Haruhiko Kuroda: Japan's economy – achieving 2 percent inflation

Speech by Mr Haruhiko Kuroda, Governor of the Bank of Japan, at a meeting, held by the Naigai Josei Chosa Kai (Research Institute of Japan), Tokyo, 1 August 2014.

* * *

Introduction

It is my great honor to have the opportunity to address you today at the Naigai Josei Chosa Kai.

In April last year, the Bank of Japan introduced quantitative and qualitative monetary easing (QQE) to achieve the price stability target of 2 percent at the earliest possible time, with a time horizon of about two years. The last time I addressed you here was only a year ago. At that time, I mentioned that there was a positive turnaround in three areas since the introduction of QQE: in financial conditions, expectations, and economic activity and prices. Since then, QQE has been steadily having its intended effects, and the positive turnaround in the three areas has continued. Japan's economy has been on a path suggesting that the 2 percent price stability target will be achieved as expected.

Today, I would like to talk somewhat in detail about the Bank's view concerning the current state of and outlook for economic activity and prices. In doing so, I will be referring to the interim assessment of the April 2014 *Outlook for Economic Activity and Prices* (Outlook Report) conducted at the Monetary Policy Meeting (MPM) in July. I will then talk about some topics concerning the price stability target of 2 percent.

I. Current situation of and outlook for Japan's economy

Japan's economy has continued to recover moderately as a trend despite a decline in demand following the consumption tax hike in April. The virtuous cycle among production, income, and spending has been continuing. Over the coming three years or so, Japan's economy is expected to grow at a pace above its potential as a trend, although there are likely to be fluctuations in demand around the scheduled consumption tax hike next year. In the interim assessment of the April 2014 Outlook Report conducted at the July MPM, real GDP is projected to grow at 1.0 percent in fiscal 2014, 1.5 percent in fiscal 2015, and 1.3 percent in fiscal 2016 (Chart 1). There are two forces driving GDP growth on which these projections are based. One is the firmness of private consumption against the backdrop of an improved employment and income situation despite the consumption tax hike. The other is that favorable developments in the corporate sector have become more pronounced. Let me explain these two points in turn.

Improvement in the employment and income situation and private consumption

Let me start with the employment and income situation and developments in private consumption. In this regard, one more and more often hears about shortages of workers in various industries including food services and construction. As this example illustrates, the labor market has been steadily tightening. In fact, the active job openings-to-applicants ratio indicates that there are more jobs on offer than there are people applying. The ratio is now above the peak prior to the global financial crisis, reaching 1.10 in June this year, the highest level since June 1992 (Chart 2). In addition, the unemployment rate has declined to 3.7 percent. This is almost the same level as the structural unemployment rate, which is estimated to be around 3.5 percent. The year-on-year rate of increase in the number of regular employees has been around 1.5 percent (Chart 3).

This tightening of the labor market has exerted upward pressures on wages (Chart 4). An increasing number of firms have raised base pay in the annual wage negotiations this spring, which was not seen in previous years. This effect has gradually been reflected in regular wages. You may have heard on the news that amid growing labor shortages hourly wages of part-time workers have been increasing, and this is borne out by the data, which show that the year-on-year rate of increase in hourly cash earnings of part-time employees has been accelerating. As a result, the annual rate of increase in nominal wages per employee has gradually accelerated. In addition, according to various surveys, summer bonuses are projected to exceed those of a year ago, and this will also put upward pressures on nominal wages.

The year-on-year rate of increase in employee income – that is, nominal wages multiplied by the number of employees – has been around 2 percent, reflecting the aforementioned developments in employment and wages. Looking ahead, the rate of increase in employee income is likely to accelerate moderately, since labor market conditions are likely to continue improving as the economy recovers moderately.

This improvement in the employment and income situation has been steadily working to underpin private consumption. Of course, the consumption tax hike has affected consumption, especially purchases of durable goods such as automobiles, which substantially increased prior to the tax hike as consumers "front-loaded" purchases. However, many department stores, food supermarkets, and food services firms, for example, report that the decline in consumption has been broadly in line with expectations, and the extent of the decline has been narrowing gradually. This suggests that private consumption continues to remain resilient as a trend. The Consumer Confidence Index bottomed out in April and has been improving for two consecutive months since then. The effects of the decline in demand following the consumption tax hike are likely to wane gradually from summer, partly due to an expected increase in summer bonuses. Given that the effects of the decline in demand following the consumption tax hike are expected to gradually wane, private consumption is likely to remain resilient underpinned by the increase in employee income. Nevertheless, since the effects of the decline in real income due to the consumption tax hike might gradually manifest themselves, the Bank will continue to carefully examine future developments.

Firms' proactive stance and business fixed investment

The second driving force of Japan's economic recovery is that favorable developments in the corporate sector have been continuing and recently have become more pronounced.

Business sentiment has stayed at a highly favorable level despite the decline in demand following the consumption tax hike. The business conditions DI in the March *Tankan* survey – the Short-Term Economic Survey of Enterprises in Japan – prior to the consumption tax hike improved to plus 12, reaching the highest level since the November 1991 survey (Chart 5). This improvement reflects the front-loading of demand prior to the consumption tax hike. The future DI in the March *Tankan* showed a substantial decline to plus 1 due to the decline in demand following the consumption tax hike. However, despite deteriorating due to the consumption tax hike, the business conditions DI in the June *Tankan* still registered a value of plus 7. This is notably higher than the DI forecasted in the March *Tankan.* Moreover, this is the same level as in June 2007, prior to the global financial crisis, indicating that the DI remains at a favorable level. Thus, business sentiment has stayed at a favorable level even after the consumption tax hike, indicating that the stance of the corporate sector remains proactive. In addition, corporate profits have continued to improve. Corporate profit projections in the June *Tankan* survey show that the level of current profits in fiscal 2014 will remain at a level almost as high as in fiscal 2013. Moreover, the projections have been revised upward compared to those in the March survey. It appears that firms have started to become confident that their profitability will not be greatly affected by the consumption tax hike.

