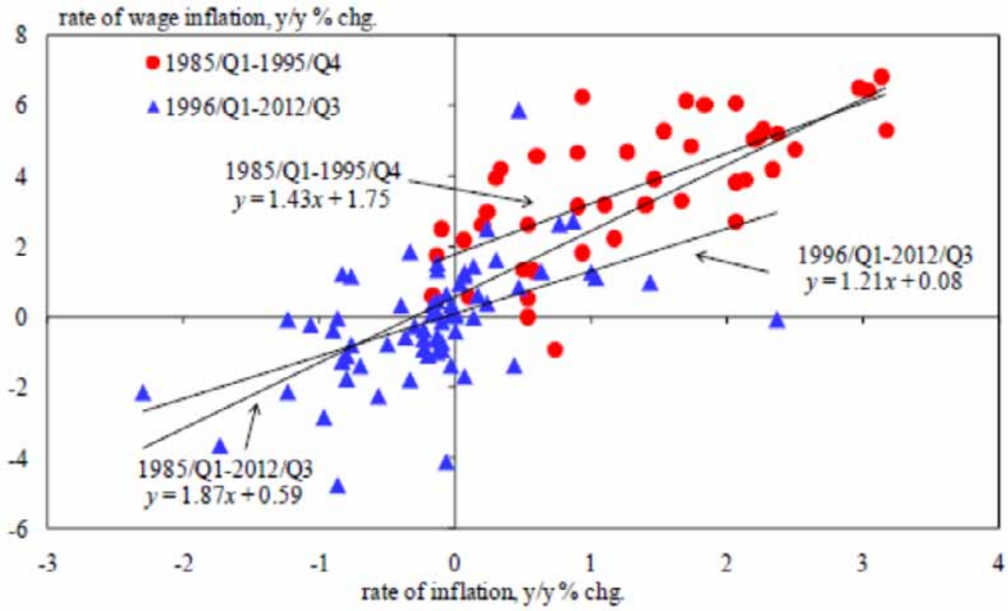


Notes: 1. The figure for "scheduled cash earnings" is based on establishments with at least 30 employees in the "Monthly Labour Survey."
2. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.
Sources: Ministry of Internal Affairs and Communications; Cabinet Office; Ministry of Health, Labour and Welfare, etc.

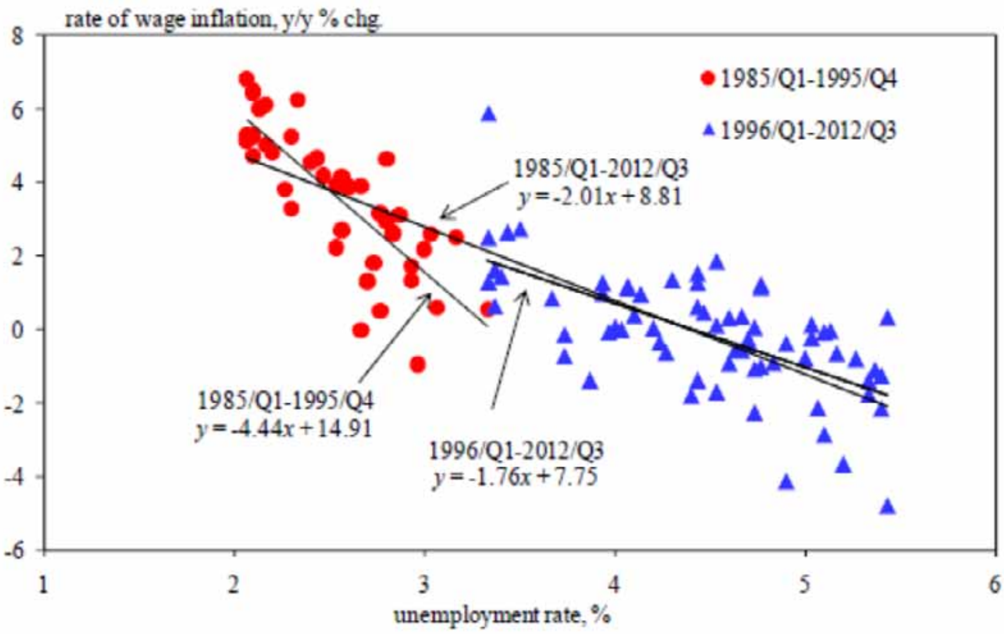
Chart 13

Wages and Prices (2)

(1) Inflation Rate and Wage Inflation Rate



(2) Unemployment Rate and Wage Inflation Rate (Wage Phillips Curve)



Notes: 1. The wage is the hourly wage. Figures for wages are calculated as "total cash earnings (establishment with 30 or more employees)" divided by "total hours worked."
2. The CPI for all items less fresh food is used for the inflation rate.
3. Figures for the CPI are adjusted to exclude the effects of changes in the consumption tax rate.

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

Chart 14

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

Forecasts of the Majority of Policy Board Members

y/y % chg.

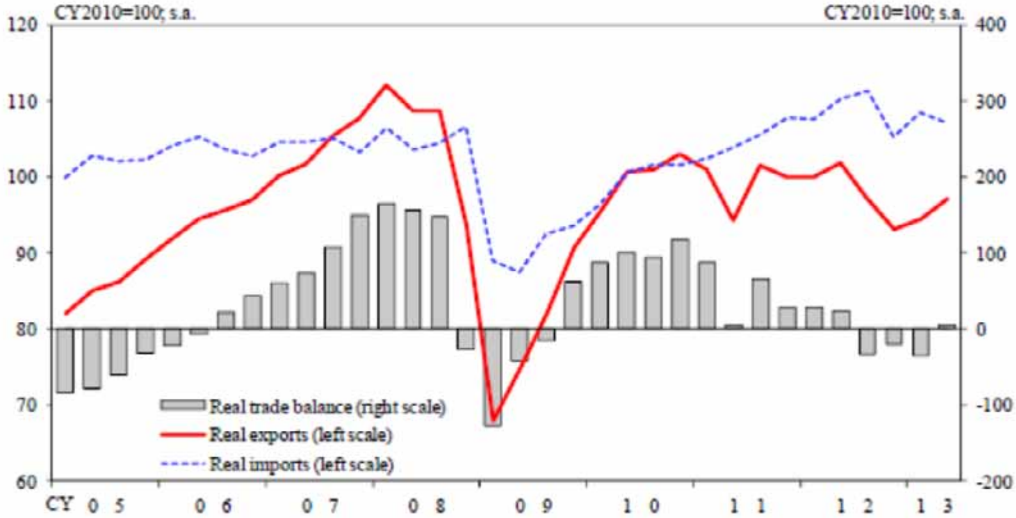
	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
Fiscal 2013	+2.5 to +3.0 [+2.8]	+0.5 to +0.8 [+0.6]	
Forecasts made in April 2013	+2.4 to +3.0 [+2.9]	+0.4 to +0.8 [+0.7]	
Fiscal 2014	+0.8 to +1.5 [+1.3]	+2.7 to +3.6 [+3.3]	+0.7 to +1.6 [+1.3]
Forecasts made in April 2013	+1.0 to +1.5 [+1.4]	+2.7 to +3.6 [+3.4]	+0.7 to +1.6 [+1.4]
Fiscal 2015	+1.3 to +1.9 [+1.5]	+1.6 to +2.9 [+2.6]	+0.9 to +2.2 [+1.9]
Forecasts made in April 2013	+1.4 to +1.9 [+1.6]	+1.6 to +2.9 [+2.6]	+0.9 to +2.2 [+1.9]

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

Chart 15

External Balance and Production

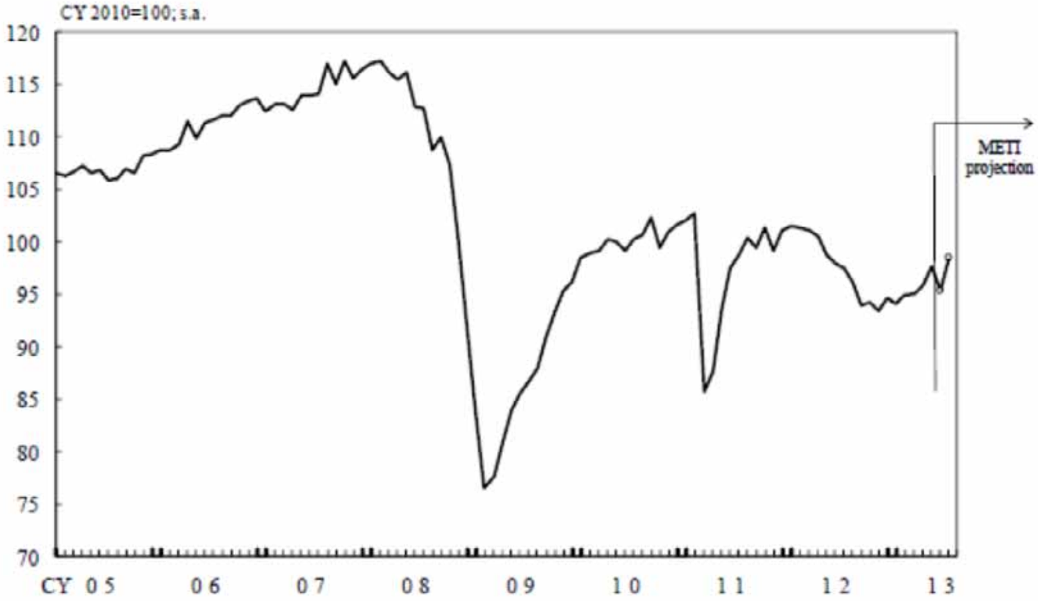
(1) Real Exports, Real Imports, and Real Trade Balance



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

2. Real exports/imports are the value of exports and imports in "Trade Statistics" deflated by coresponding price indexes. "Real trade balance" is defined as real exports minus real imports.

