August 29, 2019
Bank of Japan

# Economic Activity, Prices, and Monetary Policy in Japan

*Speech at a Meeting with Business Leaders in Kumamoto*

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(English translation based on the Japanese original)

## I. Recent Economic and Price Developments

### A. Developments in Overseas Economies

I would like to begin my speech by talking about overseas economies.

Overseas economies have been growing moderately on the whole, although the business sentiment of manufacturing firms has begun to deteriorate in advanced economies in particular, amid protectionist trade policy in some countries and the heightening of geopolitical risks, as well as the accompanying uncertainty regarding global financial markets. Slowdowns are expected to continue for the time being, but overseas economies are likely to grow moderately on the whole thereafter with the growth rates rising somewhat, partly due to the effects of economic stimulus measures, such as in China, and the progress in global adjustments in IT-related goods.

Let me take a look at developments by major region. Regarding the U.S. economy, while trade friction, particularly with China, seems to have been having a negative effect on momentum in manufacturing firms, nonmanufacturing firms have been showing resilience. In a favorable employment and income situation, the economy is likely to maintain its moderate expansion, partly underpinned by expansionary fiscal measures, as the Federal Reserve has implemented monetary policy measures that take into consideration the downside risks to economic activity and prices.

The European economy has been decelerating, as seen, for example, in the slowdown in the pace of increase in business fixed investment with heightened uncertainty over economic and political developments. Potential downside risks to economic activity are trend changes in global financial markets, geopolitical developments, and considerable uncertainty over political developments, such as the outcome of negotiations on the United Kingdom's exit from the European Union (EU).

The Chinese economy has continued to see stable growth on the whole, but some weakness has been observed in manufacturing firms. An estimate by the International Monetary Fund (IMF) suggests that, if the U.S.-China trade friction intensifies, the growth rate of the Chinese economy for 2020 could slow by around 1 percent. Although uncertainty remains, if trade friction with the United States heads toward a settlement, the stability of the economy is likely to be enhanced further as there is growing expectation that the authorities' stimulus measures gradually will take effect.

Emerging economies other than China and commodity-exporting economies are likely to continue their moderate recovery on the whole.

The view that global growth rates will rise somewhat is consistent with the forecasts of international institutions. For example, according to the July 2019 *World Economic Outlook Update* released by the IMF, global growth is forecast at levels exceeding 3.0 percent for 2019 and 2020, although the projections for both years were revised downward from those made in April 2019 (Chart 1).

**B. Current Situation of Japan's Economy**

I will now discuss the economic situation in Japan.

Japan's economy has been on a moderate expanding trend, with a virtuous cycle from income to spending operating, and the output gap has remained positive. In 2018, the real GDP growth rate for the July-September quarter was negative, due mainly to the effects of natural disasters. Thereafter, however, the rate registered positive growth for three consecutive quarters (Chart 2). Although exports, production, and business sentiment have been affected by the slowdown in overseas economies, the situation does not yet indicate an economic downturn, owing in part to a sustained increasing trend in business fixed investment. Private consumption has been increasing moderately, albeit with fluctuations, against the background of an improvement in the employment and income situation. However, careful attention is warranted on future developments, including those prior to and after the consumption tax hike scheduled for October 2019.

According to the *Regional Economic Report* released by the Bank of Japan in July 2019, all nine regions of Japan reported that their respective economies had been either expanding or recovering (Chart 3). The Kyushu-Okinawa region, in which Kumamoto Prefecture is located, reported that firms' business sentiment generally remained at favorable levels, although exports and production were relatively weak on the whole. Housing investment and public investment were at high levels, and business fixed investment was increasing. Private consumption was also increasing moderately on the back of an improvement in the employment and income situation.

Labor market conditions have remained tight as Japan's economy has maintained its expanding trend. The unemployment rate has been at a low level of around 2.5 percent, and the active job openings-to-applicants ratio has remained at a high level. Firms' perception of a labor shortage, suggested by the diffusion index for employment conditions in the June *Tankan* (Short-Term Economic Survey of Enterprises in Japan), remained at a high level in a wide range of industries (Chart 4). Firms in many industries therefore have been proceeding proactively with labor-saving investment with a view to utilizing artificial intelligence (AI), robotic process automation (RPA), and other technologies. In addition to developing a working environment that further encourages the labor participation of senior citizens and women, innovations in areas such as automation and labor-saving technologies are important for the social development of our economy in dealing with demographic changes brought about by an aging population.

Experience suggests that, once this type of business fixed investment begins, including that intended for domestic capacity expansion, firms will also proactively consider renewing other plants and equipment, thereby making it unlikely that demand for fixed investment will decline significantly even in the presence of some uncertainty regarding the economy. Indeed, despite previous concern over a drop in business fixed investment, the real GDP growth rates for the January-March and April-June quarters of 2019 actually registered quarter-on-quarter increases. This could be regarded as an indication of the resilience of Japan's economy to downward pressure and uncertainties arising from overseas economies.

### C. Outlook for Japan's Economy

Japan's economy is likely to continue on an expanding trend throughout the projection period -- that is, through fiscal 2021.

In fiscal 2019, exports are projected to continue showing some weakness for the time being, reflecting the effects of the slowdown in overseas economies, and the pace of increase in business fixed investment is likely to decelerate temporarily, mainly in manufacturing. On the other hand, private consumption likely will increase as the employment and income situation continues to improve. After the consumption tax hike scheduled for October, private consumption and housing investment are likely to be pushed down for some time. However, the rate of increase in business fixed investment is expected to rise somewhat, due in part to increases in investment related to urban redevelopment projects as well as labor-saving investment. Public investment is also likely to increase, due mainly to the implementation of the supplementary budgets for fiscal 2018 and the promotion of policy measures for national resilience. Moreover, exports are projected to return to their moderate increasing trend, with overseas economies growing moderately on the whole.

Following a likely decline in the second half of fiscal 2019 due to the effects of the consumption tax hike, private consumption and housing investment are expected to head gradually toward a recovery in fiscal 2020. The economy is projected to be underpinned mainly by the continued increasing trend in exports, with the growth rates of overseas economies rising, and an expansion in public expenditure accompanying the hosting of the Olympic Games to be held in Tokyo in 2020. Japan's economy is therefore expected to continue on an expanding trend in fiscal 2020.

Moreover, although Olympic Games-related expenditure will have been completed, private consumption and housing investment are projected to increase in fiscal 2021, partly because the effects of the decline in reaction to the scheduled consumption tax hike are likely to dissipate. Meanwhile, exports are projected to continue their moderate increasing trend, and business fixed investment is also likely to maintain its moderate uptrend, due in part to a rise in the potential growth rate.

According to the Bank's July 2019 *Outlook for Economic Activity and Prices* (Outlook Report), the medians of the Policy Board members' forecasts for the real GDP growth rate are 0.7 percent, 0.9 percent, and 1.1 percent for fiscal 2019, 2020, and 2021, respectively (Chart 5).

