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Bank of Japan

Economic Activity, Prices, and Monetary Policy in Japan

Speech at a Meeting with Business Leaders in Kanagawa

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(English translation based on the Japanese original)

I. Economic Activity and Prices

A. Recent Developments and Outlook for Economic Activity at Home and Abroad

I would like to start my speech by looking at global economic trends affecting Japan's economy. I expect the global economy to grow moderately in 2018, accompanied by improvements in business fixed investment and exports.

The U.S. economy has been favorable, underpinned in part by fiscal policy, and the inflation rate is expected to be at around 2 percent for the time being. As for the European economy, although the rapid growth in the second half of 2017 came to a halt, private consumption and corporate investment have been solid. The Chinese economy has continued to see stable growth on the whole, and other emerging economies have generally maintained their moderate recovery trend.

According to Chart 1, which shows the economic outlook released by international organizations, growth rates of the global economy for 2019 are projected to remain more or less unchanged from 2018. Although growth rates of major advanced economies for 2019 are likely to weaken somewhat compared with those for 2018, the weakening is expected to be offset by growth in emerging economies.

As I mentioned, international organizations have projected that the global economy is expected to continue on a steady expanding trend in 2019. Nonetheless, I am convinced that there is an increasing possibility that the pace of expansion in the global economy will decelerate somewhat from next year, considering the recent gradual heightening of uncertainties such as U.S. monetary tightening and its impact on global financial markets, protectionist moves and their effects, and negotiations on the United Kingdom's exit from the European Union (EU).

In particular, trade friction has become increasingly severe and the situation requires caution. Chart 2 shows the economic impact of trade friction estimated by the International Monetary Fund (IMF). Under certain assumptions, the direct influence of raising tariffs is said to be limited. However, if tariffs placed on automobiles and auto components are raised, the economic influence exerted through exports and imports will be large. Moreover, the impact on the global economy cannot be ignored if intensifying trade friction leads to stagnation in business fixed investment or to a decline in stock prices through a deterioration in the sentiment of firms or investors. In a situation where uncertainties are gradually increasing, developments in overseas economies require further attention.

Next, I would like to turn to developments in Japan's economy. The real GDP growth rate for the April-June quarter of 2018 recovered to positive territory after a decline in the previous quarter. This was supported by moderate growth in the global economy and the rebound from sluggish domestic demand due to factors such as severe winter weather. Chart 3 shows the real GDP growth rate and the breakdown by component. The contribution of domestic demand to total growth became larger as business fixed investment accelerated and as private consumption started to increase on the back of improvements in the employment and income situation. On the other hand, the contribution of external demand declined in response to a decrease in exports of services. Although exports of goods for the April-June quarter were firm, the influence of developments in trade friction warrants close attention.

Turning to the outlook for Japan's economy, as shown in Chart 4, the medians of forecasts made by the Bank of Japan's Policy Board members for real GDP growth rates presented in the July 2018 *Outlook for Economic Activity and Prices* (Outlook Report) are 1.5 percent for fiscal 2018, and 0.8 percent for both fiscal 2019 and 2020. My view, however, is that the pace of growth will be somewhat more moderate than these forecasts. Specifically, the real GDP growth rate for fiscal 2018 is likely to be around 1.0 percent, mainly due to an increase in business fixed investment reflecting improvements in corporate profits and business sentiment, and to a rise in exports reflecting the expansion of overseas economies. The rate for fiscal 2019 is likely to slow and move in the range of 0.5-1.0 percent as the pace of expansion in the global economy will probably decelerate and as domestic demand is likely to deteriorate mainly reflecting the effects of the consumption tax hike scheduled to take place in October 2019. Moreover, the rate for fiscal 2020 is likely to be only around 0.5 percent.

Indeed, one of the key events for Japan's economy when making growth rate projections is the consumption tax hike scheduled for October 2019. The direct burden on households of the upcoming consumption tax hike could be small since the rate increase -- from 8 percent to 10 percent -- is smaller than that of the April 2014 hike, and because a reduced tax rate is scheduled to be applied to some items. However, as shown in the left-hand graph of Chart 5, even after four years since the 2014 hike, household consumption has at last recovered to the level of April in the year prior to the hike. Moreover, I believe that household consumption remains vulnerable, as seen in real private consumption by type in the consumption activity index (CAI) shown in the right-hand graph of Chart 5; although consumption of durable goods and services has been increasing, albeit with fluctuations, that of non-durable goods including food, beverages, and clothes has continued to be sluggish. As long as such weakness remains, we must not underestimate the effects of the tax hike on consumption. Furthermore, I consider that economic growth for fiscal 2019 and onward is likely to decelerate, taking into account the following factors through fiscal 2020: (1) the possibility that the expanding trend of domestic business fixed investment will come to a halt, mainly due to the dissipation of Olympic Games-related demand, and (2) the possible materialization of the aforementioned risks surrounding developments in overseas economies.

B. Recent Developments and Outlook for Prices

Next, I will move on to price developments in Japan. The year-on-year rate of increase in the consumer price index (CPI) for all items less fresh food for July 2018 was 0.8 percent, as shown in the left-hand graph of Chart 6. However, it should be noted that the contribution of a rise in energy prices to the CPI was significant at 0.5 percentage point, and the rate of increase for all items less fresh food and energy, which directly reflects supply-demand conditions, stood at only 0.3 percent year on year. In assessing prices, it is important to grasp underlying developments, excluding those CPI items with large fluctuations. The right-hand graph of Chart 6 shows some indicators that represent the underlying developments in consumer prices. These have been on a downtrend since March 2018, and I would therefore argue that the trend momentum of inflation has weakened.

