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日本銀行
BANK OF JAPAN

# *Outlook for Economic Activity and Prices*

*April 2019*

(English translation prepared by the Bank's staff based on the Japanese original)

# Outlook for Economic Activity and Prices (April 2019)

## The Bank's View[1]


### Summary

- Japan's economy is likely to continue on an expanding trend throughout the projection period -- that is, through fiscal 2021 -- despite being affected by the slowdown in overseas economies for the time being.[2] Although exports are projected to show some weakness for the time being, they are expected to be on a moderate increasing trend, with overseas economies growing moderately on the whole. Domestic demand also is likely to follow an uptrend, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending, despite being affected by such factors as the scheduled consumption tax hike.
- The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) has been positive but has continued to show relatively weak developments compared to the economic expansion and the labor market tightening. This is mainly attributable to (1) such factors as firms' cautious wage- and price-setting stance not having changed clearly yet in a situation where the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched and (2) firms' moves toward raising productivity as well as the technological progress in recent years. While it has been taking time to resolve these factors that have been delaying price rises, medium- to long-term inflation expectations have been more or less unchanged. Nonetheless, with the output gap remaining positive, firms' stance gradually will shift toward further raising wages and prices, and households' tolerance of price rises will increase. In this situation, further price rises are likely to be observed widely and then medium- to long-term inflation expectations are projected to rise gradually. As a consequence, the year-on-year rate of change in the CPI is likely to increase gradually toward 2 percent.
- Comparing the current projections through fiscal 2020 with the previous ones, both the projected growth rates and the projected rates of increase in the CPI are more or less unchanged.
- With regard to the risk balance, risks to both economic activity and prices are skewed to the downside. On the price front, the momentum toward achieving the price stability target of 2 percent is maintained but is not yet sufficiently firm, and thus developments in prices continue to warrant careful attention.


[1] The text of "The Bank's View" -- the outlook for economic activity and prices as well as the Bank's thinking on the conduct of monetary policy, both of which are based on individual Policy Board members' views -- was decided by the Policy Board at the Monetary Policy Meeting held on April 24 and 25, 2019.

[2] The April 2019 *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. Current Situation of Economic Activity and Prices in Japan

Japan's economy has been on a moderate expanding trend, with a virtuous cycle from income to spending operating, although exports and production have been affected by the slowdown in overseas economies. Overseas economies have been growing moderately on the whole, although slowdowns have been observed. In this situation, exports and industrial production have shown some weakness recently. On the other hand, corporate profits and business sentiment have stayed at favorable levels on the whole, albeit with some weakness observed in part, and business fixed investment has continued on an increasing trend. Private consumption has been increasing moderately, albeit with fluctuations, against the background of steady improvement in the employment and income situation. Housing investment has been more or less flat. Public investment also has been more or less flat, remaining at a relatively high level. Meanwhile, 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 been more or less unchanged.

## 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 on an expanding trend throughout the projection period -- that is, through fiscal 2021 -- despite being affected by the slowdown in overseas economies for the time being.

Specifically, as for the outlook for Japan's economy for the time being, exports are projected to show some weakness and business fixed investment also is likely to decelerate somewhat, reflecting the effects of the slowdown in overseas economies. However, private consumption is expected to continue increasing as the employment and income situation continues to improve, and also partly because of an increase in demand prior to the scheduled consumption tax hike in October 2019. Public investment also is likely to increase, reflecting Olympic Games-related demand, the implementation of the supplementary budgets in response to natural disasters, and expansion in expenditure such as for national resilience.

Thereafter, overseas economies are expected to grow moderately on the whole with the growth rates rising somewhat, partly backed by the materialization of the effects of stimulus measures, such as in China, and the progress in global adjustments in IT-related goods. Under these circumstances, Japan's exports are projected to return to their moderate increasing trend. 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, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending, despite being affected by such factors as the scheduled consumption tax hike. Business fixed investment -- such as that intended for domestic capacity expansion in line with the economic expansion, that related to urban redevelopment projects, and labor-saving investment to address labor shortage -- is likely to increase moderately amid accommodative financial conditions, despite downward pressure resulting mainly from cyclical adjustments in capital stock accompanying the prolonged economic expansion. Private consumption is also expected to follow a moderate increasing trend as the employment and income situation continues to improve and the government implements countermeasures for the scheduled consumption tax hike, although it is likely to be pushed down for some time due to the effects of the hike.[3] Meanwhile, public investment is expected to continue increasing through fiscal 2020 and thereafter maintain a relatively high level in fiscal 2021.

On this basis, Japan's economy is likely to continue growing at about the same pace as its potential on average.[4] Comparing the current projections through fiscal 2020 with the previous ones, the projected growth rates are more or less unchanged.

Looking at the financial conditions on which the above outlook is based, short- and long-term real interest rates are assumed to be in negative territory throughout the projection period as the Bank pursues "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control."[5] Financial institutions' active lending attitudes, as well as favorable conditions for corporate bond 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.

Meanwhile, 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.

[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) a decline in real income. Although it is subject to uncertainties, the negative impact on the growth rates is expected to be smaller than that on the rate for fiscal 2014, when the last consumption tax hike took place.

[4] Under a specific methodology, Japan's potential growth rate is estimated to be in the range of 0.5-1.0 percent recently. 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.

## B. Baseline Scenario of the Outlook for Prices

The year-on-year rate of change in the CPI has been positive but has continued to show relatively weak developments compared to the economic expansion and the labor market tightening.

This is basically because the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched, due mainly to the experience of prolonged low growth and deflation, and firms' cautious wage- and price-setting stance as well as households' cautiousness toward price rises have not yet clearly changed. In addition, the large room to raise productivity, mainly in the nonmanufacturing sector, the technological progress in recent years, and the high wage elasticity of labor supply among women and seniors have allowed firms to maintain their cautious stance toward raising prices, even amid the economic expansion. Furthermore, such factors as technological progress have further intensified competition in some areas. The continued lackluster developments in administered prices and housing rent also are likely to have affected the sluggishness in prices. It has been taking time to resolve these factors that have been delaying price rises, and the situation likely has continued in which the responsiveness of prices to the output gap, as well as inflation expectations that are strongly affected by the adaptive formation mechanism, do not rise easily.

With regard to the outlook, the year-on-year rate of change in the CPI is likely to increase gradually toward 2 percent, mainly on the back of the output gap remaining positive and medium- to long-term inflation expectations rising. Comparing the current projections through fiscal 2020 with the previous ones, the projected rates of increase in the CPI are more or less unchanged.[6]

The mechanism through which the year-on-year rate of change in the CPI increases gradually toward 2 percent can be explained by the following factors that determine general price inflation. First, the output gap -- which shows the utilization of labor and capital -- has widened within positive territory on average against the background of the steady tightening of labor market conditions and a rise in capital utilization rates. As for the outlook, it is expected to remain substantially positive. Under such circumstances, further price rises are likely to be observed widely as households' tolerance of price rises increases, mainly reflecting a rise in wage growth rates, and firms' stance shifts toward further raising prices.

[6] Assuming that the rise in the consumption tax will be fully passed on to prices of taxable items, excluding those to which a reduced tax rate will be applied, the effect 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 and fiscal 2020 is estimated to be 0.5 percentage point for each year. In addition, based on a specific assumption using information available at this point, the effects of policies concerning the provision of free education on the year-on-year rate of change in the CPI (all items less fresh food) for fiscal 2019 and fiscal 2020 are estimated to be minus 0.3 percentage point and minus 0.4 percentage point, respectively.

Second, medium- to long-term inflation expectations have been more or less unchanged recently. As for the outlook, such expectations are likely to follow an increasing trend and gradually converge to 2 percent on the back of the following: (1) in terms of the adaptive component, a rise in the observed inflation rate is likely to push up inflation expectations, 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, which will be effective in pushing up inflation expectations.[7]

Third, regarding import prices, upward pressure of energy prices on the year-on-year rate of change in the CPI is likely to diminish, reflecting the past decline in crude oil prices.

Meanwhile, the recent increase in labor participation by women and seniors, as well as firms' strengthening of efforts to absorb upward pressure of costs on prices by raising productivity, are expected to increase upward pressure on prices in the long term. Specifically, as the growth potential of the economy as a whole rises, reflecting such moves, firms' and households' spending behavior can be expected to become active. In addition, as the natural rate of interest increases together with the rise in the growth potential of Japan's economy, monetary easing effects are likely to be enhanced.

## III. Risks to Economic Activity and Prices

### A. Risks to Economic Activity

The following four factors are upside and downside risks to the Bank's baseline scenario regarding the economy.

The first is developments in overseas economies. Specifically, the following are considered as risks: the U.S. macroeconomic policies and their impact on global financial markets; the consequences of protectionist moves and their effects; developments in emerging and commodity-exporting economies such as China, including the effects of the two aforementioned factors; negotiations on the United Kingdom's exit from the European Union (EU) and their effects; and geopolitical risks. Such downside risks concerning overseas economies are likely to be significant, and it also is necessary to pay close attention to their impact on firms' and households' sentiment in Japan. In addition, the progress in global adjustments in IT-related goods may take longer than expected as there are high uncertainties regarding developments in final demand.

[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.

The second risk is the effects of the consumption tax hike scheduled to take place in October 2019. These are likely to depend on consumer sentiment, the employment and income situation, and developments in prices.

Third, 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 declining birthrate and aging population; developments in regulatory and institutional reforms, particularly in the labor market; innovation in the corporate sector; and the employment and income situation.

Fourth, 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. Risks to Prices

Other than the effects of 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 such expectations will be delayed through the adaptive formation mechanism, if it takes longer than projected for firms' stance to shift toward further raising wages and prices and actual inflation consequently remains relatively sluggish.

The second factor is the responsiveness of prices to the output gap. If firms' efforts to absorb upward pressure of costs on prices by raising productivity continue for a long time, or competition among firms intensifies further, due partly to the technological progress in recent years and changes in the distribution system, downward pressure on prices stemming from these factors may last longer than expected. In addition, the lackluster developments in administered prices and housing rent also may continue to constrain the rise in CPI inflation for a long period.

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 involves an examination of the baseline scenario for the outlook. The year-on-year rate of change in the CPI is likely to increase gradually toward 2 percent. Although it is necessary to carefully examine the risks to economic activity and prices, 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 further raising wages and prices with the output gap remaining positive, and (2) medium- to long-term inflation expectations have been more or less unchanged and are projected to rise gradually 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, risks are skewed to the downside, particularly regarding developments in overseas economies. 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. However, prolonged downward pressure on financial institutions' profits, with the low interest rate environment and severe competition among financial institutions continuing, could create risks of a gradual pullback in financial intermediation and of destabilizing the financial system. Although these risks are judged as not significant at this point, mainly because financial institutions have sufficient capital bases, it is necessary to pay close attention to future developments.[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. As for policy rates, the Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, at least through around spring 2020, taking into account uncertainties regarding economic activity and prices including developments in overseas economies and the effects of the scheduled consumption tax hike. It will

[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."

[9] For details, see the Bank's *Financial System Report* (April 2019).

examine the risks considered most relevant to the conduct of monetary policy and 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.

(Appendix)

## Forecasts of the Majority of Policy Board Members

y/y % chg.

| | Real GDP | CPI (all items less fresh food) | (Reference) Excluding the effects of the consumption tax hike and policies concerning the provision of free education |
|---|---|---|---|
| Fiscal 2018 | +0.6 to +0.6 [+0.6] | +0.8 | |
| Forecasts made in January 2019 | +0.9 to +1.0 [+0.9] | +0.8 to +0.9 [+0.8] | |
| Fiscal 2019 | +0.7 to +0.9 [+0.8] | +0.9 to +1.2 [+1.1] | +0.7 to +1.0 [+0.9] |
| Forecasts made in January 2019 | +0.7 to +1.0 [+0.9] | +1.0 to +1.3 [+1.1] | +0.8 to +1.1 [+0.9] |
| Fiscal 2020 | +0.8 to +1.1 [+0.9] | +1.2 to +1.5 [+1.4] | +1.1 to +1.4 [+1.3] |
| Forecasts made in January 2019 | +0.7 to +1.0 [+1.0] | +1.3 to +1.5 [+1.5] | +1.2 to +1.4 [+1.4] |
| Fiscal 2021 | +0.9 to +1.2 [+1.2] | +1.4 to +1.7 [+1.6] | |

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.

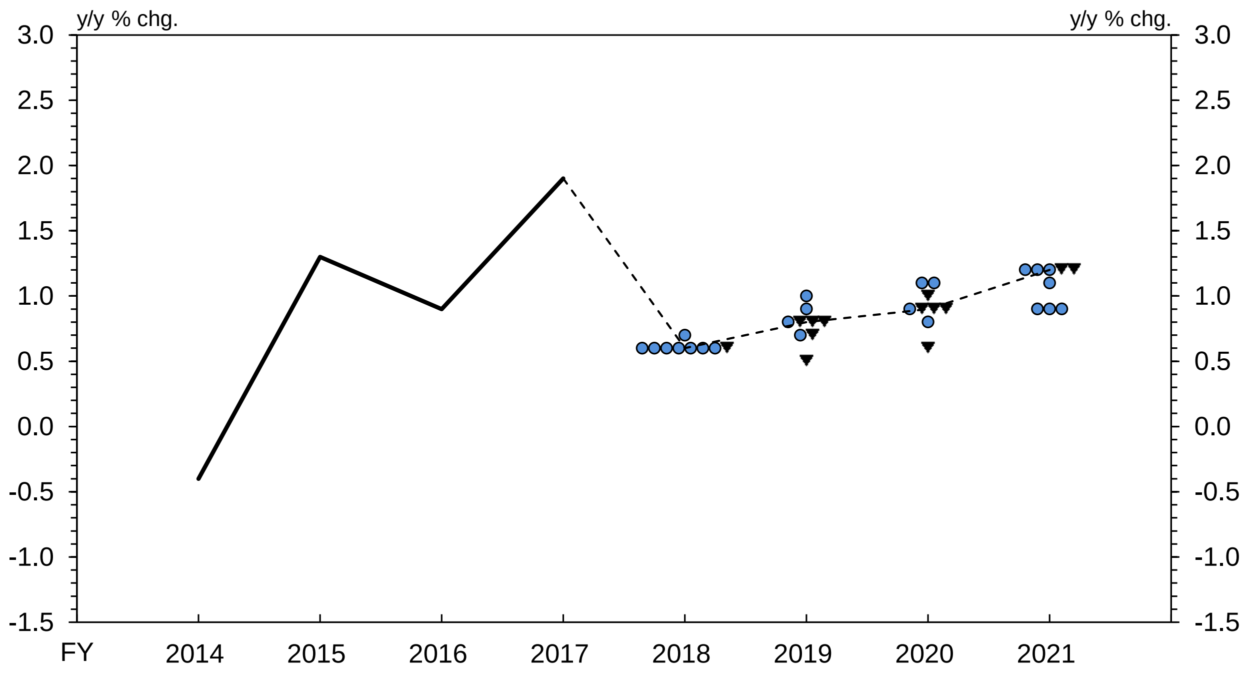
3. Individual Policy Board members make their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy.

4. The forecasts assume the following: (1) the consumption tax will be raised to 10 percent in October 2019 and a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining out -- and newspapers, and (2) with regard to policies concerning the provision of free education, free early childhood education and such measures as free higher education will be introduced in October 2019 and April 2020, respectively. Assuming that the rise in the consumption tax will be fully passed on to prices of taxable items, the direct effect of the tax hike on the CPI for fiscal 2019 and fiscal 2020 is estimated to be 0.5 percentage point for each year. In addition, based on a specific assumption using information available at this point, the direct effects of policies concerning the provision of free education on the CPI for fiscal 2019 and fiscal 2020 are estimated to be minus 0.3 percentage point and minus 0.4 percentage point, respectively.

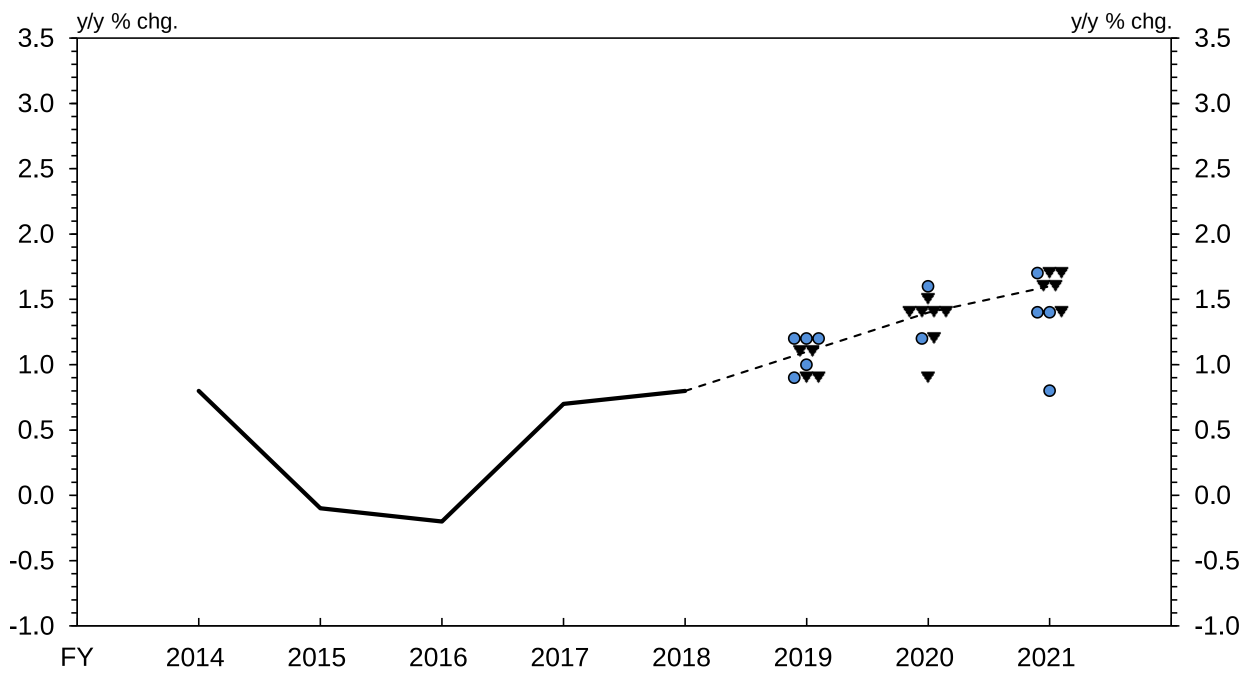
5. The CPI (all items less fresh food) for fiscal 2018 is an actual figure.

