Not to be released until 2:00 p.m.
Japan Standard Time on
Wednesday, January 24, 2018.

日本銀行
BANK OF JAPAN

Outlook for Economic Activity and Prices

January 2018

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

Outlook for Economic Activity and Prices (January 2018)

The Bank's View[1]

Summary

- Japan's economy is likely to continue expanding on the back of highly accommodative financial conditions and underpinnings through the government's past stimulus measures, with overseas economies continuing to grow at a moderate pace, and maintain growth at a pace above its potential mainly through fiscal 2018. In fiscal 2019, the economy is expected to continue expanding, although the growth pace is projected to decelerate due to a cyclical slowdown in business fixed investment and the effects of the scheduled consumption tax hike.[2]
- The consumer price index (CPI, all items less fresh food) has continued to show relatively weak developments, excluding the effects of a rise in energy prices, mainly against the background that firms' wage- and price-setting stance has remained cautious. Nonetheless, medium- to long-term inflation expectations are projected to rise as firms' stance gradually shifts toward raising wages and prices with an improvement in the output gap continuing. As a consequence, the year-on-year rate of change in the CPI is likely to continue on an uptrend and increase toward 2 percent.
- Comparing the current projections with the previous ones, both the projected growth rates and the projected rates of increase in the CPI are more or less unchanged.
- With regard to the risk balance, upside and downside risks to economic activity are generally balanced, and risks to prices are skewed to the downside. On the price front, the momentum toward achieving the price stability target of 2 percent is maintained as the output gap is expected to continue improving and medium- to long-term inflation expectations are projected to rise gradually; however, the momentum is not yet sufficiently firm, and thus developments in prices continue to warrant careful attention.
- As for the conduct of monetary policy, the Bank will continue with "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control," aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2 percent and stays above the target in a stable manner. The Bank will make policy adjustments as appropriate, taking account of developments in economic activity and prices as well as financial conditions, with a view to maintaining the momentum toward achieving the price stability target.

[1] The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on January 22 and 23, 2018.

[2] The January 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.

I. The Current Situation of Economic Activity and Prices in Japan

Japan's economy is expanding moderately, with a virtuous cycle from income to spending operating. Overseas economies have continued to grow at a moderate pace on the whole. In this situation, exports have been on an increasing trend. On the domestic demand side, business fixed investment has continued on an increasing trend with corporate profits and business sentiment improving. Private consumption has been increasing moderately, albeit with fluctuations, against the background of steady improvement in the employment and income situation. Housing investment has been more or less flat. Meanwhile, public investment 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. Through fiscal 2018, domestic demand is likely to follow an uptrend, with a virtuous cycle from income to spending being maintained in both the corporate and household sectors, on the back of highly accommodative financial conditions and underpinnings through the government's past stimulus measures. Business fixed investment is likely to continue increasing, supported by accommodative financial conditions, heightened growth expectations, and increases in Olympic Games-related investment, as well as in labor-saving investment to address the labor shortage. Private consumption is also expected to follow a moderate increasing trend as the employment and income situation continues to improve. Public investment is expected to remain at a relatively high level, mainly reflecting Olympic Games-related demand, although the positive effects resulting from the past stimulus measures are likely to diminish moderately. Meanwhile, overseas economies are expected to continue growing at a moderate pace as advanced economies keep growing steadily and a recovery in emerging economies takes hold on the back of the steady growth in advanced economies and the effects of policy measures taken by emerging economies. Exports are expected to continue their moderate increasing trend on the back of such growth in overseas economies.

In fiscal 2019, Japan's economy is expected to continue expanding, supported by external demand, although the growth pace is projected to decelerate due to a slowdown in domestic demand. Specifically, business fixed investment is likely to decelerate, mainly

reflecting cyclical adjustments in capital stock after the prolonged economic expansion, as well as Olympic Games-related demand peaking out; household spending is likely to turn to a decline in the second half of the fiscal year due to the effects of the scheduled consumption tax hike.[3] Nevertheless, the increase in exports on the back of the growth in overseas economies is expected to underpin the economy.

Reflecting this outlook, Japan's economy is likely to continue growing at a pace above its potential, mainly through fiscal 2018.[4] Comparing the current projections with the previous ones, the projected growth rates are more or less unchanged.

Looking at the financial conditions assumed in the above outlook, short- and long-term real interest rates are expected to be in negative territory throughout the projection period as the Bank pursues "QQE with Yield Curve Control."[5] Financial institutions' proactive lending attitudes as well as favorable conditions for corporate bonds and CP issuance are both likely to be maintained and support firms' and households' activities from the financial side. Thus, financial conditions are likely to remain highly accommodative.

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

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

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

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

B. Baseline Scenario of the Outlook for Prices

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

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

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

Comparing the current projections with the previous ones, the projected rates of increase in the CPI are more or less unchanged. The timing of the year-on-year rate of change in the CPI reaching around 2 percent will likely be around fiscal 2019.[6]

The mechanism through which the year-on-year rate of change in the CPI increases toward 2 percent can be explained by the following three factors that determine inflation rates. First, the output gap -- which shows the utilization of labor and capital -- has widened steadily within positive territory on the back of the steady tightening of labor market conditions and a rise in capital utilization rates. Going forward, as the economy continues its moderate expansion, the output gap is expected to widen further within positive territory through fiscal 2018 and remain substantially positive in fiscal 2019.

Second, medium- to long-term inflation expectations have been more or less unchanged recently, after having remained in a weakening phase since summer 2015. As for the outlook, such expectations are likely to follow an increasing trend and gradually converge

[6] By assuming that the rise in the consumption tax will be fully passed on to taxable items excluding those to which a reduced tax rate will be applied, the effects of the October 2019 consumption tax hike on the year-on-year rate of change in the CPI (all items less fresh food) for October 2019 onward is estimated to be 1.0 percentage point; the effect for fiscal 2019 is thus estimated to be half that, at 0.5 percentage point.

to around 2 percent on the back of the following: (1) in terms of the adaptive component, with the improvement in the output gap, firms' stance is likely to gradually shift toward raising wages and prices and the observed inflation rate is expected to rise steadily, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target.[7]

Third, regarding import prices, a pick-up in crude oil prices since spring 2016 has pushed up energy prices in the CPI, but this effect is likely to wane moderately. On the other hand, as for the impact of foreign exchange rates on consumer prices through import prices, the yen's depreciation since autumn 2016 is likely to increase upward pressure on prices for the time being.

III. Upside and Downside Risks to Economic Activity and Prices

A. Upside and Downside Risks to Economic Activity

The following three 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. economic policies and their impact on global financial markets; developments in emerging and commodity-exporting economies; negotiations on the United Kingdom's exit from the European Union (EU) and their effects; and geopolitical risks.

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

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

[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.

B. Upside and Downside Risks to Prices

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

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

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

IV. Conduct of Monetary Policy

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

The first perspective concerns an examination of the baseline scenario for the outlook. The year-on-year rate of change in the CPI is likely to increase toward 2 percent. Although it is necessary to carefully examine the fact that firms' wage- and price-setting stance has remained cautious, the momentum toward achieving the price stability target of 2 percent appears to be maintained. This is because (1) firms' stance is likely to gradually shift toward raising wages and prices with the steady improvement in the output gap, and (2) medium- to long-term inflation expectations have been more or less unchanged recently and such expectations are projected to rise steadily as further price rises come to be observed widely.

The second perspective involves an examination of the risks considered most relevant to

[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."

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

As for the conduct of monetary policy, the Bank will continue with "QQE with Yield Curve Control," aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2 percent and stays above the target in a stable manner. The Bank will make policy adjustments as appropriate, taking account of developments in economic activity and prices as well as financial conditions, with a view to maintaining the momentum toward achieving the price stability target.

(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 2017	+1.8 to +2.0 [+1.9]	+0.7 to +1.0 [+0.8]	
Forecasts made in October 2017	+1.7 to +2.0 [+1.9]	+0.7 to +1.0 [+0.8]	
Fiscal 2018	+1.3 to +1.5 [+1.4]	+1.3 to +1.6 [+1.4]	
Forecasts made in October 2017	+1.2 to +1.4 [+1.4]	+1.1 to +1.6 [+1.4]	
Fiscal 2019	+0.7 to +0.9 [+0.7]	+2.0 to +2.5 [+2.3]	+1.5 to +2.0 [+1.8]
Forecasts made in October 2017	+0.7 to +0.8 [+0.7]	+2.0 to +2.5 [+2.3]	+1.5 to +2.0 [+1.8]

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

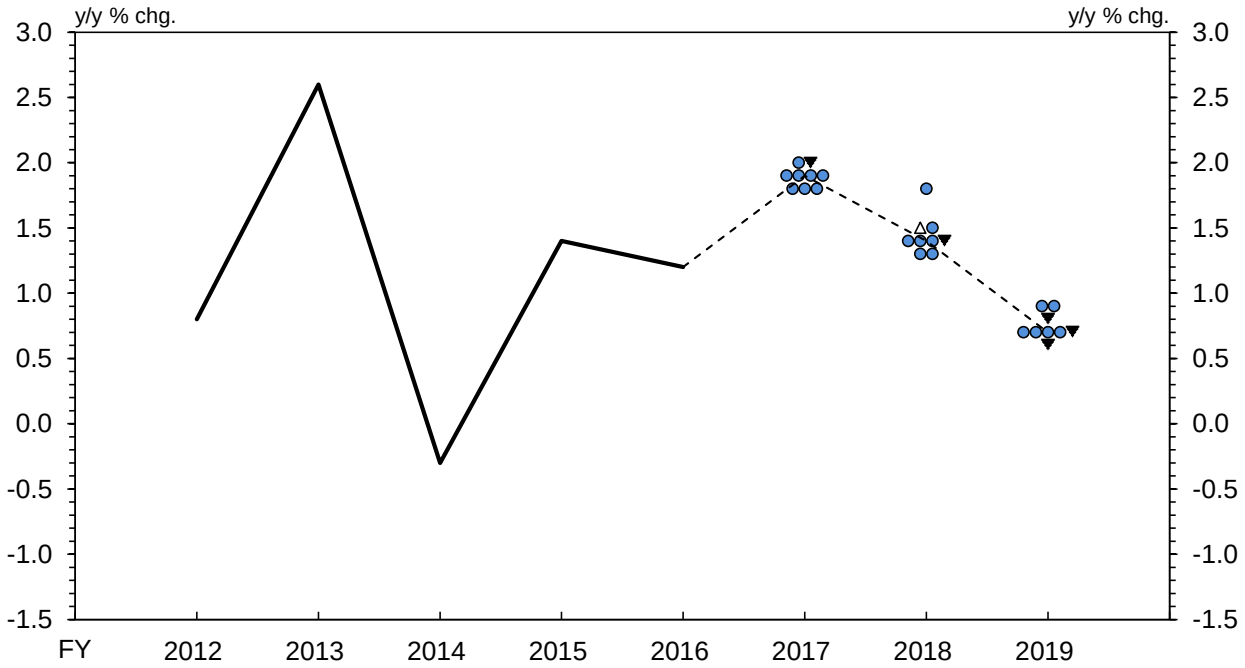
2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the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

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

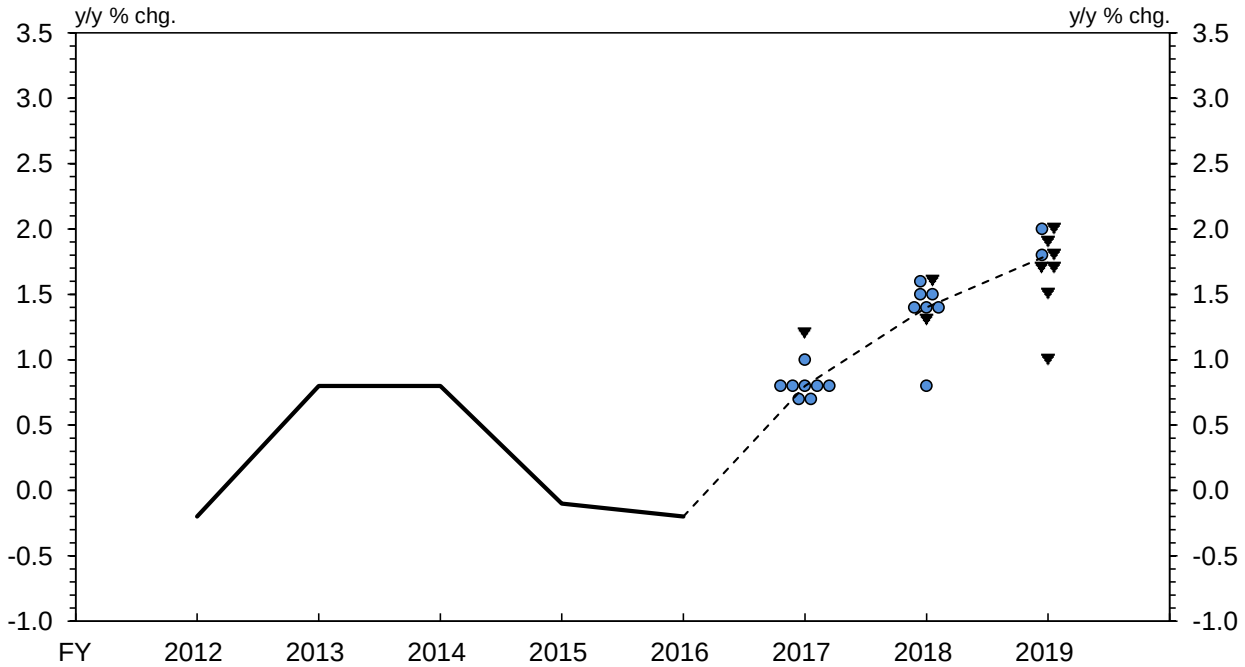
4. The consumption tax hike scheduled to take place in October 2019 -- to 10 percent -- and the reduced tax rate to be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers are incorporated in the forecasts, but individual Policy Board members make their forecasts of the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

Policy Board Members' Forecasts and Risk Assessments

(1) Real GDP



(2) CPI (All Items Less Fresh Food)



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

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

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

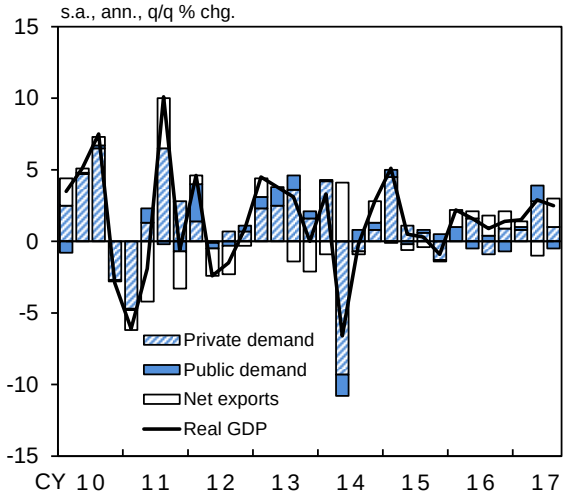
The Background[9]

I. The Current Situation of Economic Activity and Its Outlook

A. Economic Developments

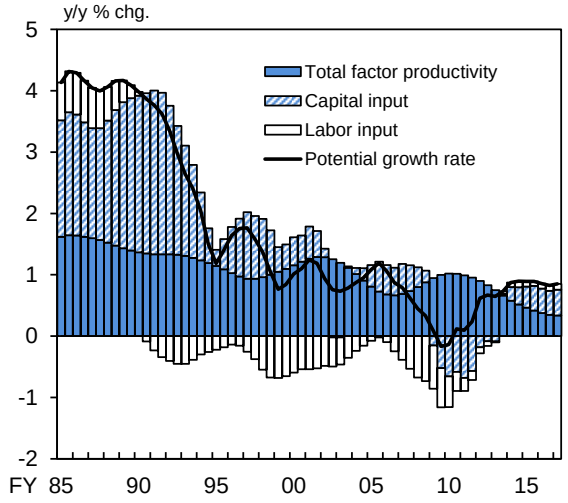
Looking back at Japan's economy since the October 2017 Outlook Report, the real GDP growth rate for the July-September quarter of 2017 was 0.6 percent on a quarter-on-quarter basis and its annualized rate was 2.5 percent, representing positive growth for seven consecutive quarters (Chart 1). While public investment started to decline after registering relatively high growth in the April-June quarter, exports started to rise, led mainly by IT-related goods. With regard to domestic private demand, business fixed investment in particular increased firmly. Thus, the real GDP growth rate as a whole was above the potential growth rate, which is estimated to be in the range of 0.5-1.0 percent (Chart 2). Reflecting these increases in demand, labor market conditions have continued to tighten steadily (Chart 3). The output gap -- which captures the utilization of labor and capital -- has improved steadily of late and was around 1.5 percent for the July-September quarter (Chart 4).[10] Monthly indicators since October suggest that the uptrend in the output gap has become more evident. Therefore, Japan's economy is expanding moderately, with a virtuous cycle from income to spending operating.

