Outlook for Economic Activity and Prices

October 2017

(English translation prepared by the Bank’s staff based on the Japanese original)
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Outlook for Economic Activity and Prices (October 2017)

The Bank’s View

Summary

- Japan’s economy is likely to continue expanding on the back of highly accommodative financial conditions and the effects of the government's large-scale stimulus measures, with overseas economies continuing to grow at a moderate pace, and maintain growth at a pace above its potential mainly through fiscal 2018. In fiscal 2019, the economy is expected to continue expanding, although the growth pace is projected to decelerate due to a cyclical slowdown in business fixed investment and the effects of the scheduled consumption tax hike.\(^2\)

- The consumer price index (CPI, all items less fresh food) has continued to show relatively weak developments, excluding the effects of a rise in energy prices, mainly against the background that firms’ wage- and price-setting stance has remained cautious. Nonetheless, medium- to long-term inflation expectations are projected to rise as firms’ stance gradually shifts toward raising wages and prices with an improvement in the output gap continuing. As a consequence, the year-on-year rate of change in the CPI is likely to continue on an uptrend and increase toward 2 percent.

- Comparing the current projections with the previous ones, the projected growth rates are more or less unchanged. The projected rate of increase in the CPI for fiscal 2017 is somewhat lower, but those for fiscal 2018 and 2019 are more or less unchanged.

- With regard to the risk balance, upside and downside risks to economic activity are generally balanced, and risks to prices are skewed to the downside. On the price front, the momentum toward achieving the price stability target of 2 percent is maintained as the output gap is expected to continue improving and medium- to long-term inflation expectations are projected to rise gradually; however, the momentum is not yet sufficiently firm, and thus developments in prices continue to warrant careful attention.

- As for the conduct of monetary policy, the Bank will continue with “Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control,” aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It 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. The Bank will make policy adjustments as appropriate, taking account of developments in economic activity and prices as well as financial conditions, with a view to maintaining the momentum toward achieving the price stability target.

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1 The text of “The Bank’s View” was decided by the Policy Board at the Monetary Policy Meeting held on October 30 and 31, 2017.

2 The October 2017 Outlook for Economic Activity and Prices (Outlook Report) assumes that the consumption tax will be raised to 10 percent in October 2019 and that a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers.
I. The Current Situation of Economic Activity and Prices in Japan

Japan's economy is expanding moderately, with a virtuous cycle from income to spending operating. Overseas economies have continued to grow at a moderate pace on the whole. In this situation, exports have been on an increasing trend. On the domestic demand side, business fixed investment has been on a moderate increasing trend with corporate profits and business sentiment improving. Private consumption has increased its resilience against the background of steady improvement in the employment and income situation. Meanwhile, public investment has been increasing and housing investment has been more or less flat. Reflecting these increases in demand both at home and abroad, industrial production has been on an increasing trend, and labor market conditions have continued to tighten steadily. Financial conditions are highly accommodative. On the price front, the year-on-year rate of change in the CPI (all items less fresh food, and the same hereafter) is in the range of 0.5-1.0 percent. Inflation expectations have remained in a weakening phase.

II. Baseline Scenario of the Outlook for Economic Activity and Prices in Japan

A. Baseline Scenario of the Outlook for Economic Activity

With regard to the outlook, Japan's economy is likely to continue its moderate expansion. Through fiscal 2018, 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, on the back of highly accommodative financial conditions and fiscal spending through the government's large-scale stimulus measures. Business fixed investment is likely to continue increasing moderately, supported by accommodative financial conditions, heightened growth expectations, and increases in Olympic Games-related investment, as well as in labor-saving investment to address the labor shortage. Private consumption is also expected to follow a moderate increasing trend as the employment and income situation continues to improve. Public investment is projected to increase in fiscal 2017, due mainly to the positive effects resulting from a set of stimulus measures; in fiscal 2018, although it is likely to start declining with such positive effects diminishing, it is expected to maintain its relatively high level with Olympic Games-related demand. Meanwhile, overseas economies are expected to continue growing at a moderate pace as advanced economies keep growing steadily and a recovery in emerging economies takes hold on the back of the steady growth in advanced economies and the effects of policy measures taken by emerging economies. Exports are expected to continue their moderate increasing trend on the back of such growth in overseas economies.

In fiscal 2019, Japan's economy is expected to continue expanding, supported by external demand, although the growth pace is projected to decelerate due to a slowdown in..
domestic demand. Specifically, business fixed investment is likely to decelerate, mainly reflecting cyclical adjustments in capital stock after the prolonged economic expansion, as well as Olympic Games-related demand peaking out; household spending is likely to turn to a decline in the second half of the fiscal year due to the effects of the scheduled consumption tax hike. Nevertheless, the increase in exports on the back of the growth in overseas economies is expected to underpin the economy.

Reflecting this outlook, Japan's economy is likely to continue growing at a pace above its potential, mainly through fiscal 2018. Comparing the current projections with the previous ones, the projected growth rates are more or less unchanged.

Looking at the financial conditions assumed in the above outlook, short- and long-term real interest rates are expected to be in negative territory throughout the projection period as the Bank pursues “QQE with Yield Curve Control.” Financial institutions’ proactive lending attitudes as well as favorable conditions for corporate bonds and CP issuance are both likely to be maintained and support firms' and households' activities from the financial side. Thus, financial conditions are likely to remain highly accommodative.

The potential growth rate is expected to follow a moderate uptrend throughout the projection period against the backdrop of the following: progress in implementation of the government's growth strategy, including regulatory and institutional reforms; an increase in labor participation by women and seniors under such strategy; and firms’ continued efforts toward improving productivity. Along with this, the natural rate of interest is projected to rise, thereby enhancing monetary easing effects.

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3 The consumption tax hike scheduled to take place in October 2019 will affect the GDP growth rates through the following two channels: (1) the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike and (2) the effects of a decline in real income. The negative impact on the projected growth rate for fiscal 2019 is expected to be smaller than that on the rate for fiscal 2014, when the last consumption tax hike took place. However, it should be noted that the impact of the consumption tax hike is highly uncertain and varies depending, for example, on the income situation and price developments.

4 Under a specific methodology, Japan's potential growth rate is estimated to be in the range of 0.5-1.0 percent. However, the estimate of the potential growth rate varies depending on the methodologies employed and could be revised as the sample period becomes longer over time. Thus, it should be regarded as being subject to a considerable margin of error.

5 Individual Policy Board members make their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy. Specifically, each Policy Board member makes an assumption about the future path of short- and long-term interest rates based on their market rates, bearing in mind the difference in the outlook for prices between that presented in the Outlook Report and that of market participants.
B. Baseline Scenario of the Outlook for Prices

Since the previous Outlook Report, although the year-on-year rate of increase in the CPI has been accelerating, it has continued to show relatively weak developments, remaining slightly positive excluding the effects of energy prices.

This is attributable to the fact that the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched among firms and households, as well as to temporary factors such as reductions in prices of and charges for mobile phones. Firms have been making efforts to absorb a rise in labor costs by increasing labor-saving investment and streamlining their business process, while limiting wage increases -- which correspond to the labor shortage -- mainly to wages of part-time employees. As suggested by these developments, firms’ wage- and price-setting stance has remained cautious despite the steady tightening of labor market conditions and the high levels of corporate profits. However, the upward pressure on prices stemming from the rise in firms’ costs has been increasing steadily, partly due to a continued clear uptrend in hourly scheduled cash earnings of part-time employees and a rise in input prices resulting from the past yen depreciation.

With regard to the outlook, the year-on-year rate of change in the CPI is likely to continue on an uptrend and increase toward 2 percent, mainly on the back of the improvement in the output gap and the rise in medium- to long-term inflation expectations.