(2) Production

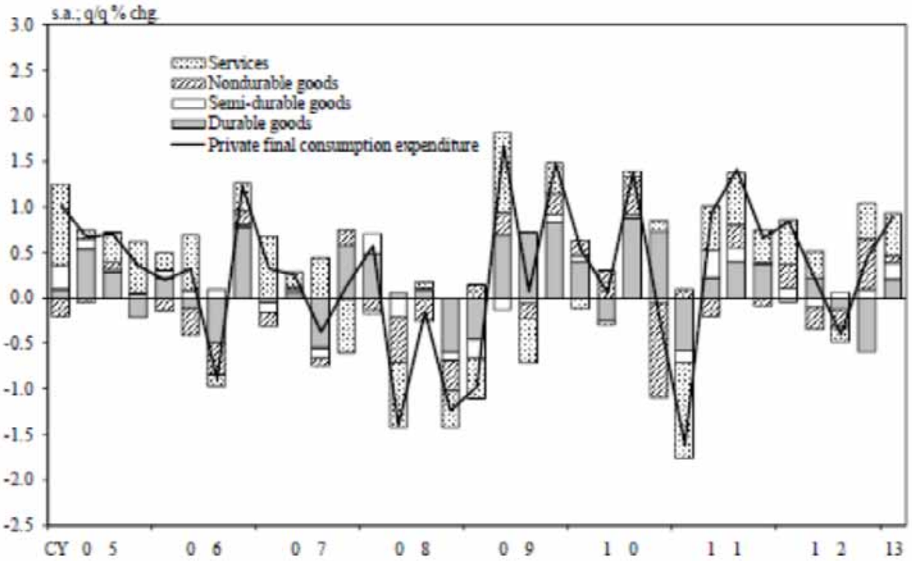


Sources: Minstry of Finance; Bank of Japan; Ministry of Economy, Trade and Industry.

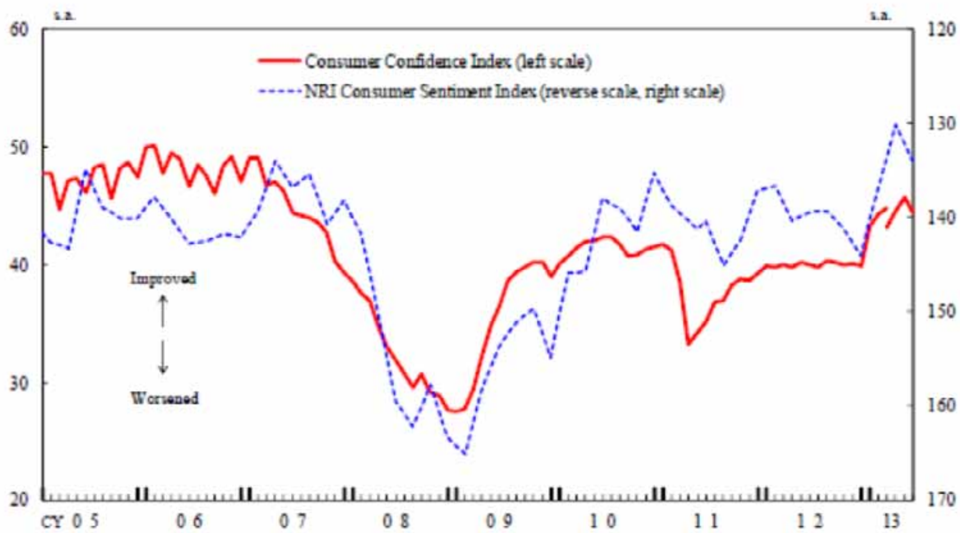
Chart 16

Private Consumption and Consumer Confidence

(1) Private Final Consumption Expenditure (Real)



(2) Consumer Confidence



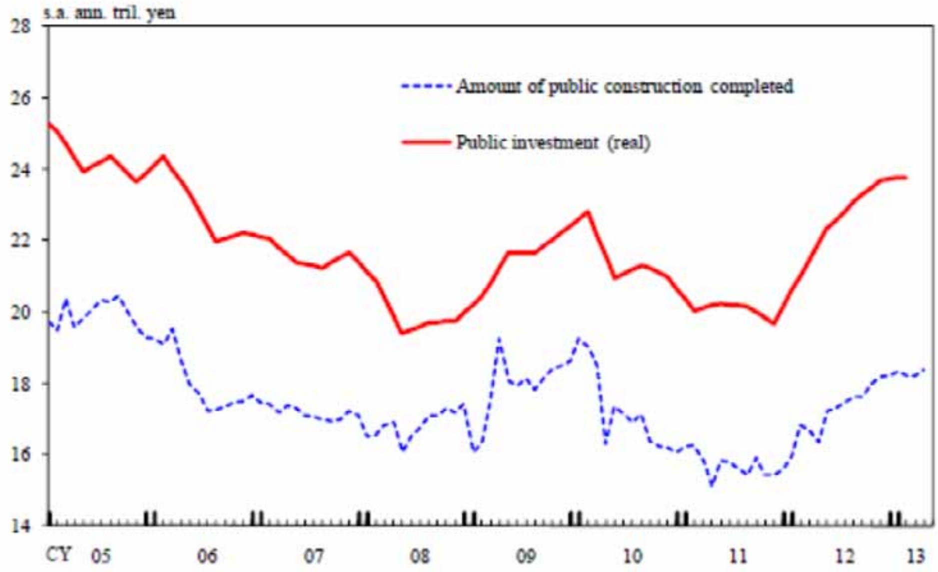
Notes: 1. The Consumer Confidence Index (covering about 5,700 samples on a nationwide basis from April 2013 onward) and the NRI Consumer Sentiment Index (1,200 samples on a nationwide basis) are based on surveys on consumer confidence.
2. In April 2013, the Cabinet Office changed the method for conducting the Consumer Confidence Survey to a postal method, along with some other changes. For this reason, there is a discontinuity between data up to March 2013, which were obtained from the survey on visit-and-leave method, and those thereafter. The figure for March 2013 on a postal-method basis is obtained from an examination survey.
3. Figures are plotted for each surveyed month and the data for the intervening months are linearly interpolated.
4. Figures are seasonally adjusted by X-12-ARIMA.

Sources: Cabinet Office; Nippon Research Institute (NRI).

