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日本銀行
BANK OF JAPAN

Outlook for Economic Activity and Prices

October 2018

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

Outlook for Economic Activity and Prices (October 2018)

The Bank's View[1]

Summary

- Japan's economy is likely to continue growing at a pace above its potential in fiscal 2018, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending, with overseas economies continuing to grow firmly on the whole. From fiscal 2019 through fiscal 2020, the economy is expected to continue on an expanding trend, partly supported by external demand, although the growth pace is projected to decelerate due to a cyclical slowdown in business fixed investment and the effects of the scheduled consumption tax hike.[2]
- The 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) the large room for firms to raise productivity as well as the technological progress in recent years. Under these circumstances, a rise in medium- to long-term inflation expectations has been lagging behind. 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 with the previous ones, the projected growth rates are more or less unchanged. The projected rates of increase in the CPI are somewhat lower, mainly for fiscal 2018.
- 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 October 30 and 31, 2018.

[2] The October 2018 *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. It also factors in policies concerning the provision of free education based on information available at this point.

I. Current Situation of Economic Activity and Prices in Japan

Japan's economy is expanding moderately, with a virtuous cycle from income to spending operating. Overseas economies have continued to grow firmly on the whole. In this situation, exports have been on an increasing trend. On the domestic demand side, business fixed investment has continued on an increasing trend, with corporate profits following their improving trend and business sentiment staying at a favorable level. Private consumption has been increasing moderately, albeit with fluctuations, against the background of steady improvement in the employment and income situation. Meanwhile, housing investment has been more or less flat. Public investment also has been more or less flat, remaining at a relatively high level. Reflecting these increases in demand both at home and abroad, industrial production has been on an increasing trend, and labor market conditions have continued to tighten steadily. Financial conditions are highly accommodative. On the price front, the year-on-year rate of change in the CPI (all items less fresh food, and the same hereafter) is around 1 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 its moderate expansion. In fiscal 2018, domestic demand is likely to follow an uptrend, with a virtuous cycle from income to spending being maintained in both the corporate and household sectors, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending. Business fixed investment -- such as that intended for domestic capacity expansion in line with the economic expansion, Olympic Games-related investment, and labor-saving investment to address labor shortage -- is likely to continue increasing amid accommodative financial conditions. Private consumption is also expected to follow a moderate increasing trend as the employment and income situation continues to improve. Public investment is expected to remain at a relatively high level, mainly reflecting Olympic Games-related demand and the supplementary budgets. Exports are expected to continue their moderate increasing trend on the back of overseas economies growing firmly on the whole. On this basis, the economy is likely to continue growing at a pace above its potential in fiscal 2018.[3]

In fiscal 2019 and fiscal 2020, Japan's economy is expected to continue on an expanding trend, partly supported by external demand, although the growth pace is projected to

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

decelerate due to a slowdown in domestic demand. Specifically, the pace of increase in private consumption is projected to be moderate both in fiscal 2019 and fiscal 2020, mainly because it is likely to temporarily turn to a decline due to the effects of the scheduled consumption tax hike in October 2019.[4] However, exports are projected to maintain their increasing trend on the back of overseas economies continuing to grow firmly on the whole. Meanwhile, the pace of increase in business fixed investment is likely to decelerate gradually through fiscal 2020, mainly reflecting cyclical adjustments in capital stock after the prolonged economic expansion, as well as Olympic Games-related demand peaking out; however, the deceleration is expected to be moderate, due partly to growing demand for fixed investment stemming from the increase in exports. Comparing the current projections 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 bonds and CP issuance, are both likely to be maintained and support firms' and households' activities from the financial side. Thus, financial conditions are likely to remain highly accommodative.

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. 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

[4] 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 considerable 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.

[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.

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. Under these circumstances, 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. Although an easing of upward pressure of costs on prices stemming from the yen's appreciation through early spring had pushed down the CPI in the short term, such downward pressure has been weakening recently.

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 with the previous ones, the projected rates of increase in the CPI are somewhat lower, mainly for fiscal 2018.[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 the back 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.

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

[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. It also is assumed that the effects of policies concerning the provision of free education will not be reflected in the CPI, as statistical treatment of these effects is not yet decided.

in pushing up inflation expectations.[7]

Third, regarding import prices, a rise in crude oil prices will push up the CPI for fiscal 2018, but this effect is likely to wane moderately.

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 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.

The second risk is the effects of the consumption tax hike scheduled to take place in October 2019. It is likely that the effects of the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike and of the decline in real income will 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 aging population; developments in regulatory and institutional reforms, particularly in the labor market; innovation in the corporate sector; and the employment and income situation.

[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.

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 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 lag behind 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

[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."

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, taking into account uncertainties regarding economic activity and prices including the effects of the consumption tax hike scheduled to take place in October 2019. It will 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.

[9] For details, see the Bank's *Financial System Report* (October 2018).

(Appendix)

Forecasts of the Majority of Policy Board Members

y/y % chg.

	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hike
Fiscal 2018	+1.3 to +1.5 [+1.4]	+0.9 to +1.0 [+0.9]	
Forecasts made in July 2018	+1.3 to +1.5 [+1.5]	+1.0 to +1.2 [+1.1]	
Fiscal 2019	+0.8 to +0.9 [+0.8]	+1.8 to +2.0 [+1.9]	+1.3 to +1.5 [+1.4]
Forecasts made in July 2018	+0.7 to +0.9 [+0.8]	+1.8 to +2.1 [+2.0]	+1.3 to +1.6 [+1.5]
Fiscal 2020	+0.6 to +0.9 [+0.8]	+1.9 to +2.1 [+2.0]	+1.4 to +1.6 [+1.5]
Forecasts made in July 2018	+0.6 to +0.9 [+0.8]	+1.9 to +2.1 [+2.1]	+1.4 to +1.6 [+1.6]

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

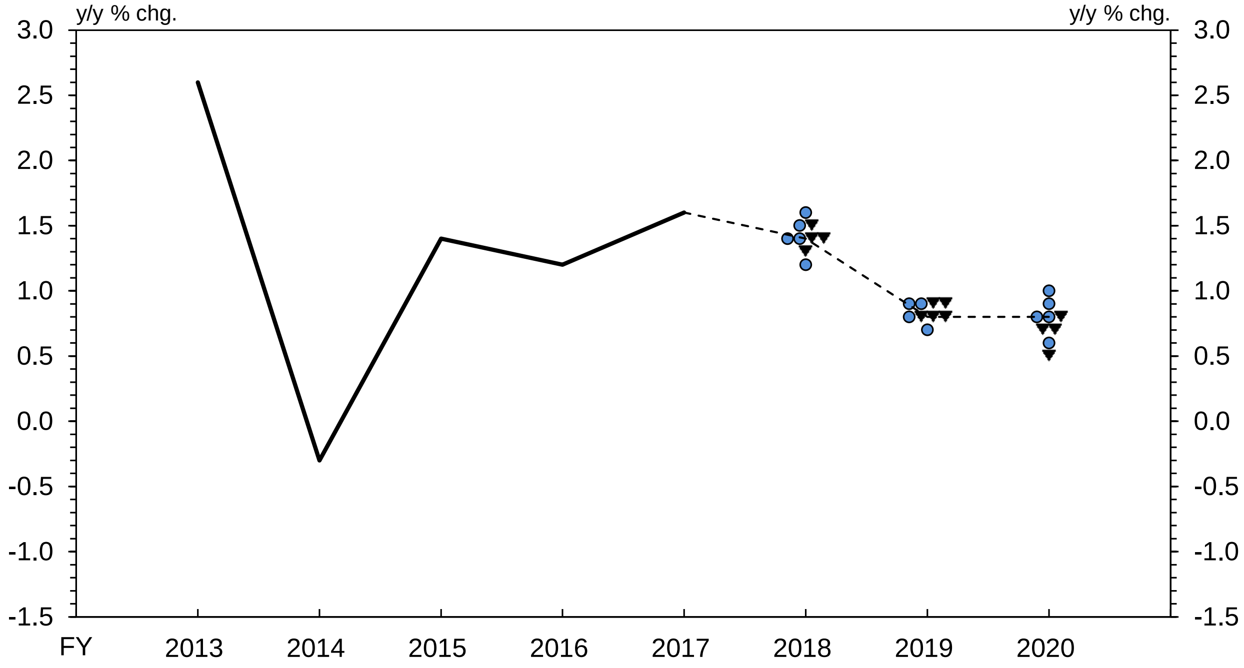
2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the 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.

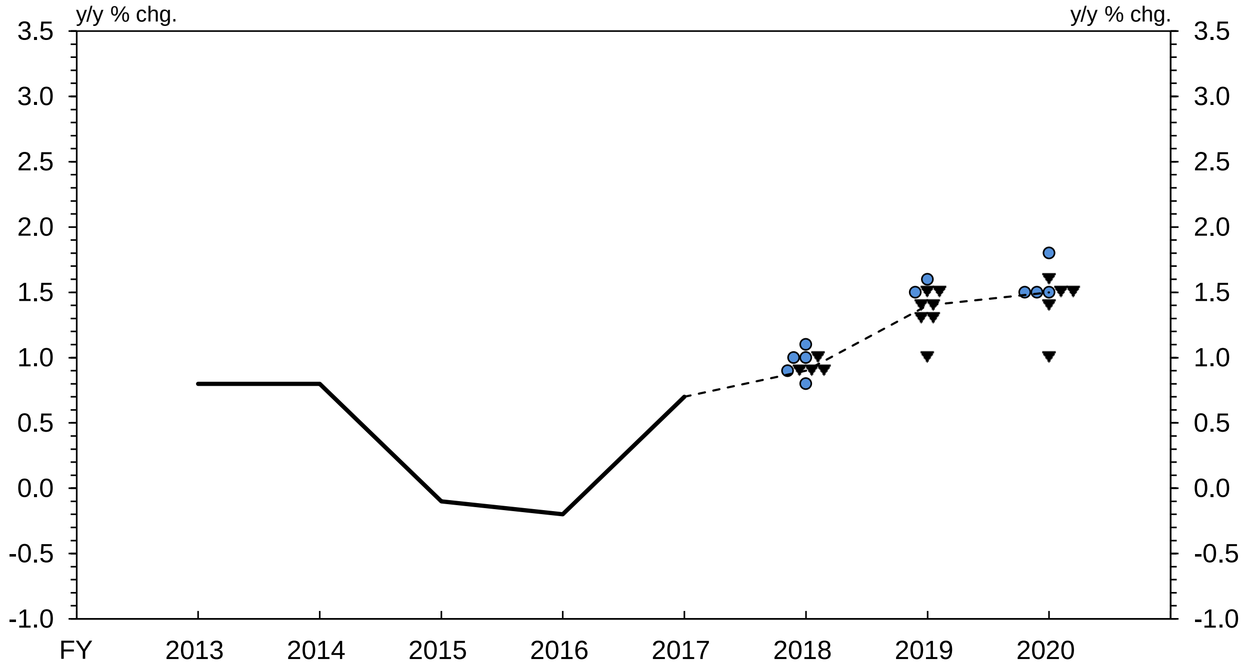
4. The consumption tax hike scheduled to take place in October 2019 -- to 10 percent -- and the reduced tax rate to be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers are incorporated in the forecasts, but individual Policy Board members make their forecasts of the CPI based on figures excluding the direct effects of the consumption tax hike. The forecasts for the CPI for fiscal 2019 and fiscal 2020 that incorporate the direct effects of the consumption tax hike are constructed as follows. First, the contribution to prices from the tax hike is mechanically computed on the assumption that the tax increase will be fully passed on for taxable items. The CPI will be pushed up by 0.5 percentage point for each year. Second, this figure is added to the forecasts made by the Policy Board members. While it is assumed that the effects of policies concerning the provision of free education will not be reflected in the CPI as statistical treatment of these effects is not yet decided, the effects of such policies are factored in by individual Policy Board members for their forecasts of the real GDP growth rates, based on information available at this point.

Policy Board Members' Forecasts and Risk Assessments

(1) Real GDP



(2) CPI (All Items Less Fresh Food)



Notes: 1. Solid lines show actual figures, while dotted lines show the medians of the Policy Board members' forecasts (point estimates).

2. The locations of ●, △, and ▼ in the charts indicate the figures for each Policy Board member's forecasts to which he or she attaches the highest probability. The risk balance assessed by each Policy Board member is shown by the following shapes: ● indicates that a member assesses "upside and downside risks as being generally balanced," △ indicates that a member assesses "risks are skewed to the upside," and ▼ indicates that a member assesses "risks are skewed to the downside."

3. Figures for the CPI exclude the direct effects of the consumption tax hikes.

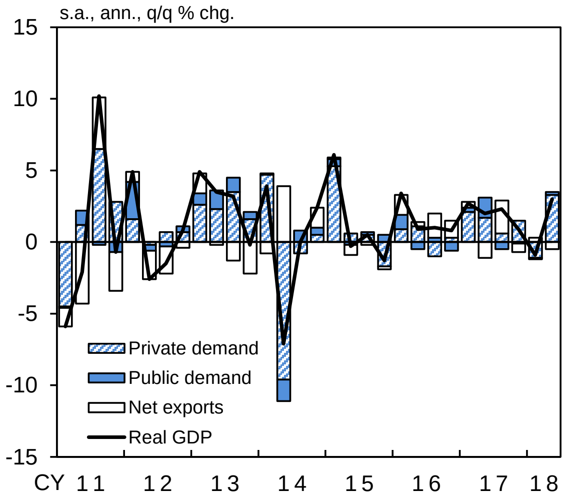
The Background[10]

I. Current Situation of Economic Activity and Its Outlook

A. Economic Developments

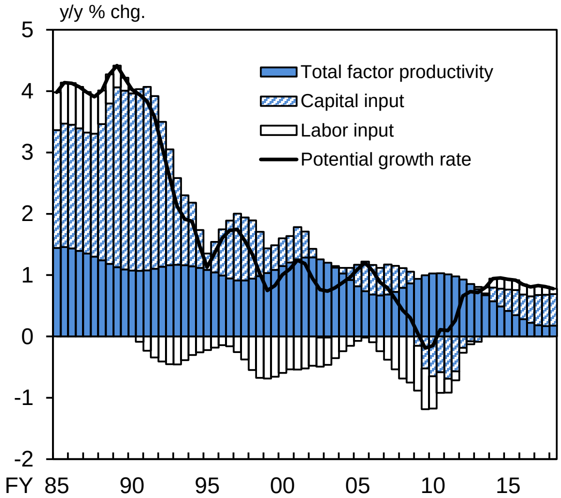
Looking back at Japan's economy since the July 2018 Outlook Report, the real GDP growth rate for the April-June quarter of 2018 was 0.7 percent on a quarter-on-quarter basis and its annualized rate was 3.0 percent, representing positive growth for the first time in two quarters (Chart 1). While net exports and housing investment declined, business fixed investment and private consumption contributed to an increase in real GDP. Thus, the real GDP growth rate as a whole was above the potential growth rate, which is estimated to be in the range of 0.5-1.0 percent (Chart 2). Under such circumstances, labor market conditions have continued to tighten steadily and the number of employed persons has been increasing firmly (Charts 3 and 4). The output gap -- which captures the utilization of labor and capital -- has widened within positive territory and was at around 2 percent for the April-June quarter (Chart 5). As this shows, Japan's economy has continued to expand moderately, with a virtuous cycle from income to spending operating.

