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# *Outlook for Economic Activity and Prices*

*October 2019*



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

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Secretariat of the Policy Board, Bank of Japan  
P.O. Box 30, Nihonbashi, Tokyo 103-8660, Japan

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## Outlook for Economic Activity and Prices (October 2019)

### The Bank's View<sup>1</sup>

#### Summary

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- Japan's economy is likely to continue on an expanding trend throughout the projection period -- that is, through fiscal 2021 -- as the impact of the slowdown in overseas economies on domestic demand is expected to be limited, although the economy is likely to continue to be affected by the slowdown for the time being. Although exports are projected to continue showing some weakness for the time being, they are expected to be on a moderate increasing trend, with overseas economies growing moderately on the whole. Domestic demand also is likely to follow an uptrend, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending, despite being affected by such factors as the consumption tax hike.
  - The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is likely to increase gradually toward 2 percent, mainly on the back of the output gap remaining positive and medium- to long-term inflation expectations rising throughout the projection period, despite such effects as of the decline in crude oil prices for the time being.
  - Comparing the current projections with the previous ones, the projected growth rates are somewhat lower due to the delay in the timing of a pick-up in the growth pace of overseas economies. The projected rates of increase in the CPI are lower, mainly for the first half of the projection period, reflecting such factors as the decline in crude oil prices.
  - With regard to the risk balance, risks to economic activity are skewed to the downside, particularly regarding developments in overseas economies. Risks to prices are skewed to the downside, mainly due to the downside risks to economic activity and uncertainties over developments in medium- to long-term inflation expectations. The momentum toward achieving the price stability target of 2 percent is maintained but is not yet sufficiently firm, and thus developments in prices continue to warrant careful attention.
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<sup>1</sup> The text of "The Bank's View" -- the outlook for economic activity and prices as well as the Bank's thinking on the conduct of monetary policy, both of which are based on individual Policy Board members' views -- was decided by the Policy Board at the Monetary Policy Meeting held on October 30 and 31, 2019.

## **I. Current Situation of Economic Activity and Prices in Japan**

Japan's economy has been on a moderate expanding trend, with a virtuous cycle from income to spending operating, although exports, production, and business sentiment have continued to be affected by the slowdown in overseas economies. Overseas economies have been growing moderately on the whole, although slowdowns have continued to be observed. In this situation, exports have continued to show some weakness. On the other hand, with corporate profits staying at high levels on the whole, business fixed investment has continued on an increasing trend. Private consumption has been increasing moderately, albeit with fluctuations due to such effects as of the consumption tax hike, against the background of steady improvement in the employment and income situation. Housing investment and public investment have been more or less flat. Although exports have continued to show some weakness, industrial production also has been more or less flat, reflecting the increase in domestic demand, and labor market conditions have remained tight. Meanwhile, financial conditions are highly accommodative. On the price front, the year-on-year rate of change in the CPI (all items less fresh food, and the same hereafter) is in the range of 0.0-0.5 percent. Inflation expectations have been more or less unchanged.

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

### **A. Baseline Scenario of the Outlook for Economic Activity**

With regard to the outlook, Japan's economy is likely to continue on an expanding trend throughout the projection period -- that is, through fiscal 2021 -- as the impact of the slowdown in overseas economies on domestic demand is expected to be limited, although the economy is likely to continue to be affected by the slowdown for the time being.

As for overseas economies, the timing of a pick-up in the growth pace is likely to be delayed for longer than expected. Thus, exports are projected to continue showing some weakness for the time being. However, overseas economies are expected to grow moderately on the whole with the growth rates rising, partly backed by the materialization of the effects of macroeconomic policies in each country as well as the progress in global adjustments in IT-related goods. Under these circumstances, Japan's exports are projected to return to their moderate increasing trend.

Domestic demand is likely to follow an uptrend, with a virtuous cycle from income to spending being maintained in both the corporate and household sectors, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending. Business fixed investment -- mainly investment related to urban redevelopment projects, labor-saving investment to address labor shortage, and

research and development (R&D) investment for growth areas -- is likely to continue increasing moderately amid accommodative financial conditions, although the pace of increase is expected to decelerate temporarily, mainly for manufacturing, due to the effects of the slowdown in overseas economies, and such factors as an accumulation of capital stock are projected to exert downward pressure from a somewhat longer-term perspective. Private consumption is expected to follow a moderate increasing trend as the employment and income situation continues to improve, although it is likely to be pushed down temporarily due to the effects of the consumption tax hike.<sup>2</sup> Meanwhile, government spending is expected to continue increasing through fiscal 2020, reflecting disaster-related restoration and reconstruction, Olympic Games-related demand, and expansion in expenditure such as for national resilience, and thereafter remain at a relatively high level. Thus, the impact of the slowdown in overseas economies on domestic demand is expected to be limited.

On this basis, Japan's economy is expected to grow temporarily at a somewhat slower pace than its potential, but moderately accelerate its growth pace thereafter.<sup>3</sup> Thus, the economy is likely to continue growing at about the same pace as its potential on average. Comparing the current projections with the previous ones, the projected growth rates are somewhat lower due to the delay in the timing of a pick-up in the growth pace of overseas economies.

Looking at the financial conditions on which the above outlook is based, short- and long-term real interest rates are assumed to be in negative territory throughout the projection period as the Bank pursues "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control."<sup>4</sup> Financial institutions' active lending attitudes, as well as favorable conditions for corporate bond and CP issuance, are likely to be maintained and support firms' and households' activities from the financial side. Thus, financial conditions are likely to remain highly accommodative.

Meanwhile, the potential growth rate is expected to follow a moderate uptrend throughout the projection period against the backdrop of the following continuing developments: 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

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<sup>2</sup> The consumption tax hike conducted in October 2019 is likely to affect the GDP growth rates through the following two channels: (1) fluctuations in demand prior to and after the hike and (2) a decline in real income. However, the impact on the growth rates is expected to be smaller than that of the previous tax hike in fiscal 2014, although it is subject to uncertainties, mainly because the government implemented various measures and the increase in demand prior to the hike was limited this time.

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

<sup>4</sup> 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.

strategy; and firms' fixed investment and efforts toward improving productivity. In addition, as the natural rate of interest increases together with the rise in the growth potential of Japan's economy, monetary easing effects are likely to be enhanced.

## **B. Baseline Scenario of the Outlook for Prices**

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

This is basically because firms' cautious wage- and price-setting stance, as well as households' cautiousness toward price rises, have not yet clearly changed in a situation where the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched. Firms' efforts to absorb upward pressure of costs by raising productivity, the technological progress in recent years, and the high wage elasticity of labor supply also are contributing factors. In addition, the continued lackluster developments in administered prices and housing rent are likely to have affected the sluggishness in prices. It has been taking time to resolve these factors that have been delaying price rises, and the situation likely has continued in which the responsiveness of prices to the output gap, as well as inflation expectations that are strongly affected by the adaptive formation mechanism, do not rise easily.

With regard to the outlook, the year-on-year rate of change in the CPI is likely to increase gradually toward 2 percent, mainly on the back of the output gap remaining positive and medium- to long-term inflation expectations rising throughout the projection period, despite such effects as of the decline in crude oil prices for the time being. Comparing the current projections with the previous ones, the projected rates of increase in the CPI are lower, mainly for the first half of the projection period, reflecting such factors as the decline in crude oil prices.<sup>5</sup>

The mechanism through which the year-on-year rate of change in the CPI increases gradually toward 2 percent can be explained by the following factors that determine general price inflation. First, the output gap -- which shows the utilization of labor and capital -- has been substantially positive, reflecting tight labor market conditions and high levels of capital utilization rates. Regarding the outlook, although it is likely to narrow for some time due to such effects as of the slowdown in overseas economies and the

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<sup>5</sup> Assuming that the rise in the consumption tax is fully passed on to prices of taxable items, excluding those to which a reduced tax rate is applied, the effect of the October 2019 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 effects for fiscal 2019 and 2020 are estimated to be 0.5 percentage point for each fiscal year. In addition, based on a specific assumption using information available at this point, the effects of policies concerning the provision of free education on the year-on-year rate of change in the CPI (all items less fresh food) for fiscal 2019 and 2020 are estimated to be minus 0.3 percentage point and minus 0.4 percentage point, respectively.

consumption tax hike, it is expected to remain at around the current level on average with the economy continuing on an expanding trend. Under such circumstances, further price rises are likely to be observed widely as households' tolerance of price rises increases, mainly reflecting a rise in wage growth rates, and firms' stance shifts toward further raising prices.

Second, medium- to long-term inflation expectations have been more or less unchanged recently. As for the outlook, such expectations are likely to follow an increasing trend and gradually converge to 2 percent on the back of the following: (1) in terms of the adaptive component, a rise in the observed inflation rate is likely to push up inflation expectations, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target, which will be effective in pushing up inflation expectations.<sup>6</sup>

Third, regarding import prices, the past decline in crude oil prices is likely to push down the CPI substantially through the fall in energy prices for the time being. However, such downward pressure is projected to diminish gradually thereafter.

Meanwhile, the increase in labor participation by women and seniors, as well as firms' strengthening of efforts toward improving productivity, are expected to increase upward pressure on prices in the long term. Specifically, as the growth potential of the economy as a whole rises, reflecting such moves, firms' and households' spending behavior can be expected to become active.

### **III. Risks to Economic Activity and Prices**

#### **A. Risks to Economic Activity**

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

The first is developments in overseas economies. Specifically, the following are considered as risks: the consequences of protectionist moves and their effects; developments in emerging and commodity-exporting economies such as China; developments in global adjustments in IT-related goods; developments in the United Kingdom's exit from the European Union (EU) and their effects; geopolitical risks; and developments in global financial markets under these circumstances. Downside risks concerning overseas economies seem to be increasing, and it also is necessary to pay

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<sup>6</sup> 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.

close attention to their impact on firms' and households' sentiment in Japan.

The second risk is the effects of the consumption tax hike conducted in October 2019. The increase in demand prior to the tax hike has been small this time compared with that of the previous tax hike. However, the effects of the tax hike continue to warrant attention as they are likely to depend on consumer sentiment, the employment and income situation, and developments in prices.

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

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

## **B. Risks to Prices**

As mentioned above, with regard to risks to economic activity, the downside risks concerning overseas economies in particular seem to be increasing. If these risks materialize, close attention should be paid to the possibility that prices also will be affected to some extent.

In addition, the specific factors that could exert upside and downside risks to prices are as follows. The first is developments in firms' and households' medium- to long-term inflation expectations. Although inflation expectations are likely to follow an increasing trend, there is a risk that a rise in such expectations will be delayed through the adaptive formation mechanism if it takes longer than projected for firms' stance to shift toward further raising wages and prices and actual inflation consequently remains relatively sluggish.

