



February 3, 2016

Bank of Japan

**Introduction of "Quantitative and Qualitative  
Monetary Easing with a Negative Interest Rate"**

*Speech at the Kisaragi-kai Meeting in Tokyo*

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(English translation based on the Japanese original)

## **Introduction**

It is my great pleasure to have the opportunity today to speak at the Kisaragi-kai meeting. At the Monetary Policy Meeting held on January 29, the Bank of Japan decided to introduce "Quantitative and Qualitative Monetary Easing (QQE) with a Negative Interest Rate" in order to achieve the price stability target of 2 percent at the earliest possible time. Today, I will first explain the Bank's recognition of and prospects for economic activity and prices in Japan, and then elaborate on the background to the policy decision made this time around.

### **I. Economic Activity in Japan**

First, I would like to talk about economic activity in Japan.

Japan's economy has continued to recover moderately on the back of firm domestic private demand, although exports and production have been affected by the slowdown in emerging economies. In the corporate sector, profits clearly have continued to improve, registering a record high, with support from an improvement in the real economy as well as the low crude oil prices and the low yen rate (Chart 1). Against this background, business fixed investment has been on a moderate increasing trend. According to the business fixed investment plans in the December 2015 Short-Term Economic Survey of Enterprises in Japan (*Tankan*), firms have maintained their positive fixed investment stance. In the household sector, labor market conditions have continued to tighten. The active job openings-to-applicants ratio and the diffusion index for employment conditions in the December *Tankan* have improved to almost the same levels as around the first half of 1992 (Chart 2). Moreover, the unemployment rate has been declining and is in the range of 3.0-3.5 percent for the first time in 18 years, since 1997. It can be judged that the labor market is in a situation of "full employment," where remaining unemployment is due solely to mismatches between job openings and job applicants. Reflecting the tightening of labor market conditions, employee income has been increasing moderately. Under such steady improvement in the employment and income situation, private consumption has been resilient.

Looking ahead, domestic demand is likely to follow an uptrend, with a virtuous cycle from income to spending being maintained in both the corporate and household sectors.

Exports are expected to increase moderately on the back of emerging economies moving out of their deceleration phase. As in the January 2016 *Outlook for Economic Activity and Prices* (Outlook Report) released by the Bank last week, the real GDP growth rate is projected to be 1.1 percent for fiscal 2015 and 1.5 percent for fiscal 2016, and thus is estimated to continue to exceed the potential growth rate (Chart 3). Against this backdrop, Japan's economy is likely to shift from the phase of recovery to expansion; namely, the output gap is expected to turn positive (excess demand). In fiscal 2017, the real GDP growth rate is projected to maintain positive growth of 0.3 percent, although with a slowing in its pace to around a level somewhat below the potential growth rate, reflecting the effects of a front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike as well as the cyclical developments in the economy.

## **II. Price Developments in Japan**

Let me now turn to price developments in Japan.

The year-on-year rate of change in the consumer price index (CPI, all items less fresh food), which had been minus 0.5 percent just before the introduction of QQE, increased to as high as 1.5 percent in April 2014, excluding the effects of the consumption tax hike (Chart 4). However, as a result of a substantial fall in crude oil prices since summer 2014, it has declined gradually and currently is around 0 percent. Nonetheless, the Bank is of the view that the underlying trend in inflation has been improving steadily. Next, I would like to elaborate on the background to our view on prices.

To begin with, I would like to touch on the relationship between the price stability target of 2 percent and the underlying trend in inflation. The Bank has set the target at 2 percent in terms of the year-on-year rate of change in the all-item CPI. It is common in major economies to define the price stability target as the all-item inflation rate. This is because the all-item CPI comprehensively covers goods and services that households consume. However, when assessing price developments at each point in time, there is a need to exclude the effects stemming from the factors that fluctuate temporarily and evaluate the underlying trend in inflation appropriately. Since such factors will dissipate eventually, we

cannot make appropriate policy decisions if we look only at superficial price developments, which are affected by temporary factors.

We usually refer to the CPI (all items less fresh food) to explain price developments because prices for fresh food fluctuate remarkably in Japan. Given this, in a case where crude oil prices fluctuate largely, it is natural to think that the CPI should be looked at on a basis excluding energy.

On this basis, I would like to examine the underlying trend in inflation in Japan. The Bank is of the view that the underlying trend in inflation has been improving steadily, and this is based on two factors. First, the year-on-year rate of change in the CPI excluding fresh food and energy -- both of which are with large fluctuations -- had been negative until the introduction of QQE, but turned positive in October 2013. Since then, it has remained positive for 27 consecutive months and increased to 1.3 percent recently (Chart 4). Second, both the output gap and medium- to long-term inflation expectations, which determine the underlying trend in inflation, have been improving. Let me now briefly reflect on the output gap and medium- to long-term inflation expectations. First off, the output gap -- an indicator for the supply and demand balance -- fluctuates, reflecting the utilization of labor and capital. As I mentioned earlier, the labor market is in a situation of "full employment," and the output gap has steadily followed an improving trend driven mainly by labor market developments, with the tightening trend in labor market conditions having continued (Chart 5). With the economy continuing to grow at a pace above its potential, the tightening of the labor market conditions is likely to strengthen and capacity utilization rates are expected to increase as exports and production pick up. Against this background, the output gap is likely to turn positive, or in other words, become a situation of excess demand.