Chart 1: Real GDP



Source: Cabinet Office.

Chart 2: Potential Growth Rate



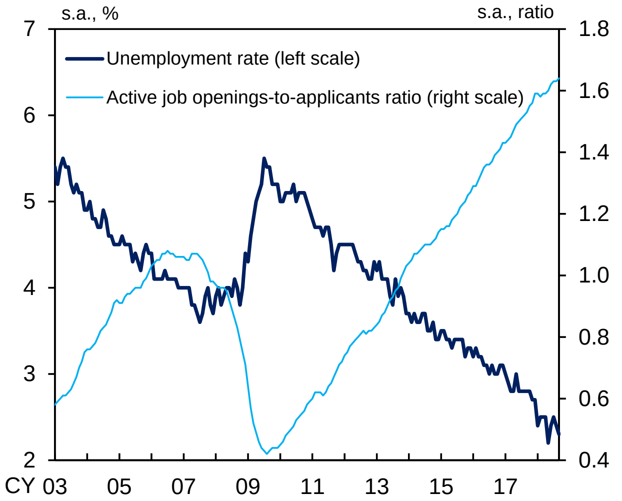
Source: Bank of Japan.
Note: Based on staff estimations. Figures for the first half of fiscal 2018 are those for 2018/Q2.

With regard to the outlook, Japan's economy is likely to continue growing at a pace clearly above its potential through fiscal 2018, mainly against the background of highly accommodative financial conditions and the underpinnings through

[10] "The Background" provides explanations of "The Bank's View" decided by the Policy Board of the Bank of Japan at the Monetary Policy Meeting held on October 30 and 31, 2018.

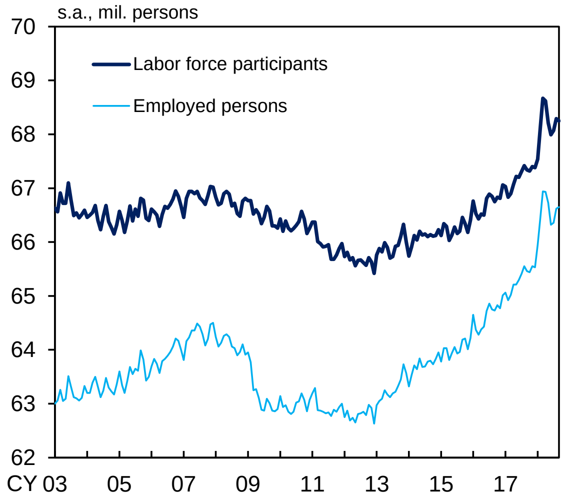
government spending, with overseas economies continuing to grow firmly on the whole. From fiscal 2019 through fiscal 2020, the economy is expected to continue on an expanding trend, partly supported by external demand, although the growth rate is projected to decelerate from fiscal 2018. This is likely to be attributable to (1) the deceleration in business fixed investment reflecting cyclical adjustments in capital stock as well as Olympic Games-related investment peaking out, combined with (2) a temporary decline in private consumption due to the scheduled consumption tax hike.[11,12] Comparing the current projections with the previous ones, the projected growth rates are more or less unchanged.

Chart 3: Labor Market Conditions



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

Chart 4: Labor Force Participation and Employment



Source: Ministry of Internal Affairs and Communications.

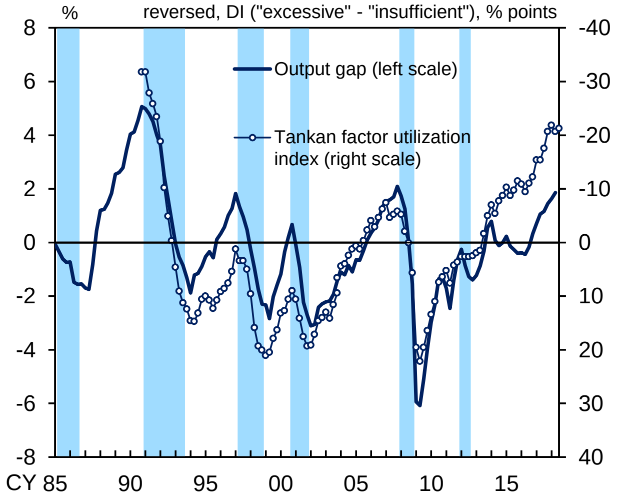
[11] The October 2018 Outlook Report assumes that the consumption tax will be raised to 10 percent in October 2019 and that a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers.

[12] 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) the provision of free education as well as various measures to reduce the household burden of 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. For the increase in the net burden on households around the time of consumption tax hikes, see Box 1 in the April 2018 Outlook Report. 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.

Details of the outlook for each fiscal year are as follows. In fiscal 2018, the economy is likely to maintain a moderate expansion with demand at home and abroad both increasing. Specifically, exports are projected to continue increasing moderately on the back of overseas economies growing firmly on the whole. Business fixed investment -- such as that intended for domestic capacity expansion in line with the economic expansion, Olympic Games-related investment, and labor-saving investment stemming from labor shortage -- is also expected to continue to see a steady increase amid accommodative financial conditions. Private consumption will likely maintain its momentum as the employment and income situation continues to improve. Meanwhile, public investment is projected to remain at a high level, underpinned by Olympic Games-related demand and the supplementary budgets. On this basis, the real GDP growth rate for fiscal 2018 is projected to exceed the potential and the output gap is likely to continue improving.

In fiscal 2019, the growth pace is projected to decelerate, mainly due to a slowdown in domestic demand. Private consumption is expected to increase its momentum in the first half of the fiscal year, reflecting the front-loaded increase in demand prior to the scheduled consumption tax hike, and then start declining in the second half of the fiscal year, pushed down by the subsequent decline in demand following the tax hike and the decline in real income. However, exports are projected to maintain their increasing trend on the back of overseas economies continuing to grow firmly on the whole, and thereby underpin the economy. Meanwhile, business fixed investment is likely to decelerate gradually under cyclical

Chart 5: 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.

downward pressure resulting from capital stock adjustments, combined with the effects of Olympic Games-related investment peaking out; however, the deceleration is expected to be moderate, due partly to growing demand for fixed investment stemming from the increase in exports. As a result of these developments, the economy is expected to continue on an expanding trend, although the growth rate for fiscal 2019 is projected to decelerate from the previous fiscal year.

In fiscal 2020, private consumption and housing investment are expected to gradually head toward a recovery after declining in the second half of fiscal 2019. Exports are likely to continue their increasing trend. On the other hand, business fixed investment will likely decelerate somewhat as pressure stemming from cyclical adjustments in capital stock heightens, although the increase in exports is likely to continue stimulating investment demand. Meanwhile, expenditure on mainly temporary facilities in hosting the Olympic Games is expected to underpin the economy. Under such circumstances, the economy is expected to continue on an expanding trend in fiscal 2020.

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

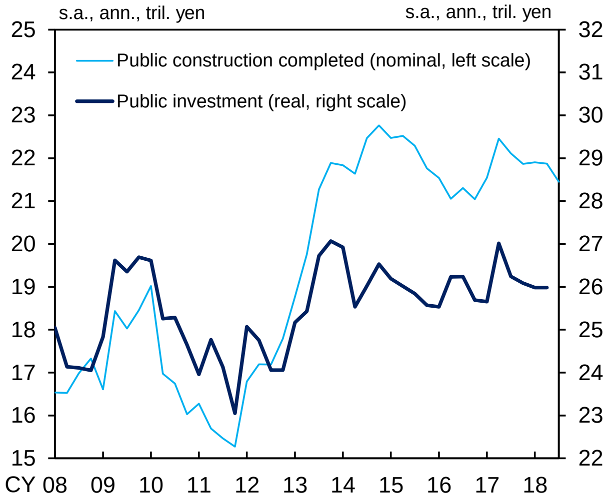
Public investment has been more or less flat, remaining at a relatively high level (Chart 6). As for the outlook, it is expected to remain at a relatively high level, mainly underpinned by Olympic Games-related construction and the supplementary budgets.[13]

Overseas Economies

Overseas economies have continued to grow firmly on the whole (Chart 7). The business sentiment of manufacturing firms on a global basis has maintained its improving trend, although it recently has deteriorated somewhat, and the world trade volume has continued to recover (Charts 8 and 13). Looking at developments by major region, the U.S. economy has been expanding and the European economy has continued to recover, although its growth pace has decelerated somewhat. The Chinese economy has continued to see stable growth on the whole. Other emerging and commodity-exporting economies have been recovering moderately on the whole, mainly reflecting an increase in exports and the effects of

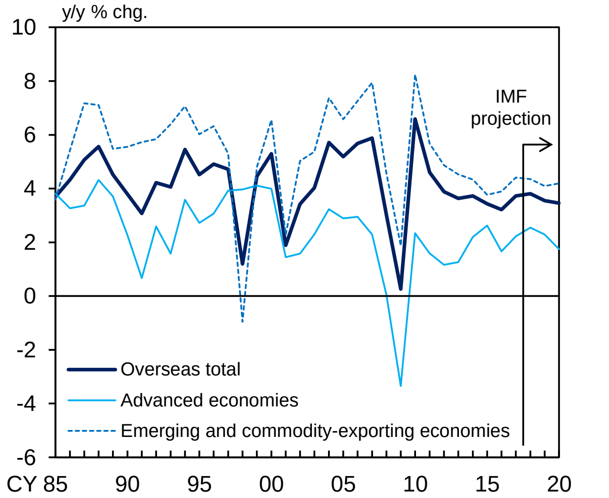
[13] In response to natural disasters such as the Heavy Rain in July 2018, which mainly affected western Japan, moves toward making expenditures related to disaster relief using contingency funds and the supplementary budgets have been observed recently.

Chart 6: Public Investment



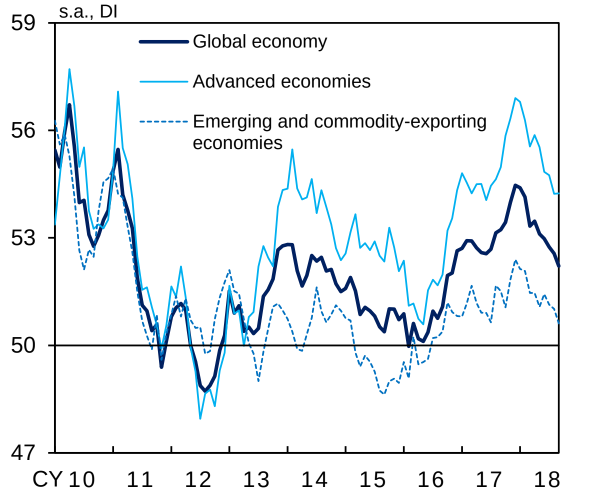
Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2018/Q3 is the July-August average.

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 October 2018. 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



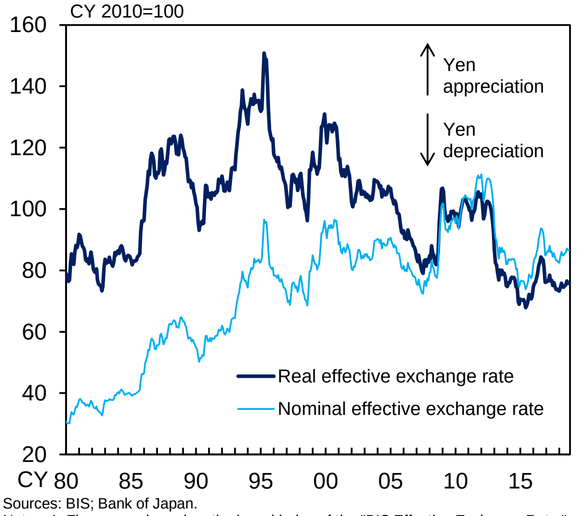
Sources: IHS Markit (© and database right IHS Markit Ltd 2018. All rights reserved.), etc.
Note: Figures for the global economy are the "J.P. Morgan Global Manufacturing PMI." Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages 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.

those economies' stimulus measures.[14]

In terms of the outlook, overseas economies are expected to continue growing firmly on the whole, with domestic demand in both the advanced and emerging economies remaining firm and its positive effects spreading to each other through trade activity.

By major region, the U.S. economy is expected to maintain its expansion. The European economy is projected to continue recovering. The Chinese economy is likely to broadly follow a stable growth path as authorities conduct fiscal and monetary policy in a timely manner, although it is expected to be affected to some extent by the United States having raised tariffs imposed on China. Other emerging and commodity-exporting economies are likely to continue their moderate recovery on the whole.

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 October 2018 have been calculated using the daily nominal effective exchange rate (the Yen Index) compiled by the Bank of Japan.

[14] From July 6 through September 24, the United States started to impose additional tariffs of 25 percent on a total of 250 billion dollars' worth of Chinese products imported annually (200 billion dollars' worth of which is initially subject to additional tariffs of 10 percent through December 2018) due to violation of intellectual property rights. As a retaliation measure against this, China imposed additional tariffs of 5-25 percent on a total of 110 billion dollars' worth of U.S. products imported annually. For the impact of uncertainties regarding overseas economies, including such growing trade friction, see Box 1.