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



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

#### **IV. Conduct of Monetary Policy**

In the context of the price stability target, the Bank assesses the aforementioned economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy.<sup>7</sup>

The first perspective involves an examination of the baseline scenario for the outlook. The year-on-year rate of change in the CPI is likely to increase gradually toward 2 percent. Although it is necessary to carefully examine the risks to economic activity and prices, the momentum toward achieving the price stability target of 2 percent appears to be maintained. This is because (1) firms' stance is expected to gradually shift toward further raising wages and prices with the output gap remaining positive, and (2) medium- to long-term inflation expectations have been more or less unchanged and are projected to rise gradually as further price rises come to be observed widely.

The second perspective involves an examination of the risks considered most relevant to the conduct of monetary policy. With regard to the outlook for economic activity, risks are skewed to the downside, particularly regarding developments in overseas economies. Regarding the outlook for prices, risks are skewed to the downside, mainly due to the downside risks to economic activity and uncertainties over developments in medium- to long-term inflation expectations. Examining financial imbalances from a longer-term perspective, there is no sign so far of excessively bullish expectations in asset markets or in the activities of financial institutions. However, prolonged downward pressure on financial institutions' profits, with the low interest rate environment and severe competition among financial institutions continuing, could create risks of a gradual pullback in financial intermediation and of destabilizing the financial system. Although these risks are judged as not significant at this point, mainly because financial institutions have sufficient capital bases, it is necessary to pay close attention to future developments.<sup>8</sup>

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)

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<sup>7</sup> 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."

<sup>8</sup> For details, see the Bank's *Financial System Report* (October 2019).

exceeds 2 percent and stays above the target in a stable manner. As for the policy rates, the Bank expects short- and long-term interest rates to remain at their present or lower levels as long as it is necessary to pay close attention to the possibility that the momentum toward achieving the price stability target will be lost. It will examine the risks considered most relevant to the conduct of monetary policy and make policy adjustments as appropriate, taking account of developments in economic activity and prices as well as financial conditions, with a view to maintaining the momentum toward achieving the price stability target. In particular, in a situation where downside risks to economic activity and prices, mainly regarding developments in overseas economies, are significant, the Bank will not hesitate to take additional easing measures if there is a greater possibility that the momentum toward achieving the price stability target will be lost.

### Forecasts of the Majority of Policy Board Members

y/y % chg.

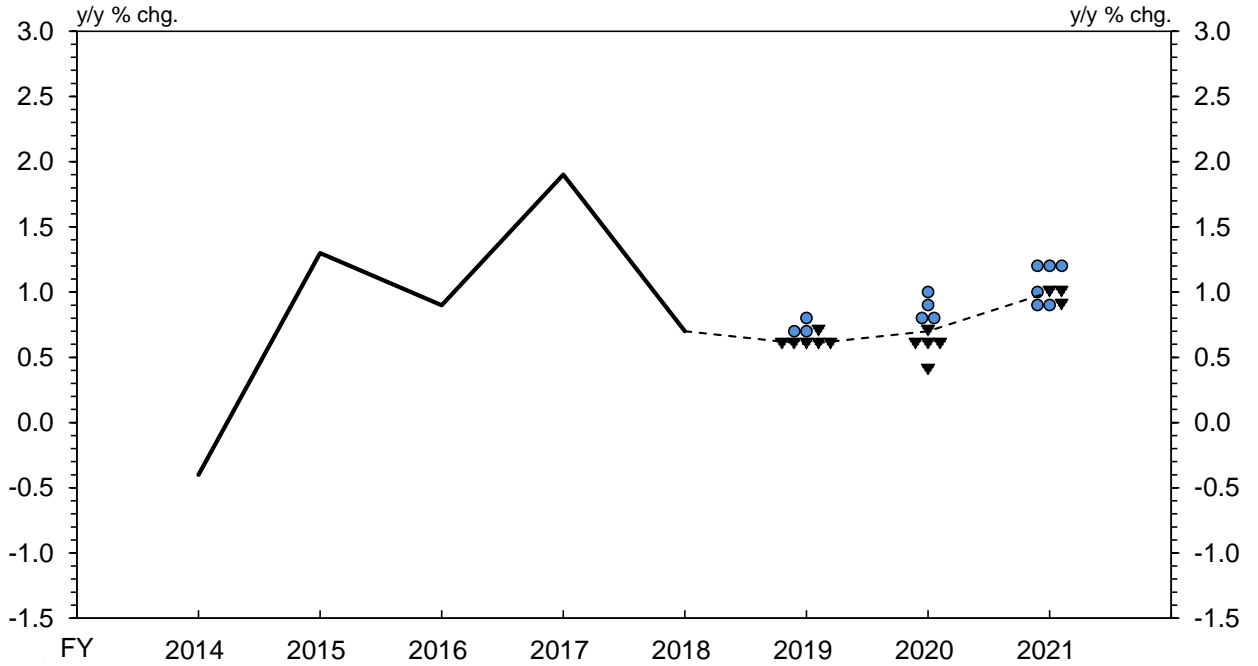
	Real GDP	CPI (all items less fresh food)	(Reference) Excluding the effects of the consumption tax hike and policies concerning the provision of free education
Fiscal 2019	+0.6 to +0.7 [+0.6]	+0.6 to +0.8 [+0.7]	+0.4 to +0.6 [+0.5]
Forecasts made in July 2019	+0.6 to +0.9 [+0.7]	+0.8 to +1.1 [+1.0]	+0.6 to +0.9 [+0.8]
Fiscal 2020	+0.6 to +0.9 [+0.7]	+0.8 to +1.2 [+1.1]	+0.7 to +1.1 [+1.0]
Forecasts made in July 2019	+0.8 to +1.0 [+0.9]	+1.1 to +1.4 [+1.3]	+1.0 to +1.3 [+1.2]
Fiscal 2021	+0.9 to +1.2 [+1.0]	+1.2 to +1.7 [+1.5]	
Forecasts made in July 2019	+0.9 to +1.2 [+1.1]	+1.3 to +1.7 [+1.6]	

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

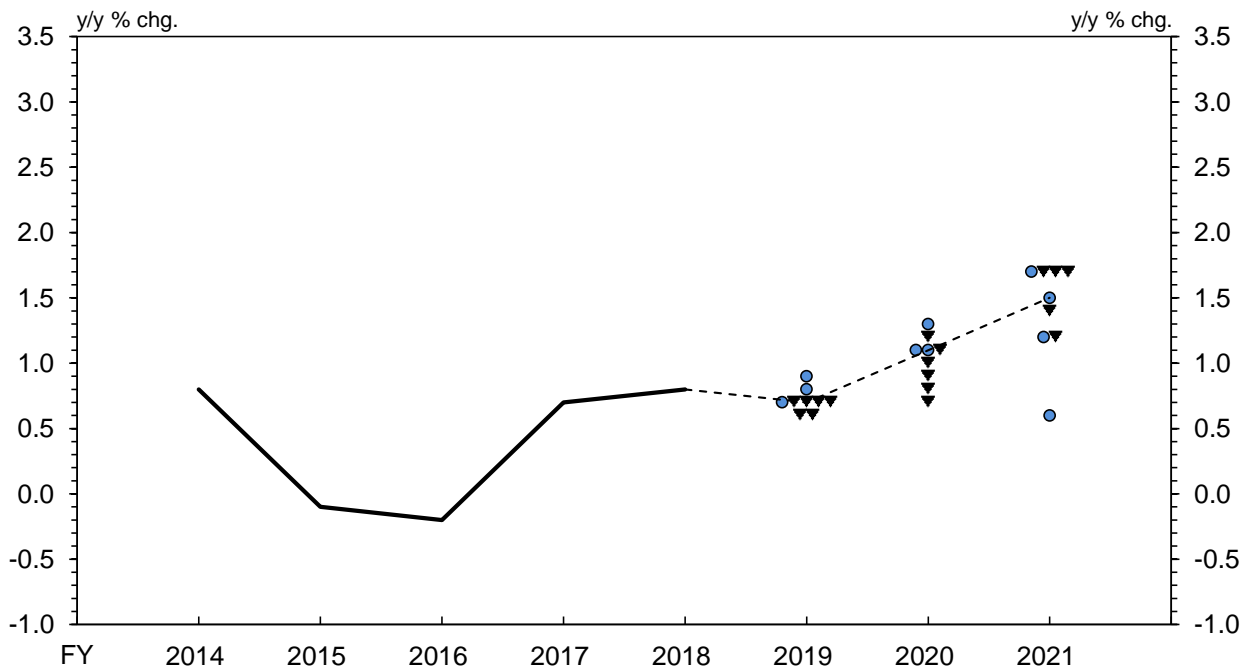
2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.
3. Individual Policy Board members make their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy.
4. With regard to policies concerning the provision of free education, it is assumed that measures such as free higher education will be introduced in April 2020. Assuming that the rise in the consumption tax is fully passed on to prices of taxable items, the direct effects of the October 2019 tax hike on the CPI for fiscal 2019 and 2020 are estimated to be 0.5 percentage point for each fiscal year. In addition, based on a specific assumption using information available at this point, the direct effects of policies concerning the provision of free education on the CPI for fiscal 2019 and 2020 are estimated to be minus 0.3 percentage point and minus 0.4 percentage point, respectively.

## Policy Board Members' Forecasts and Risk Assessments

### (1) Real GDP



### (2) CPI (All Items Less Fresh Food)



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

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

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

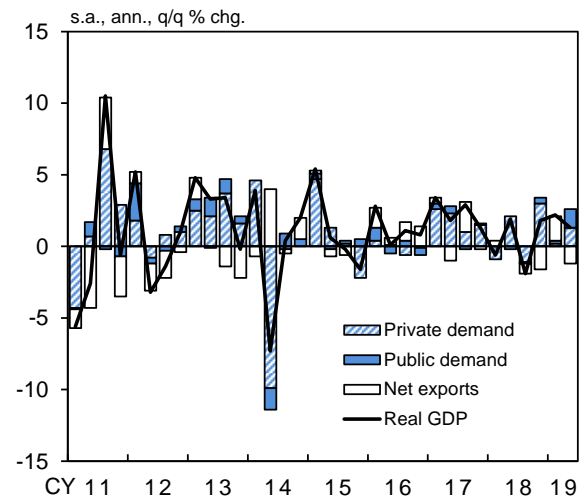
## The Background<sup>9</sup>

### I. Current Situation of Economic Activity and Its Outlook

#### A. Economic Developments

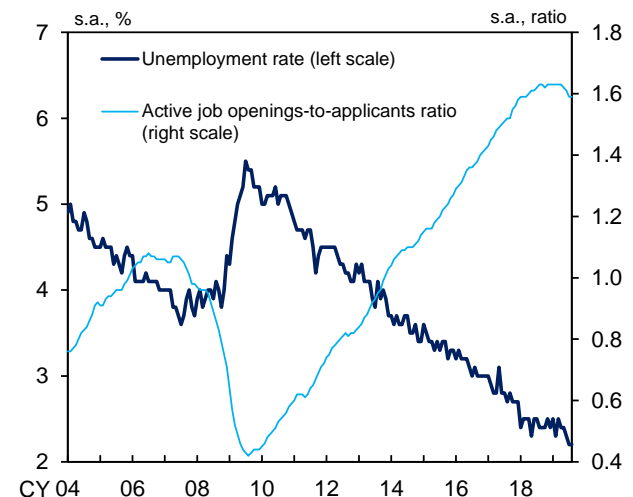
Looking back at Japan's economy since the July 2019 Outlook Report, the real GDP growth rate for the April-June quarter of 2019 registered positive growth for three consecutive quarters, marking 0.3 percent on a quarter-on-quarter basis and 1.3 percent on an annualized basis (Chart 1). This was underpinned by an increase in domestic demand such as private consumption and government spending, although external demand made a negative contribution, reflecting the effects of the slowdown in overseas economies. In this situation, the number of employed persons has maintained an uptrend and labor market conditions have remained tight (Charts 2 and 3). The output gap -- which captures the utilization of labor and capital -- for the April-June quarter has narrowed somewhat within positive territory as the utilization rates for some nonmanufacturing firms, while being at high levels, have declined (Chart 4). However, it has remained substantially positive. Indicators since July suggest that, although exports, production, and business sentiment have continued to be affected by the slowdown in overseas economies, domestic demand has maintained an uptrend, despite such effects as of the consumption tax hike. Thus, Japan's economy is judged as having been on a moderate expanding trend with a virtuous cycle from income to spending being maintained.