Secondly, we have medium- to long-term inflation expectations. According to various survey results and the break-even inflation rate using inflation-indexed bonds, there is concern that medium- to long-term inflation expectations have been somewhat weak recently, mainly reflecting the decline in crude oil prices. On the other hand, the share of price-increasing items minus the share of price-decreasing items in the CPI, as well as daily

and weekly indices of the prices of food and daily necessities, have been on a remarkable expanding trend since last spring up to the present (Chart 6). In the annual labor-management wage negotiations, 2015 represented the second consecutive year of base pay increasing, and movements toward wage increases have continued to be seen in various sectors this year. What these indicators and developments suggest is that firms' price- and wage-setting stance has clearly changed and that households seem to be increasingly accepting price rises. Against this backdrop, price hikes by firms have been widespread and sustained. Inflation expectations therefore appear to be rising on the whole from a somewhat longer-term perspective and it can be assessed that conversion of the deflationary mindset has been progressing steadily thus far.

I have just explained the recent developments and outlook for the underlying trend in inflation. I would now like to give an overview of the Bank's projections for the CPI (all items less fresh food) in the January 2016 Outlook Report (Chart 3). In brief, the forecasts of the CPI (all items less fresh food) are obtained by adding the underlying trend in inflation to the contribution of energy items to the CPI. The January Outlook Report assumes that Dubai crude oil prices will rise moderately from the recent 35 U.S. dollars per barrel to the range of 45-50 dollars per barrel toward the end of fiscal 2017, which marks the end of the projection period. The contribution of energy items to the year-on-year rate of change in the CPI (all items less fresh food) is estimated to be slightly more than minus 1 percentage point and is at its highest level recently. However, under the aforementioned assumption of crude oil prices, the contribution is projected to decrease gradually. Meanwhile, since the underlying trend in inflation is likely to rise steadily, this is likely to be seen clearly in the CPI (all items less fresh food) as the contribution of energy items to the CPI lessens. Taking these factors into account, the year-on-year rate of change in the CPI (all items less fresh food) is projected to reach around 2 percent -- the price stability target -- around the first half of fiscal 2017.

### **III. Risk Factors regarding the Outlook for Economic Activity and Prices**

Thus far, I have explained the outlook for economic activity and prices that the Bank considers most probable. The baseline scenario assumes that Japan's economy is likely to be on a moderate expanding trend and the year-on-year rate of change in the CPI is likely to

accelerate toward 2 percent. However, there are various risks associated with this outlook. In the following, I would like to touch on two important factors to this end.

### ***Changes in Firms' Behavior***

The first factor is changes in firms' behavior.

As I mentioned earlier, corporate profits are at historical high levels and the labor market is in a situation of "full employment." In theory, under an economic mechanism, this situation will lead to economic growth and an increase in wages and prices. In fact, as I have noted, Japan's economy has continued to recover moderately, and the underlying trend in inflation has been improving steadily in a situation where wages have increased moderately. Nevertheless, it is true that, given the high level of corporate profits and the degree of tightening of labor market conditions, the spread of this favorable condition to the expenditure side, such as in terms of wages and business fixed investment, is somewhat weak at an aggregate level. Of course, many firms are proactively investing in physical and human capital. The Bank judges that firms' and households' deflationary mindsets have steadily been converting under QQE. However, the degree of conversion differs largely by industry and firm; thus, seeing Japan's economy as a whole, it cannot be said that firms' incentives to spend have fully taken hold. Moreover, it is inevitable that a conversion of firms' deflationary mindset, which had taken root under the protracted deflation, will take time. At this stage, attention is warranted to a significant risk that, in the case where business sentiment deteriorates, reflecting uncertainties over overseas economies, firms might revert to acting based on a deflationary mindset.

### ***Slowdown in Emerging and Commodity-Exporting Economies***

Next, I would like to touch on the slowdown in emerging and commodity-exporting economies, which has been drawing attention recently as the most significant risk factor.

The baseline scenario for the global economy assumes that advanced economies will continue to grow firmly and that emerging economies, with the spread of such growth's effects, will move out of their deceleration phase. A similar projection is presented in the World Economic Outlook (WEO) Update released in January by the International Monetary

Fund (IMF) (Chart 7). Recently, however, uncertainties over the outlook for emerging and commodity-exporting economies, mainly China, have heightened in the financial markets.

In this situation, international commodity prices, such as crude oil prices, have been declining substantially (Chart 8). The decline in commodity prices exerts positive effects on commodity-importing economies, mainly advanced economies. In Japan, this decline is one of the factors that encourage favorable corporate profits and it also has been supporting households' real income. In contrast, the possibility that the decline might exert considerable downward effects on commodity-exporting economies -- mainly Brazil, Russia, and oil-producing countries in the Middle East -- warrants attention.