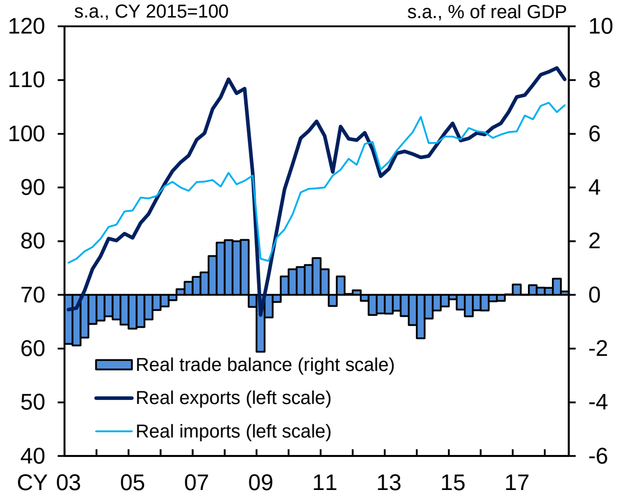
Exports and Imports

Exports have been on an increasing trend on the back of overseas economies continuing to grow firmly on the whole (Chart 10). However, they have decreased recently due in part to supply-side constraints accompanying natural disasters. By region, exports to advanced economies have continued on their increasing trend, and those to emerging economies have been picking up broadly (Chart 11). By goods, IT-related exports have been on an uptrend amid firm demand for electronic parts for data centers and on-board equipment for motor vehicles, coupled with demand for electronic parts for new smartphone products (Chart 12). However, distribution disruptions stemming from natural disasters have been exerting downward pressure recently. Exports of capital goods have been on an increasing trend when the effects of large fluctuations that partly result from orders for ships are smoothed out. Meanwhile, automobile-related exports had continued to increase, due in part to the rising value-added of automobiles exported from Japan, but those to a wide range of regions have been decreasing recently, partly reflecting the effects of natural disasters.

Exports are expected to continue their moderate increasing trend as (1) the world trade volume is likely to continue its moderate increase with the growth in overseas economies and (2) Japan's share of exports in world trade is expected to follow a very moderate increasing trend, reflecting improvement in Japan's export competitiveness (Charts 13 and 14).[15]

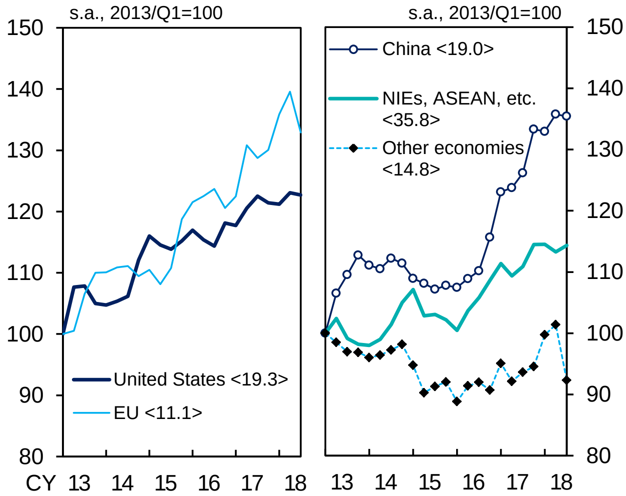
[15] The world trade volume is calculated by adding up real imports in each country.

Chart 10: Real Exports and Real Imports



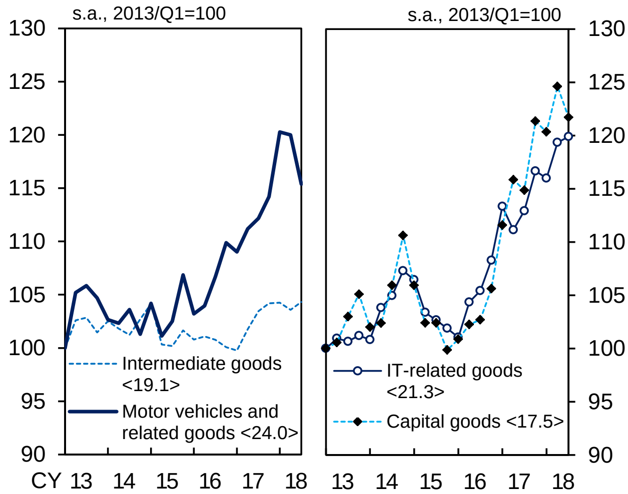
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations.

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 2017.

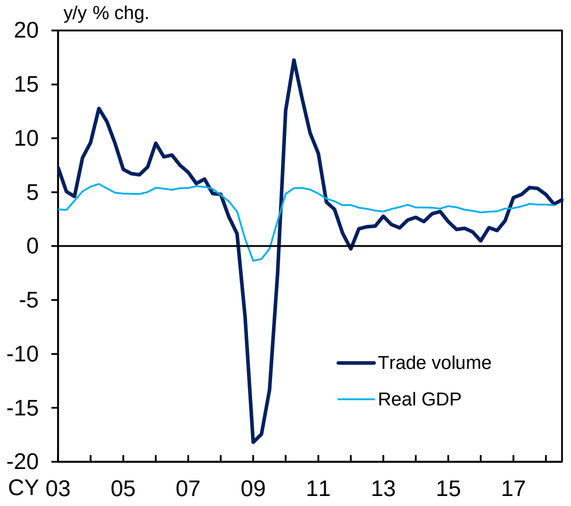
Chart 12: Real Exports by Type of Goods



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 2017.

Looking at this in detail, the world trade volume has continued to show relatively high growth, mainly for Asia as well as the United States and Europe. Going forward, the pace of increase in the world trade volume is expected to be about the same as that in world economic growth, albeit with fluctuations -- that is, the world trade volume to world GDP ratio is likely to be more or less unchanged -- with domestic demand in both the advanced and emerging economies remaining firm and its positive effects also likely spreading to trade activity.

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 2018/Q3 is the July-August average.
2. Real GDP of the world economy is based on staff calculations using GDP shares of world total GDP from the IMF as weights.

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

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 2018/Q3 is the July-August average.

Imports have been on a moderate uptrend (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 due to a downtrend in imports of raw materials, reflecting an improvement in energy efficiency.

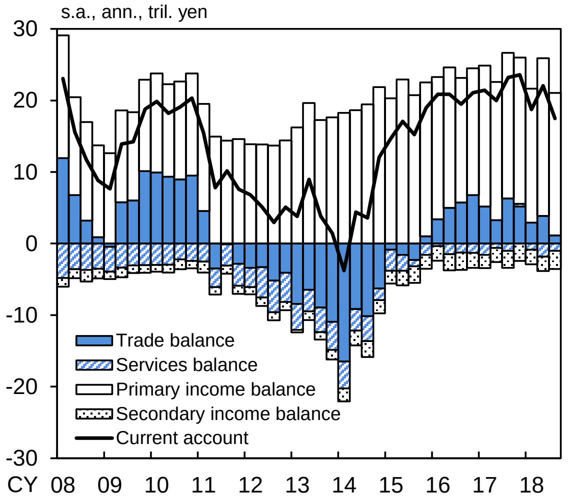
External Balance

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

Going forward, the nominal current account surplus will likely increase moderately, mainly on the back of (1) an improving trend in the trade balance that reflects the aforementioned outlook for exports and imports, as well as (2) an improvement in the primary income balance brought about by the growth in overseas economies and (3) an increase in travel receipts underpinned by a rise in the number of inbound visitors.[16]

In terms of the saving-investment balance, the increase in the nominal current account surplus corresponds to that in excess saving as a whole. By sector, excess saving in the household sector is projected to expand somewhat in fiscal 2018, partly due to an increase in compensation of employees, and decrease moderately in fiscal 2019. Thereafter, it is expected to be more or less flat on average, partly reflecting the effects of the scheduled consumption tax hike. Excess saving in the corporate sector is likely to decrease moderately, although remain at a high level, as an increase in fixed investment is expected to exceed that in profits. Meanwhile, excess investment in the general government is projected to decrease, reflecting an increase in tax revenue accompanying the scheduled consumption tax hike and the economic expansion.

Chart 15: Current Account



Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2018/Q3 are July-August averages.

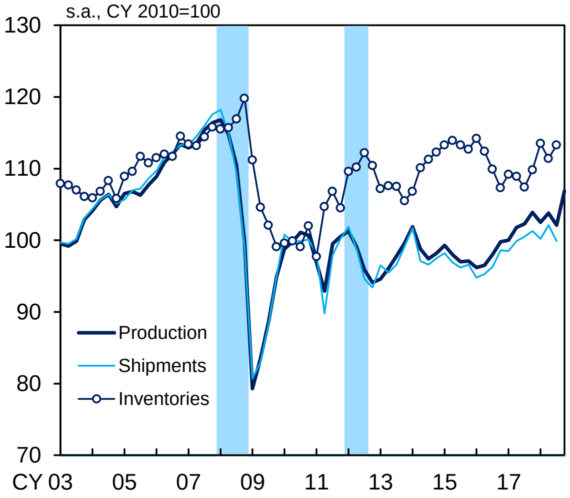
[16] The surplus in the travel balance had continued on an expanding trend against the background of a rise in the number of inbound visitors, but the improvement has come to a halt recently, as the number of foreign tourists has decreased, partly reflecting the effects of natural disasters.

Industrial Production

Industrial production has been on an increasing trend on the back of the increase in demand at home and abroad (Chart 16). Transport equipment production has continued on an increasing trend on average, despite having decreased recently, partly reflecting the effects of natural disasters. The production of electronic parts and devices has remained on an increasing trend, amid the continued robust demand for parts for data centers and on-board equipment for motor vehicles. As for the production of machinery (i.e., "general-purpose, production and business oriented machinery" in the *Indices of Industrial Production*), the effects of supply-side constraints stemming from natural disasters have been observed recently. The production of chemicals has been increasing on average, mainly led by cosmetics, albeit with large fluctuations. Meanwhile, the shipments-inventories balance (i.e., the year-on-year rate of change in shipments minus that in inventories) has deteriorated somewhat, as distribution disruptions accompanying natural disasters have exerted downward pressure on shipments (Chart 17).

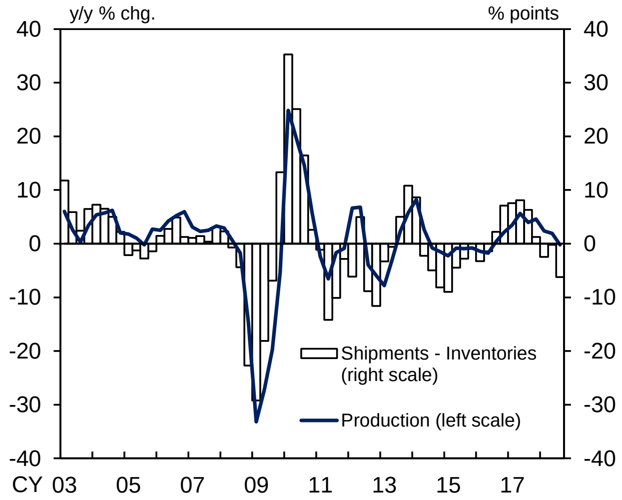
Industrial production will likely continue to increase for the time being on the back of the increase in demand at home and abroad. Thereafter, it is projected to continue on a moderate increasing trend with overseas economies growing firmly on the whole.

Chart 16: Production, Shipments, and Inventories



Source: Ministry of Economy, Trade and Industry (METI).
Notes: 1. Shaded areas indicate recession periods.
2. The production figure for 2018/Q4 is calculated based on METI projections for October and November 2018.

Chart 17: Shipments-Inventories Balance



Source: Ministry of Economy, Trade and Industry.

Corporate Profits

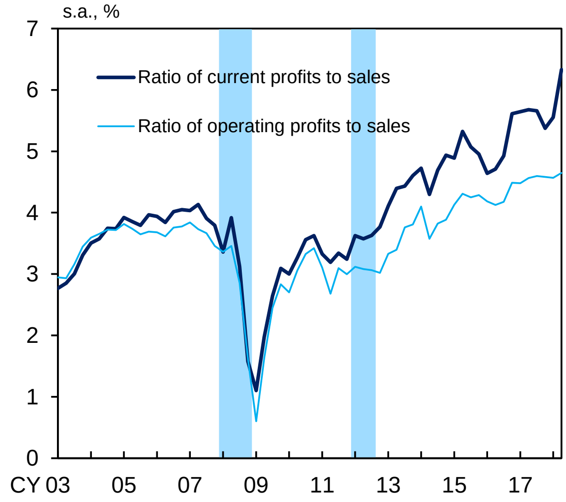
Corporate profits have maintained their improving trend. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC), the ratio of current profits to sales for all industries and enterprises has been on an improving trend, supported by firm domestic demand and the growth in overseas economies (Chart 18). Under such circumstances, business sentiment has stayed at a favorable level (Chart 19). The diffusion index (DI) for business conditions for all industries and enterprises in the September 2018 *Tankan* (Short-Term Economic Survey of Enterprises in Japan) suggests that business conditions have deteriorated slightly for two consecutive quarters, partly reflecting the effects of natural disasters; however, the net "favorable" has remained large.

Corporate profits are projected to continue on their improving trend, on the back of the increase in demand at home and abroad. Nevertheless, through fiscal 2020, the rate of increase in corporate profits is likely to decelerate as the allocation to households increases further, such as in the form of a rise in personnel expenses, with Japan's economy shifting toward a decelerating trend due in part to the effects of the scheduled consumption tax hike.

Business Fixed Investment

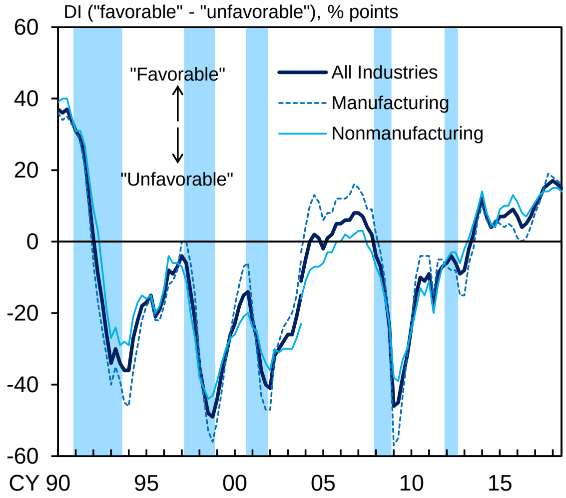
Business fixed investment has continued on an increasing trend, with corporate profits following their improving trend and business sentiment staying at a favorable level (Chart 20). The aggregate supply of capital goods and private construction completed (nonresidential) -- coincident indicators of machinery investment and construction investment, respectively -- have

Chart 18: Corporate Profits



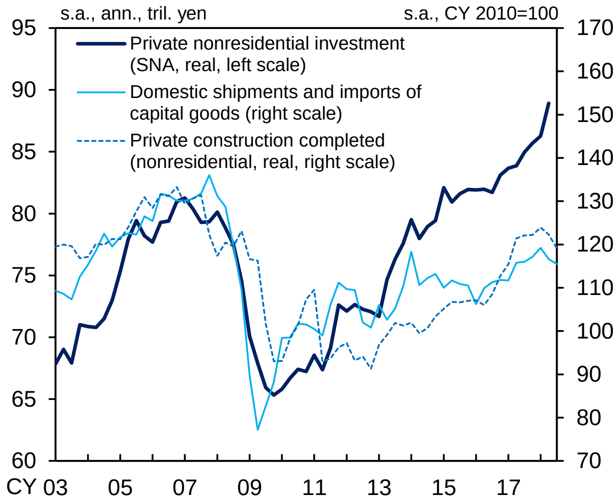
Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Excluding "finance and insurance."
2. Figures from 2009/Q2 exclude "pure holding companies."
3. Shaded areas indicate recession periods.