Chart 1: Real GDP



Source: Cabinet Office.

Chart 2: Potential Growth Rate



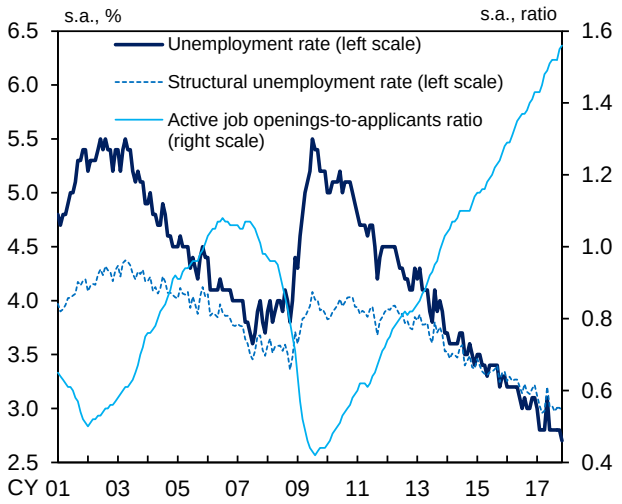
Source: Bank of Japan.
Note: Based on staff estimations.

[9] "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 January 22 and 23, 2018.

[10] The Research and Statistics Department of the Bank of Japan revised the estimation method of Japan's output gap and potential growth rate in April 2017. For details including the technical aspects, see the Bank's research paper "Methodology for Estimating Output Gap and Potential Growth Rate: An Update" released in May 2017.

Going forward, the underlying scenario of the outlook for Japan's economy through fiscal 2018 is unchanged, in that the real GDP growth rate is projected to continue to clearly exceed the potential, mainly on the back of highly accommodative financial conditions and underpinnings through the government's past stimulus measures, as well as of overseas economies continuing to grow at a moderate pace. In fiscal 2019, albeit with considerable uncertainties, the economy is expected to continue expanding led by external demand, although the growth rate is projected to decelerate from the previous fiscal year. This is likely to be attributable to (1) the decline in household spending due to the effects of the scheduled consumption tax hike, combined with (2) the deceleration in business fixed investment reflecting cyclical adjustments in capital stock as well as Olympic Games-related investment peaking out.[11] Comparing the current projections with those presented in the previous Outlook

Chart 3: Labor Market Conditions



Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare.
Note: The structural unemployment rate is based on staff estimations.

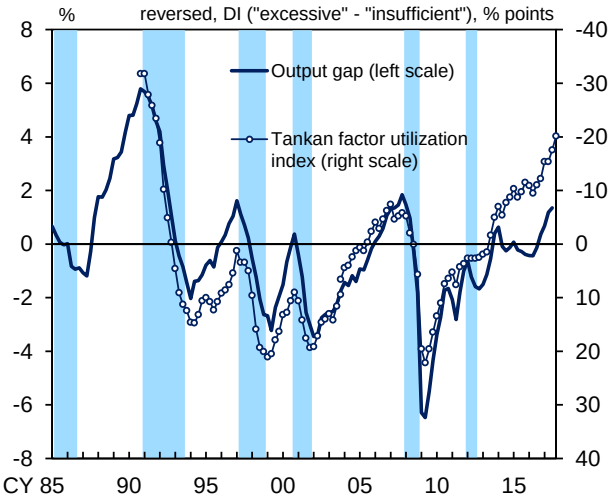
[11] The January 2018 Outlook Report assumes that the consumption tax will be raised to 10 percent in October 2019 and that a reduced tax rate will be applied to food and beverages -- excluding alcohol and dining-out -- and newspapers. The tax hike will have some impact on the GDP growth rates, mainly due to changes in household spending, through the following two channels: (1) the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike and (2) the effects of the decline in real income. At present, the negative impact of the consumption tax hike on the projected growth rate for fiscal 2019 is expected to be smaller than that on the rate for fiscal 2014, when the last consumption tax hike took place. This is mainly due to the following: (1) there are technical factors that, as the consumption tax hike is scheduled to take place in the middle of the fiscal year, the front-loaded increase and subsequent decline in demand prior to and after the hike will offset each other during the fiscal year, and the effects of the decline in real income will only emerge in the second half of the fiscal year; (2) the increase in the consumption tax rate is smaller than that of the previous tax hike and a reduced tax rate will be applied to some items; and (3) before the previous tax hike, there likely was a front-loaded increase in demand in anticipation of the second round of the tax hike. It should be noted, however, that the impact of the consumption tax hike is highly uncertain and varies depending, for example, on developments in consumer sentiment.

Report, the projected growth rates are more or less unchanged.

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

In fiscal 2018, the economy is likely to maintain a moderate expansion with demand at home and abroad increasing in a well-balanced manner. Exports are projected to continue increasing

Chart 4: Output Gap



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

moderately, reflecting the growth in overseas economies. Business fixed investment is also expected to continue to see a steady increase, on the back of accommodative financial conditions and increases in Olympic Games-related demand and in needs for labor-saving equipment stemming from the labor shortage. Private consumption will likely maintain its momentum, supported by the rise in disposable income resulting from increases in base pay rises. Meanwhile, public investment is likely to start declining, because the positive effects resulting from the past stimulus measures will diminish, but is projected to remain at a high level, mainly underpinned by Olympic Games-related demand. On this basis, the real GDP growth rate for fiscal 2018 is projected to continue exceeding the potential, although decelerate compared to the previous fiscal year, and the output gap is likely to continue improving.

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

economy. As a result of these developments, the economy is expected to continue expanding, although the growth rate is projected to decelerate from the previous fiscal year.

B. Developments in Major Expenditure Items and Their Background

Government Spending

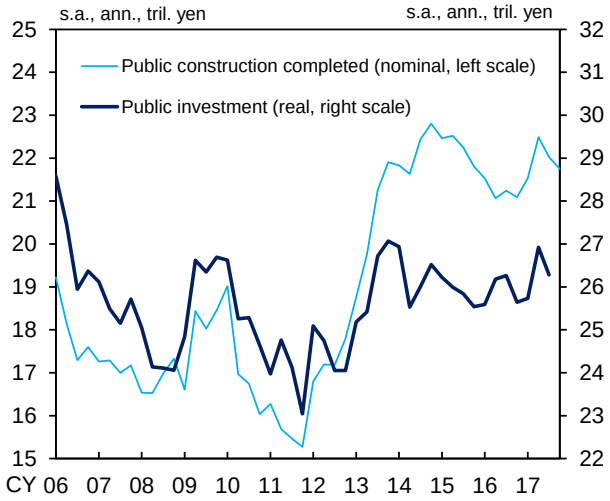
Public investment has been more or less flat, remaining at a relatively high level (Chart 5). As for the outlook, it is expected to start declining as the positive effects resulting from the government's large-scale stimulus measures formulated in fiscal 2016 diminish, and then remain at a relatively high level, mainly underpinned by Olympic Games-related construction.[12]

Overseas Economies

Overseas economies have continued to grow at a moderate pace on the whole (Chart 6). An improving trend in the business sentiment of manufacturing firms has been strengthening further on a global basis, and the world trade volume has been recovering (Charts 7 and 12). Looking at developments by major region, the U.S. economy has continued to recover firmly, mainly in household spending, owing to a steady improvement in the employment and income situation. The European economy also has continued to recover steadily. The Chinese economy has continued to see stable growth on the whole, partly due to the effects of authorities' measures to support economic activity. Other

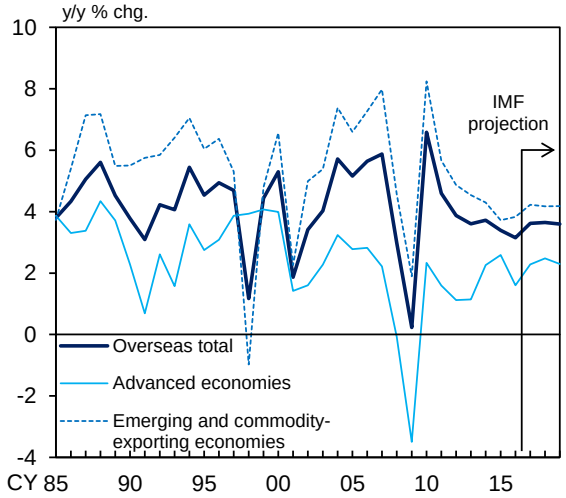
[12] The supplementary budget for fiscal 2017 and the initial budget for fiscal 2018 were decided by the Cabinet on December 22, 2017. With regard to the budget related to public investment, 1.3 trillion yen was included in the supplementary budget for fiscal 2017 (2.0 trillion yen was included in the second supplementary budget for fiscal 2016), mainly for the purpose of funding the projects for disaster relief, disaster prevention, and disaster reduction, which are likely to be implemented mainly in fiscal 2018. In the initial budget for fiscal 2018, 6.0 trillion yen was included for the budget related to public works, which is about the same level as in the initial budget for fiscal 2017.

Chart 5: Public Investment



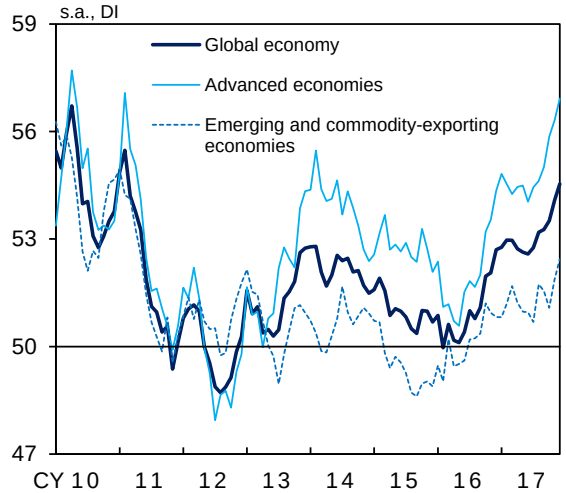
Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2017/Q4 is the October-November average.

Chart 6: 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 2017 and the "WEO update" as of January 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 7: Global Manufacturing PMI



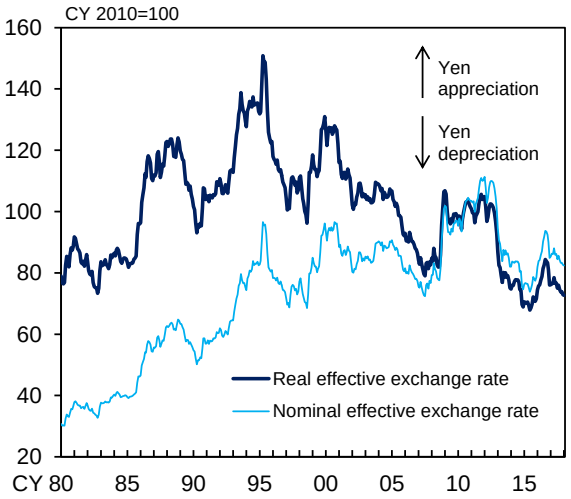
Sources: IHS Markit (© and database right IHS Markit Ltd 2018. All rights reserved.), etc.
Note: Figures for the global economy are the "J.P. Morgan Global Manufacturing PMI." Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages 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 16 countries and regions, such as China, South Korea, Taiwan, Russia, and Brazil.

emerging economies and commodity-exporting economies have been recovering moderately on the whole, reflecting in particular an increase in exports and the effects of those economies' economic stimulus measures.

In terms of the outlook, overseas economies are expected to continue growing at a moderate pace as advanced economies keep growing steadily and a recovery in emerging economies takes hold on the back of the steady growth in advanced economies and the effects of policy measures taken by emerging economies.

By major region, the U.S. economy is expected to continue to see firm growth driven by domestic private demand. The European economy will likely continue its moderate recovery, while uncertainty including over negotiations on the United Kingdom's exit from the EU is likely to weigh on economic activity. The Chinese economy is likely to broadly follow a stable growth path as authorities conduct fiscal and monetary policy in a timely manner. The growth rates of other emerging economies and commodity-exporting economies are likely to increase gradually, due mainly to the effects of the economic stimulus measures and the spread of the effects of steady growth in advanced economies.

Chart 8: Effective Exchange Rates



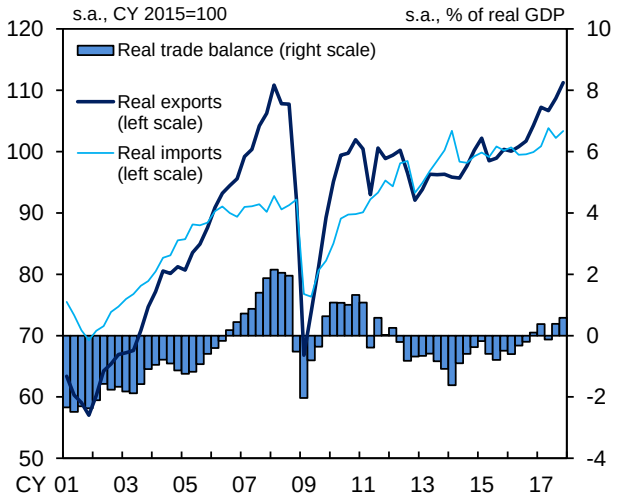
Sources: BIS; Bank of Japan.
Notes: 1. Figures are based on the broad index of the "BIS Effective Exchange Rate." Those prior to 1994 are calculated using the narrow index.
2. Figures for January 2018 have been calculated using the daily nominal effective exchange rate (the Yen Index) compiled by the Bank of Japan.

Exports and Imports

Exports have been on an increasing trend on the back of the growth in overseas economies (Chart 9). By region, exports to advanced economies have continued on their increasing trend when fluctuations are smoothed out. Exports to emerging economies have been picking up broadly, such as those of electronic parts, intermediate goods -- including chemicals -- and capital goods to Asia (Chart 10). By goods, automobile-related exports have remained on their increasing trend, due in part to the rising value-added of automobiles exported from Japan (Chart 11). IT-related exports have increased, mainly led by electronic parts for data centers, motor vehicles, and new models of Chinese smartphones. Exports of capital goods also have been increasing firmly, mainly led by semiconductor production equipment and industrial robots.