Comparing the current projections with the previous ones, the projected rate of increase in the CPI for fiscal 2017 is somewhat lower due mainly to the effects of a reduction in charges for mobile phones, but those for fiscal 2018 and 2019 are more or less unchanged. The timing of the year-on-year rate of change in the CPI reaching around 2 percent will likely be around fiscal 2019.6

The mechanism through which the year-on-year rate of change in the CPI increases toward 2 percent can be explained by the following three factors that determine inflation rates. First, the output gap -- which shows the utilization of labor and capital -- has improved steadily. In particular, labor market conditions have tightened further, as evidenced by the active job openings-to-applicants ratio exceeding the peak level observed during the bubble period, and by the unemployment rate having declined to the range of 2.5-3.0 percent. Going forward, as the economy continues its moderate expansion, the output gap is expected to widen further within positive territory through fiscal 2018 and remain substantially positive in fiscal 2019.

6 By assuming that the rise in the consumption tax will be fully passed on to taxable items excluding those to which a reduced tax rate will be applied, the effects of the October 2019 consumption tax hike on the year-on-year rate of change in the CPI (all items less fresh food) for October 2019 onward is estimated to be 1.0 percentage point; the effect for fiscal 2019 is thus estimated to be half that, at 0.5 percentage point.
Second, medium- to long-term inflation expectations have remained in a weakening phase, although some indicators show an uptrend in such expectations, after having hit bottom around summer 2016. As for the outlook, medium- to long-term inflation expectations are likely to follow an increasing trend and gradually converge to around 2 percent on the back of the following: (1) in terms of the adaptive component, developments mainly in import prices are expected to push up the observed inflation rate for the time being, and firms’ stance is likely to gradually shift toward raising wages and prices thereafter with the improvement in the output gap, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target. 7

Third, regarding import prices, a pick-up in international commodity prices, including crude oil prices, observed from last spring through early this year is expected to push up the year-on-year rate of change in energy prices in the CPI for fiscal 2017. As for the impact of foreign exchange rates on consumer prices through import prices, the past yen depreciation is likely to increase upward pressure on prices, mainly in fiscal 2017.

III. Upside and Downside Risks to Economic Activity and Prices

A. Upside and Downside Risks to Economic Activity

The following are upside and downside risks to the Bank’s baseline scenario regarding the economy. First, there is uncertainty regarding developments in overseas economies. Specifically, the following are considered as risks: the U.S. economic policies and their impact on global financial markets; developments in emerging and commodity-exporting economies; negotiations on the United Kingdom’s exit from the European Union (EU) and their effects; prospects regarding the European debt problem, including the financial sector; and geopolitical risks. If these risks were to materialize, they could exert downward pressure on economic activity. On the other hand, as market participants and economic entities factor them in to a certain extent, the economy could deviate upward from the baseline scenario depending on how they play out.

Second, firms’ and households’ medium- to long-term growth expectations may be either raised or lowered depending on the following: efforts to address medium- to long-term issues such as the aging population; developments in regulatory and institutional reforms, particularly in the labor market; innovation in the corporate sector; and the employment

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7 Medium- to long-term inflation expectations can be regarded as consisting of two components: a forward-looking component, in which inflation expectations converge to the price stability target set by the central bank, and a backward-looking, or adaptive, component that reflects the observed inflation rate. For details, see the Bank’s Comprehensive Assessment: Developments in Economic Activity and Prices as well as Policy Effects since the Introduction of Quantitative and Qualitative Monetary Easing (QQE) released in September 2016.
and income situation.

Third, in the event that confidence in fiscal sustainability in the medium to long term declines, the economy may deviate downward from the baseline scenario through increasing concerns regarding the future and the rises in long-term interest rates associated with them. On the other hand, there is also a possibility that the economy will deviate upward from the baseline scenario if confidence in the path toward fiscal consolidation strengthens and concerns regarding the future are alleviated.

**B. Upside and Downside Risks to Prices**

Other than risks to economic activity, the specific factors that could exert upside and downside risks to prices are as follows. The first factor is developments in firms’ and households’ medium-to-long-term inflation expectations. Although inflation expectations are likely to follow an increasing trend, there is a risk that a rise in inflation expectations will lag behind if it takes time for firms’ stance to shift toward raising wages and prices and inflation consequently remains relatively sluggish.

The second factor is the fact that there are items for which prices are not particularly responsive to the output gap. There is concern about the continued dull responses of administered prices, some services prices, and housing rent, which may continue to constrain the acceleration of CPI inflation. In addition, with regard to goods and services that are difficult to differentiate, their prices may also constrain the acceleration of CPI inflation if competition among firms intensifies further, due mainly to changes in the distribution system and deregulation.

Third, developments in foreign exchange rates and international commodity prices going forward, as well as the extent to which such developments will spread to import prices and domestic prices, may lead prices to deviate either upward or downward from the baseline scenario.

**IV. Conduct of Monetary Policy**

In the context of the price stability target, the Bank assesses the aforementioned economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy.8

The first perspective concerns an examination of the baseline scenario for the outlook. The year-on-year rate of change in the CPI is likely to increase toward 2 percent. Although

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8 As for the examination from two perspectives in the context of the price stability target, see the Bank’s statement released on January 22, 2013, entitled “The ‘Price Stability Target’ under the Framework for the Conduct of Monetary Policy.”
it is necessary to carefully examine the fact that firms' wage- and price-setting stance has remained cautious, the momentum toward achieving the price stability target of 2 percent appears to be maintained. This is because (1) firms' stance is likely to gradually shift toward raising wages and prices with the steady improvement in the output gap, and (2) while indicators of medium- to long-term inflation expectations have stopped declining and some of them are showing an uptrend, such expectations are projected to rise steadily as further price rises come to be observed widely.

The second perspective involves an examination of the risks considered most relevant to the conduct of monetary policy. With regard to the outlook for economic activity, upside and downside risks are generally balanced. Regarding the outlook for prices, risks are skewed to the downside, especially concerning developments in medium- to long-term inflation expectations. Examining financial imbalances from a longer-term perspective, there is no sign so far of excessively bullish expectations in asset markets or in the activities of financial institutions. Furthermore, prolonged downward pressure on financial institutions' profits under the continued low interest rate environment could create risks of a gradual pullback in financial intermediation and of destabilizing the financial system. However, at this point, these risks are judged as not significant, mainly because financial institutions have sufficient capital bases.9

As for the conduct of monetary policy, the Bank will continue with "QQE with Yield Curve Control," aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It 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. The Bank will make policy adjustments as appropriate, taking account of developments in economic activity and prices as well as financial conditions, with a view to maintaining the momentum toward achieving the price stability target.

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9 For details, see the Bank's Financial System Report (October 2017).
Forecasts of the Majority of Policy Board Members

<table>
<thead>
<tr>
<th></th>
<th>Real GDP</th>
<th>CPI (all items less fresh food)</th>
<th>Excluding the effects of the consumption tax hike</th>
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<td>Fiscal 2017</td>
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<td>+0.7 to +1.0</td>
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<tr>
<td></td>
<td>[+1.9]</td>
<td>[+0.8]</td>
<td></td>
</tr>
<tr>
<td>Forecasts made in July 2017</td>
<td>+1.5 to +1.8</td>
<td>+0.5 to +1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[+1.8]</td>
<td>[+1.1]</td>
<td></td>
</tr>
<tr>
<td>Fiscal 2018</td>
<td>+1.2 to +1.4</td>
<td>+1.1 to +1.6</td>
<td></td>
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<tr>
<td></td>
<td>[+1.4]</td>
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</tr>
<tr>
<td>Forecasts made in July 2017</td>
<td>+1.1 to +1.5</td>
<td>+0.8 to +1.6</td>
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<tr>
<td></td>
<td>[+1.4]</td>
<td>[+1.5]</td>
<td></td>
</tr>
<tr>
<td>Fiscal 2019</td>
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<td>+2.0 to +2.5</td>
<td>+1.5 to +2.0</td>
</tr>
<tr>
<td></td>
<td>[+0.7]</td>
<td>[+2.3]</td>
<td>[+1.8]</td>
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<tr>
<td>Forecasts made in July 2017</td>
<td>+0.7 to +0.8</td>
<td>+1.4 to +2.5</td>
<td>+0.9 to +2.0</td>
</tr>
<tr>
<td></td>
<td>[+0.7]</td>
<td>[+2.3]</td>
<td>[+1.8]</td>
</tr>
</tbody>
</table>

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

2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member’s forecast takes the form of a point estimate -- namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.