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

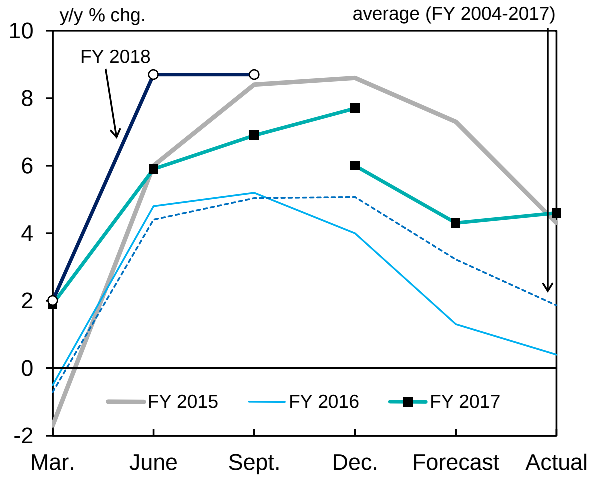


Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures for 2018/Q3 are July-August averages.
2. Real private construction completed is based on staff calculations using price indices in the "Construction Cost Deflators."

continued on an uptrend, with fluctuations smoothed out. According to the September *Tankan*, the rate of increase in business fixed investment plans for fiscal 2018 has substantially exceeded the past average, mainly of large enterprises. 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) for fiscal 2018 is expected to register an increase of 8.7 percent (Chart 21). Reflecting firms' positive fixed investment stance, machinery orders and 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).

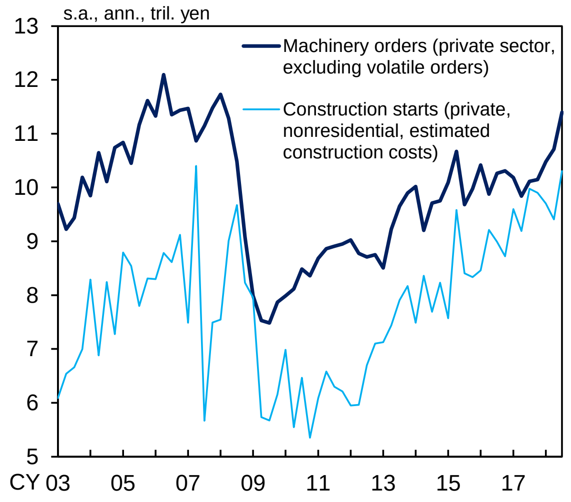
With regard to the outlook, business fixed investment is likely to continue increasing on the back of (1) an improvement in corporate profits, (2) extremely stimulative financial conditions, such as low interest rates and accommodative lending attitudes, (3) materialization of the effects of projects conducted under the Fiscal Investment and Loan Program as well as the effects of investment-enhancing tax incentives, 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 the Olympic Games and urban redevelopment projects, (3) that aiming at improving efficiency and saving labor in order to deal with labor shortage, and (4) that in research and development for growth areas.

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.

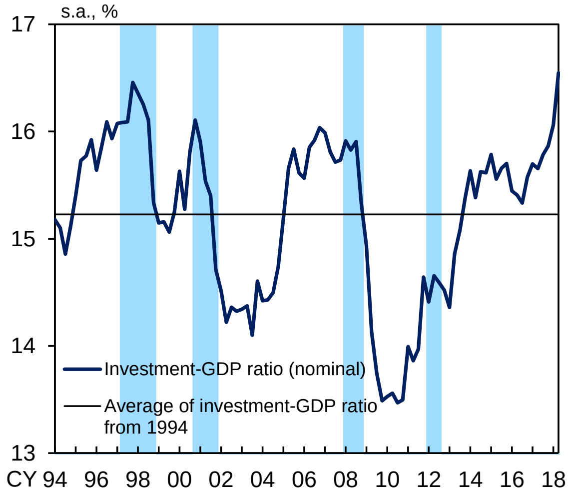
Chart 22: Leading Indicators of Business Fixed Investment



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 2018/Q3 are July-August averages.

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 the peak levels observed in the investment cycles after the burst of the bubble. Taking this into account, the pace of increase in business fixed investment is likely to decelerate gradually through the end of the projection period, as pressure stemming from cyclical adjustments in capital stock heightens.

Chart 23: Investment-GDP Ratio (Nominal)

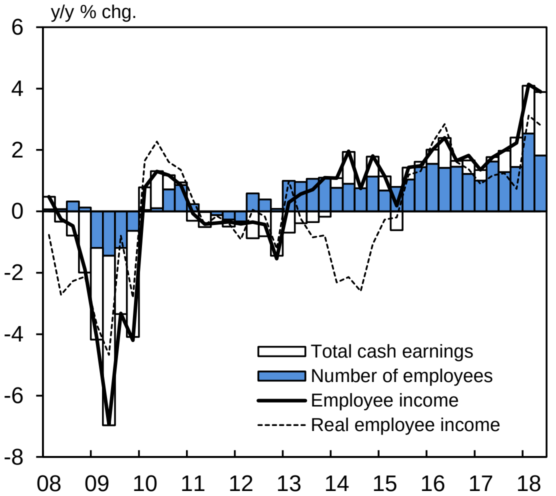


Source: Cabinet Office.
Note: Shaded areas indicate recession periods.

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 accelerated recently. The year-on-year rate of change in the *Labour Force Survey*-based number of employees has been at around 2 percent (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 September *Tankan* has heightened (Chart 3). The unemployment rate has been at around 2.5 percent recently. 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 half of the 1990s or in the first half of 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 a growing trend at a pace above its potential, it is expected that the number of employees will keep increasing and

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. Real employee income is based on staff calculations using the CPI (less imputed rent).

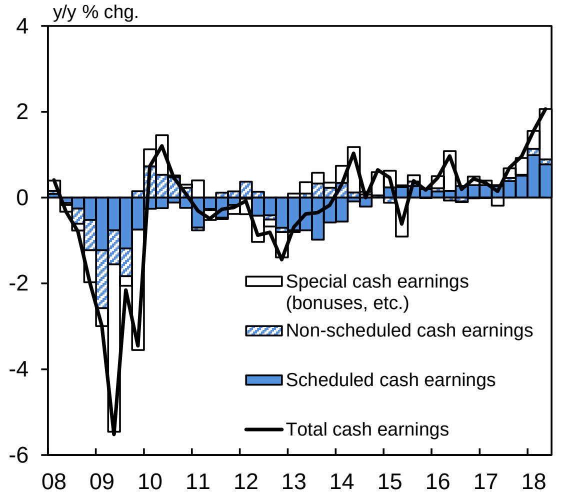
Chart 25: Labor Force Participation Rate

Source: Ministry of Internal Affairs and Communications.

that the supply-demand conditions in the labor market will continue to tighten steadily.

On the wage side, total cash earnings per employee have risen moderately, albeit with fluctuations (Chart 26).[17] 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.[18]

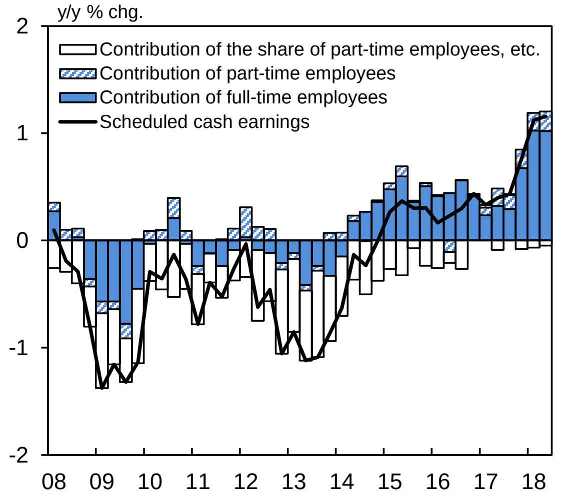
Chart 26: Nominal Wages



Source: Ministry of Health, Labour and Welfare.
Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

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). While the year-on-year rate of increase in scheduled cash earnings of full-time employees has remained at around 0.5 percent, that in hourly scheduled cash earnings of part-time employees -- which are responsive to labor market conditions -- registered relatively high growth of around 2 percent on average

Chart 27: Scheduled Cash Earnings



Source: Ministry of Health, Labour and Welfare.
Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

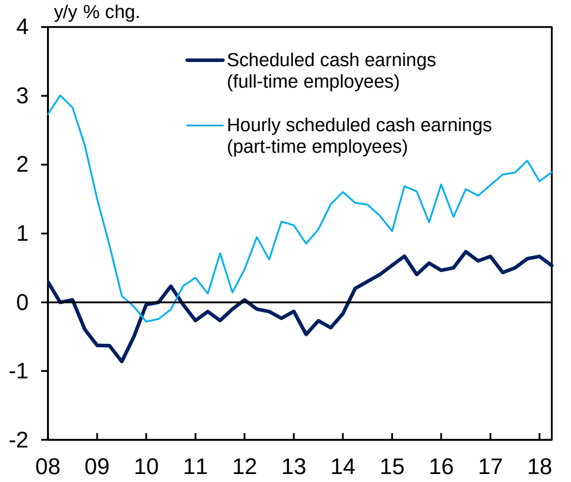
[17] In the *Monthly Labour Survey*, from the January 2018 final report, half of the samples for establishments with 30 or more employees were replaced, and the number of regular employees was retroactively revised reflecting data from the 2014 *Economic Census*. Thus, the weights of establishments with 5 to 29 employees and those with 30 or more employees, as well as the ratio of part-time employees, have been changed.

[18] 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.

(Chart 28).[19] Meanwhile, the year-on-year rate of change in real wages per employee has been more or less flat, albeit with fluctuations resulting from changes in prices of fresh food and energy.

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

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 2016/Q3 are based on continuing observations following the sample revision of the "Monthly Labour Survey."

[19] Figures for scheduled cash earnings are based on continuing observations in order to exclude the effects of the sample revision of the *Monthly Labour Survey*. It also should be noted that the quarterly figures are estimates by the Bank's staff. The year-on-year rates of change in scheduled cash earnings based on continuing observations are about 0.5 percentage point lower on average than the figures that reflect the sample revision. Calculations based on continuing observations indicate that the following developments are likely to be moderate compared to those implied by the figures that reflect the sample revision: the increase in employee income since the turn of 2018 (Chart 24); the rise in the labor share (Chart 29); and the decline in the propensity to consume (Chart 35). Partly in response to the sample revision of the *Monthly Labour Survey*, the Cabinet Office, in the first preliminary estimates of GDP for the July-September quarter of 2018, is planning to retroactively revise the figures for compensation of employees for the period from July-September 2009 through April-June 2018.

In light of the aforementioned employment and wage conditions, the rate of increase in employee income has been accelerating recently (Chart 24). Going forward, it is likely to increase steadily, and the pace is expected to be slightly above the nominal GDP growth rate in the second half of the projection period. The labor share is likely to rise moderately, after remaining more or less unchanged (Chart 29).

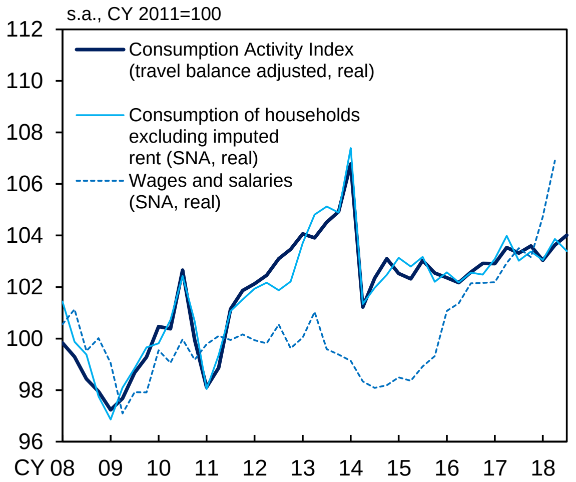
Chart 29: Labor Share

Source: Cabinet Office.
Notes: 1. Labor share = compensation of employees / nominal GDP × 100
2. Shaded areas indicate recession periods.

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).[20] Looking at private consumption by type, durable goods have been on a moderate uptrend, albeit with fluctuations, mainly due to replacement demand for automobiles and household electrical appliances. Nondurable goods have been on a moderate decreasing trend, mainly led by tobacco and clothes. Meanwhile, services consumption has maintained its moderate increasing trend, reflecting a trend rise in communications charges and medical costs.

Chart 30: Private Consumption



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of October 29). Figures for the Consumption Activity Index (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption.
2. The figure for consumption of households excluding imputed rent for 2018/Q3 is based on staff calculations using the "Synthetic Consumption Index (August)."
3. Figures for wages and salaries from 2017/Q2 are based on staff calculations using employee income (= total cash earnings × number of employees).

According to various sales statistics, retail sales value in nominal terms has remained on an

[20] 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.

increasing trend when fluctuations are smoothed out (Chart 31). Sales at department stores have picked up, mainly reflecting a pick-up in sales to the wealthy brought about by a rise in stock prices and an increase in demand from foreign visitors to Japan. However, they have decreased recently, partly because customer traffic has declined due to natural disasters. Sales at supermarkets have been on a moderate increasing trend, albeit with fluctuations mainly resulting from a rise in fresh food prices and weather conditions. Sales at convenience stores have continued on a rising trend.

As for durable goods, sales of automobiles have picked up, partly due to the effects of the introduction of new models (Chart 32). Sales of household electrical appliances have been on a moderate increasing trend due to resilient demand for white goods, as seen in favorable sales of mainly air conditioners reflecting heat waves, and to replacement demand for such items as televisions.