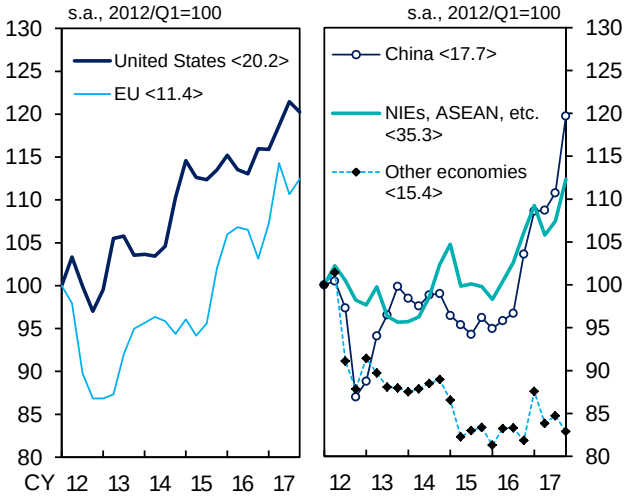
Exports will likely continue their increasing trend for the time being, as those of capital goods and IT-related goods -- in which Japan has a comparative advantage -- are likely to be firm with global production and trade activity of the manufacturing sector remaining at a favorable level. Thereafter, Japan's exports are expected to continue their moderate increasing trend as (1) the world trade volume is likely to continue its moderate increase with the growth in overseas economies and (2) Japan's share of exports is expected to follow a very moderate increasing trend, reflecting improvement in Japan's export competitiveness (Charts 12 and 13).[13,14]

Chart 9: Real Exports and Real Imports



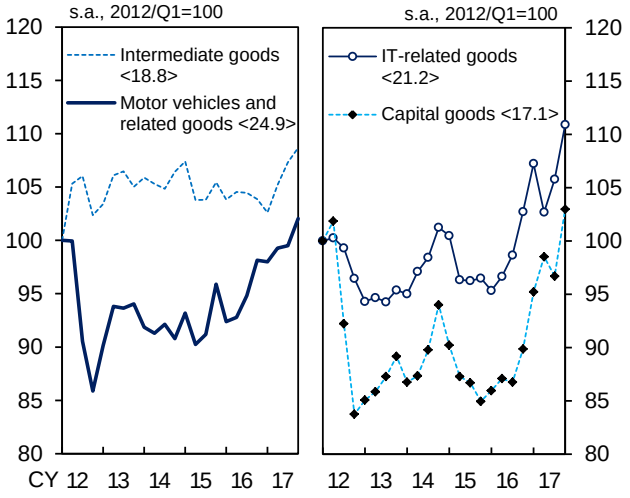
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations. Figures for 2017/Q4 are October-November averages.

Chart 10: 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 2016.
Figures for 2017/Q4 are October-November averages.

Chart 11: Real Exports by Type of Goods

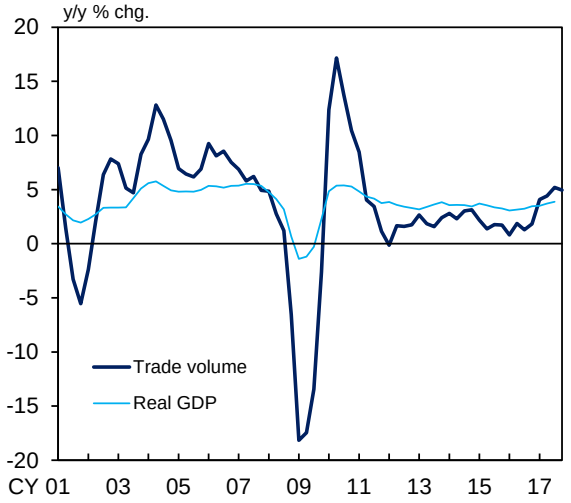


Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each type of goods in Japan's total exports in 2016.
Figures for 2017/Q4 are October-November averages.

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

Looking at this in detail, the world trade volume had tended to grow at a slower pace than world economic growth -- the so-called slow trade -- since 2011, but has accelerated its growth pace recently, mainly for Asia as well as the United States and Europe. Going forward, the pace of increase in the world trade volume is expected to be about the same as that in world economic growth, albeit with fluctuations -- that is, the world trade volume to GDP ratio is likely to be more or less unchanged -- as a global recovery in production and trade activity of the manufacturing sector is likely to continue, with the recovery in emerging economies.

Chart 12: 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 2017/Q4 is that for October.
2. Real GDP of the world economy is based on staff calculations using GDP shares of world total GDP from the IMF as weights.

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

Chart 13: 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 2017/Q4 is that for October.

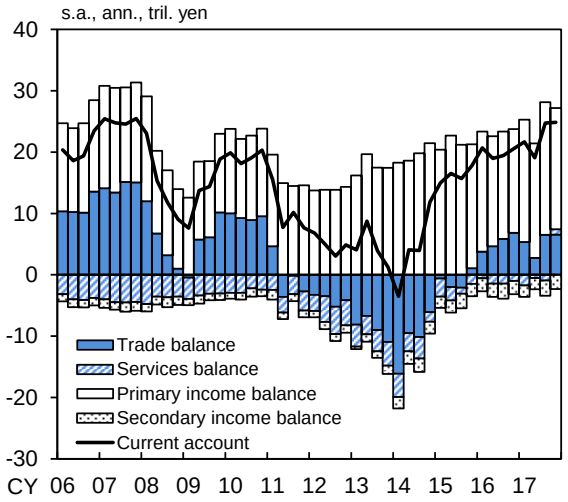
Imports have been picking up (Chart 9). Going forward, they are expected to follow a moderate uptrend, reflecting an increase in domestic demand; however, the pace is projected to remain only moderate due to a downtrend in imports of raw materials, reflecting an improvement in energy efficiency.

[14] Box 1 outlines the recent recovery in the world trade volume and developments in Japan's exports.

External Balance

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

Chart 14: Current Account



Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2017/Q4 are October-November averages.

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 governmental measures to attract foreign tourists to Japan.

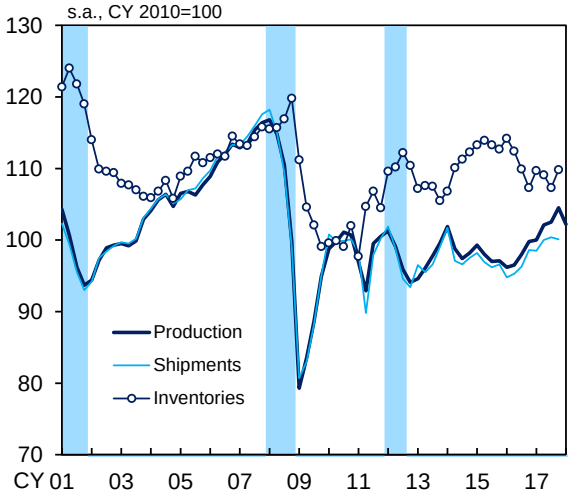
In terms of the saving-investment balance, the increase in the nominal current account surplus corresponds to that in excess saving as a whole. By sector, although excess saving in the household sector is expected to decline very moderately due to a rise in the propensity to consume, excess investment in the general government is projected to decrease, reflecting a dissipation of the effects resulting from the past stimulus measures and the scheduled consumption tax hike, while excess saving in the corporate sector is likely to remain significantly high.[15]

[15] See Box 2 for the overview of corporate savings in recent years. With regard to the background to the increase in corporate savings and the impact on business fixed investment, see Box 3.

Industrial Production

Industrial production has been on an increasing trend on the back of the increase in demand at home and abroad (Chart 15). Transport equipment production has continued to increase on the whole, mainly against the background of a shift of production sites from overseas back to Japan, although fluctuations have become somewhat large due to supply-side problems. The production of electronic parts and devices has remained on an increasing trend, driven by demand for parts for smartphones, data centers, and on-board equipment for motor vehicles. The production of machinery (i.e., "general-purpose, production and business oriented machinery" in the *Indices of Industrial Production*) has been on a moderate increasing trend, as seen in the fact that the production of such items as metal cutting machines and industrial robots has increased recently, while that of semiconductor production equipment has remained at a high level. The production of chemicals has been increasing on average, mainly led by cosmetics, albeit with large fluctuations. Meanwhile, with regard to the shipments-inventories balance, the year-on-year rate of change in shipments had been above that in inventories, but both rates were more or less the same in the October-November period (Chart 16).

Chart 15: Production, Shipments, and Inventories



Source: Ministry of Economy, Trade and Industry (METI).
Notes: 1. Shaded areas indicate recession periods.
2. The production figures for 2017/Q4 and 2018/Q1 are calculated based on METI projections for December 2017 and January 2018. The shipments figure for 2017/Q4 is the October-November average. The inventories figure for 2017/Q4 is that for November.

Chart 16: Shipments-Inventories Balance

Source: Ministry of Economy, Trade and Industry.
Note: The production figure and the shipments figure for 2017/Q4 are October-November averages. The inventories figure for 2017/Q4 is that for November.

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

Corporate Profits

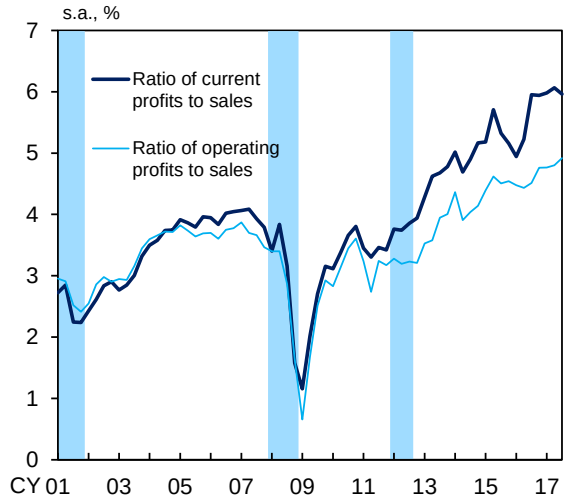
Corporate profits have been improving. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC), the ratio of current profits to sales for all industries and enterprises has continued to improve, supported by firm domestic demand and the growth in overseas economies,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

Corporate profits are projected to continue improving steadily, on the back of the increase in demand at home and abroad. Nevertheless, through the end of the projection period, the rate of increase in corporate profits is likely to decelerate as the allocation to households increases further, such as in the form of a rise in 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

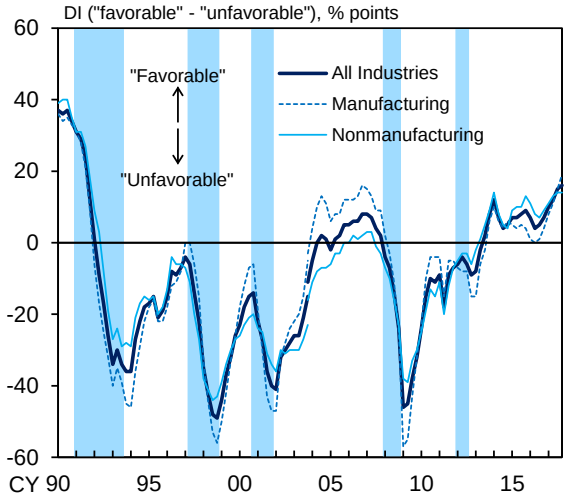
Business fixed investment has continued on an increasing trend with corporate profits and business sentiment improving (Chart 19). The aggregate supply of capital goods and private construction completed (nonresidential) -- coincident indicators of machinery investment and

Chart 17: Corporate Profits



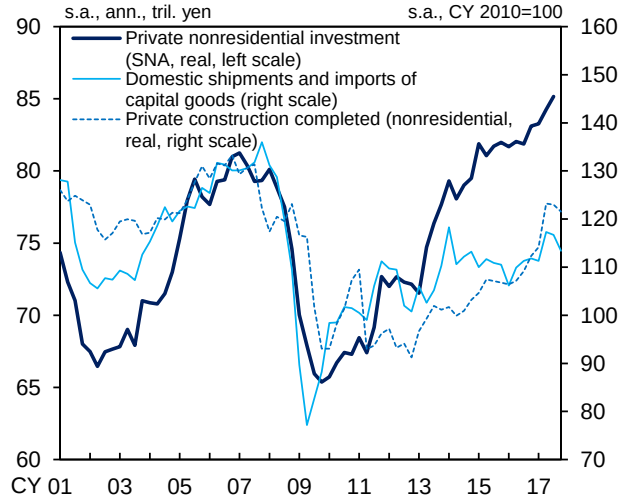
Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Excluding "finance and insurance."
2. Shaded areas indicate recession periods.

Chart 18: 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 19: Coincident Indicators of Business Fixed Investment

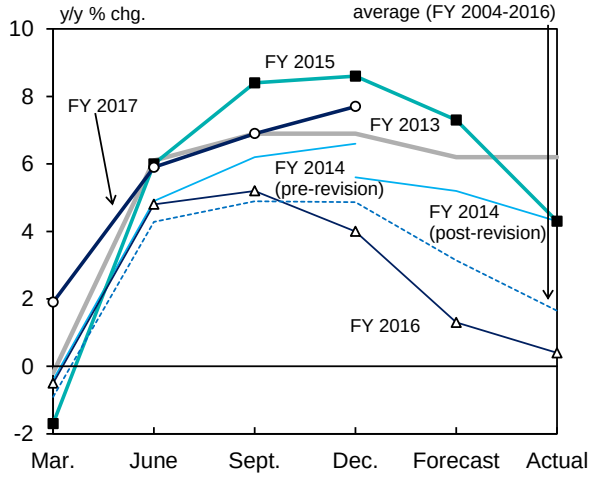


Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures for 2017/Q4 are October-November averages.
2. Real private construction completed is based on staff calculations using price indices in the "Construction Cost Deflators."

construction investment, respectively -- have been increasing, albeit with fluctuations. According to the December *Tankan*, business fixed investment plans for fiscal 2017, especially those of large enterprises, show firms' solid stance. For example, business investment (on the basis close to GDP definition; business investment -- including software as well as research and development investment, but excluding land purchasing expenses -- in all industries including the financial industry) increased by 0.4 percent in fiscal 2016, and such investment plans for fiscal 2017 saw an increase of 7.7 percent (Chart 20). Reflecting firms' positive fixed investment stance, machinery orders and construction starts (in terms of planned expenses for private and nondwelling construction), as leading indicators, have continued on an increasing trend, albeit with large monthly fluctuations (Chart 21).

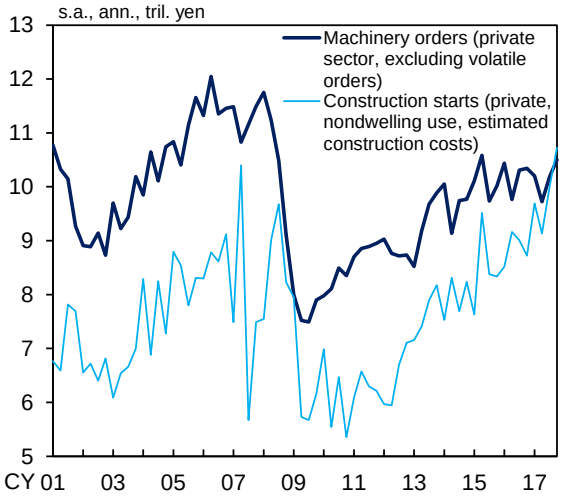
With regard to the outlook, business fixed investment is likely to continue increasing on the back of (1) an improvement in corporate profits, (2) extremely stimulative financial conditions, such as low interest rates and accommodative lending attitudes, (3) the materialization of the effects of projects conducted under the Fiscal Investment and Loan Program 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 intended for domestic capacity expansion, as well as in other investment, particularly (1) that related to the Olympic Games and urban redevelopment projects, (2) that aiming at improving efficiency and saving labor in order to deal with the labor shortage, and (3) in

Chart 20: 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 2014 due to a change in the survey sample.