## 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. The CPI figures for fiscal 2014 and fiscal 2015 exclude the direct effects of the consumption tax hike in April 2014.

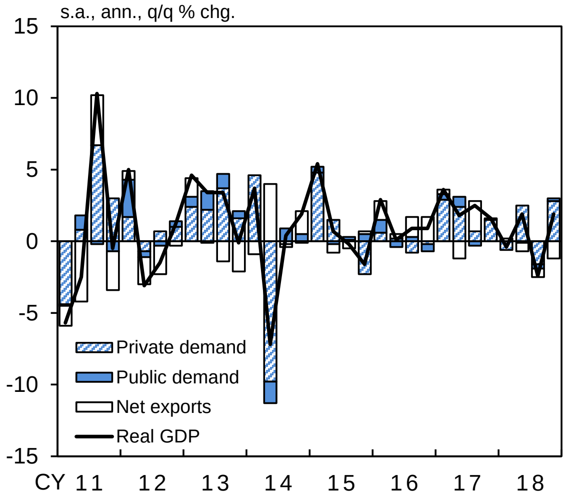
## The Background[10]

# I. Current Situation of Economic Activity and Its Outlook

## A. Economic Developments

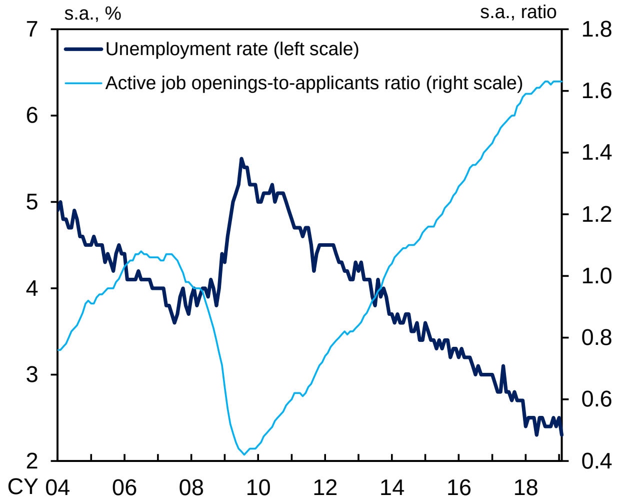
Looking back at Japan's economy since the January 2019 Outlook Report, the real GDP growth rate for the October-December quarter of 2018 was 0.5 percent on a quarter-on-quarter basis and its annualized rate was 1.9 percent, representing positive growth following the previous quarter's negative growth (Chart 1). Main demand components such as private consumption, business fixed investment, and exports all contributed to an increase in real GDP.[11] However, the rate of increase in exports has remained modest, mainly considering a rebound from the decline due to natural disasters. Meanwhile, labor market conditions have continued to tighten steadily and the number of employed persons has been increasing firmly (Charts 2 and 3). The output gap -- which captures the utilization of labor and capital -- widened in the October-December quarter, remaining clearly positive (Chart 4). Indicators since January suggest that Japan's economy has been on a moderate expanding trend, with a virtuous cycle from income to spending operating, although exports and production have been affected by the slowdown in overseas economies.

**Chart 1:** Real GDP




Source: Cabinet Office.

**Chart 2:** Labor Market Conditions




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

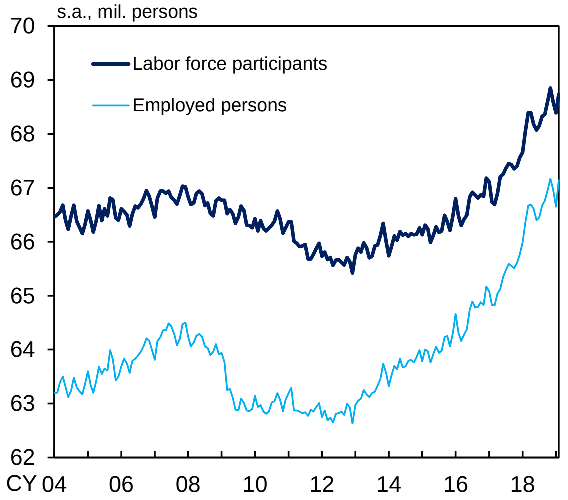
With regard to the outlook, Japan's economy is likely to continue on an expanding trend, despite

[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 April 24 and 25, 2019.

[11] As for the October-December quarter, the contribution of net exports was negative as imports increased significantly.

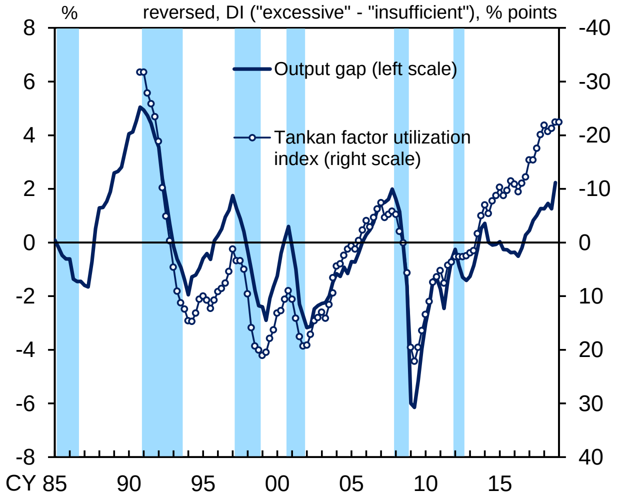
being affected by the slowdown in overseas economies for the time being. Exports will likely show some weakness for the time being. However, they are expected to be on a moderate increasing trend, with overseas economies growing moderately on the whole. Business fixed investment is likely to increase moderately amid accommodative financial conditions, although its pace of increase is projected to decelerate, reflecting cyclical downward pressure resulting from capital stock adjustments. Private consumption is expected to follow a moderate increasing trend as the employment and income situation continues to improve and the government implements countermeasures for the scheduled consumption tax hike, although it is likely to be pushed down for some time due to the hike.[12,13] Meanwhile, with regard to government

**Chart 3:** Labor Force Participation and Employment




Source: Ministry of Internal Affairs and Communications.

**Chart 4:** Output Gap




Source: Bank of Japan.
Notes: 1. The output gap is based on staff estimations.
2. The Tankan factor utilization index is calculated as the weighted average of the production capacity DI and the employment conditions DI for all enterprises. The capital and labor shares are used as weights. There is a discontinuity in the data in December 2003 due to a change in the survey framework.
3. Shaded areas indicate recession periods.

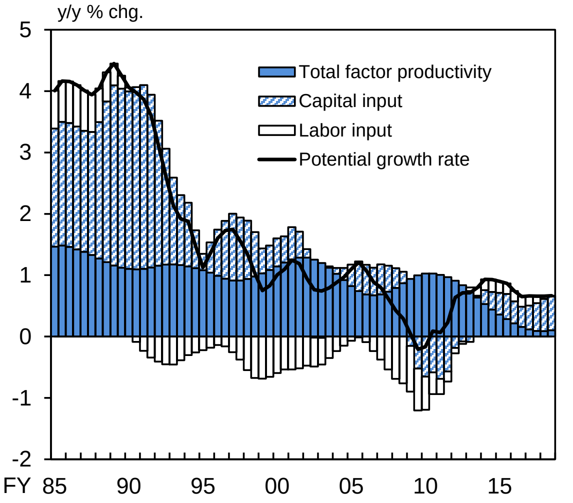
[12] The April 2019 Outlook Report assumes that the consumption tax will be raised to 10 percent in October 2019 and that a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers.

[13] The scheduled consumption tax hike in October 2019 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 decline in real income. At present, the negative impact of the tax hike on the growth rates for fiscal 2019 and fiscal 2020 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 fiscal 2019, the front-loaded increase and subsequent decline in demand prior to and after the hike will offset each other during that fiscal year -- although they will push down the growth rate for fiscal 2020 -- and that the effects of the decline in real income will be dispersed over fiscal 2019 and fiscal 2020; (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; (3) free education will be introduced and various measures to reduce the household burden of the tax hike as well as support measures to smooth out demand prior to and after the tax hike will be implemented; and (4) 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 of the consumption tax hike is uncertain and varies depending, for example, on developments in consumer sentiment. In addition, with respect to

spending, such factors as Olympic Games-related demand and policy measures for national resilience are expected to push up economic activity, with a peak in fiscal 2020. Thus, Japan's economy is likely to continue growing at about the same pace as its potential on average (Chart 5). Comparing the current projections through fiscal 2020 with the previous ones, the projected growth rates are more or less unchanged.

Details of the outlook for each fiscal year are as follows. In fiscal 2019, reflecting the effects of the slowdown in overseas economies for the time being, exports are projected to show some weakness and the pace of increase in business fixed investment is likely to decelerate temporarily, mainly for manufacturing. However, private consumption is expected to continue increasing as the employment and income situation continues to improve, and also partly because of an increase in demand prior to the scheduled consumption tax hike. In addition, public investment is likely to increase clearly, due mainly to the implementation of the supplementary budgets in response to natural disasters, as well as policy measures for national resilience. Thereafter, exports are projected to return to their moderate increasing trend, with the growth rates of overseas economies rising somewhat. As for domestic demand, although private consumption and housing investment are likely to be affected by the scheduled consumption tax hike, the rate of increase in business fixed investment is expected to rise somewhat, due in part to increases in investment related to urban

**Chart 5:** Potential Growth Rate




Source: Bank of Japan.
Note: Based on staff estimations. Figures for the second half of fiscal 2018 are those for 2018/Q4.

the guideline released by the government that allows firms to flexibly pass on the rise in the consumption tax to sales prices, it is difficult at this point to project its effects on factors such as firms' stance on how to deal with it.

redevelopment projects as well as labor-saving investment. Meanwhile, public investment is expected to continue increasing.

In fiscal 2020, exports are expected to be on a moderate increasing trend, with overseas economies growing moderately on the whole. Business fixed investment is likely to continue on a moderate uptrend, partly due to an increase in labor-saving investment, despite being under pressure stemming from cyclical adjustments in capital stock. Private consumption and housing investment are expected to gradually head toward a recovery after declining in the second half of fiscal 2019. Meanwhile, public investment is projected to continue increasing, mainly reflecting policy measures for national resilience. Expenditure, primarily on temporary facilities accompanying the hosting of the Olympic Games, also is expected to underpin the economy.

In fiscal 2021, government spending is likely to maintain a relatively high level amid continued progress in mainly infrastructure-related construction, although there no longer will be expenditure accompanying the hosting of the Olympic Games. Private consumption and housing investment are projected to increase, partly because the effects of the reactionary decline to the scheduled consumption tax hike are likely to dissipate. Meanwhile, exports are projected to continue their moderate increasing trend and business fixed investment also is likely to maintain its moderate uptrend, due in part to a rise in the potential growth rate.

Meanwhile, 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.

## B. Developments in Major Expenditure Items and Their Background

### Government Spending

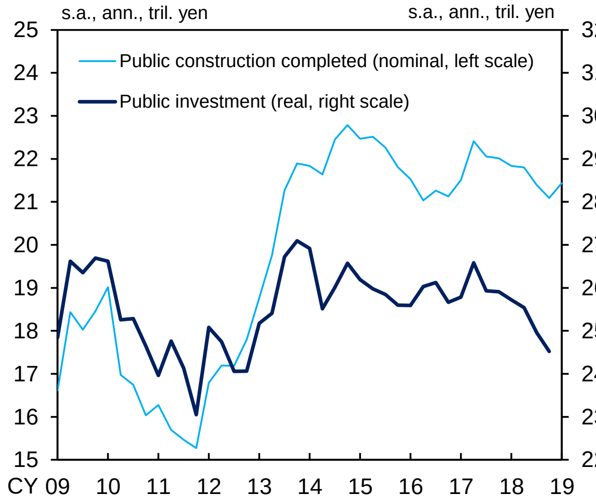
Public investment has been more or less flat, remaining at a relatively high level (Chart 6). As for the outlook, it is expected to continue increasing through fiscal 2020, mainly reflecting Olympic Games-related construction as well as the supplementary budget for fiscal 2018 and policy measures for national resilience, and thereafter maintain a relatively high level in fiscal 2021.[14]

### Overseas Economies

Overseas economies have been growing moderately on the whole, although slowdowns have been observed (Chart 7). The improving trend in the business sentiment of manufacturing firms on a global basis has weakened (Chart 8). Looking at developments by major region, the U.S. economy has maintained its expansion. The growth pace of the European economy has decelerated. The Chinese economy has continued to see stable growth on the whole, but relatively weak developments have been observed. Other emerging and commodity-exporting economies have been recovering moderately on the whole, mainly reflecting the effects of those economies' stimulus measures.

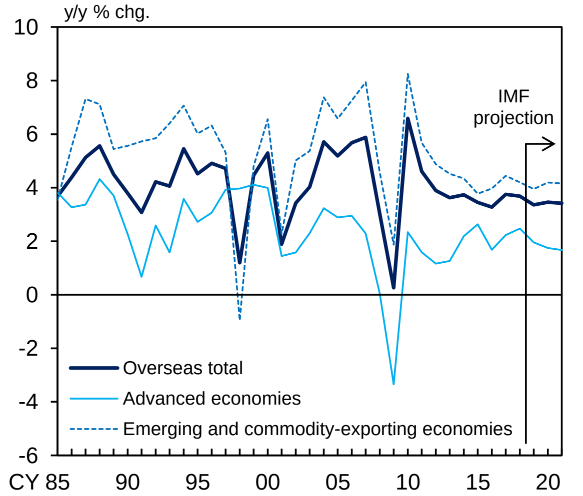
[14] The three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience -- with a total project size of around 7 trillion yen -- was decided by the Cabinet on December 14, 2018. Meanwhile, in view of this plan, the second supplementary budget for fiscal 2018 and the initial budget for fiscal 2019 were approved by the Diet. Going forward, measures to maintain functions such as of important infrastructure are scheduled to be implemented intensively over three years.

**Chart 6:** Public Investment



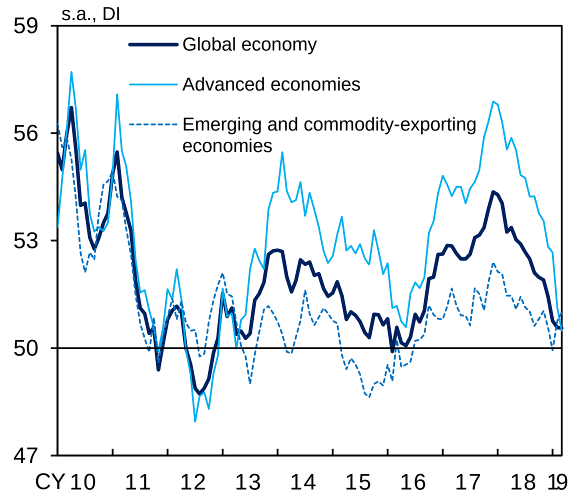

Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2019/Q1 is the January-February average.

**Chart 7:** Overseas Economies




Sources: IMF; Ministry of Finance.
Note: Figures are the weighted averages of real GDP growth rates using countries' share in Japan's exports as weights. Annual GDP growth rates are from the "World Economic Outlook (WEO)" as of April 2019. Advanced economies consist of the United States, the euro area, and the United Kingdom. Emerging and commodity-exporting economies consist of the rest of the world economy.

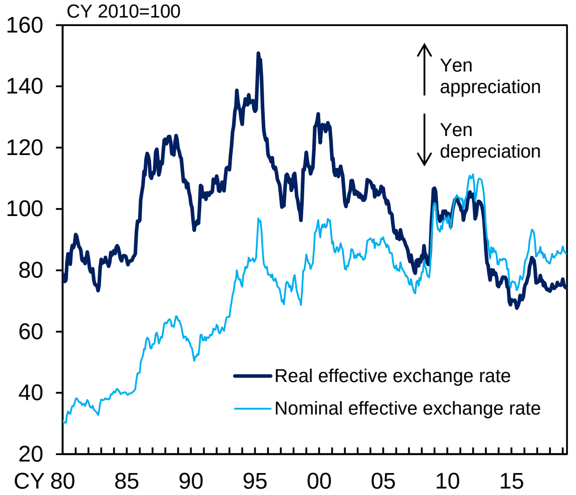
**Chart 8:** Global Manufacturing PMI




Sources: IHS Markit (© and database right IHS Markit Ltd 2019. All rights reserved.), etc.
Note: Figures for the global economy are the "J.P. Morgan Global Manufacturing PMI." Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages of the Manufacturing PMI using GDP shares of world total GDP from the IMF as weights. Advanced economies consist of the United States, the euro area, the United Kingdom, and Japan. Emerging and commodity-exporting economies consist of 17 countries and regions, such as China, South Korea, Taiwan, Russia, and Brazil.

In terms of the outlook for overseas economies, slowdowns are likely to continue for the time being; thereafter, however, such economies are expected to grow moderately on the whole with the growth rates rising somewhat, partly due to the materialization of the effects of stimulus measures, such as in China, and the progress in global adjustments in IT-related goods.[15] Nevertheless, there are various uncertainties such as the trade friction between the United States and China, and the outlook is highly uncertain.

**Chart 9:** Effective Exchange Rates




Sources: BIS; Bank of Japan.
Notes: 1. Figures are based on the broad index of the "BIS Effective Exchange Rate." Those prior to 1994 are calculated using the narrow index.
2. Figures for April 2019 have been calculated using the daily nominal effective exchange rate (the Yen Index) compiled by the Bank of Japan.

By major region, the U.S. economy is expected to maintain its expansion. The European economy is projected to gradually move out of its deceleration phase, reflecting progress in adjustments in the manufacturing sector, where relatively weak developments have been observed. The Chinese economy is likely to broadly follow a stable growth path as authorities conduct fiscal and monetary policies in a timely manner, although it is expected to be affected to some extent by the trade friction between the United States and China as well as measures to push forward with deleveraging. Other emerging and commodity-exporting economies are likely to continue their moderate recovery on the whole, mainly reflecting the effects of those economies' stimulus measures, amid the waning of speculation over a possible policy rate hike by the Federal Reserve. However, Asian economies are expected to be affected by adjustments in IT-related goods for the time being.

[15] Box 3 analyzes developments in the Chinese economy and fiscal and monetary policy measures by the Chinese authorities, and Box 4 analyzes developments in the global cycle for IT-related goods.