The important indicators that affect underlying price developments are the output gap and medium- to long-term inflation expectations. The output gap, as shown in the left-hand graph of Chart 7, has moved further into positive territory, reflecting improvements in the capital stock and labor markets. Nevertheless, the trend momentum of inflation has been weakening. This inconsistency between a widening output gap and weakening inflation may be the result of a number of factors. The July 2018 Outlook Report showed that households' tolerance of price rises has not been increasing and that firms' wage- and price-setting stance has not strengthened enough, even amid rising costs.[1] Economic activity based on these conditions is not sustainable in the long run, although it is difficult to change in the short run; thus, if the expanding trend of the output gap continues to strengthen, economic activity will gradually become proactive, and the burden of price stagnation will be lessened.

Meanwhile, inflation expectations have been somewhat weak. I am convinced that this is attributable to the adverse effects of prolonged deflation in the past and recent weak price developments. In addition, I believe that the weakening of the Bank's commitment to achieving the 2 percent price stability target is also affecting expectations.

Turning to the outlook for prices, the medians of the Policy Board members' forecasts for the year-on-year rate of change in the CPI (all items less fresh food) presented in the July Outlook Report are 1.1 percent for fiscal 2018 and, excluding the direct effects of the scheduled consumption tax hike, 1.5 percent for fiscal 2019 and 1.6 percent for fiscal 2020 (Chart 4). In contrast to the April Outlook Report, the latest price projections have been revised downward, reflecting the current weak price developments, but the Bank's principal view is that the momentum of prices toward the 2 percent price stability target will be maintained. However, I dissented from the relevant description in the July Outlook Report as I think the possibility of the inflation rate rising toward 2 percent is low at the moment and that the momentum of inflation has weakened. I would like to explain this in relation to the Bank's conduct of monetary policy.

[1] For details, see Box 1 through Box 7 in the Bank's July 2018 Outlook Report.

II. Conduct of Monetary Policy

Let me first explain the Bank's current monetary policy framework, including the decision made in the July 2018 Monetary Policy Meeting (MPM). I would then like to touch on my opinion about the policy measures necessary to achieve the price stability target.

A. Framework of Monetary Policy Conduct

As shown in Chart 8, the Bank conducts monetary policy under the framework of Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control, aiming to achieve the 2 percent price stability target. This current framework consists of three major components.

The first is yield curve control, in which the Bank controls short- and long-term interest rates. Specifically, the Bank sets the short-term policy interest rate at minus 0.1 percent and purchases Japanese government bonds (JGBs) so that 10-year JGB yields remain at around 0 percent, thereby achieving accommodative financial conditions and stimulating economic activity and prices.

The second component is purchases of assets such as exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs), which are conducted with a view to exerting positive effects on economic activity and prices through lowering risk premiums such as on stocks.

The third component is the commitment regarding the future conduct of monetary policy. Under the inflation-overshooting commitment introduced in September 2016, the Bank continues to expand the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2 percent and stays above this target level in a stable manner. With this commitment, the Bank aims to increase the credibility that it will achieve the 2 percent price stability target by ruling out the possibility of a change in the direction of monetary policy at an early stage when achievement of the target comes in sight.

In this situation, as I explained earlier, the CPI forecasts of the Policy Board members were revised downward again in the July 2018 Outlook Report, on the view that it is taking more time than expected to achieve the price stability target of 2 percent. Nevertheless, although it will take time, it is necessary to maintain and strengthen the momentum of prices toward achieving the price stability target. Based on this recognition, the Bank decided at the July 2018 MPM that it was desirable to maintain the output gap within positive territory as long as possible by persistently continuing with the current monetary easing, thereby ensuring the price developments toward achieving 2 percent inflation.

As a result of the discussion, the Bank decided on a statement titled "Strengthening the Framework for Continuous Powerful Monetary Easing" to address two challenges that could arise from the continuation of monetary easing. The first is to further strengthen confidence among the public regarding the Bank's current policy stance that aims at achieving the price stability target. The second is to strengthen the sustainability of the current monetary easing so that the effects of monetary easing will not weaken, while taking care of the possible negative effects on financial markets.

Chart 8 provides a comparison of the key features of "Strengthening the Framework for Continuous Powerful Monetary Easing" with those of the previous policy framework. The first feature is enhancing the sustainability of yield curve control. Specifically, the Bank decided to allow some degree of fluctuation in the long-term yields, depending mainly on developments in economic activity and prices, while maintaining the target level for 10-year JGB yields at around 0 percent. This aims at continuing with powerful monetary easing while alleviating concerns about a possible decline in the functioning of the JGB market.

The second feature is the Bank's announcement that it might increase or decrease the amount of ETF purchases, depending on market conditions, with a view to enhancing the sustainability of the policy, while maintaining the guideline that the amount outstanding of ETF purchases by the Bank will increase at an annual pace of about 6 trillion yen.

The third feature is the introduction of forward guidance for short- and long-term interest rates. Specifically, the following commitment was announced: "[t]he Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, taking into account uncertainties regarding economic activity and prices including the effects of the consumption tax hike scheduled to take place in October 2019." By announcing its intention regarding the guideline for controlling interest rates, in addition to the inflation-overshooting commitment that has been in place since September 2016, the Bank aims to strengthen market confidence and expectations regarding monetary policy.

B. Measures Necessary for Achieving the Price Stability Target

I dissented from "Strengthening the Framework for Continuous Powerful Monetary Easing" considering that (1) taking account of the current sluggishness in prices and risk factors going forward, it was desirable to strengthen monetary easing itself, and (2) controlling the long-term yields in a flexible manner would make their target level of around 0 percent unclear. In relation to this, I would like to raise three issues.

First, I consider that additional monetary easing -- rather than strengthening the framework for continuous easing -- should be implemented in a situation where the Policy Board members' forecasts are being revised downward. To justify the assessment that it is appropriate to persistently continue with the current monetary easing, the degree of the current easing needs to be strong enough to achieve the price stability target. The key to making such an assessment is whether, under the current policy, the momentum for inflation has strengthened or is likely to strengthen going forward.

Let us first examine the momentum based on developments in two indicators: the output gap and inflation expectations. The output gap might stay in positive territory, but with the prospect of economic growth decelerating from 2019, the pace of the widening of the output gap will likely slow down. Amid relatively weak inflation rates, inflation expectations are likely to remain somewhat weak through the adaptive formation mechanism. Therefore, I believe there is little likelihood of the momentum increasing under the current policy.