Chart 21: Leading Indicators of Business Fixed Investment

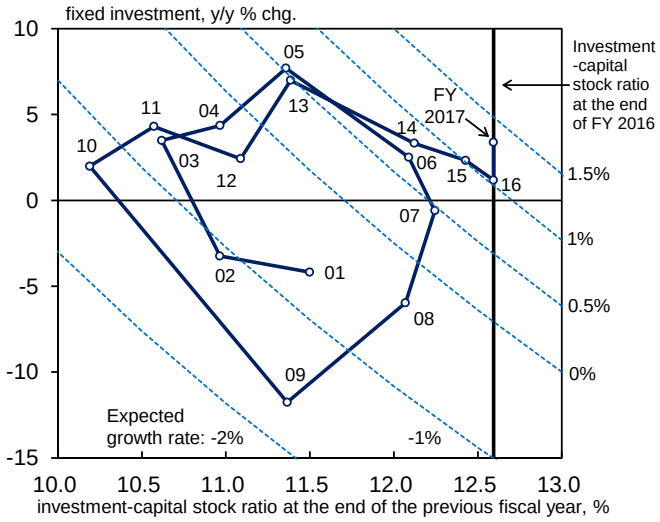


Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Volatile orders: orders for ships and orders from electric power companies.
2. Figures for 2017/Q4 are October-November averages.

research and development for growth areas.[16]

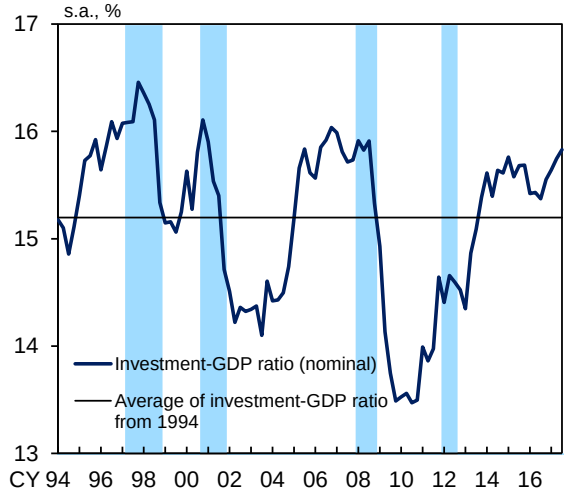
From the viewpoint of the capital stock cycle, which is based on the assumption that investment will be undertaken in order to realize the level of capital stock necessary for production activity under the specific rate of expected growth, it is deemed that capital stock increased moderately in fiscal 2016 at a pace consistent with the expected growth rate, which somewhat exceeds the recent potential growth rate, estimated to be in the range of 0.5-1.0 percent (Chart 22). From fiscal 2017 onward, the pace of its accumulation is also likely to be consistent with the expected growth rate that exceeds the growth potential, and this reflects the continued highly accommodative financial conditions under "QQE with Yield Curve Control" and an increase in Olympic Games-related demand.[17] Nonetheless, with cyclical adjustments in capital stock becoming evident and Olympic Games-related investment peaking out, downward pressure on business fixed investment is expected to intensify at the end of the projection period, unless the expected growth rate rises significantly.[18]

Chart 22: Capital Stock Cycles



Source: Cabinet Office.
Note: Each broken line represents the combination of the rate of change in fixed investment and the investment-capital stock ratio at a certain expected growth rate.
The figure for fiscal 2017 is the 2017/Q2-Q3 average.

Chart 23: Investment-GDP Ratio (Nominal)



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

[16] According to the December *Tankan*, research and development investment for all industries and enterprises is planned to increase by 3.4 percent on a year-on-year basis for fiscal 2017, accelerating from 1.3 percent for fiscal 2016.

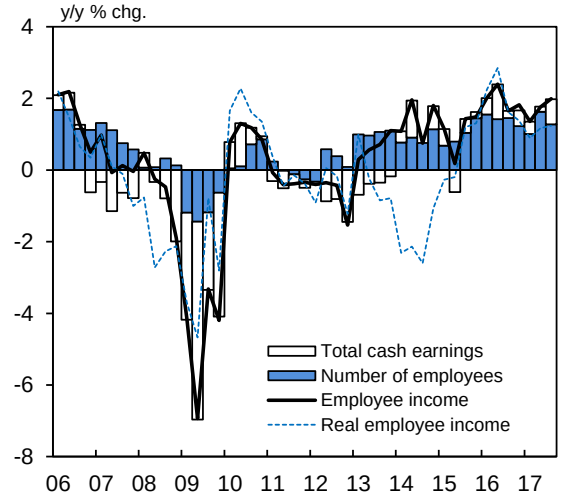
[17] The nominal investment-GDP ratio of late seems to be less overheated than the level in the past economic expansion phase, suggesting that there is still room to some extent for a further increase (Chart 23).

[18] In light of past Olympic Games host countries' experiences, Olympic Games-related construction investment is projected to increase during fiscal 2017 and fiscal 2018, and then peak out toward fiscal 2020. For details, see the Bank's research paper "Economic Impact of the Tokyo 2020 Olympic Games" released in January 2016.

The Employment and Income Situation

Supply-demand conditions in the labor market have continued to tighten steadily and employee income has increased moderately. The year-on-year rate of change in the *Labour Force Survey*-based number of employees has remained positive, being in the range of 1.0-1.5 percent (Chart 24). Against this backdrop, the active job openings-to-applicants ratio has risen steadily, and a perception of labor shortage suggested by the employment conditions DI in the December *Tankan* has heightened (Chart 3). The unemployment rate has been in the range of 2.5-3.0 percent recently, which is slightly below the structural unemployment rate.[19] These indicators of supply-demand conditions in the labor market show that the degree of labor market tightness has been at around 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).[20] As Japan's economy is likely to continue on a growing trend at a pace above its potential, it is expected that the number of employees will keep increasing and that the supply-demand conditions in the labor market will continue to tighten steadily.

Chart 24: Employee Income



Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Employee income = total cash earnings ("Monthly Labour Survey") × number of employees ("Labour Force Survey")
3. Real employee income is based on staff calculations using the CPI (less imputed rent).

Chart 25: Labor Force Participation Rate

Source: Ministry of Internal Affairs and Communications.
Note: The figure for 2017/Q4 is the October-November average.

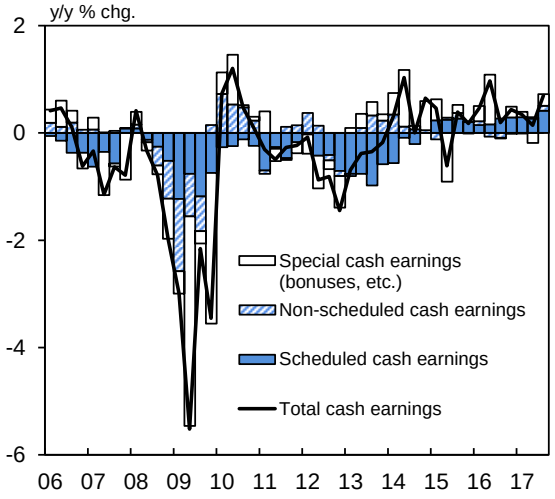
[19] The structural unemployment rate can be described in a variety of ways, but in Chart 3, it is defined, based on the idea of the so-called Beveridge Curve, as one where the unemployment rate and the vacancy rate are equal to each other (i.e., when the aggregate supply-demand conditions in the labor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

[20] With regard to labor force participation of women and seniors, see Box 2 in the October 2017 Outlook Report.

On the wage side, total cash earnings per employee have risen moderately, albeit with some fluctuations (Chart 26). Specifically, scheduled cash earnings as a whole have continued to increase moderately, due in part to dissipation of downward pressure stemming from an increase in the ratio of part-time employees amid a rise in wages of both full-time and part-time employees (Chart 27). The year-on-year rate of increase in hourly scheduled cash earnings of part-time employees, which are responsive to labor market conditions, recently registered relatively high growth of around 2 percent (Chart 28). Meanwhile, the year-on-year rate of change in real wages has been more or less unchanged, albeit with fluctuations resulting from changes in prices of fresh food and energy.

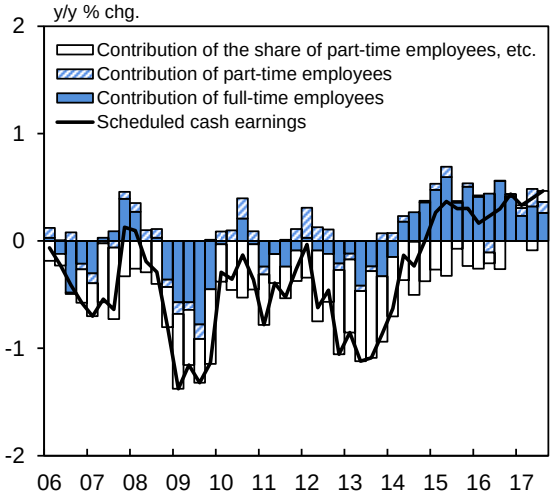
With regard to the outlook for wages, the pace of increase in scheduled cash earnings of full-time employees is expected to accelerate moderately as that in base pay accelerates with the inflation rate in the previous fiscal year rising and an improvement in labor productivity becoming more evident. 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.[21]

Chart 26: Nominal Wages



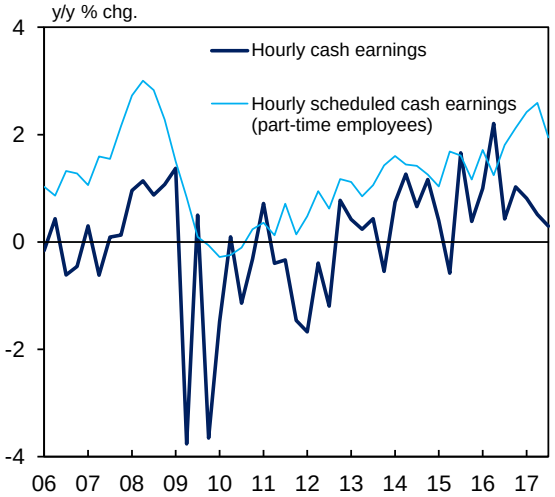
Source: Ministry of Health, Labour and Welfare.
Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

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.

Chart 28: Hourly Cash Earnings



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

[21] The outline for tax reform in fiscal 2018, which was decided by the Cabinet on December 22, 2017, incorporates the enhanced

In light of the aforementioned employment and wage conditions, employee income has been on a moderate increasing trend (Chart 24). Going forward, it is likely to increase at a moderate pace, and the pace is expected to be slightly above the nominal GDP growth rate in the second half of the projection period. The labor share is likely to rise, after remaining more or less unchanged at a level clearly below the long-term average (Chart 29).

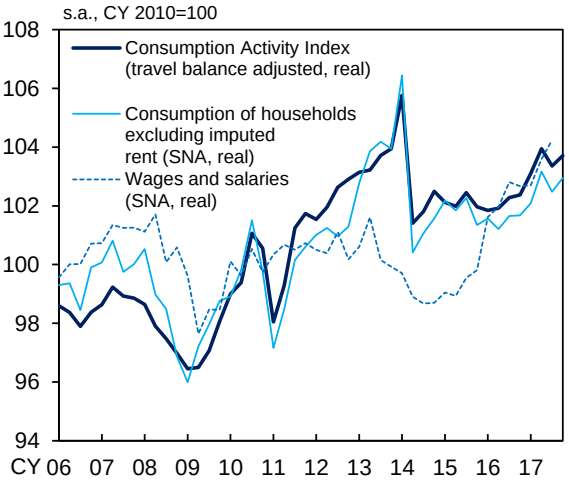
Chart 29: Labor Share

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. From the viewpoint of gauging consumption activity in a comprehensive manner, the Consumption Activity Index (CAI, travel balance adjusted) -- which is calculated by combining various sales and supply-side statistics -- has increased, albeit with fluctuations mainly stemming from weather conditions (Chart 30). [22] Looking at private consumption by type, durable goods have been on a moderate uptrend, mainly due to replacement demand for automobiles and household electrical appliances, but are decreasing recently, partly due to temporary supply-side problems of automakers; nondurable goods had seen somewhat weak developments during the summer season in 2017, such as in food and beverages, against the background of

Chart 30: Private Consumption



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of January 16). Figures for the Consumption Activity Index (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2017/Q4 is the October-November average.
2. The figure for consumption of households excluding imputed rent for 2017/Q4 is based on staff calculations using the "Synthetic Consumption Index (November)."
3. Figures for wages and salaries after 2017/Q2 are based on staff calculations using employee income (= total cash earnings × number of employees).

tax system for promoting income expansion in which a certain share of the wage increases will be deducted from the corporate tax for firms that meet certain conditions.

[22] For details of the CAI, see the Bank's research papers "The Consumption Activity Index" released in May 2016 and "The Consumption Activity Index: Improvements of Release Contents and Revisions of Compilation Methodology" released in October 2016.

irregular weather, but they have been picking up recently. Meanwhile, services consumption has maintained its moderate increasing trend, albeit with fluctuations, reflecting a trend rise in communications charges as well as medical, health care and welfare fees.

Turning to individual indicators, the aggregate supply of consumer goods -- that is, the supply-side statistics -- declined for the July-September quarter of 2017, partly due to a decline after the significant increase in the April-June quarter; it subsequently was more or less flat in the October-November period compared to the July-September quarter, with automobiles affected by the supply-side problems and favorable imported durable goods (mobile phones) offsetting each other (Chart 31). According to various sales statistics, retail sales value in real terms has remained on an increasing trend. Sales at department stores have picked up as a trend, mainly reflecting a pick-up in sales to the wealthy brought about by the rise in stock prices and a recovery in demand from foreign visitors to Japan. Sales at supermarkets have been on a moderate increasing trend, albeit with fluctuations, and those at convenience stores have continued on a rising trend.

As for durable goods, sales of automobiles remained at relatively high levels until recently, but currently are decreasing, partly due to the aforementioned supply-side problems (Chart 32). Sales of household electrical appliances have been on a moderate increasing trend due to resilient demand for white goods, replacement demand for such items as televisions and

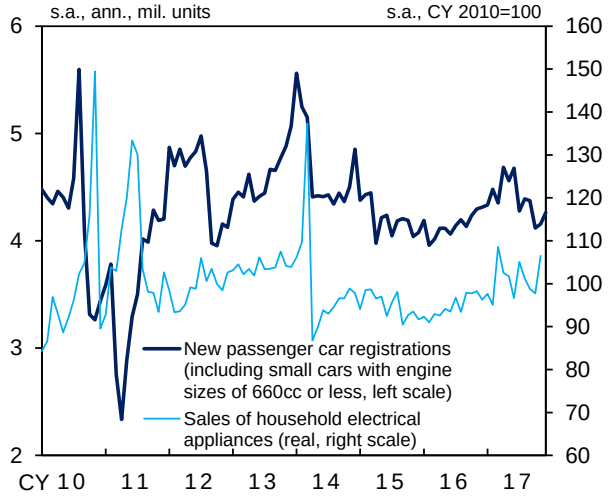
Chart 31: Consumption Indicators (Sales and Supply-side Statistics)

s.a., q/q % chg.

	17/Q1	17/Q2	17/Q3	17/Q4
Consumption Activity Index				
Real, travel balance adjusted	0.7	0.8	-0.6	0.3
Real	0.8	0.9	-0.5	0.4
Sales at retail stores				
Nominal	-0.2	0.7	-0.1	0.8
Real	0.3	1.0	-0.1	-0.2
Sales at department stores	1.4	0.4	0.0	0.2
Sales at supermarkets	-0.3	0.5	-0.2	0.4
Sales at convenience stores	0.6	0.4	0.0	0.5
Aggregate supply of consumer goods	0.1	4.0	-3.5	-0.4

Sources: Bank of Japan; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications.
Notes: 1. The Consumption Activity Index is based on staff calculations (as of January 16).
2. Real sales at retail stores are based on staff calculations using the CPI.
3. Figures for sales at department stores and sales at supermarkets are adjusted for the number of stores.
4. Figures for 2017/Q4 are October-November averages.

Chart 32: Consumption of Durable Goods



Sources: Japan Automobile Dealers Association; Japan Light Motor Vehicle and Motorcycle Association; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications.
Note: Figures for real sales of household electrical appliances are based on staff calculations using the retail sales index of machinery and equipment in the "Current Survey of Commerce" and the price index of related items in the CPI.

personal computers, and favorable sales of mobile phones.

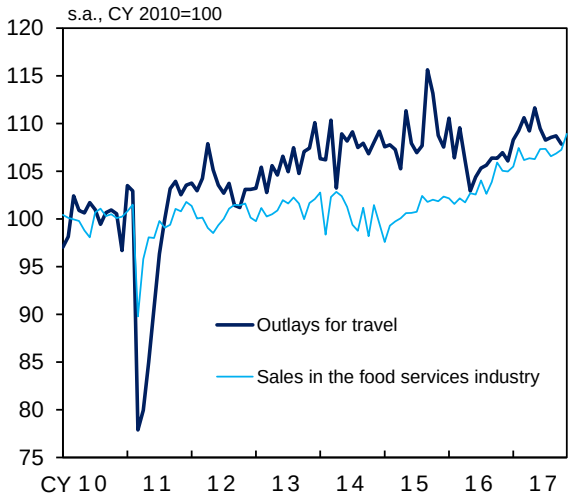
With regard to services consumption, travel had picked up since the turn of 2017, but the pick-up has come to a pause recently, partly due to the effects of geopolitical risks; dining-out has increased (Chart 33).