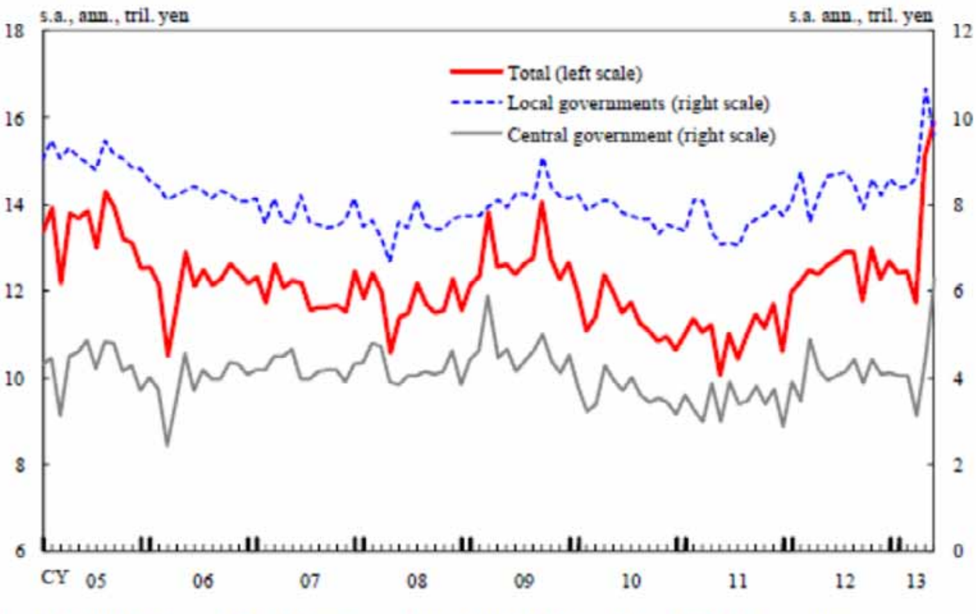
Chart 17

Public Investment

(1) Amount of Public Construction Completed and Public Investment



(2) Value of Public Works Contracted



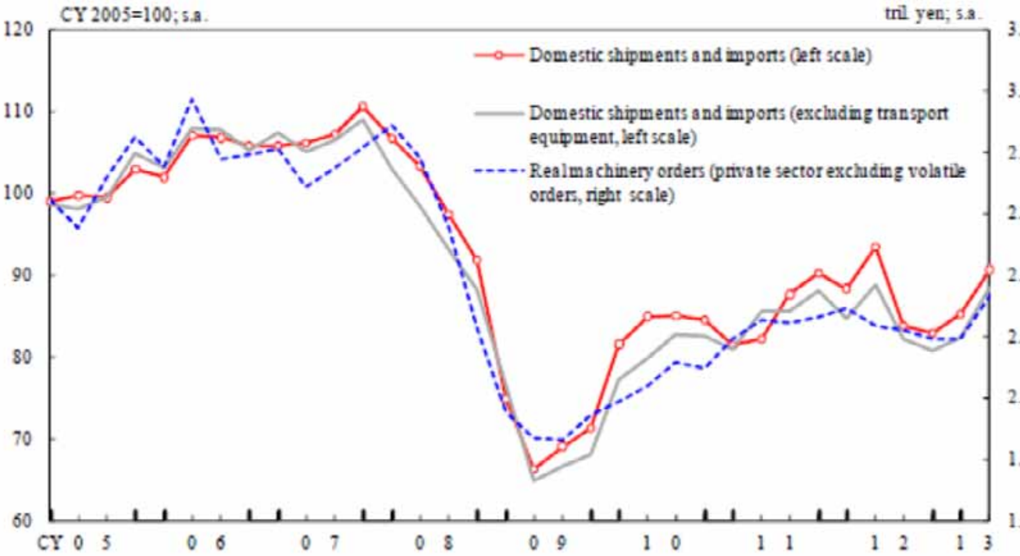
Notes: 1. Quarterly figures of public investment are plotted at the middle month of each quarter.
2. The amount of public construction completed is based on the general tables in the "Integrated Statistics on Construction Works."
3. Figures of the value of public works contracted and the amount of public construction completed are seasonally adjusted by X-12-ARIMA. As figures of the amount of public construction completed are seasonally adjusted on a monthly basis, the data are retroactively revised every month.

Sources: Cabinet Office; East Japan Construction Surety etc.; Ministry of Land, Infrastructure, Transport and Tourism.

Chart 18

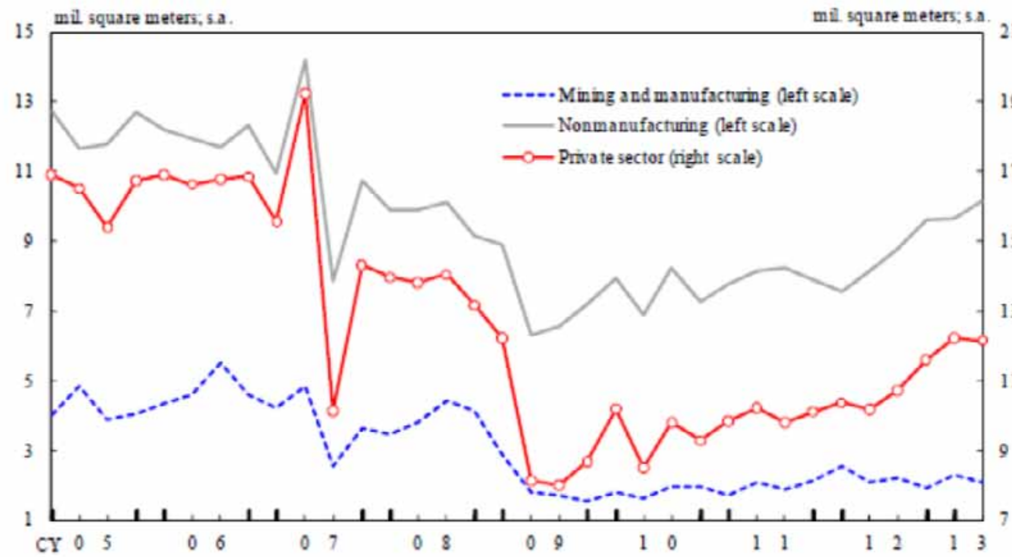
Machinery and Construction Investment

(1) Machinery Investment



Notes: 1. CGPI is used to convert "machinery orders" into "real" figures.
2. Figures of real machinery orders for 2005/Q1 are estimated by the Cabinet Office.
3. Volatile orders: orders for ships and those from electric power companies.

(2) Construction Starts (Floor Area, Private, Nondwelling Use)



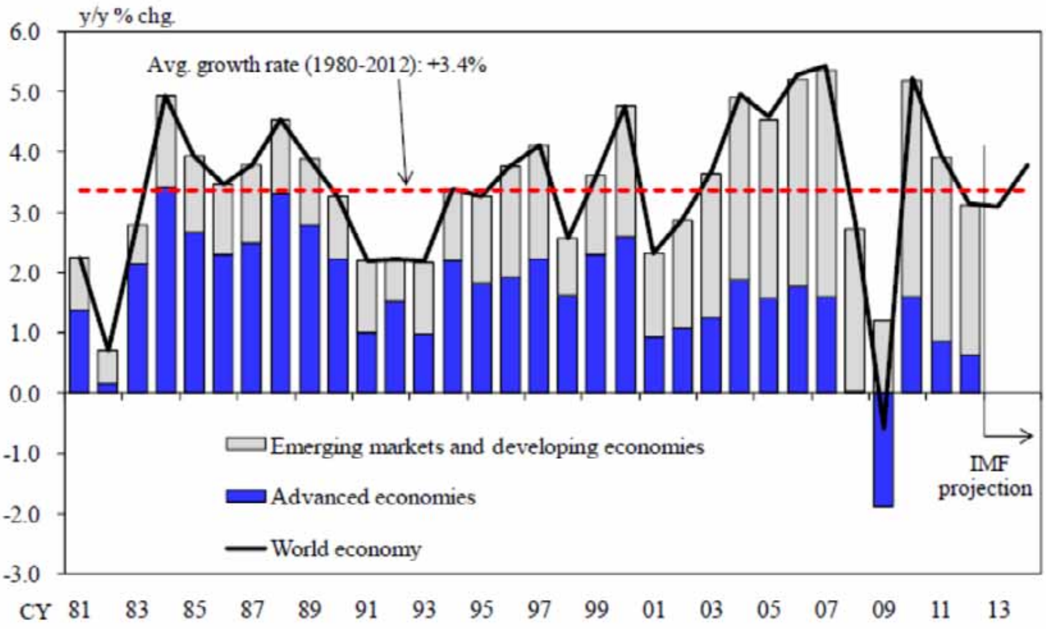
Note: Seasonally adjusted by X-12-ARIMA.

Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; Bank of Japan.

Chart 19

World Economy

(1) Real GDP Growth Rate of the World Economy



(2) IMF Projections (as of July 2013)

real GDP growth rate, %

CY	2011	2012	2013 projection	2014 projection
World	3.9	3.1	3.1 (-0.2)	3.8 (-0.2)
Advanced economies	1.7	1.2	1.2 (-0.1)	2.1 (-0.2)
United States	1.8	2.2	1.7 (-0.2)	2.7 (-0.2)
Euro area	1.5	-0.6	-0.6 (-0.2)	0.9 (-0.1)
Japan	-0.6	1.9	2.0 (0.5)	1.2 (-0.3)
Emerging market and developing economies	6.2	4.9	5.0 (-0.3)	5.4 (-0.3)
Developing Asia	7.8	6.5	6.9 (-0.3)	7.0 (-0.3)
China	9.3	7.8	7.8 (-0.3)	7.7 (-0.6)
Brazil	2.7	0.9	2.5 (-0.5)	3.2 (-0.8)

Notes: 1. Figures are calculated using GDP based on purchasing power parity (PPP) shares of the world total from the IMF.

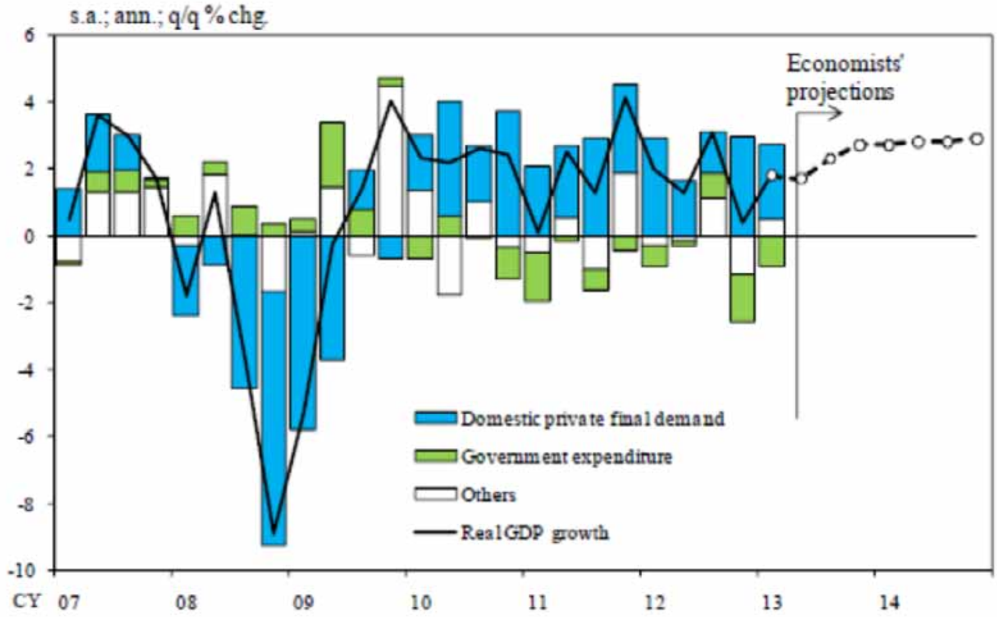
2. The numbers in parentheses are the difference from the April 2013 World Economic Outlook projections.