This proactive stance and high profits of firms have favorably affected business fixed investment. In the GDP statistics, real business fixed investment has been registering a quarter-on-quarter increase for four consecutive quarters since the April-June quarter of 2013. Particularly the increase in the January-March quarter of this year was substantial at 7.6 percent (Chart 6). This was partly attributable to renewal demand stemming from the ending of support for some software programs and to the front-loading of demand for construction machinery prior to the strengthening of gas emission regulations. However, even excluding these temporary factors it can be said that business fixed investment has become firm. Moreover, a clear recovery can finally also be seen in business fixed investment in the manufacturing sector, which had been lagging. Business fixed investment is expected to follow an increasing trend against the backdrop of improving corporate profits, albeit with some fluctuations. In fact, the June *Tankan* survey shows that aggregate investment in fiscal 2014 is scheduled to increase, with large-scale enterprises planning to invest more than in recent years (Chart 7). In addition to the improvement in business sentiment and corporate profits, there are several factors that are conducive to an increase in business fixed investment. Let me point out three.

First, firms' accumulation of capital stock slowed because they restrained business fixed investment during the period of protracted deflation. Therefore, we are now in a situation in which business fixed investment is likely to increase from a cyclical perspective. The production capacity DI in the June *Tankan* survey indicates that the extent to which firms feel that they have excess capacity has steadily narrowed and that on an aggregate basis firms' sense of having excess capacity has almost disappeared (Chart 8). As a result of past restraint in business fixed investment, capital stock has generally become older. There are cases in which such old capital stock hampers smooth production when firms try to increase their production levels. This will also boost business fixed investment, mainly renewal investment.

Second, firms have been struggling to secure employees due to the tightening of the labor market, and wages have been increasing. On the other hand, firms' funding costs for business fixed investment have been at low levels and financial institutions' lending attitudes have been accommodative. We may therefore be gradually approaching a stage in which firms find it advantageous to invest in labor-saving machinery and equipment rather than to hire new employees. These investments will lead to a more efficient utilization of labor amid a tightening labor market and eventually raise labor productivity.

Third, more than a year has passed since the correction of the excessive appreciation of the yen and firms have been reviewing the location of their global production bases. In the phase of yen appreciation after the global financial crisis, the share of firms' overseas investment increased, and this trend continued for some time even amid the correction of the excessive appreciation of the yen. This is because firms need a certain period of time between the decision to invest at home or abroad and the actual subsequent implementation. Recently, there have finally been signs that firms are planning to increase the share of domestic investment. For example, some firms regard Japan as the base for the manufacturing of and research and development for strategically important products, as well as for improving production processes, and have been investing or planning investment in these areas.

Overseas economies and Japan's exports

Let me turn to developments in exports. Exports have recently more or less leveled off despite the correction of the excessive appreciation of the yen (Chart 9). The relatively lackluster performance of exports is essentially due to cyclical factors, including the sluggishness in emerging economies with strong economic ties with Japan such as the ASEAN countries. At the same time, however, structural factors may have also played a certain role. Such factors include the accelerated relocation of production overseas by Japanese firms reflecting the appreciation of the yen and a decline in international competitiveness in sectors such as IT-related goods in which Japanese firms have traditionally had a competitive advantage. In addition, temporary factors putting downward pressure on exports seem to have had an impact through early spring, although this impact has been waning. Such temporary factors include the effects of the unusually severe winter weather in the United States and the fact that firms placed priority on domestic shipments in response to the front-loading of demand prior to the consumption tax hike.

Future developments in exports to a great extent will depend on the performance of overseas economies, which are expected to continue to recover moderately, led by advanced economies. This is also confirmed by the *World Economic Outlook* by the International Monetary Fund: global economic growth, which slowed to 3.2 percent in 2013, is projected to accelerate gradually to 3.4 percent in 2014 and 4.0 percent in 2015 (Chart 10). Japan's exports are likely to increase moderately due mainly to this recovery in overseas economies. In fact, this view is underpinned by the fact that the DI of overseas supply and demand conditions for products in the June *Tankan* survey has improved and that external demand for machinery orders has been on an increasing trend.

II. Price developments and the path toward achieving the price stability target

Current state of and outlook for prices

Let me turn to price developments. The year-on-year rate of change in the consumer price index (CPI, excluding fresh food) was negative at minus 0.4 percent in April last year when QQE was introduced. It subsequently turned positive and, after excluding the direct effects of the consumption tax hike, reached plus 1.3 percent in June this year (Chart 11). The year-on-year rate of change in the CPI after excluding the direct effects of the consumption tax hike is likely to be around 1¼ percent for some time. This is because, on the one hand, there will be inflationary pressure due to the improvement in the output gap as the economy recovers; on the other hand, upward pressure from import prices, mainly energy prices, will likely wane. Subsequently, the year-on-year rate of change in the CPI is expected to follow an upward trend again from the second half of this fiscal year and reach about 2 percent around the middle of the current projection period from fiscal 2014 through fiscal 2016, that is, in or around fiscal 2015. Thereafter, Japan's economy is likely to gradually shift to a growth path that sustains the price stability target of 2 percent in a stable manner. In the interim assessment of the Outlook Report at the July MPM, projections for the year-on-year growth rate in the CPI (excluding fresh food) were plus 1.3 percent for fiscal 2014, plus 1.9 percent for fiscal 2015, and plus 2.1 percent for fiscal 2016, after excluding the direct effects of the consumption tax hikes (Chart 1).

At the time of the introduction of QQE many did not expect the inflation rate to increase to the level we see now. However, the Bank's projections have changed little since the April 2013 Outlook Report, published shortly after the introduction of QQE. QQE has been having its intended effects and prices have been rising as the Bank expected. The mechanism to raise inflation that we envisaged at the time of the introduction of QQE consists of the following elements.

The first element was to dispel people's deflationary mindset and raise inflation expectations by making a strong and clear commitment to achieve the price stability target of 2 percent at the earliest possible time and implementing large-scale monetary easing measures to underpin the commitment. The second element consisted of putting downward pressure on the entire yield curve through massive purchases of government bonds. Third, the first two elements would lower real interest rates – that is, nominal interest rates minus the expected rate of inflation – and provide strong stimulus to the economy. Fourth, with the resultant recovery in Japan's economy, prices would rise and, as a result, inflation expectations would rise further. And finally, with the recovery in the economy, rising prices, and rising inflation expectations working in a mutually reinforcing manner, observed inflation and expected inflation were expected to rise as a trend to reach 2 percent in a stable manner.