Chart 1: Real GDP



Source: Cabinet Office.

Chart 2: Labor Market Conditions

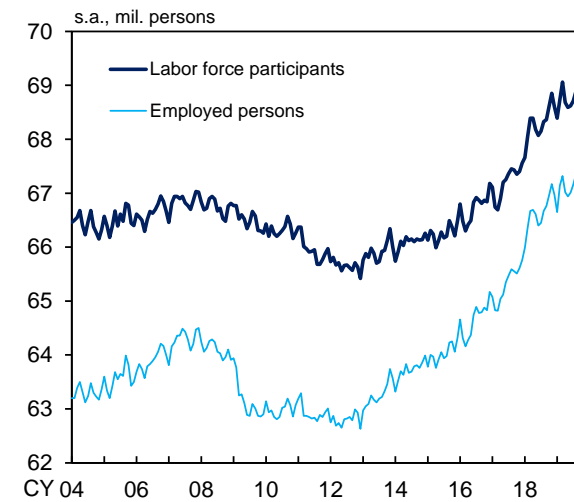


Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare.

<sup>9</sup> "The Background" provides explanations of "The Bank's View" decided by the Policy Board of the Bank of Japan at the Monetary Policy Meeting held on October 30 and 31, 2019.

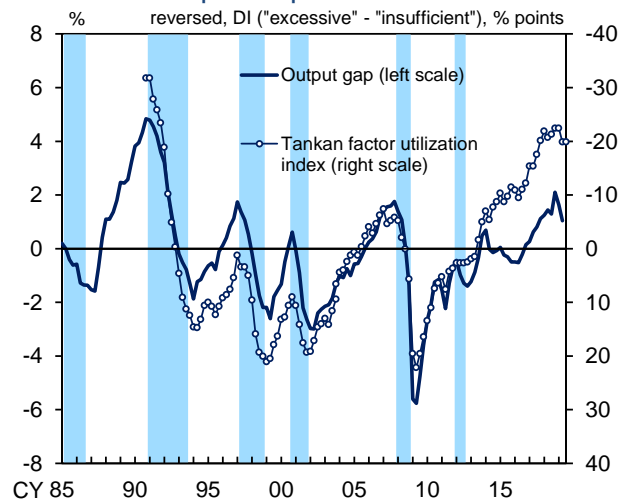
With regard to the outlook, Japan's economy is likely to maintain an expanding trend as the impact of the slowdown in overseas economies on domestic demand is expected to be limited on the back of a virtuous cycle from income to spending continuing to operate, although the economy is likely to continue to be affected by the slowdown for the time being. Exports will likely continue to show some weakness for the time being, with the timing of a pick-up in the growth pace of overseas economies being delayed. Thereafter, however, they are projected to return to their moderate increasing trend, with the growth rates of overseas economies rising gradually.<sup>10</sup> Business fixed investment -- mainly construction investment related to urban redevelopment projects and that aimed at meeting inbound tourism demand, labor-saving investment to address labor shortage, and R&D investment for growth areas -- is likely to continue increasing moderately, supported by highly accommodative financial conditions, although its pace of increase, mainly in machinery investment by manufacturers, is projected to decelerate temporarily, reflecting the effects of the slowdown in overseas economies. Private consumption is expected to maintain a moderate increasing trend on the back of the improvement in the employment and income situation, although it is likely to be pushed down temporarily due to the effects of the tax hike.<sup>11</sup> Meanwhile, with regard

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



Source: Ministry of Internal Affairs and Communications.

**Chart 4: Output Gap**



Source: Bank of Japan.

Notes: 1. The output gap is based on staff estimations.

2. The Tankan factor utilization index is calculated as the weighted average of the production capacity DI and the employment conditions DI for all enterprises. The capital and labor shares are used as weights. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

3. Shaded areas indicate recession periods.

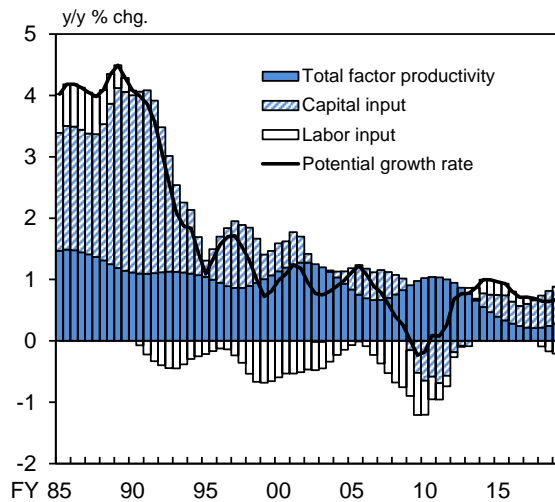
<sup>10</sup> The outlook for exports is based on the assumption that the growth pace of overseas economies will not decelerate further, although the timing of its pick-up will be delayed. Therefore, due attention should be paid to downside risks to exports stemming from a further deceleration in overseas economies and a risk that business fixed investment will be pushed down further by such downside risks.

<sup>11</sup> The consumption tax hike conducted in October 2019 will have some impact on the GDP growth rates, mainly due to changes in household spending, through the following two channels: (1) fluctuations in demand prior to and after the tax hike and (2) a

to government spending, such factors as disaster-related restoration and reconstruction, Olympic Games-related demand, and policy measures for national resilience are likely to underpin economic activity through fiscal 2020. Reflecting these developments in demand both at home and abroad, Japan's economy is expected to grow temporarily at a somewhat slower pace than its potential, but moderately accelerate its growth pace thereafter. Thus, the economy is likely to continue growing at about the same pace as its potential on average (Chart 5). Comparing the current projections with the previous ones, the projected growth rates are somewhat lower due to the delay in the timing of a pick-up in the growth pace of overseas economies.

The potential growth rate is expected to follow a moderate uptrend throughout the projection period against the backdrop of the following continuing developments: progress in implementation of the government's growth

**Chart 5: Potential Growth Rate**



Source: Bank of Japan.  
Note: Based on staff estimations. Figures for the first half of fiscal 2019 are those for 2019/Q2.

decline in real income. At present, the negative impact of the tax hike on the growth rates for fiscal 2019 and 2020 is expected to be smaller than that of the previous tax hike in fiscal 2014. This is mainly due to the following: (1) there are technical factors that, as the tax hike was conducted in the middle of fiscal 2019, fluctuations in demand prior to and after the hike will offset each other during that fiscal year -- although they will push down the growth rate for fiscal 2020 -- and that the effects of the decline in real income will be dispersed over fiscal 2019 and 2020; (2) the increase in the consumption tax rate was smaller than that of the previous tax hike and a reduced tax rate was applied to some items; (3) free education was introduced and various measures to reduce the household burden of the tax hike as well as support measures to smooth out demand prior to and after the tax hike were implemented; and (4) before the previous tax hike in April 2014, it was likely that a front-loaded increase in demand was seen not only in view of that hike but also in anticipation of the second round of the tax hike, which was supposed to take place in October 2015. Although the increase in demand observed prior to the tax hike this time was constrained compared to that of the previous tax hike, it should be noted that the impact of the tax hike is uncertain and varies depending, for example, on developments in consumer sentiment.

strategy, including regulatory and institutional reforms; an increase in labor participation by women and seniors under such strategy; a rise in business fixed investment aimed at saving labor as well as research and development; and firms' efforts toward improving productivity.

Details of the outlook for each fiscal year are as follows. In the second half of fiscal 2019, the expanding trend of the economy is likely to be maintained, but the growth rate is expected to decline temporarily due to such effects as of the slowdown in overseas economies and the tax hike. Exports, mainly of capital goods as well as automobile-related goods, are projected to continue showing some weakness. Private consumption is likely to decline temporarily, pushed down by a reactionary decline to the increase in demand prior to the tax hike and the decrease in real income, although it is expected to be underpinned by various measures implemented to support households accompanying the tax hike. On the other hand, business fixed investment is expected to maintain an uptrend supported by steady construction investment, although its pace of increase is projected to decelerate, due mainly to the decline in machinery investment by manufacturers. Government spending is likely to see a firm increase, mainly in that related to restoration and reconstruction after natural disasters as well as to national resilience.

In fiscal 2020, the economy is likely to grow at about the same pace as its potential, as overseas economies are projected to pick up and the effects of the tax hike are likely to wane. Exports



are expected to return to a moderate uptrend, amid the recovery in global production and trade activity of the manufacturing sector, mainly for IT-related goods. Business fixed investment is likely to continue on a moderate uptrend, since machinery investment by manufacturers is expected to gradually pick up with construction investment remaining steady. With regard to private consumption and housing investment, their uptrend is likely to become evident gradually, as the effects of the tax hike are projected to remain to some extent in the first half of fiscal 2020 but wane through the second half. Meanwhile, government spending is expected to be at a high level, mainly underpinned by an increase in public investment reflecting policy measures for national resilience and by expenditure on temporary facilities accompanying the hosting of the Olympic Games.

In fiscal 2021, the economic growth rate is likely to slightly exceed its potential on the back of a rise in the growth rates of overseas economies and a dissipation of the effects of the tax hike. Government spending is likely to maintain a relatively high level, mainly led by infrastructure-related construction, although it is expected to decelerate as Olympic Games-related expenditure will have been completed. With the effects of the tax hike dissipating, household spending, such as private consumption and housing investment, is projected to increase clearly, supported by a rise in disposable income. Exports are projected to continue their moderate increasing trend on the back of the rise in the growth rates of overseas economies. Business fixed investment also is likely to maintain its moderate uptrend, as R&D

investment for growth areas and labor-saving investment to address labor shortage are expected to be steady, despite being under adjustment pressure stemming from the accumulation of capital stock.