Source: International Monetary Fund.

Chart 20

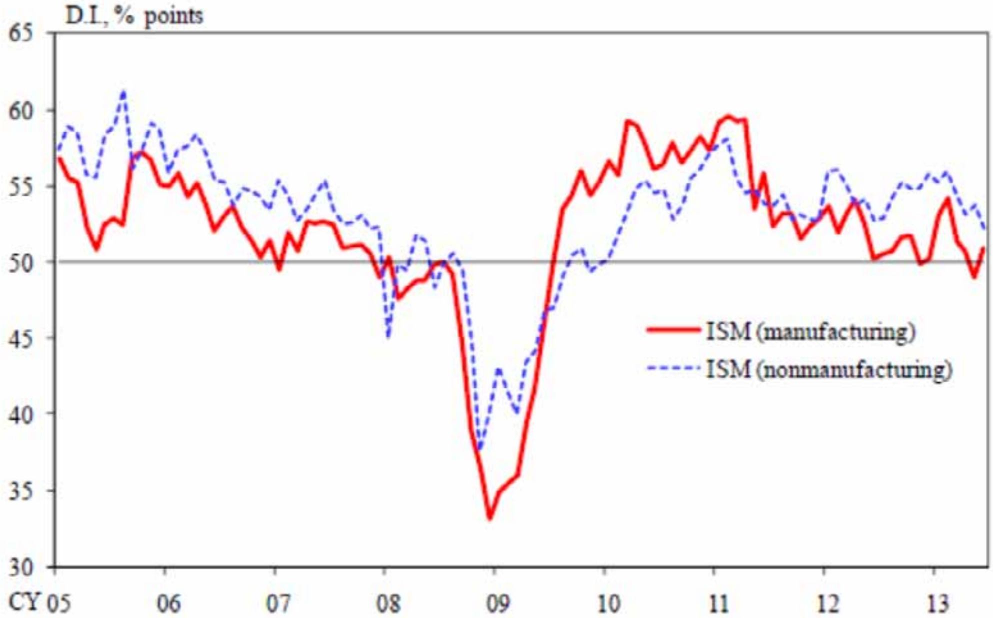
U.S. Economy (1)

(1) U.S. Real GDP Growth Rate



Notes: 1. Domestic private final demand consists of private consumption expenditures and private fixed investment.
2. Economists' projections are from Blue Chip Economic Indicators (July 2013).

(2) Corporate Sector Confidence

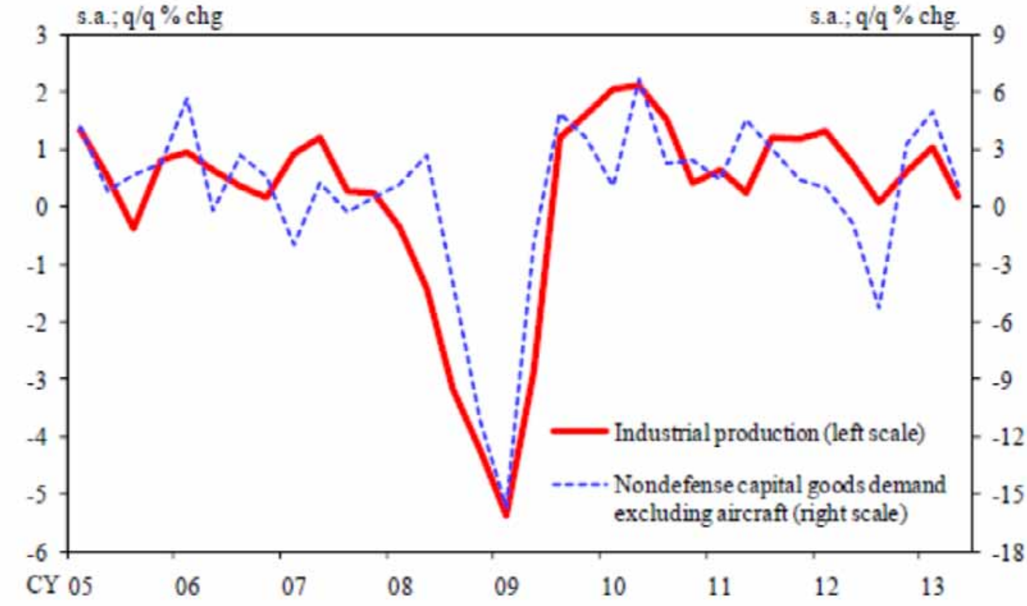


Sources: BEA; Bloomberg; Blue Chip Economic Indicators.

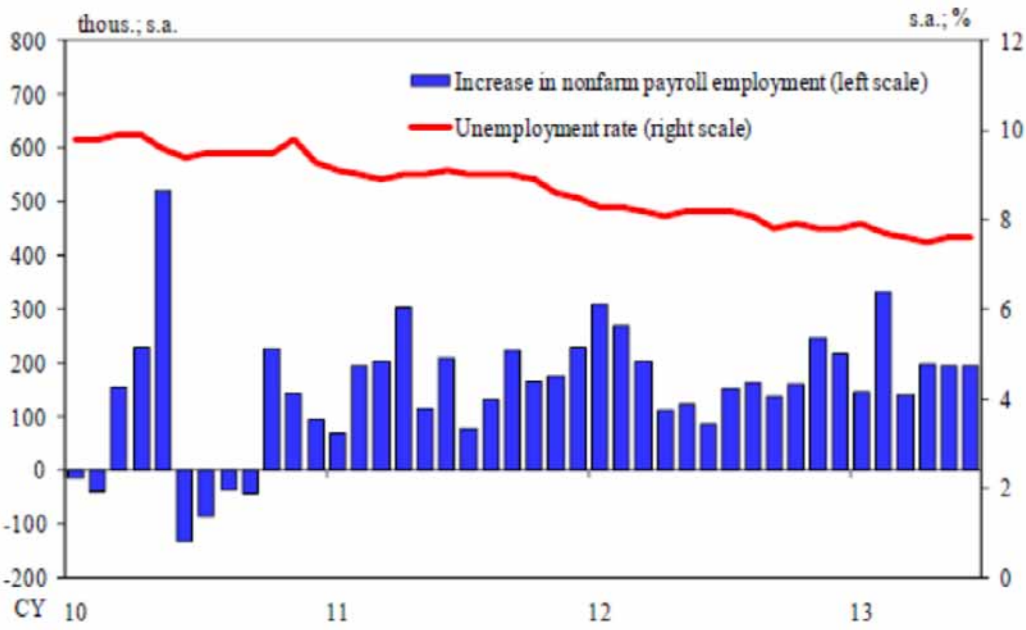
Chart 21

U.S. Economy (2)

(1) Industrial Production and Capital Goods Orders



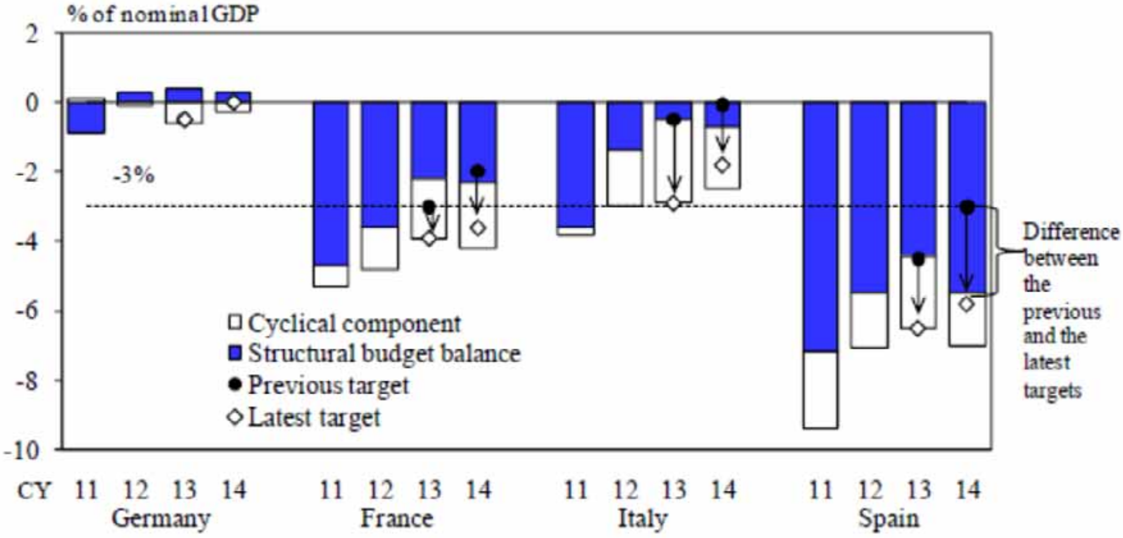
(2) Nonfarm Payroll Employment and Unemployment Rate



Source: Bloomberg.