Regarding services consumption, travel has continued to pick up but recently has declined, mainly in domestic travel, due to the effects of natural disasters; 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 more or less flat (Chart 34). The *Economy Watchers Survey* suggests that consumer confidence has been weakening somewhat, mainly reflecting the effects of natural

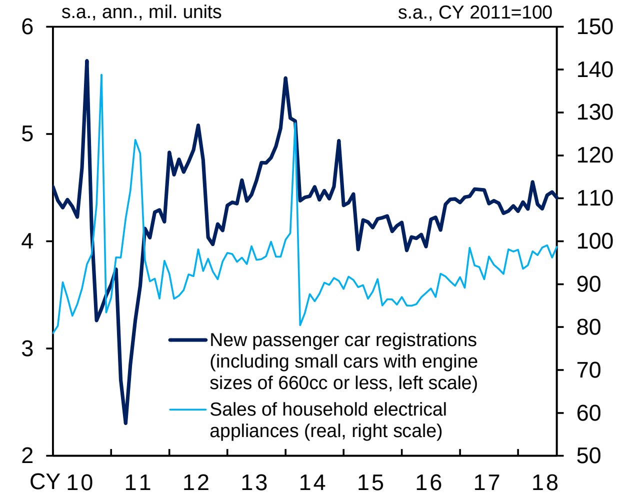
Chart 31: Consumption Indicators (Sales and Supply-Side Statistics)

s.a., q/q % chg.

	17/Q4	18/Q1	18/Q2	18/Q3
Consumption Activity Index				
Real, travel balance adjusted	0.3	-0.5	0.6	0.4
Real	0.4	-0.5	0.6	0.2
Sales at retail stores (nominal)	1.3	-0.6	0.4	1.0
Sales at department stores	-0.2	-0.2	1.5	-3.5
Sales at supermarkets	0.1	0.0	-1.4	1.8
Sales at convenience stores	0.4	1.0	0.2	1.1

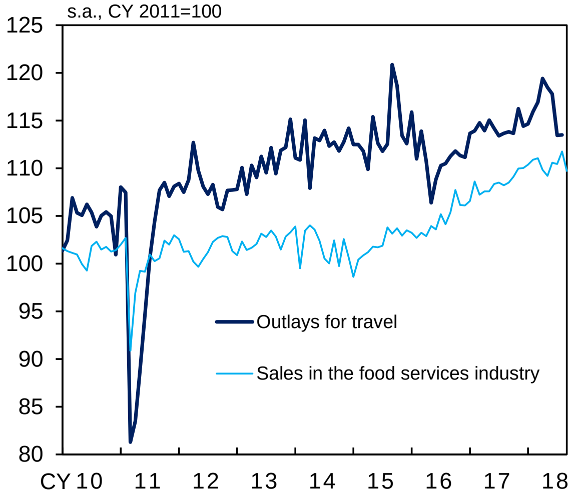
Sources: Bank of Japan; Ministry of Economy, Trade and Industry.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of October 29).
2. Figures for sales at department stores and sales at supermarkets are adjusted for the number of stores.

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.

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.

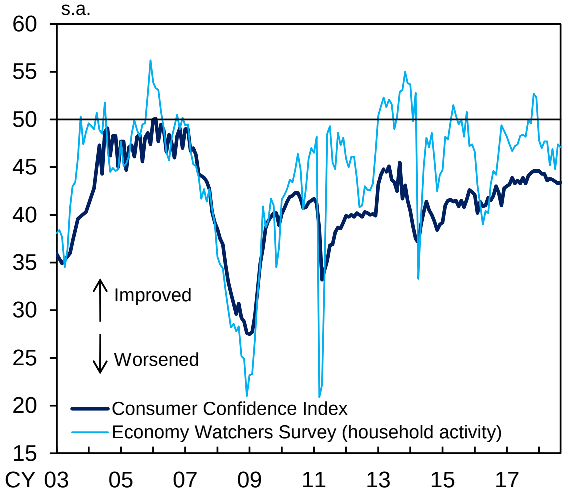
disasters.

In the outlook, private consumption is expected to follow a moderate increasing trend, supported by an increase in employee income and by the wealth effects stemming from the rise in stock prices, as well as replacement demand for durable goods, although it is likely to temporarily turn to a decline in the second half of the projection period due to the scheduled consumption tax hike. Meanwhile, the propensity to consume -- which has declined somewhat considerably after the consumption tax hike in 2014 -- is expected to pick up very moderately, mainly reflecting the wealth effects and replacement demand for durable goods, although it is likely to level off temporarily after the scheduled consumption tax hike in 2019 (Chart 35).[21]

Housing investment has been more or less flat (Chart 36). As for the outlook, it is expected to 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.

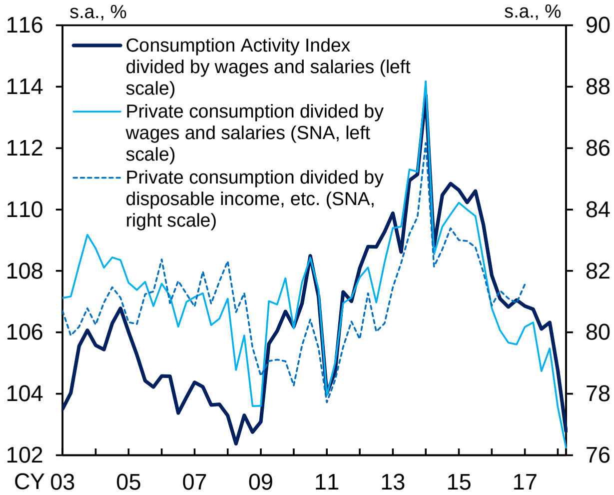
[21] Box 2 presents estimates of disposable income that closely follow the definition of the SNA and assesses recent developments in the propensity to consume.

Chart 34: Confidence Indicators Related to Private Consumption



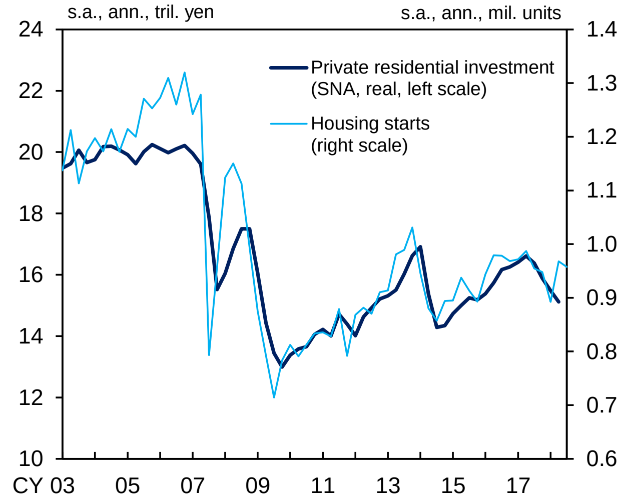
Source: Cabinet Office.
Note: Figures for the "Economy Watchers Survey" are those for the current economic conditions DI.

Chart 35: Average Propensity to Consume



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations.
2. Figures for wages and salaries from 2017/Q2 are based on staff calculations using employee income (= total cash earnings × number of employees).
3. Private consumption is consumption of households excluding imputed rent.
4. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements."

Chart 36: Housing Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2018/Q3 is the July-August average.

II. Current Situation of Prices and Their Outlook

Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has been rising 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, since the increase in personnel expenses was passed on to prices of a wide range of items at the beginning of the fiscal year (Chart 37).[22]

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 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.[23] 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

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

[23] 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.

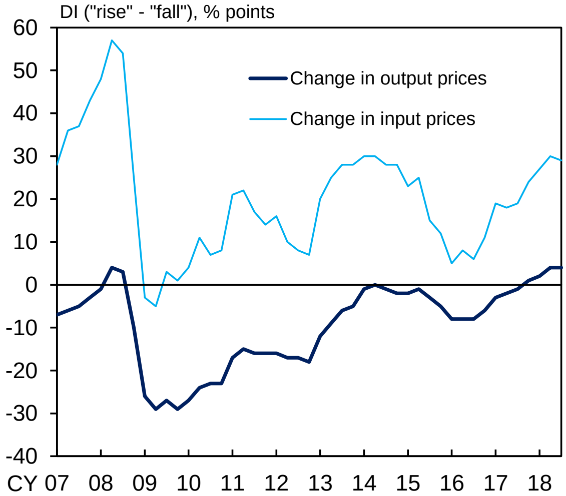
Chart 37: Inflation Indicators

y/y % chg.

	17/Q4	18/Q1	18/Q2	18/Q3
Consumer Price Index (CPI)				
Less fresh food	0.9	0.9	0.7	0.9
Less fresh food and energy	0.3	0.5	0.3	0.3
Producer Price Index (q/q % chg.)	1.1	0.6	0.6	0.7
Services Producer Price Index	0.7	0.7	1.0	1.1
GDP deflator	0.1	0.5	0.1	
Domestic demand deflator	0.6	0.9	0.5	

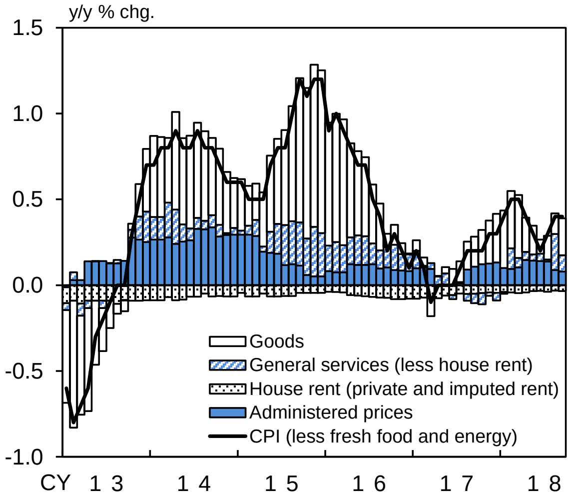
Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
Notes: 1. Figures for the Producer Price Index are adjusted to exclude the hike in electric power charges during the summer season.
2. Figures for the Services Producer Price Index exclude international transportation.

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.

by increasing labor-saving investment and streamlining their business process while limiting wage increases -- which correspond to labor shortage -- mainly to part-time employees.[24] As a result, the real wage gap, which is defined as the deviation of real wages from labor productivity, has remained at a low level, and this is contributing to pushing down prices (Chart 40).[25] In addition, the sectoral shock of such factors 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.[26]

The year-on-year rate of change in the CPI (all items less fresh food) is around 1 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.[27] The mode has been in the range of 0.0-0.5 percent of late, and the weighted median has

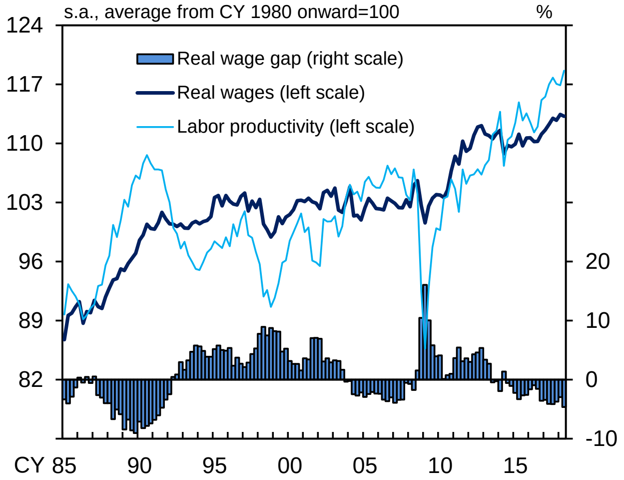
[24] As for firms' efforts to raise productivity, see Box 4 in the July 2018 Outlook Report.

[25] Regarding the relationship between the real wage gap and prices, see Box 3 in the July 2017 Outlook Report.

[26] For intensifying competition and sectoral shocks, see Box 5 in the July 2018 Outlook Report.

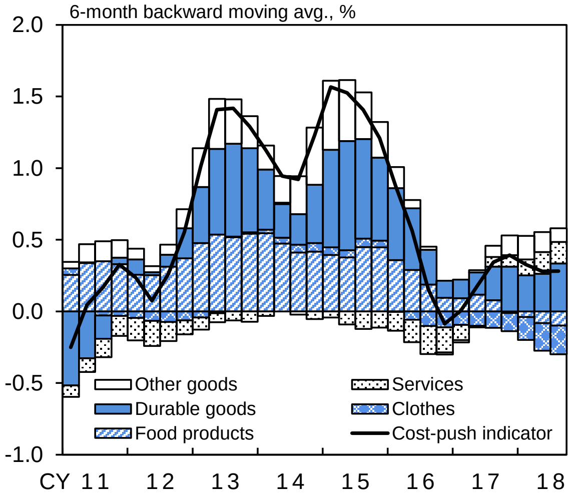
[27] The effects of large relative price fluctuations are eliminated by simply excluding items that belong to a certain percentage of the upper and lower tails of the price fluctuation distribution (10 percent of each tail in this report).

Chart 40: Real Wage Gap



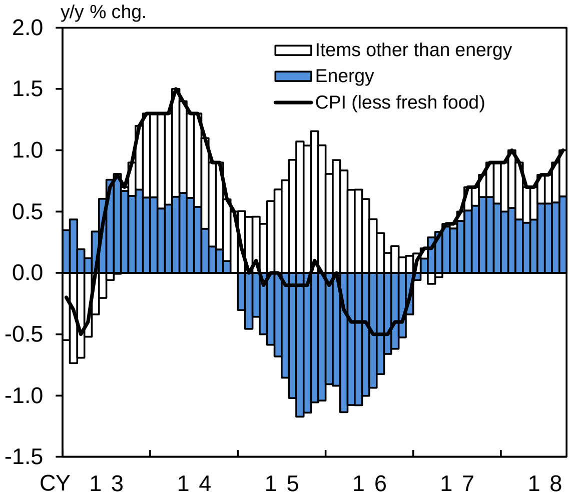
Sources: Ministry of Finance; Cabinet Office.
Notes: 1. The real wage gap is defined as the deviation of real wages from labor productivity.
2. Real wages = personnel expenses / number of workers / GDP deflator
3. Labor productivity = (operating profits + personnel expenses + depreciation expenses) / 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 2018/Q3 are July-August averages.

