

## **Kikuo Iwata: Japan's economy and monetary policy**

Speech by Mr Kikuo Iwata, Deputy Governor of the Bank of Japan, at a meeting with business leaders, Ishikawa, 10 September 2014.

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*Accompanying slides can be found at the end of the speech.*

### **Introduction**

It is my pleasure to have the opportunity today to exchange views with administrative, financial, and business leaders in Ishikawa Prefecture. I would like to take this opportunity to express my sincerest gratitude for your cooperation with the activities of the Bank of Japan's Kanazawa Branch.

The Bank of Japan decided on the price stability target of 2 percent in terms of the year-on-year rate of change in the consumer price index (CPI) in January last year. The Bank then in April introduced aggressive monetary easing called quantitative and qualitative monetary easing (QQE) to achieve the price stability target. The Bank has been pursuing QQE since then.

One year and five months have passed since the Bank introduced QQE, and the policy has been having its intended effects so far. The impact of QQE is expected to become stronger going forward, making it particularly important for the Bank to ensure the public fully understands its policy.

Today, before exchanging views with you, I would like to explain the current situation of and outlook for Japan's economy. I will then talk about the background behind QQE.

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

#### **A. Economic activity**

Let me start by explaining the current situation of and outlook for Japan's economic activity. Japan's economy has continued to recover moderately as a trend, although a decline in demand following the front-loaded increase prior to the consumption tax hike can be observed. The GDP statistics released this week show that after growing strongly at a rate of 1.5 percent quarter-on-quarter in the January–March quarter, real GDP fell substantially, by 1.8 percent, in the April–June quarter (Chart 1). Because of the large decline in the April–June quarter, there appears to be some skepticism whether the economic recovery remains intact. However, since the increase in demand in the January–March quarter was very large as consumers brought purchases forward, it was only to be expected that the subsequent decline in demand and hence in real GDP in the April–June quarter would also be large. What matters is the mechanism underlying the economic recovery and not temporary factors, and the Bank judges that the virtuous cycle of economic activity remains firmly intact in both the household and corporate sectors. Let me first touch on the virtuous cycle in the household sector and then move on to the virtuous cycle in the corporate sector.

#### *Household sector*

Looking at the environment facing the household sector, the labor market continues to improve steadily. The unemployment rate in July registered at 3.8 percent, while the active job openings-to-applicants ratio was 1.10, and both have thus returned to the levels prior to the global financial crisis (Chart 2). The employment conditions DI in the June *Tankan* Survey – the Short-Term Economic Survey of Enterprises in Japan – shows that more and more firms, particularly in the non-manufacturing sector, feel that there is a labor shortage.

The year-on-year rate of increase in the number of regular employees has been around 1.5 percent (Chart 3).

With the labor market becoming tighter, hourly cash earnings of part-time employees have been increasing on a year-on-year basis. Moreover, scheduled cash earnings have increased slightly, indicating that the impact of base pay raises in the annual wage negotiations this spring is starting to appear in the data, and non-scheduled cash earnings and summer bonuses have increased. Against this background, the year-on-year rate of change in monthly cash earnings of full-time employees has been positive. As a result, the annual rate of increase in the nominal wage per employee has gradually accelerated. Finally, employee income – that is, nominal wages multiplied by the number of employees – has been growing at around 2 percent year-on-year for some months, and the rate of growth further accelerated in July.

With the employment and income situation improving steadily, private consumption has remained resilient as a trend, and the effects of the decline in demand following the consumption tax hike have gradually begun to wane. In interviews, some firms expressed the view that since the front-loading of purchases – especially of durable goods such as automobiles – had been very large, the subsequent decline was also likely to be prolonged. However, many department stores and food supermarkets, for example, report that the margin of the decline in demand has been narrowing gradually.

Looking ahead, the labor market is likely to continue tightening as the economy continues to recover and, as I will discuss later, corporate profits are expected to improve and inflation expectations are likely to increase. Therefore, the year-on-year rate of increase in nominal wages is expected to gradually show a clear uptrend. Against the backdrop of these employment and income developments, the virtuous cycle of economic activity in the household sector is expected to remain in place. Nevertheless, the Bank will continue to carefully examine how the decline in real income that the consumption tax hike has brought about affects households' spending behavior.

#### *Corporate sector*

Next, I will explain the virtuous cycle in the corporate sector.

Exports have shown some weakness and the recovery in exports has been delayed. That being said, as I will explain later in more detail, exports are expected to head for a moderate increase.

Despite the sluggishness in exports, the virtuous cycle in the corporate sector has remained in place. In fact, corporate profits have continued to improve. Looking at listed companies' results for the April–June quarter of this year, consolidated profits have continued to rise, mainly due to the good performance of overseas sales, and have generally been at favorable levels. Business sentiment has also remained favorable on the whole, although it temporarily deteriorated – particularly in the non-manufacturing sector – due to the effects of the decline in demand following the consumption tax hike. Business sentiment among large manufacturing firms has remained on an upward trend despite the weakness in exports, reflecting the fact that profitability continues to be favorable.

With corporate profits continuing to improve and business sentiment being generally favorable, business fixed investment, particularly in the non-manufacturing sector, has increased moderately. Moreover, even in the manufacturing sector, which had been lagging, a clear recovery in business fixed investment can be observed (Chart 4). With corporate profits continuing their improving trend, business fixed investment is projected to follow a moderate increasing trend as the effects of monetary easing grow stronger through the decline in expected real interest rates. The June *Tankan* survey shows that aggregate investment in fiscal 2014 is scheduled to increase. Therefore, the virtuous cycle of economic activity in the corporate sector is expected to remain intact against the backdrop of the improvement in corporate profits and favorable business sentiment.

### *Outlook for and concerns about economic activity*

Japan's economy is expected to continue its moderate recovery trend, since the virtuous cycle of economic activity in both the household and corporate sectors is likely to remain in place, as I just mentioned. At the July Monetary Policy Meeting (MPM), the Bank conducted an interim assessment of the April 2014 *Outlook for Economic Activity and Prices* (Outlook Report) through fiscal 2016. Looking at the median of the Policy Board members' forecasts, 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 5).

Regarding the outlook for economic activity, a potential concern is developments in exports. As I just mentioned, Japan's exports have shown some weakness. The recent weakness in exports is essentially due to cyclical factors, mainly the sluggishness in emerging economies. At the same time, the unexpectedly large slowdown of the U.S. economy in the January–March quarter of this year due to the unusually severe winter weather seems to have affected exports with a lag, putting downward pressure on them through early spring. In addition, a possible structural factor why the recovery in Japan's exports has lagged behind the recovery in overseas economies that may have played a certain role is the accelerated relocation of production overseas by Japanese manufacturing firms.