European Economy (1)

Outlook for Fiscal Budget Balances and Extension of the Deadlines for Achievement of the Fiscal Target



Notes 1: Figures for the previous target are based on the Stability Programmes in 2012. Since Spain and France have modified their targets, the modified targets are used for these countries.

2: Figures for the latest targets are based on the recommendation by the European Commission on May 29. For Germany and Italy, the figures for this year's Stability Programmes in their countries are used as the latest targets.

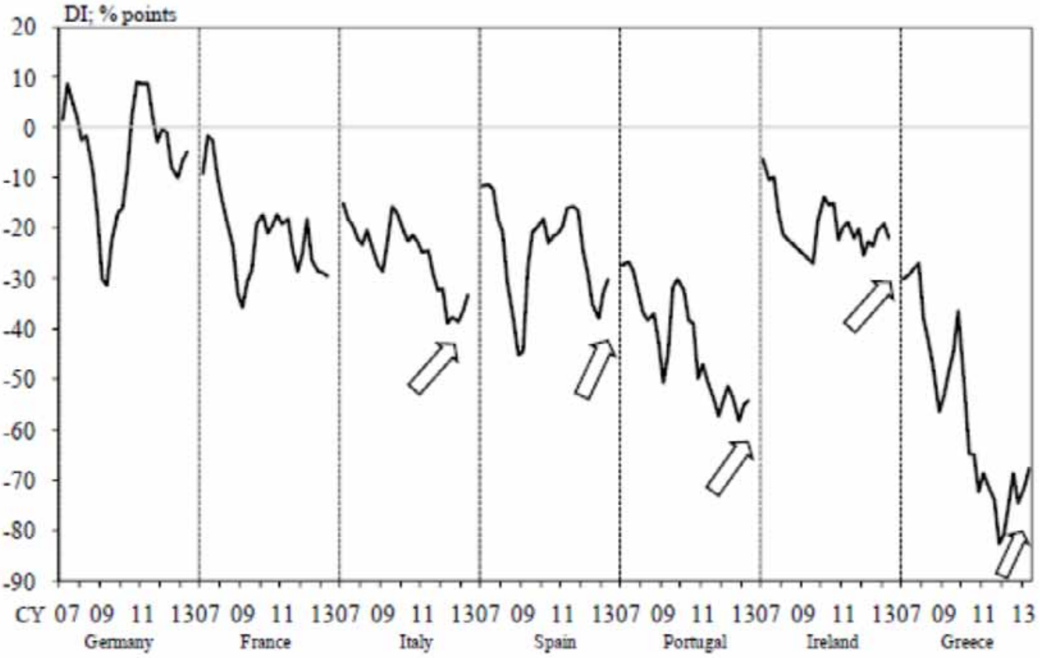
3: Figures for the outlook for fiscal budget balances are based on the European Commission's Economic Forecast (Spring 2013) released on May 3. The figure for Spain in 2012 excludes the effect of international financial assistance to the banking sector.

Source: European Commission.

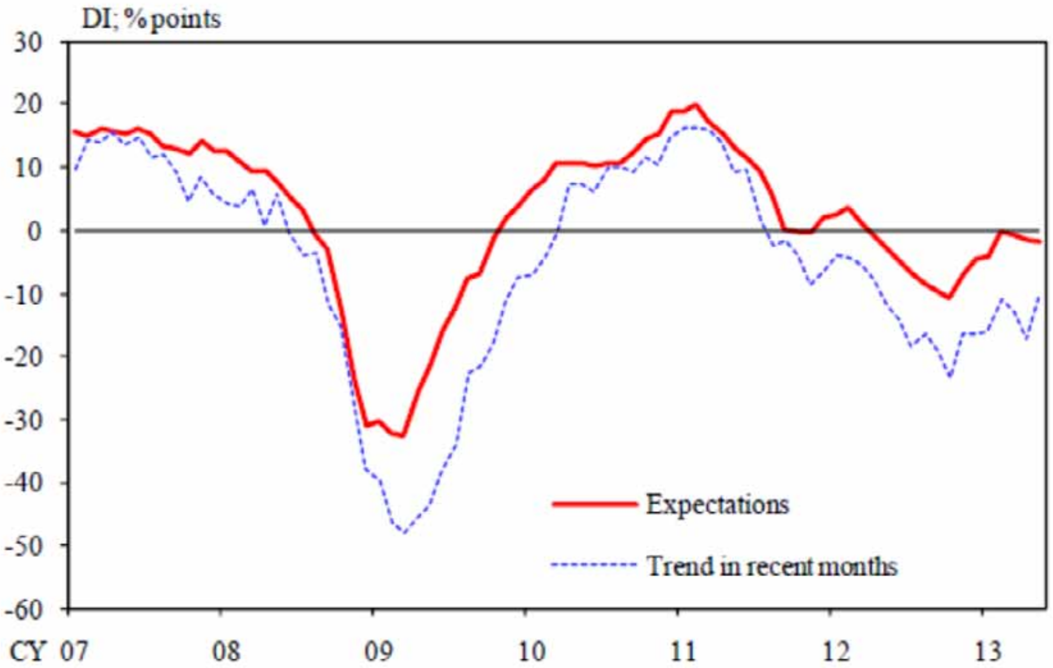
Chart 23

European Economy (2)

(1) Consumer Confidence by Country



(2) Manufacturing Confidence

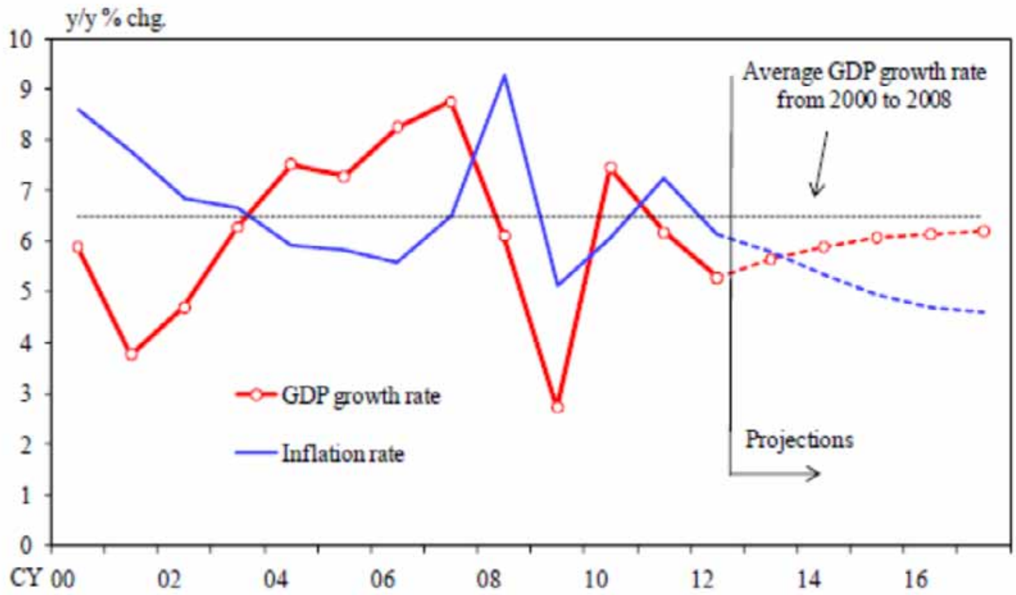


Source: Haver Analytics.