Chart 42: CPI (less fresh food)

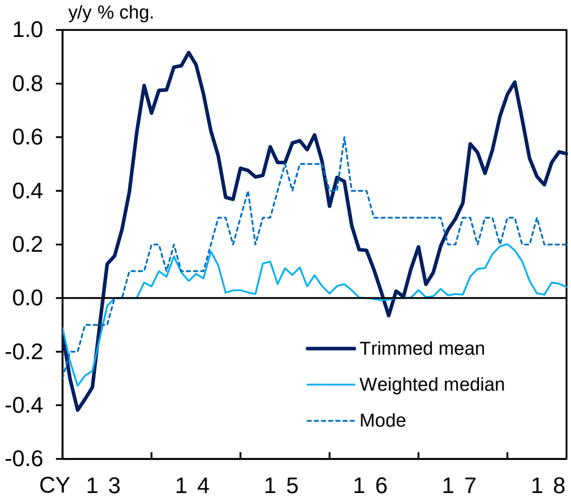


Source: Ministry of Internal Affairs and Communications.
Notes: 1. Energy consists of petroleum products, electricity, and gas, manufactured & piped.
2. The CPI figures are adjusted for changes in the consumption tax rate.

been at around 0 percent.[28] Looking at annual price changes across all items (less fresh food), the share of price-increasing items minus the share of price-decreasing items of late has been declining somewhat, but more recently has turned to an increase (Chart 44).

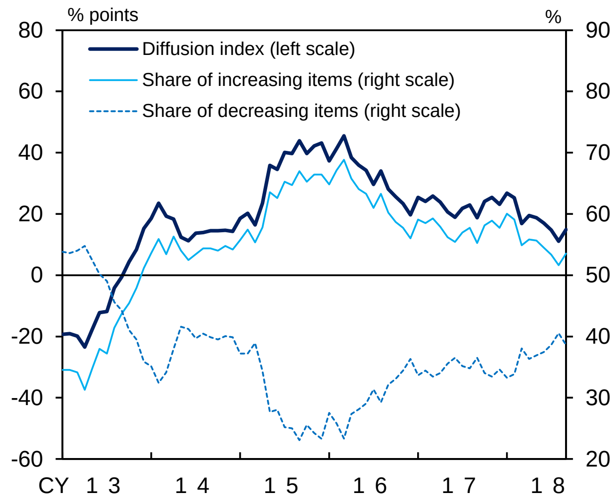
The year-on-year rate of change in the GDP deflator has been slightly positive on the whole, despite being negatively affected by the import deflator that reflects a pick-up in international commodity prices (Chart 37). The year-on-year rate of change in the domestic demand deflator has been at around 0.5 percent, mainly led by the business fixed investment deflator.

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.

[28] 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 distribution in terms of weight.

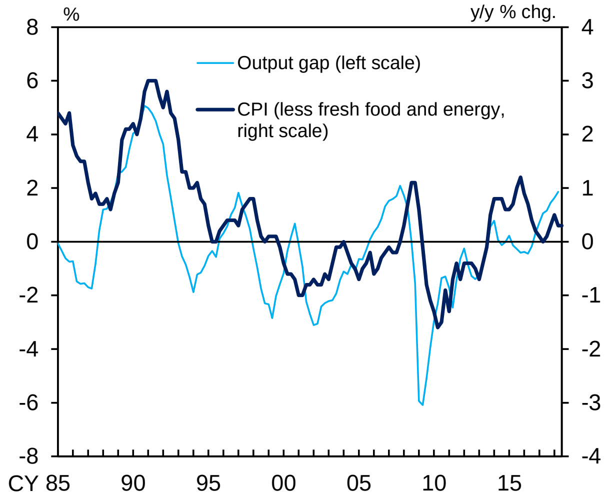
Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap has widened within positive territory and was at around 2 percent in the April-June quarter of 2018 (Charts 5 and 45).[29] With regard to the outlook, the output gap is projected to continue on a moderate expanding trend within positive territory in fiscal 2018, both on the capital and labor sides, reflecting the increase in demand at home and abroad. From fiscal 2019 onward, although such expansion is likely to pause, mainly due to the effects of the scheduled consumption tax hike, the output gap is expected to remain substantially positive.

Second, medium- to long-term inflation expectations have 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.

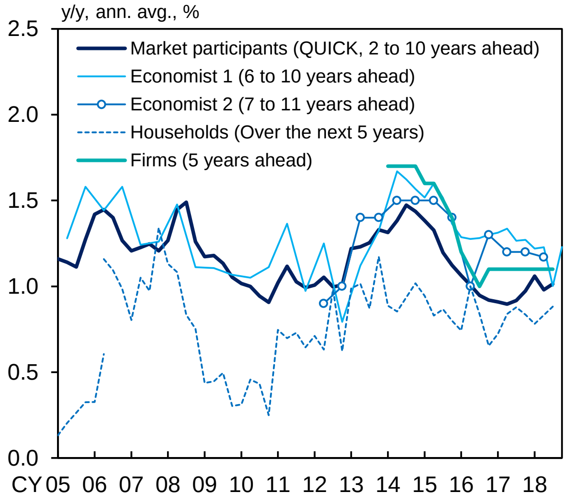
[29] In the meantime, the DI in the *Tankan* for domestic supply and demand conditions for products and services for large manufacturing enterprises was at a high level last seen in the August 1990 survey.

Chart 45: Inflation Rate and Output Gap



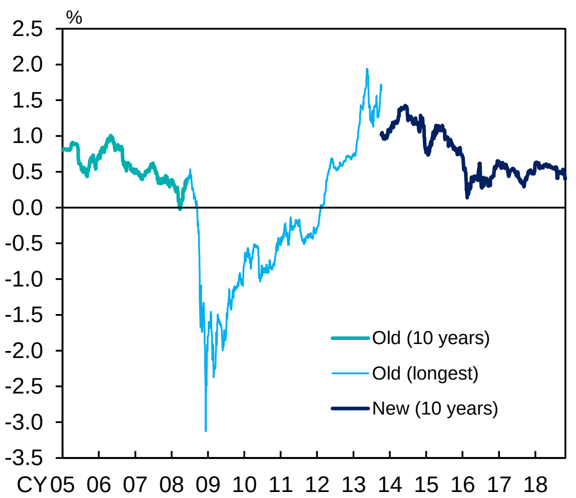
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are adjusted for changes in the consumption tax rate.
2. The output gap is based on staff estimations.

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.

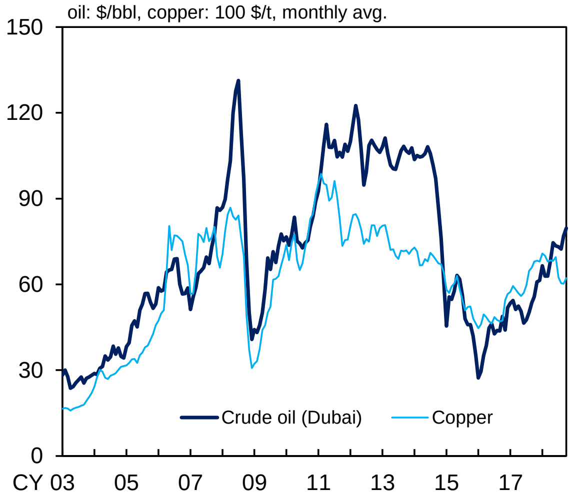
The third factor is developments in import prices (Chart 48). The rise in crude oil prices will push up energy prices for fiscal 2018, but this effect is likely to wane moderately.

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 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, including dining-out and housework-related services, are likely to prevail, although the decline in housing rent is projected to continue exerting downward pressure. 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 increase gradually toward 2 percent. This is because, although upward pressure of energy prices is likely to wane moderately, the CPI inflation excluding fresh food and energy is expected to accelerate.

Chart 48: International Commodity Prices



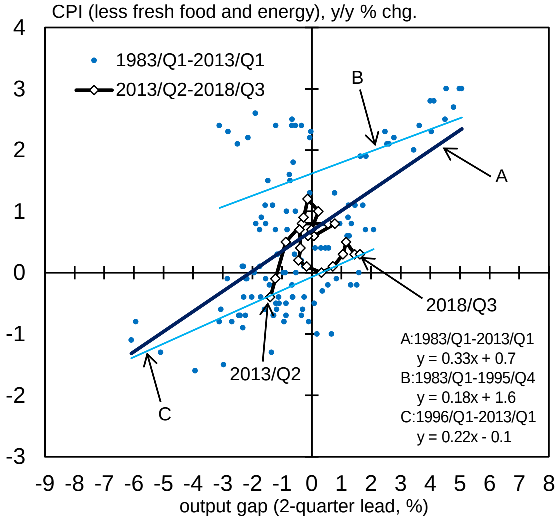
Sources: Nikkei Inc.; Bloomberg.

Such projections are made based on the same underlying scenario as before that the inflation rate will rise along the Phillips curve with the improvement in the output gap and that the Phillips curve will gradually shift upward as inflation expectations rise through both the forward-looking and adaptive expectation formation mechanisms (Chart 49).[30]

Comparing the current projections with the previous ones, the projected rates of increase in the CPI (all items less fresh food) are somewhat lower, mainly for fiscal 2018.

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 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.

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

III. Financial Developments in Japan

Financial Conditions

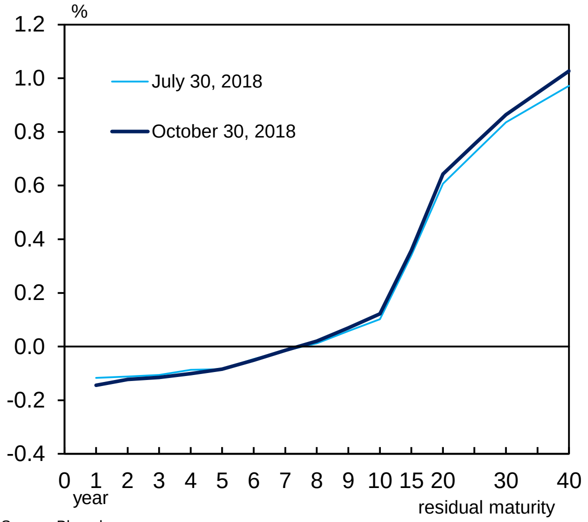
Financial conditions are highly accommodative.

Under "QQE with Yield Curve Control," the yield curve for Japanese government bonds (JGBs) has been in line with the current guideline for market operations, in which the short-term policy interest rate is set at minus 0.1 percent and the target level of 10-year JGB yields is around zero percent (Chart 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 in positive territory. Meanwhile, the 20-year JGB yields have generally been in the range of 0.5-1.0 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.[31]

Firms' funding costs have been hovering at extremely low levels (Chart 51). Issuance rates for CP have remained at extremely low levels. Conditions for CP issuance have been favorable, as suggested by the DI in the *Tankan* having been at around the highest level since 2008, which is when it was introduced in the *Tankan*. Issuance rates for corporate bonds also have remained at extremely low levels. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been at around historical low levels.

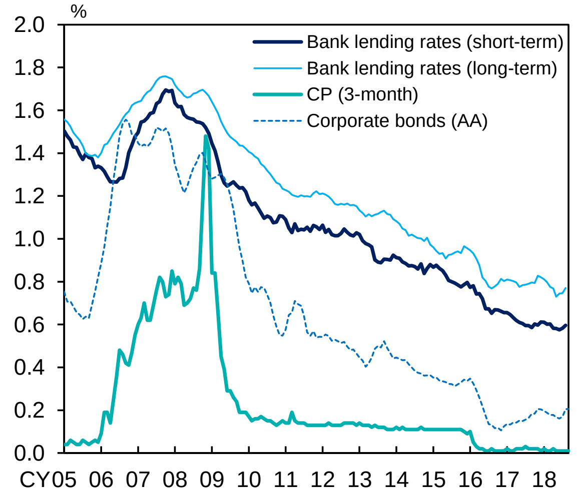
[31] With regard to liquidity in the JGB markets and the degree of bond market functioning from the market participants' viewpoints, see the Bank's releases *Liquidity Indicators in the JGB Markets* (September 2018) and *Bond Market Survey* (August 2018 survey).

Chart 50: Yield Curves



Source: Bloomberg.

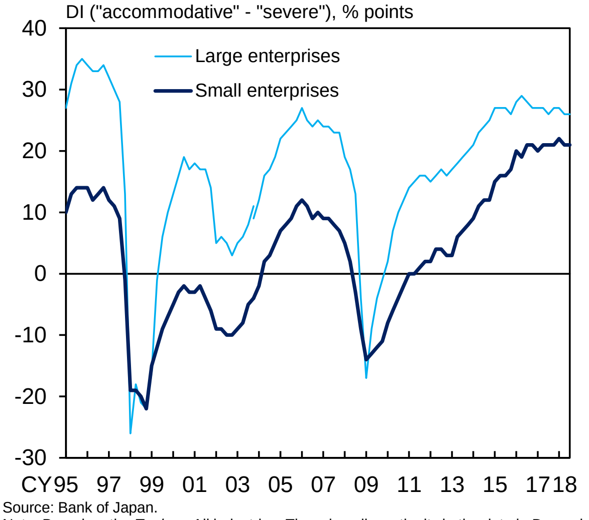
Chart 51: Bank Lending Rates and Issuance Yields for CP and Corporate Bonds



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.

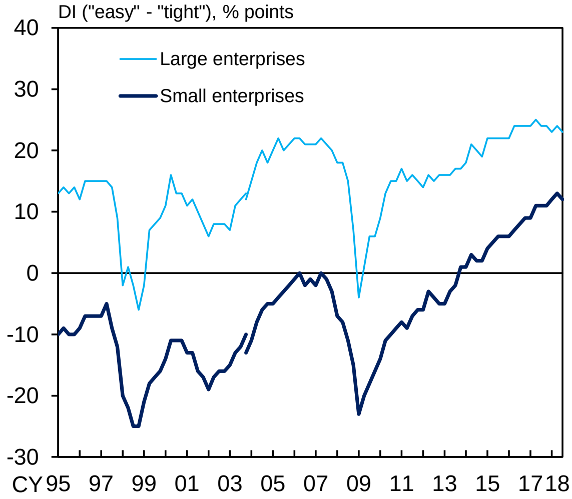
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

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 DIs for both large and small firms in the *Tankan* having been at high levels that are almost the same as those seen around 1990 (Chart 53).

Demand for funds such as for business fixed investment has been increasing, mainly for small and medium-sized firms. In these circumstances, the year-on-year rate of increase in the amount outstanding of bank lending has been in the range of 2.0-2.5 percent (Chart 54). That in the aggregate amount outstanding of CP and corporate bonds has been at a relatively high level.