However, in considering the outlook for Japan's economy, attention should be paid to considerable uncertainties regarding the global economy. Specifically, these include U.S. protectionist moves and responses by its trading partners, developments in negotiations on the United Kingdom's exit from the EU, geopolitical risks in regions such as the Middle East and consequent fluctuations in crude oil prices, and the risk of a sharp decline in economic activity in Europe and China. Moreover, concerns over these risks may give rise to volatility in financial markets, which in turn would likely push down the global economy. Given these growing downside risks concerning overseas economies in particular, it is necessary to pay close attention to developments in firms' and households' sentiment in Japan.

**D. Prices in Japan**

Next, I will elaborate on price developments in Japan.

The year-on-year rate of change in the consumer price index (CPI) for all items less fresh food (core CPI) has been at around 0.5 percent recently (Chart 6). With the price stability target set at 2 percent, the Bank has been conducting large-scale monetary easing, but there is still some way to go before achieving the target. However, firms have been raising prices of a wider range of products recently, and the output gap, which I will touch upon later, has remained positive. As these factors suggest, the conditions necessary for strengthening the movement toward price rises in the medium term have begun to be put in place, and thus the momentum toward achieving the price stability target appears to have been maintained in Japan.

I would now like to explain the recent environment surrounding prices from the following three aspects: human resources, tangible factors such as capital equipment, and intangible factors including services prices.

1. Human resources

Let me first explain the environment surrounding prices from the aspect of human resources. As I mentioned earlier, Japan's employment situation continues to be tight, as seen in such indicators as the unemployment rate and active job openings-to-applicants ratio; it seems that the labor market has been close to full employment. In such circumstances, wages are expected to rise.

Wages have indeed been increasing, particularly for part-time employees and temporary workers. However, according to the press release presenting the results of the annual spring labor-management wage negotiations in 2019, as compiled by the Japanese Trade Union Confederation (Rengo), the year-on-year rate of increase in wages of Rengo union members, including the amount equivalent to regular pay hikes, remained at around 2.0 percent -- marking the same level as that of 2018. Likewise, while base pay has risen for a sixth consecutive year, the negotiation results of firms for which base pay data were available for aggregation showed that the rate of increase was limited to around 0.5 percent. Moreover, the Japan Business Federation (Keidanren) revealed that the 2019 summer bonus payments of large firms fell below those of the previous year for the first time in two years.

Given the projected decline in Japan's labor force, there is a risk of labor shortages intensifying. Thus, firms are expected to invest in their human resources wherever necessary through more proactive wage increases, so as to maintain their production levels. Through such wage increases, the virtuous cycle from income to spending will be enhanced, and inflation expectations of households and firms will rise.

2. Tangible factors

Next, I will explain the tangible factors that affect prices. The Bank estimates the output gap, which is the economic measure of the difference between aggregate demand (actual output) of the economy and average supply capacity (potential output) that is smoothed out for the business cycle. According to this estimate, the output gap has remained positive for 10 consecutive quarters since the October-December quarter of 2016, due to the contribution of the tangible factor of a rise in capital utilization rates, in addition to the human resources factor of the steady tightening of labor market conditions, which I explained earlier (Chart 7). This suggests that capital utilization also has been exerting upward pressure on prices.

3. Intangible factors

Lastly, in explaining the intangible factors that affect prices, such as the cost of services, I would like to touch on communication charges for mobile phones and the so-called *koto* consumption. This type of consumption is based on intangible qualities, and consumers seek value in experiences rather than getting pleasure merely from possessing material goods. These factors have been drawing attention recently.

First, as communication charges for mobile phones in Japan have been weighing heavily on consumers, the government has requested mobile carriers to lower such charges, and the Cabinet has decided on a revision of the service plans that package handset payments and communication fees. Successive offers of new simpler plans by mobile carriers based on such revision have been pushing down the CPI as a result.

Next, as for *koto* consumption, accommodation and overseas package tours are also consumption components that affect overall prices. In these areas, there is rising demand for *koto* consumption, and an increasing number of new services are being provided that primarily target tourists from abroad, in addition to domestic consumers. Given that the Olympic Games will be held in Tokyo, it is expected that price increases through such experience-oriented consumption also will contribute to pushing up prices overall.

I have explained the recent environment surrounding prices from these three aspects -- human resources, tangible factors, and intangible factors. Needless to say, there are factors other than these that could affect prices. Despite current economic expansion and tight labor market conditions, the trend inflationary pressure on the CPI has remained relatively weak. This has been affected by the deeply entrenched mindset and behavior based on people's assumption that wages and prices will not increase easily, due mainly to the experience of prolonged low growth and deflation. Firms' efforts to absorb the increase in wage costs by raising productivity and technological progress in recent years, as seen in the expansion of online shopping, also have contributed to the situation where prices do not increase easily. Furthermore, consumers now face the important question as to how they can prepare for a 100-year lifespan. Reflecting these various factors, households' and firms' medium- to long-term inflation expectations are more or less unchanged (Chart 8). Inflation expectations are influenced by both the backward-looking (or adaptive) component that reflects past rates -- i.e., the observed inflation rate -- and the forward-looking component that reflects the progress in the Bank's pursuit of monetary easing through its strong commitment to achieving the price stability target. Thus, a rise in prices is the key to increasing medium- to long-term inflation expectations, and it is important that this brings about a change in the perception of firms and households regarding future prices.

### E. Outlook for Prices in Japan

Based on the three aspects that affect prices, the year-on-year rate of change in the CPI is likely to increase gradually toward the price stability target, as the effects of the current large-scale monetary easing gradually permeate the economy. Firms are expected to broaden their efforts to raise prices and wages as Japan's economy continues on an expanding trend and the positive output gap is maintained, thereby inducing a gradual change in firms' and households' mindsets. Specifically, the medians of the Policy Board members' forecasts for the year-on-year rate of change in the core CPI presented in the July 2019 Outlook Report are 1.0 percent, 1.3 percent, and 1.6 percent for fiscal 2019, 2020, and 2021, respectively (Chart 5). However, it should be borne in mind that, if risks to economic activity materialize -- particularly those concerning overseas economies -- there is the possibility that prices will be affected to some extent.

## II. Conduct of Monetary Policy

### A. Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control

Let me now turn to the Bank's monetary policy.

Following the introduction of QQE in April 2013, the Bank has been pursuing QQE with Yield Curve Control since September 2016 toward achieving the price stability target of 2 percent.

Under this policy framework, controlling short- and long-term interest rates -- the so-called yield curve control -- facilitates the formation of the term structure of interest rates that is most appropriate for achieving the price stability target. Specifically, in the guideline for market operations, the Bank sets the short-term policy interest rate at minus 0.1 percent and decides to purchase Japanese government bonds (JGBs) so that 10-year JGB yields will remain at around zero percent (Chart 9).

Thereafter, in July 2018, the Bank implemented measures to enhance the sustainability of QQE with Yield Curve Control. Specifically, in terms of yield curve control, while maintaining the target level of 10-year JGB yields at around zero percent, the Bank made clear that yields might "move upward and downward to some extent mainly depending on developments in economic activity and prices," thereby securing a certain degree of flexibility in the guideline for market operations.