Looking ahead, with structural problems such as fiscal and current account deficits persisting in some emerging economies, economic growth in emerging economies, and particularly growth in domestic demand, is expected to remain subdued for the time being. On the other hand, growth in the advanced economies such as the U.S. and European economies is expected to accelerate, while the Chinese economy is expected to continue to register stable growth. Growth in these economies will likely spread to emerging economies, so that the growth rate of overseas economies overall is expected to accelerate gradually. This is also confirmed by the *World Economic Outlook Update* published in July 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 6). Therefore, the cyclical factors responsible for the weakness in exports so far are likely to gradually disappear and exports are expected to head for a moderate increase. In addition, from a somewhat longer-term perspective, the correction of the excessive appreciation of the yen in the past will mitigate downward pressure on exports by decelerating the pace of relocation of production overseas.

### **B. Price developments**

Let me turn to price developments. The year-on-year rate of increase in the CPI (excluding fresh food) excluding the direct effects of the consumption tax hike was plus 1.3 percent in July. Thus, Japan's economy is on course to achieving an inflation rate of 2 percent – the price stability target – as expected (Chart 7).

When assessing price developments, it is important to bear in mind that monthly figures for the CPI tend to fluctuate and that trend inflationary pressure is determined by two factors: improvements in the output gap and rising inflation expectations. To assess trend inflation, it is necessary for the Bank to carefully examine these two factors. As I mentioned, Japan's labor market has tightened, and firms' excess capacity has almost disappeared as capacity utilization has increased. As a result, the output gap has been improving moderately and recently reached around 0 percent (Chart 8). Moreover, as I will explain later, medium- to long-term inflation expectations appear to be rising on the whole.

The year-on-year rate of increase in the CPI is expected to accelerate moderately, along with increasing wages, against the backdrop of rising inflation expectations as well as improvements in the output gap, given that Japan's economy is expected to continue growing at a pace above its potential. Specifically, the inflation rate is expected to be around 1¼ percent for some time, since upward pressure from energy-related goods, particularly petroleum products, will likely wane. Subsequently, with the output gap remaining positive

and medium- to long-term inflation expectations rising, the year-on-year rate of change in the CPI is expected to follow an uptrend again and reach about 2 percent around the middle of the current projection period from fiscal 2014 through 2016, that is, in or around fiscal 2015. Looking at the median of the Policy Board members' forecasts 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) are 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 5).

## **II. Conduct of monetary policy**

### **A. What is QQE?**

For the remainder of my speech I would like to focus on several points concerning the Bank's conduct of monetary policy.

The QQE policy the Bank has been pursuing since April last year has two major pillars (Chart 9).

The first pillar is a commitment to achieve the 2 percent price stability target as swiftly as possible. Specifically, the Bank clearly pledged that it would achieve the price stability target of 2 percent at the earliest possible time, with a time horizon of about two years.

The second pillar consists of underpinning the first pillar – the commitment – with specific actions. As the wording *quantitative and qualitative* indicates, these actions involve an expansion of the quantity and changes in the quality of assets on the balance sheet of the Bank.

The quantitative aspect refers to the substantial increase in the amount of money provided by the Bank to the financial system, that is, the increase in the monetary base, through purchases of various assets, in particular Japanese government bonds (JGBs).

The qualitative aspect refers to the purchase of riskier assets. The Bank started to include purchases of government bonds with longer remaining maturities. In order to affect risk premiums on assets, the Bank has also increased the amounts of purchases of exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs).

### **B. Transmission channels of QQE**

Many of you may be interested in the channels through which QQE with its two pillars affects the real economy and to what extent the effects of QQE have spread through the economy.

Let me explain the transmission channels of monetary easing. A key transmission channel is the lowering of expected real interest rates (Chart 10). Expected real interest rates are nominal interest rates actually observed in financial markets or over the counter less the rate of inflation people expect. While nominal interest rates can be observed, expected real interest rates are the rates economic entities anticipate taking into account price changes.

QQE aims at putting downward pressure on nominal interest rates through large-scale purchases of long-term government bonds and purchases of other assets while raising the expected rate of inflation. The aim is therefore to lower expected real interest rates, that is, nominal interest rates less the expected rate of inflation.

If economic entities' expected real interest rates fall, this will stimulate demand in the real economy in a number of ways (Chart 11). For example, when real interest rates decline, people will shift their portfolios from cash, deposits, and fixed-income securities – which will have become relatively less attractive – to equities and tangible assets such as land and housing, or to foreign currency-denominated assets with higher returns. The resulting rise in equity prices and the appreciation of foreign currencies will stimulate private consumption through wealth effects.

In addition to the decline in expected real interest rates, other factors such as an increase in consumption, a rise in stock prices, and the depreciation of the yen, will encourage firms to be more proactive in their business fixed investment. The depreciation of the yen is also expected to give rise to an increase in exports.

With an increase in demand through these channels, the shortage of demand in the economy will be eliminated, prices will rise, and overcoming deflation will be in sight.

Further increases in production due to growing demand will lead to an increase in labor income through improved labor market conditions and, in turn, further raise private consumption. The resulting increase in corporate profits will lead to an increase in firms' business fixed investment. This chain of developments leads to a virtuous cycle in the economy.

### **C. *Effects of QQE***

In the economy, monetary policy has so far been having its intended effects through the transmission channels I have explained.

On the one hand, nominal interest rates, including long-term government bond yields, have been stable, while, on the other hand, economic entities' inflation expectations have been rising on the whole, as I will explain in a moment. Therefore, expected real interest rates – that is, nominal interest rates minus the expected rate of inflation – have been declining. This, in turn, has boosted private demand, such as consumption and investment, raising aggregate demand in the economy as a whole. Economic growth in fiscal 2013 jumped to 2.3 percent following slow growth between only 0 and 1 percent in the two preceding years. Against this background, the year-on-year rate of change in consumer prices has been increasing as a trend toward around 2 percent – the price stability target.

Corporate sector output has been increasing in response to the rise in aggregate demand, and labor demand has been increasing accordingly. Since nominal wages have been on an uptrend along with the increase in the number of workers, employee income as a whole has been rising, underpinning domestic demand.

Therefore, QQE has been having its intended effects, and the effects of monetary easing are expected to further strengthen with the virtuous cycle among production, income, and spending being sustained.

When talking about these developments on previous occasions, I have sometimes heard the concern that real wages may actually be declining, since nominal wages cannot keep up with the increase in inflation. In response, I have been saying that it is necessary to be patient and to watch the policy effects over a period of time, since the effects unfold in a certain order.

From firms' perspective, it is not easy to reduce the number of regular workers once increased and it is difficult to reduce wages once raised. Therefore, in general, increases in employment tend to start in the form of additional non-regular workers being hired, and wage increases tend to take the form of increases in special cash earnings such as bonuses or in non-scheduled cash earnings. While the year-on-year rate of change in scheduled cash earnings had been on a downtrend reflecting the increase in the share of part-time workers in total employment, scheduled cash earnings stopped declining in May this year and started to increase in June.

Real wages had been declining until recently. However, excluding the direct effects of the April consumption tax hike, the year-on-year rate of change in real wages turned positive for full-time workers in June and for part-time workers in July (Chart 12).

Once future economic prospects and the outlook for firms' profits become more favorable as the virtuous cycle among production, income, and spending continues, it is likely that wages will rise steadily in line with or above the rate of inflation. For this to happen, it is important to

continue with the appropriate conduct of monetary policy measures to achieve the price stability target in a stable manner.