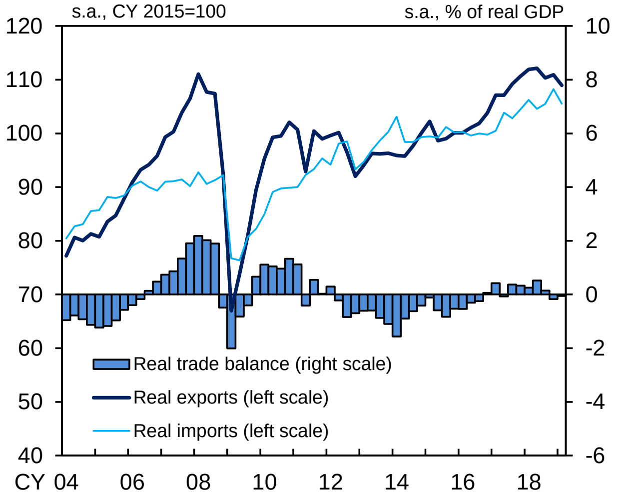
## Exports and Imports

Exports have shown some weakness recently (Chart 10).[16,17] By region, although exports to advanced economies have continued on their increasing trend, those to emerging economies have shown some weakness recently (Chart 11). By goods, automobile-related exports have continued to increase, due in part to the rising value-added of automobiles exported from Japan and the introduction of new models (Chart 12). On the other hand, IT-related exports have decreased, with sluggish demand mainly in parts for smartphones. Exports of a wide range of capital goods, such as semiconductor production equipment, have shown some weakness even when the effects of large fluctuations that partly result from orders for ships are smoothed out.

Although exports are projected to show some weakness for the time being, they are expected to be on a moderate increasing trend as (1) the world trade volume is likely to increase moderately at a pace consistent with the growth in overseas economies and (2) Japan's share of exports in world trade is expected to follow a very moderate increasing trend, reflecting recovery in exports of capital goods and IT-related goods (Charts 13 and 14).[18]

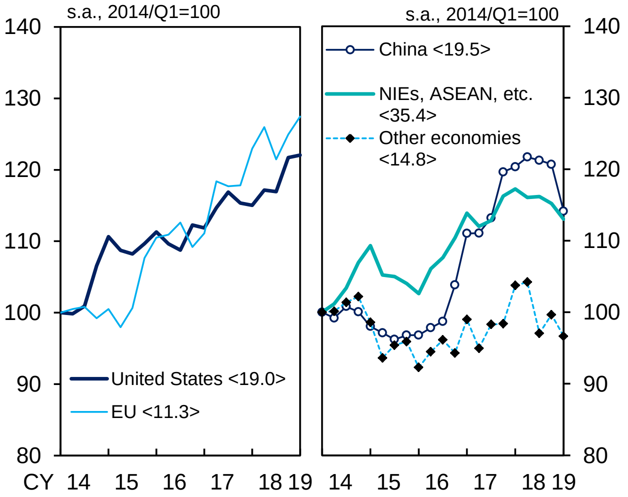
Looking at this in detail, the world trade volume has shown some weakness recently. Going forward, however, its pace of increase is expected

**Chart 10:** Real Exports and Real Imports



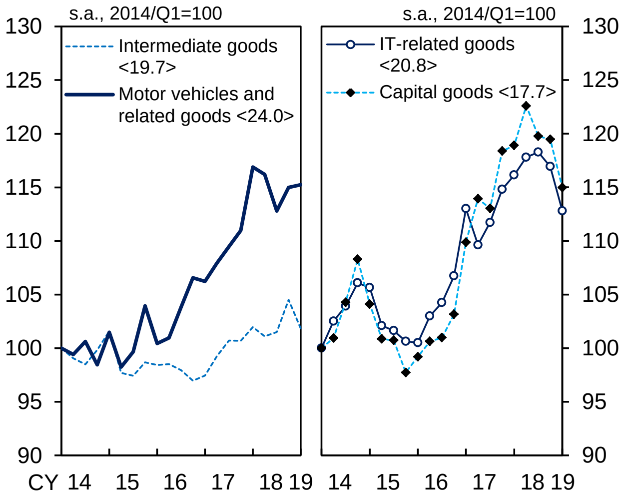

Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations.

**Chart 11:** Real Exports by Region




Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports in 2018.

**Chart 12:** Real Exports by Type of Goods




Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each type of goods in Japan's total exports in 2018.

[16] Box 1 assesses recent developments using the SCOPE indicator that comprehensively monitors export conditions.

[17] Box 2 analyzes factors behind the recent decline in real exports.

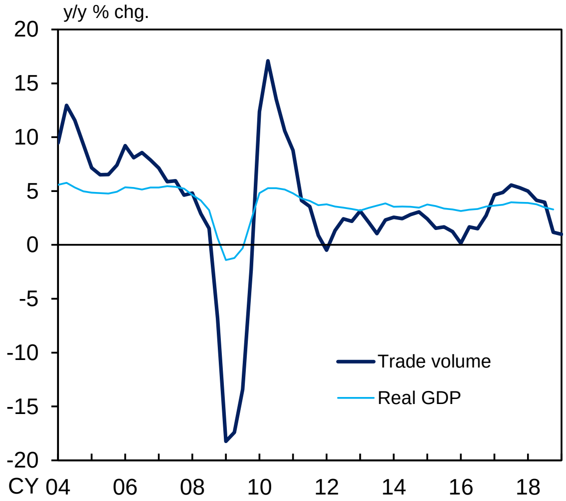
[18] The world trade volume is calculated by adding up real imports in each country.

to be about the same as that in world economic growth, albeit with fluctuations -- that is, the world trade volume to world GDP ratio is likely to be more or less unchanged.

Meanwhile, Japan's share of exports in world trade has declined recently, due in part to a decrease in demand for IT-related goods and capital goods, in which Japan has a comparative advantage. However, it is expected to follow a very moderate rising trend, in part because demand for IT-related goods and capital goods is likely to recover, partly backed by the materialization of the effects of stimulus measures, such as in China, and cyclical improvement in IT-related goods.

Imports have been on a moderate uptrend on average, albeit with fluctuations (Chart 10). Going forward, they are expected to follow an uptrend, reflecting an increase in domestic demand; however, the pace is projected to remain only moderate, mainly because imports of raw materials are likely to follow a downtrend, reflecting an improvement in energy efficiency.

**Chart 13:** World Trade Volume and Real GDP of the World Economy




Sources: CPB Netherlands Bureau for Economic Policy Analysis; IMF, etc.
Notes: 1. Figures for the trade volume are those for real imports. The figure for 2019/Q1 is that for January.
2. Real GDP of the world economy is based on staff calculations using GDP shares of world total GDP from the IMF as weights.

**Chart 14:** Japan's Share of Exports in World Trade


Source: CPB Netherlands Bureau for Economic Policy Analysis.
Note: Japan's share of exports in world trade is obtained by dividing Japan's real exports by world real imports (2010 prices). The figure for 2019/Q1 is that for January.

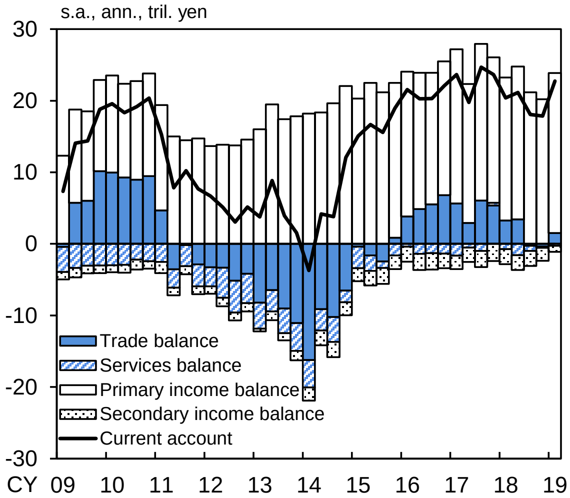
## External Balance

The nominal current account surplus has been more or less flat (Chart 15).

Going forward, the current account surplus will likely increase moderately, mainly on the back of (1) an improvement in the trade balance, with overseas economies growing moderately on the whole, 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 a rise in the number of inbound visitors.

In terms of the saving-investment balance, the increase in the current account surplus corresponds to that in excess saving as a whole. By sector, excess saving in the household sector is projected to decrease somewhat in fiscal 2019, partly reflecting the effects of the scheduled consumption tax hike, and thereafter be more or less flat. Excess saving in the corporate sector is likely to be almost flat, as an increase in fixed investment and profits is expected to be more or less the same. Meanwhile, excess investment in the general government is projected to decrease, mainly due to an increase in tax revenue led by the consumption tax.

**Chart 15:** Current Account



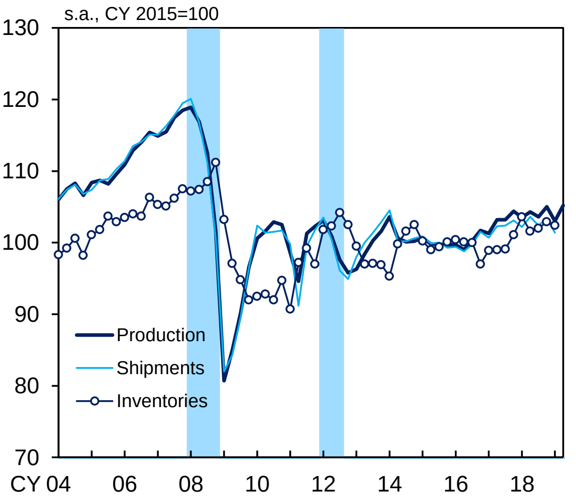

Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2019/Q1 are January-February averages.

## Industrial Production

Industrial production has shown some weakness recently, reflecting the aforementioned developments in exports (Chart 16). By major industry, transport equipment production has been on an increasing trend on average. The production of electronic parts and devices has decreased recently amid sluggish demand mainly in parts for smartphones. The production of machinery (i.e., "general-purpose, production and business oriented machinery" in the *Indices of Industrial Production*) has decreased, mainly driven by industrial robots. Meanwhile, with regard to the shipments-inventories balance, the year-on-year rate of change in shipments and that in inventories have been more or less the same (Chart 17).

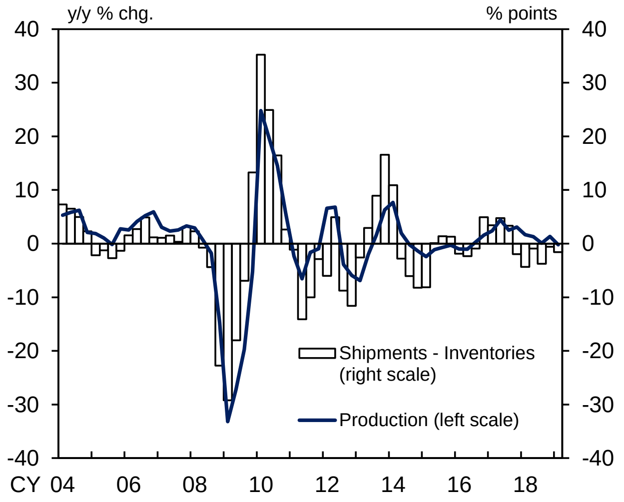
Although industrial production is likely to be affected by the slowdown in overseas economies for the time being, it is projected to continue on a moderate increasing trend thereafter, with overseas economies growing moderately on the whole.

**Chart 16:** Production, Shipments, and Inventories




Source: Ministry of Economy, Trade and Industry (METI).
Notes: 1. Shaded areas indicate recession periods.
2. The production figures for 2019/Q1 and Q2 are calculated based on METI projections for March and April 2019. The shipments figure for 2019/Q1 is the January-February average. The inventories figure for 2019/Q1 is that for February.

**Chart 17:** Shipments-Inventories Balance

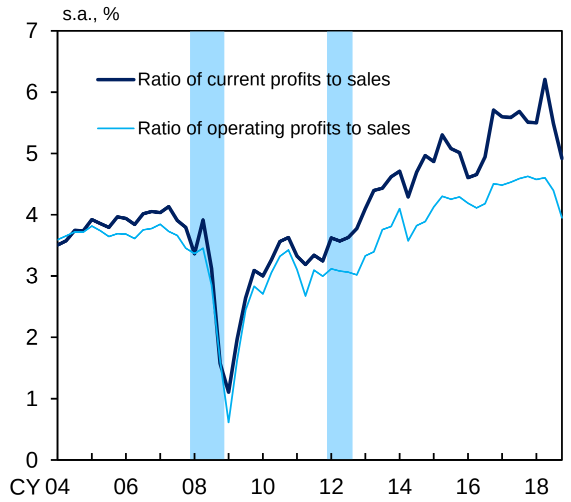



Source: Ministry of Economy, Trade and Industry.
Note: The production figure and the shipments figure for 2019/Q1 are January-February averages. The inventories figure for 2019/Q1 is that for February.

## Corporate Profits

Corporate profits and business sentiment have stayed at favorable levels on the whole, albeit with some weakness observed in part. 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 been at a high level on the whole, despite declining for two consecutive quarters (Chart 18). The diffusion index (DI) for business conditions for all industries and

**Chart 18:** Corporate Profits




Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Excluding "finance and insurance."
2. Figures from 2009/Q2 exclude "pure holding companies."
3. Shaded areas indicate recession periods.

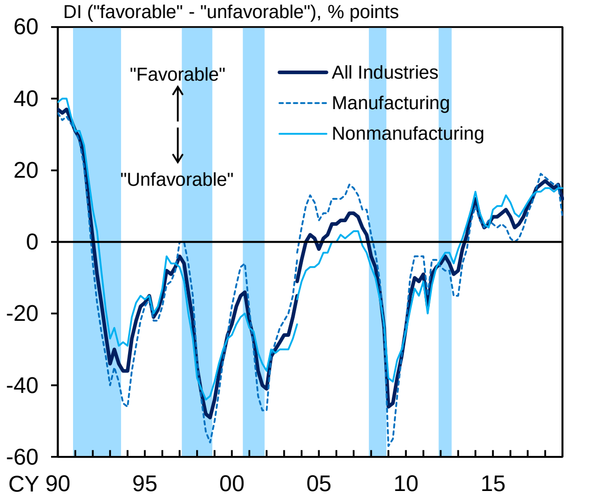
enterprises in the March 2019 *Tankan* (Short-Term Economic Survey of Enterprises in Japan) worsened somewhat significantly for manufacturing due to the effects of the slowdown in overseas economies, but the net "favorable" has remained large underpinned by domestic demand (Chart 19).

Corporate profits are projected to follow their improving trend, as domestic demand increases with a virtuous cycle from income to spending operating and as exports rise moderately.

## Business Fixed Investment

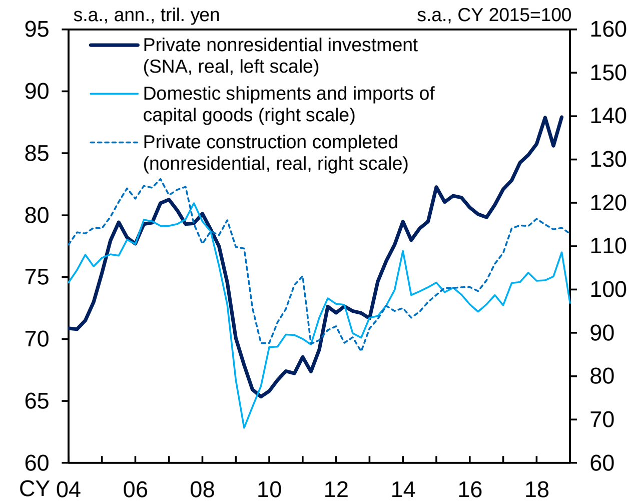
Business fixed investment has continued on an increasing trend (Chart 20). The aggregate supply of capital goods and private construction completed (nonresidential) -- coincident indicators of machinery investment and construction investment, respectively -- have continued on an uptrend, albeit with fluctuations. According to the March *Tankan*, the rates of increase in business fixed investment plans for fiscal 2018, mainly of large enterprises, are expected to substantially exceed the past average; the plans for fiscal 2019, which were surveyed for the first time in the March *Tankan*, have turned out to be relatively high compared to the past as well. For example, business fixed investment (on the basis close to GDP definition; business fixed investment -- including software as well as research and development investment, but excluding land purchasing expenses -- in all industries including the financial industry) is expected to increase by 8.1 percent in fiscal 2018, and 0.7 percent in fiscal 2019 (Chart 21). Reflecting firms' positive fixed investment stance, machinery orders and

**Chart 19:** Business Conditions



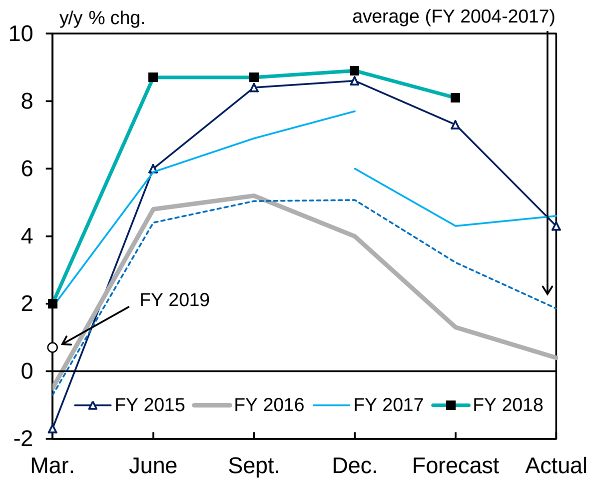

Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. There is a discontinuity in the data in December 2003 due to a change in the survey framework.
2. Shaded areas indicate recession periods.

**Chart 20:** Coincident Indicators of Business Fixed Investment




Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures for 2019/Q1 are January-February averages.
2. Real private construction completed is based on staff calculations using price indices in the "Construction Cost Deflators."

**Chart 21:** Developments in Business Fixed Investment Plans



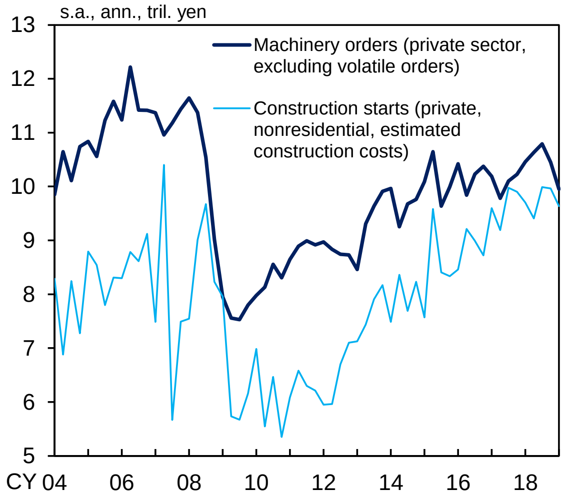

Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. All industries including financial institutions.
2. Including software and R&D investment and excluding land purchasing expenses (R&D investment is not included until the December 2016 survey).
3. There is a discontinuity in the data in December 2017 due to a change in the survey sample.

construction starts (in terms of planned expenses for private and nonresidential construction), as leading indicators, have continued on an increasing trend, albeit with large fluctuations (Chart 22).