Under the framework of QQE with Yield Curve Control, Japan's economy has continued on an expanding trend and the output gap has remained positive. As for prices, the underlying trend in the year-on-year rate of change in the CPI excluding fresh food and energy has been generally in positive territory for six years. With regard to inflation expectations, the results of the Bank's June 2019 *Opinion Survey on the General Public's Views and Behavior* showed that, while medium- to long-term expectations remained low, the proportion of respondents who answered that prices would go up one year from now has increased recently, and this indicates a change in people's perception of future prices (Chart 10). Although there is still some way to go for the core CPI to increase toward the price stability target of 2 percent, it is crucial to resolutely continue with powerful monetary easing under QQE with Yield Curve Control.

Under these circumstances, in April 2019, the Bank partially revised the description of forward guidance for policy rates to, "the Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, at least through around spring 2020, taking into account uncertainties regarding economic activity and prices including developments in overseas economies and the effects of the scheduled consumption tax hike." This was to make clearer the Bank's policy stance that it will resolutely continue with powerful monetary easing toward achieving the price stability target (Chart 11).

The statement released after the Monetary Policy Meeting held on July 29 and 30 specified that "the Bank will not hesitate to take additional easing measures if there is a greater possibility that the momentum toward achieving the price stability target will be lost." This was to affirm the Bank's commitment to preempting any loss of momentum toward achieving the price stability target, particularly where -- mainly arising from developments in overseas economies -- there are significant downside risks to economic activity and prices. On this basis, should the Bank be required to examine and implement specific additional easing measures, it will take appropriate action depending on the situation while weighing the positive effects and side effects.

**B. Effects and Side Effects of Monetary Easing under a Low Interest Rate Environment**

Let me now share my views on the effects and side effects of monetary easing.

While recognizing the importance of maintaining the extremely low levels of short- and long-term interest rates toward achieving the price stability target, it also is necessary to pay attention to the possibility of monetary easing effects materializing in an unusual manner and of the potential side effects.

First, speaking of monetary easing effects, there is likely a zero lower bound on financial institutions' interest rates on deposits and loans, due to contractual and operational constraints. Meanwhile, it has been pointed out that, in the corporate bond market, the conventional method of deciding interest rates on corporate bonds by adding spreads to JGB yields has become less common amid negative JGB yields; instead, pricing is starting to be conducted by attaching greater importance to a positive fixed value of interest rates on corporate bonds rather than the relative relationship with JGB yields. In such a situation, with a virtually zero lower bound, there is the possibility that monetary easing effects stemming from an additional decrease in JGB yields will be more limited than before.

Next, I would like to discuss three points arising from the potential side effects of monetary easing.

The first point concerns financial institutions' risk-taking stance. With the population and the number of firms across regions declining, in addition to the current prolonged low interest rate environment, financial institutions' average contract interest rates on new loans have reached extremely low levels, owing in part to intensified competition among such institutions. In this situation, their core profitability has continued to be on a downtrend. There also is increasingly limited room to realize gains on the sales of securities and to reverse the allowance for doubtful accounts. As a result, financial institutions have been actively extending loans to middle-risk firms with relatively high credit risk and investing in assets such as foreign bonds and domestic and foreign investment trusts. The following points therefore warrant attention: a deterioration in the profitability of borrowing firms is more likely to result in an increase in credit costs in the event of a phase shift in economic developments and credit cycles, and the profits and soundness of financial institutions seem to have become significantly susceptible to developments in domestic and foreign financial markets.

Second, if interest rates decline excessively, the narrowing of financial institutions' deposit and lending margins may make them unable to secure adequate profits, and through the tightening of their capital constraints, this could induce a decline in the amount of bank loans. Interest rate levels that reverse the effects of monetary easing in this way are known as "reversal rates."

Third, if lending rates decline further, financial institutions that are no longer able to withstand increased downward pressure on their profits may start to charge fees and commissions on deposits, thereby making deposit rates virtually negative. In this case, some firms may prefer to proceed with debt repayment in an effort to reduce their deposits, and this could contribute to a decline in the amount of bank loans. Furthermore, if deposit rates fall into virtually negative territory, this could have an adverse effect on economic activity through a deterioration in consumer sentiment.

When conducting monetary policy, the Bank must weigh up the positive effects against the accompanying costs and side effects, including the ones I have explained. In considering the effects of monetary policy, it is important to maintain a transmission channel through which monetary easing effects spread to the overall economy via financial institutions. Therefore, it is crucial that the Bank, while aiming to achieve price stability, also secure financial system stability so as to ensure that financial institutions can continue to fully perform their financial intermediation function. As the global financial crisis revealed, the considerable impact on the real economy of financial system instability makes it increasingly important that the Bank conduct monetary policy in a manner that focuses not only on achieving price stability, but also on giving due consideration to financial system stability, on the premise that monetary policy influences broad areas of financial activity. In other words, once financial system destabilizes, it would be extremely difficult for the Bank to ensure price stability.

I believe that, at least for now, financial institutions in Japan as a whole are resilient against stress in terms of both capital and liquidity, and financial system stability has been maintained. Indeed, as financial institutions have maintained their active lending stance, the year-on-year growth rate of loans outstanding has been in positive territory. Yet, going forward, the Bank must consider monetary policy measures more carefully, to prevent financial system instability. In doing so, it should examine closely the effects on the profits and lending stance of financial institutions of changes in their attitude to risk and of the current prolonged low interest rate environment, by taking into account not only the time frame in which monetary policy effects spread to the real economy, but also the time frame in which the side effects accumulate.

As the Bank continues resolutely with the current monetary easing policy, it will conduct monetary policy in an appropriate manner, while examining all relevant risks, so that the momentum toward achieving the price stability target is maintained.