Currently, a growing number of firms are experiencing labor and capacity shortages, indicating an improvement in the output gap, and inflation expectations are rising. Reflecting these developments, the year-on-year rate of change in the CPI (excluding fresh food) has risen to the range of 1.0–1.5 percent. On the other hand, financial conditions are accommodative: 10-year government bond yields have been in the range of 0.5–0.6 percent, and interest rates on new bank loans have been at historic low levels of below 1 percent on average. Against this backdrop, the improvement in the output gap and the rise in inflation expectations are likely to continue, and CPI inflation is expected to approach the price stability target of 2 percent. However, if the outlook changes due to the manifestation of some risk factors and it is judged necessary for achieving the price stability target, the Bank will make adjustments without hesitation. I would like to emphasize that, under QQE, given the Bank's clear and strong commitment to the 2 percent inflation target, it is a matter of course that the Bank will make adjustments if necessary to ensure the target is achieved.

In the following, let me talk somewhat in detail about two factors that determine the future trend in inflation, namely, the output gap and medium- to long-term inflation expectations.

Rising prices as a result of an improvement in the output gap

Let me start with the output gap, which indicates the state of labor and capacity utilization. Currently, the economy is being led by domestic demand such as private consumption and public investment, and it is the nonmanufacturing sector that is at the forefront of the recovery. Since the nonmanufacturing sector is more labor-intensive than the manufacturing sector, this has resulted in a tightening of labor market conditions. In the construction, retail, and service sectors, some firms have found it difficult to expand their business due to labor shortages. According to the *Tankan* survey, excess capacity has almost disappeared. With the high level of capacity utilization, there have been more frequent disruptions of the smooth operation of production. All in all, the output gap has been moderately improving to reach around 0 percent recently and has turned positive in the January-March quarter of this year due partly to the front-loading of demand prior to the consumption tax hike (Chart 12). With the economy expected to continue growing at a pace above its potential, that is, with growth in demand exceeding growth in supply capacity, the positive output gap is likely to expand gradually. Therefore, inflationary pressure from the output gap is likely to steadily increase.

Rising medium- to long-term inflation expectations

Let me move on to inflation expectations. Medium- to long-term inflation expectations appear to have been rising on the whole (Chart 13). This, in turn, has started to affect wage and price setting. For example, as seen in wage negotiations this spring, the rise in inflation is increasingly being taken into account in wage setting between management and labor. Moreover, firms' price-setting strategies have been changing. Under deflation, many firms pursued low-price strategies by putting priority on cost reductions since there had been a strong preference among consumers for low-priced products. Recently, however, an increasing number of consumers have been purchasing goods and services even at somewhat higher prices as long as their quality was in line with their price. In response, some firms have started to raise sales prices while increasing value added in terms of the quality and functionality of the goods and services they provide. In the output prices DI of the *Tankan* survey, until recently the share of firms responding that their output prices are "falling" exceeded that responding that their output prices are "rising;" however, in the June survey the two shares were identical (Chart 14). Thus, the mechanism in which the rise in observed inflation alters people's inflation outlook and behavior, which in turn raises observed inflation, continues to operate. This means that people's inflation expectations will likely follow an uptrend and inflationary pressure from the rise in inflation expectations will also increase.

III. Discussion points regarding the price stability target of 2 percent

We at the Bank believe that so far Japan's economy has been on a path suggesting that the 2 percent price stability target will be achieved as expected. However, given that prices have risen due to the consumption tax hike, we often hear the question from consumers why, on top of that, the Bank is aiming at 2 percent inflation. In addition, with supply constraints such as labor shortages becoming more pronounced, some ask whether it is desirable to have inflation while growth remains low. Let me respond to these questions.

Why aim at 2 percent?

I said earlier that the year-on-year rate of change in the CPI (excluding fresh food) after excluding the direct effects of the consumption tax hike has been hovering at around 1¼ percent. However, the rate of change including the direct effects of the consumption tax hike was plus 3.3 percent in June, which was as high as the rate of increase in December 1990. Focusing on this point, some argue that it is not necessary to raise inflation further.

However, it should be noted that the impact of the consumption tax hike on consumer prices is a "one-off" at the time of the hike, and the impact on the year-on-year rate of change in the CPI will disappear after one year. The Bank is not aiming at achieving the price stability target of 2 percent temporarily. What the Bank aims at is to achieve an economy in which inflation is about 2 percent on average year after year. In such an economy, people behave on the assumption that inflation is about 2 percent. This is the reason why the Bank judges the trend in prices excluding the direct effects of the consumption tax hike.

Based on what I just mentioned, let me explain why we aim at 2 percent inflation. Japan's economy has been suffering from deflation for about 15 years, since fiscal 1998. That being said, the average annual rate of change in terms of the CPI during that period was around 0 percent – specifically, it was minus 0.3 percent. However, since the change in the CPI is biased upward, it overstates actual inflation. Therefore, a CPI growth rate of 0 percent means that the economy is actually experiencing deflation. In addition, since interest rate levels in a deflationary environment tend to be correspondingly low, interest rates are likely to face the zero lower bound when the economy experiences a negative shock. This will limit room for monetary policy responses using short-term interest rates. Taking these points into account, it is now widely accepted around the world that it is desirable to target inflation somewhat above 0 percent. Many advanced economies, such as the United States, the euro area, and the United Kingdom, have set a target of about 2 percent. It could be said that this level has become a global standard.

The Bank decided on the price stability target of 2 percent and announced it in January last year. The Bank subsequently introduced and has been pursuing QQE in order to achieve the 2 percent target at the earliest possible time and maintain it in a stable manner. Based on this unwavering determination and corresponding actions by the Bank, firms and households will be able to base their behavior on the assumption of 2 percent inflation. If the perception that inflation will be around 2 percent becomes entrenched, then people will expect inflation to return to about 2 percent in the medium to long term even if it temporarily fluctuates due to shocks to the economy. This is what is meant by "inflation expectations are anchored." This is an important element to prevent the economy from falling into deflation or to avoid inflation rates from continuing to rise substantially beyond 2 percent. The Bank will continue to pursue its monetary policy aiming at achieving 2 percent inflation and anchor inflation expectations at that level.

Achieving the 2 percent inflation target and Japan's growth potential

Next, let me talk about the growth potential of Japan's economy. The potential growth rate of Japan's economy – that is, the rate of growth at which Japan's economy can grow in the medium to long term in a sustainable manner – has been declining due to such factors as the aging and decline of Japan's population, as well as the slowdown in capital stock accumulation during the period of protracted deflation (Chart 15). Against this background, some have voiced the concern that Japan's growth rate will not increase due to supply constraints such as labor shortages. Others have argued that it is not desirable to have inflation under low economic growth.