Chart 24

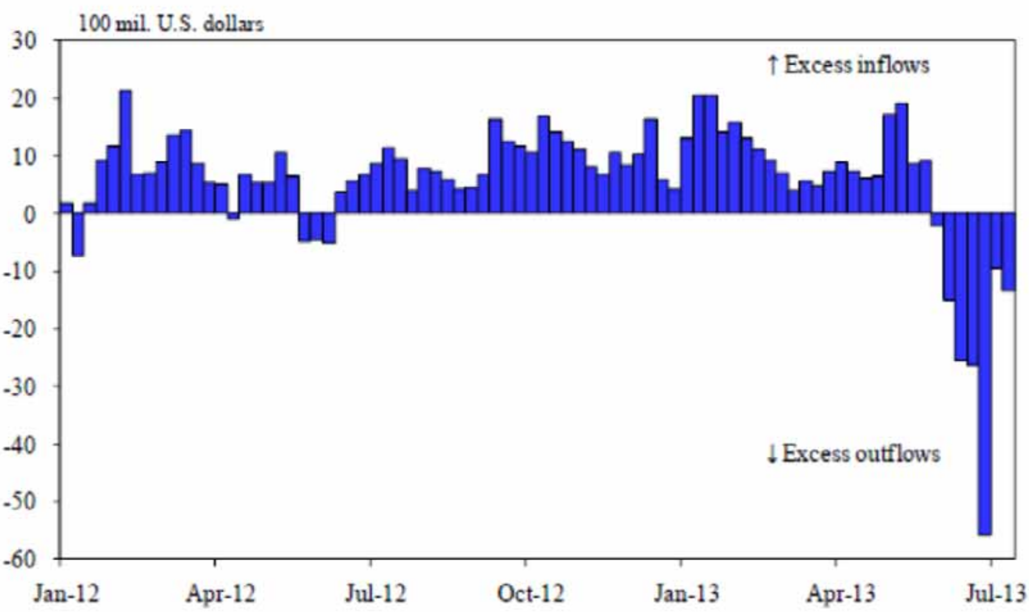
Emerging Economies

(1) Economic Outlook of the IMF for Emerging Countries



Note: Data are from the World Economic Outlook (April 2013).

(2) Bond Flows into Emerging Markets

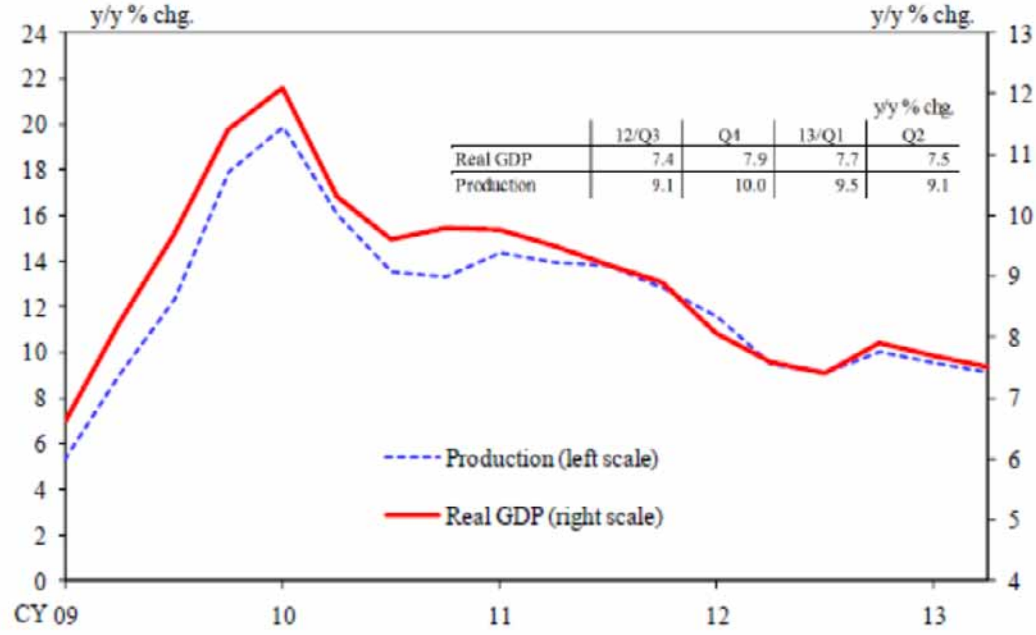


Note: Weekly data up to July 10, 2013.
Sources: IMF; EPFR Global.

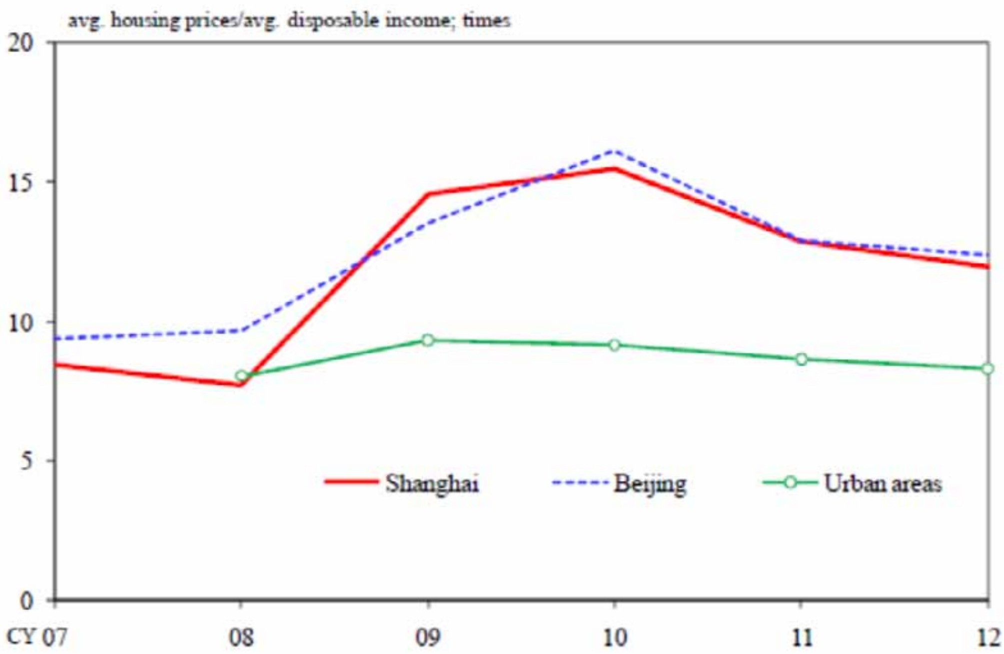
Chart 25

Chinese Economy (1)

(1) Real GDP and Production



(2) Housing Prices against Annual Income



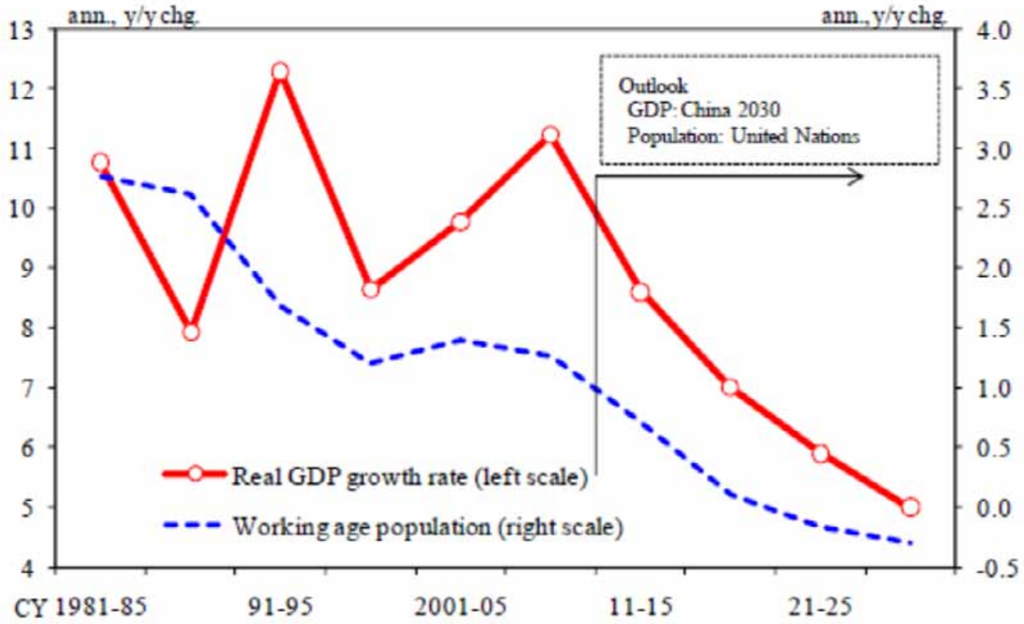
Notes: 1. Figures for "urban areas" include those for Shanghai and Beijing.
2. Estimates by the Bank of Japan.

Source: CEIC Data.