# Economic Activity, Prices, and Monetary Policy in Japan

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August 29, 2019

Hitoshi Suzuki
Bank of Japan

Chart 1

# Global Economy

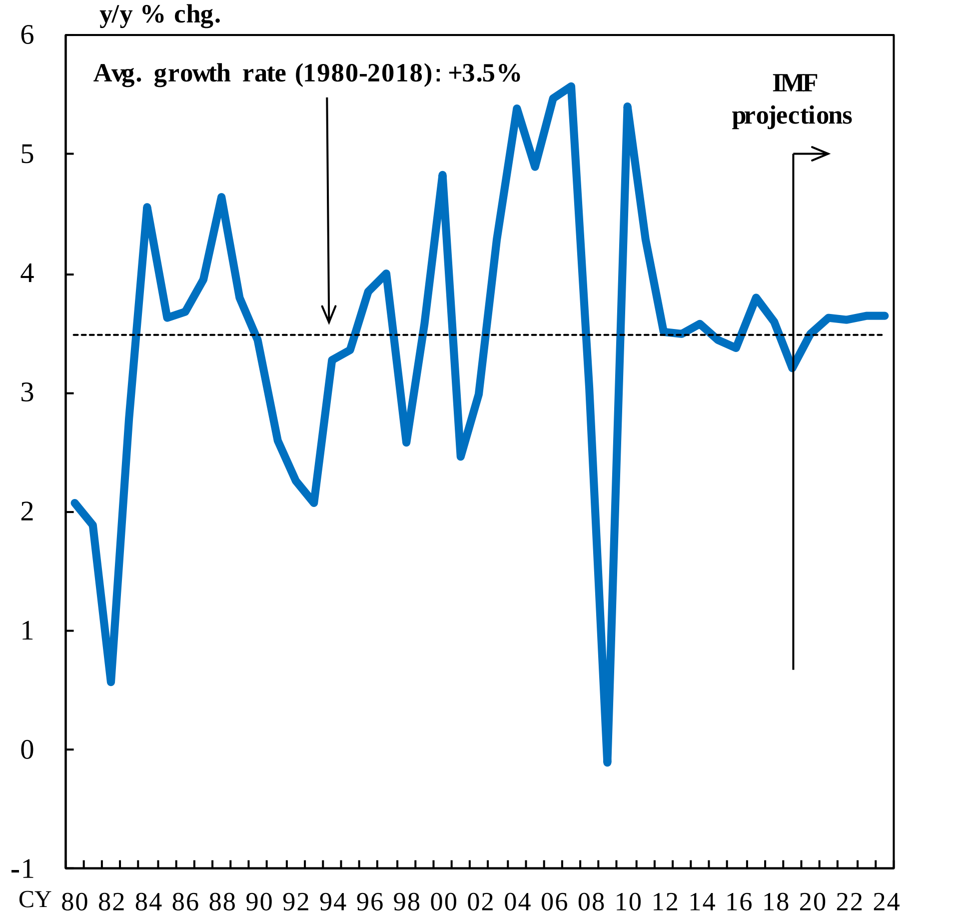
## IMF Projections (as of July 2019)

real GDP growth rate, y/y % chg., % points

| CY | 2017 | 2018 | 2019 projection | 2020 projection |
|---|---|---|---|---|
| World | 3.8 | 3.6 | 3.2 (-0.1) | 3.5 (-0.1) |
| Advanced economies | 2.4 | 2.2 | 1.9 (+0.1) | 1.7 (0.0) |
| United States | 2.2 | 2.9 | 2.6 (+0.3) | 1.9 (0.0) |
| Euro area | 2.4 | 1.9 | 1.3 (0.0) | 1.6 (+0.1) |
| United Kingdom | 1.8 | 1.4 | 1.3 (+0.1) | 1.4 (0.0) |
| Japan | 1.9 | 0.8 | 0.9 (-0.1) | 0.4 (-0.1) |
| Emerging market and developing economies | 4.8 | 4.5 | 4.1 (-0.3) | 4.7 (-0.1) |
| Emerging and developing Asia | 6.6 | 6.4 | 6.2 (-0.1) | 6.2 (-0.1) |
| China | 6.8 | 6.6 | 6.2 (-0.1) | 6.0 (-0.1) |
| ASEAN | 5.3 | 5.2 | 5.0 (-0.1) | 5.1 (-0.1) |
| Russia | 1.6 | 2.3 | 1.2 (-0.4) | 1.9 (+0.2) |
| Latin America and the Caribbean | 1.2 | 1.0 | 0.6 (-0.8) | 2.3 (-0.1) |

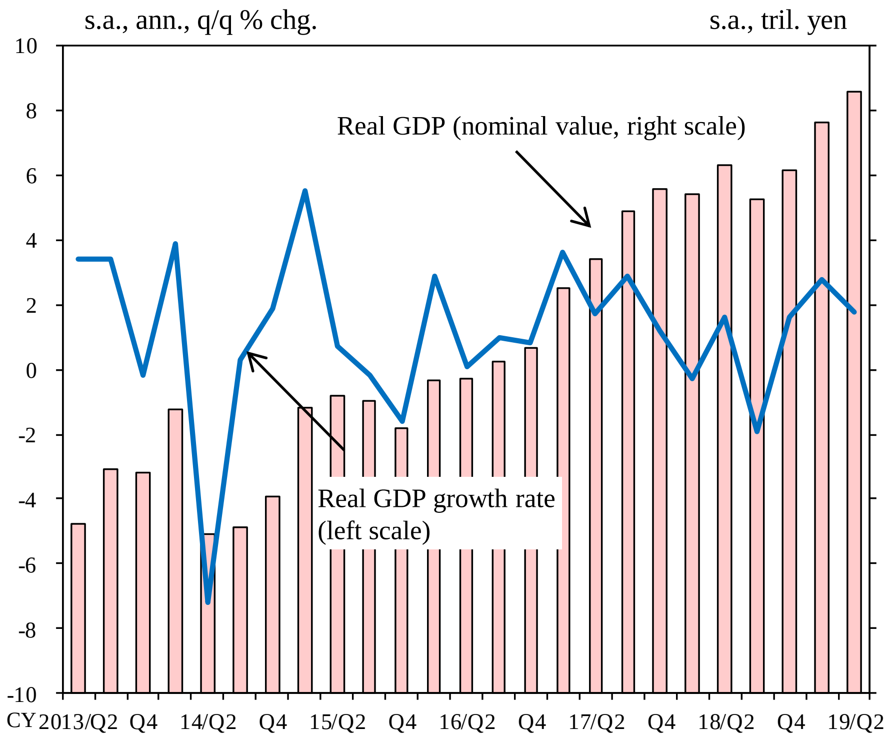
Source: *World Economic Outlook Update*, International Monetary Fund (IMF).
Note: Figures in parentheses are the difference from the April 2019 projections.

## Real GDP Growth Rate




Source: IMF.

# Japan's Real GDP




Source: Cabinet Office.

s.a., q/q % chg.

| | 2018 | | | 2019 | |
|---|---|---|---|---|---|
| | Q2 | Q3 | Q4 | Q1 | Q2 |
| Real GDP | 0.4 | -0.5 | 0.4 | 0.7 | 0.4 |
| [ann., q/q] | [1.6] | [-1.9] | [1.6] | [2.8] | [1.8] |
| Private consumption | 0.4 | -0.1 | 0.4 | 0.1 | 0.6 |
| Private non-resi. investment | 2.5 | -2.6 | 2.7 | 0.4 | 1.5 |
| Private residential investment | -1.9 | 0.8 | 1.3 | 0.6 | 0.2 |
| Public demand | -0.2 | -0.2 | 0.3 | 0.2 | 0.9 |
| Exports of goods & services | 0.8 | -2.1 | 1.2 | -2.0 | -0.1 |

Source: Cabinet Office.