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

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, albeit with fluctuations in the second half of the projection period due to the scheduled consumption tax hike. The propensity to consume, which is calculated based on disposable income, had declined somewhat considerably after the latest consumption tax hike, but is expected to pick up very moderately, mainly reflecting the wealth effects and replacement demand for durable goods (Chart 35).

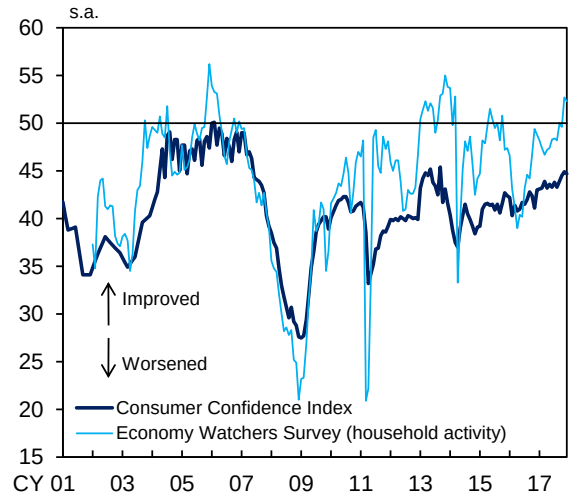
Housing investment has been more or less flat (Chart 36). Although an improvement in the employment and income situation and low

Chart 33: Consumption of Services



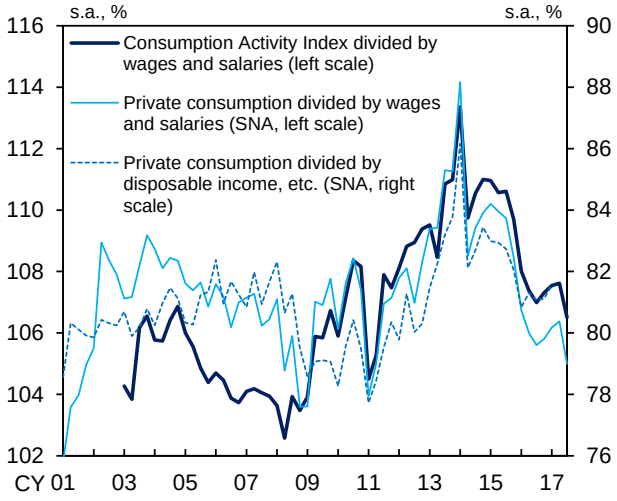
Sources: Japan Tourism Agency; Japan Food Service Association, "Market Trend Survey of the Food Services Industry."
Note: Figures for the outlays for travel exclude those by foreign travelers.

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.

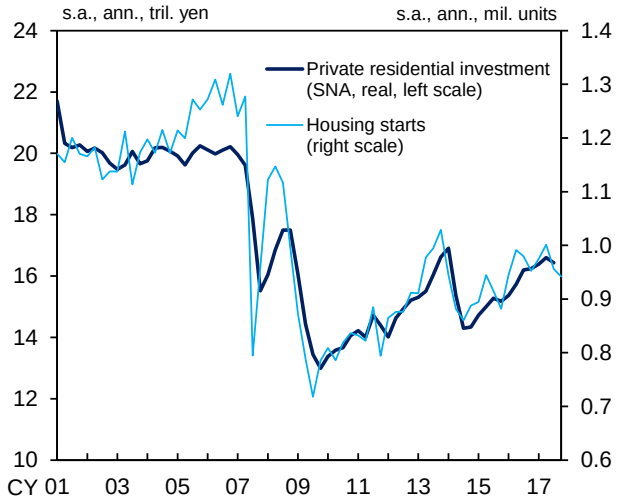
Chart 35: Average Propensity to Consume



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations.
2. Figures for wages and salaries after 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."

housing loan rates are likely to underpin housing investment, it is expected to remain more or less flat when fluctuations due to the scheduled consumption tax hike are smoothed out, partly against the background of a peaking-out in demand for housing for rent that was motivated by inheritance tax savings.

Chart 36: Housing Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2017/Q4 is the October-November average.

II. The Current Situation of Prices and Their Outlook

Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has been 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 in the range of 0.5-1.0 percent on the whole, with the rate of change in prices of items related to domestic transportation and fixed investment remaining positive (Chart 37).

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

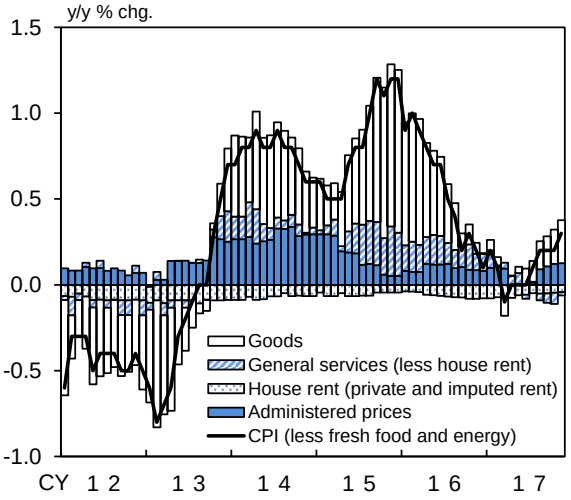
Chart 37: Inflation Indicators

y/y % chg.

	17/Q1	17/Q2	17/Q3	17/Q4
Consumer Price Index (CPI)				
Less fresh food	0.2	0.4	0.6	0.9
Less fresh food and energy	0.1	0.0	0.1	0.3
Producer Price Index (q/q % chg.)	1.6	0.4	0.2	1.2
Services Producer Price Index	0.7	0.7	0.7	0.7
GDP deflator	-0.9	-0.4	0.1	
Domestic demand deflator	-0.0	0.3	0.5	

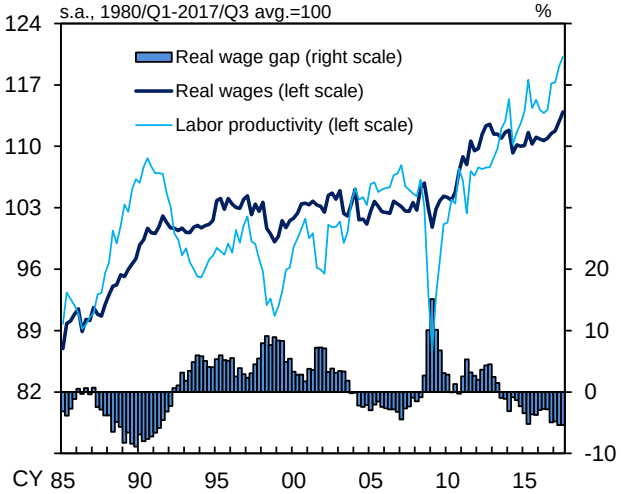
Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
Notes: 1. Figures for the Producer Price Index are adjusted to exclude the hike in electric power charges during the summer season.
2. Figures for the Services Producer Price Index exclude international transportation.
3. Figures for the CPI and the Services Producer Price Index for 2017/Q4 are October-November averages.

Chart 38: 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.

Chart 39: 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."

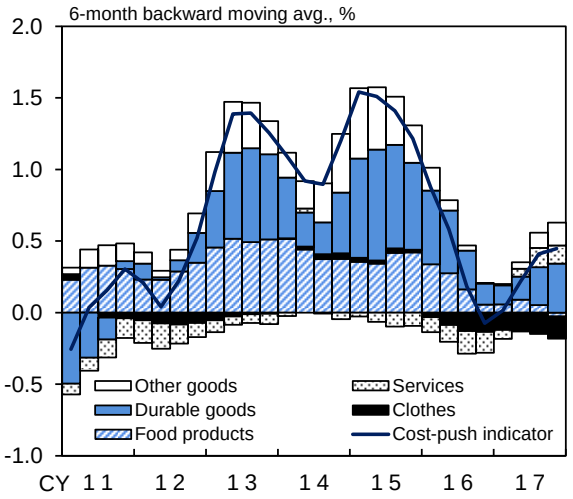
contributing to pushing down prices (Chart 39).[23]

However, the upward pressure on prices stemming from the rise in firms' costs has been increasing steadily, partly due to a continued clear uptrend in hourly scheduled cash earnings of part-time employees and a rise in input prices resulting from the past yen depreciation. With regard to dining-out, for example, some franchises have passed on rises in personnel expenses and costs of ingredients to their prices. In addition, prices of food products and durable goods have been increasing, reflecting the past yen depreciation. In reflection of such developments, the cost-push indicator -- which quantitatively measures the current upward pressure on prices stemming from a cost increase -- shows that such upward pressure has been increasing steadily, mainly for durable goods (Chart 40).[24]

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 slightly positive (Chart 41).

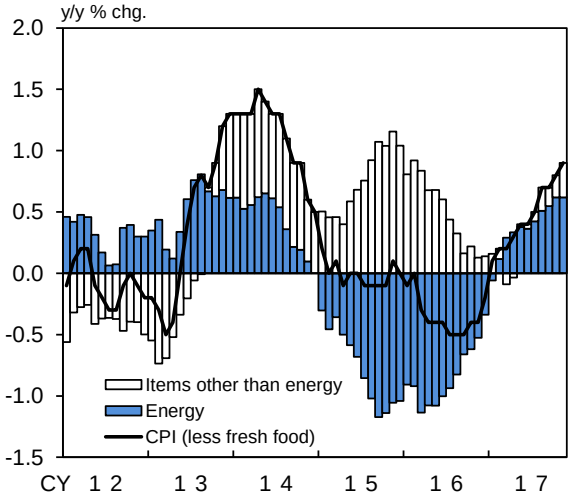
The recent developments in the indicators for capturing the underlying trend in the CPI are as follows (Chart 42). The rate of change in the

Chart 40: Cost-Push Indicator



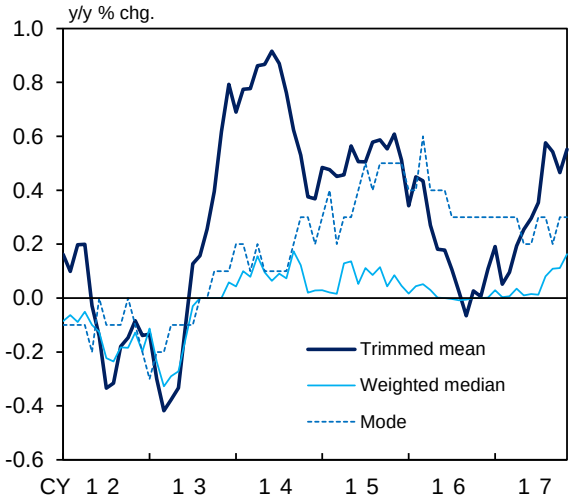
Sources: Ministry of Internal Affairs and Communications, etc.
Notes: 1. The cost-push indicator is defined as the weighted average of the residuals obtained when regressing each CPI item on the corresponding cost indicator, such as the Producer Price Index. The weights are based on the CPI.
2. Figures for 2017/Q4 are October-November averages.

Chart 41: 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.

Chart 42: 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).

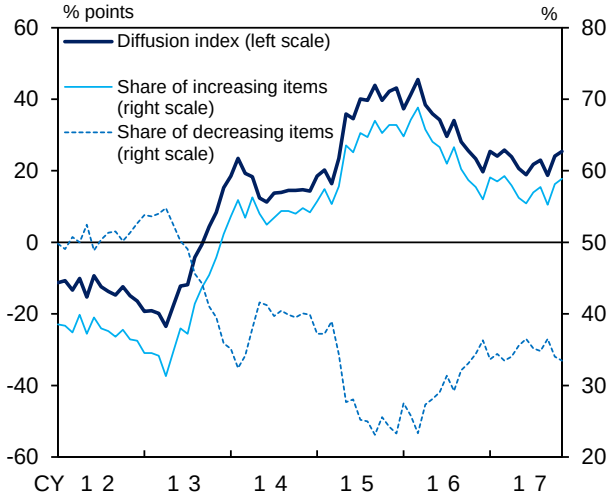
[23] Regarding the relationship between the real wage gap and prices, see Box 3 in the July 2017 Outlook Report.

[24] For details of the cost-push indicator, see Box 3 in the October 2017 Outlook Report.

trimmed mean has been around 0.5 percent.[25] The mode and the weighted median have been in the range of 0.0-0.5 percent of late.[26] Looking at annual price changes across all items (less fresh food), the share of price-increasing items minus the share of price-decreasing items stopped declining and has started to rise (Chart 43).

The year-on-year rate of change in the GDP deflator has been around 0 percent 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 was negative in 2016 but has been positive recently, at around 0.5 percent.

Chart 43: 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.

[25] The effects of large relative price fluctuations are eliminated by simply excluding items that belong to a certain percentage of the upper and lower tails of the price fluctuation distribution (10 percent of each tail in this report). The rate of change in the trimmed mean has been relatively higher than that in the CPI (all items less fresh food and energy) recently, mainly because charges for mobile phone services, which had contributed to pushing down the CPI, were excluded when calculating the trimmed mean.

[26] The mode is the inflation rate with the highest density in the distribution. The weighted median is the weighted average of the inflation rates of the items at around the 50 percentile point of the distribution.

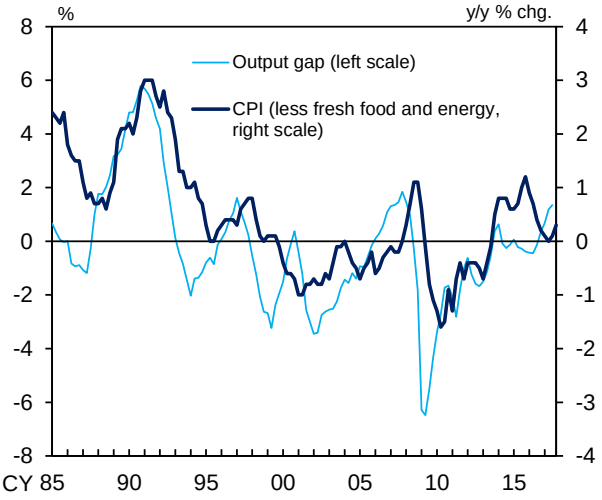
The Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap has improved steadily; it was around 1.5 percent in the July-September quarter of 2017, and as suggested by improvement in the *Tankan* factor utilization index and in various monthly indexes that indicate the utilization of labor and capital, it likely will have expanded somewhat within positive territory in the October-December quarter (Charts 4 and 44).[27] With regard to the outlook, the output gap is projected to widen within positive territory in fiscal 2017, on the back of (1) an improvement in capital utilization rates brought about by the increase in exports and production becoming more evident, and (2) a continued steady tightening of labor market conditions. Thereafter, the output gap is projected to continue expanding moderately within positive territory both on the capital and labor sides, reflecting the increase in demand at home and abroad. In the second half of fiscal 2019, although such expansion is likely to pause due to the effects of the scheduled consumption tax hike, the output gap is expected to remain substantially positive.

Second, medium- to long-term inflation expectations have been more or less unchanged recently, after having remained in a weakening phase since summer 2015 (Charts 45 and 46). As for the outlook, such expectations are likely to follow an increasing trend and gradually converge to around 2 percent on the back of the following:

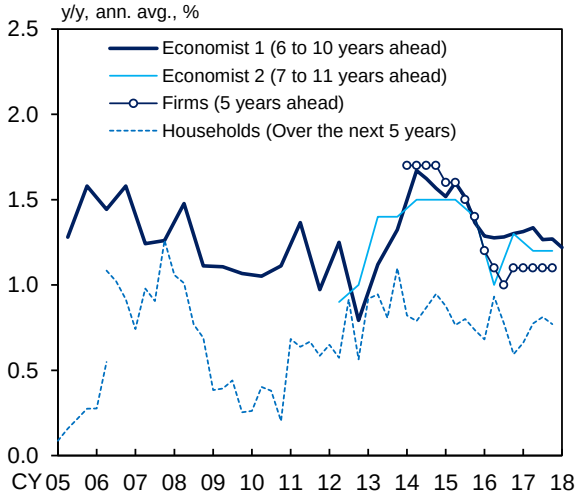
[27] In the meantime, the DI in the *Tankan* for domestic supply and demand conditions for products and services for large manufacturing enterprises was at a high level last seen in the February 1991 survey.