#### **D. *Inflation expectations and prices***

As mentioned earlier, in order to put downward pressure on expected real interest rates it is necessary to work on people's inflation expectations. Under 15 years of protracted deflation, there was a growing share of younger people who had never experienced inflation, and the view that prices will not rise had become entrenched in people's mindset. Dispelling such a deflationary mindset and changing people's expectations so that they expect moderate inflation is quite a difficult challenge. That is why the current large-scale monetary easing had become necessary.

Various surveys and market indicators point to a general uptrend in people's inflation expectations (Charts 13 and 14). This can be attributed to the fact that the impact of QQE on inflation expectations has been spreading. In addition, this uptrend also reflects an increase in the number of people who had been reluctant to believe that Japan would experience inflation until they saw it and who are now adjusting their expectations. Such skeptics have adjusted their expectations due to the rise in actual inflation reflecting the improvement in the output gap. This tendency is likely to become stronger going forward.

The rise in inflation expectations, moreover, has the effect of directly raising actual inflation through an additional channel distinct from the boost to aggregate demand through lower expected real interest rates. Specifically, when people expect future inflation, their price and wage setting will be based on such expectations, thus adding inflationary pressure.

In this context, it is useful to refer to the concept of the Phillips curve, which illustrates the relationship between economic activity and inflation. Recently, inflation has clearly been above the level suggested by the Phillips curve derived from data for the period of deflation (Chart 15). In addition to a move along the Phillips curve due to the improvement in economic activity, this may reflect an upward shift in the Phillips curve due to upward pressure on the curve itself stemming from the rise in inflation expectations.

#### **E. *The depreciation of the yen and inflation***

On this basis, the Bank believes that the price stability target of 2 percent will be achieved, as I mentioned earlier. Of course, there are some skeptical voices. For example, some argue that the current rise in inflation is the result of a rise in the price of imports, especially energy, due to the depreciation of the yen, so that once such exchange rate effects dissipate, the pace of inflation should slow down.

However, statistical analysis for the period prior to the introduction of QQE shows no significant relationship between changes in the exchange rate of the yen and inflation in Japan (Chart 16). That is, a depreciation of the yen does not necessarily lead to inflation.

Let me briefly explain why this is the case. Assuming that all else remains equal, a rise in the prices of imports due to a depreciation of the yen or other factors indeed creates upward pressure on prices. At the same time, however, the resulting negative income effect will reduce the demand for imports and other goods and services, which, in turn, will exert downward pressure on the prices of imports and other goods and services. For example, if gasoline prices rise, you may try to drive less or reduce your purchases of other products.

A clear relationship between the yen-dollar exchange rate and the year-on-year rate of change in consumer prices can only be observed in the short period after the introduction of QQE (Chart 17). This suggests that current inflation has not been brought about merely by the depreciation of the yen. Instead, it appears that QQE has triggered certain mechanisms resulting in price increases that were not seen during episodes of monetary easing in the past.

How a rise in prices of specific goods and services reflecting, for example, a depreciation of the yen ultimately affects aggregate demand and aggregate prices depends on the interaction of the various mechanisms. Thus, there is no one-to-one relationship between changes in the prices of specific goods and services and the price level overall. In other words, one cannot forecast macro-level changes simply by adding up micro-level changes.

In the end, to forecast price developments at the macro level, analyses from a macro perspective are necessary. Specifically, it is essential to examine the output gap, that is, how much demand there is relative to the supply capacity of the economy as a whole.

The main factor underlying the current level of inflation is the growing demand in the economy as a whole, and the effects of monetary policy played a certain role in the growth in demand. Because of such demand pressure, firms have been able to smoothly pass on increases in costs as well as the consumption tax hike to higher sales prices.

#### ***F. QQE and strategies to raise the growth potential***

With monetary policy having its intended effects and the output gap improving, firms have gradually started to face supply constraints such as shortages in labor and capital stock that had not surfaced under deflation.

Japan's unemployment rate increased from 3–4 percent in the mid-1990s to 5–6 percent in the 2000s, despite the fact that the working age population has been shrinking since 1996. On the other hand, more recently, the economy has been facing a labor shortage, which, given the decline in the number of workers, is what one would expect under normal circumstances. Thus, one could say that Japan's economy is gradually returning to a much more normal situation, in which the unemployment rate falls as the number of workers shrinks.

Due to the decline in the working age population, as well as a slowdown in productivity growth and sluggish business fixed investment, Japan's potential growth rate is estimated to have declined to around 0.5 percent. Now that the improvement in the output gap has brought challenges on the supply-side to the fore, this is a good time to make efforts to raise the growth potential by increasing the capital stock and pursuing growth strategies such as measures to respond to the decline in the working age population and to promote innovation through regulatory and institutional reforms.

The reason I refer to the importance of strengthening growth potential here is not that it is a necessary condition for achieving the price stability target. The price stability target of 2 percent can be achieved through the appropriate conduct of monetary policy, regardless of the level of potential growth rate. If aggregate demand grows due to monetary easing, workers will work more efficiently, while the improvement in business sentiment will lead firms to take risks and invest in capital stock and to promote technological innovation. This, in turn, is likely to raise the growth potential to some extent.

However, such monetary easing alone will not be sufficient to achieve the government's target of "real economic growth of about 2 percent on average for 10 years" and can only provide a supplementary boost to Japan's growth potential. To achieve the government's target, it is necessary to raise Japan's growth potential by pushing ahead with drastic structural reforms through a growth strategy.

In a deflationary recession, it is difficult to push ahead with such structural reforms, since there is bound to be strong resistance against policy measures that, for example, seek to increase competition through deregulation, due to the severe economic pain such measures would bring about. Therefore, monetary policy to overcome deflation and maintain inflation at about 2 percent in the medium to long term is a necessary condition to promote structural reforms in order to raise the potential growth rate. This has been my view even since before I became Deputy Governor of the Bank.

Based on these considerations, the Bank will continue to strive to pursue appropriate monetary policy measures on its own accord to achieve the price stability target of 2 percent at the earliest possible time.

### **Concluding remarks**

In concluding, let me touch on the economy of Ishikawa Prefecture.

Ishikawa Prefecture is a manufacturing region and there are a number of firms that have unique technologies of worldwide prominence. In addition, there are many vigorous small and medium-sized enterprises (SMEs) in Ishikawa Prefecture, and the prefecture has a disproportionate share in the list of *300 of Japan's Exciting Monozukuri (Manufacturing) SMEs* released by the Ministry of Economy, Trade and Industry. Moreover, with regard to human resource utilization, Ishikawa Prefecture comes first in Japan in terms of the employment rate of women, and the overall employment rate is also relatively high.