# Regional Economic Assessments

Chart 3

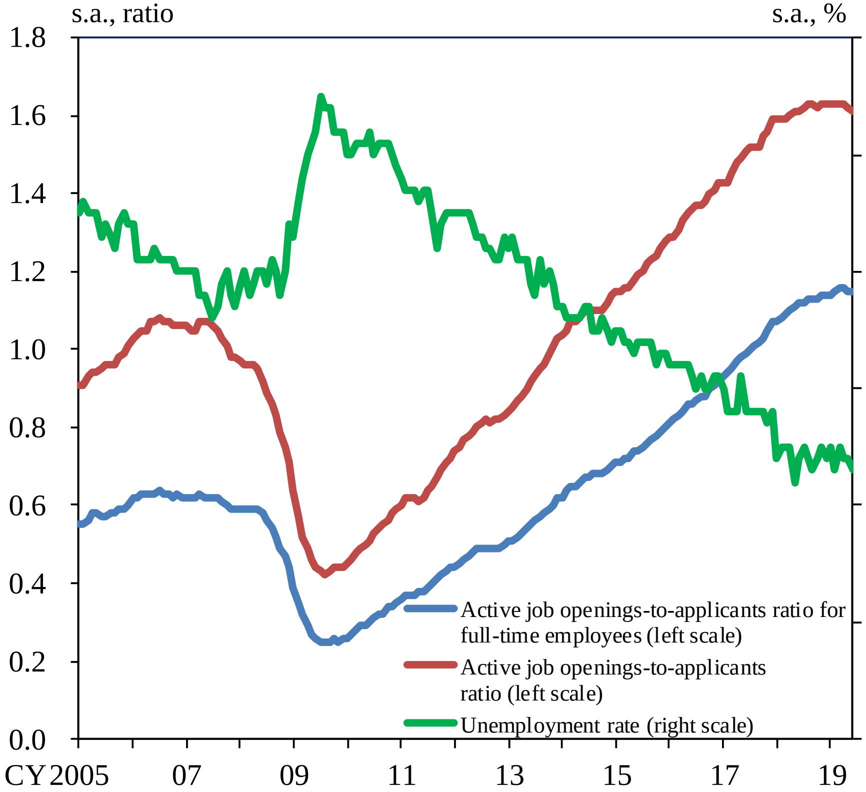
## Comparison of Previous and Current Assessments by Region

| Region | Assessment in April 2019 | Changes from the previous assessment | Assessment in July 2019 |
|---|---|---|---|
| **Hokkaido** | **The economy has been recovering moderately.** | → | **The economy has been recovering moderately.** |
| **Tohoku** | **The economy has continued to recover moderately, although some weakness has been observed in part.** | → | **The economy has continued to recover moderately, although some weakness has been observed in part.** |
| **Hokuriku** | **The economy has been expanding moderately.** | → | **The economy has been expanding moderately.** |
| **Kanto-Koshinetsu** | **The economy has been expanding moderately, although exports and production have been affected by the slowdown in overseas economies.** | → | **The economy has been expanding moderately, although exports and production have been affected by the slowdown in overseas economies.** |
| **Tokai** | **The economy has been expanding.** | → | **The economy has been expanding.** |
| **Kinki** | **The economy has continued to expand moderately.** | → | **The economy has continued to expand moderately, although some weakness has been observed in part.** |
| **Chugoku** | **The economy has been expanding moderately.** | → | **The economy has been expanding moderately.** |
| **Shikoku** | **The economy has been recovering.** | → | **The economy has been recovering.** |
| **Kyushu-Okinawa** | **The economy has been expanding moderately.** | → | **The economy has been expanding moderately.** |

Source: July 2019 *Regional Economic Report*, Bank of Japan.

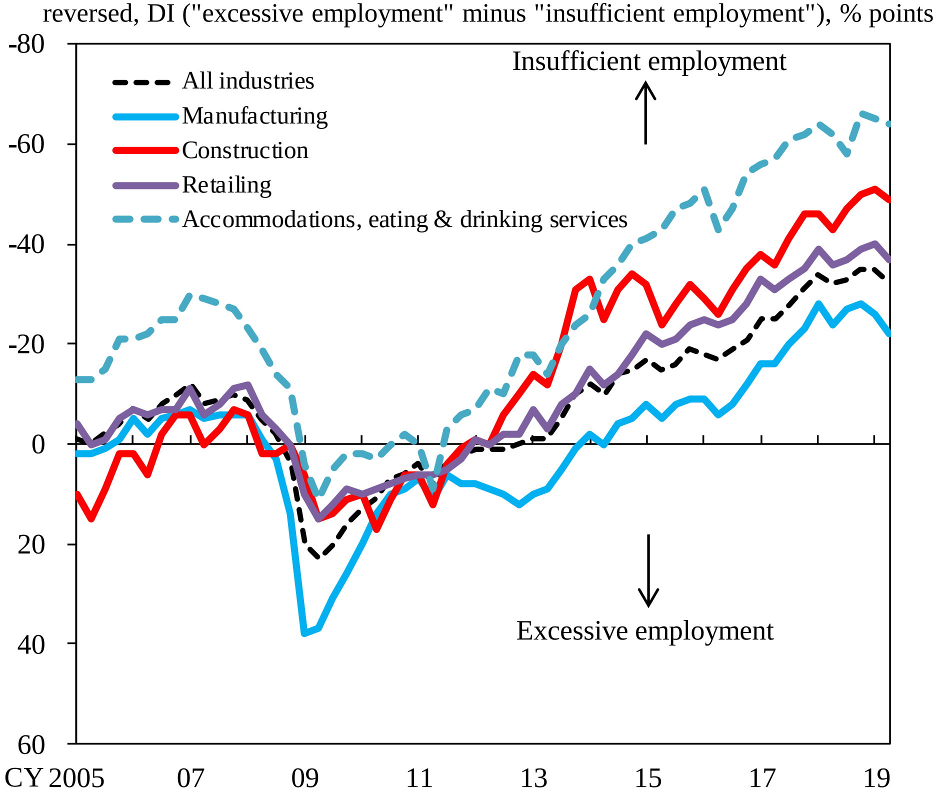
# Labor Market Conditions

## Unemployment Rate and Active Job Openings-to-Applicants Ratio




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

## Diffusion Index (DI) for Employment Conditions




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

# Outlook for Economic Activity and Prices as of July 2019

## Forecasts of the Majority of Policy Board Members

y/y % chg.