Chart 44: Inflation Rate and Output Gap



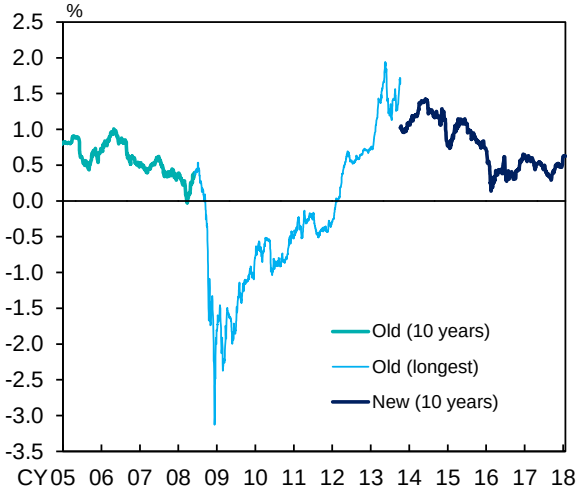
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are adjusted for changes in the consumption tax rate. The figure for 2017/Q4 is the October-November average.
2. The output gap is based on staff estimations.

Chart 45: Inflation Expectations (Survey)



Sources: Bank of Japan; Consensus Economics Inc., "Consensus Forecasts"; JCER, "ESP Forecast."
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 46: Inflation Expectations (BEI)

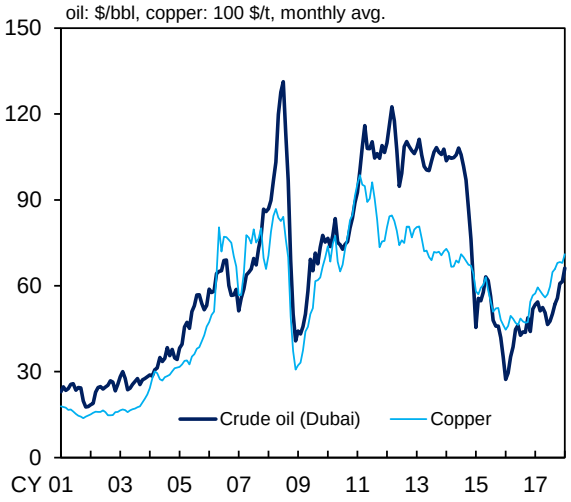


Source: Bloomberg.
Note: BEI (break-even inflation) rates are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using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

(1) in terms of the adaptive component, with the improvement in the output gap, firms' stance is likely to gradually shift toward raising wages and prices and the observed inflation rate is expected to rise steadily, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target.

The third factor is developments in import prices (Chart 47). The rise in crude oil prices through the beginning of 2017 is expected to push up prices of electricity and manufactured & piped gas, and the recent rise in crude oil prices is likely to push up prices of petroleum products. These rises are expected to push up energy prices in the CPI for the second half of fiscal 2017, but this effect is likely to wane moderately. As for the impact of foreign exchange rates on consumer prices, the past yen depreciation will likely increase upward pressure on prices for the time being, mainly on prices of items that are responsive to exchange rates, such as durable goods.

Chart 47: International Commodity Prices



Sources: Nikkei Inc.; Bloomberg.

The Outlook for Prices

With regard to the outlook for prices, the year-on-year rate of increase in the CPI (all items less fresh food and energy) is likely to start picking up at a gradual pace, on the back of the following developments in the short run: (1) the rate of increase in prices of goods that are responsive to economic activity and exchange rates, including food products and goods related to daily necessities, is expected to accelerate gradually with a moderate increase in private consumption; (2) durable goods prices are expected to follow their improving trend, reflecting

the past yen depreciation; and (3) moves to pass on the increase in personnel expenses to prices of general services, including dining-out and housework-related services, are likely to prevail, albeit at a very moderate pace. Thereafter, the year-on-year rate of change in the CPI is likely to increase toward around 2 percent, as firms' stance gradually shifts toward raising wages and prices with the improvement in the output gap and as inflation expectations gradually rise.

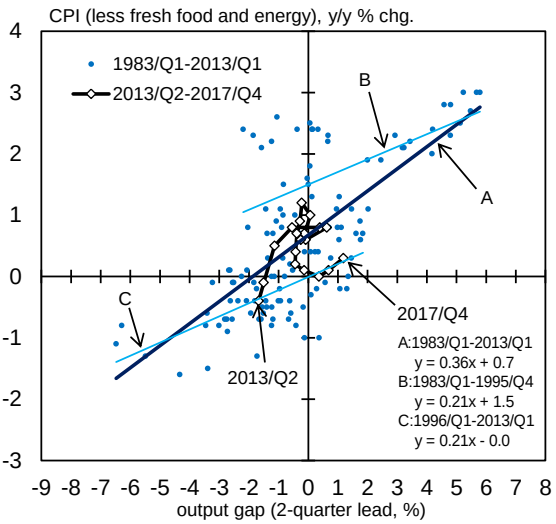
The year-on-year rate of change in the CPI (all items less fresh food) will likely reach around 2 percent in around fiscal 2019. This is because, although upward pressure of energy prices is likely to wane moderately, the CPI inflation excluding fresh food and energy is expected to accelerate.

Such projections are made based on the same underlying scenario as before that the inflation rate will 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 48).

Compared to the time when the October 2017 Outlook Report was published, the projected rates of increase in the CPI (all items less fresh food) are more or less unchanged.

In the long run, real wages -- which are determined by the balance between prices and

Chart 48: 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. The figure for 2017/Q4 is the October-November average.
2. The output gap is based on staff estimations.

nominal wages -- will be consistent with labor productivity (Chart 39). Under the baseline scenario, the rate 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 increase consumption through an improvement in household income, which will contribute to a rise in the CPI.

III. Financial Developments in Japan

Financial Conditions

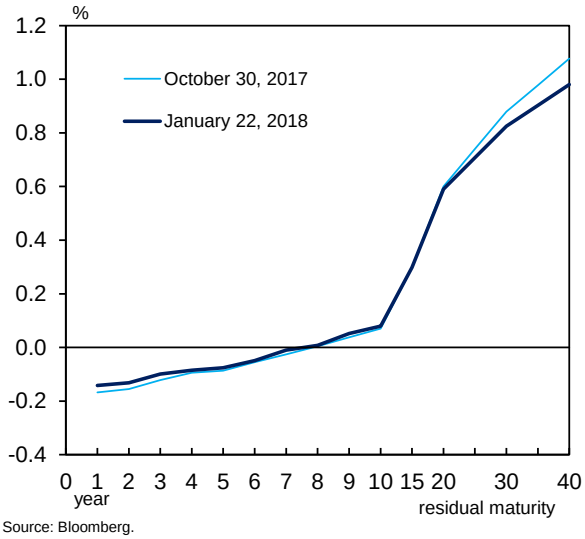
Financial conditions are highly accommodative.

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 49). That is, the yields for relatively short maturities have been stable in slightly negative territory; the 10-year JGB yields have generally been stable, at around 0 percent in positive territory. Meanwhile, the 20-year JGB yields also have generally been stable, in the range of 0.5-1.0 percent. The monetary base has been increasing at a high year-on-year growth rate, in the range of 10-15 percent, and its amount outstanding as of end-December was 480 trillion yen, of which the ratio to nominal GDP was 87 percent.[28]

With such long- and short-term JGB yields, firms' funding costs have been hovering at extremely low levels (Chart 50). 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

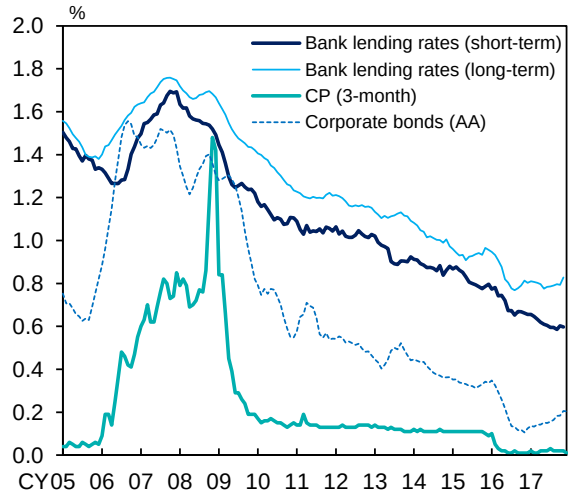
[28] It is assumed that the figure for nominal GDP is unchanged from the July-September quarter of 2017.

Chart 49: Yield Curves



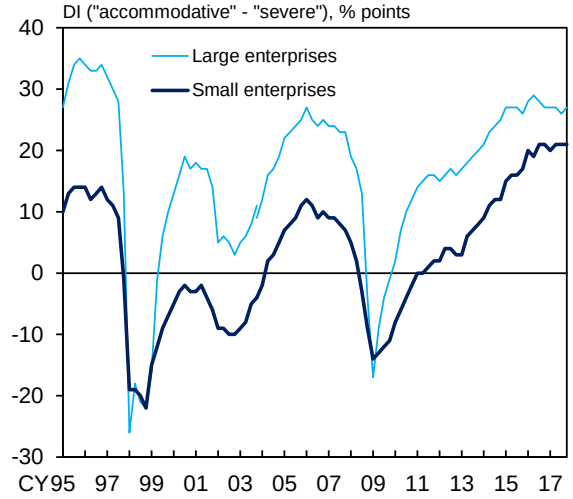
Source: Bloomberg.

Chart 50: 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 51: 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.

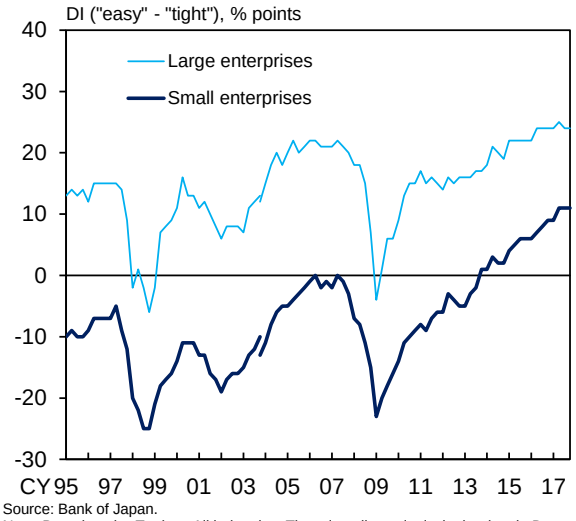
been around historical low levels.

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 51). 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 52).

Demand for funds such as those related to mergers and acquisitions of firms, as well as those for business fixed investment, including for real estate, has continued to increase. In these circumstances, the year-on-year rate of increase in the amount outstanding of bank lending has been at around 2.5 percent (Chart 53). That in the aggregate amount outstanding of CP and corporate bonds has been at a relatively high level.

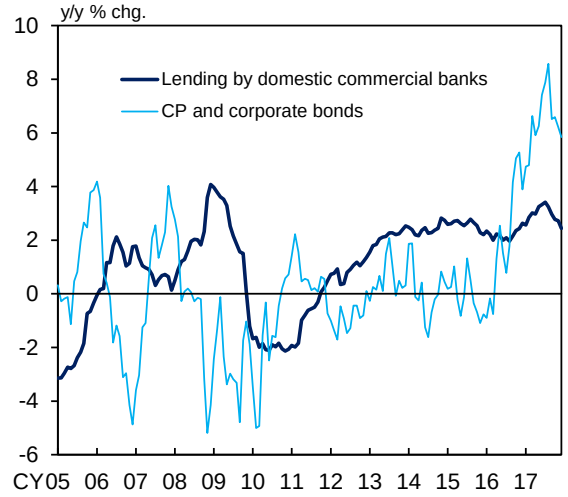
The year-on-year rate of change in the money stock (M2) has been in the range of 3.5-4.0 percent, as bank lending has increased (Chart 54).

Chart 52: Financial Position



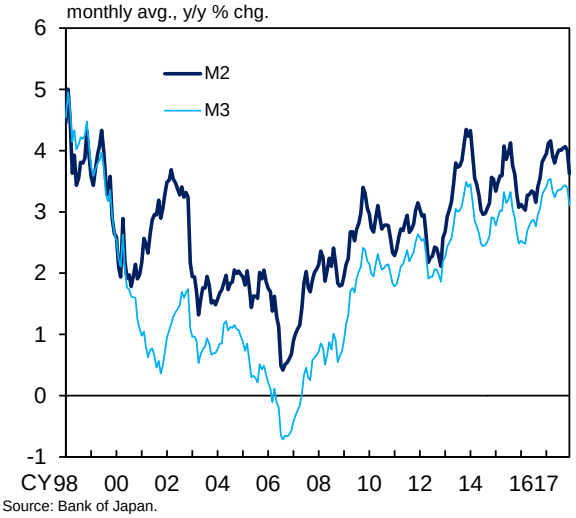
Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

Chart 53: 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 54: Money Stock



Source: Bank of Japan.

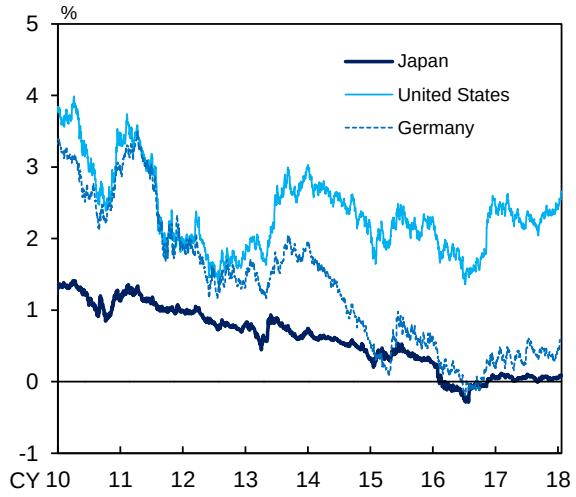
Developments in Financial Markets

With regard to developments in global financial markets, long-term interest rates in major economies continued to move in a narrow range on the whole, and have risen somewhat since mid-December, due mainly to expectations for tax reform in the United States. Stock prices in major economies have remained at high levels mainly supported by solid corporate profits, and investors' risk-taking stance has been generally maintained.

Yields on 10-year government bonds in the United States continued to be more or less flat through mid-December, mainly reflecting market participants' views that the pace of inflation will be moderate even amid the continued release of solid economic indicators. However, the yields have risen somewhat thereafter, due mainly to expectations for tax reform in the United States (Chart 55). In Germany, yields on 10-year government bonds declined somewhat through mid-December, mainly due to uncertainties regarding its coalition talks and relatively weak price indicators; the yields subsequently have risen somewhat, mainly due to the government's announcement that it would increase the amount of bond issuance in 2018 and to the rise in U.S. long-term interest rates.

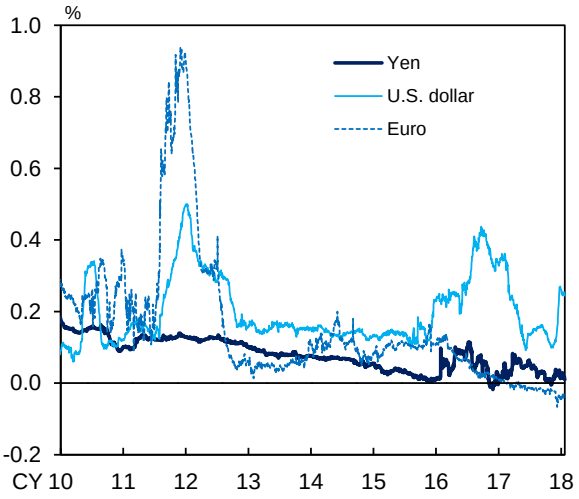
With regard to credit spreads on interbank transactions, the LIBOR-OIS spreads for major currencies show the following developments: those for the U.S. dollar have declined slightly since the turn of the year, after widening through end-2017, partly because large financial institutions tried to reduce the size of their

Chart 55: 10-Year Government Bond Yields in Selected Advanced Economies



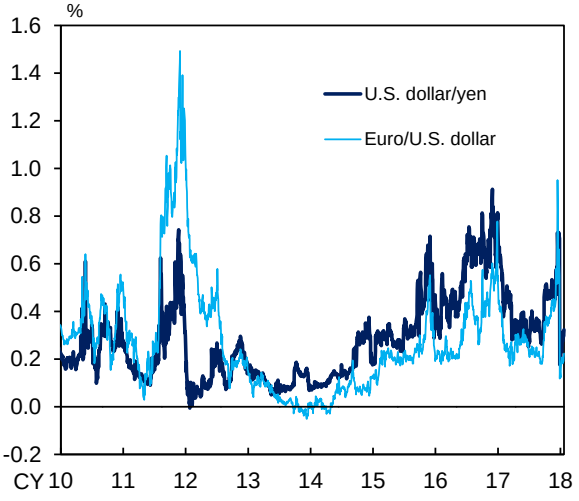
Source: Bloomberg.