What kinds of risks would these be for Japan's economic activity and prices? A further slowdown in emerging and commodity-exporting economies could possibly lead to a decrease in exports. But what warrants more attention is its effect brought through sentiment. Specifically, if business sentiment were to deteriorate, reflecting uncertainties over the outlook for emerging and commodity-exporting economies or reflecting volatile developments in the financial markets, there is a risk that firms' fixed investment stance and price- and wage-setting stance will become cautious. If such risk materializes, the virtuous cycle of economic recovery from income to spending would be impaired and the underlying trend in inflation would also be affected. As I have explained, although business sentiment has been on an improving trend, it still is not bullish enough, and thus warrants extra attention.

#### **IV. Monetary Policy Management**

##### ***Rationale for a Negative Interest Rate Policy and its Effects***

Taking account of the environment surrounding Japan's economy, such as the decline in crude oil prices and the developments in emerging and commodity-exporting economies, as well as the volatility in global financial markets reflecting these developments, there is an increasing risk that an improvement in business sentiment and conversion of peoples' deflationary mindset might be delayed and that the underlying trend in inflation might be negatively affected. In order to preempt the manifestation of this risk and to maintain momentum toward achieving the price stability target of 2 percent, the Bank decided to

introduce "QQE with a Negative Interest Rate" at its Monetary Policy Meeting on January 29, 2016 (Chart 9). I will explain the objectives and rationale for the newly introduced policy as follows.

The Bank introduced QQE in April 2013, about three years ago. The main transmission mechanism of QQE is envisaged as pushing down real interest rates by lowering nominal rates across the entire yield curve by large-scale purchases of Japanese government bonds (JGBs) and by raising inflation expectations through a strong and clear commitment toward achieving the price stability target of 2 percent. QQE has been exerting its intended effects. Yields on 10-year JGBs have been lowered to a record low level, and inflation expectations have been rising on the whole from a somewhat longer-term perspective. The decline in real interest rates has been stimulating private demand, and, as I explained earlier, has brought record profits of firms and a full-employment labor market condition.

"QQE with a Negative Interest Rate" introduced this time is a new policy framework in which a "negative interest rate" is added to the existing options of "quantity" and "quality." So what does a "negative interest rate" mean in practice? If an interest rate is negative, you can receive interest when you borrow money and you have to pay interest when you lend money. In normal financial transactions, such a thing would never happen. When a central bank wants to lower interest rates through its monetary policy, it normally will increase the amount of money provided to the markets. As a result, a greater number of people want to lend or invest extra money. With the supply of money exceeding the demand for money, the interest rate, which is a charge for money lent, will decline. If a central bank continues to provide more money to the markets, to what extent will the interest rate be lowered? The lower limit, or floor, should be at the level where one cannot make more profits even if one can lend more money; i.e., at zero percent. This is called the "zero lower bound" of a nominal interest rate.

Since central banks in major advanced economies started their unconventional monetary policies after the global financial crisis, they have been providing money to the markets in various ways, and the last constraint to be conquered was the "zero lower bound" of a nominal interest rate. However, in some European countries, as various policy options



have been tried to address slowdown in economic activity and lower inflation, a negative interest rate was introduced, starting with the central bank in Sweden, followed by those in Denmark, Switzerland, and the European Central Bank (ECB). How have these central banks overcome the "zero lower bound"? The starting point of the mechanism is a framework where an interest rate applied to deposits financial institutions hold at the central bank is set in negative territory. As financial institutions incur losses on cash they hold at the central bank, they will try to invest it in the markets even at a negative interest rate if they can reduce losses in comparison with holding it at the central bank. As those raising funds can make profits by simply borrowing money, there will be demand for funds in the markets. As the needs of both investors and those needing funds match in this way, short-term money market transactions will be made at a negative interest rate. This is how a negative interest rate is achieved in practice. A negative interest rate in the money markets means that the short end of the yield curve will be lowered to below zero percent. The objective of monetary easing is to push down the entire yield curve; therefore, a negative interest rate will be a very powerful "weapon" for monetary easing. In combination with the continuation of large-scale purchases of JGBs, a negative interest rate will exert downward pressure on interest rates across the entire yield curve more powerfully. It will lower real interest rates, and thus have favorable effects on the economic activity of firms and households.

So why did the Bank of Japan adopt a negative interest rate at this timing? QQE has been exerting its intended effects. If judged necessary, there is ample room to further expand the size of asset purchases. We do not share the view that the Bank's asset purchases are now approaching their limit.

That said, after nearly three years have passed since the launch of QQE, it is true that it took time more than initially envisioned to achieve the price stability target of 2 percent, due mainly to a substantial decline in crude oil prices. Against this background, we decided to further enhance and strengthen QQE by taking account of the experiences in European countries with a negative interest rate.

However, it should be noted that financial conditions significantly differ between Japan and Europe. In Japan, the relative size of the current account balance at the central bank is far larger than that in Europe. Moreover, it will continue to increase at an annual pace of around 80 trillion yen under QQE. If a negative interest rate is applied to the entire balance of the current account, financial institutions will have to bear excessive burdens. In that case, there is a risk that a negative interest rate will actually have an adverse impact on the functions of financial intermediation. With this in mind, a "multiple-tier system," where a negative interest rate is applied only to a marginal increase in the current account balance, has been adopted. The multiple-tier system is designed so that a negative interest rate can have its full impact on market rates while minimizing its side effects. This is a unique policy framework of a negative interest rate that fits well into the Japanese system.