With regard to the outlook, although business fixed investment is likely to decelerate somewhat for the time being due to the effects of the slowdown in overseas economies, it is expected to increase moderately from a somewhat longer-term perspective, mainly on the back of (1) an improvement in corporate profits, (2) highly stimulative financial conditions, such as low interest rates and accommodative lending attitudes, (3) 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 such as (1) that intended for domestic capacity expansion in line with the economic expansion, (2) that related to urban redevelopment projects, (3) that aiming at improving efficiency and saving labor in order to deal with mainly labor shortage, and (4) that in research and development for growth areas.

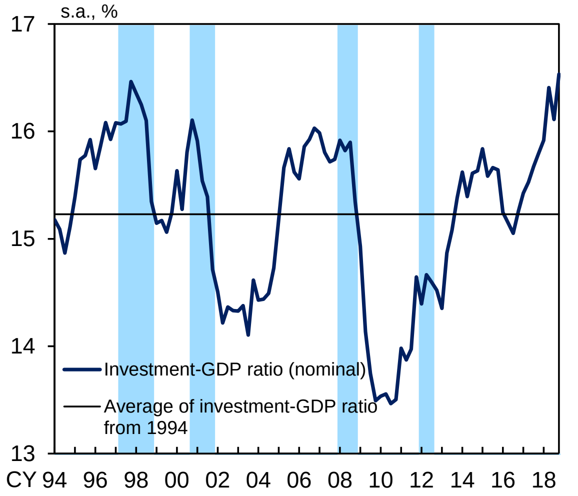
The nominal investment-GDP ratio is expected to maintain its high level on the basis of the aforementioned outlook for business fixed investment (Chart 23). The ratio has reached a level around the peaks observed in the investment cycles after the burst of the bubble. Taking this into account, pressure stemming from cyclical adjustments in capital stock is likely to bring about deceleration in business fixed

**Chart 22:** Leading Indicators of Business Fixed Investment




Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Volatile orders: orders for ships and orders from electric power companies.
2. Figures for 2019/Q1 are January-February averages.

**Chart 23:** Investment-GDP Ratio (Nominal)



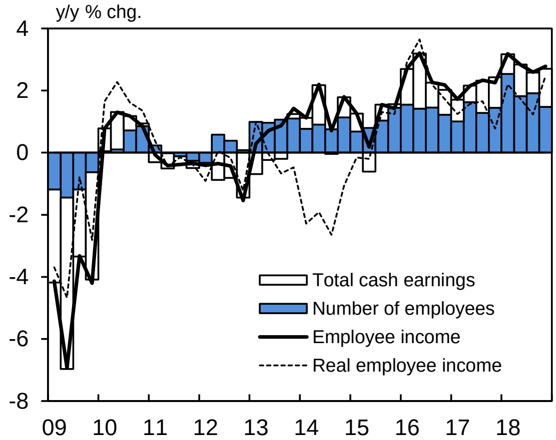

Source: Cabinet Office.
Note: Shaded areas indicate recession periods.

investment for the time being. On the other hand, a moderate rise in the potential growth rate through the end of the projection period is expected to ease such pressure.[19]

## Employment and Income Situation

Supply-demand conditions in the labor market have continued to tighten steadily and the rate of increase in employee income has been relatively high.[20] The *Labour Force Survey*-based number of employees has continued to increase firmly (Chart 24). Against this backdrop, the active job openings-to-applicants ratio has been at a high level that exceeds the peak marked during the bubble period, and a perception of labor shortage suggested by the employment conditions DI in the *Tankan* has been on a heightening trend (Chart 2). In addition, the unemployment rate has remained at a low level. These indicators of supply-demand conditions in the labor market show that the degree of labor market tightening has been at the level last seen in the first halves of the 1990s or the 1970s. 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). As Japan's economy is likely to continue on an expanding trend, it is expected that the number of employees will keep increasing and that the supply-demand conditions in the labor market will continue to tighten steadily.

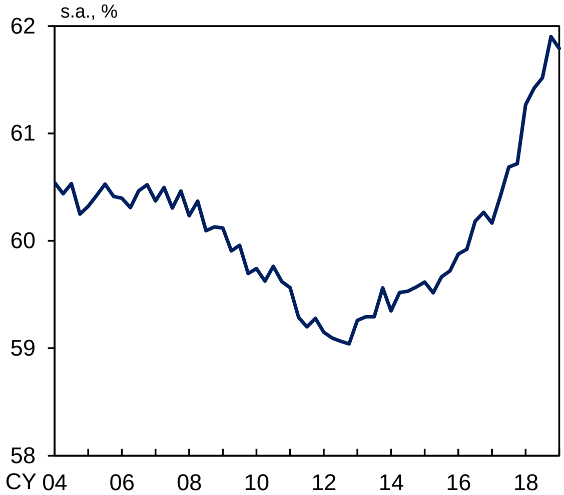
**Chart 24:** Employee Income




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

Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Employee income = total cash earnings ("Monthly Labour Survey") × number of employees ("Labour Force Survey")
3. Figures of the "Monthly Labour Survey" from 2013/Q1 are based on corrected figures adjusted for establishments in Tokyo with 500 or more employees.
4. Figures from 2016/Q1 are based on continuing observations following the sample revisions of the "Monthly Labour Survey."
5. Real employee income is based on staff calculations using the CPI (less imputed rent).

**Chart 25:** Labor Force Participation Rate




Source: Ministry of Internal Affairs and Communications.
Note: The figure for 2019/Q1 is the January-February average.

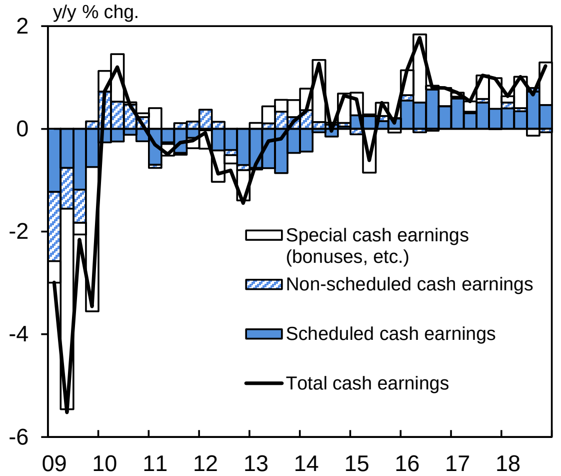
[19] For stock adjustment pressure, see Box 2 in the January 2019 Outlook Report.

[20] The Ministry of Health, Labour and Welfare released the corrected figures from 2012 onward for the *Monthly Labour Survey* on January 23. The charts in this Outlook Report that use the data from the survey are based on corrected figures where data are available; otherwise they are based on figures prior to the correction.

On the wage side, total cash earnings per employee have risen moderately, albeit with fluctuations (Chart 26).[21] However, wage increases have remained relatively weak compared to the labor market tightening, partly due to the experience of protracted employment adjustments in the past and the high wage elasticity of labor supply in recent years, mainly among women and seniors.[22]

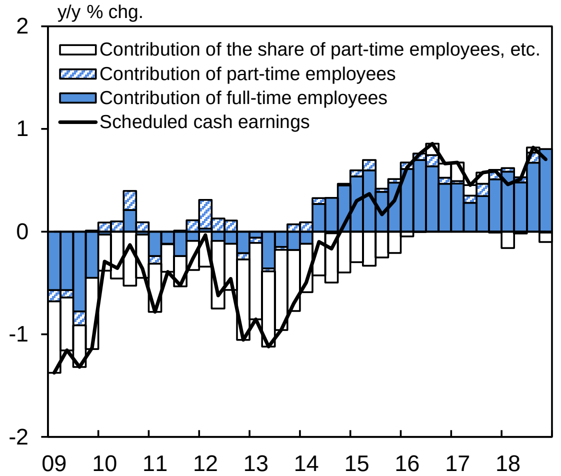
Looking at developments in nominal wages in detail, scheduled cash earnings as a whole have continued to increase moderately on the back of a rise in wages of both full-time and part-time employees (Chart 27). The year-on-year rate of increase in scheduled cash earnings of full-time employees has accelerated of late, and more recently has been at around 1 percent (Chart 28). That in hourly scheduled cash earnings of part-time employees -- which are responsive to labor market conditions -- has registered relatively high growth in the range of 2.0-2.5 percent. Meanwhile, the year-on-year rate of change in real wages per employee likely has been positive recently when the effects of the sample revision are smoothed out, albeit with fluctuations resulting from changes in prices of fresh food and

**Chart 26:** Nominal Wages



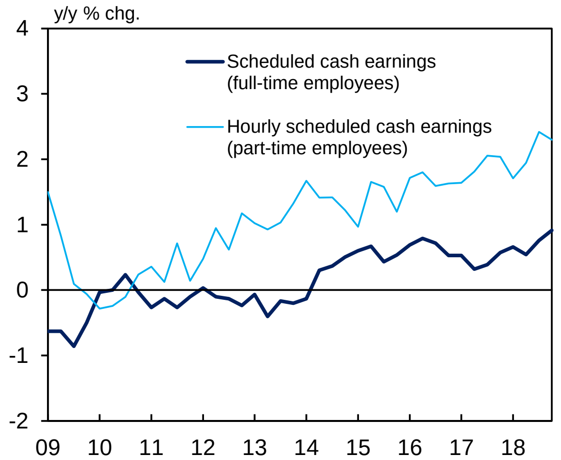

Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2013/Q1 are based on corrected figures adjusted for establishments in Tokyo with 500 or more employees.
3. Figures from 2016/Q1 are based on continuing observations following the sample revisions of the "Monthly Labour Survey."

**Chart 27:** Scheduled Cash Earnings




Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2013/Q1 are based on corrected figures adjusted for establishments in Tokyo with 500 or more employees.
3. Figures from 2016/Q1 are based on continuing observations following the sample revisions of the "Monthly Labour Survey."

**Chart 28:** Wages of Full-Time and Part-Time Employees




Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2013/Q1 are based on corrected figures adjusted for establishments in Tokyo with 500 or more employees.
3. Figures from 2016/Q1 are based on continuing observations following the sample revisions of the "Monthly Labour Survey."

[21] In the *Monthly Labour Survey*, from the January 2018 final report, half of the samples for establishments with 30 or more employees were replaced, and the number of regular employees was retroactively revised reflecting data from the 2014 *Economic Census*. Thus, the weights of establishments with 5 to 29 employees and those with 30 or more employees, as well as the ratio of part-time employees, have been changed. The samples also were replaced in the same way in the January 2019 final report. In this Outlook Report, nominal wages are assessed on the basis of continuing observations, which are less affected by the sample revisions of the *Monthly Labour Survey*.

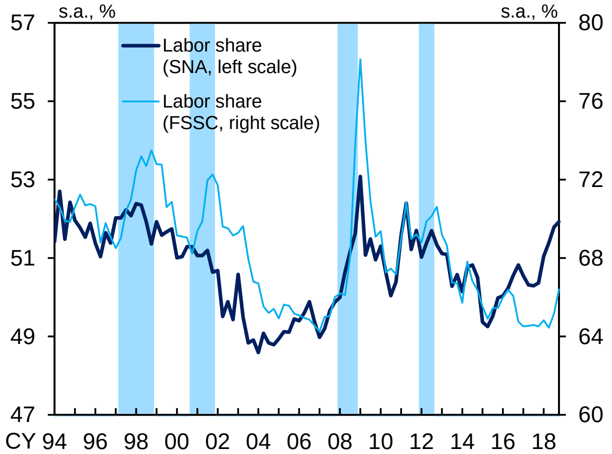
[22] With regard to the relationship between an increase in the labor supply of women and seniors and wage developments, see Box 1 in the July 2018 Outlook Report.

energy.[23]

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 the inflation rate in the previous fiscal year rising and an improvement in labor productivity becoming more evident.[24] 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.

In light of the aforementioned employment and wage conditions, the rate of increase in employee income has been relatively high (Chart 24). Going forward, it is likely to increase steadily, and the pace is expected to be about the same as the nominal GDP growth rate.

**Chart 29:** Labor Share




Sources: Cabinet Office; Ministry of Finance.
Notes: 1. Labor share (SNA) = compensation of employees / nominal GDP × 100
2. The labor share (FSSC) is based on the "Financial Statements Statistics of Corporations by Industry, Quarterly (FSSC)" and excludes "finance and insurance." Figures from 2009/Q2 exclude "pure holding companies."
3. Labor share (FSSC) = personnel expenses / (operating profits + personnel expenses + depreciation expenses) × 100
4. Shaded areas indicate recession periods.

[23] While the year-on-year rate of change in real wages in the *Monthly Labour Survey* has been negative since January 2019, this is likely to be largely attributable to the effects of the sample revision mentioned in footnote 21. The year-on-year rate of change in real wages -- calculated by subtracting the rate of change in the CPI (less imputed rent) from that in nominal wages on the basis of continuing observations -- has been positive.

[24] With regard to the base pay increase for fiscal 2019, the rate of increase in wages was 0.56 percent according to the fourth aggregate results compiled by the Japanese Trade Union Confederation (Rengo), which is around the same level as the actual rate for fiscal 2018 (0.54 percent). In addition, the rate of increase including the regular wage increase was 2.13 percent, which also is about the same as the actual rate for fiscal 2018 (2.07 percent).

## Household Spending

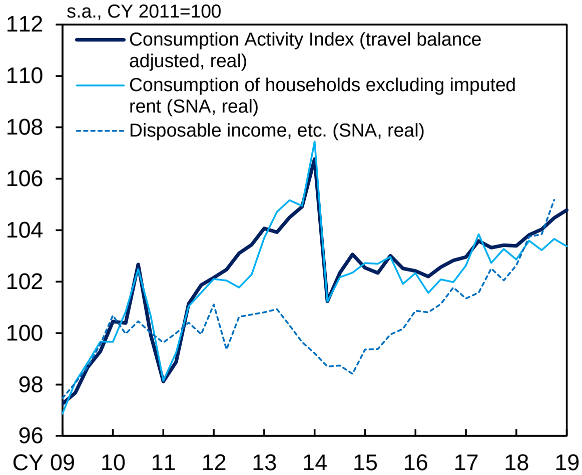
Private consumption has been increasing moderately, albeit with fluctuations, against the background of steady improvement in the employment and income situation. The Consumption Activity Index (CAI, travel balance adjusted) -- which is calculated by combining various sales and supply-side statistics from the viewpoint of gauging consumption activity in a comprehensive manner -- has increased, albeit with fluctuations (Chart 30).[25, 26] Looking at private consumption by type, durable goods have been on a moderate uptrend amid firm sales of white goods. Nondurable goods have been more or less flat. Meanwhile, services consumption has maintained its moderate increasing trend, reflecting a trend rise led by communications and medical care.

According to various sales statistics, retail sales value in nominal terms has remained on an increasing trend (Chart 31). Sales at department stores have recovered, mainly reflecting an increase in demand from foreign visitors to Japan and a pick-up in sales to the wealthy. However, they decreased temporarily at the start of the year, partly due to a decline in sales of duty-free goods that reflects stricter taxation on resale businesses in China. Sales at supermarkets have shown some weakness, mainly reflecting a decline in fresh food prices. Sales at convenience stores have continued on a rising trend.

[25] Regarding the CAI, see the Bank's research paper "Revision of the Consumption Activity Index to Address the 2008 SNA and Improve Accuracy" published in April 2018.

[26] Regarding the estimates of disposable income, etc., used in Charts 30 and 35, see Box 2 in the October 2018 Outlook Report.

**Chart 30:** Private Consumption




Sources: Bank of Japan; Cabinet Office; Ministry of Health, Labour and Welfare, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of April 16). Figures for the Consumption Activity Index (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2019/Q1 is the January-February average.
2. The figure for consumption of households excluding imputed rent for 2019/Q1 is based on staff calculations using the "Synthetic Consumption Index (February)."
3. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements." Figures from 2018/Q2 are based on staff calculations using statistics such as the "Monthly Labour Survey" (based on continuing observations following the sample revisions).

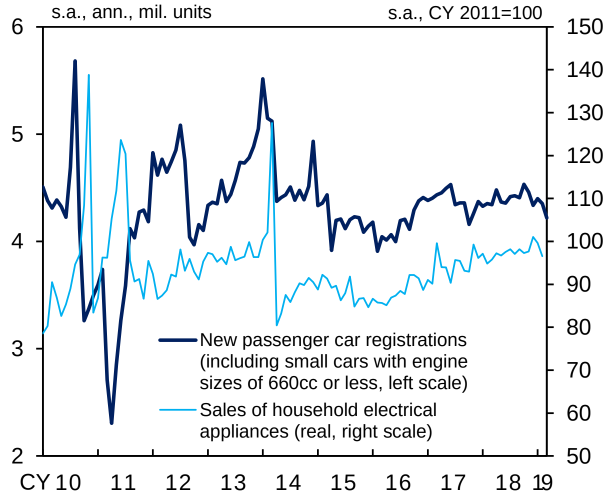
**Chart 31:** Consumption Indicators (Sales and Supply-Side Statistics)

s.a., q/q % chg.

| | 18/Q2 | 18/Q3 | 18/Q4 | 19/Q1 |
|---|---|---|---|---|
| Consumption Activity Index | | | | |
| Real, travel balance adjusted | 0.4 | 0.2 | 0.4 | 0.3 |
| Real | 0.4 | 0.1 | 0.7 | 0.2 |
| Sales at retail stores (nominal) | 0.4 | 1.0 | 0.7 | -1.4 |
| Sales at department stores | 0.7 | -2.1 | 1.0 | -1.3 |
| Sales at supermarkets | -1.0 | 1.2 | -1.5 | -1.5 |
| Sales at convenience stores | 0.4 | 1.2 | -0.6 | 2.2 |

Sources: Bank of Japan; Ministry of Economy, Trade and Industry.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of April 16).
2. Figures for sales at department stores and sales at supermarkets are adjusted for the number of stores.
3. Figures for 2019/Q1 are January-February averages.

**Chart 32:** Consumption of Durable Goods




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.