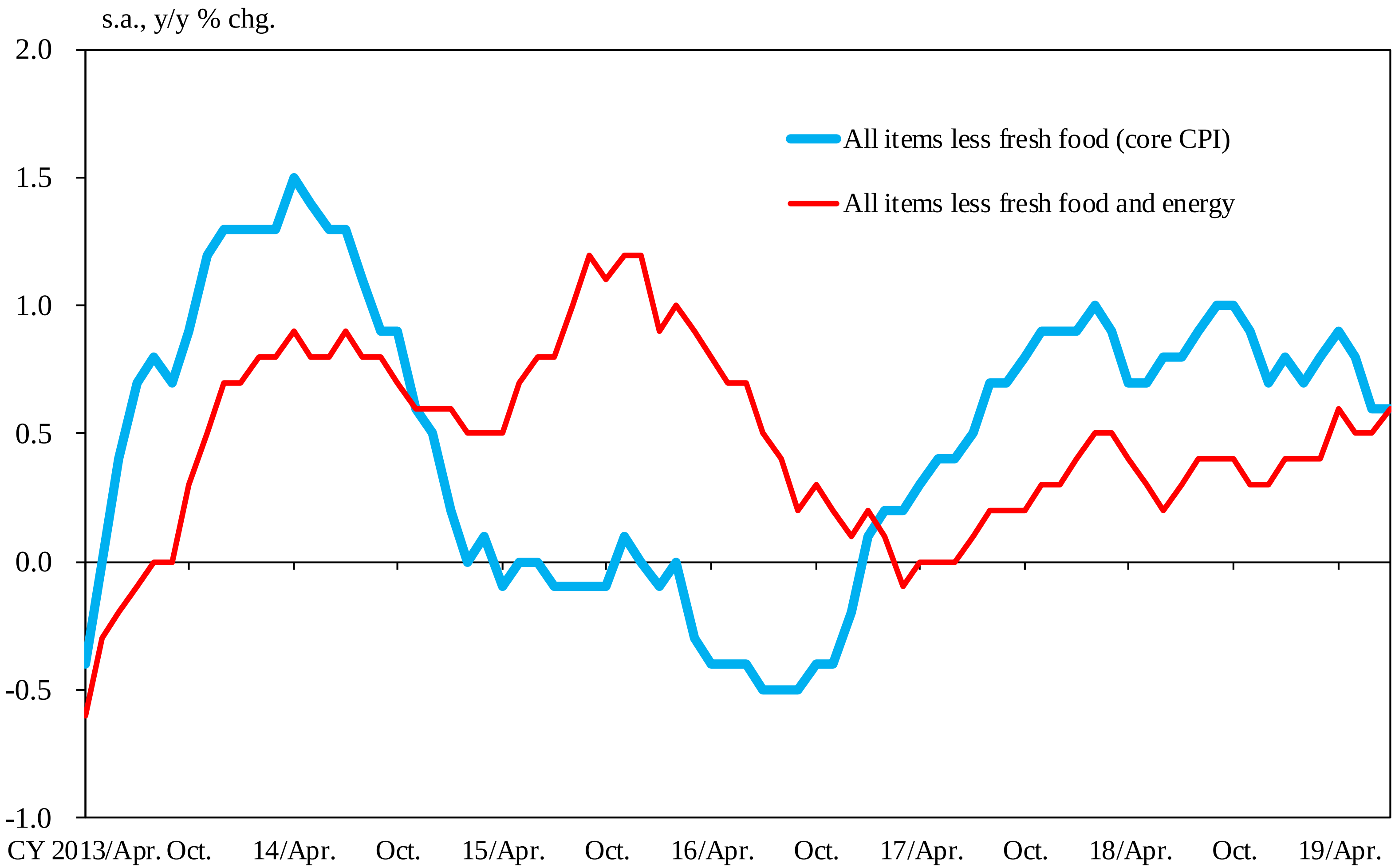
| | Real GDP | CPI (all items less fresh food) |
|---|---|---|
| Fiscal 2019 | +0.6 to +0.9<br>[+0.7] | +0.8 to +1.1<br>[+1.0] |
| Forecasts made in April 2019 | +0.7 to +0.9<br>[+0.8] | +0.9 to +1.2<br>[+1.1] |
| Fiscal 2020 | +0.8 to +1.0<br>[+0.9] | +1.1 to +1.4<br>[+1.3] |
| Forecasts made in April 2019 | +0.8 to +1.1<br>[+0.9] | +1.2 to +1.5<br>[+1.4] |
| Fiscal 2021 | +0.9 to +1.2<br>[+1.1] | +1.3 to +1.7<br>[+1.6] |
| Forecasts made in April 2019 | +0.9 to +1.2<br>[+1.2] | +1.4 to +1.7<br>[+1.6] |

Source: July 2019 *Outlook for Economic Activity and Prices*, Bank of Japan.

Notes: 1. Figures in brackets indicate the medians of the Policy Board members' forecasts (point estimates).

2. The forecasts assume the following: (1) the consumption tax will be raised to 10 percent in October 2019 and a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining out -- and newspapers, and (2) with regard to policies concerning the provision of free education, free early childhood education and such measures as free higher education will be introduced in October 2019 and April 2020, respectively.

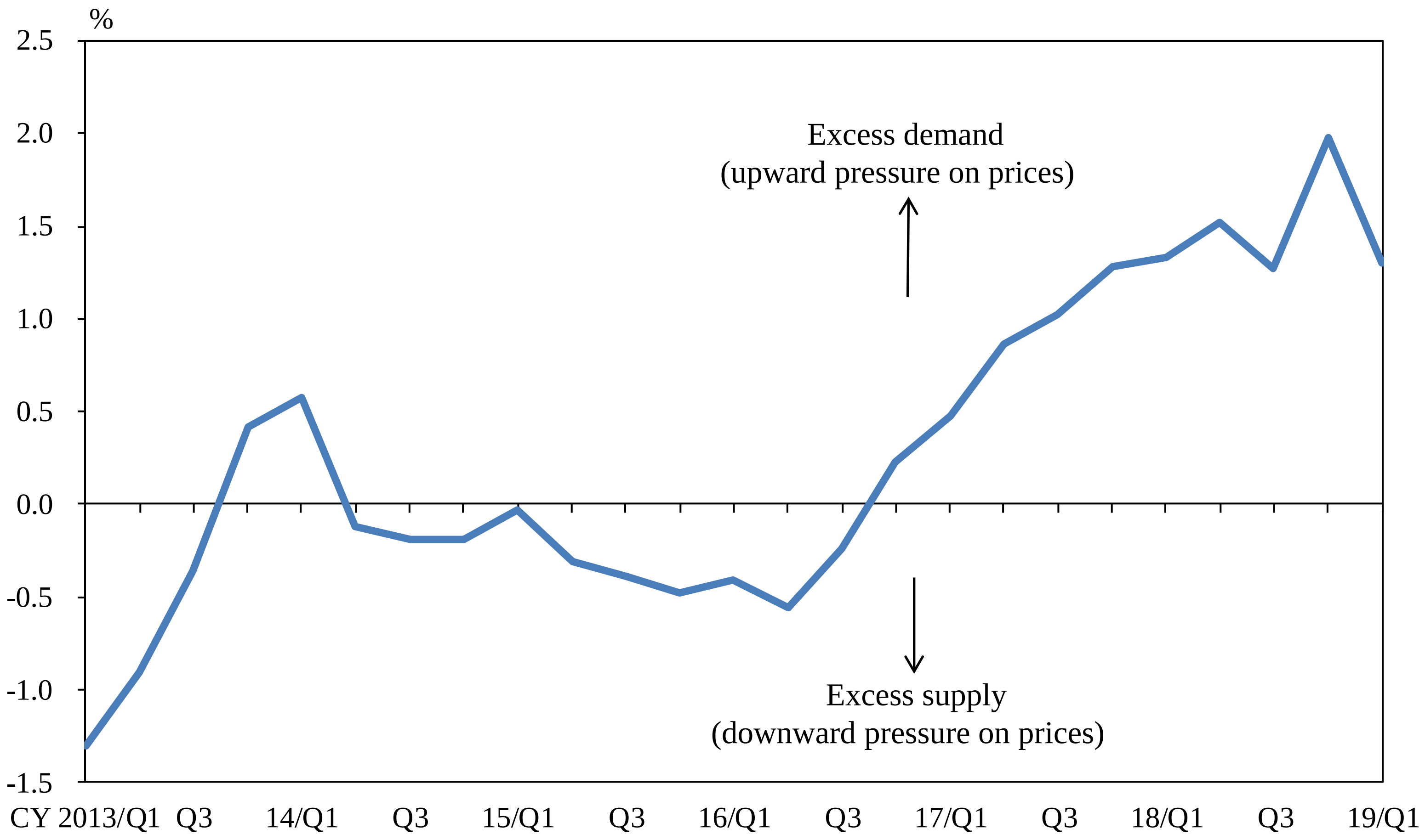
# CPI




Source: Ministry of Internal Affairs and Communications.
Note: Figures are adjusted for the effects of consumption tax hikes.