Chart 26

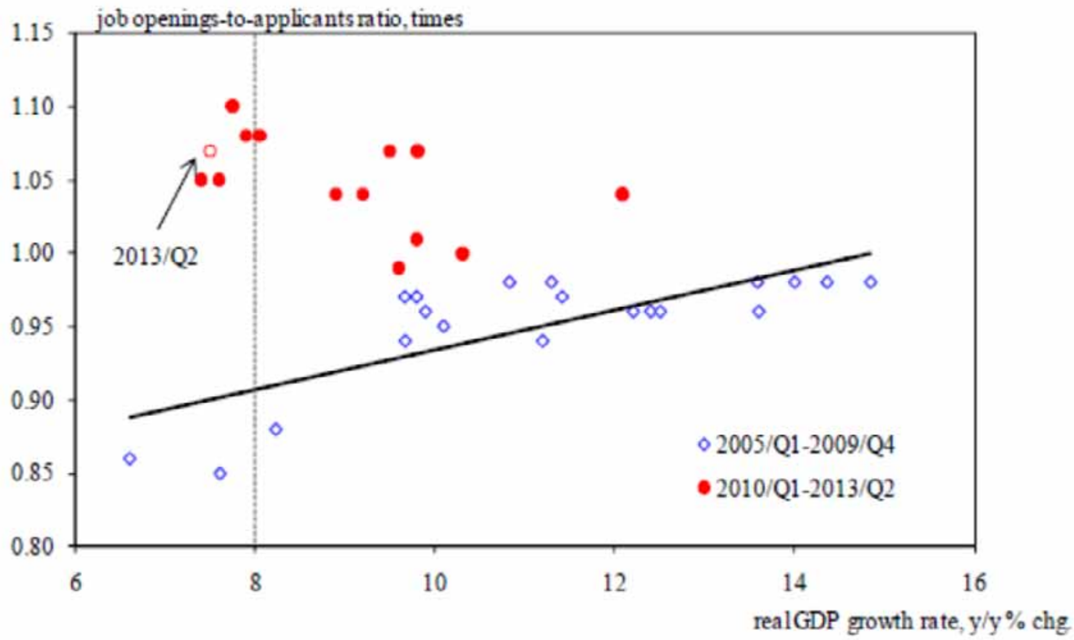
Chinese Economy (2)

(1) Long-Term Economic Outlook ("China 2030")



Note: "China 2030" is a joint research project of the Development Research Center of the State Council, P. R. China and The World Bank.

(2) GDP and Employment

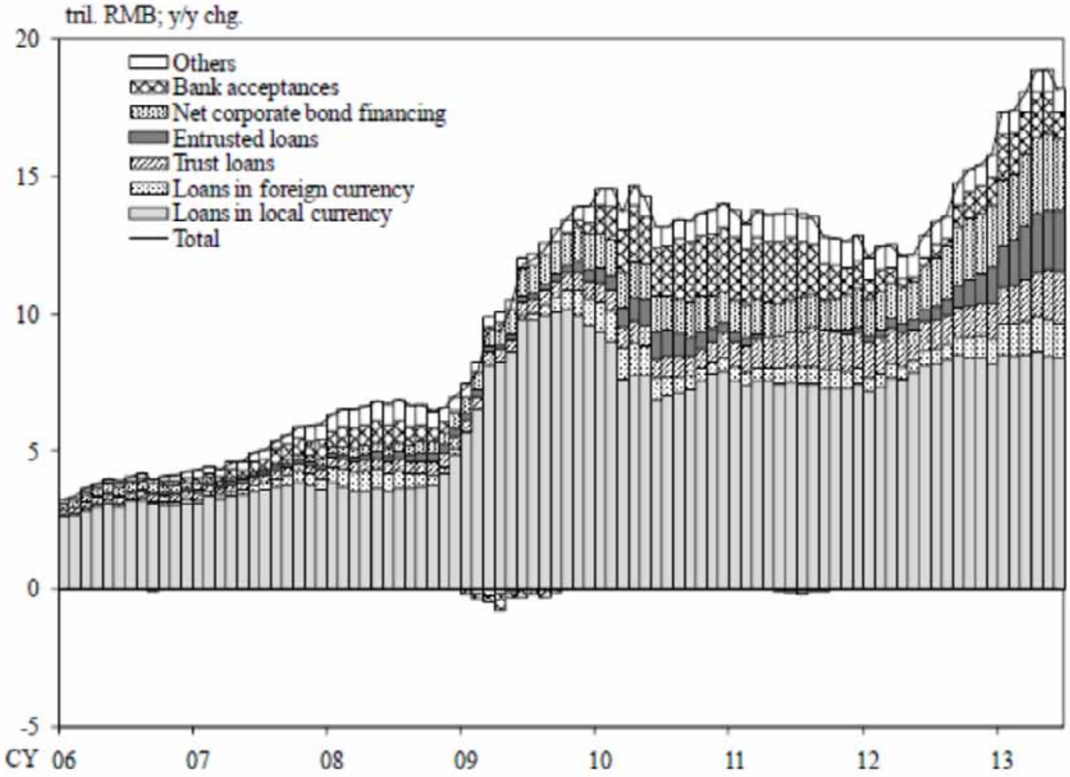


Note: Solid line is the regression line of 2005/Q1-2009/Q4 data.
Source: The World Bank; Development Research Center of the State Council, P. R. China; United Nations; CEIC Data.

Chart 27

Chinese Economy (3)

Amount Outstanding of Total Social Financing



Notes: 1. Total social financing is a broad measure for credit in China.

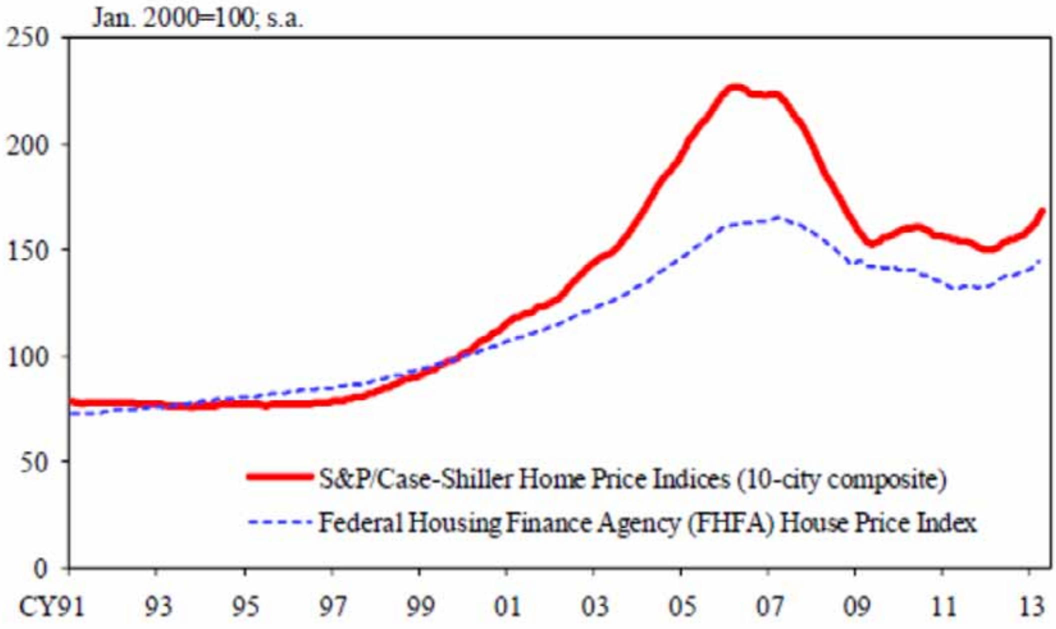
2. The year-on-year change is the cumulative amount of the differences from previous months' disclosed outstanding.

Source: CEIC Data.

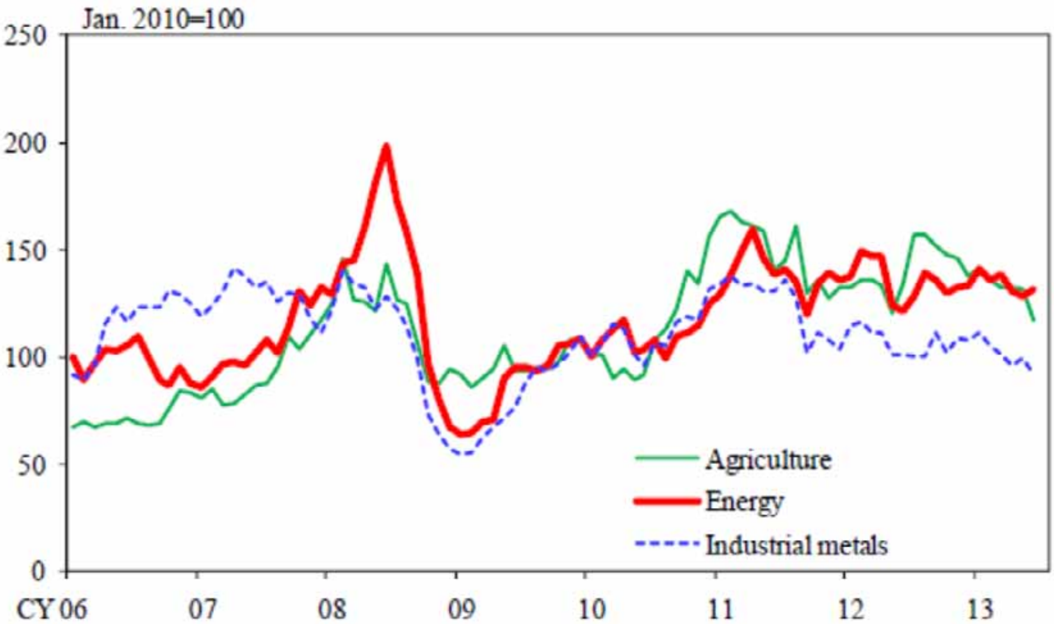
Chart 28

U.S. Housing Prices and International Commodity Prices

(1) U.S. Housing Prices



(2) International Commodity Prices (S&P GSCI Commodity Index)