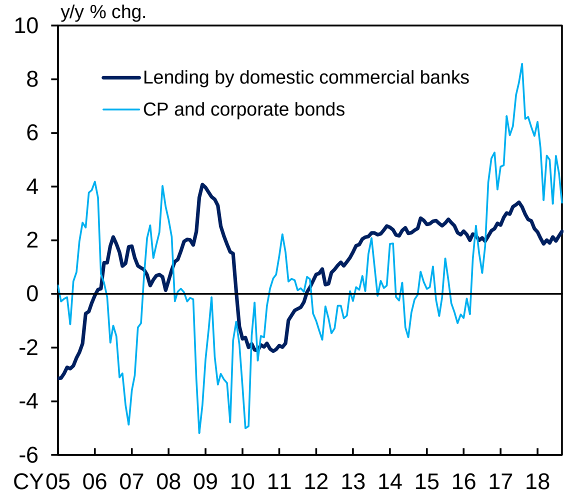
The year-on-year rate of increase in the monetary base has been at around 6 percent, and its amount outstanding as of end-September was 505 trillion yen, of which the ratio to nominal GDP was 91 percent.[32] The year-on-year rate of increase in the money stock (M2) has been at around 3 percent, partly reflecting an increase in bank lending (Chart 55).

Chart 53: Financial Position



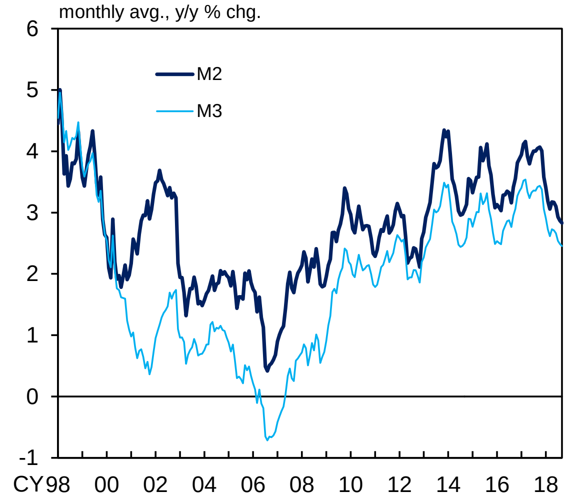
Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

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.

[32] It is assumed that the figure for nominal GDP is unchanged from the April-June quarter of 2018.

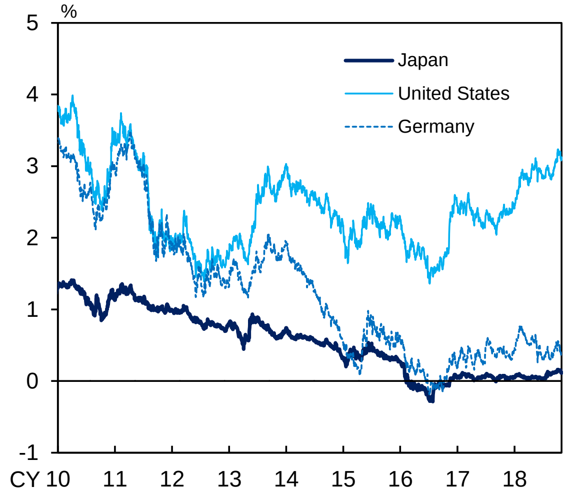
Developments in Financial Markets

With regard to developments in global financial markets, long-term interest rates and stock prices in major economies generally followed an uptrend through early October, mainly reflecting solid economic indicators and favorable corporate results in the United States. Thereafter, however, U.S. stock prices -- which had been marking historical highs -- declined, partly against the background of a rise in U.S. long-term interest rates, and this led to a fall in stock prices in many countries through a heightening of investors' risk aversion. Stock prices have continued to see large fluctuations since mid-October, partly reflecting uncertainties over trade policy, especially between the United States and China.

Yields on 10-year government bonds in the United States through early October rose to the range of 3.2-3.3 percent -- a level last seen in 2011 -- partly backed by solid economic indicators, and have been more or less flat thereafter (Chart 56). Yields on 10-year government bonds in Germany rose along with those in the United States and subsequently have declined, partly against the background of concerns regarding developments in Italy.

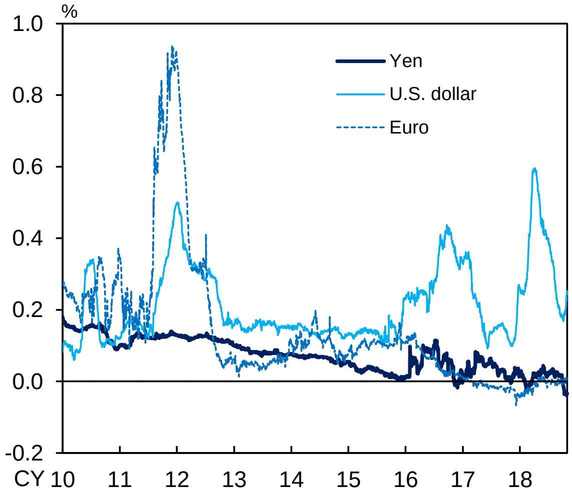
With regard to credit spreads on interbank transactions, the LIBOR-OIS spreads for major currencies show the following developments: those for the U.S. dollar have narrowed, mainly reflecting the halt to the increased issuance of U.S. Treasury bills, and those for the euro and the yen have remained at low levels (Chart 57). Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market have

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



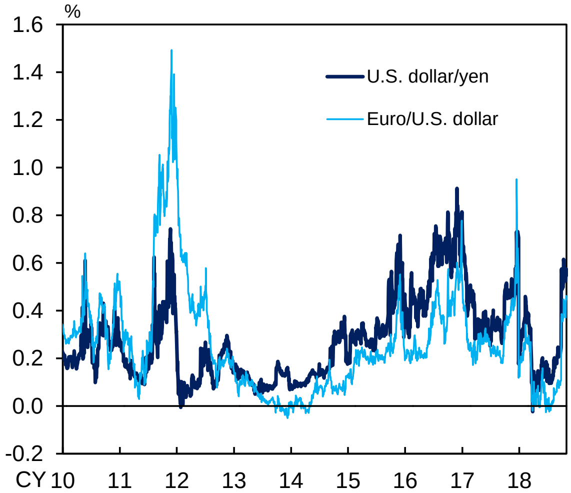
Source: Bloomberg.

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.

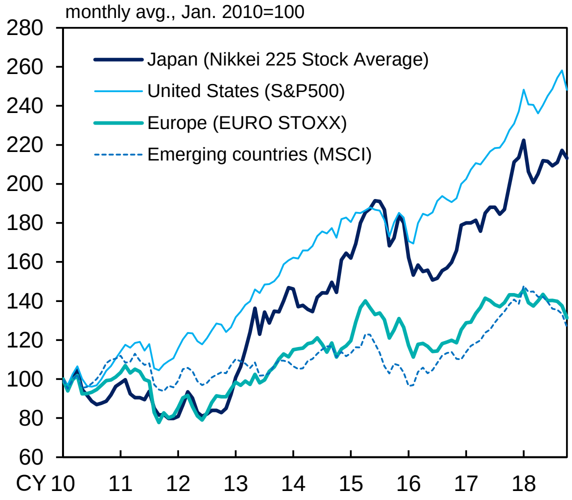
risen since late September due to the tightening in the supply-demand balance (Chart 58).

Stock prices in the United States followed an uptrend through early October, mainly on the back of favorable corporate results. However, they declined thereafter, partly against the background of a rise in long-term interest rates, and have continued to see large fluctuations since mid-October, partly reflecting uncertainties over trade policy, especially between the United States and China (Chart 59). Stock prices in Europe have followed a declining trend, partly reflecting concerns regarding developments in Turkey and Italy. Japanese stock prices through early October rose to high levels seen for the first time in about 26 years, due mainly to expectations of an improvement in corporate profits, as the yen depreciated against the U.S. dollar. However, they subsequently have declined along with U.S. stock prices.

In the Japan real estate investment trust (J-REIT) market, prices have been more or less flat (Chart 60).

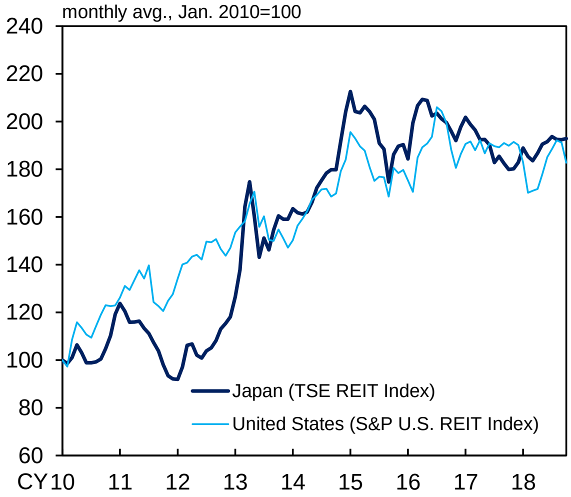
In foreign exchange markets, the yen depreciated against the U.S. dollar through early October, mainly against the background of a widening of the yield differential between Japan and the United States. Subsequently, however, there have been some fluctuations, as seen in the yen having appreciated against the dollar with investors' risk aversion heightening somewhat (Chart 61). The yen temporarily appreciated against the euro, partly reflecting concerns regarding

Chart 59: Selected Stock Prices



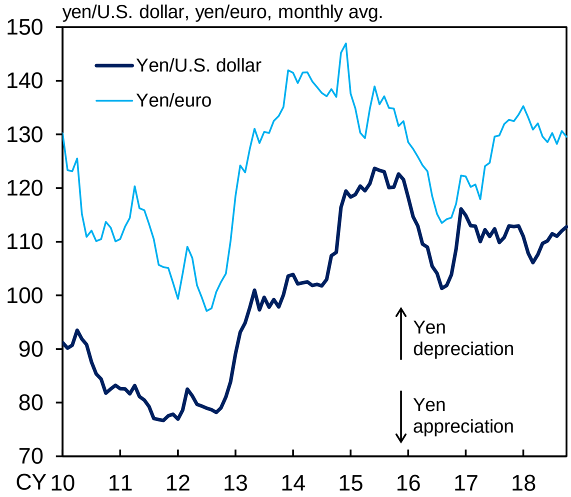
Source: Bloomberg.
Note: Figures for emerging countries are based on the MSCI Emerging Markets Index calculated in the local currencies.

Chart 60: Selected REIT Indexes



Source: Bloomberg.

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



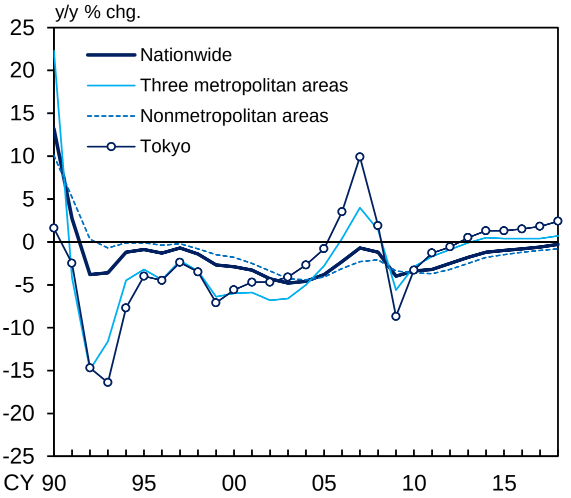
Source: Bloomberg.

developments in Turkey and Italy, but has generally been at around 130 yen against the euro.

Land Prices

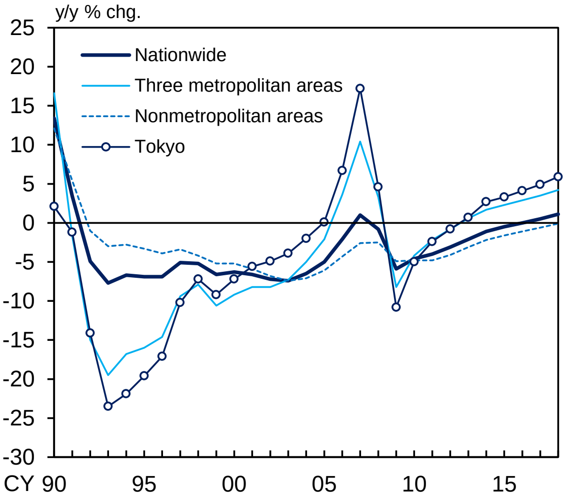
Land prices as a whole have almost stopped declining. According to the *Land Price Research by Prefectural Governments* for 2018 (as of July 1), the year-on-year rate of increase in commercial land prices has accelerated and the rate of decline in residential land prices has continued to decelerate (Charts 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 decline in both commercial and residential land prices has continued to decelerate.

Chart 62: Residential Land Prices



Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the "Land Price Research by Prefectural Governments." Figures are as of July 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 Price Research by Prefectural Governments." Figures are as of July 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.