Another way to assess the momentum in inflation is the pace at which price rises will lead to achievement of the price stability target of 2 percent. Chart 9 shows a statistical estimate of the probability of Japan's inflation rate reaching 2 percent within two years.[2] Based on the assumption that the average of the changes in the monthly inflation rate over the past year will continue, the 2 percent-passage probability has declined since May 2018. This suggests that the momentum in inflation has weakened somewhat. Moreover, the 2 percent-passage probability calculated using the CPI for all items less fresh food and energy has been almost 0 percent since mid-2016, indicating that the momentum over the past year or so was mostly attributable to energy prices. In other words, it is possible to conclude that, under the current monetary policy, the momentum in inflation has not strengthened enough to achieve the price stability target as soon as possible.

Second, I believe that it is unnecessary for the Bank to conduct policy changes so as to allow some degree of fluctuation in the long-term yields, at a time when the CPI forecasts of the Policy Board members have been revised downward. Personally, I am concerned about this policy change, in that it is possible that the long-term interest rate target level of around 0 percent will gradually lose significance if expectations of a rise in long-term yields heighten in financial markets. The timing of achieving the price stability target may be delayed if interest rates rise, whether temporarily or not, in a situation where inflation expectations and prices have not risen sufficiently. Furthermore, one advantage of yield-curve control is that it strengthens the monetary easing effects by maintaining long-term interest rates at around 0 percent when they are subject to upward pressure; however, controlling long-term yields in a flexible manner is thought to weaken such effects.

Third, as for the Bank's commitment regarding future monetary policy changes and forward guidance for policy rates, my view is that, taking into account the current situation in which the observed inflation rate is still evidently far from the 2 percent price stability target, it is important for the Bank to make clear the influence of its monetary policy on prices and to show its strong determination to achieve the price stability target. It is true that enforcing the Bank's commitment is desirable, given the continued relative weakness in inflation

[2] Presuming that the first passage time probability of a stochastic process obeys the Wald distribution, the probability of inflation rates hitting a threshold before a time horizon is estimated, assuming a 2 percent threshold and measurement horizon of two years.

expectations. Nonetheless, I believe that the description of forward guidance introduced by the Bank in July -- "[t]he Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time" -- is just the natural conclusion to be drawn from the Policy Board members' CPI forecasts and the observed inflation rate clearly being far from the 2 percent price stability target. I am not sure whether the description does anything other than merely acknowledge the current situation. Rather, the Bank should design its forward guidance by clarifying the relationship of that guidance to the inflation rate, inflation expectations, and the output gap, with a view to strengthening its influence on prices.

As I have explained, my view is that the current monetary easing measures are not strong enough to achieve the price stability target as soon as possible, and if the Bank allows long-term yields to rise when the inflation rate and inflation expectations have not risen sufficiently, the timing of achieving the price stability target may be delayed. As presented in the joint statement by the Bank and the government, the Bank's mission is to achieve the price stability target at the earliest possible time. Instead of strengthening the framework for persistently continuing monetary easing, it is important to strengthen monetary easing itself so that the easing will not be so persistent. Given that prices are sluggish and there are concerns over increasing uncertainties, it is important to exert a stronger influence over economic activity and prices. Specifically, I believe that the Bank should introduce a measure to further lower yields on JGBs with maturities of 10 years and longer, thereby accelerating the pace of widening of the output gap. Such a measure would create a more significant change in the behavior of firms and households in terms of setting wages and prices. Regarding the Bank's commitment to future monetary policy, I am of the view that the Bank needs to make clear its stance of not tolerating sluggish inflation expectations. In doing so, the Bank at this point needs to encourage inflation expectations to rise by making a commitment to taking additional easing measures if it revises downward its assessment of inflation expectations.

Thank you for your attention.

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Chart 1

Global Economic Outlook by International Organizations

y/y % chg.