The economy of Ishikawa Prefecture has been recovering moderately, although it has been affected by the subsequent decline in demand following the front-loaded increase prior to the consumption tax hike. With the employment and income situation improving, private consumption has been moderately picking up as a trend. Business fixed investment has increased as corporate profits have improved steadily. Meanwhile, public investment has been at a high level, and housing investment appears to have stopped weakening, despite the decline in demand following the consumption tax hike. Reflecting these developments in demand, industrial production has been hovering at a high level and the employment and income situation has improved. Therefore, a virtuous cycle of economic activity has been operating.

Given this assessment of the regional economy, I hope that the extension of the Hokuriku Shinkansen line to Kanazawa in March 2015 will further boost economic activity in the region on both the tourism and the business front. With regard to tourism, an increasing number of visitors are expected to come to this region, and there has been an increase in the building and renovation of hotels and other commercial facilities to respond to this increase in demand. Regarding business, firms have been launching initiatives such as developing new sales networks and tapping new customers as well as promoting the relocation of enterprises to the region from outside the region.

Moreover, I have heard that – taking advantage of the clustering of the textile industry in this region – industry, the prefectural administration, and academics in coordination have launched initiatives to develop new materials made from carbon fibers. I have also heard that initiatives aiming to promote new industries such as aircraft-related industries and medical and nursing services have been implemented. I sincerely hope that, with the extension of the Hokuriku Shinkansen line to Kanazawa, the region will enjoy further growth in the future through the strengthening of joint efforts between the public and the private sector in a wide range of areas to boost the economy of the region.

Thank you.



# Japan's Economy and Monetary Policy

*Speech at a Meeting with Business Leaders in Ishikawa*

September 10, 2014

**Kikuo Iwata**

*Deputy Governor of the Bank of Japan*

Chart 1

## Real GDP Growth

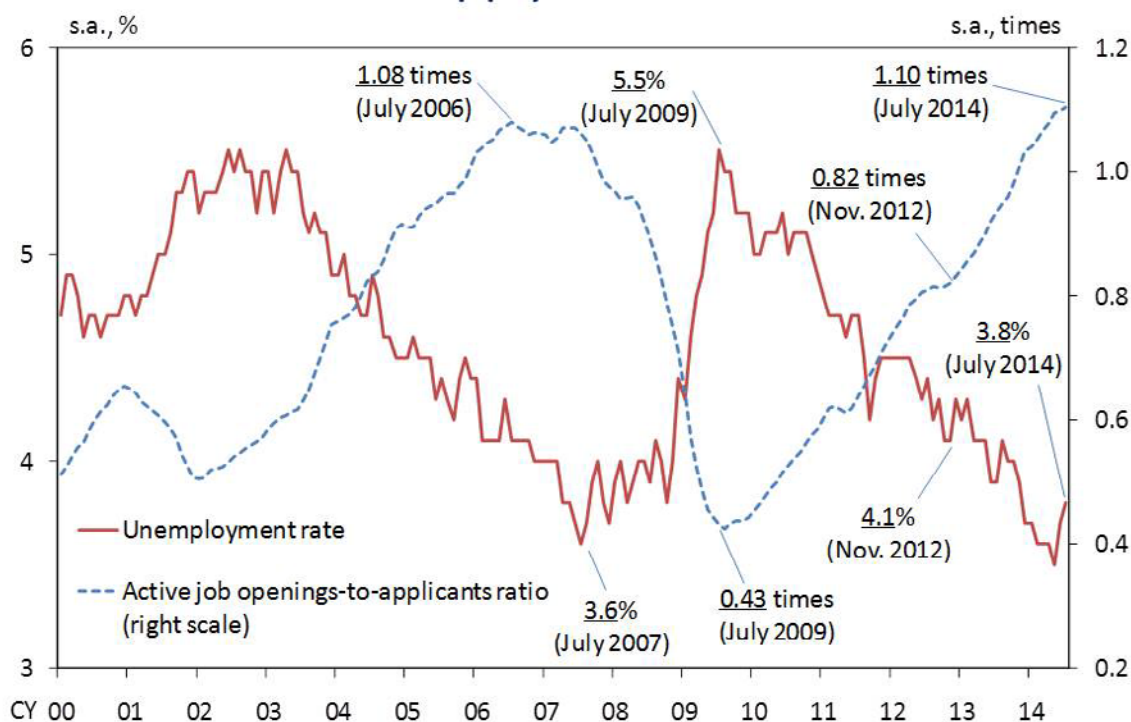
s.a., q/q % chg.

	2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2
Real GDP	1.2	0.8	0.4	▲0.1	1.5	▲1.8
<Annual rate>	<5.1>	<3.4>	<1.8>	<▲0.5>	<6.0>	<▲7.1>
Private Consumption	1.0	0.7	0.2	0.4	2.0	▲5.1
Residential Investment	0.8	2.1	4.7	2.4	2.0	▲10.4
Non-Resi. Investment	▲2.0	1.8	0.5	1.0	7.8	▲5.1
Government Consumption	0.9	0.6	0.1	0.2	▲0.2	0.1
Public Investment	4.7	5.8	7.1	1.4	▲2.5	▲0.5
Exports	4.3	3.1	▲0.7	0.3	6.5	▲0.5
Imports	1.2	2.3	1.8	3.7	6.4	▲5.6

Source: Cabinet Office, "National Accounts."

Chart 2

## Labor Supply and Demand



Sources: Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Report on Employment Service."

Chart 3

## Employee Income

	y/y % chg.						
	2013				2014		
	Q1	Q2	Q3	Q4	Q1	Q2	July
Total Cash Earnings (W)	▲0.6	0.3	▲0.4	0.4	0.1	0.8	2.6
Scheduled Cash Earnings	▲0.7	▲0.4	▲0.7	▲0.7	▲0.4	▲0.1	0.7
Non-Scheduled Cash Earnings	▲1.9	0.6	3.0	5.5	5.0	4.4	3.3
Special Cash Earnings	9.6	2.4	0.3	1.9	0.8	2.8	7.1
Number of Regular Employees (L)	0.5	0.7	0.9	1.1	1.2	1.4	1.6
Employee Income (W×L)	▲0.0	0.9	0.5	1.5	1.3	2.2	4.2

Source: Ministry of Health, Labour and Welfare, "Monthly Labour Survey."

Chart 4

## Business Fixed Investment

▽ Private Non-Residential Investment

s.a., q/q % chg.

2013				2014	
Q1	Q2	Q3	Q4	Q1	Q2
▲2.0	1.8	0.5	1.0	7.8	▲5.1

Source: Cabinet Office, "National Accounts."

▽ Survey on Business Fixed Investment (*Tankan*)

y/y % chg.

	FY 2013 (Actual)		FY 2014 (Forecast)	
	March 2014	June 2014	March 2014	June 2014
All Industries	5.2	5.6	▲4.2	1.7
Manufacturing	3.1	0.5	1.2	10.1
Nonmanufacturing	6.3	8.2	▲6.9	▲2.4

Note: Figures include land purchasing expenses but exclude software investment. Figures are based on the new lease accounting standard.

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

▽ Survey on Business Fixed Investment (Development Bank of Japan)

y/y % chg.