These concerns should be considered by separating short-term economic developments and the medium- to long-term growth potential. In the short term, even if the expansion of specific industries or firms is constrained by supply-side problems, the economy as a whole can grow above its potential by raising utilization rates and improving the efficiency of labor and capital. The aforementioned projections by the Bank of economic activity and prices through fiscal 2016 are based on such assumptions.

In the medium to long term, efforts to raise supply capacity are necessary, since the growth potential of the economy will be determined by supply capacity. In this regard, as a growth strategy to stimulate private investment, the government formulated the Japan Revitalization Strategy and revised it in June. The Bank strongly hopes that the government will push ahead with the steady implementation of the strategy and that private firms will actively respond. The Bank believes it important that, in parallel with its efforts to achieve the 2 percent price stability target, the various initiatives to strengthen Japan's growth potential make steady progress. However, the Bank is of the view that, regardless of the pace of the rise in the potential growth rate, the price stability target of 2 percent should be achieved at the earliest possible time. The reason is not that the Bank believes it desirable to have inflation at any cost. Rather, the Bank believes achieving 2 percent inflation as soon as possible and anchoring inflation expectations at that level will elicit proactive behavior from firms and households. This in itself will then contribute to raising the growth potential of the economy. In a deflationary environment, firms had an incentive to hoard cash and became reluctant to take risks by investing in their business or in research and development. This is also one reason the potential growth rate declined. When firms' and households' inflation expectations are anchored at 2 percent, firms will have greater incentives to take risks. This, in turn, should help to raise the potential growth rate through improvements in productivity as a result of capital investment and research and development. In fact, this has already started to happen: capital investment and investment in research and development have been increasing amid the steady progress toward the price stability target of 2 percent since last year. By achieving the price stability target of 2 percent at the earliest possible time, the Bank is seeking to create an environment in which firms and households can get on with their economic activities. I would like to conclude my speech today by expressing my strong hope that Japan's economy will regain its vitality and start to grow strongly again.

Thank you for your attention.

Chart 1

Outlook for Economic Activity and Prices (as of July 2014)

y/y % chg.

	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
Fiscal 2014	+1.0	+3.3	+1.3
Forecasts made in April 2014	+1.1	+3.3	+1.3
Fiscal 2015	+1.5	+2.6	+1.9
Forecasts made in April 2014	+1.5	+2.6	+1.9
Fiscal 2016	+1.3	+2.8	+2.1
Forecasts made in April 2014	+1.3	+2.8	+2.1

Note: Figures indicate the median of the Policy Board members' forecasts (point estimates).
Source: Bank of Japan.

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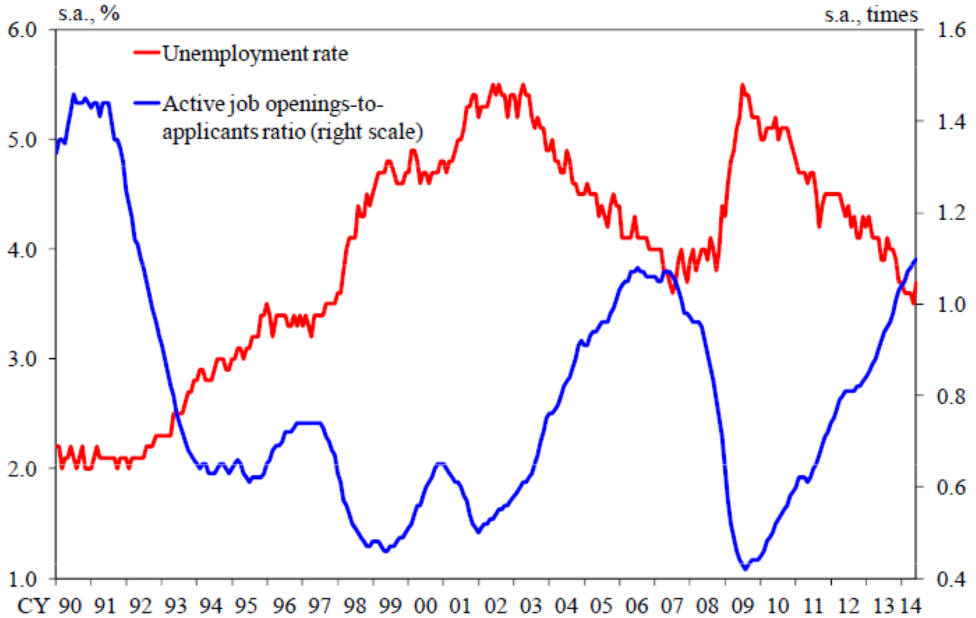
Chart 2

Labor Supply and Demand (1)



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

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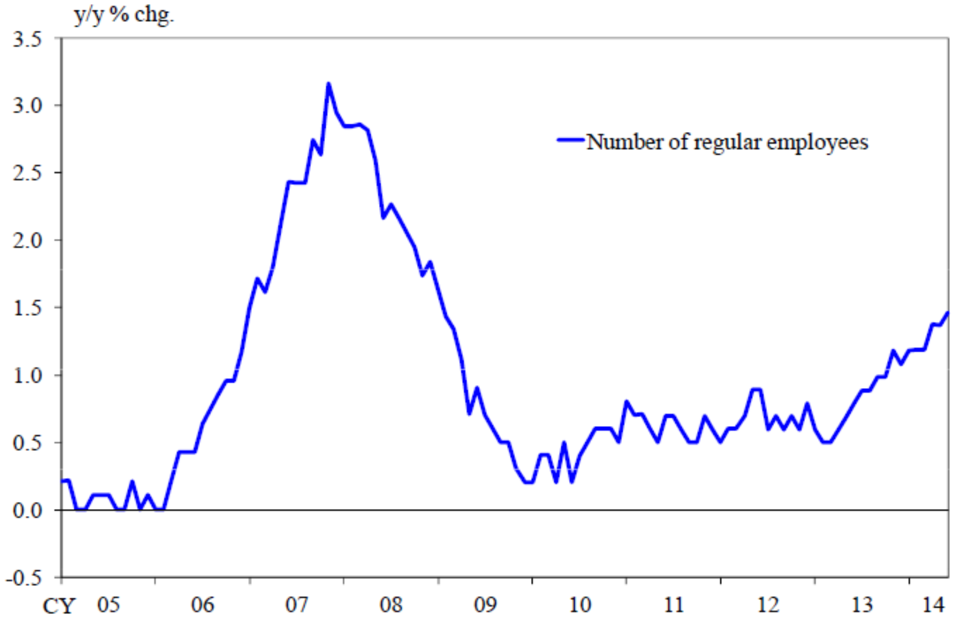
Chart 3

Labor Supply and Demand (2)



Source: Ministry of Health, Labour and Welfare.