#### ***Scope for Further Monetary Easing in Terms of Three Dimensions***

Under the newly introduced framework of "QQE with a Negative Interest Rate," the Bank will pursue monetary easing by making full use of possible measures in terms of three dimensions: quantity, quality, and a negative interest rate (Chart 10).

Going forward, if judged necessary, it is possible to further cut the interest rate from the current level of minus 0.1 percent. In Europe, the ECB has set the deposit rate at minus 0.3 percent, Swiss National Bank at minus 0.75 percent, and Riksbank (the central bank in Sweden) at minus 1.1 percent. As shown by these examples, there is sufficient room for further monetary easing in the "negative interest rate" dimension. If deemed necessary, the Bank will cut the interest rate further into negative territory.

With regard to the purchases of JGBs, which are conducted so that the Bank's holding will increase at an annual pace of about 80 trillion yen, about two thirds of the total outstanding JGBs are left in the market. Therefore, we believe that there is sufficient room for further expansion in the size of purchase. In this context, let me remind you that, at the Monetary Policy Meeting last December, the Bank decided various measures, including the expansion of eligible collateral that it will accept from banks, the extension of the average remaining maturity of its JGB purchases, and the increase in the maximum amount of each issue of Japan real estate investment trust (J-REIT) to be purchased. Possible technical obstacles

for further monetary easing in terms of "quantity" and "quality" dimensions already have been removed.

You might think that the introduction of a negative interest rate would make it difficult for the Bank to carry out its asset purchase operations. At first sight, such concern sounds reasonable, because when financial institutions sell their assets such as JGBs to the Bank, they end up holding the current account balance as proceeds, on which a negative interest rate will be applied. In that case, however, the costs of holding the current balance with a negative interest rate will be compensated by higher sales prices, or lower yields, of the assets sold to the Bank. Therefore, a negative interest rate policy will not necessarily make the Bank's purchases difficult. Of course, the Bank will implement JGB purchases by paying due attention to how a negative interest rate affects the dynamics of JGB markets.

### ***Monetary Policy Going Forward***

The Bank will continue with "QQE with a Negative Interest Rate," aiming to achieve the price stability target of 2 percent, as long as necessary for maintaining that target in a stable manner. It will examine risks to economic activity and prices, and take additional easing measures in terms of three dimensions -- quantity, quality, and a negative interest rate -- if it is judged necessary for achieving the price stability target. It is no exaggeration that "QQE with a Negative Interest Rate" is the most powerful monetary policy framework in the history of modern central banking.

Sometimes it is argued that the Bank of Japan is running out of ammunition for further monetary easing. Frankly speaking, I feel uncomfortable with such an argument. If we judge that existing measures in the toolkit are not enough to achieve the goal, what we have to do is to devise new tools, rather than give up the goal. Indeed, the constraint of "zero lower bound" of a nominal interest rate, which was believed to be impossible to conquer, has been almost overcome by the wisdom and practices of central banks, including those of the Bank of Japan. I am convinced that there is no limit to measures for monetary easing. The Bank will continue to devote itself to innovation in monetary policy measures.

The commitment by the Bank to achieve the price stability target of 2 percent is firm and unshaken. Given that the central bank is firmly committed to the price stability target and is taking necessary measures as appropriate, the goal will surely be achieved. Let me conclude my speech by reiterating what I have repeatedly stated since I took the governorship of the Bank of Japan:

The Bank of Japan will do whatever we can to achieve the price stability target of 2 percent.

Thank you.

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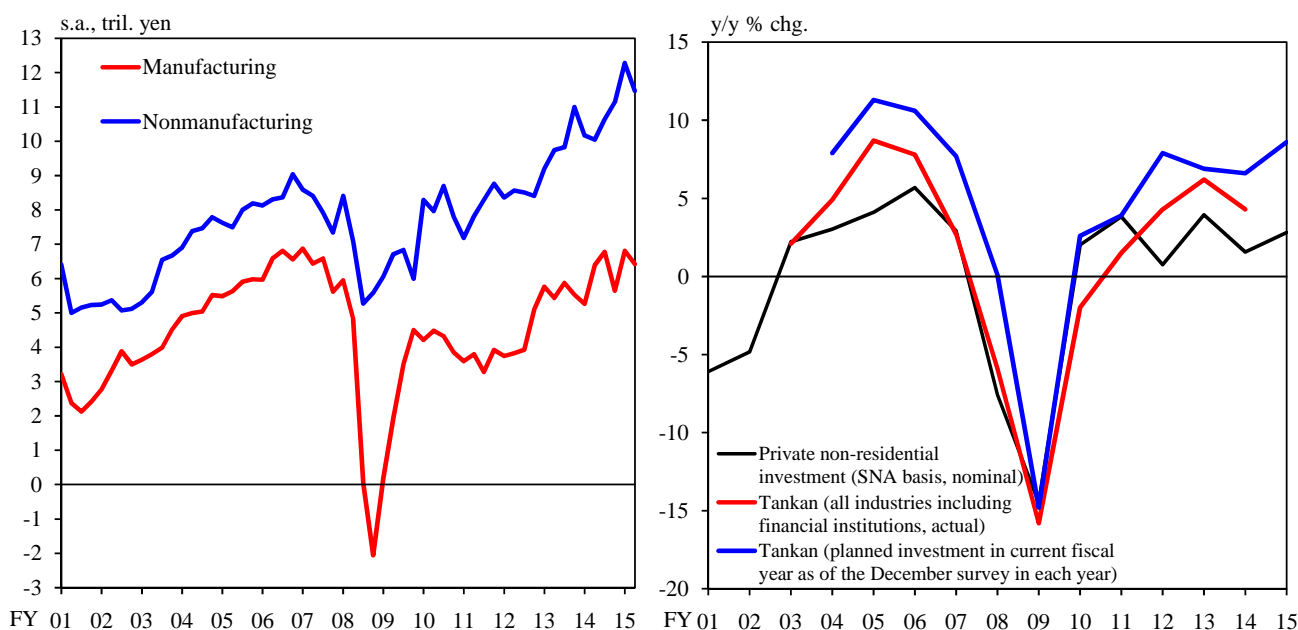
Chart 1