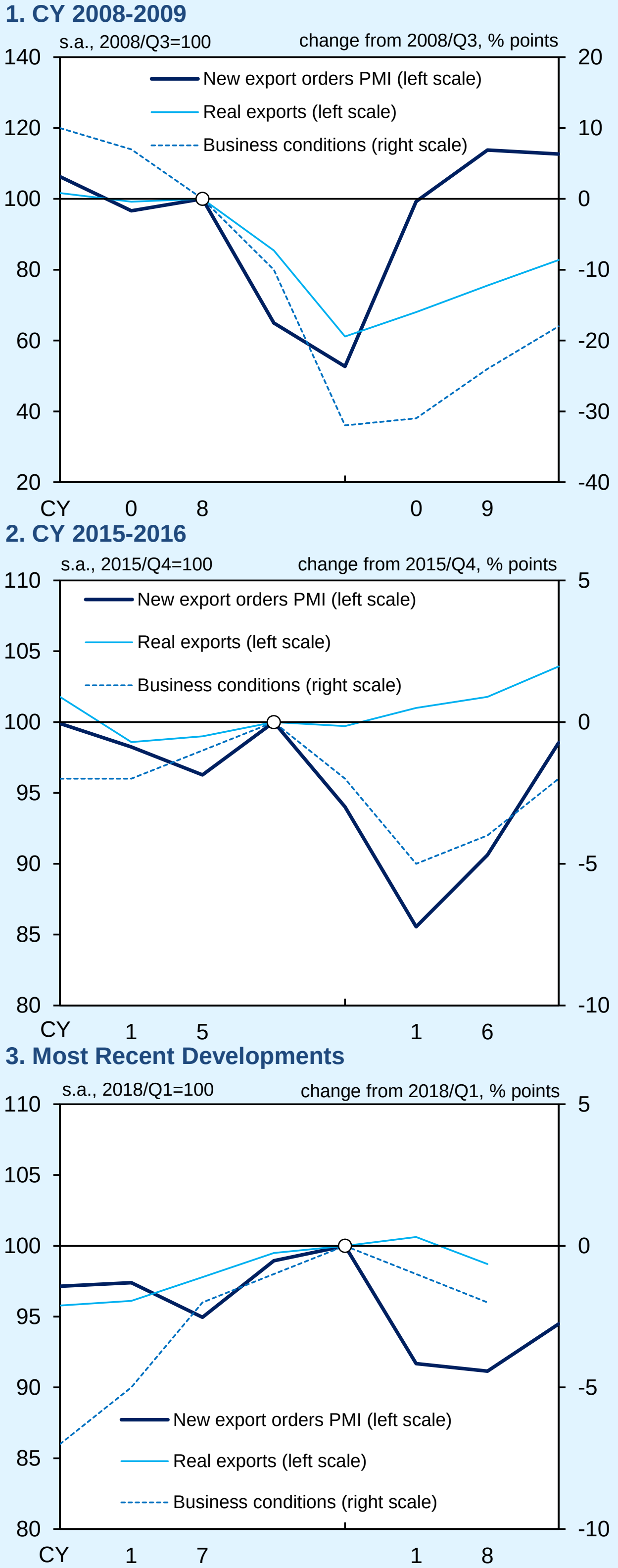
(Box 1) Impact of Uncertainties regarding Overseas Economies including Protectionist Moves

Since the middle of this year, uncertainties regarding overseas economies, including the effects of protectionist moves, have heightened. In order to assess the recent situation, this box looks back at the past episodes when risks concerning overseas economies materialized: (1) the period around the global financial crisis in 2008-2009 and (2) 2015-2016, when emerging economies such as China decelerated.

At the time of the global financial crisis, the new export orders PMI fell sharply first, followed by rapid declines in the business conditions DI in the *Tankan* and real exports (Chart B1-1[1]). Under these circumstances, firms increasingly postponed business fixed investment, and fixed investment plans for fiscal 2008 were substantially revised downward (Chart B1-2).

On the other hand, looking at the phase when emerging economies decelerated in 2015-2016, the new export orders PMI and the business conditions DI declined due in part to the yen's appreciation, but real exports were more or less unchanged (Chart B1-1[2]). The reason is that the decrease in exports to emerging economies was compensated for by an increase in exports to advanced economies. Under these circumstances, business fixed investment in fiscal 2015 registered relatively high growth compared to the average pattern in the past (Chart B1-2).

Chart B1-1: Corporate Indicators



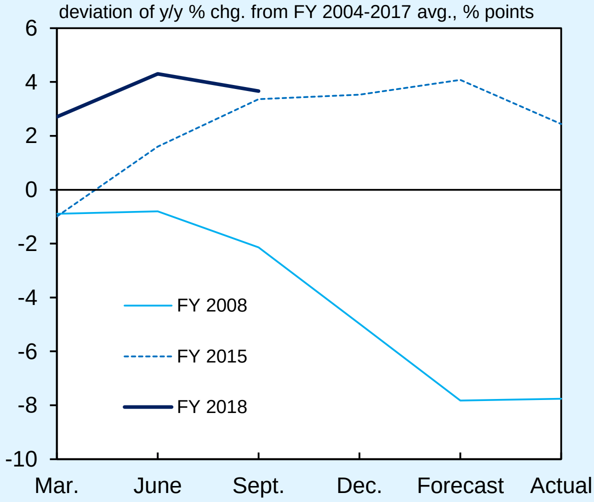
Sources: Bank of Japan; Ministry of Finance;
IHS Markit (© and database right IHS Markit Ltd 2018. All rights reserved.)
Notes: 1. Business conditions are measured in terms of the diffusion index ("favorable" - "unfavorable") for all industries and enterprises in the *Tankan*.
2. The new export orders PMI is the new export orders index in the Nikkei Japan Manufacturing PMI. The figure for 2018/Q4 is that for October.

These experiences suggest that a useful first point to check when assessing whether risk scenarios originating from overseas economies have materialized is to see if there have been any trend changes in the indices of corporate surveys, such as the new export orders PMI and the business conditions DI, which are released without much lag. However, even if these corporate survey indices worsen, this does not necessarily mean that there will be a serious impact on the real economy. Therefore, an important second point to check is developments in real exports. That is, if real exports decrease significantly, this potentially has a large negative impact on the real economy, including spillover effects such as on business fixed investment, and thus more vigilance is needed.

Looking at the current phase, the business conditions DI has remained at a favorable level, although its improving trend seems to have come to a halt recently. On the other hand, the new export orders PMI has declined somewhat and real exports have been sluggish lately (Chart B1-1[3]). However, such sluggishness in real exports largely reflects supply-side constraints stemming from natural disasters. In addition, business fixed investment plans for fiscal 2018 have maintained high growth, and no particular postponements of planned investments have been observed (Chart B1-2).

This assessment of the current phase is consistent with recent interviews on firms conducted by the Bank's Head Office, branches, and local offices (Chart B1-3). That is, at this point, not many firms have been affected by the growing

Chart B1-2: Comparison of 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 up through fiscal 2015).

trade friction between the United States and China, and even a large number of those that actually have been affected say that the extent has been limited.

Nevertheless, many firms have voiced growing concerns regarding the outlook. Quite a few firms have pointed out that it is difficult to gauge the potential impact of trade friction because supply chains are complex. This suggests that firms themselves may not grasp the channels and scale of the impact of trade friction until their orders are actually affected.

Chart B1-3: Interview Responses by Firms (The Bank's *Regional Economic Report*)

[Current situation]

-- Although we are concerned about the effects of trade friction between the United States and China on customers' sentiment on business fixed investment, we do not see postponements of investment at this point (an electrical machinery company interviewed by the Head Office).

-- Although discussions surrounding the U.S. trade policy are in progress, we do not think we need to drastically revise the global production plans at this point (an automobile-related company in Nagoya).

-- Since the tariffs on parts exported from China to the United States have been raised, we will change the way of supplying them; specifically, we will produce them in Japan or Thailand for the time being (a production machinery company in Hiroshima).

[Concern or cautiousness about the outlook]

-- Given that supply chains have become complex, in that they arch over many countries, the effects of trade friction between the United States and China are hard to figure out. Although we have not seen a decline in orders to date, including from China, we are concerned that this could happen going forward (an electrical machinery company in Osaka).

-- We see almost no effects of trade friction between the United States and China on our high value-added products. However, we are concerned about whether the inflow of low-price Chinese products has an effect on the domestic commodity market (an iron and steel company in Shimonoseki).

-- If the negotiations between the United States and Japan do not end in an agreement and additional tariffs are imposed by the United States on motor vehicles and related parts, it is highly likely that we will be forced to take some burden by our clients. If this leads to our profits falling below the break-even level, we will have to shrink our business or revise the production structure (an electrical machinery company in Maebashi).

Source: Bank of Japan.
Notes: 1. Extracted from the October 2018 *Regional Economic Report*.
2. The parentheses show the industry of the interviewee and the Bank office/branch.

(Box 2) Recent Developments in the Propensity to Consume

The pace of increase in private consumption has remained moderate compared to the rise in wages and salaries (mainly employees' salary incomes) (Chart 30). However, this does not necessarily mean that households' consumption expenditure has been subdued relative to their income.

An important determinant of consumption behavior at the macro level is not only employees' salary income, but also their disposable income, which is their salary income adjusted for taxes and social insurance contributions as well as social benefits such as pensions. Such adjustments make it possible to grasp more accurately the net income that working households can use for consumption. In addition to the income of working households, such adjustments make it possible to consider developments in the income of pensioners, for example, whose main source of income is social benefits.

However, because the disposable income data in the SNA are released with a lag, it is not possible to grasp developments up to the present.[33] Therefore, using various related statistics, this box presents estimates of disposable income that closely follow the definition of the SNA (Chart

Chart B2-1: Data Used for Estimating Disposable Income

Wages and salaries	Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Ministry of Internal Affairs and Communications, "Labour Force Survey."
	Figures are calculated by multiplying total cash earnings (from the "Monthly Labour Survey") by the number of employees (from the "Labour Force Survey"). In the estimation of disposable income, figures for total cash earnings from September 2016 are based on continuing observations.
Pension benefits	Japan Pension Service, "Primary Statistics."
	Figures are the total amount of pension benefits provided by the National Pension System and the Employees' Pension Insurance System.
Income tax	Ministry of Finance, "Survey of the Amount of Tax and Stamp," etc.
	Figures are the total amount of withholding income tax and self-assessment income tax, etc. (the amount of local income tax is calculated separately).
Social insurance contributions	Ministry of Finance, "Receipts and Payments of Treasury Funds with the Private Sector," etc.
	Figures are the amount of receipts in the pension special account, which mainly consist of household and employer contributions to the public pension and national health insurance schemes.
Public assistance	Ministry of Health, Labour and Welfare, "Survey on Public Assistance Recipients."
	Figures are based on the number of households receiving public assistance.
Dividends (shares)	Tokyo Stock Exchange, Inc., "Average Yield," "Trading Volume & Value of Stocks by Investor Type"; Bank of Japan, "Flow of Funds Accounts," etc.
	Figures are calculated by multiplying dividend yields by the outstanding amount of listed shares held by households estimated using the "Flow of Funds Accounts" and "Trading Volume & Value of Stocks by Investor Type," etc.
Dividends (investment trusts)	Investment Trusts Association, "Changes in Assets of Publicly Offered Investment Trusts (Market Value)"; Bank of Japan, "Flow of Funds Accounts," etc.
	Figures are calculated by multiplying the total amount of profit distributions of publicly offered investment trusts by the share of investment trusts held by households estimated using the "Flow of Funds Accounts," etc.

Note: In the estimation of disposable income, individual monthly indexes are converted to nominal values and summed up. In the conversion of indexes to nominal values, annual estimates from the SNA for fiscal 2013 are used for dividends. Other than that, annual estimates from the SNA for fiscal 2011 are used. Items such as mixed income are not taken into account.

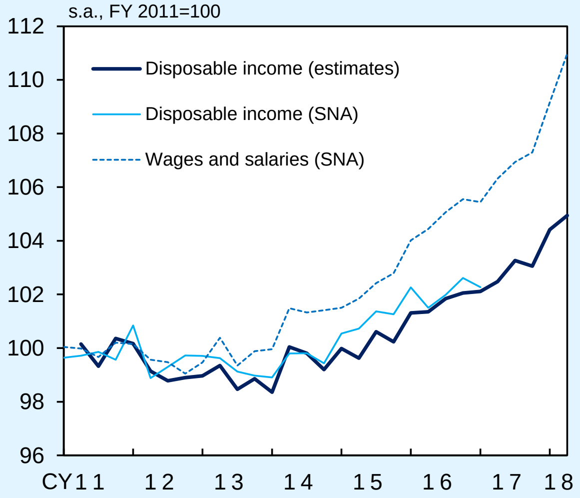
[33] The Cabinet Office has been deliberating with the aim of publishing preliminary figures of household disposable income as a reference series in the course of fiscal 2018, and showed its estimation results (Section meeting of the Statistics Commission for systematically developing National Accounts on October 22, 2018).

B2-1).[34]

The disposable income estimates generally trace the disposable income figures published in the SNA (Chart B2-2). The widening gap between disposable income and wages and salaries in the past few years mainly reflects (1) a progressive increase in income tax payments as a result of a rise in wages and salaries as well as (2) an increase in the social insurance contributions due to hikes in the contribution amount for pensions. In addition, a widening of the gap since 2018 is partly due to the fact that the latest estimates of SNA wages and salaries by the Bank's staff use figures for total cash earnings based on all observations in the *Monthly Labour Survey*, while the disposable income estimates use figures based on continuing observations.[35]

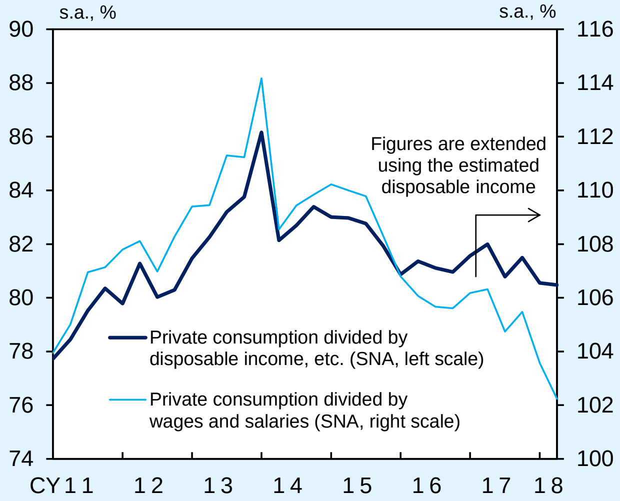
When calculated using the disposable income estimates, the propensity to consume fell considerably after the consumption tax hike in 2014 and since then has been more or less unchanged (Chart B2-3). This indicates that private consumption in the past few years has been increasing moderately, generally in line with disposable income.

Chart B2-2: Estimated Disposable Income



Sources: Cabinet Office; Ministry of Finance; Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications; Japan Pension Service, etc.
Note: Figures for wages and salaries from 2017/Q2 are based on staff calculations using employee income (= total cash earnings × number of employees).

Chart B2-3: Average Propensity to Consume Using Disposable Income



Sources: Cabinet Office; Ministry of Finance; Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications; Japan Pension Service, etc.
Notes: 1. Private consumption is consumption of households excluding imputed rent.
2. "Disposable income, etc." on an SNA basis consists of disposable income and "adjustment for the change in pension entitlements." Figures from 2017/Q2 are based on staff calculations using the disposable income estimates in Chart B2-2.
3. Figures for wages and salaries from 2017/Q2 are based on staff calculations using employee income (= total cash earnings × number of employees).

[34] Due to data limitations, some of the constituent items of disposable income, such as mixed income, are not included in the estimates here.

[35] See footnote 19 for the effects of the sample revision of the *Monthly Labour Survey*.