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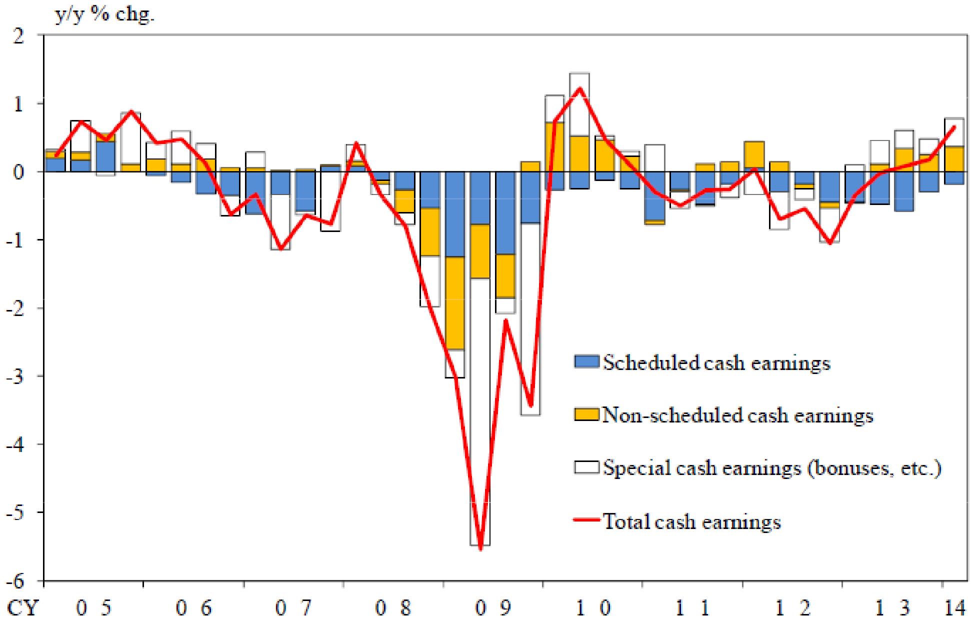
Chart 4

Cash Earnings



Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
Source: Ministry of Health, Labour and Welfare.

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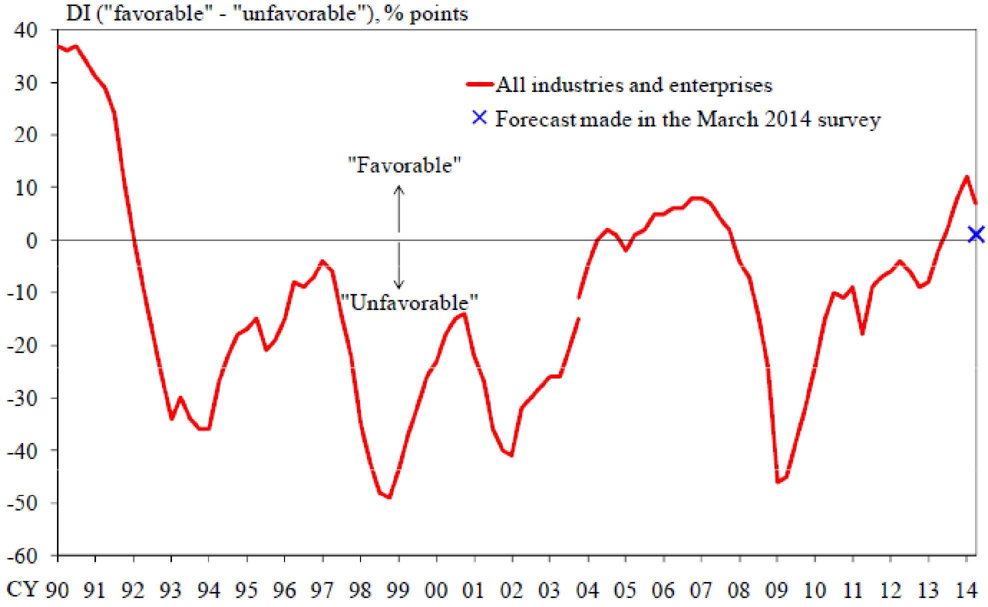
Chart 5

Tankan: DI for Business Conditions



Source: Bank of Japan.

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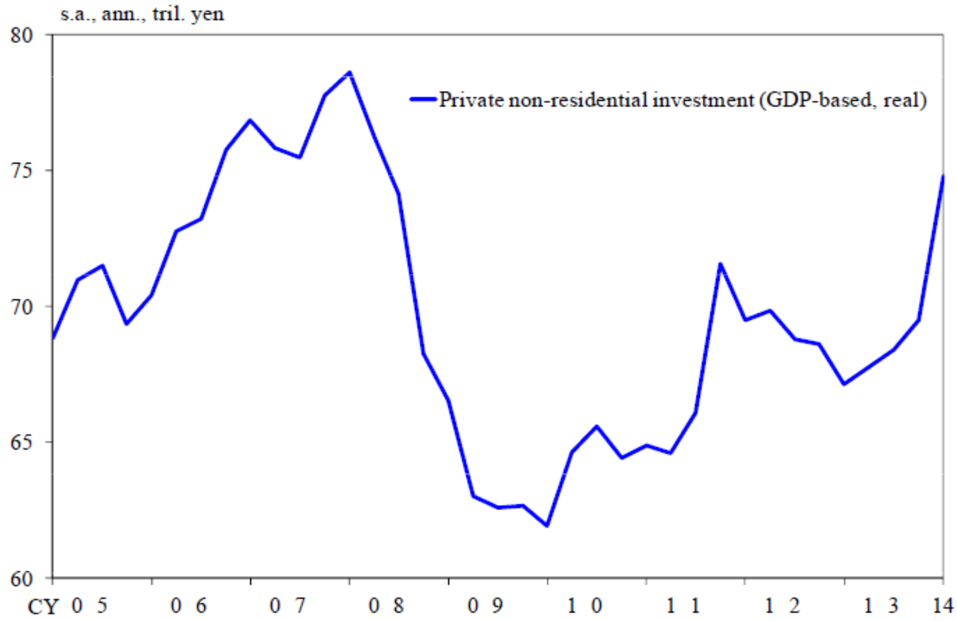
Chart 6

Business Fixed Investment



Source: Cabinet Office.