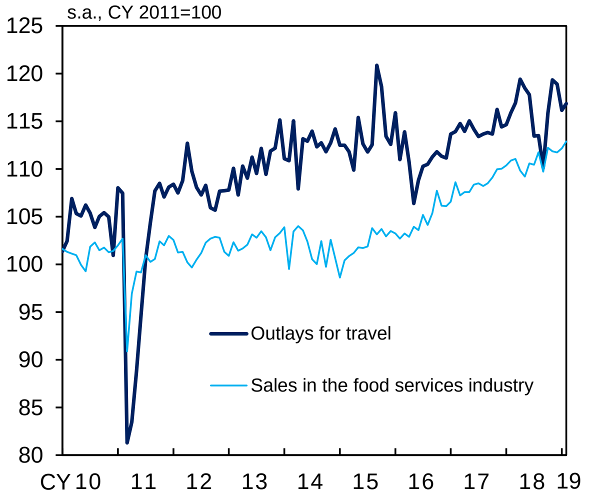
As for durable goods, sales of automobiles have been more or less flat (Chart 32). Sales of household electrical appliances have been on a moderate increasing trend, with those of white goods having been firm.

Regarding services consumption, travel has been on a moderate uptrend when fluctuations mainly resulting from the effects of natural disasters are smoothed out; dining-out has been on an uptrend, led mainly by fast food (Chart 33).

Looking at confidence indicators related to private consumption, the Consumer Confidence Index has been weakening, accompanied by a rise in inflation expectations that seems to reflect mainly media reports of price increases for food products (Chart 34). The *Economy Watchers Survey* also suggests that consumer confidence has been weakening, albeit with fluctuations partly resulting from weather conditions.

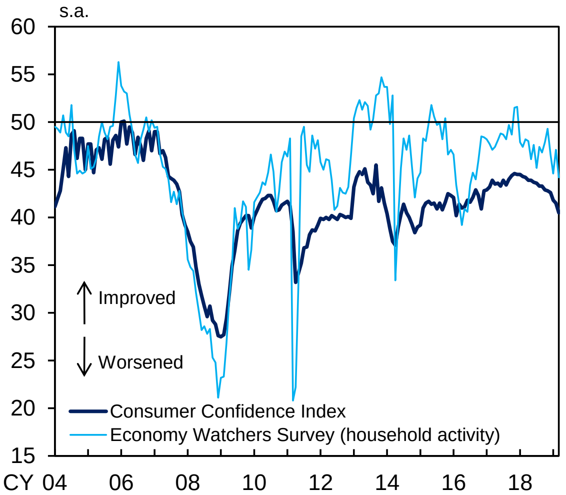
In the outlook, private consumption is expected to continue on a moderate increasing trend, supported by an increase in employee income and by the wealth effects stemming from a rise in stock prices, although it is likely to be pushed down for some time due to the effects of the scheduled consumption tax hike. Meanwhile, the propensity to consume is expected to remain more or less flat when fluctuations resulting from the scheduled consumption tax hike in 2019 are

**Chart 33:** Consumption of Services



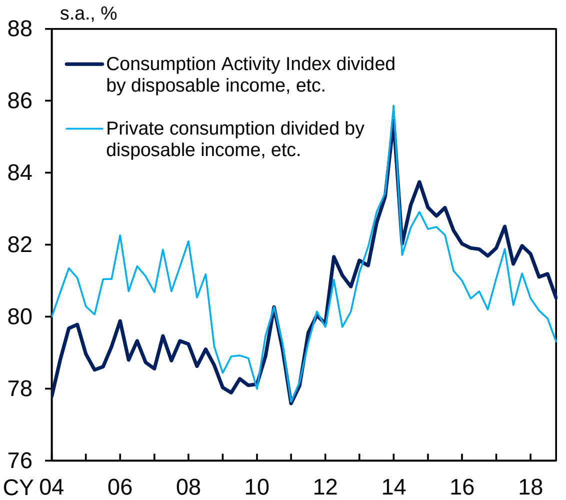

Sources: Japan Tourism Agency; Japan Foodservice Association, "Market Trend Survey of the Food Services Industry."
Note: Figures for the outlays for travel exclude those by foreign travelers.

**Chart 34:** Confidence Indicators Related to Private Consumption




Source: Cabinet Office.
Note: Figures for the "Economy Watchers Survey" are those for the current economic conditions DI.

**Chart 35:** Average Propensity to Consume

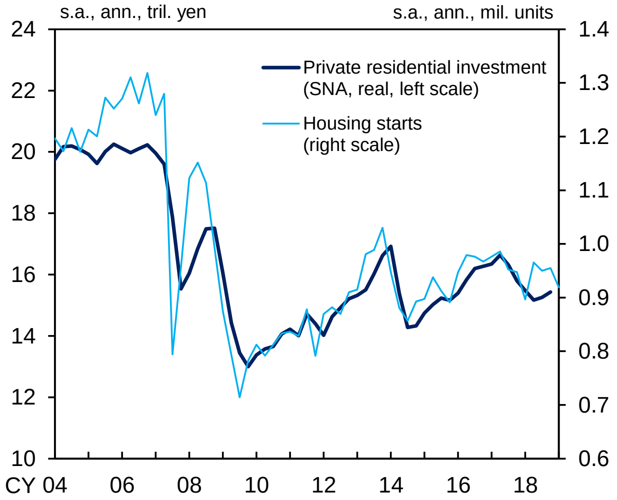



Sources: Bank of Japan; Cabinet Office; Ministry of Health, Labour and Welfare, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations.
2. Private consumption is consumption of households excluding imputed rent.
3. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements." Figures from 2018/Q2 are based on staff calculations using statistics such as the "Monthly Labour Survey" (based on continuing observations following the sample revisions).

smoothed out (Chart 35).[27]

Housing investment has been more or less flat (Chart 36). As for the outlook, it is expected to generally remain more or less flat when fluctuations due to the scheduled consumption tax hike are smoothed out; an improvement in the employment and income situation and low housing loan rates are likely to underpin housing investment, but demand for housing for rent that was motivated by inheritance tax savings is projected to peak out.

**Chart 36:** Housing Investment




Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2019/Q1 is the January-February average.

[27] Box 3 in the January 2019 Outlook Report shows that the decline in the propensity to consume of younger age groups has contributed to pushing down the propensity at the macro level, and points out the possibility that this is attributable to such factors as the ratchet effect -- a tendency for changes in consumption to lag behind those in disposable income.

# II. Current Situation of Prices and Their Outlook

## Developments in Prices

The rate of increase in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has declined 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 at around 1 percent (Chart 37).[28]

The year-on-year rate of change in the CPI (all items less fresh food and energy) has been at around 0.5 percent (Chart 39). It has continued to show relatively weak developments compared to the economic expansion and the labor market tightening. This basically has continued to be partly affected by 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, due mainly to the experience of prolonged low growth and deflation.[29] Under these circumstances, firms' cautious wage- and price-setting stance as well as households' cautiousness toward price rises have not yet clearly changed. 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 --

[28] Under these circumstances, the net "rise" for the input prices DI and the output prices DI in the *Tankan* had been on an expanding trend but recently has declined somewhat (Chart 38).

[29] With regard to households' tolerance of price rises and firms' cautious price-setting stance, see Boxes 2 and 3 in the July 2018 Outlook Report.

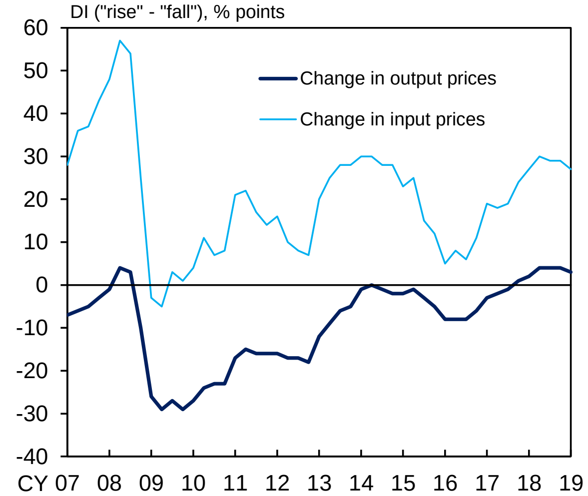
### Chart 37: Inflation Indicators

y/y % chg.

| | 18/Q2 | 18/Q3 | 18/Q4 | 19/Q1 |
|---|---|---|---|---|
| Consumer Price Index (CPI) | | | | |
| Less fresh food | 0.7 | 0.9 | 0.9 | 0.8 |
| Less fresh food and energy | 0.3 | 0.3 | 0.3 | 0.4 |
| Producer Price Index (q/q % chg.) | 0.7 | 0.6 | 0.4 | -0.8 |
| Services Producer Price Index | 0.9 | 1.1 | 1.1 | 1.1 |
| GDP deflator | -0.1 | -0.4 | -0.3 | |
| Domestic demand deflator | 0.5 | 0.6 | 0.5 | |

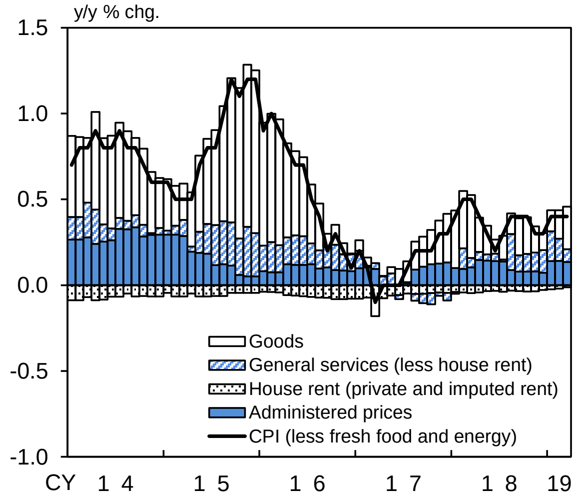
Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
Notes: 1. Figures for the Producer Price Index are adjusted to exclude the hike in electric power charges during the summer season.
2. Figures for the Services Producer Price Index exclude international transportation.

### Chart 38: Changes in Prices




Source: Bank of Japan.
Note: Based on the *Tankan*. All enterprises.

### Chart 39: CPI (less fresh food and energy)




Source: Ministry of Internal Affairs and Communications.
Notes: 1. Administered prices (less energy) consist of "public services" and "water charges."
2. The CPI figures are adjusted for changes in the consumption tax rate.

which correspond to labor shortage -- mainly to part-time employees.[30] As a result, the real wage gap, which is defined as the deviation of real wages from labor productivity, has continued to contribute to pushing down price rises, although it recently has narrowed somewhat within negative territory (Chart 40). In addition, sectoral shock, such as price declines at mainly supermarkets resulting from intensifying competition with other types of retail businesses, as well as the continued lackluster developments in administered prices and housing rent, have been constraining inflation in part. It has been taking time to resolve these factors that have been delaying price rises.

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 at around 0.5 percent (Chart 42).

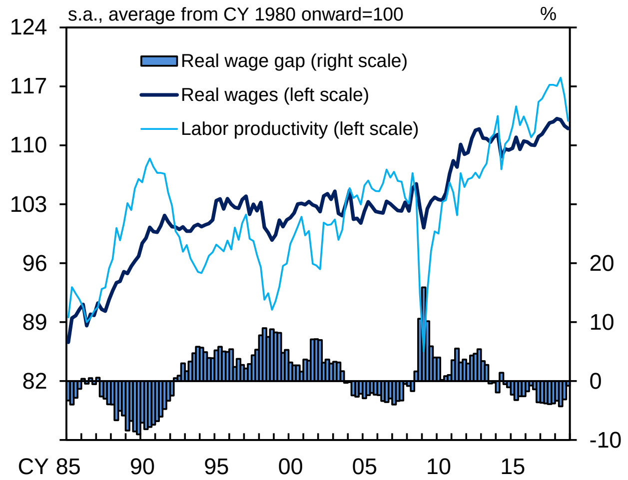
The developments in the indicators for capturing the underlying trend in the CPI are as follows (Chart 43). The rate of change in the trimmed mean has been at around 0.5 percent recently.[31] The mode and the weighted median have been in the range of 0.0-0.5 percent of late.[32] Meanwhile,

[30] As for firms' efforts to raise productivity, see Box 4 in the July 2018 Outlook Report.

[31] The effects of large relative price fluctuations are eliminated by 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).

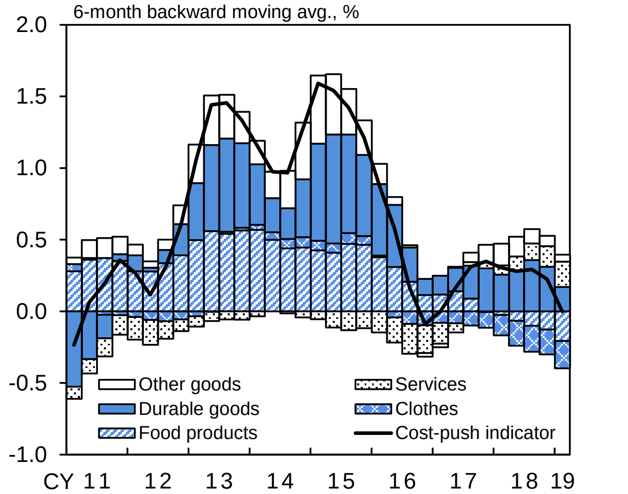
[32] The mode is the inflation rate with the highest density in the price fluctuation distribution. The weighted median is the average of the inflation rates of the items at around the 50 percentile point of the cumulative distribution in terms of weight.

**Chart 40:** Real Wage Gap



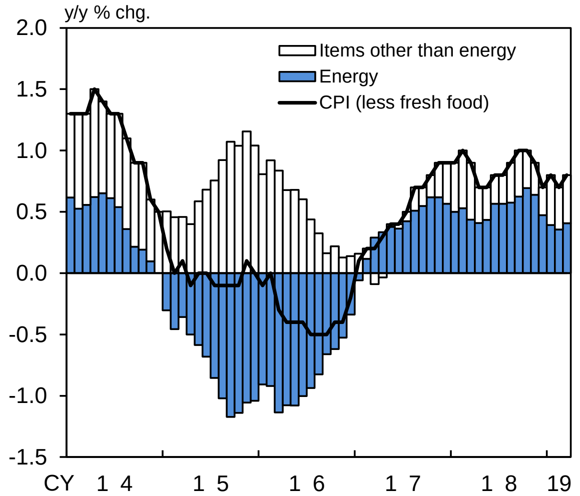

Sources: Ministry of Finance; Cabinet Office.
Notes: 1. The real wage gap is defined as the deviation of real wages from labor productivity.
2. Real wages = personnel expenses / number of workers / GDP deflator
3. Labor productivity = (operating profits + personnel expenses + depreciation expenses) / number of workers / GDP deflator
4. Variables such as personnel expenses are based on the "Financial Statements Statistics of Corporations by Industry, Quarterly" and exclude "finance and insurance."
5. Figures from 2009/Q2 exclude "pure holding companies."

**Chart 41:** Cost-Push Indicator




Sources: Ministry of Internal Affairs and Communications, etc.
Notes: 1. The cost-push indicator is defined as the weighted average of the residuals obtained when regressing each CPI item on the corresponding cost indicator, such as the Producer Price Index. The weights are based on the CPI.
2. Figures for 2019/Q1 are January-February averages.

**Chart 42:** CPI (less fresh food)

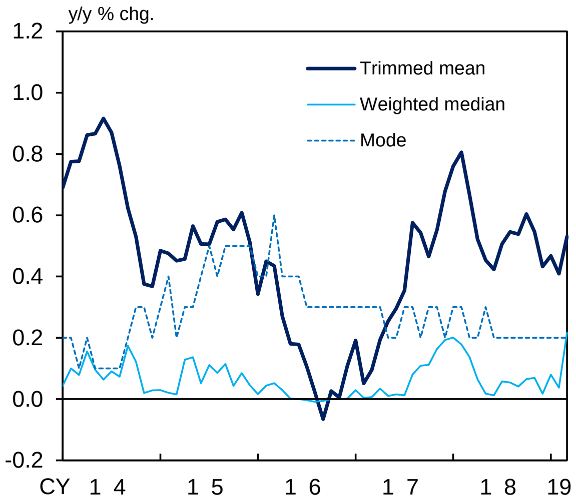



Source: Ministry of Internal Affairs and Communications.
Notes: 1. Energy consists of petroleum products, electricity, and gas, manufactured & piped.
2. The CPI figures are adjusted for changes in the consumption tax rate.

looking at annual price changes across all items (less fresh food), the share of price-increasing items minus the share of price-decreasing items recently has been more or less flat (Chart 44).

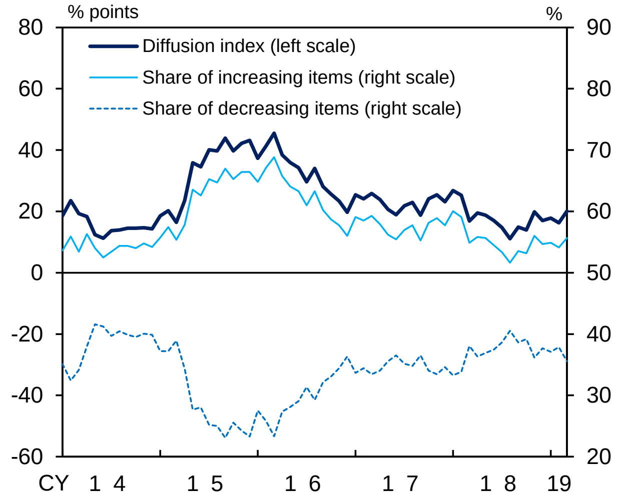
The year-on-year rate of change in the GDP deflator has been in the range of 0.0 to minus 0.5 percent on the whole, as it has been negatively affected by the import deflator that reflects developments in international commodity prices (Chart 37). The year-on-year rate of change in the domestic demand deflator has been at around 0.5 percent, mainly led by the private consumption and business fixed investment deflators.

**Chart 43:** Various Measures of Core Inflation




Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
Note: Based on staff calculations using the CPI (consumption tax adjusted).

**Chart 44:** 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.

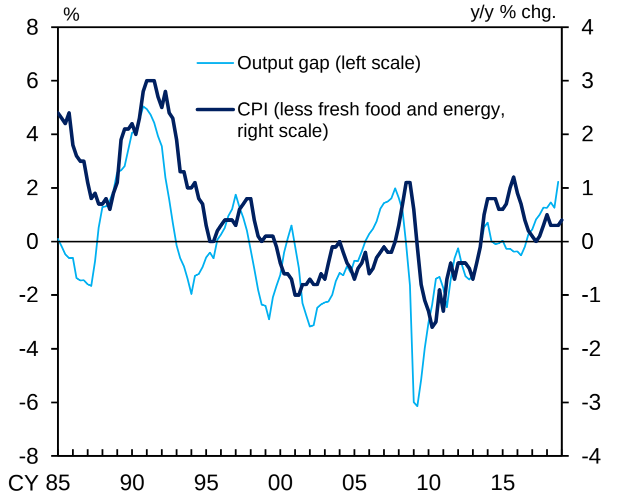
## Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap widened within positive territory and was in the range of 2.0-2.5 percent in the October-December quarter of 2018, partly backed by the restoration from natural disasters and the steady tightening of labor market conditions (Charts 4 and 45).[33] With regard to the outlook, the output gap is expected to remain substantially positive, despite being affected by the slowdown in overseas economies and the scheduled consumption tax hike.