3. Individual Policy Board members make their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy. Specifically, each Policy Board member makes an assumption about the future path of short- and long-term interest rates based on their market rates, bearing in mind the difference in the outlook for prices between that presented in the Outlook Report and that of market participants.

4. The consumption tax hike scheduled to take place in October 2019 -- to 10 percent -- and the reduced tax rate to be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers are incorporated in the forecasts, but individual Policy Board members make their forecasts of the CPI based on figures excluding the direct effects of the consumption tax hike. The forecasts for the CPI for fiscal 2019 that incorporate the direct effects of the consumption tax hike are constructed as follows. First, the contribution to prices from the tax hike is mechanically computed on the assumption that the tax increase will be fully passed on for taxable items. The CPI will be pushed up by 0.5 percentage point. Second, this figure is added to the forecasts made by the Policy Board members.
Policy Board Members’ Forecasts and Risk Assessments

(1) Real GDP

(2) CPI (All Items Less Fresh Food)

Notes:
1. Solid lines show actual figures, while dotted lines show the medians of the Policy Board members’ forecasts (point estimates).
2. The locations of ○, △, and ▼ in the charts indicate the figures for each Policy Board member’s forecasts to which he or she attaches the highest probability. The risk balance assessed by each Policy Board member is shown by the following shapes: ○ indicates that a member assesses "upside and downside risks as being generally balanced," △ indicates that a member assesses "risks are skewed to the upside," and ▼ indicates that a member assesses "risks are skewed to the downside."
3. Figures for the CPI exclude the direct effects of the consumption tax hikes.
The Background\textsuperscript{10}

I. The Current Situation of Economic Activity and Its Outlook

A. Economic Developments

Looking back at Japan's economy since the July 2017 Outlook Report, the real GDP growth rate for the April-June quarter was 0.6 percent on a quarter-on-quarter basis and its annualized rate was 2.5 percent, representing positive growth for six consecutive quarters (Chart 1). Although external demand decreased, due mainly to a pause in the increase in IT-related exports, domestic demand saw firm growth. Specifically, with regard to domestic private demand, private consumption in particular increased its momentum and the positive effects resulting from the set of stimulus measures formulated in fiscal 2016 became evident in public investment. Thus, the real GDP growth rate as a whole was above the potential growth rate, which is estimated to be in the range of 0.5-1.0 percent (Chart 2). Reflecting these increases in demand, labor market conditions have continued to tighten steadily (Chart 3). The output gap -- which captures the utilization of labor and capital -- has improved steadily of late and was in the range of 1.0-1.5 percent for the April-June quarter (Chart 4).\textsuperscript{11} Monthly indicators since July suggest that a positive output gap has taken hold more firmly. Therefore, Japan's economy is expanding.

\textsuperscript{10} "The Background" provides explanations of "The Bank's View" decided by the Policy Board of the Bank of Japan at the Monetary Policy Meeting held on October 30 and 31, 2017.

\textsuperscript{11} The Research and Statistics Department of the Bank of Japan revised the estimation method of Japan's output gap and potential growth rate in April 2017. For details including the technical aspects, see the Bank's research paper "Methodology for Estimating Output Gap and Potential Growth Rate: An Update" released in May 2017.
moderately, with a virtuous cycle from income to spending operating.

Going forward, the underlying scenario of the outlook for Japan's economy from fiscal 2017 through fiscal 2018 is unchanged, in that the real GDP growth rate is projected to continue to clearly exceed the potential on the back of stimulus effects of fiscal and monetary policies, as well as of overseas economies continuing to grow at a moderate pace. In fiscal 2019, albeit with considerable uncertainties, the economy is expected to continue expanding led by external demand, although the growth rate is projected to decelerate from the previous fiscal year. This is likely to be attributable to (1) the decline in household spending due to the effects of the scheduled consumption tax hike, combined with (2) the deceleration in business fixed investment reflecting cyclical adjustments in capital stock as well as Olympic Games-related investment peaking out. Comparing the current projections

12 The October 2017 Outlook Report assumes that the consumption tax will be raised to 10 percent in October 2019 and that a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers. The tax hike will have some impact on the GDP growth rates, mainly due to changes in household spending, through the following two channels: (1) the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike and (2) the effects of the decline in real income. At present, the negative impact of the consumption tax hike on the projected growth rate for fiscal 2019 is expected to be smaller than that on the rate for fiscal 2014, when the last consumption tax hike took place. This is mainly due to the following: (1) there are technical factors that, as the consumption tax hike is scheduled to take place in the middle of the fiscal year, the front-loaded increase and subsequent decline in demand prior to and after the hike will offset each other during the fiscal year, and the effects of the decline in real income will only emerge in the second half of the fiscal year; (2) the increase in the consumption tax rate is smaller than that of the previous tax hike and a reduced tax rate will be applied to some items; and (3) before the previous tax hike, there likely was a front-loaded increase in demand in anticipation of the second round of the tax hike. It should be noted, however, that the impact
with those presented in the previous Outlook Report, the projected growth rates are more or less unchanged.

Details of the outlook for each fiscal year are as follows. In fiscal 2017, the economy is expected to continue expanding firmly -- driven by an increase in demand at home and abroad -- against the background of the growth in overseas economies and the effects resulting from the government's large-scale stimulus measures. Looking at this in detail, exports are likely to continue their moderate increasing trend, mainly led by IT-related goods and capital goods, with global production and trade activity of the manufacturing sector remaining at a favorable level. Under such circumstances, business fixed investment will likely continue increasing moderately underpinned by monetary easing effects, as well as increases in construction investment related to the Olympic Games and urban redevelopment projects and in labor-saving investment to address the labor shortage. Meanwhile, public investment is likely to rise, due mainly to the positive effects resulting from the set of stimulus measures, and then remain more or less flat at a high level. Private consumption is expected to follow a moderate increasing trend due to a rise in disposable income, the wealth effects resulting from the rise in stock prices, and an increase in replacement demand for durable goods. As a result of these economic developments, in fiscal 2017, the real GDP growth rate is projected to clearly exceed the potential and the output gap is likely to widen further within positive territory.

of the consumption tax hike is highly uncertain and varies depending, for example, on developments in consumer sentiment.
In fiscal 2018, the economy is likely to maintain a moderate expansion with demand at home and abroad increasing in a well-balanced manner. Exports are projected to continue increasing moderately, reflecting the growth in overseas economies. Business fixed investment is also expected to continue to see a steady increase, on the back of accommodative financial conditions and increases in Olympic Games-related demand and in needs for labor-saving equipment stemming from the labor shortage. Private consumption will likely maintain its momentum, supported by the rise in disposable income resulting from increases in base pay rises. Meanwhile, public investment is likely to start declining, because the positive effects resulting from the set of stimulus measures will diminish, but is projected to maintain its high level underpinned by Olympic Games-related demand. On this basis, the real GDP growth rate for fiscal 2018 is projected to continue exceeding the potential, although decelerate compared to the previous fiscal year, and the output gap is likely to continue improving.

In fiscal 2019, the growth pace is projected to decelerate, mainly due to a slowdown in domestic demand. Private consumption is expected to increase its momentum in the first half of the fiscal year, reflecting the front-loaded increase in demand prior to the scheduled consumption tax hike, and then start declining in the second half of the fiscal year, pushed down by the subsequent decline in demand following the tax hike and the effects of the decline in real income. Business fixed investment will likely decelerate under cyclical downward pressure resulting from capital stock adjustments, combined with the effects of
Olympic Games-related investment peaking out. However, exports are projected to maintain their increasing trend on the back of steady growth in overseas economies, and thereby underpin the economy. As a result of these developments, the economy is expected to continue expanding, although the growth rate is projected to decelerate from the previous fiscal year.
B. Developments in Major Expenditure Items and Their Background

Government Spending

Public investment has been increasing due to the implementation of the set of stimulus measures formulated in fiscal 2016 (Chart 5). As for the outlook, it is likely to remain more or less flat at a high level for the time being, due in part to investment in measures for restoration and rebuilding following the Kumamoto Earthquake and a variety of infrastructure enhancements. Thereafter, it is expected to start declining as the positive effects resulting from the set of stimulus measures diminish, and then maintain a relatively high level underpinned by Olympic Games-related construction.