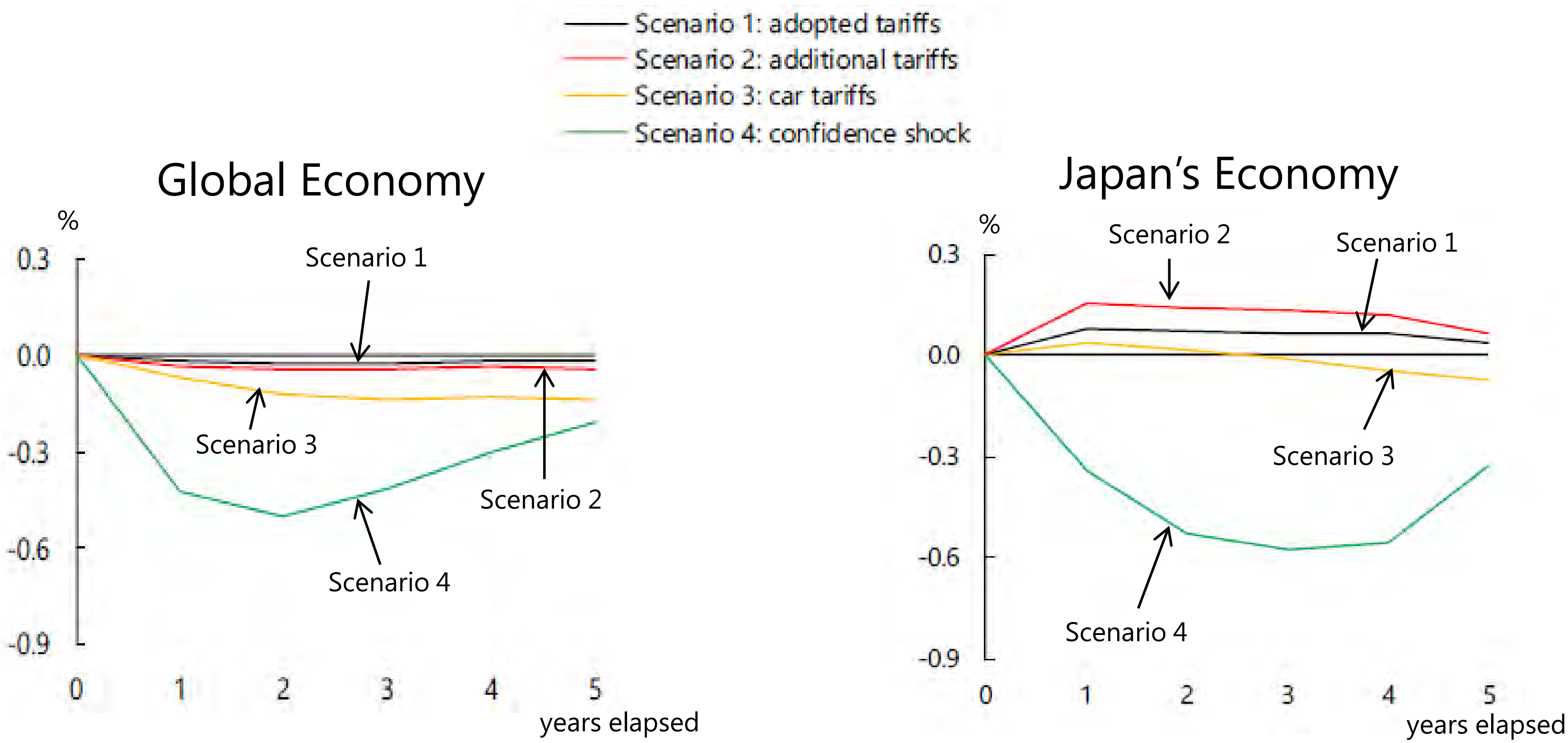
		IMF			OECD		
		2017	2018	2019	2017	2018	2019
World		**3.7**	**3.9**	**3.9**	**3.7**	**3.8**	**3.9**
Advanced Economies	**Japan**	**1.7**	**1.0**	**0.9**	**1.7**	**1.2**	**1.2**
	United States	2.3	2.9	2.7	2.3	2.9	2.8
	Euro area	2.4	2.2	1.9	2.6	2.2	2.1
	Germany	2.5	2.2	2.1	2.5	2.1	2.1
	France	2.3	1.8	1.7	2.3	1.9	1.9
	United Kingdom	1.7	1.4	1.5	1.8	1.4	1.3
Emerging Economies	China	6.9	6.6	6.4	6.9	6.7	6.4
	Brazil	1.0	1.8	2.5	1.0	2.0	2.8
	India	6.7	7.3	7.5	6.5	7.4	7.5
	Russia	1.5	1.7	1.5	1.5	1.8	1.5

Note: Data for 2017 are actual figures, otherwise projections. For India, data and forecasts are presented on a fiscal year basis.

Source: IMF, “World Economic Outlook Update, July 2018”; OECD, “Economic Outlook, May 2018.”

Chart 2

Impact of Trade Friction on Economic Growth
(Simulation Analysis by the IMF)