## Corporate Profits and Business Fixed Investment

*Current Profits*

*Planned and Actual*

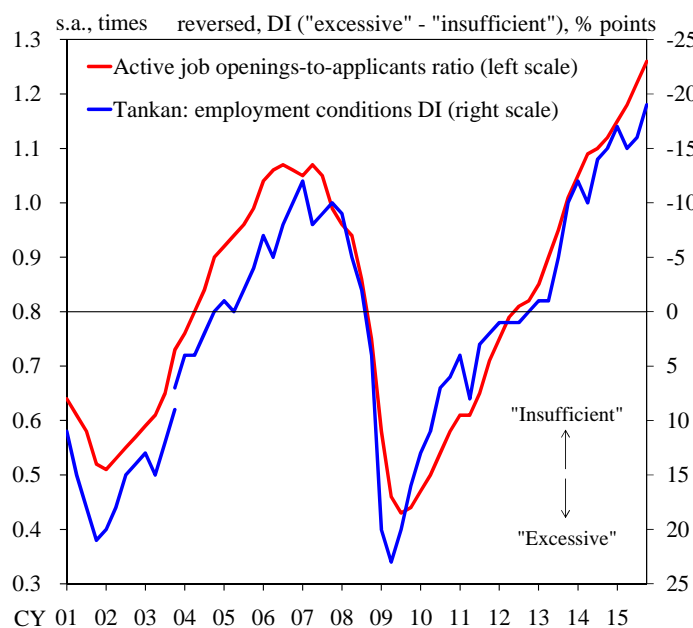
*Business Fixed Investment*



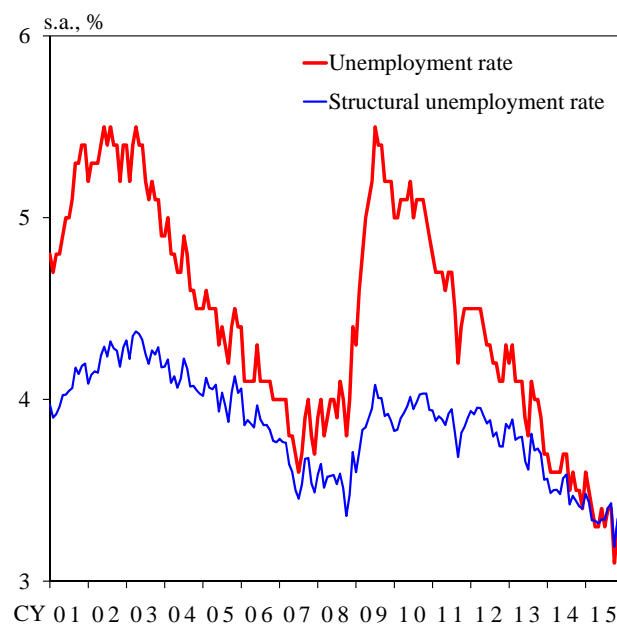
Notes: 1. Figures for current profits exclude those for the finance and insurance industries.  
 2. Figures for the Tankan include software investment and exclude land purchasing expenses.  
 3. The figure for fiscal 2015 for private non-residential investment (SNA basis, nominal) is the April-September average.  
 Sources: Bank of Japan; Ministry of Finance.

## Labor Market Conditions

### Job Openings-to-Applicants Ratio and Employment Conditions DI



### Unemployment Rate



Notes: 1. There is a discontinuity in the data in December 2003 for employment conditions DI due to a change in the survey framework.

2. The structural unemployment rate is estimated by the Research and Statistics Department, Bank of Japan.

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

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## Outlook for Economic Activity and Prices (as of January 2016)

y/y % chg.