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

### Government Spending

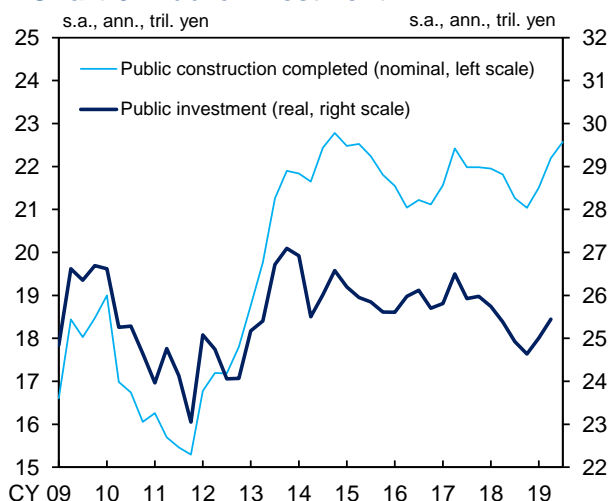
Public investment has been more or less flat from a somewhat longer-term perspective (Chart 6). Regarding the value of public works contracted, as well as orders received for public construction, both of which are leading indicators, the uptrend has been evident recently, reflecting the progress in construction projects related to restoration and reconstruction after natural disasters as well as to national resilience. As for the outlook, public investment is expected to continue increasing through fiscal 2020, mainly for construction related to national resilience and the Olympic Games, and thereafter maintain a relatively high level in fiscal 2021.<sup>12</sup>

### Overseas Economies

Overseas economies have been growing moderately on the whole, although slowdowns have continued to be observed (Chart 7). The business sentiment of manufacturing firms on a global basis has deteriorated, mainly reflecting the intensified and prolonged U.S.-China trade friction and slowdowns in emerging and commodity-exporting economies, such as China (Chart 8). The manufacturing sector's production and trade activity also has continued to show some weakness. On the other hand, the nonmanufacturing sector has remained steady on

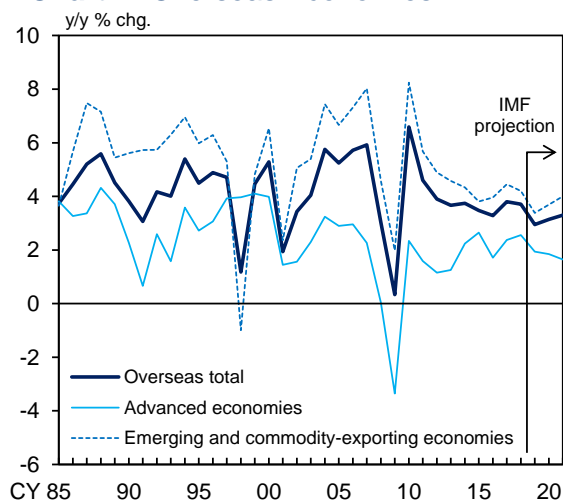
<sup>12</sup> The three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience -- with a total project size of around 7 trillion yen -- was decided by the Cabinet on December 14, 2018. In view of this plan, measures to maintain functions, such as of important infrastructure, are to be implemented intensively over three years from fiscal 2018 through fiscal 2020.

Chart 6: Public Investment



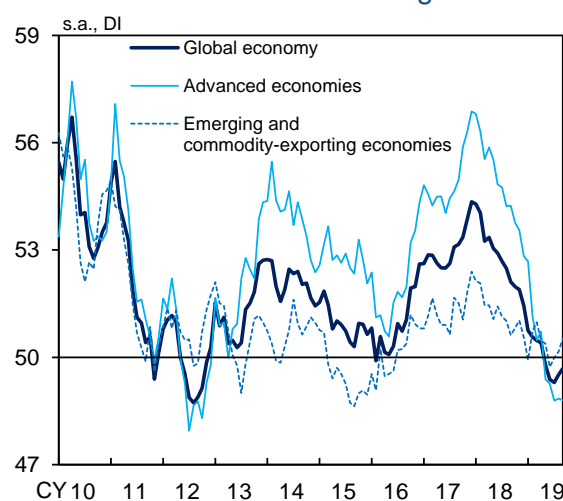
Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.  
Note: The figure for 2019/Q3 is the July-August average.

Chart 7: Overseas Economies



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

Chart 8: Global Manufacturing PMI



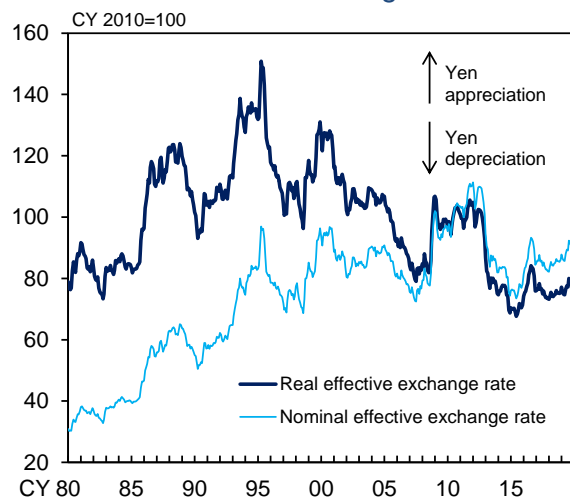
Sources: IHS Markit (© and database right IHS Markit Ltd 2019. All rights reserved.), etc.  
Note: Figures for the global economy are the "J.P. Morgan Global Manufacturing PMI."  
Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages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

a global basis, amid a continued increase in private consumption that reflects the favorable employment and income situation. Looking at developments by major region, the U.S. economy has expanded moderately, although some weakness has been seen in the manufacturing sector. The European economy has remained in the deceleration phase. The Chinese economy has continued to see stable growth on the whole, but weakness has remained in the manufacturing sector. Other emerging and commodity-exporting economies have maintained their moderate recovery trend on the whole, but such effects as of weak exports to China have exerted downward pressure on the NIEs and the ASEAN economies.

In terms of the outlook for overseas economies, although the timing of a pick-up in the growth pace of overseas economies is likely to be delayed, their growth rates are projected to rise moderately thereafter, on the back of the materialization of the effects of macroeconomic policies in each country as well as a pick-up in the manufacturing sector that mainly reflects the progress in global adjustments in IT-related goods.<sup>13</sup>

By major region, the U.S. economy is expected to maintain its moderate expansion. The European economy is projected to gradually move out of its deceleration phase, reflecting the pick-up in the manufacturing sector. The Chinese economy is likely to broadly follow a stable growth path with authorities implementing macroeconomic policies in an incremental manner, despite being affected

**Chart 9: Effective Exchange Rates**



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

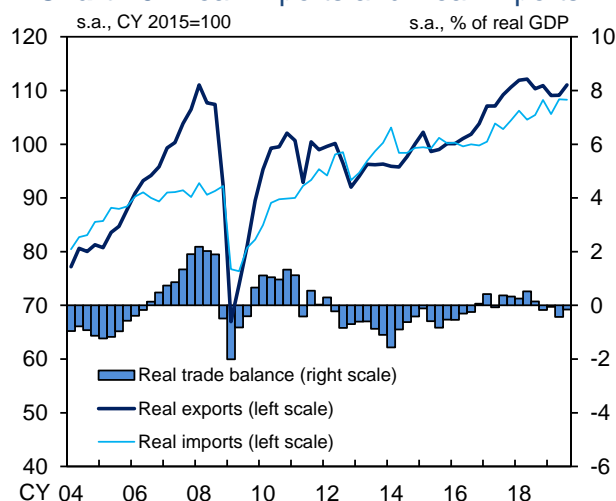
<sup>13</sup> Box 1 outlines the factors behind the delay in the timing of a pick-up in the growth pace of overseas economies.

to some extent by the trade friction with the United States and measures to push forward with deleveraging. The growth rates of other emerging and commodity-exporting economies are likely to increase on the whole, reflecting a dissipation of downward pressure in some economies and the materialization of the effects of macroeconomic policies in each country.

## Exports and Imports

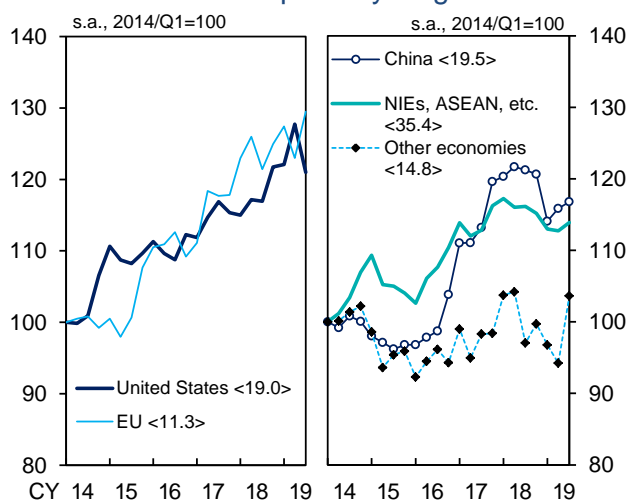
Exports have continued to show some weakness (Chart 10). By region, although exports to advanced economies have maintained their increasing trend on the whole, those to the United States have been somewhat weak recently, due mainly to the decline in automobile-related exports (Chart 11). On the other hand, those to emerging economies, such as China as well as the NIEs and the ASEAN economies, have continued to show some weakness. By goods, excluding the temporary contribution of ships that show large fluctuations, exports of capital goods have remained somewhat weak, reflecting the slowdown in business fixed investment in emerging economies such as China (Chart 12). Automobile-related exports had continued to increase, mainly on the back of the rising value-added and a high environmental performance of automobiles exported from Japan, but have started to show some weakness recently due to a slump in global sales of automobiles. On the other hand, IT-related exports had maintained a declining trend, reflecting a deterioration in the cycle for IT-related goods, but seem to be bottoming out and heading toward a pick-up recently, on the back of the progress in inventory adjustments and an increase in production of parts for new smartphone products.

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



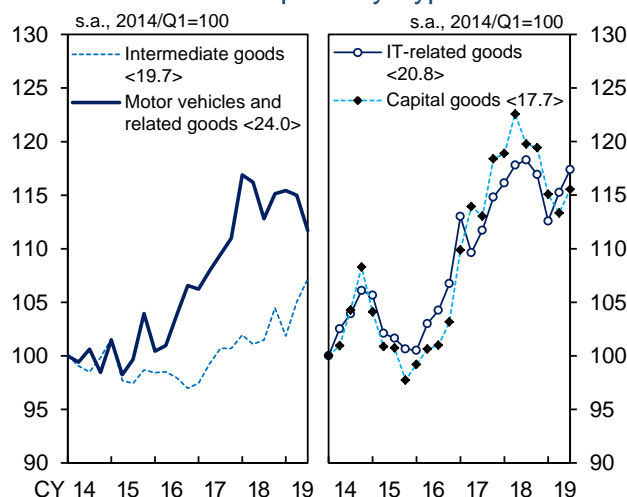
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.  
Note: Based on staff calculations.