Chart 7

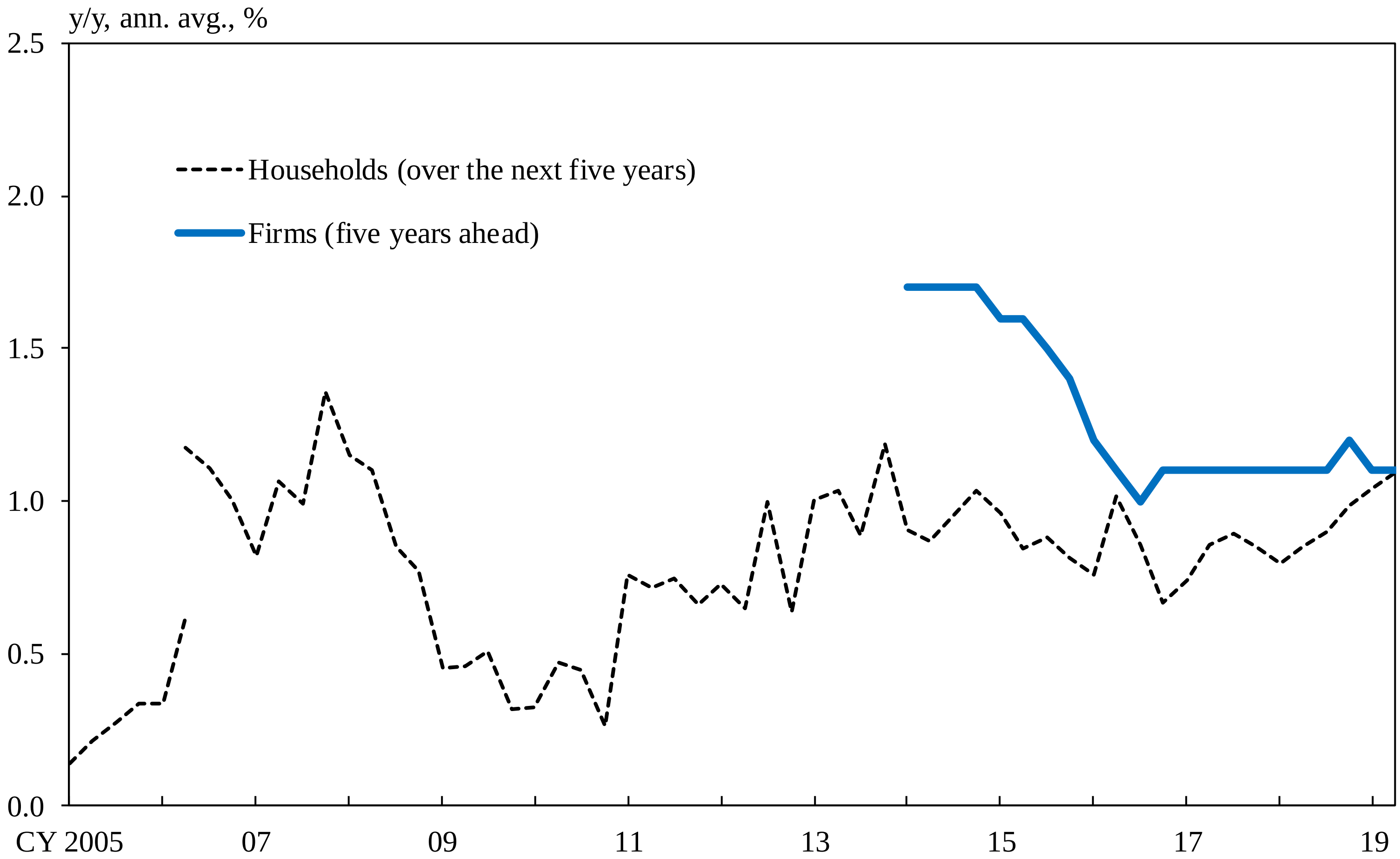
# Output Gap




Source: Bank of Japan.
Note: Based on staff estimations.

Chart 8

# Inflation Expectations




Source: Bank of Japan.

Notes: 1. Figures for households are from the *Opinion Survey on the General Public's Views and Behavior*, estimated using the modified Carlson-Parkin method.

2. Figures for firms are from the *Tankan* (General Prices, summary of "Inflation Outlook of Enterprises," all industries and all enterprises).