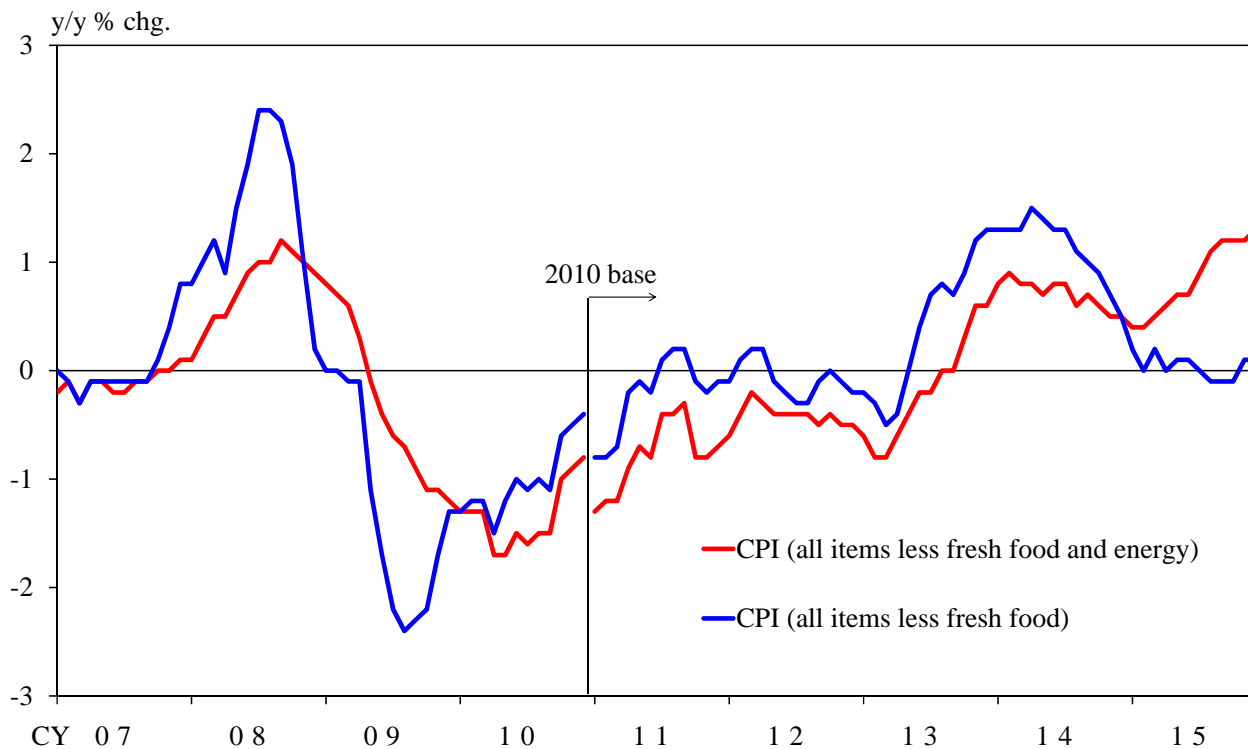
	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
Fiscal 2015	+1.1	+0.1	
Forecasts made in October 2015	+1.2	+0.1	
Fiscal 2016	+1.5	+0.8	
Forecasts made in October 2015	+1.4	+1.4	
Fiscal 2017	+0.3	+2.8	+1.8
Forecasts made in October 2015	+0.3	+3.1	+1.8

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

Source: Bank of Japan.

3

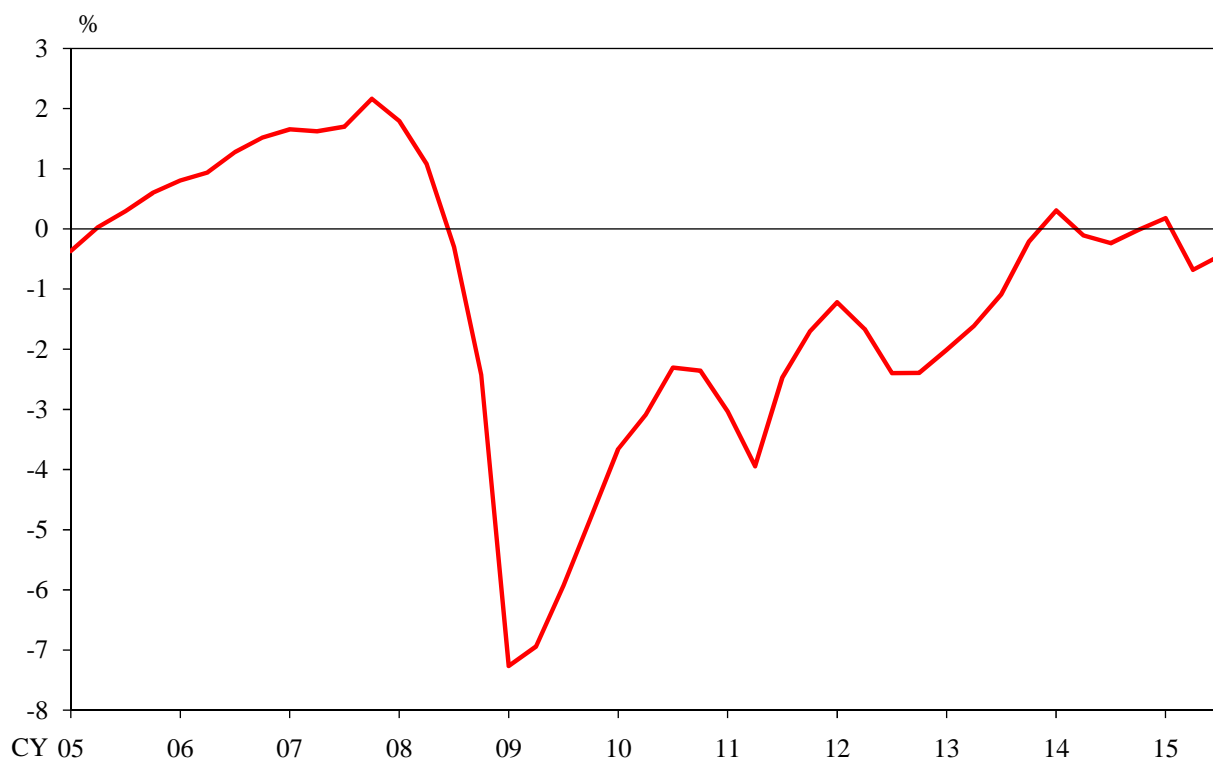
## Consumer Prices



Note: Figures are adjusted to exclude the estimated effects of changes in the consumption tax rate.