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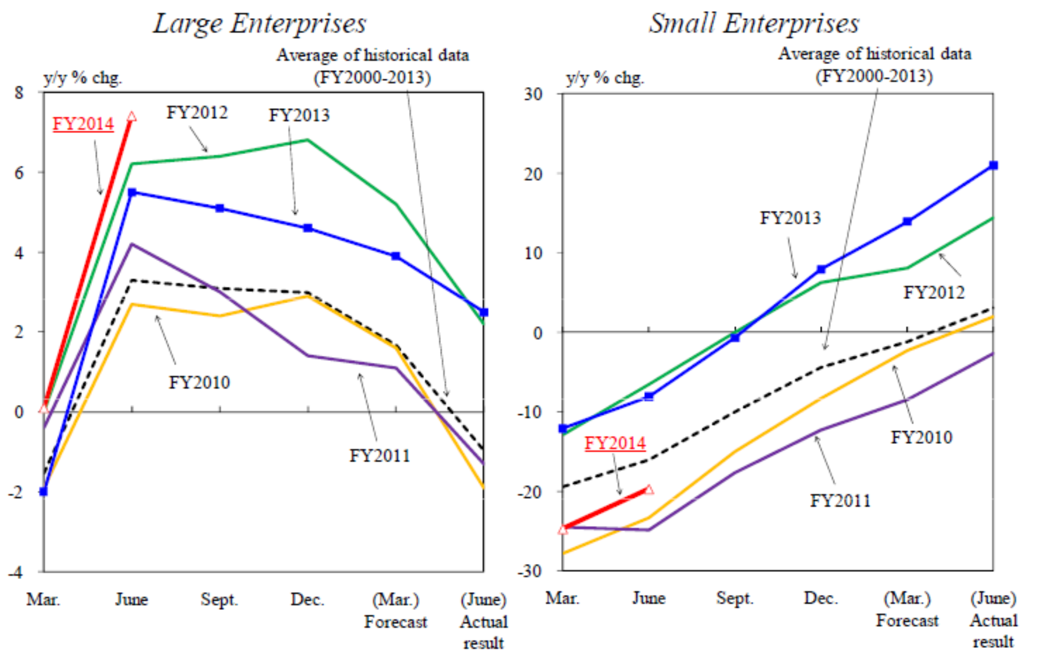
Chart 7

Tankan: Business Fixed Investment Plans



Note: Figures include land purchasing expenses but exclude software investment.
Source: Bank of Japan.

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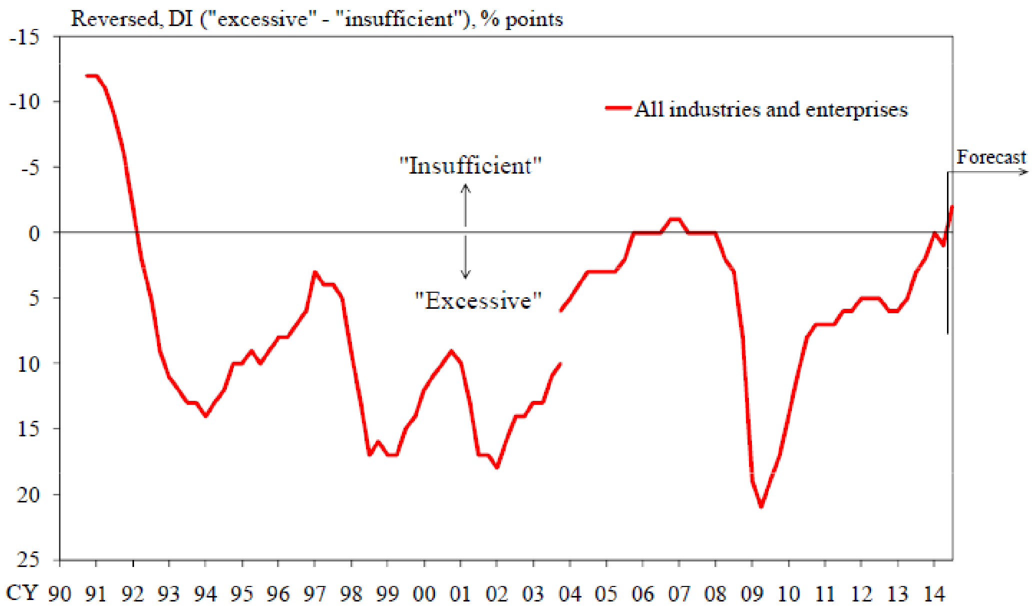
Chart 8

Tankan: DI for Production Capacity



Source: Bank of Japan.

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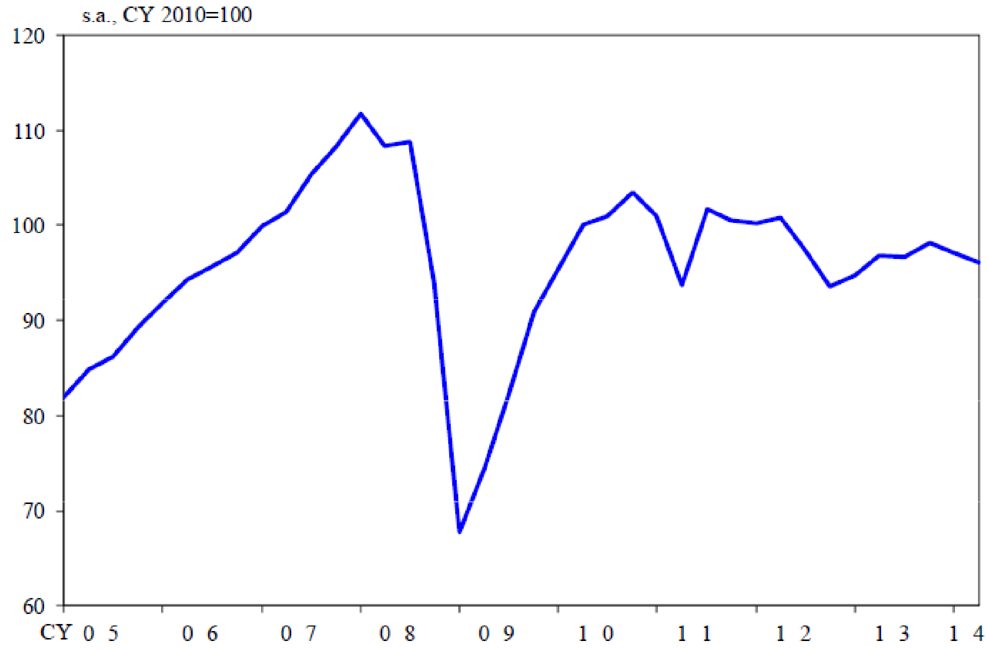
Chart 9

Real Exports



Sources: Ministry of Finance; Bank of Japan.