**Chart 11: Real Exports by Region**



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

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

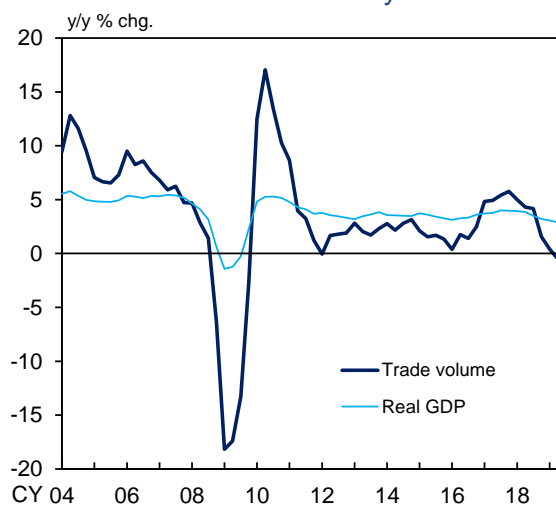


Sources: Bank of Japan; Ministry of Finance.  
Note: Based on staff calculations. Figures in angular brackets show the share of each type of goods in Japan's total exports in 2018.

Exports are projected to continue showing some weakness for the time being, mainly in capital goods and automobile-related goods, with the timing of a pick-up in the growth pace of overseas economies being delayed.<sup>14</sup> Thereafter, exports are expected to return to their moderate increasing trend. This is based on the projection that, as the growth rates of overseas economies rise, (1) the world trade volume will increase moderately and (2) Japan's share of exports in world trade also will pick up, reflecting recovery in exports of capital goods and IT-related goods (Charts 13 and 14).<sup>15</sup>

The pace of increase in the world trade volume has been clearly below world economic growth recently.<sup>16</sup> Going forward, it will likely remain somewhat weak for a while due to the intensified and prolonged U.S.-China trade friction and the effects of the slowdown in the Chinese economy. Thereafter, the pace is expected to accelerate gradually and return to around the same level as that of world economic growth -- that is, the world trade volume to world GDP ratio is likely to bottom out and then be more or less unchanged. This is based on the projection that, (1) amid the cycle for IT-related goods gradually heading toward a pick-up, (2) downward pressure on automobile sales, stemming from stricter environmental regulations and a tightening of financial conditions, will wane, and (3) business fixed investment, which has been postponed because of high

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



Sources: CPB Netherlands Bureau for Economic Policy Analysis; IMF, etc.  
Notes: 1. Figures for the trade volume are those for real imports.

The figure for 2019/Q3 is the July-August average.  
2. Real GDP of the world economy is based on staff calculations using GDP shares of world total GDP from the IMF as weights.

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



Source: CPB Netherlands Bureau for Economic Policy Analysis.  
Note: Japan's share of exports in world trade is obtained by dividing Japan's real exports by world real imports (2010 prices). The figure for 2019/Q3 is the July-August average.

<sup>14</sup> Box 2 examines the current situation of and outlook for exports by goods; namely, IT-related goods, capital goods, and automobile-related goods.

<sup>15</sup> The world trade volume is calculated by adding up real imports in each country.

<sup>16</sup> Box 3 quantitatively assesses downside risks to exports by using various indicators that capture export conditions.

uncertainties, will recover gradually. On the other hand, Japan's share of exports in world trade is expected to be more or less flat for the time being, and then pick up gradually, because demand for capital goods and IT-related goods is likely to recover, partly backed by the materialization of the effects of macroeconomic policies in each country and a pick-up in the cycle for IT-related goods.

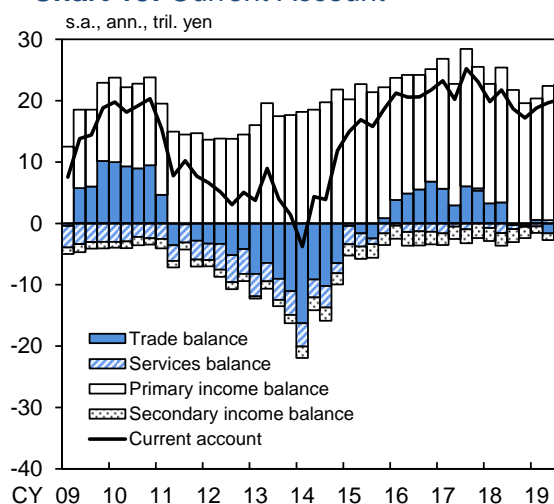
Imports have been on a moderate uptrend on average, albeit with fluctuations (Chart 10). Going forward, they are expected to follow an uptrend, reflecting the increase in domestic demand, despite being affected by the consumption tax hike; however, the pace is projected to remain only moderate, mainly against the background of a decline in imports of raw materials that reflects an improvement in energy efficiency.

## External Balance

The nominal current account surplus has been more or less flat (Chart 15). Looking at the breakdown of developments in the current account balance, the nominal trade balance has been more or less flat at around zero, with weakness in exports and the effects of the decline in crude oil prices offsetting each other. The services balance also has been at around that level. The primary income balance has maintained a relatively large surplus.

Meanwhile, the number of inbound visitors, which contributes to travel receipts, has been on an increasing trend from a somewhat longer-term perspective. However, its rate of increase has

**Chart 15: Current Account**



Source: Ministry of Finance and Bank of Japan.  
 Note: Figures for 2019/Q3 are July-August averages.

decelerated recently due to sluggish growth in the number of visitors from some Asian economies (Chart 16).

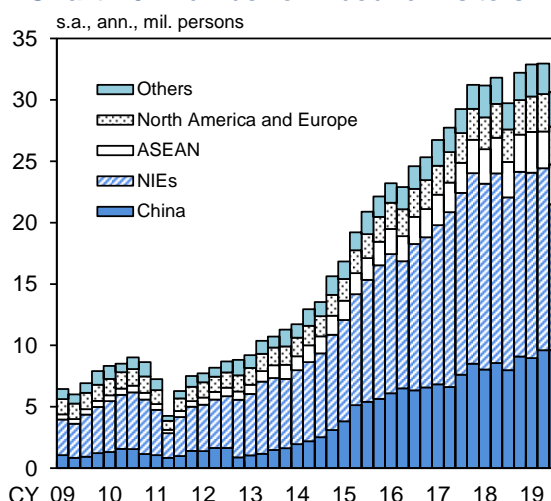
Going forward, the nominal current account surplus will likely increase moderately, mainly on the back of (1) an improving trend in the trade balance due to the increase in exports and the decline in crude oil prices, (2) an increase in travel receipts underpinned by the rise in the number of inbound visitors, and (3) an increase in the surplus of the primary income balance due to a rise in direct investment income.

In terms of the saving-investment balance, the increase in the current account surplus corresponds to that in excess saving as a whole, mainly due to a decline in the fiscal deficit. Excess investment in the general government is projected to decrease due to an increase in tax revenue, mainly from the consumption tax. While excess saving in the household sector is projected to be more or less flat, that in the corporate sector is likely to decline fairly moderately, as an increase in fixed investment is expected to somewhat exceed that in profits.

## Industrial Production

Industrial production has been more or less flat, reflecting the increase in domestic demand, although exports have continued to show some weakness (Chart 17). By major industry, transport equipment production had followed an increasing trend due to a rise in its exports to advanced economies and an increase in demand prior to the consumption tax hike seen in part, but has

**Chart 16: Number of Inbound Visitors**



Source: Japan National Tourism Organization (JNTO).  
 Note: North America and Europe consist of the United States, Canada, the United Kingdom, France, and Germany.



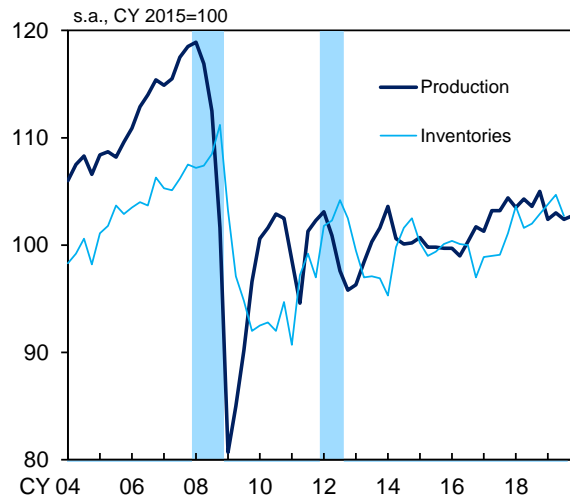
started to show some weakness recently, affected by slower production of goods for exports. The production of machinery (i.e., "general-purpose, production, and business-oriented machinery" in the *Indices of Industrial Production*) has been at a low level due to weak exports of capital goods. On the other hand, although the production of electronic parts and devices had decreased against the background of pressure stemming from global adjustments in IT-related goods, it seems to be bottoming out and heading toward a pick-up recently, reflecting the progress in inventory adjustments and the increase in production of parts for new smartphone products. Meanwhile, the shipments-inventories balance (i.e., the year-on-year rate of change in shipments minus that in inventories) has been slightly negative (Chart 18).

Industrial production is expected to be pushed down for the time being due to weakness in exports and the effects of the tax hike, but from a somewhat longer-term perspective, it is projected to gradually turn to a moderate increase with the growth rates of overseas economies rising.

## Corporate Profits

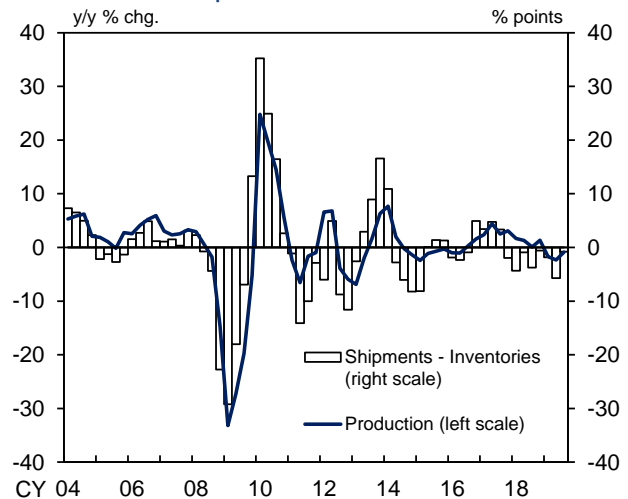
Corporate profits have been at high levels on the whole, albeit with some weakness observed in part. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC), the ratios of profits to sales for all industries and enterprises have remained at historical high levels, supported by an increase in domestic demand, although their levels have become lower reflecting the effects of the slowdown in overseas economies (Chart 19).

**Chart 17: Industrial Production**



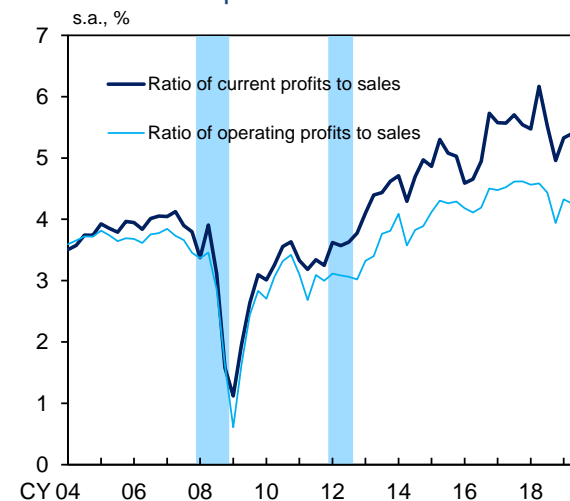
Source: Ministry of Economy, Trade and Industry (METI).  
 Notes: 1. Shaded areas indicate recession periods.  
 2. The production figure for 2019/Q4 is calculated based on METI projections for October and November 2019.