Oversea Economies

Oversea economies have continued to grow at a moderate pace on the whole (Chart 6). Business sentiment of manufacturing firms has been on an improving trend on a global basis, and the world trade volume has been recovering (Charts 7 and 12). Looking at developments by major region, the U.S. economy has continued to recover firmly, mainly in household spending, owing to a steady improvement in the employment and income situation. The European economy also has continued to recover steadily. The Chinese economy has continued to see stable growth on the whole, partly due to the effects of authorities’ measures to support economic activity. Other emerging economies and commodity-exporting economies have picked up on the whole, particularly reflecting an increase in exports, the past bottoming out of commodity prices, and the effects of those economies’ economic stimulus.
In terms of the outlook, overseas economies are expected to continue growing at a moderate pace as advanced economies keep growing steadily and a recovery in emerging economies takes hold on the back of the steady growth in advanced economies and the effects of policy measures taken by emerging economies.

By major region, the U.S. economy is expected to continue to see firm growth driven by domestic private demand. The European economy will likely follow a moderate recovery trend, while uncertainty -- associated with political issues such as those regarding negotiations on the United Kingdom’s exit from the EU and with the European debt problem, including the financial sector -- is likely to be a burden on economic activity. The Chinese economy is likely to broadly follow a stable growth path as authorities conduct fiscal and monetary policy in a timely manner. The growth rates of other emerging economies and commodity-exporting economies are likely to increase gradually, due mainly to the effects of the economic stimulus measures and the spread of the effects of steady growth in advanced economies.
Exports and Imports

Exports have been on an increasing trend on the back of the growth in overseas economies (Chart 9). By region, exports to advanced economies have continued on their increasing trend; those to emerging economies have picked up, led mainly by electronic parts and intermediate goods -- such as chemicals -- which were exported to Asia (Chart 10). By goods, automobile-related exports have continued to increase, due in part to the rising value-added of automobiles exported from Japan (Chart 11). IT-related exports have increased on the whole, as demand for parts for data centers and on-board equipment for motor vehicles has been firm, and electronic parts for smartphones -- for which the pace of increase had come to a pause -- have increased again. Exports of capital goods have picked up moderately, albeit with fluctuations.

Exports will likely continue their increasing trend for the time being, as those of IT-related goods and capital goods -- in which Japan has a comparative advantage -- are likely to be firm with global production and trade activity of the manufacturing sector remaining at a favorable level. Thereafter, Japan's exports are expected to continue their moderate increasing trend as (1) the world trade volume is likely to continue its moderate increase with the growth in overseas economies and (2) Japan's share of exports is expected to follow a very moderate increasing trend, reflecting improvement in Japan's export competitiveness (Charts 12 and 13).\(^{13}\)

\(^{13}\) The world trade volume is calculated by adding up real imports in each country.
Looking at this in detail, the world trade volume had tended to grow at a slower pace than world economic growth -- the so-called slow trade -- since 2011, but has accelerated its growth pace recently, mainly for Asia as well as the United States and Europe. Going forward, the pace of increase in the world trade volume is expected to be about the same as that in world economic growth -- that is, a declining trend in the world trade volume to GDP ratio is likely to come to a halt -- as a global recovery in production and trade activity of the manufacturing sector is likely to continue, with the recovery in emerging economies taking hold.

Japan's share of exports in world trade has been on a rising trend recently, due in part to an increase in demand for IT-related goods and capital goods, in which Japan has a comparative advantage. It is expected to follow a very moderate rising trend, as an uptrend in exports of capital goods is likely to continue, supported by the recovery in emerging economies.

Imports have been picking up (Chart 9). Going forward, they are expected to follow a moderate uptrend, reflecting an increase in domestic demand; however, the pace is projected to remain only moderate due to a downtrend in imports of raw materials, reflecting an improvement in energy efficiency.
**External Balance**

The nominal current account surplus has been on an increasing trend, mainly backed by the primary income balance and the trade balance (Chart 14).

Going forward, the nominal current account surplus will likely increase moderately on the back of (1) an improving trend in the trade balance that reflects the aforementioned outlook for exports and imports, as well as (2) an improvement in the primary income balance brought about by the growth in overseas economies and (3) an increase in travel receipts underpinned by governmental measures to attract foreign tourists to Japan.14

In terms of the saving-investment balance, the increase in the nominal current account surplus corresponds to that in excess saving as a whole. By sector, although excess saving in the household sector is expected to decline very moderately due to a rise in the propensity to consume, excess investment in the general government is projected to decrease, reflecting a dissipation of the effects resulting from the set of stimulus measures and the scheduled consumption tax hike, while excess saving in the corporate sector is likely to remain significantly high.

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14 Box 1 explains the features of the recent developments in the travel balance.
Industrial Production

Industrial production has been on an increasing trend on the back of the increase in demand at home and abroad (Chart 15). Transport equipment production has continued to increase firmly since the second half of 2016, albeit with fluctuations, mainly against the background of a shift of production sites from overseas back to Japan. The production of electronic parts and devices has continued to increase, mainly driven by those for smartphones, data centers, and on-board equipment for motor vehicles. The production of machinery (i.e., "general-purpose, production and business oriented machinery" in the Indices of Industrial Production) has been on a moderate increasing trend, as seen in the fact that the production of such items as metal cutting machines has increased recently, while that of semiconductor production equipment has remained at a high level, albeit with fluctuations. Meanwhile, the shipments-inventories balance (i.e., the year-on-year rate of change in shipments minus that in inventories) has been at an improved level (Chart 16).

Industrial production will likely continue to increase firmly for the time being, on the back of the increase in demand at home and abroad. Thereafter, it is projected to continue on a moderate increasing trend with the growth in overseas economies.

Corporate Profits

Corporate profits have been improving. According to the Financial Statements Statistics of Corporations by Industry, Quarterly (FSSC), the
ratio of current profits to sales for all industries and enterprises has clearly improved recently, supported by firm domestic demand and the growth in overseas economies, and it marked a record high level in the April-June quarter (Chart 17). Under such circumstances, business sentiment has improved (Chart 18). The diffusion index (DI) for business conditions for all industries and enterprises in the September 2017 Tankan (Short-Term Economic Survey of Enterprises in Japan) suggests that business conditions have improved for five consecutive quarters, being at a favorable level last seen in the August 1991 survey.

Corporate profits are projected to follow a steady increasing trend, on the back of the increase in demand at home and abroad. Nevertheless, through the end of the projection period, the rate of increase in corporate profits is likely to decelerate as the allocation to households increases further, such as in the form of a rise in labor costs, with Japan's economy shifting toward a decelerating trend due in part to the effects of the scheduled consumption tax hike.

**Business Fixed Investment**

Business fixed investment has been on a moderate increasing trend as corporate profits have improved (Chart 19). The aggregate supply of capital goods and private construction completed (nonresidential) -- coincident indicators of machinery investment and construction investment, respectively -- have continued to increase steadily. According to the September Tankan, business fixed investment plans for fiscal 2017, especially those of large enterprises, show...
firms’ solid stance. For example, business investment (on the basis close to GDP definition; business investment -- including software as well as research and development investment, but excluding land purchasing expenses -- in all industries including the financial industry) increased by 0.4 percent in fiscal 2016, and such investment plans for fiscal 2017 saw an increase of 6.9 percent (Chart 20). Reflecting firms’ positive fixed investment stance, machinery orders and construction starts (in terms of planned expenses for private and nondwelling construction), as leading indicators, have continued on an increasing trend, albeit with large monthly fluctuations (Chart 21).