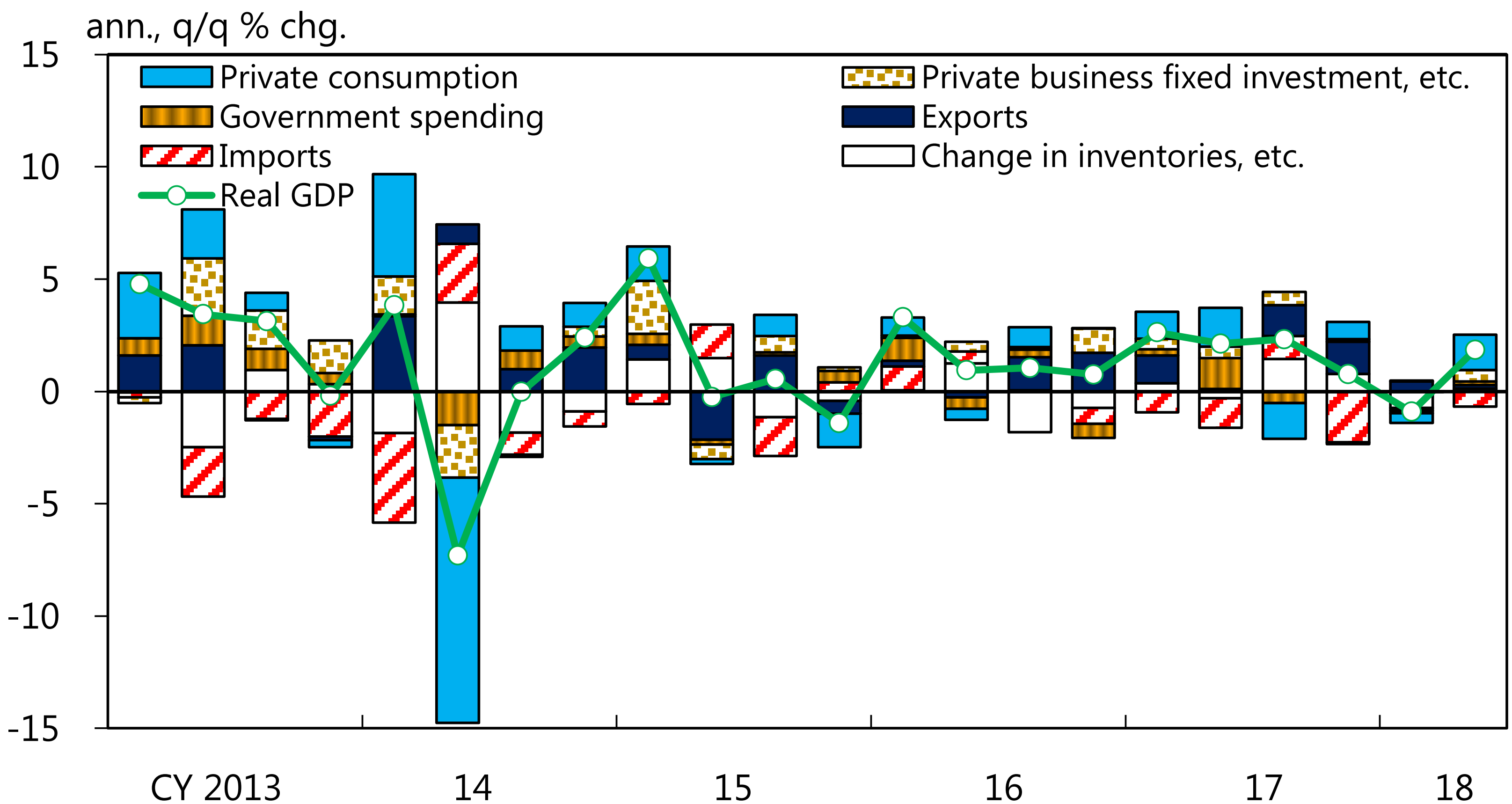


Notes: 1. In both graphs, vertical axes show deviation of real GDP level from baseline in percent, and horizontal axes show years elapsed from the imposition of tariffs.

2. "Scenario 1: adopted tariffs" incorporates tariffs that have already been implemented by the United States, with retaliation of equivalent size. "Scenario 2: additional tariffs" adds to Scenario 1 an additional 10 percent tariff on US$200 billion worth of U.S. imports from China, with retaliation of equivalent size. "Scenario 3: car tariffs" adds to Scenario 2 a 25 percent increase in tariffs on U.S. imports of vehicles, with retaliation from all affected regions on an equivalent amount of U.S. exports. "Scenario 4: confidence shock" introduces a temporary global shock to confidence on top of Scenario 3. It is assumed that advanced economies see risk premiums increase by 30 basis points -- about half the increase observed during the "taper tantrum" -- around two years after the additional tariffs, while emerging economies would face a shock that is twice as large.

Source: IMF, "G20 Surveillance Note, July 21-22, 2018."

Real GDP Growth and Breakdown by Component



Source: Cabinet Office, "Quarterly Estimates of GDP for April-June 2018 (First Preliminary Estimates)."

Outlook for Economic Activity and Prices (July 2018 Outlook Report)

medians of Policy Board members' forecasts, y/y % chg.

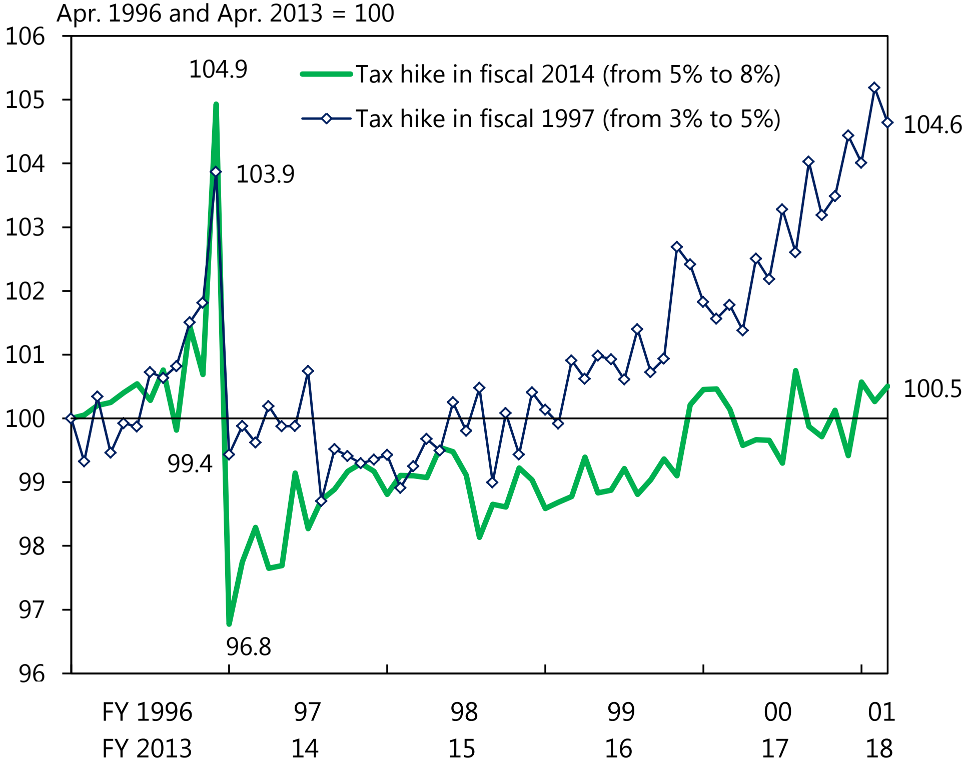
	Real GDP	CPI (all items less fresh food)
Fiscal 2018	+1.5	+1.1
Forecasts made in April 2018	+1.6	+1.3
Fiscal 2019	+0.8	+1.5
Forecasts made in April 2018	+0.8	+1.8
Fiscal 2020	+0.8	+1.6
Forecasts made in April 2018	+0.8	+1.8

Note: Figures for the CPI (all items less fresh food) exclude the direct effects of the consumption tax hike scheduled to take place in October 2019.

Source: Bank of Japan, "Outlook for Economic Activity and Prices," July 2018.