**Chart 18: Shipments-Inventories Balance**



Source: Ministry of Economy, Trade and Industry.

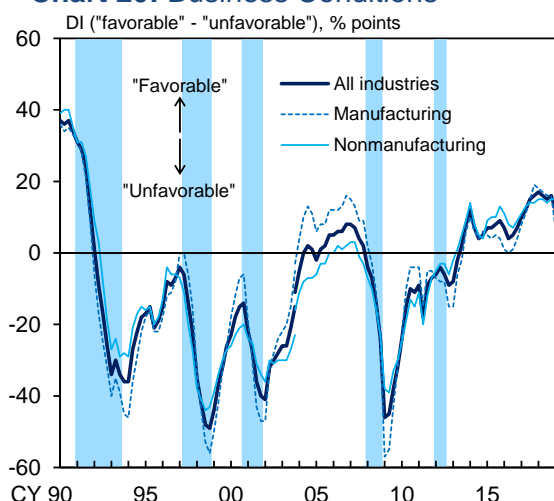
**Chart 19: Corporate Profits**



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

With regard to business sentiment, while the manufacturing sector has become clearly cautious due to the effects of the slowdown in overseas economies, the nonmanufacturing sector has stayed at a favorable level on the whole, reflecting an increasing trend in domestic demand. According to the diffusion index (DI) for business conditions in the September 2019 *Tankan* (Short-Term Economic Survey of Enterprises in Japan), the DI for the manufacturing sector has deteriorated on the whole, mainly for iron and steel, nonferrous metals, as well as general purpose and production machinery (Chart 20). This is attributable to the intensified and prolonged U.S.-China trade friction and the slowdown in emerging and commodity-exporting economies, such as China, although the DI for large enterprises within the electrical machinery industry has improved somewhat due to a bottoming out of the cycle for IT-related goods. On the other hand, the DI for the nonmanufacturing sector has remained at a favorable level on the whole, supported by an increase in domestic demand such as steady construction investment, although some industries were affected by irregular weather around summer.

**Chart 20: Business Conditions**



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

Corporate profits are projected to maintain their high levels on the whole, supported by firmness in the nonmanufacturing sector, although downward pressure on profits in the manufacturing sector is likely to increase for the time being, reflecting the effects of the slowdown in overseas economies. Thereafter, they are expected to follow a moderate improving trend, mainly due to a rise in the sales volume that reflects a pick-up in

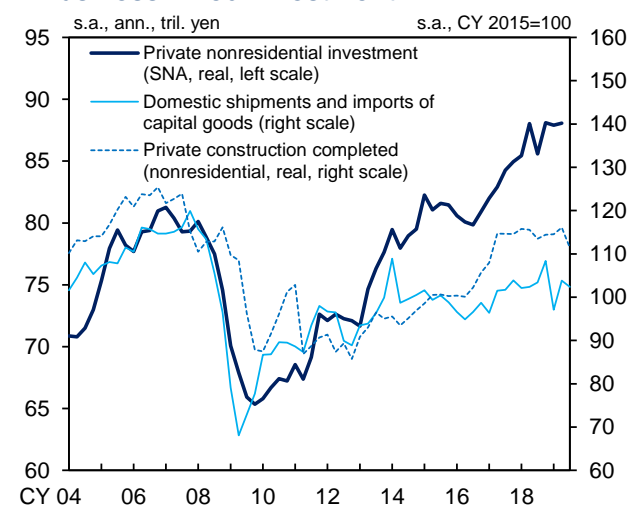
overseas economies and the dissipation of the effects of the consumption tax hike.

## Business Fixed Investment

Business fixed investment has continued on an increasing trend (Chart 21). The aggregate supply of capital goods -- a coincident indicator of machinery investment -- has been on a moderate increasing trend, albeit with fluctuations. Private construction completed (nonresidential) -- a coincident indicator of construction investment -- has decelerated its pace of increase temporarily, partly due to a peak-out of Olympic Games-related demand, but has continued on an uptrend from a somewhat longer-term perspective. According to the September *Tankan*, business fixed investment is expected to increase firmly for fiscal 2019, compared to the past average as of the September survey (Chart 22). Business fixed investment (on the basis close to GDP definition; business fixed investment -- including software and R&D investment, but excluding land purchasing expenses -- in all industries and enterprises including financial institutions) is expected to see a year-on-year rate of increase of 5.8 percent in fiscal 2019, following a rise in fiscal 2018. Reflecting firms' positive fixed investment stance, machinery orders and construction starts (in terms of planned expenses for private and nonresidential construction), as leading indicators, have continued on an increasing trend on average, albeit with large fluctuations (Chart 23).<sup>17</sup>

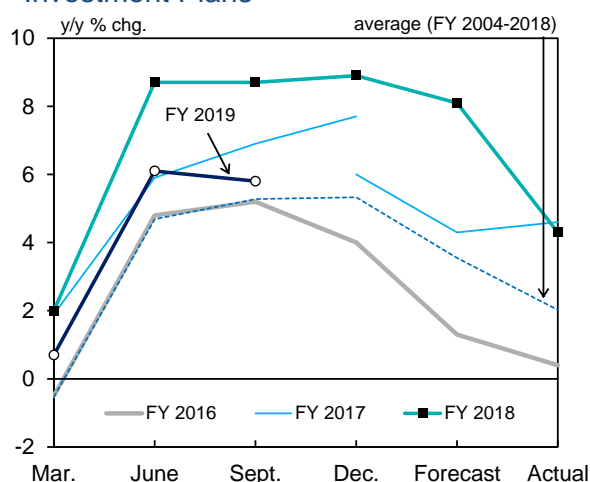
<sup>17</sup> Boxes 4 and 5 examine business fixed investment by type with regard to the reasons why it has remained steady thus far despite the slowdown in overseas economies.

**Chart 21: Coincident Indicators of Business Fixed Investment**



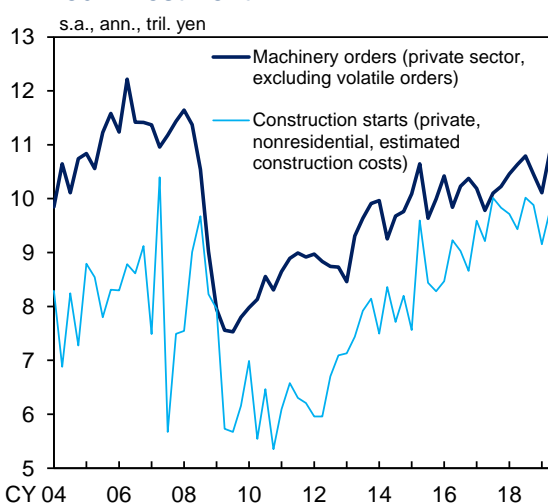
Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.  
 Notes: 1. Figures for 2019/Q3 are July-August averages.  
 2. Real private construction completed is based on staff calculations using price indices in the "Construction Cost Deflators."

**Chart 22: Developments in Business Fixed Investment Plans**



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

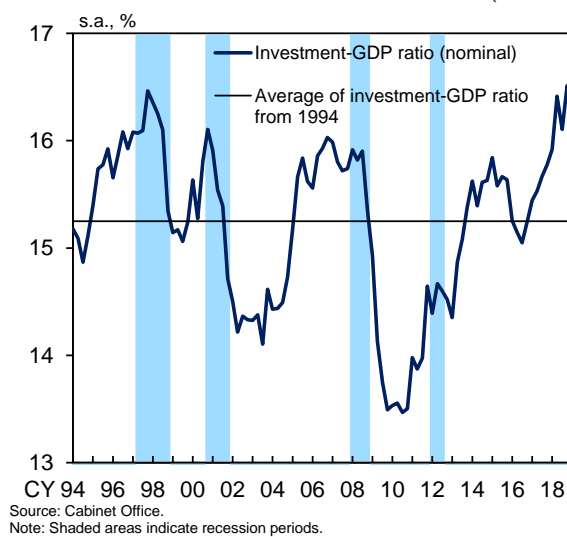
**Chart 23: Leading Indicators of Business Fixed Investment**



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.  
 Notes: 1. Volatile orders: orders for ships and orders for electric power companies.  
 2. Figures for 2019/Q3 are July-August averages.

With regard to the outlook, business fixed investment is likely to decelerate somewhat for the time being, mainly for machinery investment by manufacturers, due to the effects of the slowdown in overseas economies. However, it is expected to increase moderately from a somewhat longer-term perspective, mainly on the back of (1) an improvement in corporate profits, (2) highly stimulative financial conditions, such as low interest rates and accommodative lending attitudes, (3) materialization of the effects of projects conducted under the Fiscal Investment and Loan Program, and (4) moderate improvement in growth expectations. Specifically, an increase is likely to continue to be seen in such items as (1) construction investment related to urban redevelopment projects and inbound tourism demand, (2) investment aimed at improving efficiency and saving labor in order to deal mainly with labor shortage, and (3) R&D investment for growth areas.

**Chart 24: Investment-GDP Ratio (Nominal)**



The nominal investment-GDP ratio is expected to maintain its high level on the basis of the aforementioned outlook for business fixed investment (Chart 24). The ratio already has reached a level around the peaks observed in the investment cycles since the burst of the bubble. Taking this into account, pressure stemming from cyclical adjustments in capital stock is likely to bring about deceleration in business fixed investment. However, a moderate rise in the potential growth rate through the end of the projection period is expected to ease such pressure.<sup>18</sup>

<sup>18</sup> For stock adjustment pressure, see Box 2 in the January 2019 Outlook Report.

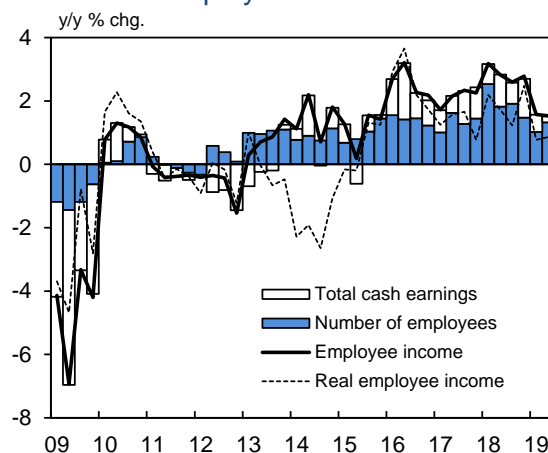
## Employment and Income Situation

Supply-demand conditions in the labor market have remained tight and employee income has increased.<sup>19</sup> On the employment side, the *Labour Force Survey*-based number of employees has continued to increase steadily (Chart 25). Against this backdrop, the employment conditions DI in the *Tankan* shows that a perception of labor shortage has remained quite strong.<sup>20</sup> The unemployment rate has remained at around the lowest level observed in the current economic expansion phase, being in the range of 2.0-2.5 percent (Chart 2). The active job openings-to-applicants ratio has been at a high level that exceeds the peak marked during the bubble period, but recently has declined slightly, due in part to the effects of the slowdown in overseas economies. Meanwhile, rises in labor force participation rates had remained on an uptrend -- especially those of women and seniors -- after bottoming out around the end of 2012, but have paused recently (Chart 26). As for the outlook, with the economy continuing on an expanding trend, the supply-demand conditions in the labor market will likely remain tight as the number of employees is expected to keep increasing.