Figures for the CPI (all items less fresh food and energy) are calculated by the Research and Statistics Department, Bank of Japan.  
Source: Ministry of Internal Affairs and Communications.

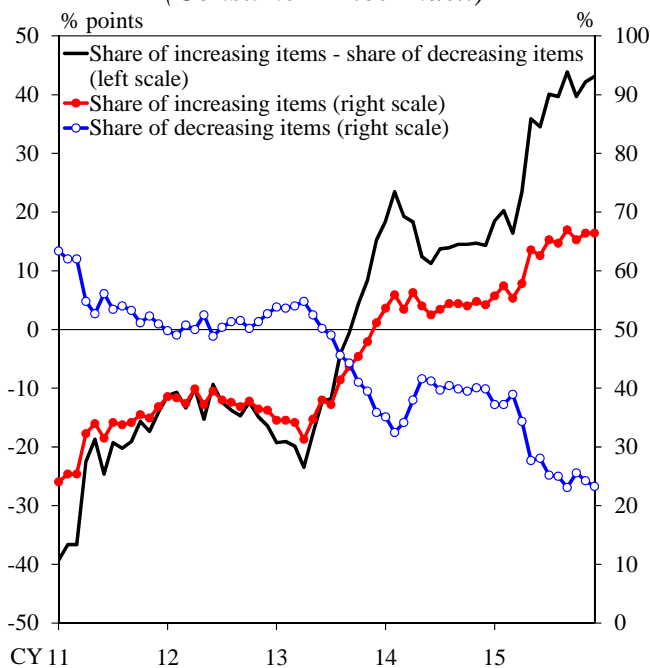
## Output Gap



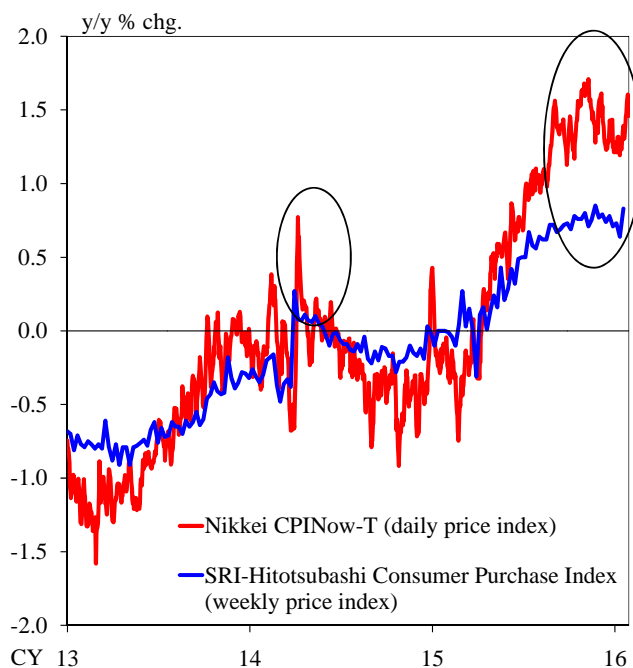
Note: The output gap is estimated by the Research and Statistics Department, Bank of Japan.  
Sources: Cabinet Office; Ministry of Economy, Trade and Industry, etc.

# Price Developments

*Share of Increasing and Decreasing Items (Consumer Price Index)*



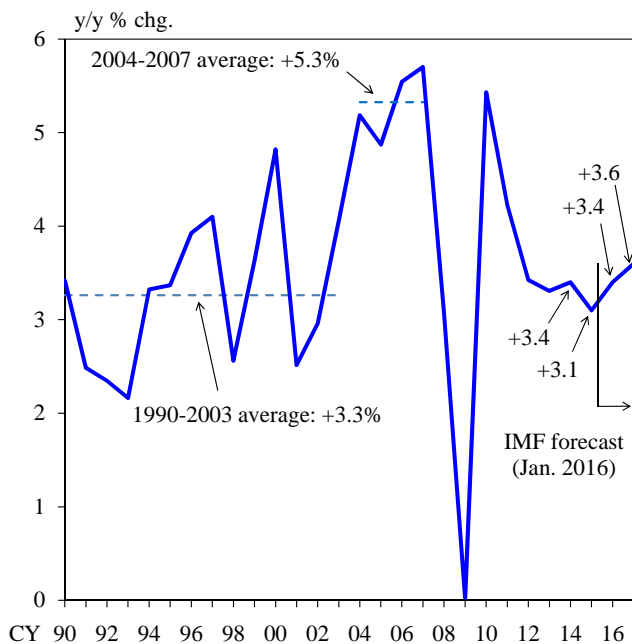
*Nikkei CPINow and SRI-Hitotsubashi Consumer Purchase Index*



Notes: 1. The share of increasing/decreasing items is the share of items in the consumer price index (all items less fresh food) whose price indices increased/decreased from a year earlier. The price indices are adjusted to exclude the estimated effects of changes in the consumption tax rate.  
 2. The Nikkei CPINow-T is a 7-day backward moving average.  
 Sources: Ministry of Internal Affairs and Communications; Nowcast; Research Center for Economic and Social Risks, Institute of Economic Research, Hitotsubashi University.