With regard to the outlook, business fixed investment is likely to continue increasing moderately on the back of (1) an improvement in corporate profits, (2) extremely stimulative financial conditions, such as low interest rates and accommodative lending attitudes, (3) the materialization of the effects of projects conducted under the Fiscal Investment and Loan Program, and (4) moderate improvement in growth expectations. Specifically, an increase is likely to be seen in investment intended for domestic capacity expansion, as well as in other investment, particularly (1) that related to the Olympic Games and urban redevelopment projects, (2) that aiming at improving efficiency and saving labor in order to deal with the labor shortage, and (3) in research and development for growth areas.\textsuperscript{15,16}

\textsuperscript{15} The increase in efficiency-improving and labor-saving investment is suggested in part by the software investment plans of small enterprises, which face acute labor shortage, having marked a significant increase of 22.4 percent on a year-on-year basis for fiscal 2017 in the September Tankan.
From the viewpoint of the capital stock cycle, which is based on the assumption that investment will be undertaken in order to realize the level of capital stock necessary for production activity under the specific rate of expected growth, it is deemed that capital stock increased moderately in fiscal 2016 at a pace consistent with the expected growth rate, which is about the same as the recent potential growth rate, estimated to be in the range of 0.5-1.0 percent (Chart 22). From fiscal 2017 onward, the pace of its accumulation is likely to be consistent with the expected growth rate that somewhat exceeds the growth potential, and this reflects the continued highly accommodative financial conditions under "QQE with Yield Curve Control" and an increase in Olympic Games-related demand.\(^{17}\) Nonetheless, with cyclical adjustments in capital stock becoming evident and Olympic Games-related investment peaking out, downward pressure on business fixed investment is expected to intensify at the end of the projection period, unless the expected growth rate rises significantly.\(^{18}\)

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\(^{16}\) According to the September Tankan, research and development investment for all industries and enterprises is planned to increase by 2.9 percent on a year-on-year basis for fiscal 2017, accelerating from 1.3 percent for fiscal 2016.

\(^{17}\) The investment-GDP ratio of late seems to be less overheated than the level in the past economic expansion phase, suggesting that there is still room to some extent for a further increase (Chart 23).

\(^{18}\) In light of past Olympic Games host countries’ experiences, Olympic Games-related construction investment is projected to increase during fiscal 2017 and fiscal 2018, and then peak out toward fiscal 2020. For details, see the Bank’s research paper "Economic Impact of the Tokyo 2020 Olympic Games” released in January 2016.
The Employment and Income Situation

Supply-demand conditions in the labor market have continued to tighten steadily and employee income has increased moderately. The year-on-year rate of change in the Labour Force Survey-based number of employees has remained positive, being at around 1.5 percent (Chart 24). Against this backdrop, the active job openings-to-applicants ratio has followed a steady uptrend, and a perception of labor shortage suggested by the employment conditions DI in the September Tankan has heightened (Chart 3). The unemployment rate has been in the range of 2.5-3.0 percent recently, which is slightly below the structural unemployment rate.19 Meanwhile, labor force participation rates -- especially those for women and seniors -- have remained on an uptrend after bottoming out around the end of 2012 (Chart 25).20 As Japan’s economy is likely to continue on a growing trend at a pace above its potential, it is expected that the number of employees will keep increasing and that the supply-demand conditions in the labor market will further tighten.

On the wage side, total cash earnings per employee have risen moderately, albeit with some fluctuations (Chart 26). Specifically, scheduled

19 The structural unemployment rate can be described in a variety of ways, but in Chart 3, it is defined, based on the idea of the so-called Beveridge Curve, as one where the unemployment rate and the vacancy rate are equal to each other (i.e., when the aggregate supply-demand conditions in the labor market -- excluding unemployment arising from the mismatch between job openings and job applicants -- are judged as being in equilibrium). Therefore, the structural unemployment rate defined here differs from the concept of the Non-Accelerating Inflation Rate of Unemployment (NAIRU), and does not show a direct relationship with prices or wages.

20 With regard to labor force participation of women and seniors, see Box 2.
Cash earnings as a whole have continued to increase moderately, due in part to dissipation of downward pressure stemming from an increase in the ratio of part-time employees amid a rise in wages of both full-time and part-time employees (Chart 27). The year-on-year rate of increase in hourly scheduled cash earnings of part-time employees, which are responsive to labor market conditions, recently registered relatively high growth of around 2.5 percent (Chart 28). Meanwhile, special cash earnings, which correspond to summer bonuses for June through August, have been below the previous year's levels mainly for large firms. The year-on-year rate of change in real wages has been more or less unchanged, adversely affected recently in part by a rise in energy prices.

With regard to the outlook for wages, the pace of increase in scheduled cash earnings of full-time employees is expected to accelerate moderately, with that in base pay accelerating as the rise in inflation expectations becomes more evident. The rate of increase in hourly scheduled cash earnings of part-time employees is also likely to accelerate steadily in response to further tightening of labor market conditions and an increase in minimum wages. Under this situation, overall employees' hourly cash earnings are projected to increase moderately at almost the same pace as labor productivity growth in nominal terms, and their rate of increase is expected to accelerate in the second half of the projection period.

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21 Japan's labor market can be characterized as having different wage-setting mechanisms for regular (full-time) and non-regular (part-time) employees. For details, see Box 2 in the July 2017 Outlook Report.
In light of the aforementioned employment and wage conditions, employee income has increased moderately, albeit with fluctuations (Chart 24). Going forward, it is likely to increase at a moderate pace, and the pace is expected to be slightly above the nominal GDP growth rate in the second half of the projection period. The labor share is likely to rise, after remaining more or less unchanged at a level clearly below the long-term average (Chart 29).

**Household Spending**

Private consumption has increased its resilience against the background of steady improvement in the employment and income situation. From the viewpoint of gauging consumption activity in a comprehensive manner, the Consumption Activity Index (CAI, travel balance adjusted) -- which is calculated by combining various sales and supply-side statistics -- has increased, albeit with fluctuations mainly stemming from weather conditions (Chart 30). Looking at private consumption by type, durable goods have been on a moderate uptrend, mainly due to replacement demand for automobiles and household electrical appliances; nondurable goods have seen somewhat weak developments, such as in food and beverages, against the background of irregular weather during the summer season. Meanwhile, services consumption has maintained its moderate increasing trend, albeit with fluctuations, reflecting a trend rise in communications charges as well as medical.

22 For details of the CAI, see the Bank’s research papers “The Consumption Activity Index” released in May 2016 and “The Consumption Activity Index: Improvements of Release Contents and Revisions of Compilation Methodology” released in October 2016.
Turning to individual indicators, the total supply of consumer goods -- that is, the supply-side statistics -- has declined for the July-August period, partly due to a decline after the significant increase in the April-June quarter (Chart 31). According to various sales statistics, retail sales value in real terms has remained on an increasing trend despite the effects of such factors as irregular weather during the summer season. Sales at department stores have picked up as a trend, mainly reflecting a pick-up in sales to the wealthy brought about by the rise in stock prices, a recovery in demand from foreign visitors to Japan, and the increase in sales of clothes. Sales at supermarkets have been on a moderate increasing trend, and those at convenience stores have continued on a rising trend.

As for durable goods, sales of automobiles have remained at relatively high levels, after having increased significantly, as replacement demand for environmentally friendly cars -- of which purchases had been encouraged by subsidies and a tax reduction measure after the global financial crisis -- has been stimulated by the effects of the introduction of new models (Chart 32). Sales of household electrical appliances have been on a moderate increasing trend, backed by white goods having been resilient and replacement demand for such items as televisions and personal computers.

With regard to services consumption, travel has picked up since the turn of the year mainly for

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**Chart 31: Consumption Indicators (Sales and Supply-side Statistics)**

<table>
<thead>
<tr>
<th>s.a., q/q % chg.</th>
<th>16/Q4</th>
<th>17/Q1</th>
<th>17/Q2</th>
<th>17/Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumption Activity Index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real, travel balance adjusted</td>
<td>0.1</td>
<td>0.7</td>
<td>0.8</td>
<td>-0.3</td>
</tr>
<tr>
<td>Real</td>
<td>0.0</td>
<td>0.8</td>
<td>0.9</td>
<td>-0.4</td>
</tr>
<tr>
<td><strong>Sales at retail stores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal</td>
<td>1.5</td>
<td>-0.2</td>
<td>0.7</td>
<td>-0.1</td>
</tr>
<tr>
<td>Real</td>
<td>0.0</td>
<td>0.3</td>
<td>1.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>Sales at department stores</td>
<td>-0.4</td>
<td>1.4</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Sales at supermarkets</td>
<td>0.4</td>
<td>-0.3</td>
<td>0.5</td>
<td>-0.2</td>
</tr>
<tr>
<td>Sales at convenience stores</td>
<td>1.3</td>
<td>0.6</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total supply of consumer goods</strong></td>
<td>0.8</td>
<td>0.1</td>
<td>4.0</td>
<td>-3.8</td>
</tr>
</tbody>
</table>

Sources: Bank of Japan; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications.