<sup>19</sup> From the June 2019 *Monthly Labour Survey*, the Ministry of Health, Labour and Welfare started to release figures for establishments in Tokyo with 500 or more employees based on all such establishments. As for figures used in the charts in this Outlook Report, those taken from the June 2019 survey onward are for all establishments, and those taken from the surveys conducted through May 2019 are corrected data based on sample observations where such data are available.

<sup>20</sup> The employment conditions DI for small nonmanufacturing enterprises in the September *Tankan* shows the largest net "insufficient employment" since the data started to be compiled.

### Chart 25: Employee Income



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

Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

2. Employee income = total cash earnings ("Monthly Labour Survey") × number of employees ("Labour Force Survey")

3. Figures for establishments in Tokyo with 500 or more employees for 2013/Q1-2019/Q1 in the "Monthly Labour Survey" are corrected data based on sample observations. Figures from 2019/Q2 onward are for all such establishments.

4. Figures from 2016/Q1 are based on continuing observations following the sample revisions of the "Monthly Labour Survey."

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

### Chart 26: Labor Force Participation Rate



Source: Ministry of Internal Affairs and Communications.

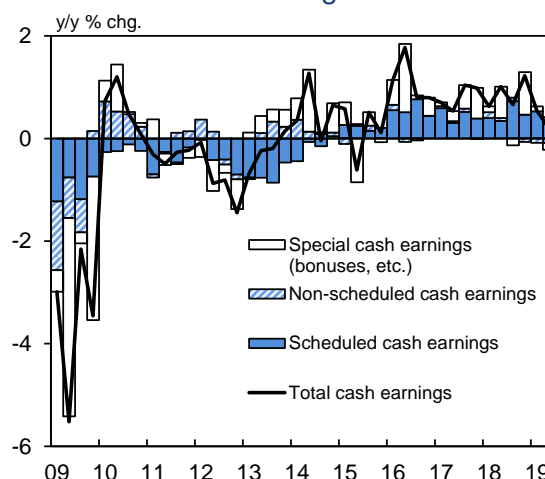
Note: The figure for 2019/Q3 is the July-August average.

On the wage side, total cash earnings per employee have risen moderately, albeit with fluctuations (Chart 27).<sup>21</sup> However, wage increases have remained relatively weak compared to tight labor market conditions, mainly reflecting the experience of protracted employment adjustments in the past and the high wage elasticity of labor supply in recent years, mainly among women and seniors.<sup>22</sup>

Looking at developments in nominal wages in detail, scheduled cash earnings as a whole have continued to increase moderately, mainly due to a rise in wages of full-time employees (Chart 28). The year-on-year rate of increase in scheduled cash earnings of full-time employees has been in the range of around 0.5-1.0 percent (Chart 29). That in hourly scheduled cash earnings of part-time employees -- which are responsive to labor market conditions -- has continued to register relatively high growth in the range of 2.0-2.5 percent. The year-on-year rate of change in special cash earnings has been slightly negative of late, due to weak summer bonuses affected by a decrease in corporate profits that reflected the slowdown in overseas economies.

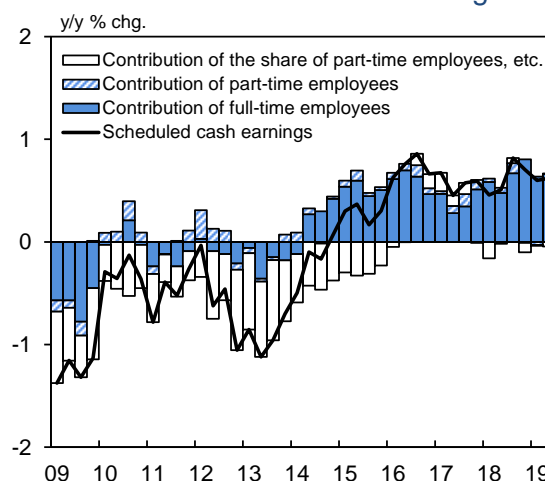
With regard to the outlook for wages, the pace of increase in scheduled cash earnings of full-time employees is expected to accelerate moderately with the inflation rate in the previous fiscal year rising and an improvement in labor productivity

**Chart 27: Nominal Wages**



Source: Ministry of Health, Labour and Welfare.  
 Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.  
 2. Figures for establishments in Tokyo with 500 or more employees for 2013/Q1-2019/Q1 are corrected data based on sample observations. Figures from 2019/Q2 onward are for all such establishments.  
 3. Figures from 2016/Q1 are based on continuing observations following the sample revisions.

**Chart 28: Scheduled Cash Earnings**



Source: Ministry of Health, Labour and Welfare.  
 Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.  
 2. Figures for establishments in Tokyo with 500 or more employees for 2013/Q1-2019/Q1 are corrected data based on sample observations. Figures from 2019/Q2 onward are for all such establishments.  
 3. Figures from 2016/Q1 are based on continuing observations following the sample revisions.

<sup>21</sup> Wages in the *Monthly Labour Survey* are assessed on the basis of continuing observations, which are less affected by the sample revisions.

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



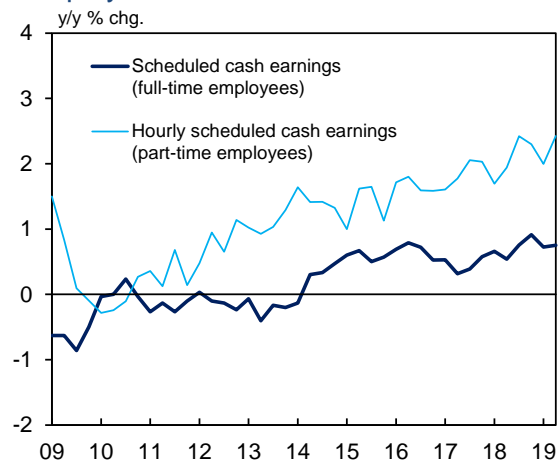
becoming more evident. The rate of increase in hourly scheduled cash earnings of part-time employees is also likely to accelerate steadily in response to tight labor market conditions and an increase in minimum wages. Under this situation, overall employees' hourly cash earnings are projected to increase moderately at almost the same pace as labor productivity growth in nominal terms.

In light of the aforementioned employment and wage conditions, employee income is likely to increase steadily, and the pace is expected to be about the same as the nominal GDP growth rate. As a result, the labor share is projected to generally remain at around the current level (Chart 30).

### Household Spending

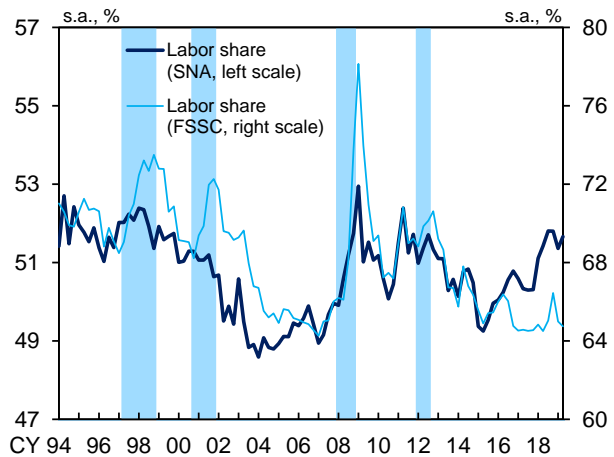
Private consumption has been increasing moderately, albeit with fluctuations due to such effects as of the consumption tax hike, against the background of steady improvement in the employment and income situation.<sup>23</sup> The rate of increase in the Consumption Activity Index (CAI, travel balance adjusted) -- which is calculated by combining various sales and supply-side statistics from the viewpoint of gauging Japan's consumption activity in a comprehensive manner

**Chart 29: Wages of Full-Time and Part-Time Employees**



Source: Ministry of Health, Labour and Welfare.  
 Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.  
 2. Figures for establishments in Tokyo with 500 or more employees for 2013/Q1-2019/Q1 are corrected data based on sample observations. Figures from 2019/Q2 onward are for all such establishments.  
 3. Figures from 2016/Q1 are based on continuing observations following the sample revisions.

**Chart 30: Labor Share**



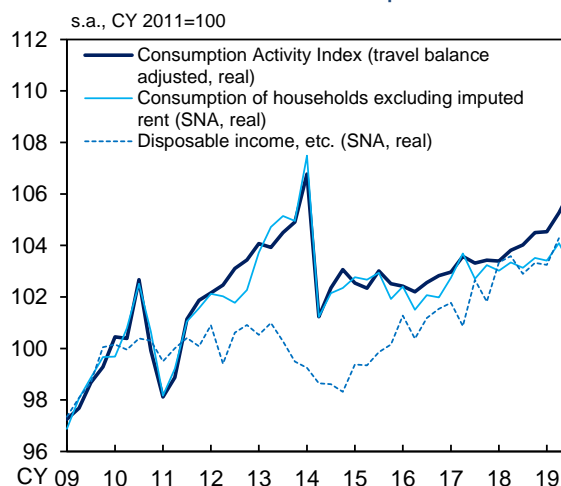
Sources: Cabinet Office; Ministry of Finance.  
 Notes: 1. Labor share (SNA) = compensation of employees / nominal GDP × 100  
 2. The labor share (FSSC) is based on the "Financial Statements Statistics of Corporations by Industry, Quarterly (FSSC)" and excludes "finance and insurance." Figures from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

<sup>23</sup> Box 6 compares fluctuations in demand prior to the latest consumption tax hike with those of the previous tax hike in April 2014. Looking at developments in durable goods, the increase in demand was observed mainly in September, which was just before the tax hike, and taking account of developments during several months before September, the overall increase has been limited compared to that of the previous tax hike. As a result, the increase in demand for goods as a whole appears to have remained small compared to that of the previous tax hike.