	FY 2012 (Actual)	FY 2013 (Actual)	FY 2014 (Forecast)
All Industries	2.9	3.0	15.1
Manufacturing	2.7	▲1.7	18.5
Nonmanufacturing	3.1	5.4	13.2

Note: The survey covers private firms capitalized at ¥1 billion or more, excluding agriculture, forestry, finance, and insurance.  
Source: Development Bank of Japan, "Survey on Planned Capital Spending."

Chart 5

## Forecasts of Policy Board Members

y/y % chg.

	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
FY 2014	<u>+1.0</u>	+3.3	<u>+1.3</u>
FY 2015	<u>+1.5</u>	+2.6	<u>+1.9</u>
FY 2016	<u>+1.3</u>	+2.8	<u>+2.1</u>

Note: Figures indicate the median of the Policy Board members' forecasts (point estimates) as of July 2014.

Chart 6

## World Economy

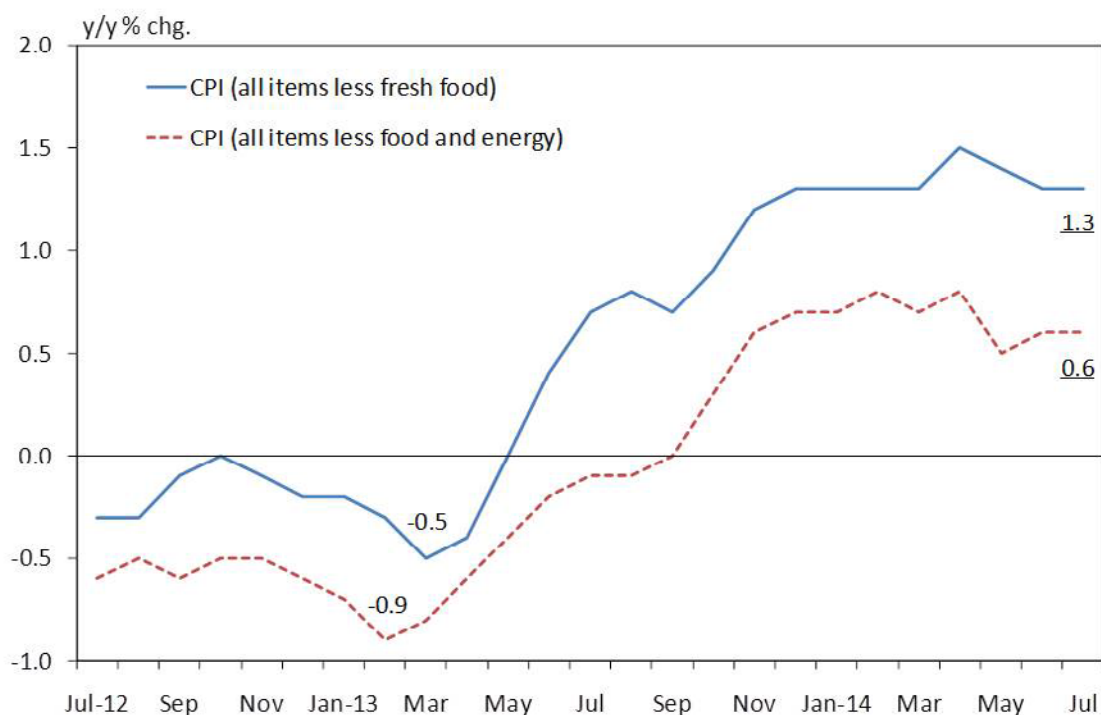
y/y % chg.

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

Note: Figures are projections by the IMF as of July 2014.  
Source: IMF, "World Economic Outlook."

Chart 7

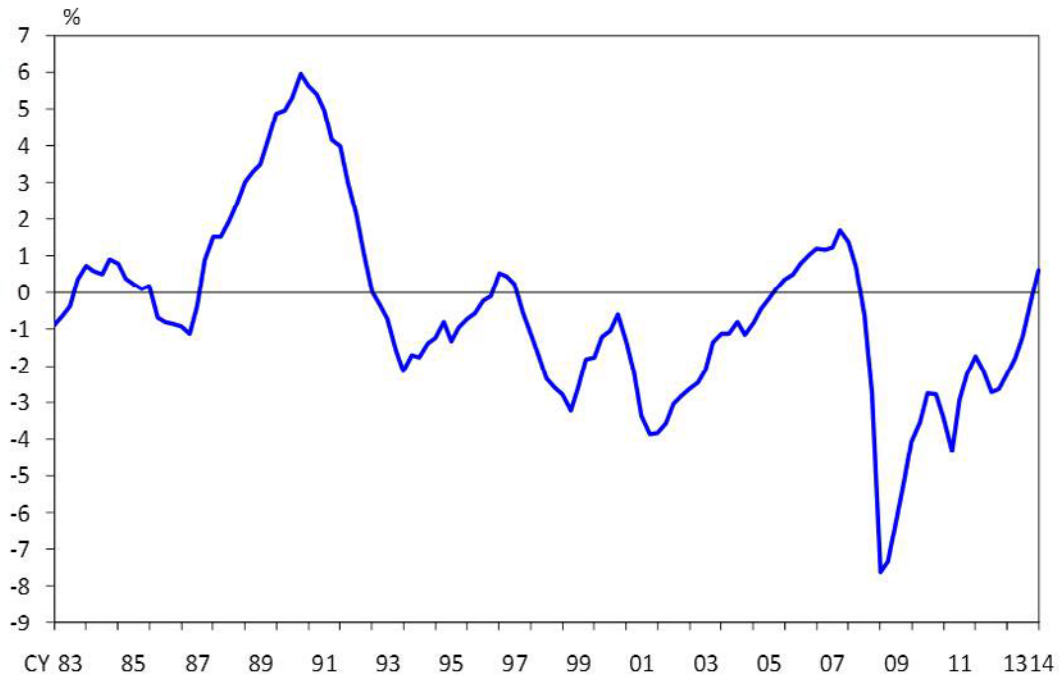
## Consumer Prices



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, "Consumer Price Index."