Household Consumption Before and After Consumption Tax Hikes

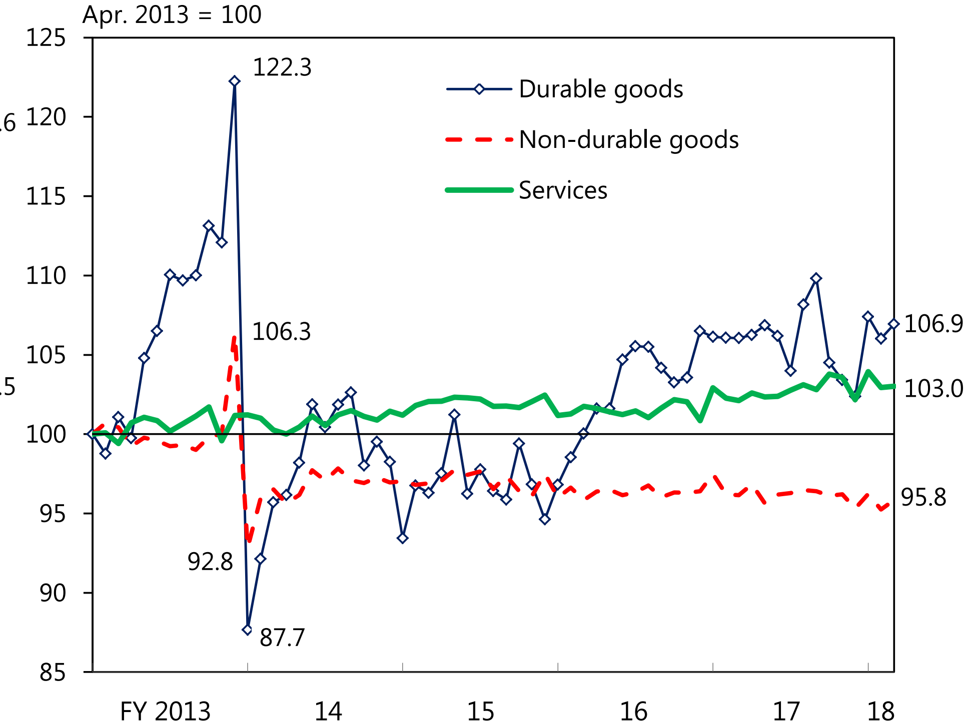
Consumption Before and After Tax Hikes



Note: The latest figures are as of June 2001 and June 2018.

Source: Cabinet Office, “Synthetic Consumption Index.”

Real Private Consumption by Type



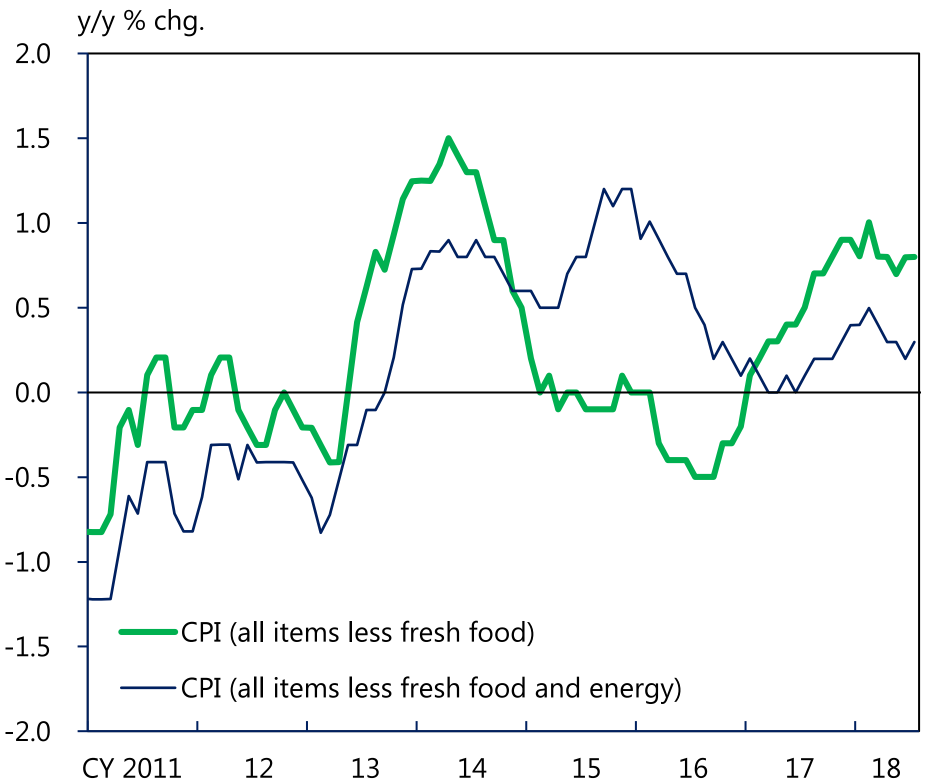
Notes: 1. The latest figures are as of June 2018.
2. “Durable goods” includes household appliances and automobiles. “Non-durable goods” includes food, beverages, and clothes.
3. The weights in the Consumption Activity Index are 9.4 percent for “Durable goods,” 39.1 percent for “Non-durable goods,” and 51.5 percent for “Services.”

Source: Bank of Japan, “Consumption Activity Index.”