Second, medium- to long-term inflation expectations have been more or less unchanged recently (Charts 46 and 47). As for the outlook, such expectations are likely to follow an increasing trend and gradually converge to 2 percent on the back of the following: (1) in terms of the adaptive component, as further price rises come to be observed widely with the output gap remaining positive, inflation expectations are likely to be pushed up through a rise in the observed inflation rate, 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, which will be effective in pushing up inflation expectations toward 2 percent.

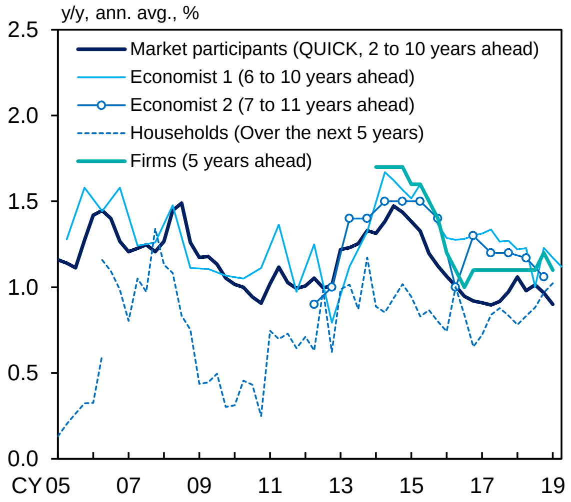
[33] In the meantime, the DI in the *Tankan* for domestic supply and demand conditions for products and services for large manufacturing enterprises has remained at a level around the peaks observed in the past business cycles, although it declined in the March *Tankan*.

**Chart 45:** Inflation Rate and Output Gap



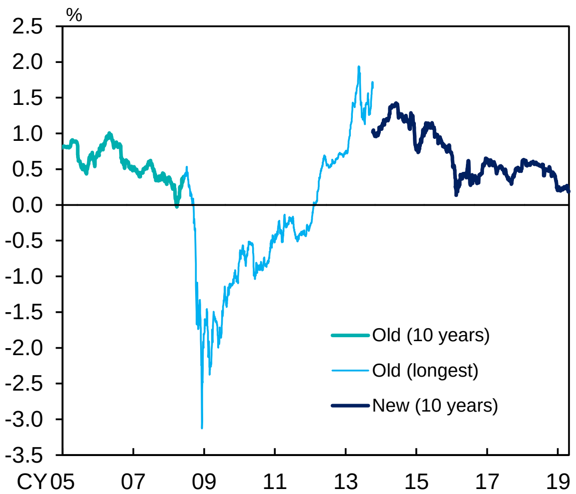

Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are adjusted for changes in the consumption tax rate.
2. The output gap is based on staff estimations.

**Chart 46:** Inflation Expectations (Survey)




Sources: Bank of Japan; QUICK, "QUICK Monthly Market Survey (Bonds)"; JCER, "ESP Forecast"; Consensus Economics Inc., "Consensus Forecasts."
Notes: 1. Figures for the economist 1 are from the "Consensus Forecasts." Figures for the economist 2 are from the "ESP Forecast."
2. Figures for households are from the "Opinion Survey on the General Public's Views and Behavior," estimated using the modified Carlson-Parkin method.
3. Figures for firms are "Outlook for General Prices (*Tankan*, all industries and enterprises, average)."

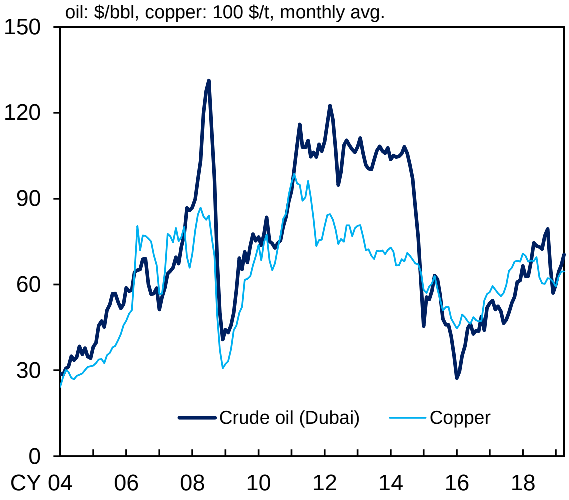
**Chart 47:** Inflation Expectations (BEI)




Source: Bloomberg.
Note: BEI (break-even inflation) rates are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using yield data for issue No. 16 of inflation-indexed JGBs, which matured in June 2018.

The third factor is developments in import prices (Chart 48). Upward pressure of energy prices on the year-on-year rate of change in the CPI is likely to diminish, reflecting the past decline in crude oil prices.

Chart 48: International Commodity Prices



Sources: Nikkei Inc.; Bloomberg.

## 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 accelerate, mainly 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, including food products and goods related to daily necessities, is expected to accelerate gradually with a moderate increase in private consumption, and (2) moves to pass on the increase in personnel expenses to prices of general services, mainly dining-out and housework-related services, are likely to prevail. Thereafter, as firms' stance shifts toward further raising wages and prices and households' tolerance of price rises increases with the output gap remaining positive, inflation expectations are projected to rise gradually and the year-on-year rate of change in the CPI (all items less fresh food and energy) also is likely to increase gradually toward 2 percent.

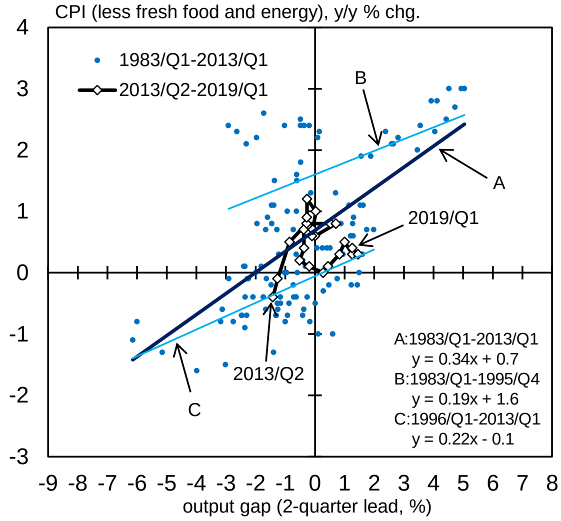
The year-on-year rate of change in the CPI (all items less fresh food) is likely to remain positive at around the current level for the time being, while a decline in energy prices, such as of electricity, will contribute to exerting downward pressure. Thereafter, the rate of change is projected to increase gradually toward 2 percent as the CPI inflation excluding fresh food and energy is expected to accelerate.

Such projections are made based on the underlying scenario that, with the output gap remaining substantially positive, the Phillips curve will gradually shift upward as inflation expectations rise through both the forward-looking and adaptive expectation formation mechanisms (Chart 49).[34]

Comparing the current projections through fiscal 2020 with the previous ones, the projected rates of increase in the CPI (all items less fresh food) are more or less unchanged.

In the long run, real wages -- which are determined by the balance between prices and nominal wages -- will be consistent with labor productivity (Chart 40). Under the baseline scenario, the pace of increase in real wages is expected to accelerate gradually, catching up with the improvement in labor productivity. That is, with corporate profits at around record high levels, the rate of increase in nominal wages is projected to outpace that in the CPI, reflecting tight labor market conditions. Such a rise in real wages is likely to push up consumption through an improvement in household income and increase households' tolerance of price rises, thereby contributing to a rise in the CPI.

**Chart 49:** Phillips Curve




Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are adjusted for changes in the consumption tax rate.
2. The output gap is based on staff estimations.

[34] Regarding the adaptive formation mechanism of inflation expectations, see Box 7 in the July 2018 Outlook Report.

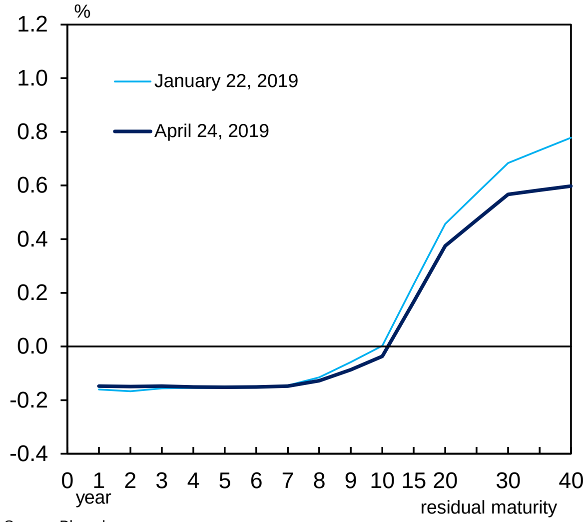
## Financial Conditions

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 50). That is, the yields for relatively short maturities have been in slightly negative territory; the 10-year JGB yields have generally been at around 0 percent. Meanwhile, the 20-year JGB yields have been in the range of 0.0-0.5 percent. With the Bank pursuing powerful monetary easing, the transaction volume for JGBs has remained at a relatively low level, but it has increased somewhat since end-July last year.[35]

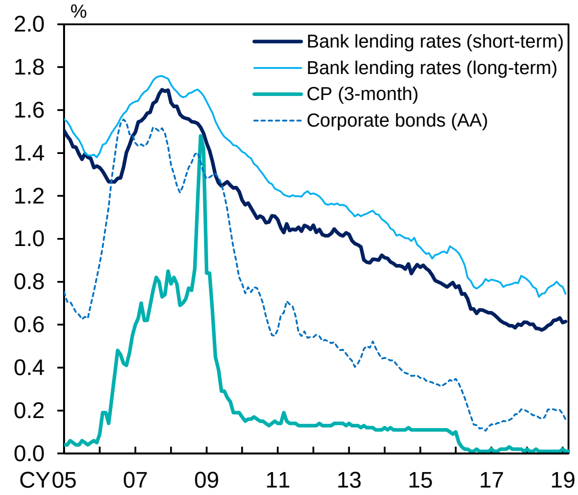
Firms' funding costs have been hovering at extremely low levels (Chart 51). Issuance rates for CP have remained at extremely low levels, and indices such as the DI in the *Tankan* suggest that conditions for its issuance have been favorable. Issuance rates for corporate bonds also have remained at extremely low levels. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been at around historical low levels.

**Chart 50:** Yield Curves



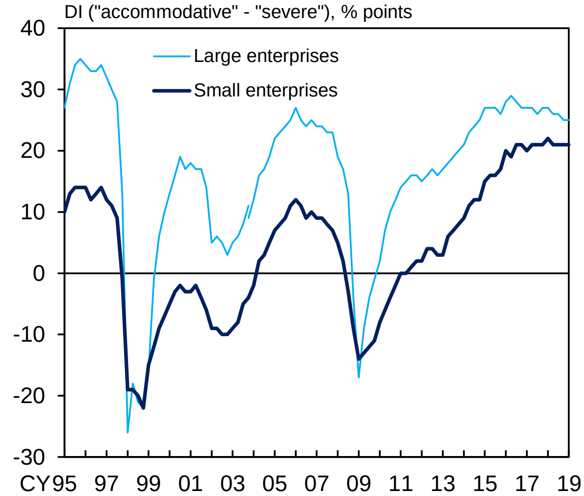

Source: Bloomberg.

**Chart 51:** Bank Lending Rates and Issuance Yields for CP and Corporate Bonds




Sources: Bank of Japan; Japan Securities Depository Center; Capital Eye; I-N Information Systems; Bloomberg.
Notes: 1. Figures for issuance yields for CP up to September 2009 are the averages for CP (3-month, rated a-1 or higher). Those from October 2009 are the averages for CP (3-month, rated a-1).
2. Figures for issuance yields for corporate bonds are the averages for domestically issued bonds launched on a particular date. Bonds issued by banks and securities companies, etc., are excluded.
3. Figures for bank lending rates and issuance yields for corporate bonds show 6-month backward moving averages.

**Chart 52:** Lending Attitude of Financial Institutions as Perceived by Firms




Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

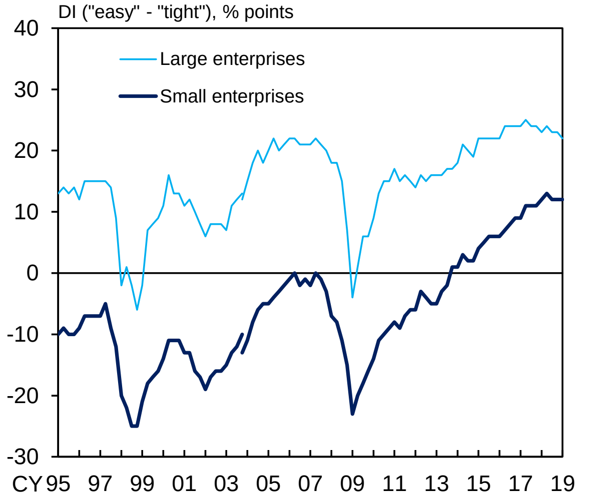
[35] With regard to liquidity in the JGB markets and the degree of bond market functioning from the market participants' viewpoints, see the Bank's releases *Liquidity Indicators in the JGB Markets* (March 2019) and *Bond Market Survey* (February 2019 survey).

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 52). Firms' financial positions have been favorable, as suggested by the DI for large firms in the *Tankan* having been at a high level of around the peak in the mid-2000s, and that for small firms having been at about the same high level seen around 1990 (Chart 53).

Demand for funds such as those for business fixed investment, as well as those related to mergers and acquisitions of firms, has been increasing. In these circumstances, the year-on-year rate of increase in the amount outstanding of bank lending has been at around 2.5 percent (Chart 54). That in the aggregate amount outstanding of CP and corporate bonds has been at a relatively high level.

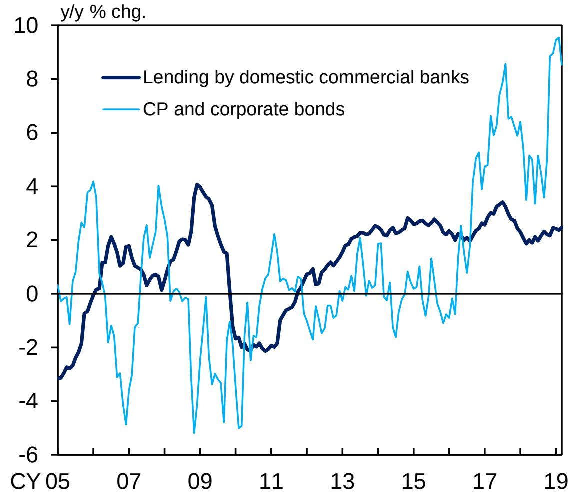
The year-on-year rate of increase in the monetary base has been at around 4-5 percent, and its amount outstanding as of end-March was 506 trillion yen, of which the ratio to nominal GDP was 92 percent.[36] The year-on-year rate of increase in the money stock (M2) has been at around 2.5 percent, partly reflecting an increase in bank lending (Chart 55).

**Chart 53:** Financial Position



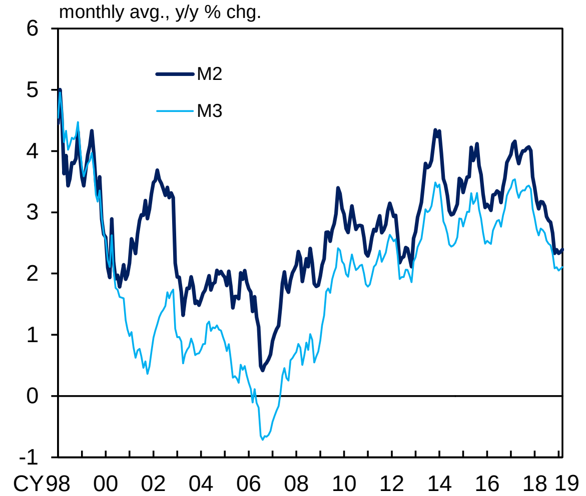
Source: Bank of Japan.
Note: Based on the *Tankan.* All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

**Chart 54:** Amount Outstanding of Bank Lending, CP, and Corporate Bonds



Sources: Bank of Japan; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.
Note: Figures for lending by domestic commercial banks are monthly averages. Figures for CP and corporate bonds are those at the end of period.

**Chart 55:** Money Stock



Source: Bank of Japan.

[36] It is assumed that the figure for nominal GDP is unchanged from the October-December quarter of 2018.

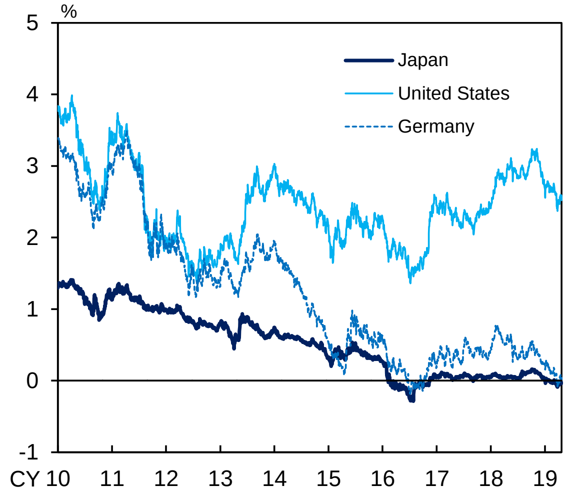
## Developments in Financial Markets

With regard to developments in global financial markets, stock prices have risen on the whole since mid-January, mainly reflecting the waning of speculation over a possible policy rate hike in the United States as well as expectations for progress in trade negotiations between the United States and China, despite falling temporarily in many countries due to such factors as concerns regarding the slowdown in the global economy. Long-term interest rates in the United States and Europe declined through late March and recently have risen somewhat.

Yields on 10-year government bonds in the United States decreased through late March, due mainly to the waning of speculation over a possible policy rate hike by the Federal Reserve as well as concerns regarding the slowdown in the global economy, and subsequently have risen somewhat against the background of such factors as expectations for progress in trade negotiations between the United States and China (Chart 56). Yields on 10-year government bonds in Germany declined through late March amid uncertainties over the European economy going forward, and subsequently have recovered somewhat, along with a rise in U.S. interest rates.