Chart 56: 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 57: Dollar Funding Premiums through Foreign Exchange Swaps



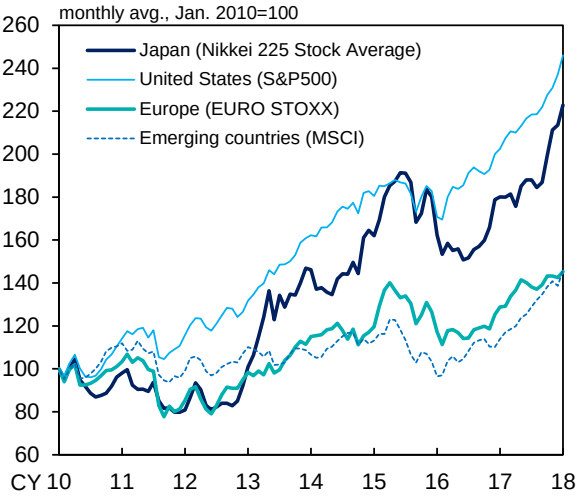
Source: Bloomberg.
Note: U.S. dollar funding rate from yen or euro minus 3-month dollar LIBOR.

balance sheets in view of the end of the reporting period; those for the euro and the yen have remained at low levels (Chart 56). Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market increased through end-2017 due to tightened supply-demand conditions, but have declined since the turn of the year (Chart 57). Meanwhile, Japanese banks have not faced quantitative constraints on foreign currency funding.

Stock prices in the United States have risen to mark a historical high, mainly on the back of solid corporate profits and expectations for tax reform; those in Europe have remained at high levels despite the effects of the appreciation of the euro (Chart 58). Japanese stock prices have risen, being at high levels seen for the first time in about 26 years, due mainly to the rise in U.S. stock prices and expectations for corporate profits, with temporary declines, reflecting in part investors' profit-taking. In the Japan real estate investment trust (J-REIT) market, prices have risen slightly (Chart 59).

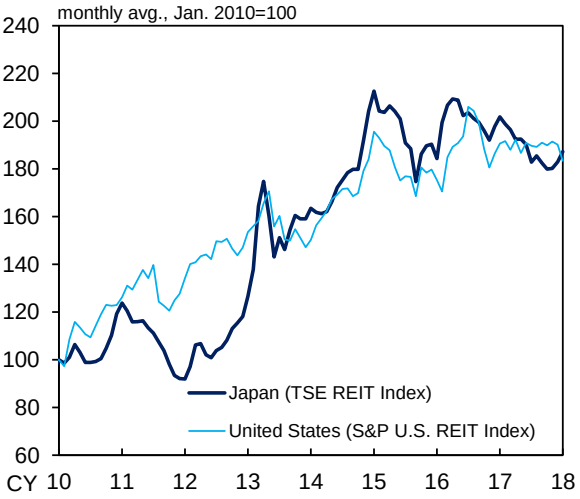
In foreign exchange markets, although the yen appreciated temporarily against the U.S. dollar, it has been more or less flat, with fluctuations smoothed out (Chart 60). The yen has depreciated against the euro.

Chart 58: Selected Stock Prices



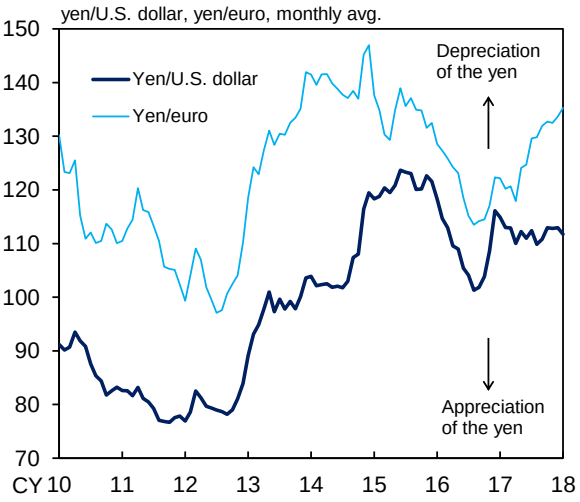
Source: Bloomberg.
Note: Figures for emerging countries are based on the MSCI Emerging Markets Index calculated in the local currencies.

Chart 59: Selected REIT Indexes



Source: Bloomberg.

Chart 60: Yen/U.S. Dollar and Yen/Euro



Source: Bloomberg.

(Box 1) Recovery in the World Trade Volume and Developments in Japan's Exports

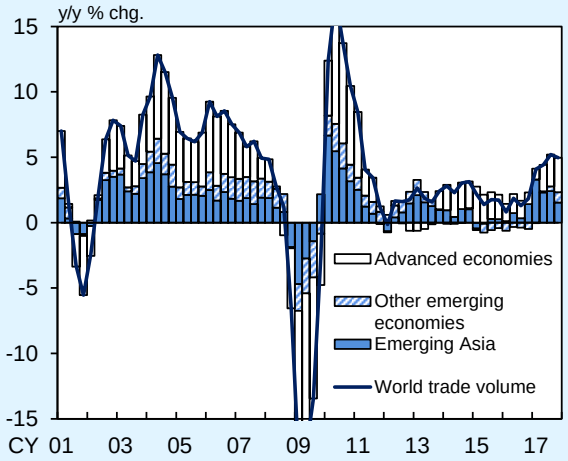
The world trade volume has been recovering firmly since the second half of 2016. It had tended to grow at a slower pace than world GDP -- the so-called slow trade -- since 2011, and the reasons behind this subdued growth have been widely discussed.[29] Nevertheless, world trade volume growth has recovered lately to the level that exceeds world GDP growth (Chart 12).

Although it is still premature to judge only from these recent developments that factors that brought about slow trade have dissipated, it is certain that the recent firm growth in the world trade volume is attributable to the recovery in emerging economies. Looking at developments in the world trade volume -- calculated by adding up real imports in each country -- by region, trade volume in "Emerging Asia" has been increasing significantly recently, after being relatively weak from 2015 to 2016 (Chart B1-1).[30]

Under such circumstances, Japan's exports also have been increasing, mainly led by those of capital goods and IT-related goods to "China" and "NIEs, ASEAN, etc." (Charts B1-2 and B1-3).

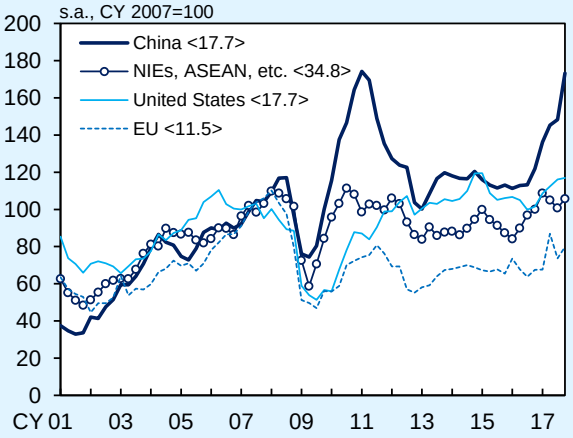
Looking at developments in Japan's capital goods exports to China, unlike around 2010, when the

Chart B1-1: World Trade Volume by Region



Source: CPB Netherlands Bureau for Economic Policy Analysis.
Notes: 1. Figures for the trade volume are those for real imports. Figures for 2017/Q4 are those for October.
2. Emerging Asia consists of China, NIEs, ASEAN4, India, etc.

Chart B1-2: Real Exports of Capital Goods 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 of capital goods in 2016. Figures for 2017/Q4 are October-November averages.

[29] See the Bank's research paper "Slow Trade: Structural and Cyclical Factors in Global Trade Slowdown" released in December 2016.

[30] "Emerging Asia" includes China, the NIEs, the ASEAN4, and India.

pace of increase in exports of construction and mining machinery accelerated, reflecting a large-scale fiscal stimulus provided by the Chinese government after the global financial crisis, exports of semiconductor production equipment and industrial robots have been increasing significantly recently. Sound developments in Japan's capital goods exports are mainly brought about by increases in demand for electronic parts for smartphones and data centers and in labor-saving investment that reflects a rise in personnel expenses in China.[31]

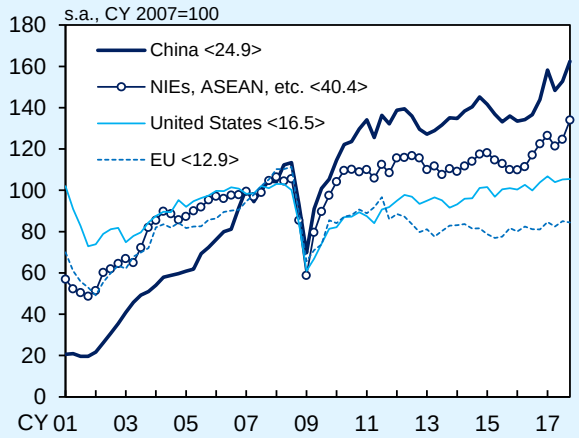
Developments in world semiconductor shipments, which have a high correlation with IT-related exports, show that shipments to Asia have been exceeding significantly the past trend and the forecasts made by the WSTS Inc. in spring 2017 (Chart B1-4).[32]

Taking account of various orders statistics and forecasts made within the industry, exports of capital goods and IT-related goods are likely to increase firmly. Machinery orders from overseas -- a leading indicator of Japan's capital goods exports -- have been on an uptrend (Chart B1-5). Specifically, electronic and communication equipment, which includes semiconductor production equipment, and industrial machinery have been firm; metal cutting machines also have been increasing. The forecasts for semiconductor shipments made by the WSTS Inc. in autumn

[31] In China, under the government's "Made in China 2025" strategy and other initiatives, investment related to factory automation and in semiconductor production equipment has been undertaken proactively.

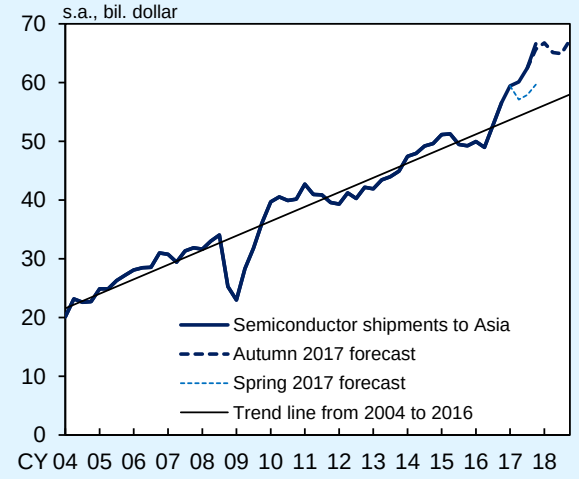
[32] World semiconductor shipments are based on the *World Semiconductor Trade Statistics*.

Chart B1-3: Real Exports of IT-Related Goods by Region



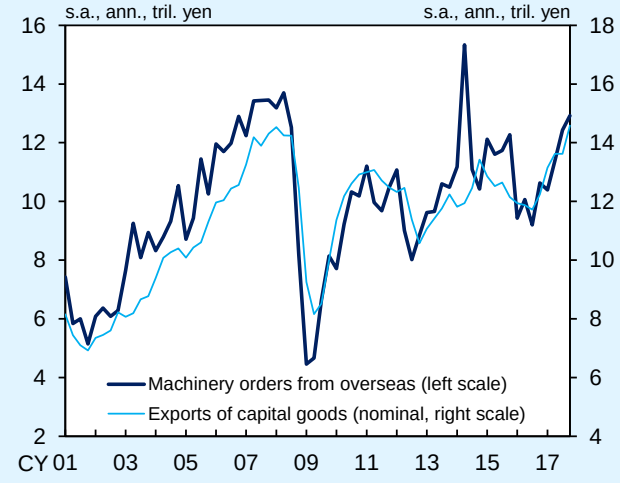
Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports of IT-related goods in 2016. Figures for 2017/Q4 are October-November averages.

Chart B1-4: Semiconductor Shipments to Asia



Source: WSTS Inc.
Notes: 1. Figures are based on staff calculations using the "World Semiconductor Trade Statistics."
2. Asia consists of countries in the Asia Pacific region other than Japan.
3. The figure for semiconductor shipments to Asia for 2017/Q4 is the October-November average.

Chart B1-5: Machinery Orders from Overseas and Exports of Capital Goods



Sources: Ministry of Finance; Cabinet Office.
Note: Figures for 2017/Q4 are October-November averages.

2017 indicate that the shipments are expected to register a significant rise in 2017 and also a firm increase in 2018 (Chart B1-4).

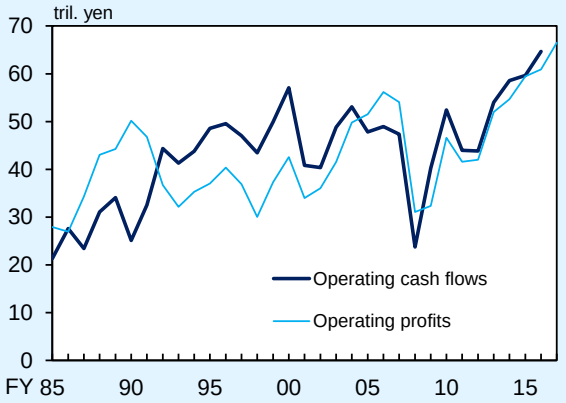
(Box 2) Overview of Corporate Savings in Recent Years

Even though corporate profits have reached record levels, firms' cautious stance toward fixed investment and wage increases has been unchanged, and thus some have argued that corporate savings may have increased to an excessive level. Leaving aside whether corporate savings are excessive or not, this box seeks to provide an overview about the level of corporate savings from a longer-term perspective.

With operating profits setting record highs, operating cash flows also have increased, exceeding the past peak level (Chart B2-1).

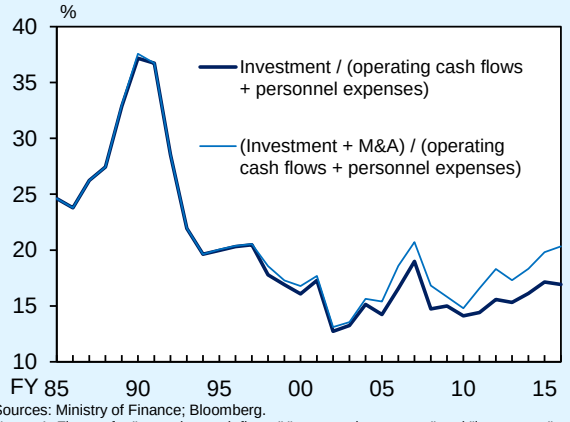
On the other hand, firms' cautious expenditure stance seems to be unchanged on the whole. Although the fixed investment ratio using "operating cash flows + personnel expenses" as the denominator has been rising recently, it basically remains within the range observed since the mid-1990s (thick line in Chart B2-2). The personnel expenses ratio has fallen in recent years, reflecting the limited increases in wages, especially of full-time employees.[33] Meanwhile, the dividends ratio has been rising, partly owing to the strengthening of corporate governance, although the pace has remained modest (Chart B2-3).