Notes: 1. The Consumption Activity Index is based on staff calculations (as of October 20).
2. Real sales at retail stores are based on staff calculations using the CPI.
3. Figures for sales at department stores and sales at supermarkets are adjusted for the number of stores.
4. Figures for the Consumption Activity Index and the total supply of consumer goods for 2017/Q3 are July-August averages.

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**Chart 32: Consumption of Durable Goods**

<table>
<thead>
<tr>
<th>CY</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>New passenger car registrations (including small cars with engine sizes of 660cc or less, left scale)</td>
<td>3.4</td>
<td>3.6</td>
<td>3.8</td>
<td>4.0</td>
<td>4.2</td>
<td>4.4</td>
<td>4.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Sales of household electrical appliances (real, right scale)</td>
<td>5.0</td>
<td>5.2</td>
<td>5.4</td>
<td>5.6</td>
<td>5.8</td>
<td>6.0</td>
<td>6.2</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Sources: Japan Automobile Dealers Association; Japan Light Motor Vehicle and Motorcycle Association; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications.

Note: Figures for real sales of household electrical appliances are based on staff calculations using the retail sales index of machinery and equipment in the “Current Survey of Commerce” and the price index of related items in the CPI.

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**Chart 33: Consumption of Services**

<table>
<thead>
<tr>
<th>CY</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlays for travel</td>
<td>76.0</td>
<td>79.0</td>
<td>82.0</td>
<td>85.0</td>
<td>88.0</td>
<td>91.0</td>
<td>94.0</td>
<td>97.0</td>
</tr>
<tr>
<td>Sales in the food services industry</td>
<td>110.0</td>
<td>113.0</td>
<td>116.0</td>
<td>119.0</td>
<td>122.0</td>
<td>125.0</td>
<td>128.0</td>
<td>131.0</td>
</tr>
</tbody>
</table>

Sources: Japan Tourism Agency; Japan Food Service Association, "Market Trend Survey of the Food Services Industry.”

Note: Figures for the outlays for travel exclude those by foreign travelers.
overseas travel; dining-out has increased (Chart 33).

Looking at confidence indicators related to private consumption, the Consumer Confidence Index has been on a very moderate pick-up trend, albeit with fluctuations, due to the rise in stock prices and favorable employment situation (Chart 34). The Economy Watchers Survey suggests that consumer confidence has picked up moderately.

In the outlook, private consumption is expected to follow a moderate increasing trend, supported by an increase in employee income and the wealth effects stemming from the rise in stock prices, as well as replacement demand for durable goods, albeit with fluctuations in the second half of the projection period due to the scheduled consumption tax hike. The propensity to consume, which is calculated based on disposable income, had declined somewhat considerably after the latest consumption tax hike, but is expected to pick up very moderately, mainly reflecting the wealth effects and replacement demand for durable goods (Chart 35).

Housing investment has been more or less flat (Chart 36). Although an improvement in the employment and income situation and low housing loan rates are likely to underpin housing investment, it is expected to remain more or less flat when fluctuations due to the scheduled consumption tax hike are smoothed out, partly against the background of a peaking-out in demand for housing for rent that was motivated by inheritance tax savings.
II. The Current Situation of Prices and Their Outlook

Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has been slightly positive on a quarter-on-quarter basis, reflecting developments in international commodity prices and foreign exchange rates (Chart 37). The year-on-year rate of increase in the services producer price index (SPPI, excluding international transportation) has been in the range of 0.5-1.0 percent on the whole, with the rate of change in prices of items related to domestic transportation and fixed investment remaining positive (Chart 37).

The year-on-year rate of change in the CPI (all items less fresh food and energy) has remained slightly positive (Chart 38). While this is partly attributable to the sectoral shock of such factors as a reduction in mobile-phone related prices -- i.e., prices of and charges for mobile phones -- this reflects the fact that the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched among firms and households. Firms have been making efforts to absorb a rise in labor costs by increasing labor-saving investment and streamlining their business process, while limiting wage increases -- which correspond to the labor shortage -- mainly to wages of part-time employees.

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23 Regarding a sectoral shock that is unique to the mobile phone market, including reductions in prices of and charges for mobile phones, see Box 4 in the April 2017 Outlook Report.

24 Regarding firms’ measures to address upward pressure on wages and their relationship with prices, see Box 3 in the July 2017 Outlook Report.
However, the upward pressure on prices stemming from the rise in firms’ costs has been increasing steadily, partly due to a continued clear uptrend in hourly scheduled cash earnings of part-time employees and a rise in input prices resulting from the past yen depreciation.\textsuperscript{25}

Looking at this in detail, for example, although prices for dining-out have remained relatively weak, some franchises have passed on rises in labor costs and costs of ingredients to their prices. Although price declines have been seen mainly at major supermarket chains, due in part to intensifying competition with other types of retail businesses, prices of food products and durable goods, including white goods, have been increasing, reflecting the past yen depreciation.

The year-on-year rate of change in the CPI (all items less fresh food) is in the range of 0.5-1.0 percent, reflecting a rise in energy prices, while the rate of change in the CPI excluding fresh food and energy has been slightly positive (Chart 39).

The recent developments in the indicators for capturing the underlying trend in the CPI are as follows (Chart 40).\textsuperscript{26} The rate of change in the trimmed mean has been around 0.5 percent.\textsuperscript{27}

\textsuperscript{25} Regarding a recent rise in upward pressure of costs on prices, see Box 3.

\textsuperscript{26} For more details on the core price indicators, see “Core Inflation and the Business Cycle,” Bank of Japan Review Series (2015-E-6), and “Performance of Core Indicators of Japan’s Consumer Price Index,” Bank of Japan Review Series (2015-E-7).

\textsuperscript{27} The effects of large relative price fluctuations are eliminated by simply excluding items that belong to a certain percentage of the upper and lower tails of the price fluctuation distribution (10 percent of each tail in this report). The rate of change in the trimmed mean has been relatively higher than that in the CPI (all items less fresh food and energy) recently, mainly because mobile-phone related prices, which had contributed to pushing
The mode has been in the range of 0.0-0.5 percent of late, and the weighted median has been at around 0 percent. Looking at annual price changes across all items (less fresh food), the share of price-increasing items minus the share of price-decreasing items has been around 20 percentage points (Chart 41).

The year-on-year rate of change in the GDP deflator has been around minus 0.5 percent, mainly due to a rise in the import deflator that reflects the past pick-up in international commodity prices (Chart 37). The year-on-year rate of change in the domestic demand deflator was negative in 2016 but has been positive recently, being in the range of 0.0-0.5 percent.

Chart 41: Diffusion Index of Price Changes

Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
Note: The diffusion index is defined as the share of increasing items minus the share of decreasing items. The share of increasing/decreasing items is the share of items in the CPI (less fresh food, consumption tax adjusted) whose price indices increased/decreased from a year earlier. Based on staff calculations.

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28 The mode is the inflation rate with the highest density in the distribution. The weighted median is the weighted average of the inflation rates of the items at around the 50 percentile point of the distribution.
The Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap has improved steadily; it was in the range of 1.0-1.5 percent in the April-June quarter, and as suggested by improvement in the Tankan factor utilization index and in various monthly indexes that indicate the utilization of labor and capital, it likely will have expanded somewhat within positive territory in the July-September quarter (Charts 4 and 42). With regard to the outlook, the output gap is projected to widen further within positive territory in fiscal 2017, on the back of (1) an improvement in capital utilization rates brought about by the increase in exports and production becoming quite apparent, and (2) a further tightening of labor market conditions. Thereafter, the output gap is projected to continue expanding moderately within positive territory both on the capital and labor sides, reflecting the increase in demand at home and abroad. In the second half of fiscal 2019, although such expansion is likely to pause due to the effects of the scheduled consumption tax hike, the output gap is expected to remain substantially positive.