Chart 8

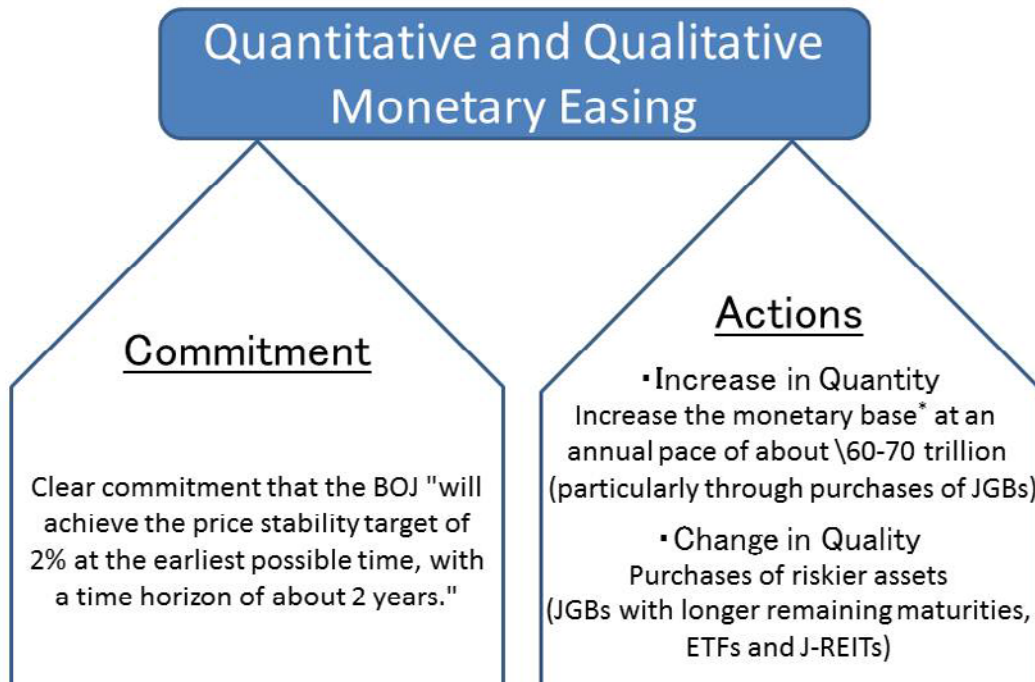
## Output Gap



Note: 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.  
Sources: Cabinet Office, "National Accounts," etc.

Chart 9

## Two Pillars of QQE



\* Money supplied directly from the central bank to the financial system.



Chart 10

## Working on Expected Real Interest Rates

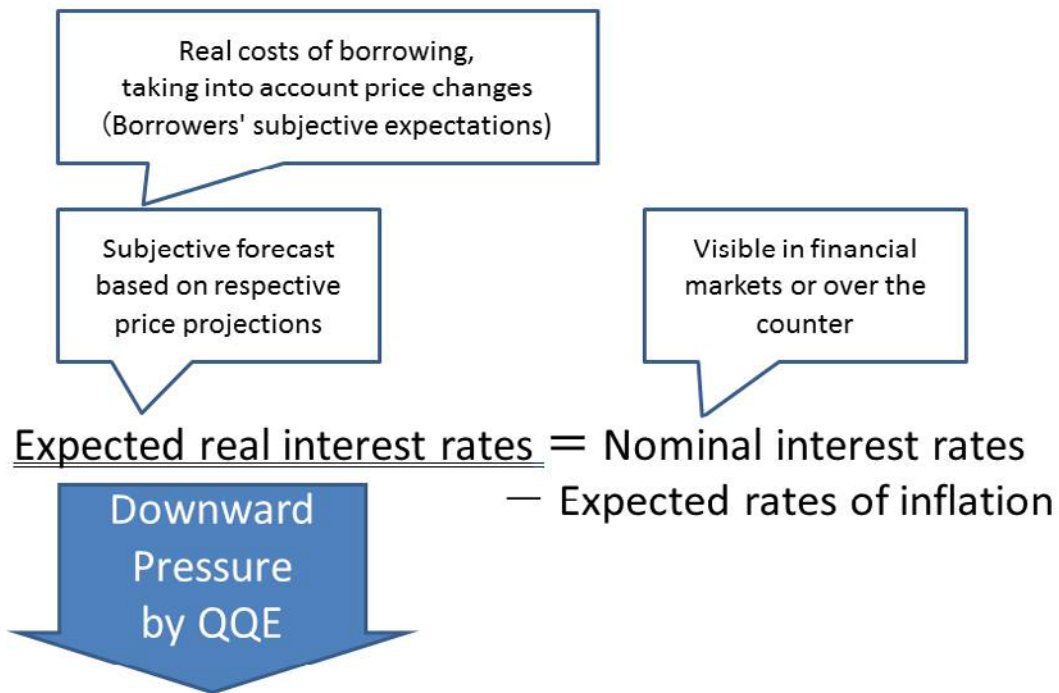


Chart 11

## Transmission Channels of QE

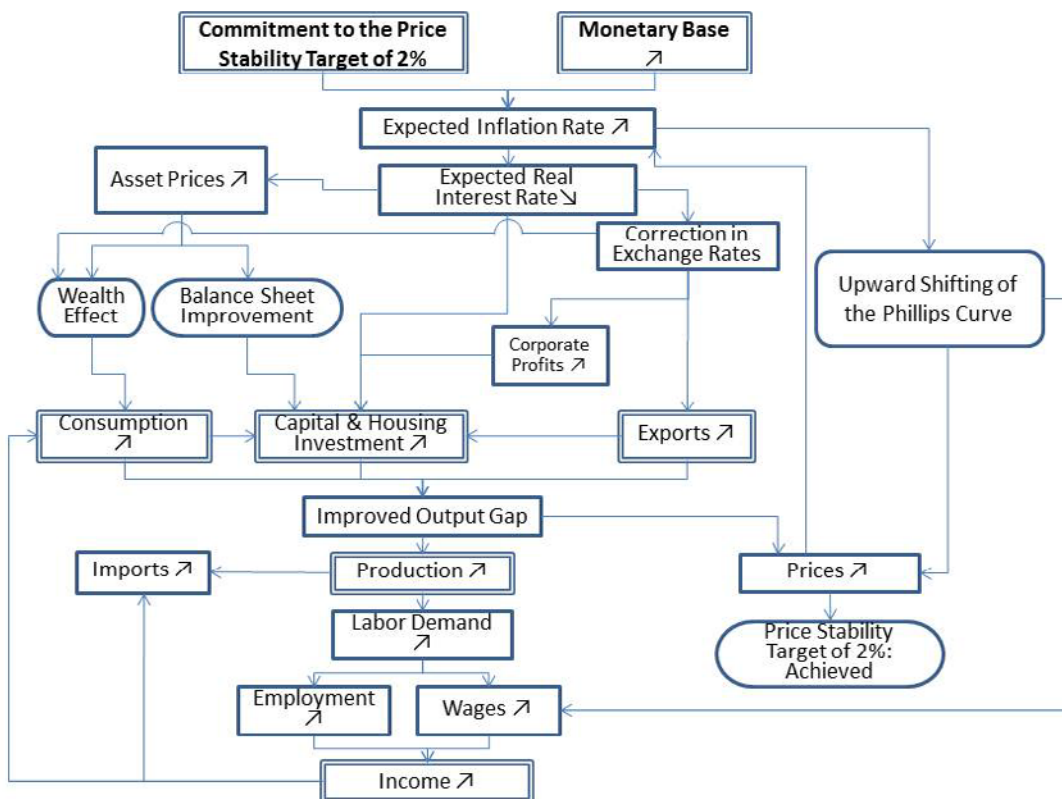
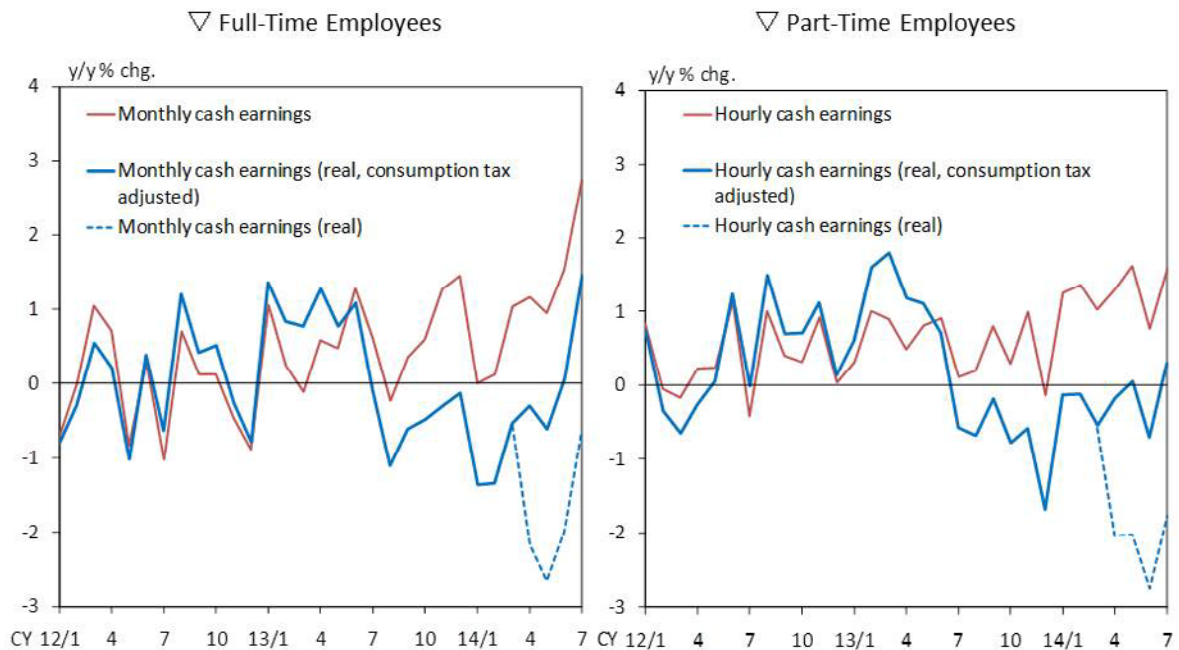