# World Economic Outlook Released by the IMF

*Real GDP Growth Rate*



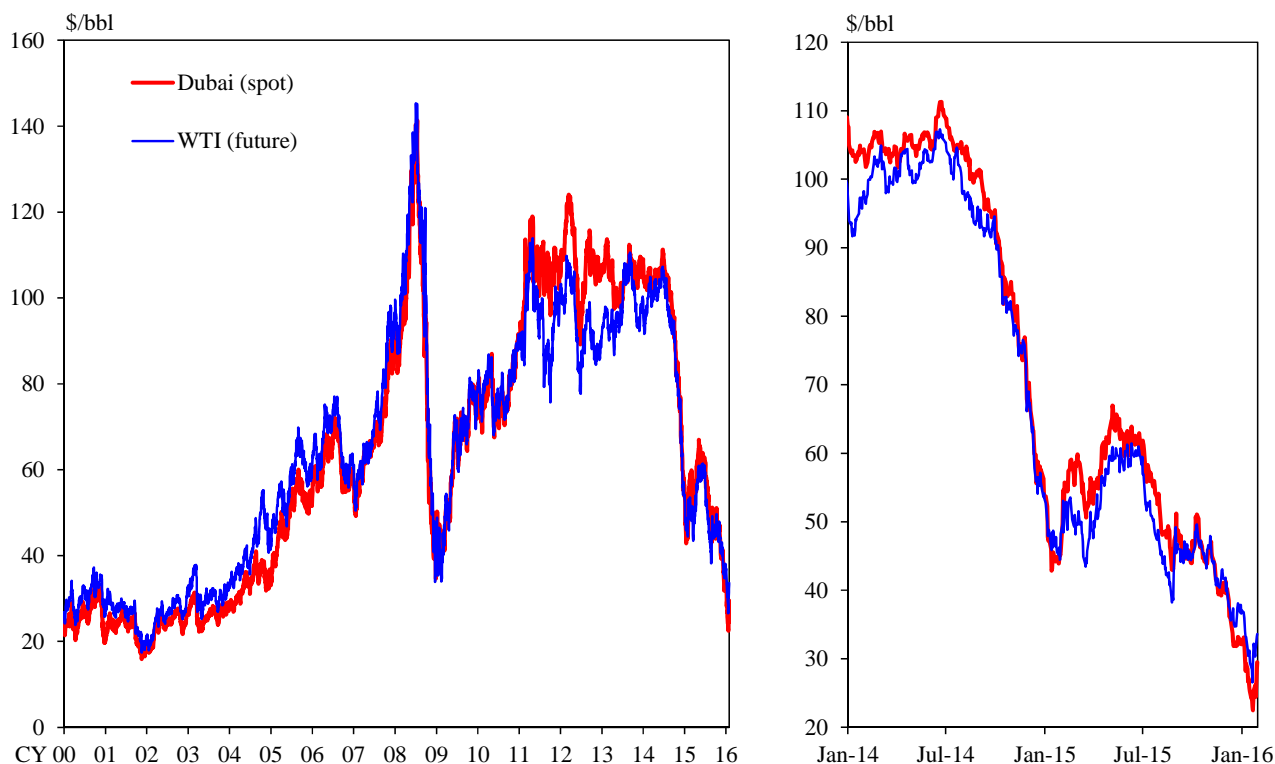
*Projections for Major Economies*

	y/y % chg.			
	2014	2015	Projections	
			2016	2017
World	3.4	3.1	3.4	3.6
Advanced Economies	1.8	1.9	2.1	2.1
United States	2.4	2.5	2.6	2.6
Euro Area	0.9	1.5	1.7	1.7
Japan	0.0	0.6	1.0	0.3
Emerging Market and Developing Economies	4.6	4.0	4.3	4.7
China	7.3	6.9	6.3	6.0
ASEAN5	4.6	4.7	4.8	5.1

Notes: 1. Figures for 2015 are estimates.  
 2. ASEAN5 are Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.  
 Source: IMF.



## Crude Oil Prices



Source: Bloomberg.

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## Quantitative and Qualitative Monetary Easing with a Negative Interest Rate

It is designed to enable the Bank to pursue additional monetary easing  
**in terms of three dimensions,**  
combining a negative interest rate with quantity and quality.

The Bank will apply a negative interest rate of  
**minus 0.1 percent**  
to current accounts that financial institutions hold at the Bank.



The Bank will exert further downward pressure on interest rates across the entire yield curve, in combination with large-scale purchases of JGBs.

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## Scope for Additional Monetary Easing in Terms of Three Dimensions