Chart 6

Consumer Prices

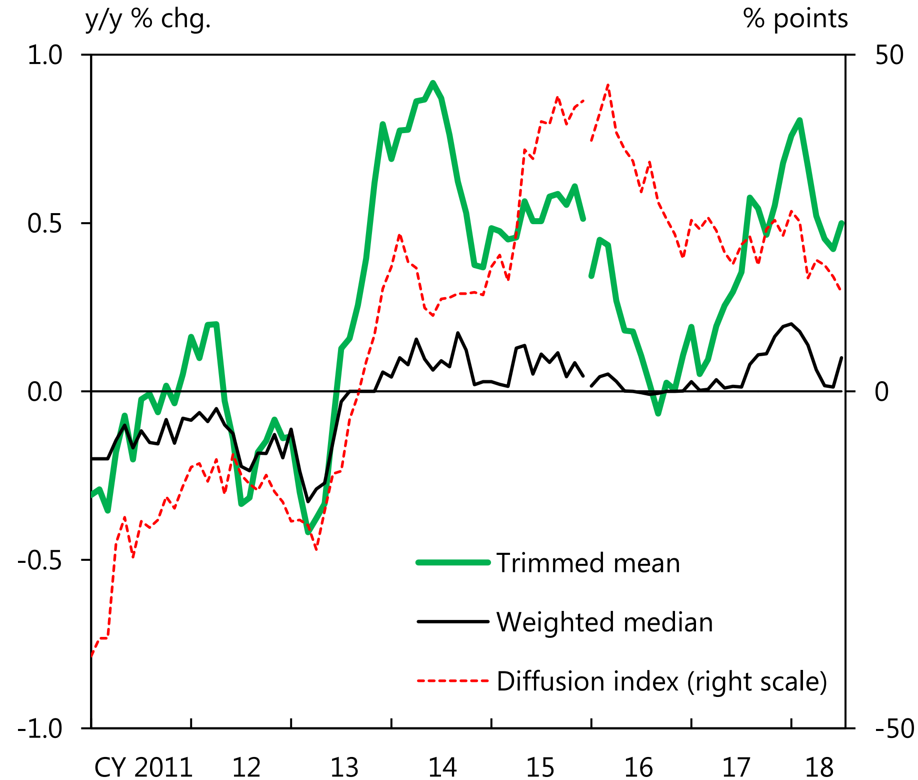
Consumer Price Index



Note: Figures are adjusted for changes in the consumption tax rate.

Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."

Measures of Underlying Inflation



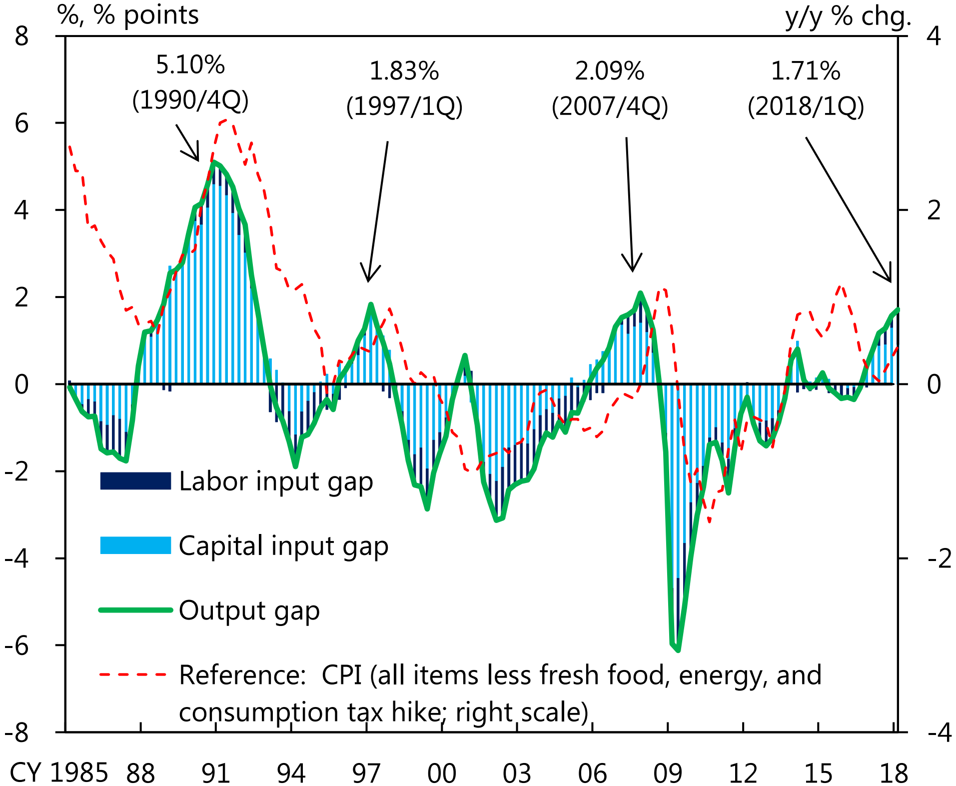
Note: The diffusion index is the share of increasing items minus that of decreasing items. The share of increasing/decreasing items is the share of items in the CPI (all items less fresh food) whose price indices increased/decreased from a year earlier.

Source: Bank of Japan, "Measures of Underlying Inflation."

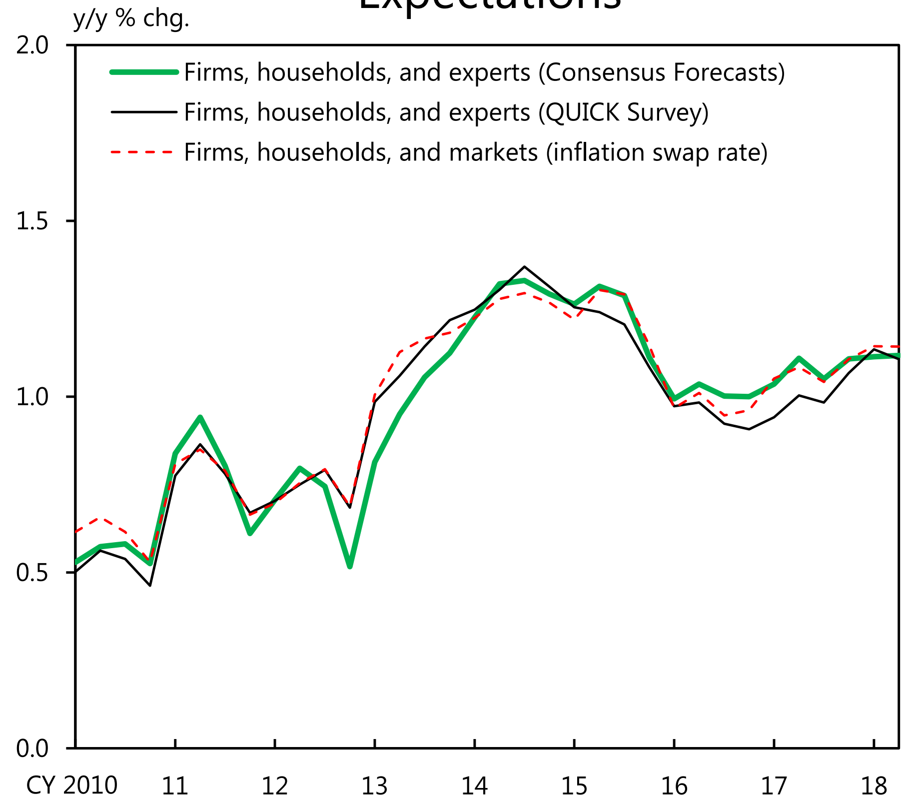
Chart 7

Output Gap and Inflation Expectations

Output Gap



Synthetic Indicators of Inflation Expectations



Notes: 1. The data of the output gap in the left-hand graph are the estimates as of July 4, 2018.