Second, medium- to long-term inflation expectations have remained in a weakening phase, although some indicators show an uptrend in such expectations, after having hit bottom around summer 2016 (Charts 43 and 44). As for the outlook, medium- to long-term inflation expectations are likely to follow an increasing trend and gradually converge to around 2 percent on the back of the following: (1) in terms of the adaptive component, developments mainly in import prices are expected to push up the
observed inflation rate for the time being, and firms’ stance is likely to gradually shift toward raising wages and prices thereafter with the improvement in the output gap, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target.

The third factor is developments in import prices (Chart 45). The pick-up in crude oil prices observed from last spring through early this year is expected to push up the year-on-year rate of change in energy (petroleum products, electricity, and manufactured & piped gas) prices in the CPI for fiscal 2017, but this effect is likely to wane gradually. As for the impact of foreign exchange rates on consumer prices, the past yen depreciation will likely increase upward pressure on prices for the time being, mainly on prices of items that are responsive to exchange rates, specifically durable goods.

The Outlook for Prices

With regard to the outlook for prices, the year-on-year rate of increase in the CPI (all items less fresh food and energy) is likely to start picking up at a gradual pace, on the back of the following developments in the short run: (1) the rate of increase in prices of goods that are responsive to economic activity and exchange rates, including food products and goods related to daily necessities, is expected to accelerate gradually with a moderate increase in private consumption; (2) durable goods prices are expected to follow their improving trend, reflecting the past yen depreciation; and (3) moves to pass on the increase in labor costs to prices of general
services, including dining-out and housework-related services, are likely to prevail. Thereafter, the year-on-year rate of change in the CPI is likely to increase toward around 2 percent, as firms’ stance gradually shifts toward raising wages and prices with the improvement in the output gap and as inflation expectations gradually rise.²⁹

The year-on-year rate of change in the CPI (all items less fresh food) will likely reach around 2 percent in around fiscal 2019. This is because, although upward pressure of energy prices is likely to wane gradually, the CPI inflation excluding fresh food and energy is expected to accelerate.

Such projections are made based on the same underlying scenario as before that the inflation rate will respond fairly clearly to the improvement in the output gap compared to the past and that the Phillips curve will gradually shift upward as inflation expectations rise through both the forward-looking and adaptive expectation formation mechanisms (Chart 46).

However, compared to the time when the July 2017 Outlook Report was published, the projected rate of increase in the CPI (all items less fresh food) for fiscal 2017 is somewhat lower due mainly to the effects of a reduction in charges for mobile phones.

²⁹ Housing rent and administered prices, both of which have a certain weight in the CPI, will likely continue showing relatively weak developments for some time, and this is likely to constrain the acceleration of the CPI inflation for all items less fresh food and energy as a whole (Chart 38). For further details, see Box 4 in the July 2016 Outlook Report.
With regard to the relationship between prices and nominal wages, the CPI and hourly nominal wages move almost in parallel in the long run and the relationship is stable (Chart 47). Specifically, there are interactive effects between rises in nominal wages and prices: firms try to pass on cost increases due to nominal wage increases by raising sales prices and households try to keep real income unchanged by demanding wage increases in line with price increases. Under this baseline scenario, hourly cash earnings -- especially scheduled cash earnings -- are expected to rise moderately, reflecting the tightening of labor market conditions and the rise in inflation expectations. The underlying rate of increase in the CPI is projected to accelerate gradually in a consistent manner with such wage developments.
III. Financial Developments in Japan

Financial Conditions

Financial conditions are highly accommodative.

Under “QQE with Yield Curve Control,” the yield curve for Japanese government bonds (JGBs) has been in line with the current guideline for market operations, in which the short-term policy interest rate is set at minus 0.1 percent and the target level of 10-year JGB yields is around zero percent (Chart 48). That is, the yields for relatively short maturities have been stable in slightly negative territory; the 10-year JGB yields have generally been stable at around 0 percent. Meanwhile, the 20-year JGB yields also have generally been stable in the range of 0.5-1.0 percent. The monetary base has been increasing at a high year-on-year growth rate of around 15 percent, and its amount outstanding as of end-September was 475 trillion yen, of which the ratio to nominal GDP was 87 percent.30

With such long- and short-term JGB yields, firms’ funding costs have been hovering at extremely low levels (Chart 49). Issuance rates for CP have remained at extremely low levels. Conditions for CP issuance have been favorable, as suggested by the DI in the September Tankan having been at around the highest level since 2008, which is when it was introduced in the Tankan. Issuance rates for corporate bonds also have remained at extremely low levels. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been around historical low levels.

30 It is assumed that the figure for nominal GDP is unchanged from the April-June quarter of 2017.
With regard to the availability of funds for firms, the DI in the Tankan for financial institutions’ lending attitudes as perceived by firms suggests that their lending attitudes have been highly accommodative; the DI for large firms has been at a high level of around the peak in the mid-2000s, and that for small firms has been at a high level last seen at the end of the 1980s (Chart 50). Firms’ financial positions have been favorable, as suggested by the DIs for both large and small firms in the Tankan having been at high levels that are almost the same as those seen around 1990 (Chart 51).

Demand for funds such as those related to mergers and acquisitions of firms, as well as those for business fixed investment, including for real estate, has continued to increase. In these circumstances, the year-on-year rate of increase in the amount outstanding of bank lending has been at around 3 percent (Chart 52). That in the aggregate amount outstanding of CP and corporate bonds has been at a relatively high level.

The year-on-year rate of change in the money stock (M2) has been at around 4 percent, as bank lending has increased (Chart 53).
Developments in Financial Markets

With regard to developments in global financial markets, long-term interest rates in major economies declined and stock prices showed relatively weak developments through early September, due mainly to concerns over geopolitical risks surrounding the situation in North Korea. Thereafter, however, amid investors’ risk aversion waning somewhat, long-term interest rates have increased and stock prices have been firm.

Yields on 10-year government bonds in the United States declined through early September, mainly reflecting the heightened tension regarding the situation in North Korea and relatively weak developments in price indicators (Chart 54). However, as concerns over the situation in North Korea abated somewhat, the yields have risen thereafter. Yields on 10-year government bonds in Germany have generally followed those in the United States.

With regard to credit spreads on interbank transactions, the LIBOR-OIS spreads for major currencies show the following developments: those for the U.S. dollar declined from around autumn 2016 through mid-2017 due to the implementation of money market fund (MMF) reform in the United States, and thereafter have been more or less unchanged recently, while those for the euro and the yen have remained at low levels (Chart 55). Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market declined from the start through the middle of the year, and then remained more or less flat through summer; however, since late
September, they have increased somewhat due to tightened supply-demand conditions (Chart 56). Meanwhile, Japanese banks have not faced quantitative constraints on foreign currency funding.

Stock prices in the United States had been somewhat weak, mainly reflecting a rise in geopolitical risks, but have been at historical high levels, mainly on the back of solid corporate profits; those in Europe have remained at high levels despite the effects of the appreciation of the euro (Chart 57). Japanese stock prices had fluctuated to a somewhat large degree; however, they have risen significantly since mid-September, due mainly to expectations of an improvement in corporate profits, amid somewhat lessened concerns over geopolitical risks and the yen depreciating against the U.S. dollar. In the Japan real estate investment trust (J-REIT) market, prices have declined somewhat (Chart 58).