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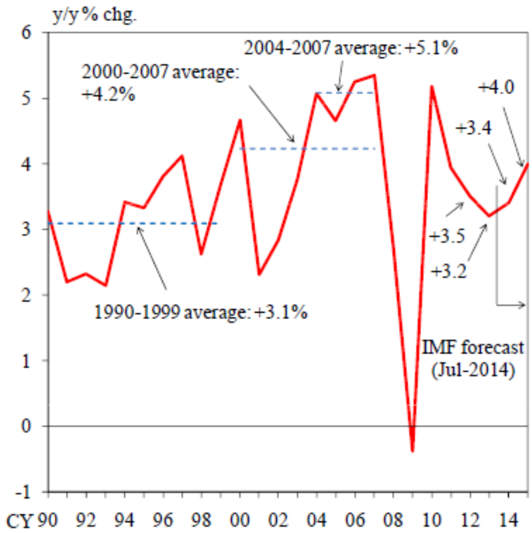
Chart 10

World Economy

Real GDP Growth Rate



Projections for Major Economies

y/y % chg.

	2012	2013	Projections 2014	Projections 2015
World	3.5	3.2	3.4 (-0.3)	4.0 (0.0)
Advanced Economies	1.4	1.3	1.8 (-0.4)	2.4 (0.1)
United States	2.8	1.9	1.7 (-1.1)	3.0 (0.1)
Euro Area	-0.7	-0.4	1.1 (0.0)	1.5 (0.1)
Japan	1.4	1.5	1.6 (0.3)	1.1 (0.1)
Emerging Market and Developing Economies	5.1	4.7	4.6 (-0.2)	5.2 (-0.1)
Developing Asia	6.7	6.6	6.4 (-0.2)	6.7 (-0.1)
China	7.7	7.7	7.4 (-0.2)	7.1 (-0.2)
ASEAN	6.2	5.2	4.6 (-0.4)	5.6 (0.2)
Latin America and the Caribbean	2.9	2.6	2.0 (-0.5)	2.6 (-0.3)

Note: Figures in parentheses are the difference from the April 2014 WEO.
Source: IMF

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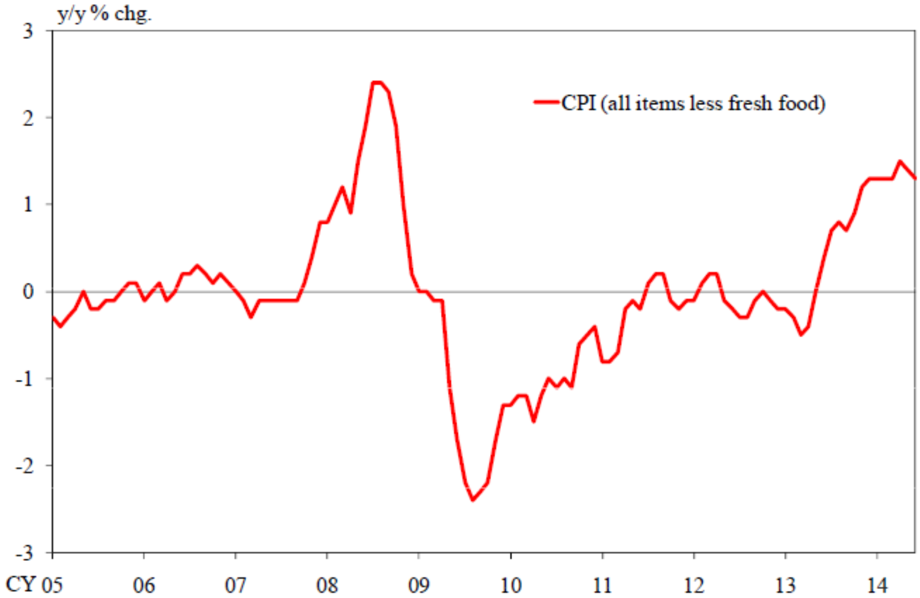
Chart 11

Consumer Prices



Note: Figures from April 2014 onward are calculated to adjust the direct effects of the consumption tax hike.
Source: Ministry of Internal Affairs and Communications.

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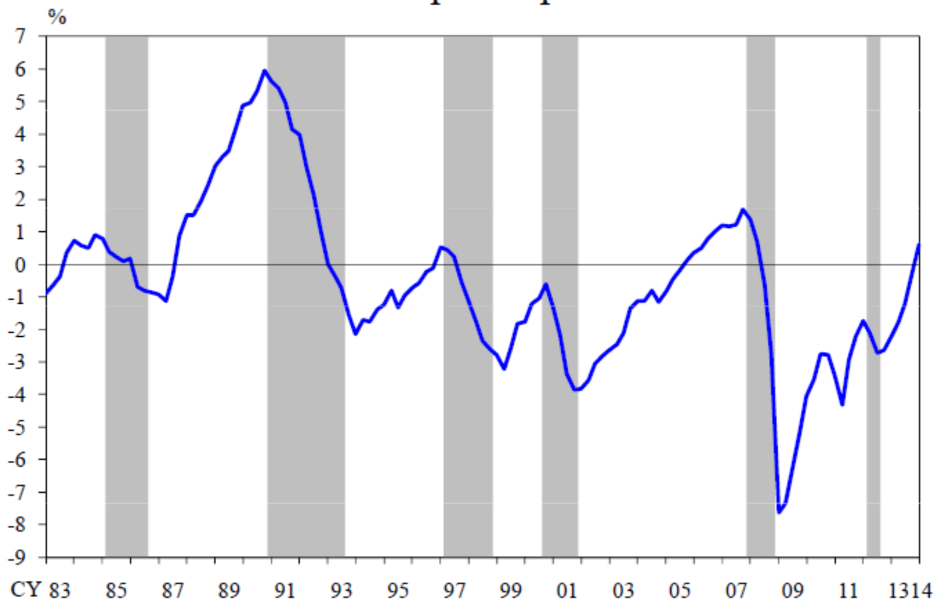
Chart 12

Output Gap



Notes: 1. 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.
2. Shaded areas indicate recession periods.
Sources: Cabinet Office; Bank of Japan, etc.