Chart B2-1: Cash Flows and Profits



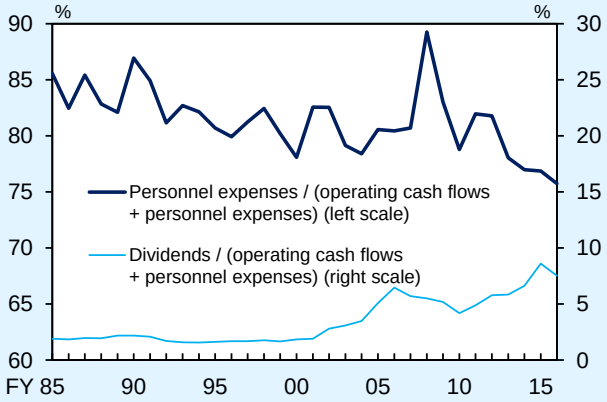
Source: Ministry of Finance.
Notes: 1. Figures for operating cash flows are based on the "Financial Statements Statistics of Corporations by Industry, Annually." Figures for operating profits are based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Excluding "finance and insurance."
2. Operating cash flows are defined as follows:
Operating cash flows = net income - dividends + depreciation expenses + Δprovisions - Δinventories - Δtrade credits - Δnet amount of other current assets.
3. The figure for fiscal 2017 is the annualized value for the first half of fiscal 2017 on a seasonally adjusted basis.

Chart B2-2: Investment



Sources: Ministry of Finance; Bloomberg.
Notes: 1. Figures for "operating cash flows," "personnel expenses," and "investment" are based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance."
2. The definition of operating cash flows is the same as in Chart B2-1.
3. Investment includes land purchasing expenses and excludes software and R&D investment. M&A is the total amount of cases in which the acquirer is a Japanese company and the target company is a foreign company.

Chart B2-3: Personnel Expenses and Dividends



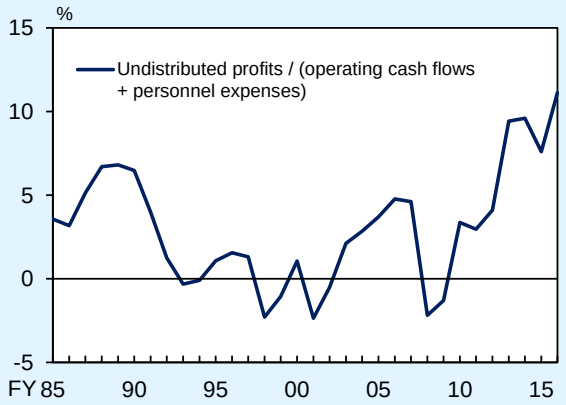
Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance."
2. The definition of operating cash flows is the same as in Chart B2-1.

[33] For a description and analysis of the fact that, even though the labor market has tightened by as much as during the bubble period, the pace of wage increases of late has remained weaker than during that period, see Boxes 1 and 2 of the July 2017 Outlook Report.

Consequently, corporate savings have risen to historically high levels. While there are several indicators of corporate savings, the ratio of "undistributed profits" (net income - dividends), which correspond to the change in internal reserves, to "operating cash flows + personnel expenses" has increased to a record level (Chart B2-4).[34]

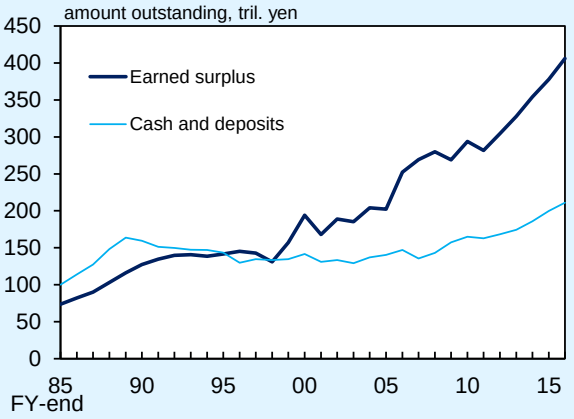
As a result of the accumulation of these flows, the "earned surplus," which corresponds to internal reserves on a stock basis, has started to increase rapidly in recent years; similarly, an uptrend in "cash and deposits" has become evident recently, although the pace of increase has been moderate compared to that in the "earned surplus" (Charts B2-5 and B2-6).

Chart B2-4: Undistributed Profits



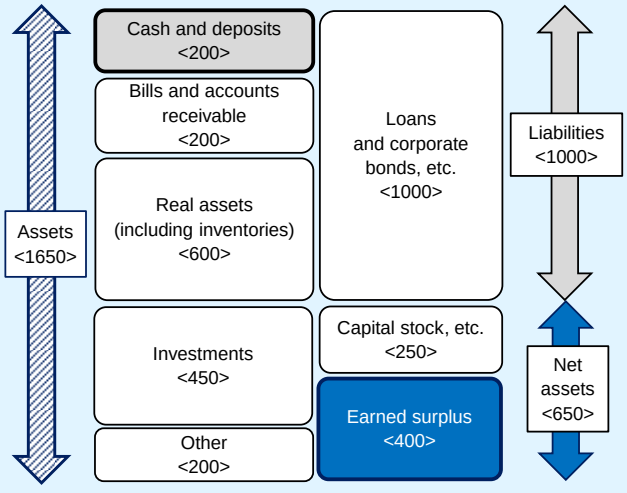
Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance."
2. Undistributed profits = net income - dividends. In order to adjust changes in the accounting standards, bonuses for directors are additionally excluded from figures for undistributed profits up through fiscal 2006.
3. The definition of operating cash flows is the same as in Chart B2-1.

Chart B2-5: Earned Surplus and Cash and Deposits



Source: Ministry of Finance.
Note: Based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance."

Chart B2-6: Balance Sheet of Nonfinancial Corporations



Source: Ministry of Finance.
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance."
2. Figures in angular brackets are the amount outstanding of each component at the end of fiscal 2016 (trillion yen, approximation).

[34] An example of other indicators representing corporate savings is the saving-investment balance, which looks at the relationship between saving and investment in the real economy. This also indicates that corporate savings are on an uptrend.

(Box 3) Background to the Increase in Corporate Savings and the Impact on Business Fixed Investment

Box 2 showed that corporate savings have been increasing recently. This box considers the background to this increase, which can be broadly divided into the following four factors: (1) the increase in overseas investment; (2) a rise in precautionary saving; (3) the decline in growth expectations; and (4) time lag.

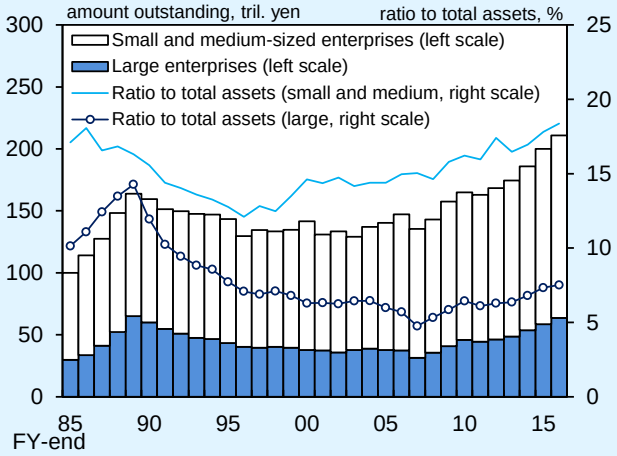
(1) *Increase in overseas investment*

The business fixed investment ratio depicted by the thick line in Chart B2-2 in the previous box only represents firms' investment on a solo (non-consolidated) basis, meaning that investment abroad, as well as the acquisition of firms (both at home and abroad), are not included. Adding acquisitions of foreign firms by Japanese firms to domestic investment, firms' investment stance appears to be more proactive (thin line in Chart B2-2). Therefore, not taking such investment into account may exaggerate the extent to which corporate savings are increasing.

(2) *Rise in precautionary saving*

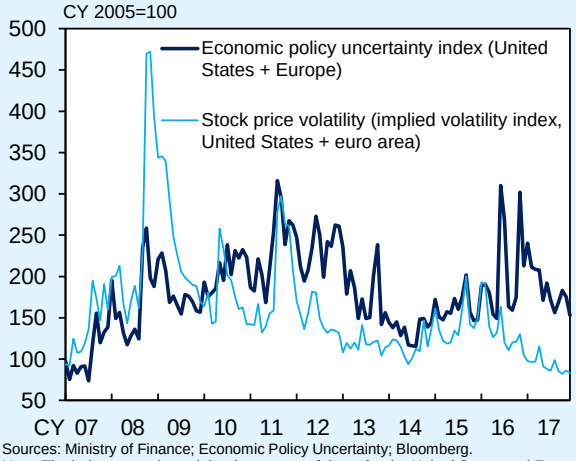
With memories of the severe funding conditions during the global financial crisis still fresh, some firms even today are saying that, for the time being, they prefer to accumulate earned cash as liquidity on hand to be prepared for any future crisis. Looking at developments in the ratio of cash and deposits to total assets by firm size, it is small and medium-sized enterprises rather than large enterprises that are showing a pronounced

Chart B3-1: Amount Outstanding of Cash and Deposits by Firm Size



Source: Ministry of Finance.
Note: Based on the "Financial Statements Statistics of Corporations by Industry, Annually." Excluding "finance and insurance." Large enterprises are defined as enterprises with a capitalization of 1 billion yen or more, and small and medium-sized enterprises are defined as enterprises with a capitalization of less than 1 billion yen.

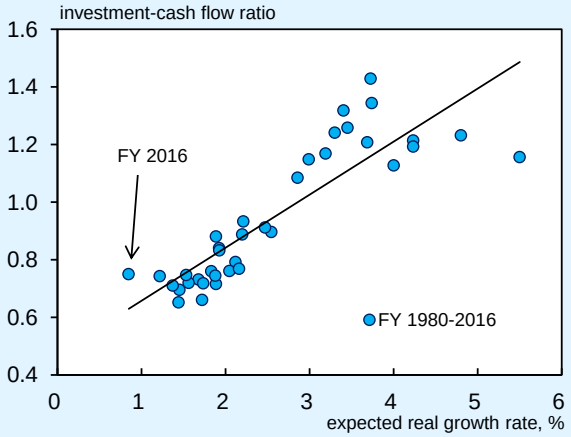
Chart B3-2: Global Uncertainty Indicators



Sources: Ministry of Finance; Economic Policy Uncertainty; Bloomberg.
Note: The indexes are the weighted averages of those for the United States and Europe/euro area using the shares of the United States and the EU in Japan's exports in 2016 as weights.

increase recently (Chart B3-1). Assuming that this is because such enterprises will be more in need of a buffer in a time of crisis, it seems that the precautionary motive plays some role in the increase in corporate savings. However, given that indicators of uncertainty are not particularly elevated lately, it is unlikely that a rise in precautionary saving is the main reason for the recent increase in corporate savings (Chart B3-2).

Chart B3-3: Business Fixed Investment and Expected Real Growth Rate



Source: Cabinet Office.
Notes: 1. The expected real growth rate represents the growth rate in 5 years calculated using the real economic growth rate forecast from the "Annual Survey of Corporate Behavior."
2. The investment-cash flow ratio is based on the SNA. Figures up through fiscal 1993 are from the 1993SNA (benchmark year: 2000). Cash flow = consumption of fixed capital + (operating surplus + net property income)/2.

(3) *Decline in growth expectations*

As reflected in the increase in overseas investment mentioned earlier, another likely contributing factor to the increase in corporate savings is that Japan's expected growth rate of firms remains at a low level. In fact, as is well known, the (domestic) investment-cash flow ratio is correlated with firms' expected growth rate (Chart B3-3). The reason why small and medium-sized enterprises' ratio of cash and deposits to total assets is increasing likely is that, in addition to the above-mentioned precautionary saving, their expectations of economic growth are lower and they have fewer opportunities than large enterprises to expand their business overseas.

(4) *Time lag*

It can be assumed that, from firms' perspective, the recent rapid increase in corporate profits represents an unexpected windfall. While the unexpected increase in profits is being accumulated in the form of corporate savings for the time being, it is likely to lead to an increase in fixed investment in the future. Moreover, if the rise in labor productivity currently underway boosts

the expected growth rate through a rise in the potential growth rate, firms' investment stance is expected to gradually become proactive. In addition, if real wages rise in line with labor productivity, the personnel expenses ratio should also rise. Therefore, the recent rise in corporate savings is only a temporary phenomenon and corporate savings are likely to gradually decline in the future.

In order to empirically examine the role of these factors, a vector auto-regression (VAR) model with the following three variables is estimated: the ratio of operating profits to sales; the ratio of investment to tangible fixed assets; and the ratio of net cash and deposits to assets (Chart B3-4). The results indicate that, since the second half of 2016, the ratio of operating profits to sales has exceeded the values predicted by the model, so that the error term is positive (Chart B3-5). The impulse responses obtained from the model indicate that positive profit shocks tend to boost the net cash and deposit ratio and, with some lag, the fixed investment ratio (Chart B3-6). [35] Therefore, while the unexpected increase in profits since the second half of 2016 is leading to a rise in corporate savings in the short run, it is likely to result in an increase in fixed investment over the long run.

Chart B3-4: VAR Model Specifications

Estimation Model: 3-Variable VAR

1. Ratio of operating profits to sales, s.a., %
2. Ratio of investment to tangible fixed assets, s.a., %
3. Ratio of net cash and deposits to assets, s.a., %

Net cash and deposits = cash and deposits - loans - corporate bonds

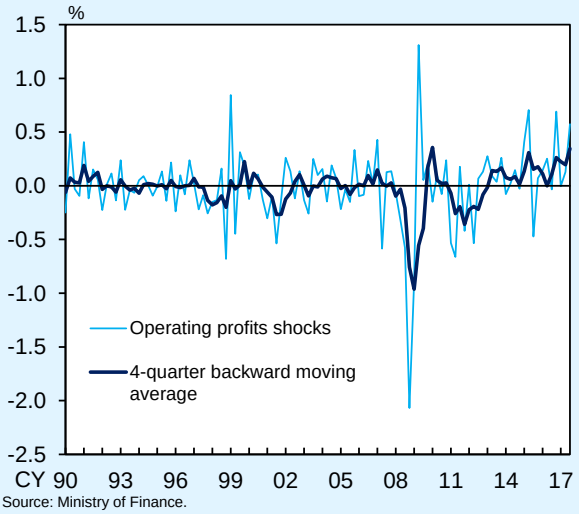
Shock identification is based on Cholesky decomposition in the above order.

Lags: 4 quarters

Data: Large enterprises. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Excluding "finance and insurance."

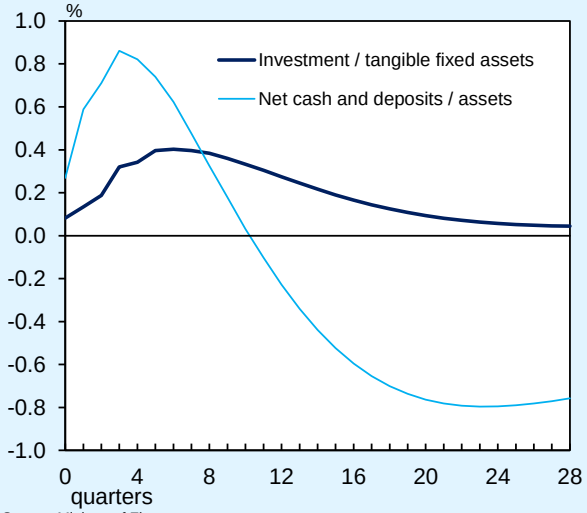
Estimation period: 1985/Q1-2017/Q3

Chart B3-5: Operating Profits Shocks Identified by the VAR Model



Source: Ministry of Finance.

Chart B3-6: Responses to Operating Profits Shock



Source: Ministry of Finance.
Note: The figure shows the impulse responses to a 1 percent increase in the ratio of operating profits to sales.

[35] The ratio of net cash and deposits turning negative in the long run likely reflects a boost in total assets, due to the rise in fixed investment, and an increase in borrowing.