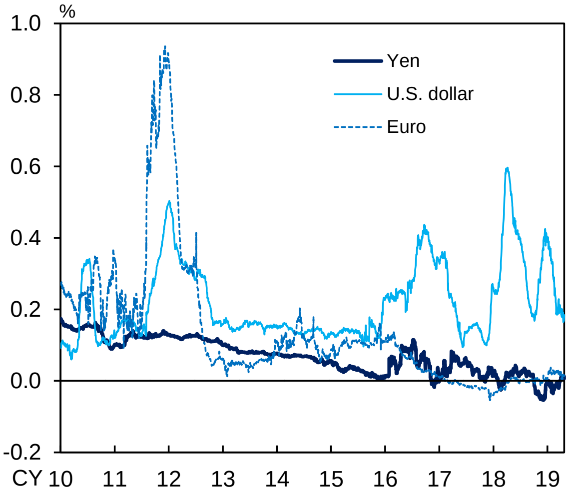
With regard to credit spreads on interbank transactions, the LIBOR-OIS spreads for major currencies show the following developments: those for the U.S. dollar narrowed through the beginning of March and have been more or less flat thereafter; those for the euro and the yen have remained at low levels (Chart 57). Premiums for U.S. dollar funding through the dollar/yen foreign

**Chart 56:** 10-Year Government Bond Yields in Selected Advanced Economies



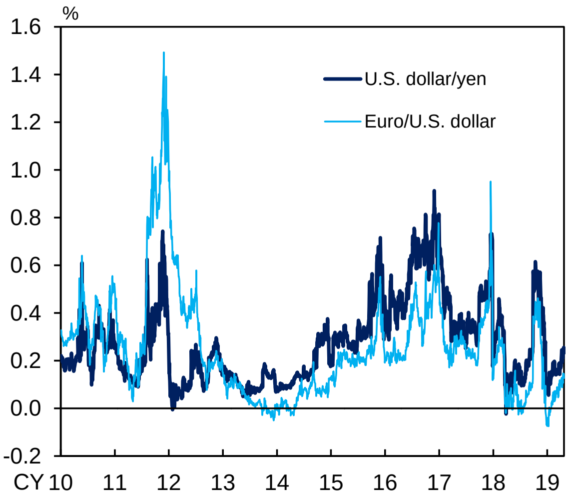

Source: Bloomberg.

**Chart 57:** Credit Spreads for Term Instruments




Source: Bloomberg.
Note: The credit spreads for term instruments are LIBOR (3-month) minus yields on overnight index swaps (3-month).

**Chart 58:** Dollar Funding Premiums through Foreign Exchange Swaps




Source: Bloomberg.
Note: U.S. dollar funding rate from yen or euro minus 3-month dollar LIBOR.

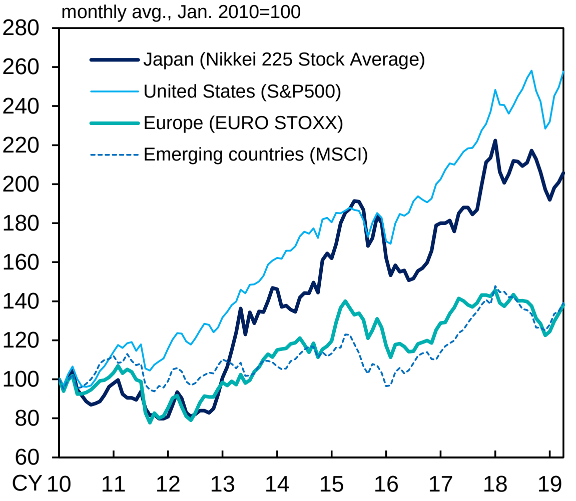
exchange swap market have been stable at low levels compared to the second half of last year (Chart 58).

Stock prices in the United States have followed an uptrend since mid-January, mainly reflecting the waning of speculation over a possible policy rate hike by the Federal Reserve as well as expectations for progress in trade negotiations between the United States and China, despite falling temporarily due to concerns regarding the slowdown in the global economy (Chart 59). Stock prices in Europe have risen along with those in the United States, although they fell temporarily, mainly reflecting uncertainties over the European economy going forward as well as difficulties surrounding negotiations on the United Kingdom's exit from the EU. Japanese stock prices have increased, with fluctuations, due mainly to a rise in U.S. stock prices as well as expectations for progress in trade negotiations between the United States and China.

In the Japan real estate investment trust (J-REIT) market, prices have risen, mainly in reflection of capital inflows from overseas (Chart 60).

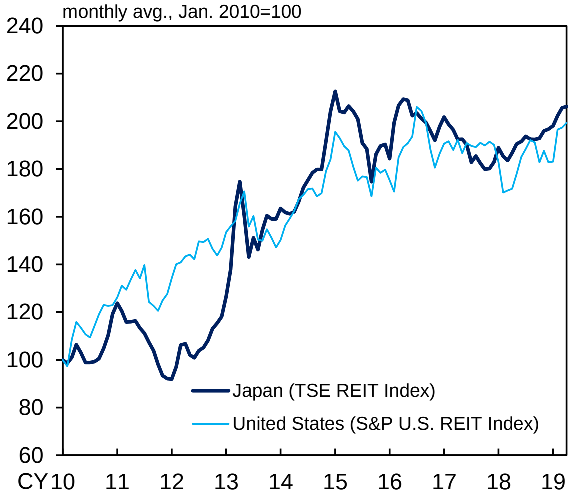
In foreign exchange markets, the yen has depreciated somewhat against the U.S. dollar, with investors' risk aversion abating, mainly against the background of expectations for progress in trade negotiations between the United States and China (Chart 61). The yen has been more or less flat against the euro amid uncertainties over the European economy going forward.

**Chart 59:** Selected Stock Prices



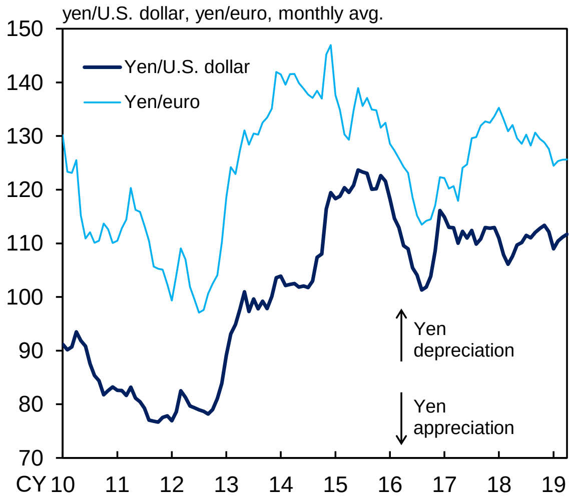

Source: Bloomberg.
Note: Figures for emerging countries are based on the MSCI Emerging Markets Index calculated in the local currencies.

**Chart 60:** Selected REIT Indices




Source: Bloomberg.

**Chart 61:** Yen/U.S. Dollar and Yen/Euro

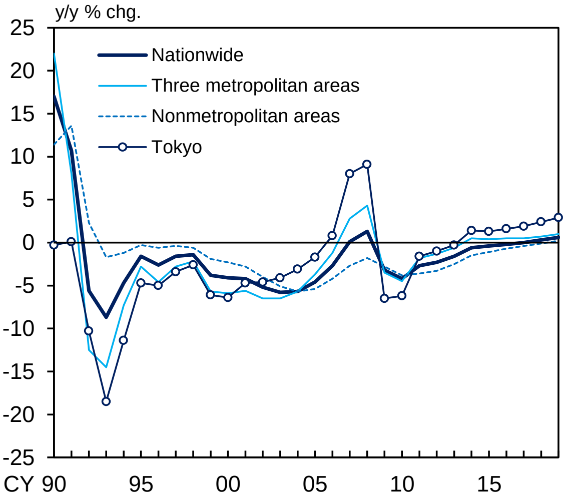



Source: Bloomberg.

## Land Prices

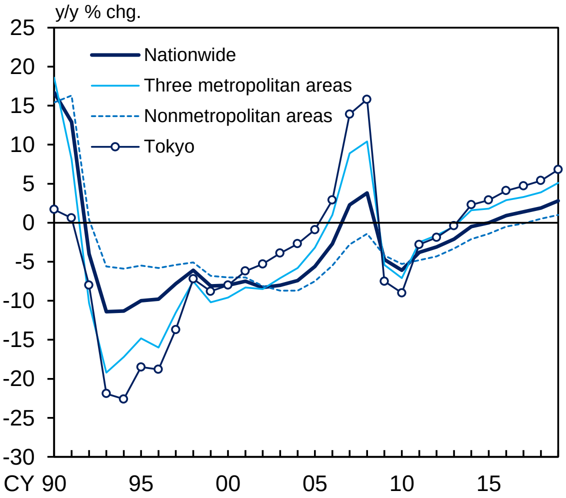
Land prices as a whole have been rising moderately. According to the *Land Market Value Publication* for 2019 (as of January 1), the year-on-year rate of increase in both commercial and residential land prices has accelerated (Charts 62 and 63). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rate of increase in both commercial and residential land prices has accelerated. In nonmetropolitan areas, the year-on-year rate of change in commercial land prices has been positive for two consecutive years, and that in residential land prices has turned positive for the first time in 27 years.

**Chart 62:** Residential Land Prices




Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the "Land Market Value Publication." Figures are as of January 1.
2. Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures), and the Nagoya area (Aichi and Mie prefectures). Nonmetropolitan areas: other than the three metropolitan areas.

**Chart 63:** Commercial Land Prices




Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the "Land Market Value Publication." Figures are as of January 1.
2. Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures), and the Nagoya area (Aichi and Mie prefectures). Nonmetropolitan areas: other than the three metropolitan areas.

## (Box 1) Assessment of Current Export Conditions Based on Monitoring Indicators

Japan's exports have shown some weakness recently, reflecting the slowdown in overseas economies. Also, in interviews conducted by the Bank's Head Office, branches, and local offices, an increasing number of firms have pointed out the impact of the slowdown in overseas economies on exports and production.[37]

In order to examine such changes in export conditions, the SCOPE (Surveillance Indices for Critical Overseas Perils to Exports) indicator to comprehensively monitor export conditions, introduced in the previous Outlook Report, was updated (Chart B1-1).[38] While three out of the 18 indicators had signaled a deterioration in export conditions as of December 2018, this number increased to six as of March 2019: the new export orders index of the Global Manufacturing PMI; the OECD Business Confidence Index; world vehicle sales; the new export orders index of the Nikkei Japan Manufacturing PMI; Machinery Orders (from overseas) for electronic and communication equipment; and Output of Metal Shaping Machinery in China (Chart B1-2).

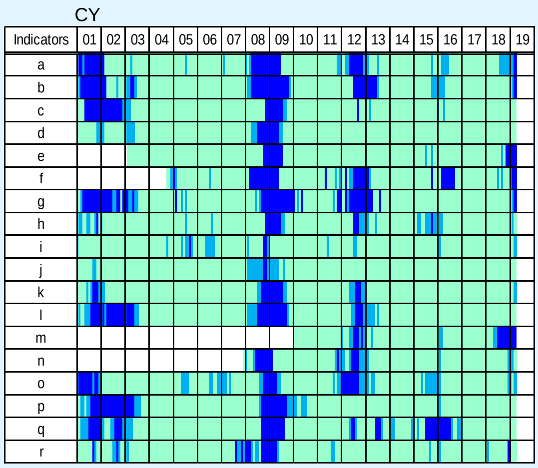
The number of indicators that recently have been emitting signals is smaller than in the past periods when exports decreased substantially, indicated as periods (1) to (4) in Chart B1-3; nevertheless, the number is higher than in 2015-2016, when

### Chart B1-1: Monitoring Indicators

| Indicators | | | |
|---|---|---|---|
| World | | | |
| | Corporate | a | Global Manufacturing PMI: New export orders index |
| | | b | OECD Business Confidence Index |
| | | c | WSTS World Semiconductor Shipments |
| | Household | d | OECD Consumer Confidence Index |
| | | e | World vehicle sales |
| Japan | | | |
| | Corporate | f | Nikkei Japan Manufacturing PMI: New export orders index |
| | | g | Machinery Orders (from overseas): Electronic and communication equipment |
| U.S. | | | |
| | Corporate | h | ISM Manufacturing Index: New export orders index |
| | | i | Philadelphia Fed Manufacturing Business Outlook Survey: Future shipments |
| | Household | j | University of Michigan Surveys of Consumers: Current economic conditions |
| Euro Area | | | |
| | Corporate | k | Business Climate Indicator: Industry, production expectations |
| | | l | Business Climate Indicator: Services sector, demand expectations |
| Asia | | | |
| | Corporate | m | Output of Metal Shaping Machinery in China |
| | | n | China Manufacturing PMI |
| | Overall | o | Taiwan National Development Council's Monitoring Indicators: Total score |
| Financial Markets | | p | MSCI World Index |
| | | q | MSCI Emerging Markets Index |
| | | r | VIX Index |

Note: The Global Manufacturing PMI is the "J.P. Morgan Global Manufacturing PMI."

### Chart B1-2: SCOPE




Sources: Haver; Bloomberg; Cabinet Office; WSTS Inc.;
IHS Markit (© and database right IHS Markit Ltd 2019. All rights reserved.)

Notes: 1. This chart visualizes the possibility of a significant decrease in real exports by depicting indicator values relative to their respective threshold values. Based on staff calculations.
2. Shaded areas in the chart represent the following for an indicator relative to the threshold set for the indicator: (1) areas shaded in dark blue indicate that the indicator is above the threshold value; (2) areas in light blue indicate that the indicator lies between the threshold value and half of the threshold value; (3) areas in green indicate that the indicator lies below half of the threshold value; and (4) areas in white indicate that no data are available.

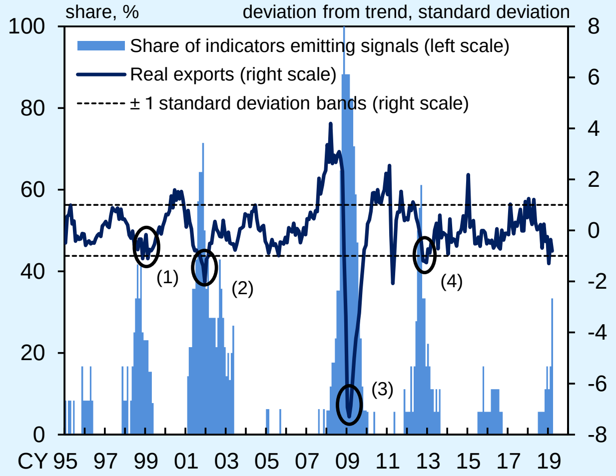
[37] Some of these interviews of firms are summarized in the April 2019 *Regional Economic Report*.

[38] For details of the SCOPE indicator, see Box 1 in the January 2019 Outlook Report.

emerging economies including China decelerated, and this shows that the current deterioration in export conditions is more widespread than during that period (Chart B1-3). However, the breakdown of the SCOPE indicator in Chart B1-2 shows that, unlike during the past periods of a significant decrease in exports in the wake of a slowdown in the global economy, the indicators mainly for the United States and financial markets have not emitted any signals. This suggests that the deterioration in export conditions in the current phase is limited to Asia and certain sectors such as manufacturing.

In the current phase, real exports dropped more than one standard deviation below their trend in January. However, they were within the one standard deviation band again in February and March, and have not remained below the band for a continued period of time, unlike during the periods (1) to (4).

**Chart B1-3:** Share of Indicators Emitting Signals



Sources: Bank of Japan; Ministry of Finance.
Note: (1) to (4) indicate periods in which real exports deviated downward from their trend by more than one standard deviation for two months or more in a four-month period.

## (Box 2) Decomposition of the Recent Decline in Real Exports

This box examines the background behind Japan's exports having shown some weakness recently by using data for real exports by destination and goods. Specifically, based on a certain estimation method, real export developments were decomposed into (1) factors specific to each destination, (2) factors specific to each type of goods, and (3) factors common to all destinations and goods (Chart B2-1).[39]

Looking at destination-specific factors of late, factors specific to the United States and the EU have made a positive contribution to real exports, while those specific to Asia, mainly China, have made a relatively large negative contribution (Chart B2-2). In terms of goods-specific factors, motor vehicles and related goods have contributed to pushing up real exports, whereas IT-related goods and capital goods, such as parts for smartphones and semiconductor production equipment, have contributed to pushing them down (Chart B2-3). Reexamining factors affecting real export developments in view of these results, the decline in exports in the January-March quarter of 2019 can be explained almost entirely by the negative contribution of "factors specific to Asia" and "factors specific to IT-related goods and capital goods" (Chart B2-4).

### **Chart B2-1:** Decomposition into Factors Affecting Export Developments

Using panel data for quarter-on-quarter changes in real exports by destination and goods, the following regression equation is estimated:

(Estimation model)

$$
\begin{aligned}
dln\left(REX_{c,i}(t)\right) = &\\
&\sum_{b=2}^{N_d}\sum_{s=1}^{T}\alpha_{b,s,i}\times I_{b,s,i}(t) &&\cdots \text{ Factors specific to destination } c\\
&+\sum_{h=2}^{N_g}\sum_{s=1}^{T}\beta_{c,s,h}\times I_{c,s,h}(t) &&\cdots \text{ Factors specific to goods } i\\
&+\sum_{s=1}^{T}\gamma_s\times I_s(t) &&\cdots \text{ Common factors}\\
&+\varepsilon_{c,i}(t)
\end{aligned}
$$

(Variables)

$REX_{c,i}(t)$ = Real exports of goods $i$ to destination $c$ at time $t$

$$
I_{b,s,i}(t) = \begin{cases} 1/N_g & if \quad b = c \;\&\; s = t \\ -1/\left(N_g\times\left(N_d-1\right)\right) & if \quad b \neq c \;\&\; s = t \\ 0 & if \quad otherwise \end{cases}
$$

$$
I_{c,s,h}(t) = \begin{cases} 1/N_d & if \quad h = i \;\&\; s = t \\ -1/\left(N_d\times\left(N_g-1\right)\right) & if \quad h \neq i \;\&\; s = t \\ 0 & if \quad otherwise \end{cases}
$$

$$
I_s(t) = \begin{cases} 1 & if \quad s = t \\ 0 & if \quad otherwise \end{cases}
$$

$c$ = "United States," "EU," "China," "NIEs, ASEAN, etc.," and "other economies"

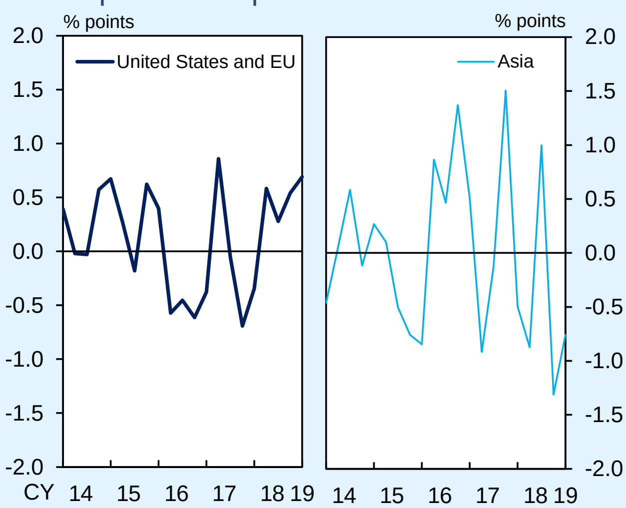
$i$ = "Intermediate goods," "motor vehicles and related goods," "IT-related goods," "capital goods," and "other goods"

$N_d$ = Number of destinations $N_g$ = Number of goods

(Estimation period)

2000/Q1-2019/Q1
where $s = 1$ and $s = T$ correspond to 2000/Q1 and 2019/Q1, respectively.