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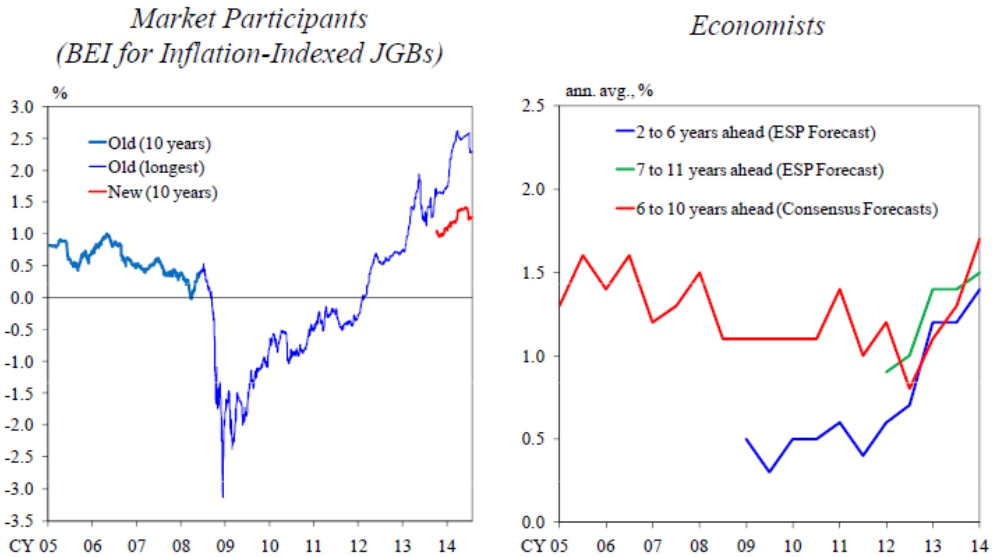
Chart 13

Inflation Expectations



Notes: 1. BEI (break-even inflation) rates are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using yield data for issue No.16 of the inflation-indexed JGBs, which matures in June 2018.
2. Figures for the ESP Forecast exclude the effects of the consumption tax hikes.

Sources: Bloomberg; Consensus Economics Inc.; JCER.

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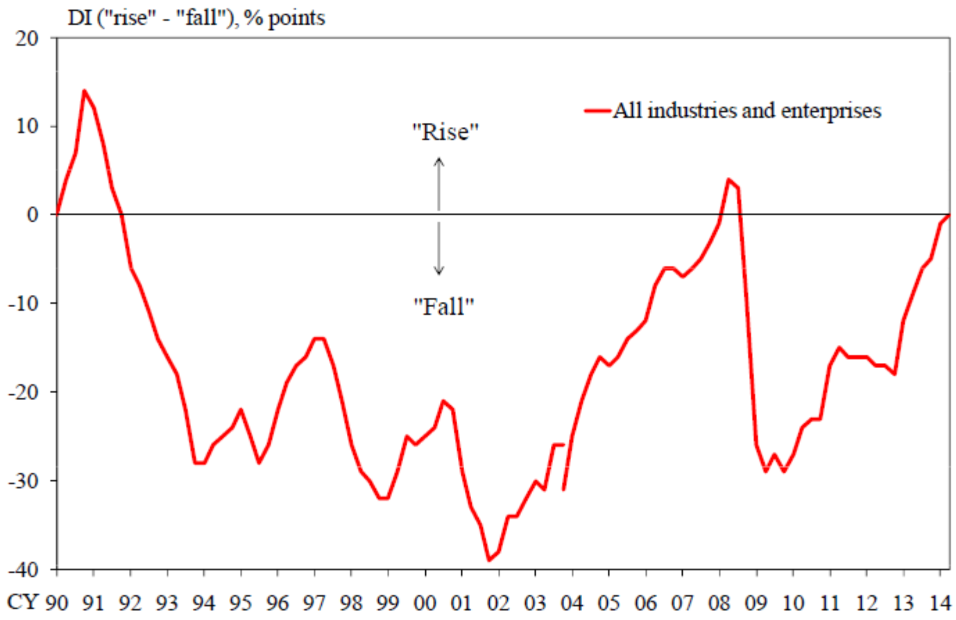
Chart 14

Tankan: DI for Change in Output Prices



Source: Bank of Japan.

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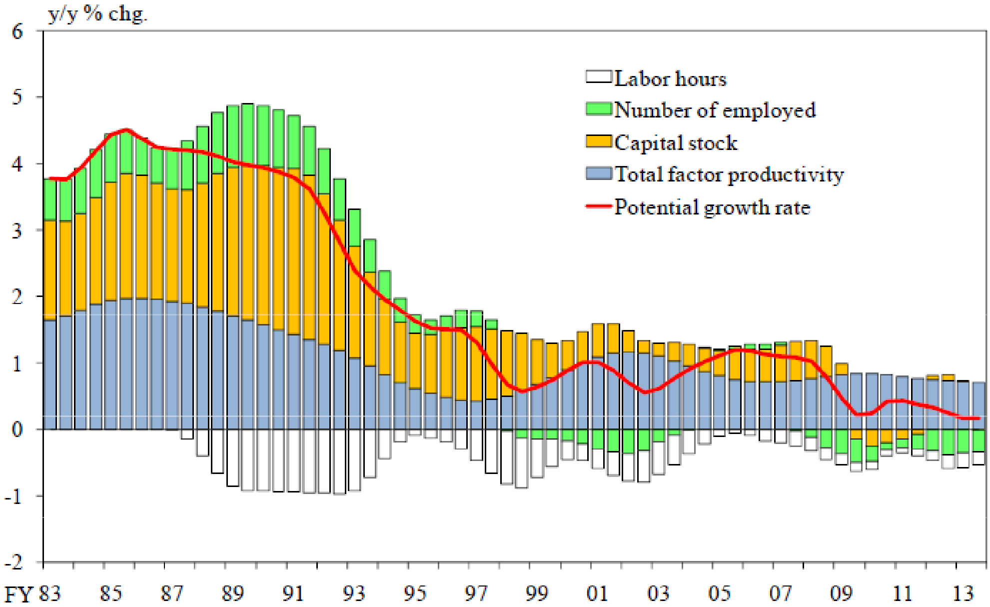
Chart 15

Potential Growth Rate



Note: The potential growth rate 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. Figures for the second half of fiscal 2013 are those of 2013/Q4.

Sources: Cabinet Office; Bank of Japan; Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Ministry of Economy, Trade and Industry, etc.

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