Chart 12

## Real Wages



Note: Figures for real wages are nominal wages deflated by the CPI (all items). Those after adjusting consumption tax are nominal wages deflated by the CPI (all items), which was calculated to adjust the direct effects of the consumption tax hike.  
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Ministry of Internal Affairs and Communications, "Consumer Price Index."

Chart 13

## Inflation Expectations (1)

▽ Enterprises (*Tankan*)

	y/y % chg. (All Industries, Average)								
	1 year ahead			3 years ahead			5 years ahead		
	All Enterprises	Large Enterprises	Small Enterprises	All Enterprises	Large Enterprises	Small Enterprises	All Enterprises	Large Enterprises	Small Enterprises
Mar. 2014	1.5	1.1	1.7	1.7	1.3	1.9	1.7	1.3	1.9
June 2014	1.5	1.1	1.7	1.6	1.2	1.8	1.7	1.2	1.9

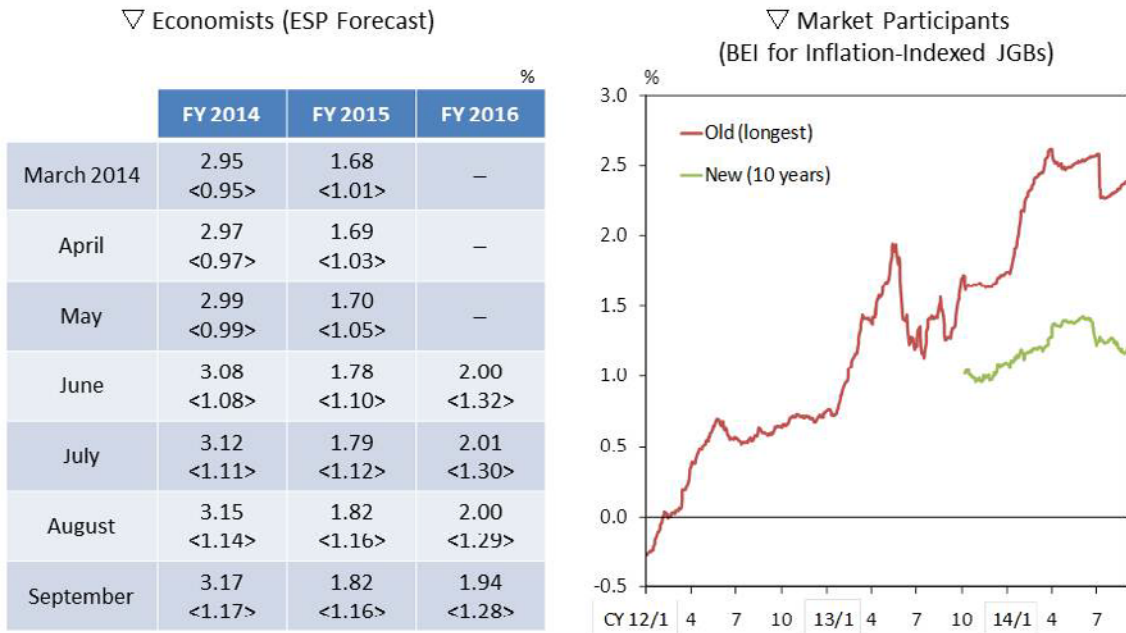
▽ Households



Note: Figures are for all households. The weighted average is calculated based on the following assumption: survey responses chosen by households as their expected inflation rates -- "-5% or below," "from -5% to -2%," "from -2% to 0%," "from 0% to +2%," "from +2% to +5%," and "+5% or above" -- indicate inflation rates of -5%, -3.5%, -1%, +1%, +3.5%, and +5%, respectively.  
Sources: Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan"; Cabinet Office, "Consumer Confidence Survey."