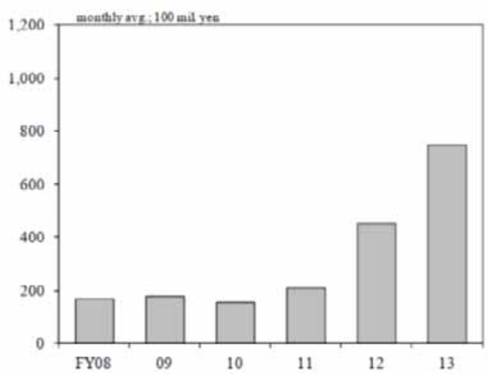


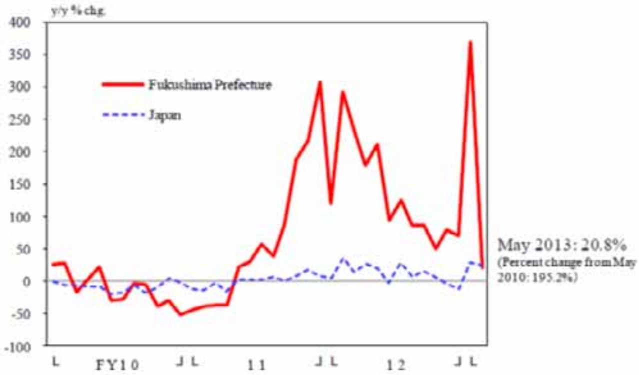
Source: Bloomberg.

Chart 29

Economy of Fukushima Prefecture (1)

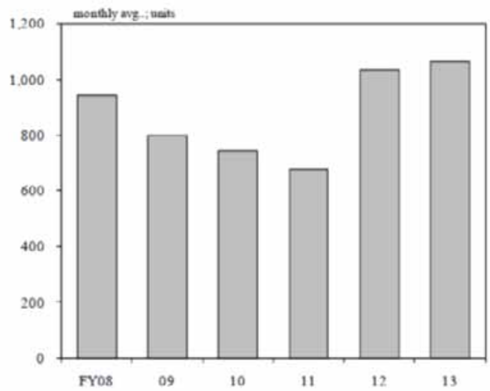
(1) Value of Public Works Contracted

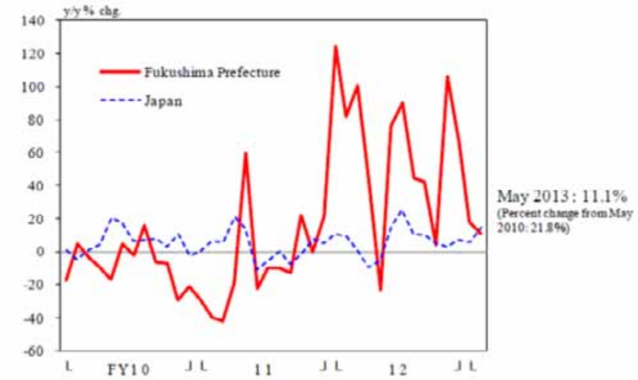




Note: Figures for fiscal 2013 are the monthly average amount in April and May 2013.

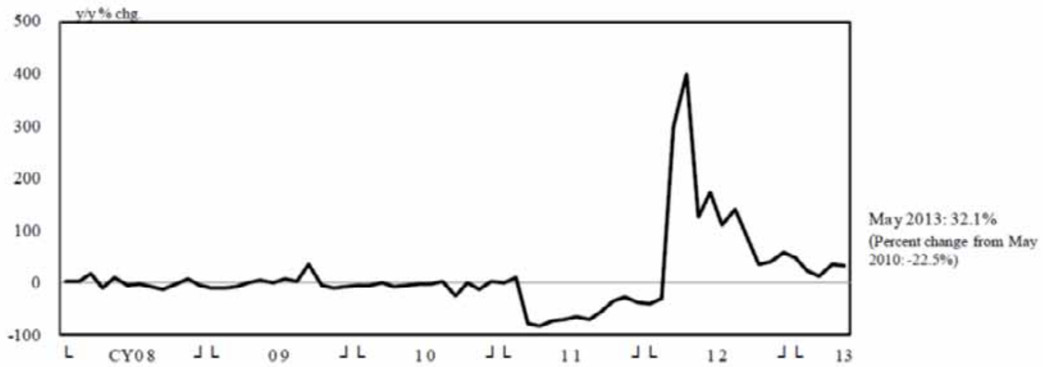
(2) Housing Starts





Note: Figures for fiscal 2013 are the monthly average amount in April and May 2013.

(3) Number of Visitors to Major Tourist Facilities

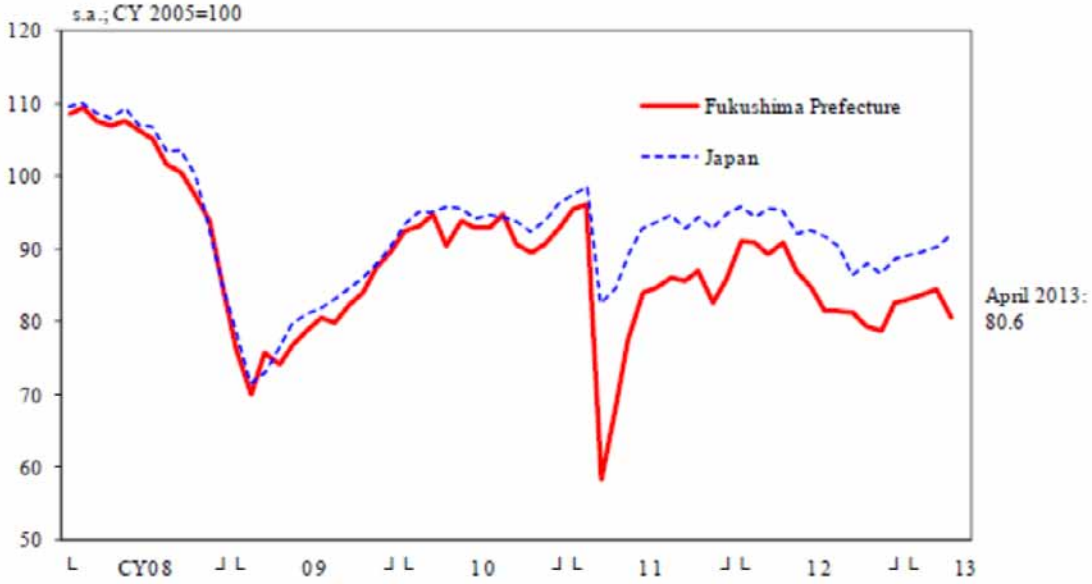


Note: Nine facilities were counted through 2010 and twelve facilities were counted from 2011.
Sources: East Japan Construction Surety; Ministry of Land, Infrastructure, Transport and Tourism; Bank of Japan.

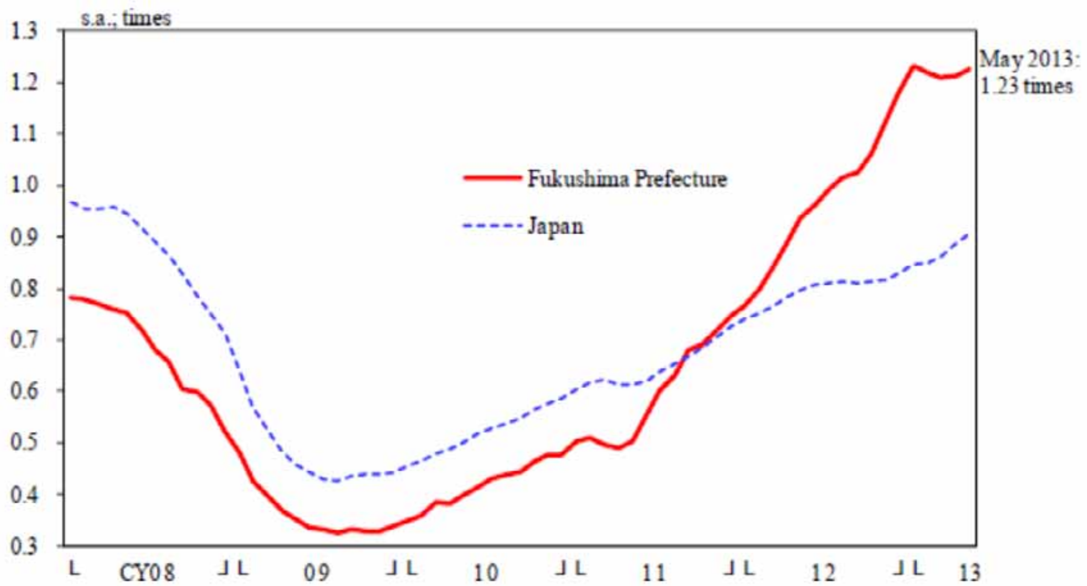
Chart 30

Economy of Fukushima Prefecture (2)

(1) Indices of Industrial Production



(2) Active Job Openings-to-Applicants Ratio



Sources: Fukushima Prefecture; Ministry of Economy, Trade and Industry; Fukushima Labor Bureau; Ministry of Health, Labour and Welfare.