In foreign exchange markets, the yen appreciated against the U.S. dollar through early September, due mainly to the decline in 10-year government bond yields in the United States and an increase in demand for safe assets. Thereafter, the yen has reverted to depreciation, as the U.S. 10-year government bond yields turned to an increase and investors’ risk aversion has waned somewhat (Chart 59). The yen has depreciated against the euro.
Land Prices

Land prices as a whole have almost stopped declining. According to the Land Price Research by Prefectural Governments for 2017 (as of July 1), the year-on-year rate of change in commercial land prices has turned positive, albeit marginally, for the first time in 10 years, and the rate of decline in residential land prices has continued to decelerate (Charts 60 and 61). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rate of increase in commercial land prices has accelerated and the rate of change in residential land prices has been positive, albeit marginally. In nonmetropolitan areas, the year-on-year rate of decline in both commercial and residential land prices has continued to decelerate.
The travel receipts (inbound demand), which are categorized as exports of services in the *Balance of Payments*, had been on an uptrend, underpinned in part by governmental measures to attract foreign tourists to Japan in view of the country hosting the Olympic Games, but the pace of increase has been decelerating somewhat since 2016 (Chart B1-1).

The number of inbound visitors has continued to increase on the whole, led by those from the NIEs, mainly South Korea, and the latest figure has reached almost 30 million on an annualized basis (Chart B1-2). The number of inbound visitors from China also has been on an uptrend, albeit at a slower pace.

On the other hand, the expenditure per inbound visitor has declined recently, which is the reason behind the deceleration in the pace of increase in travel receipts (Chart B1-3). Looking at this in detail, a notable contributing factor is the decline in the expenditure per visitor from China, which reflects somewhat of a waning in *bakugai* -- directly translated as “explosive buying” and descriptive of these visitors’ voracious shopping

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31 In the Tourism Nation Promotion Basic Plan formulated in March 2017, the government aims at increasing the number of inbound visitors to 40 million by 2020.

32 From July through September 2017, however, the expenditure per visitor from other regions -- "others" in Chart B1-3 -- significantly pushed up the expenditure per inbound visitor as a whole, which recovered to about the same level as that in 2015. At present, it is difficult to judge whether this is a temporary fluctuation.
behavior. These developments mainly seem to reflect the fact that the income levels of inbound visitors have become wide-ranging, and now include relatively low-income households. Meanwhile, with regard to changes in the share of expenditure per inbound visitor by region, which are included in "composition effect, etc." in Chart B1-3, their contributions to pushing down the expenditure per inbound visitor has been on a moderate increasing trend, because the share of visitors from the NIEs and the ASEAN4 -- for which the expenditures per visitor are relatively low -- has been increasing.

Of the inbound visitors, it appears that those with relatively low income levels tend to stay at cheap accommodations instead of Japanese-style inns and western-style hotels (Chart B1-4). By type of accommodation, the share of "others," which includes minpaku (private lodging), has increased recently. Judging from these developments, establishing an environment that allows inbound visitors to more easily use minpaku is expected to contribute to a further increase in the number of tourists to Japan going forward.33

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33 Mainly two types of minpaku are permitted under law: one that requires permission pursuant to the Inns and Hotels Act and one that is exceptionally allowed to operate in the National Strategic Special Zones specified by the government. After the enforcement of the new law that is planned to take place in June 2018, it will become possible to offer minpaku across the country through a relatively simple registration.
In recent years, the number of employed women and seniors has been rising due in part to efforts by the government and firms, and the number of participants in the labor market (the labor force participants) also has been growing for women and seniors. Box 2 examines the current state of labor force participation, mainly of women.

An overview of the labor force participants shows that, between 2000 and 2017, the number of women aged 15 to 64 and of seniors aged 65 and over has increased by around 0.35 million and by around 3.25 million, respectively (Charts B2-1 and B2-2). Taking into account that the number of male labor force participants aged 15 to 64 has declined by around 4.1 million over the same period, mainly due to the declining male population in that age group, it is evident that the labor force participation of women and seniors has played a significant role in underpinning Japan’s labor market.

Although, demographically, downward pressure has been exerted on the population of women aged 15 to 64 by as much as on that of men in the

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34 For firms’ efforts to promote the empowerment of women and seniors, see the annex paper to the Regional Economic Report, “Kaku chiiki ni okeru jyosei suishin ni muketa kigyō tō no torikumi” [Firms’ initiatives toward promoting women’s empowerment in each region] released in June 2017 (available only in Japanese). The following report analyzes the factors behind the increase in the number of employed women, particularly since 2012, including the government’s efforts to improve the environment for labor force participation of women: “The Recent Increase in Dual-Income Households and Its Impact on Consumption Expenditure,” Bank of Japan Review Series, forthcoming.
same age group, the number of female labor force participants has actually increased due to expanded labor force participation of women. This is reflected in a rise of nearly 10 percentage points in the female labor force participation rate (calculated as the number of labor force participants divided by the population of those in the corresponding age group). Meanwhile, the pace of increase in the number of labor force participants among seniors has accelerated since around 2012, when baby boomers reached the age of 65-69, accompanied by a rise in the labor force participation rate.

As for the outlook, in the case of seniors, the pace of increase in the labor force participants is projected to slow because moves to leave the labor market are expected to progress to a certain extent as baby boomers reach the age of 70 and over.

On the other hand, the number of female labor force participants is expected to continue growing to some degree. The number of potential female labor force participants is still estimated to exceed that of actual female labor force participants by around 1.7 million people, taking into account those currently not seeking a job but actually wishing to work (Chart B2-3). Although this gap has narrowed, it suggests that there remains substantial room for women to participate in the labor market.

Looking at the number of women who are not seeking a job despite wishing to work by reason, the number of those citing "no prospect of finding
a job nearby" has declined significantly, suggesting that room for labor force participation by such respondents is becoming limited (Chart B2-4). The number of women citing "no prospect of finding a job with a favorable salary or hours, etc." also has been decreasing at a faster pace since fiscal 2015. Meanwhile, the number of women citing "for housework or child-rearing" has remained high, albeit continuing to be on a downtrend. Their labor force participation is therefore expected to be enhanced further, due in part to a future increase in the capacity of nursery schools.

Looking at Japan's labor force participation rate of women by age group, a so-called M-shaped curve -- which reflects a low labor force participation rate of women in their child-bearing and child-rearing phases -- can still be observed (Chart B2-5). Nonetheless, the M-shaped curve is expected to change its shape gradually with further progress in the labor force participation of women who has given up seeking a job due to housework or child-rearing. An international comparison shows that Japan's labor force participation rate of women in their child-bearing and child-rearing phases is lower than that of Sweden and Germany, but is at a level quite likely to surpass that of the United States in the near future.
The *cost-push indicator*, which measures the upward pressure on prices stemming from the cost increase, shows that such upward pressure has been increasing lately, despite developments in the CPI (all items less fresh food and energy) remaining relatively weak.

The cost-push indicator has been estimated to quantitatively gauge the upward pressure of costs that have not been passed on to prices yet. The indicator will be 0 percent if firms set sales prices at the level that is in line with input costs based on the historically standard relationship between them, while it will be a positive figure if costs are not fully passed on to prices.

To compute the cost-push indicator, the input cost indicators that are deemed most important -- such as the producer price index (PPI), import prices, and wages -- are chosen for each CPI item. Then, the weighted average of residuals that are obtained by regressing each CPI item on the corresponding cost indicator is calculated using the weights of the CPI (Chart B3-1).[^35]

[^35]: For some CPI items, it is difficult to grasp the trend of all costs by a single input cost indicator. Thus, for some items, as a simplistic method to address the issue in computing the cost-push indicator, residuals are calculated by controlling the linear trend. The items for which long-term time-series data are not available or of which signs of parameters do not turn out to be an expected one as a result of regression are excluded when calculating the weighted average.
Looking at the developments in the cost-push indicator, after marking high levels in early 2015, the indicator entered a declining trend; however, it has been rising since the turn of the year with the exception of for clothes (Chart B3-2).

Although the cost-push indicator covers only about 200 items out of the CPI (all items less fresh food and energy), which consists of around 520 items, the two indicators are highly correlated; the cost-push indicator leads the CPI by around two to three quarters (Chart B3-3). Chart B3-4 is a scatter diagram showing a positive correlation between the cost-push indicator of a six-month lead and the annual CPI inflation (all items less fresh food and energy).

This approach complements the idea of the Phillips curve, which shows the relationship between the output gap and the CPI. As the cost-push indicator rises amid a steady improvement in the output gap, firms' stance is likely to gradually shift toward raising prices.