Chart 14

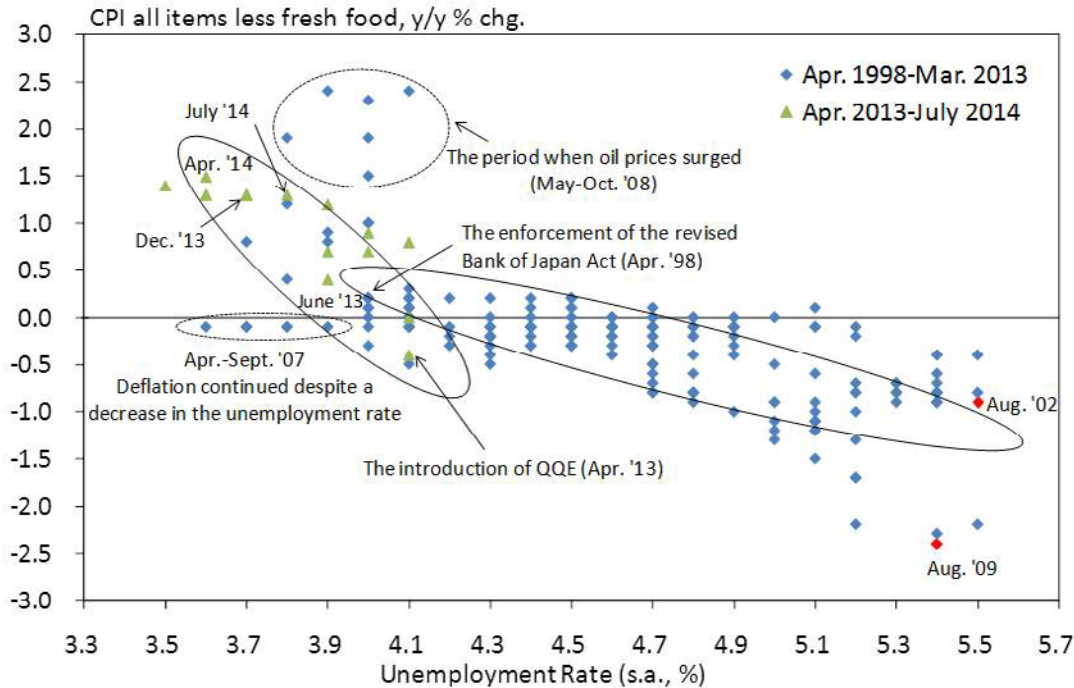
## Inflation Expectations (2)



Notes: 1. Figures in angular brackets for the ESP Forecast exclude the effects of the consumption tax hikes.  
 2. 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.  
 Sources: JCER, "ESP Forecast"; Bloomberg.

Chart 15

## Unemployment Rate and Inflation Rate



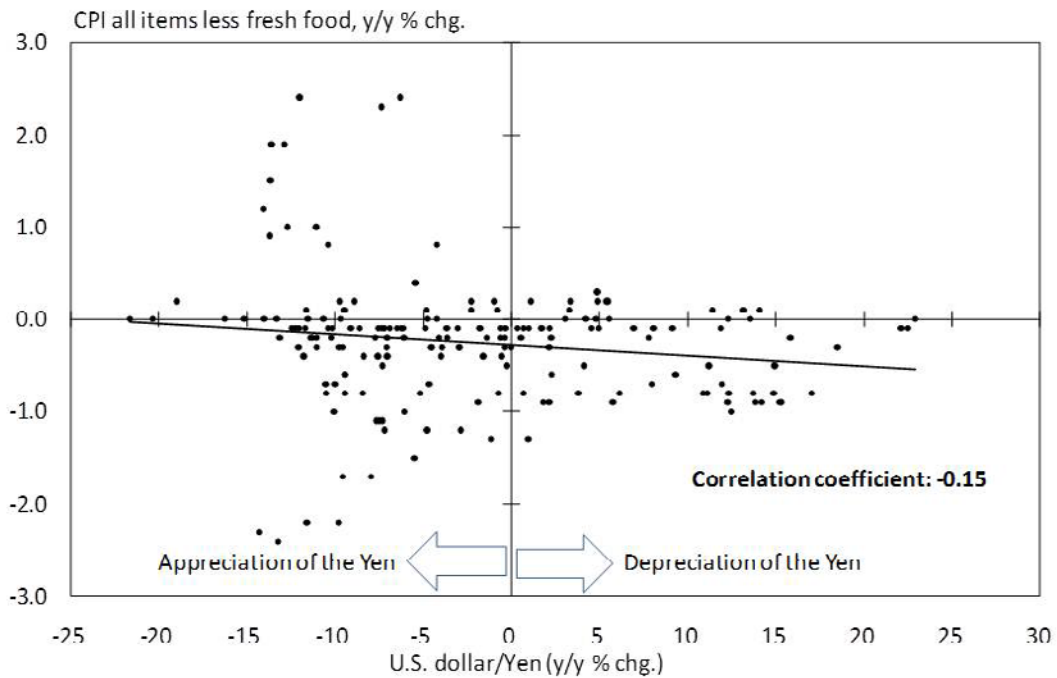
Note: Figures for the CPI from April 2014 onward are calculated to adjust the direct effects of the consumption tax hike.  
 Source: Ministry of Internal Affairs and Communications, "Consumer Price Index," "Labour Force Survey."



Chart 16

## U.S. Dollar/Yen Exchange Rate and Inflation Rate

— Prior to the introduction of QQE (Apr. 1998-Mar. 2013) —

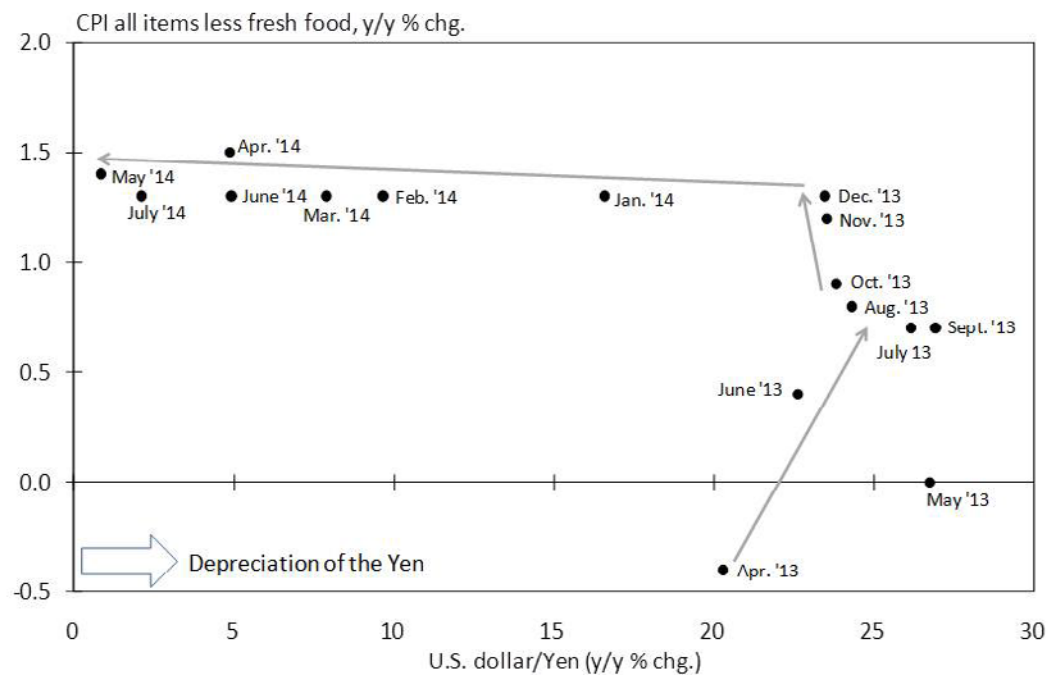


Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bloomberg.

Chart 17

## U.S. Dollar/Yen Exchange Rate and Inflation Rate

— After the introduction of QQE (Apr. 2013-July 2014) —



Note: Figures for the CPI from April 2014 onward are calculated to adjust the direct effects of the consumption tax hike.  
Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bloomberg.