### **Chart B2-2:** Destination-Specific Factors in Export Developments

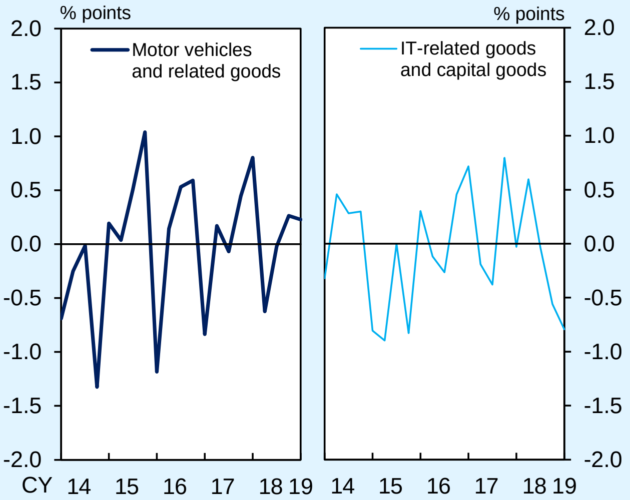



Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Figures show the contribution to changes in real exports on a seasonally adjusted quarter-on-quarter basis.
2. "Asia" consists of "China" and "NIEs, ASEAN, etc."
3. Based on staff calculations.

[39] For details on the estimation method, see "Nihon no seisan hendō: Gurōbaru kin'yū shokku to sekai keizai no kōzō henka" [Changes in Japan's production: Global financial shocks and structural changes in the global economy], Bank of Japan Review Series (2010-J-05) (available only in Japanese).

"Factors specific to Asia" and "factors specific to IT-related goods and capital goods" have made a negative contribution to overall exports since the October-December quarter of 2018. However, real exports as a whole did not decrease in the October-December quarter because "other factors," which fell substantially in the July-September quarter, made a positive contribution in that quarter. These developments in "other factors" are likely to have been strongly affected by last summer's natural disasters and the subsequent restoration.

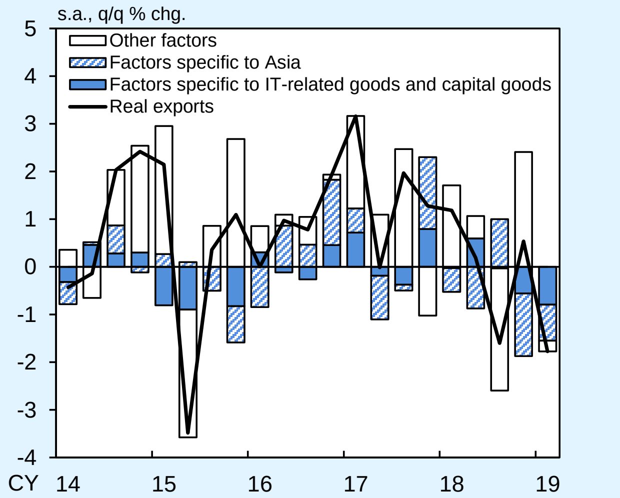
**Chart B2-3:** Goods-Specific Factors in Export Developments




Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Figures show the contribution to changes in real exports on a seasonally adjusted quarter-on-quarter basis.
2. Based on staff calculations.

The above analysis suggests the following. (1) The impact of developments in the Chinese economy and the global cycle for IT-related goods lies behind the recent decline in real exports. (2) Although these factors have pushed down real exports since the October-December quarter of last year, their impact was difficult to identify due to the effects of restoration from natural disasters. (3) With the effects of the restoration waning since the turn of the year, the impact of these factors has materialized in the form of a decline in real exports.

**Chart B2-4:** Decomposition of Real Export Developments

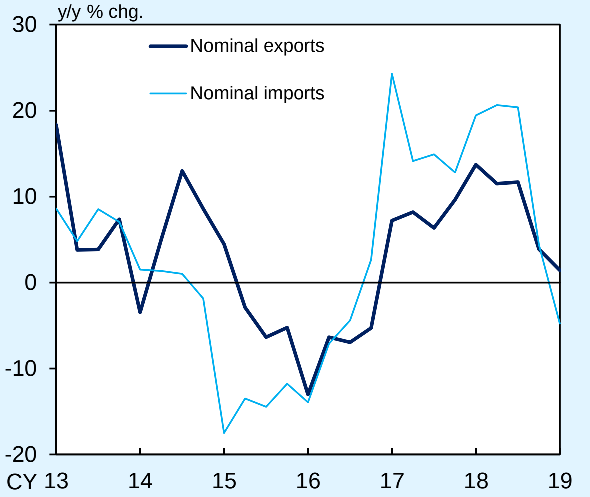



Sources: Bank of Japan; Ministry of Finance.
Notes: 1. "Asia" consists of "China" and "NIEs, ASEAN, etc." "Other factors" is the residual.
2. Based on staff calculations.

## (Box 3) Developments in the Chinese Economy and Fiscal and Monetary Policy Measures by the Chinese Authorities

As shown in Box 2, one of the factors that lie behind the recent weakness in Japan's exports is developments in the Chinese economy. Relatively weak developments have been observed in the Chinese economy, reflecting the lingering impact of measures to push forward with deleveraging that materialized in the middle of last year, coupled with effects such as the trade friction with the United States and adjustments in IT-related goods. These developments in the Chinese economy have spilled over to other areas of Asia and pushed down Japan's exports to Asia.

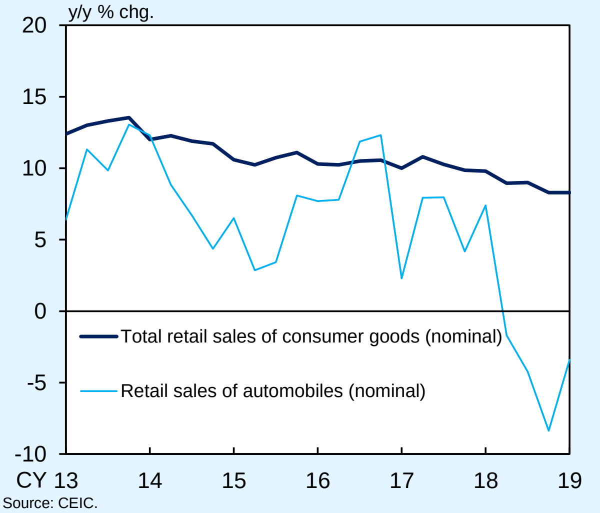
**Chart B3-1:** Nominal Exports and Nominal Imports




Source: CEIC.
Note: U.S. dollar basis.

Looking at the recent developments in the Chinese economy in detail, the year-on-year rate of increase in exports has decelerated significantly due to the impact of factors such as the hike in U.S. tariffs on imports from China and adjustments in IT-related goods (Chart B3-1). Although private consumption has been resilient on the whole, some weakness has remained in part, such as in sales of automobiles (Chart B3-2). Mainly against the background of these developments, the year-on-year rate of change in imports for the January-March quarter of 2019 has been negative and the business sentiment of manufacturing firms has been on a deteriorating trend (Charts B3-1 and B3-3).

**Chart B3-2:** Nominal Retail Sales of Consumer Goods




Source: CEIC.
Note: Based on staff calculations. Figures for nominal automobile retail sales are based on the aggregate for enterprises (units) with revenues above certain threshold amounts only.

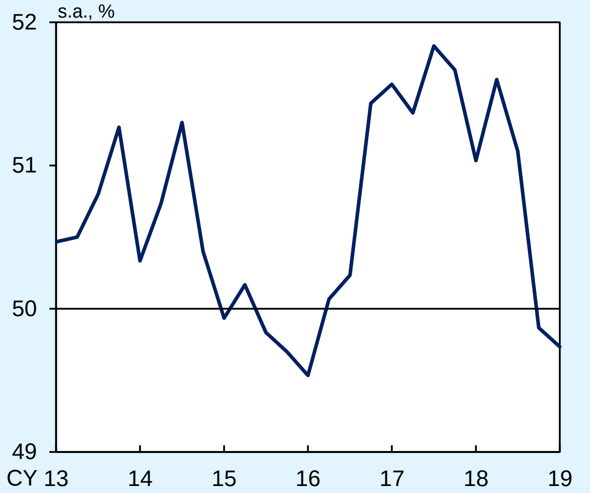
Given these economic developments, the Chinese authorities have decided on, and have been implementing, timely policy measures both on the fiscal and monetary sides toward easing downward pressure on economic activity.

Regarding fiscal policy, it was announced at the National People's Congress (NPC) in March that, as the policy direction in 2019, it would pursue a proactive fiscal policy with greater intensity and enhance its performance. Specifically, the government raised this year's target for the ratio of fiscal deficit to nominal GDP from last year's and decided on such measures as tax cuts worth nearly 2 trillion yuan within the general public budget (Chart B3-4). In addition, the government is likely to boost off-budget fiscal expenditure, mainly on infrastructure investment, through special local government bonds and local government financing vehicles.

With respect to monetary policy, it was said at the NPC in March that prudent monetary policy would be eased or tightened to the right degree, and that the financing environment for private enterprises as well as small and medium-sized enterprises would be eased while controlling the money supply. Such funding support measures for firms already have been gradually introduced since around autumn last year, and according to a survey by the People's Bank of China (PBC), the number of banks replying that monetary policy stance is accommodative recently has increased substantially (Charts B3-5 and B3-6). In addition, the number of banks that have eased loan approval conditions also has been increasing.

As a result of this timely conduct of fiscal and monetary policies, the relatively weak developments in the Chinese economy are

**Chart B3-3:** Business Sentiment of Manufacturing Firms




Source: CEIC.
Note: Figures are based on the "Manufacturing Purchasing Managers' Index" published by the National Bureau of Statistics of China.

**Chart B3-4:** Main Fiscal Policy Measures in 2019

| | |
|---|---|
| Tax cuts | -- Reduction of the tax burden and burden of social insurance premium contributions on enterprises by nearly 2 trillion yuan<br>-- Addition of individual income tax deduction items |
| Infrastructure investment | -- New issuance of special local government bonds to provide funding for key projects valued at 2.15 trillion yuan<br>-- Investment in railway construction, valued at 0.8 trillion yuan, and road construction and waterway projects, valued at 1.8 trillion yuan |

Sources: Ministry of Finance of the People's Republic of China; NPC, "Report on the Work of the Government."

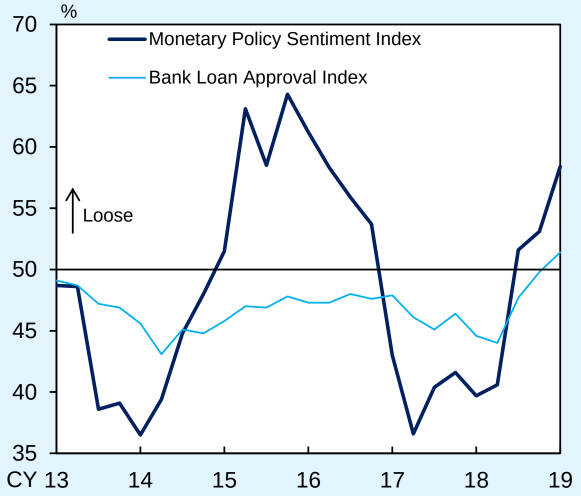
**Chart B3-5:** Funding Support Measures from Autumn 2018 Onward

| | |
|---|---|
| Oct.18: | PBC provides guidance for setting up a support instrument run by professional institutions to promote bond financing by private enterprises through credit enhancement guarantees. |
| Dec.18: | PBC decides to introduce Targeted Medium-term Lending Facility to strengthen financial support for small and micro enterprises as well as private businesses. |
| Jan.19: | PBC decides to lower the required reserve ratio for financial institutions by 1 percentage point. |
| Jan.19: | PBC decides to launch Central Bank Bills Swap to encourage banks to replenish capital through the issuance of perpetual bonds. |
| Mar.19: | China Banking and Insurance Regulatory Commission requests five largest banks to increase their overall balance of loans to small and micro enterprises by more than 30% over the year. |

Sources: PBC; China Banking and Insurance Regulatory Commission.

expected to gradually ease from the second half of this year. In fact, in interviews of Japanese firms, some have said that orders from China have been bottoming out. However, there are some uncertainties regarding when the impact of various stimulus measures introduced recently will materialize, and its magnitude. In addition, the effects of the trade friction between the United States and China, and of existing measures to push forward with deleveraging, continue to warrant attention.

**Chart B3-6:** Banks' Lending Attitude




Source: CEIC.
Note: The "Monetary Policy Sentiment Index" and the "Bank Loan Approval Index" are taken from the "Bankers' Survey Report" published by the PBC.

## (Box 4) Developments in the Global Cycle for IT-Related Goods

The decomposition of real export developments in Box 2 shows that the recent weakness in exports is largely attributable to factors such as the global cycle for IT-related goods. This box analyzes this cycle by using frequency spectrum decomposition.[40]

Specifically, applying frequency spectrum decomposition to world semiconductor shipment data compiled by World Semiconductor Trade Statistics (WSTS) Inc., (1) the short-term cycle (2 quarters to 2 years), (2) the medium-term cycle (2-6 years), and (3) the long-term cycle (6-20 years) were extracted (Chart B4-1). The extracted cycle for IT-related goods indicates that the short-term and medium-term cycles have contributed to the recent decline in semiconductor shipments (Chart B4-2). These cycles likely reflect fluctuations due to the introduction of new products including smartphones, medium-term trends in IT-related demand, and the resultant developments in business fixed investment, such as by semiconductor manufacturers.[41] On the other hand, the long-term cycle has continued to push up semiconductor shipments for the past few years, which likely is attributable to a sustained expansion in the use of semiconductors

**Chart B4-1:** Extraction of Global Cycle for IT-Related Goods

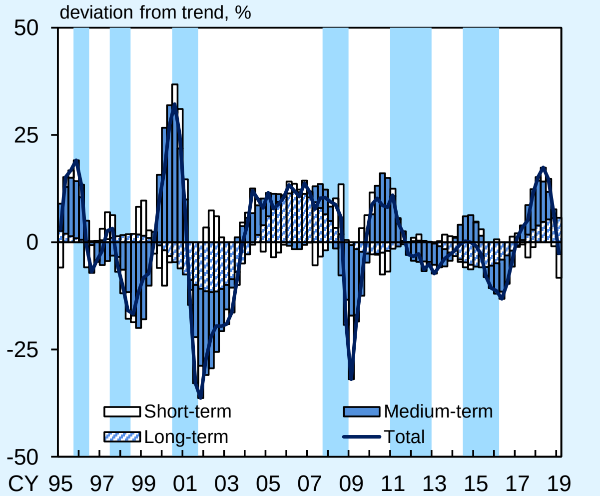
**Frequency spectrum decomposition**

Using the Christiano-Fitzgerald filter, the following cyclical components are extracted from the data compiled by World Semiconductor Trade Statistics (WSTS) Inc. for world semiconductor shipments (in U.S. dollars, log scale):

(a) Short-term cycle (2 quarters to 2 years)
(b) Medium-term cycle (2-6 years)
(c) Long-term cycle (6-20 years)

Estimation period: 1995/Q1-2019/Q1
The figure for 2019/Q1 is the January-February average.
Trend: linear trend

**Chart B4-2:** Cycles Extracted Using Frequency Spectrum Decomposition




Notes: 1. Shaded areas indicate adjustment periods in the global cycle for IT-related goods. Adjustment periods are defined as periods that (1) include a point where the total of cycles falls below zero and (2) start at the peak point of the total preceding the zero point and end one quarter prior to the subsequent bottom point.
2. Based on staff calculations using the WSTS data.

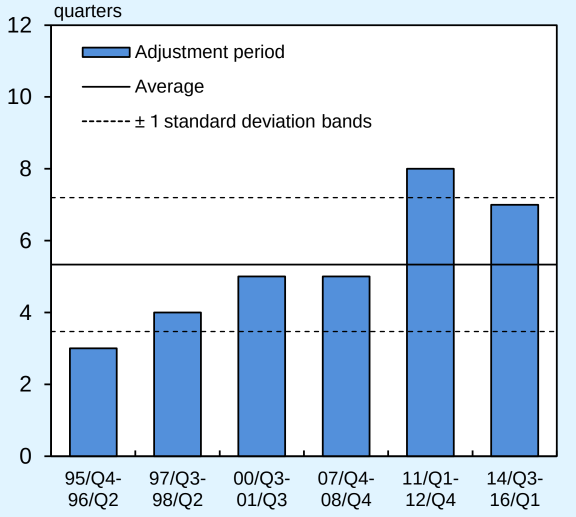
[40] For frequency spectrum decomposition, see the Bank's research paper "Recent Developments in Durable Goods Consumption: A Perspective from Spectrum Analysis" published in March 2017.

[41] The extracted medium-term cycle is highly correlated with the deviation from the trend of Machinery Orders (from overseas) for electronic and communication equipment such as semiconductor production equipment. This is why the medium-term cycle likely reflects business fixed investment cycles, such as of semiconductor manufacturers.

in the long term, such as for on-board equipment for motor vehicles and data centers.

Past trends show that adjustments in the cycle for IT-related goods take an average of 5-6 quarters to complete (Chart B4-3). Based on this, the current adjustment phase, which began in the April-June quarter of 2018, may hit bottom in the second half of this year. In interviews of firms as well, some have said that demand mainly in parts for smartphones is expected to recover by that time, and that demand related to the introduction of 5G, which is the next-generation communication standard, is likely to gradually rise.

**Chart B4-3:** Adjustment Periods in the Global Cycle for IT-Related Goods




Notes: 1. The adjustment periods correspond to the shaded areas in Chart B4-2.
2. Based on staff calculations using the WSTS data.