2. In the right-hand graph, semiannual data from the Consensus Forecasts up through 2014/Q2 are linearly interpolated. Figures for the Bank's *Opinion Survey on General Public's Views and Behavior* exclude inflation expectations by respondents whose annual inflation expectations were ±5% or greater. The output prices DI in the *Tankan* represents the difference between the share of firms that raised prices in the preceding three months and the share of firms that lowered prices.

3. In the right-hand graph, inflation expectations of firms are taken from the *Tankan* and those of households are taken from the Bank's *Opinion Survey*. For experts' and markets' inflation expectations, data from the Consensus Forecasts, the QUICK Survey, and the inflation swap rate are used as indicated by their respective lines.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Consensus Economics Inc., "Consensus Forecasts"; QUICK, "QUICK Monthly Market Survey (Bonds)"; Bloomberg; Bank of Japan.

Strengthening the Framework for Continuous Powerful Monetary Easing

Chart 8

(1) Yield Curve Control

Short-term rate : minus 0.1%
Long-term rate : around 0%

→

Short-term rate : minus 0.1%
Long-term rate : around 0%. The yields may move upward and downward to some extent depending mainly on developments in economic activity and prices.

(2) Asset Purchases (Target Amount of Net Purchases)

ETFs : 6 tril. yen per year
J-REITs : 90 bil. yen per year

→

ETFs : 6 tril. yen per year
J-REITs : 90 bil. yen per year
The Bank may increase or decrease the amount of purchases depending on market conditions.

(3) Commitment (Future Monetary Policy Commitment)

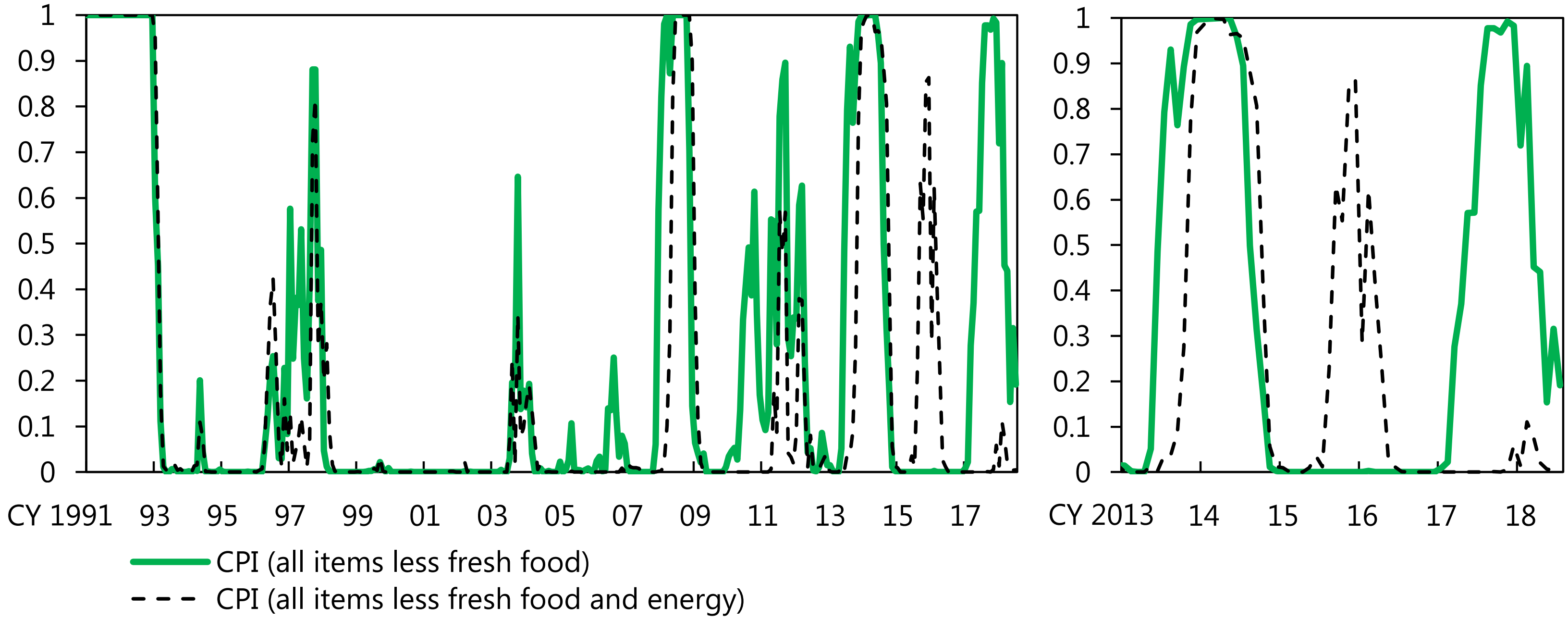
Inflation-overshooting commitment
"The Bank will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2 percent and stays above the target in a stable manner."

→

Inflation-overshooting commitment
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."

Chart 9

Inflation Momentum
(Measured by 2 Percent-Passage Probability)



Note: Presuming that the first passage time probability of a stochastic process obeys the Wald distribution, the probability of inflation rates hitting a threshold before a time horizon is estimated, assuming a 2 percent threshold and measurement horizon of two years. The inflation momentum is assessed based on the assumption that the average of the changes in the monthly inflation rate over the past year will continue.

Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."