Chart 9

# Yield Curve Control

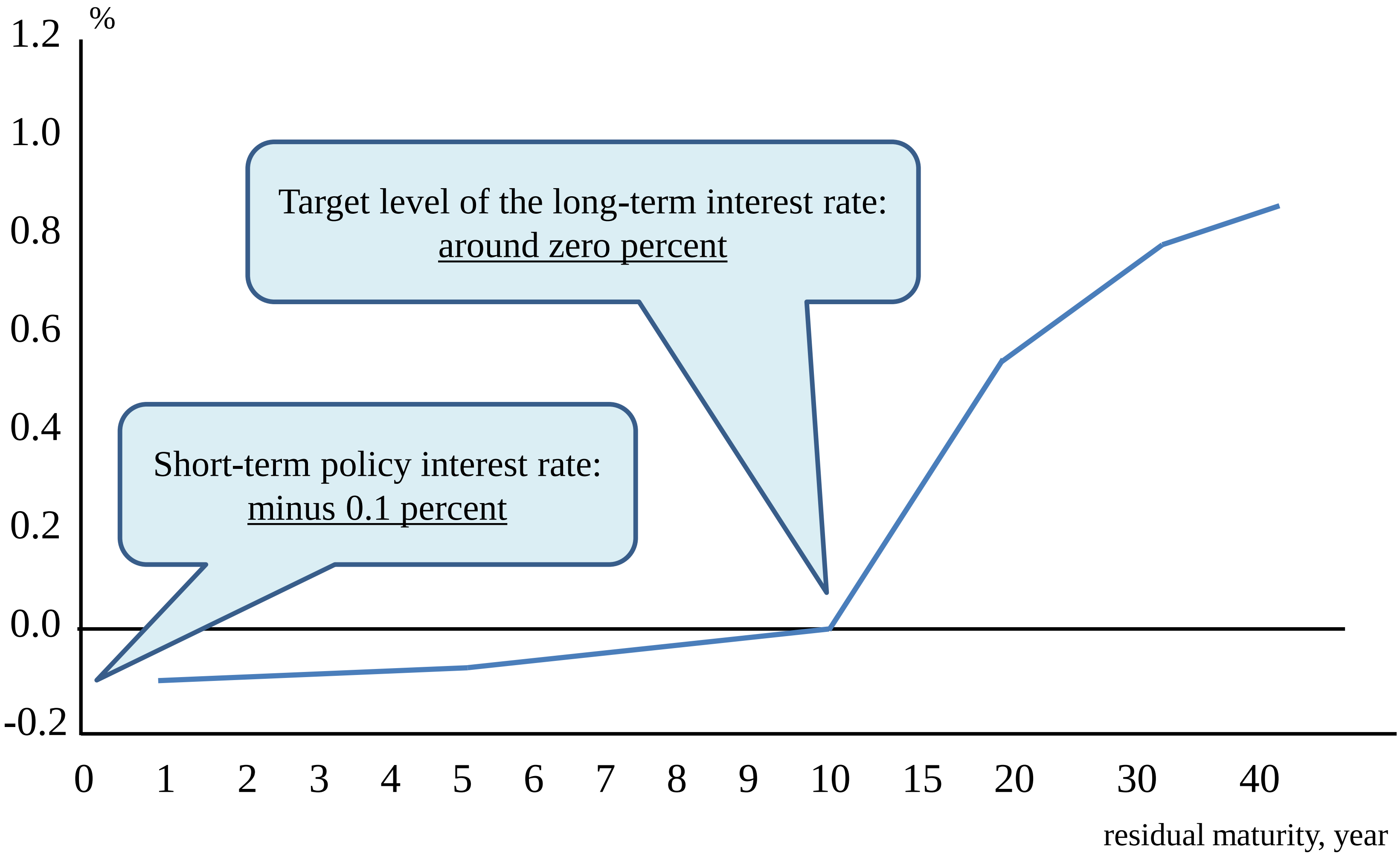
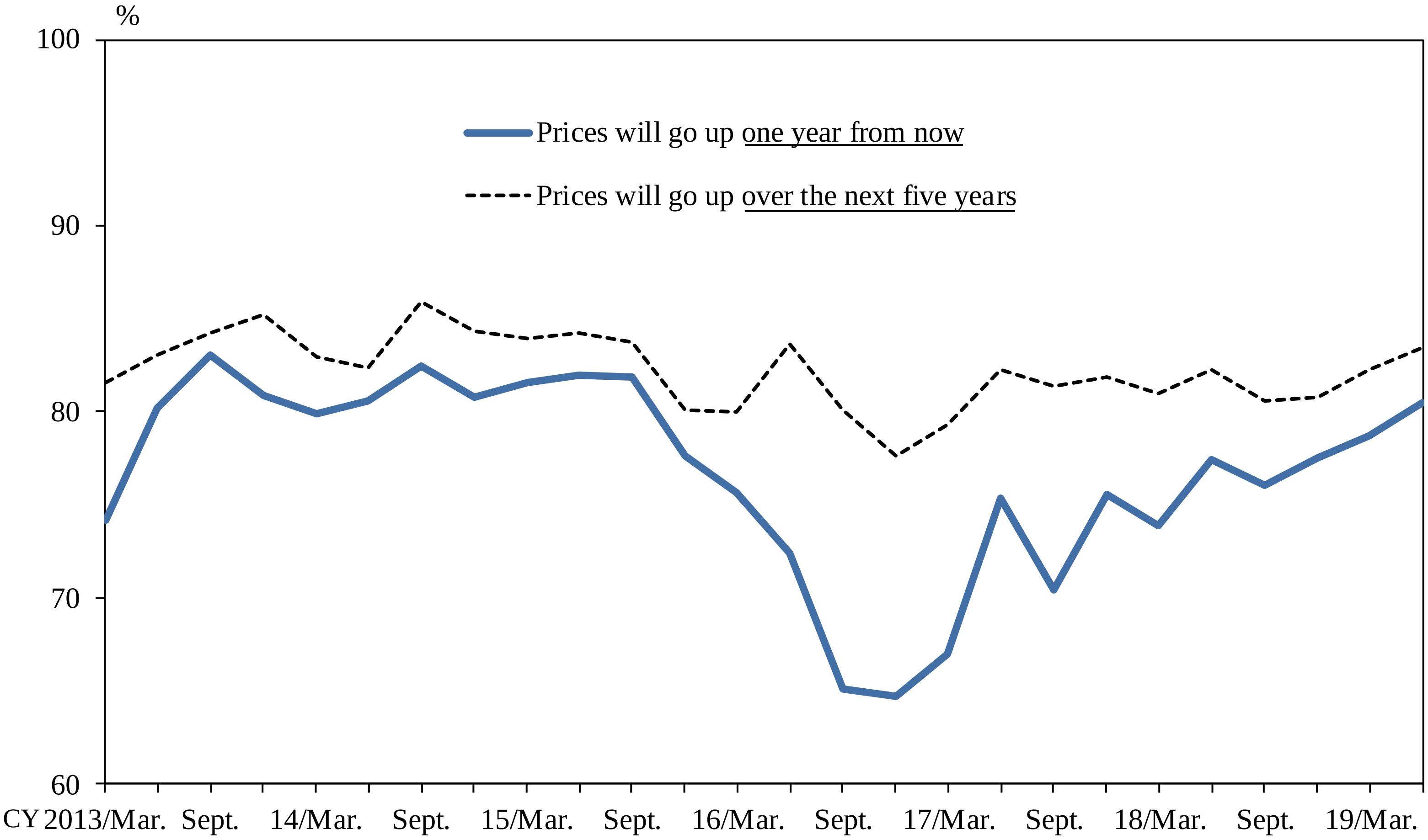


Chart 10

# Outlook for Price Levels




Source: *Opinion Survey on the General Public's Views and Behavior*, Bank of Japan.
Notes: 1. Disregarding the effects of consumption tax hikes.
2. Figures for both comprise respondents who chose either "will go up significantly" or "will go up slightly" in the questionnaire.

# Strengthening the Framework for Continuous Powerful Monetary Easing

**Likely to take time to achieve the price stability target of 2%**

**Appropriate to maintain the positive output gap for as long as possible**

## Persistently Continuing with Powerful Monetary Easing

### Forward guidance for policy rates

"The Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, at least through around spring 2020, taking into account uncertainties regarding economic activity and prices including developments in overseas economies and the effects of the consumption tax hike."

### Yield curve control and ETF purchases

**The long-term interest rate**: The Bank will purchase JGBs so that 10-year JGB yields will remain at around zero percent. While doing so, the yields may move upward and downward to some extent mainly depending on developments in economic activity and prices.

**ETF purchases**: The Bank will purchase ETFs so that their amount outstanding will increase at an annual pace of about 6 trillion yen. The Bank may increase or decrease the amount of purchases depending on market conditions.

**Achieving the price stability target of 2% at the earliest possible time while securing stability in economic and financial conditions**