-- has accelerated of late (Charts 31 and 32).<sup>24,25</sup>

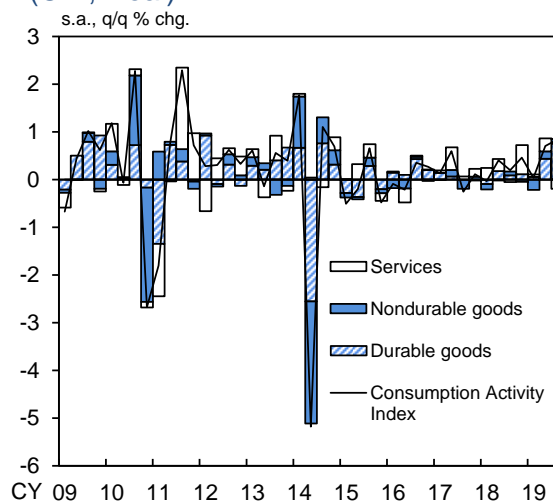
Looking at private consumption by type on a monthly basis, the pace of increase in durable goods has accelerated, led by household electrical appliances, partly reflecting the increase in demand prior to the tax hike (Chart 33). Sales of automobiles have risen due to such effects as of the introduction of new car models and also partly reflecting the increase in demand prior to the tax hike. Sales of household electrical appliances declined temporarily in July due to weak sales, such as of air conditioners, reflecting irregular weather, but registered a relatively large increase in September, partly due to the increase in demand prior to the tax hike for such items as televisions and personal computers. Services consumption has maintained its moderate increasing trend, reflecting a trend rise led by communications and medical care. Travel has decreased recently due to the reactionary decline to the increase observed during the long holiday period from end-April through early May and to the effects of irregular weather around summer (Chart 34). Dining-out has been on a moderate uptrend, led mainly by fast food, when fluctuations are smoothed out.<sup>26</sup>

**Chart 31: Private Consumption**



Sources: Bank of Japan; Cabinet Office, etc.  
 Notes: 1. The Consumption Activity Index is based on staff calculations (as of October 30). Figures for the Consumption Activity Index (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption.  
 2. The figure for consumption of households excluding imputed rent for 2019/Q3 is based on staff calculations using the "Synthetic Consumption Index" (August).  
 3. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements." Real values are obtained using the deflator of consumption of households.

**Chart 32: Consumption Activity Index (CAI, Real)**



Sources: Bank of Japan, etc.  
 Notes: 1. The Consumption Activity Index is adjusted for the travel balance. Based on staff calculations (as of October 30). Figures for the components are not adjusted for the travel balance.  
 2. Nondurable goods include goods classified as "semi-durable goods" in the SNA.

<sup>24</sup> Regarding the CAI, see the Bank's research paper "Revision of the Consumption Activity Index to Address the 2008 SNA and Improve Accuracy" published in April 2018.

<sup>25</sup> As the Cabinet Office started to release the quarterly estimates of household disposable income and saving rate in August 2019 (available only in Japanese), nominal "disposable income, etc." in Charts 31 and 36 has been changed from figures based on BOJ staff estimates to those released by the Cabinet Office.

<sup>26</sup> Meanwhile, nondurable goods had remained on a moderate downtrend, mainly due to a decline in sales of tobacco, but recently have registered a relatively large increase owing to a rise in purchases prior to the consumption tax hike of high-end products (cosmetics and luxury goods), goods related to daily necessities, and alcohol.

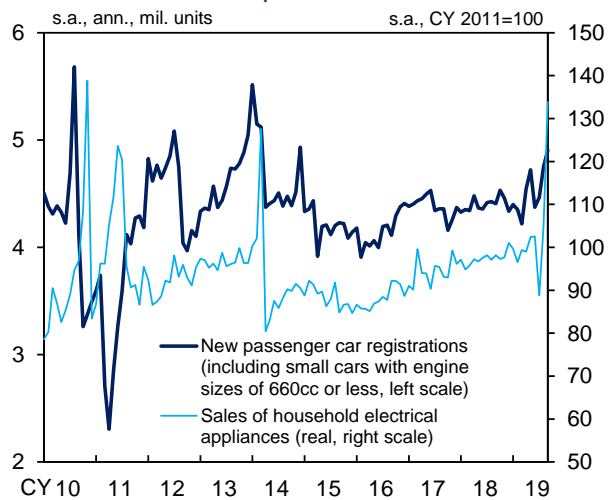


Looking at confidence indicators related to private consumption, the Consumer Confidence Index has deteriorated, mainly due to heightening concern regarding overall inflation that results from such factors as a recent rise in prices of food products and the tax hike, and to uncertainties over the outlook for economic activity (Chart 35). The *Economy Watchers Survey* also suggests that consumer confidence had continued to deteriorate, but it has improved recently, due partly to an increase in sales prior to the tax hike.

In the outlook, private consumption is likely to decline temporarily, pushed down by the reactionary decline to the increase in demand prior to the tax hike and the decrease in real income, although it is expected to be underpinned in the short run by various measures implemented to support households accompanying the tax hike. However, compared with the previous tax hike, the decline in private consumption since October is likely to be small as the degree of increase in demand prior to the hike this time has been constrained and the increase in the net burden on households is small. Thereafter, private consumption is expected to continue on a moderate increasing trend, supported by the increase in employee income and by the wealth effects stemming from a rise in stock prices. The propensity to consume is projected to be more or less flat, albeit with fluctuations resulting from the tax hike (Chart 36).

Housing investment has been more or less flat (Chart 37). Looking at the number of housing starts -- a leading indicator of housing investment -- owned houses and detached houses built for

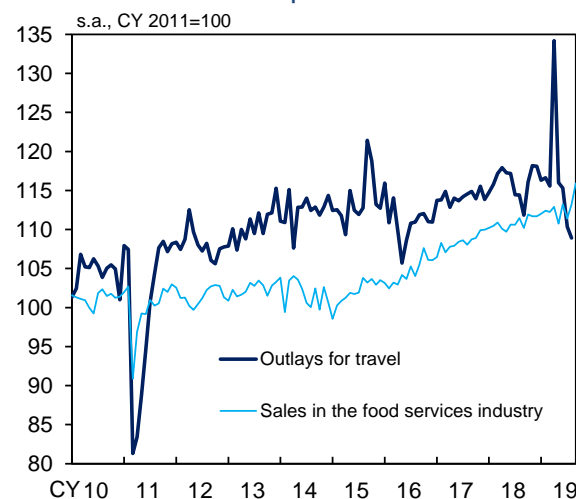
**Chart 33: Consumption of Durable Goods**



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

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

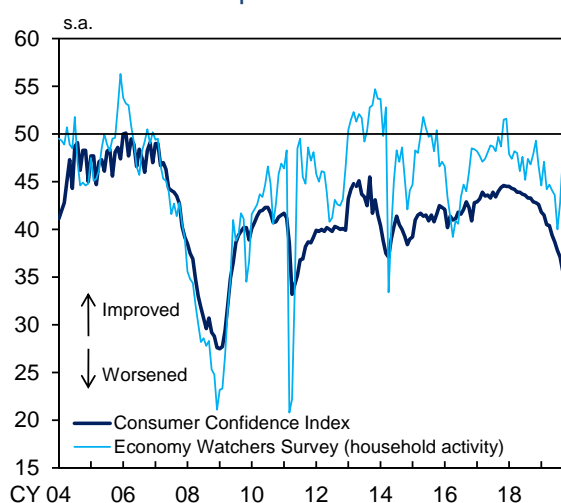
**Chart 34: Consumption of Services**



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

Note: Figures for the outlays for travel exclude those by foreign travelers.

**Chart 35: Confidence Indicators Related to Private Consumption**



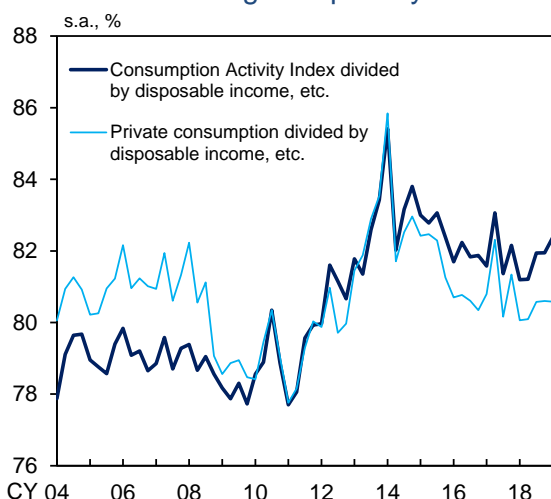
Source: Cabinet Office.

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

sale increased through around June due to the effects of the increase in demand prior to the tax hike, but there already has been a reactionary decline to the increase in demand recently. Housing for rent has continued on a downtrend, mainly against the background of waning demand for tax saving and asset management as well as cautious lending attitudes of financial institutions.

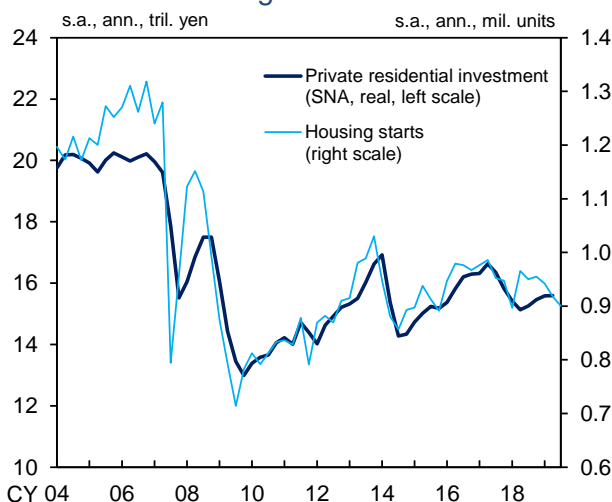
As for the outlook, although housing investment is projected to decline temporarily in the short run due to the effects of the tax hike, it is expected to remain more or less flat when fluctuations are smoothed out, underpinned by an improvement in the employment and income situation, low housing loan rates, and various support measures taken accompanying the tax hike.

**Chart 36: Average Propensity to Consume**



Sources: Bank of Japan; Cabinet Office, etc.  
 Notes: 1. The Consumption Activity Index is adjusted for the travel balance. Based on staff calculations (as of October 30).  
 2. Private consumption is consumption of households excluding imputed rent.  
 3. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements."

**Chart 37: Housing Investment**



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.  
 Note: The figure for 2019/Q3 is the July-August average.

## II. Current Situation of Prices and Their Outlook

### Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has decreased on a quarter-on-quarter basis, reflecting developments in international commodity prices and foreign exchange rates (Chart 38). The year-on-year rate of increase in the services producer price index (SPPI, excluding international transportation) has decelerated from the end of last year, being at around 0.5 percent recently, although price rises that reflect increases in personnel expenses and distribution costs have been seen (Chart 38).<sup>27</sup>

The year-on-year rate of change in the CPI (all items less fresh food and energy) is at around 0.5 percent and that in the CPI (all items less fresh food) is in the range of 0.0-0.5 percent (Charts 40 and 41).<sup>28</sup> The developments in the indicators for capturing the underlying trend in the CPI are as follows (Chart 42). The rate of change in the trimmed mean has been in the range of 0.0-0.5 percent recently.<sup>29</sup> While the mode has been in the range of 0.0-0.5 percent of late, the weighted

<sup>27</sup> Under these circumstances, both the input prices DI and the output prices DI in the *Tankan* had remained on an uptrend, but the net "rise" has decreased recently, partly reflecting the decline in commodity prices such as crude oil prices (Chart 39).

<sup>28</sup> The charts using the CPI figures for all prefectures are based on the data available at the time when the figures for September 2019 were released.

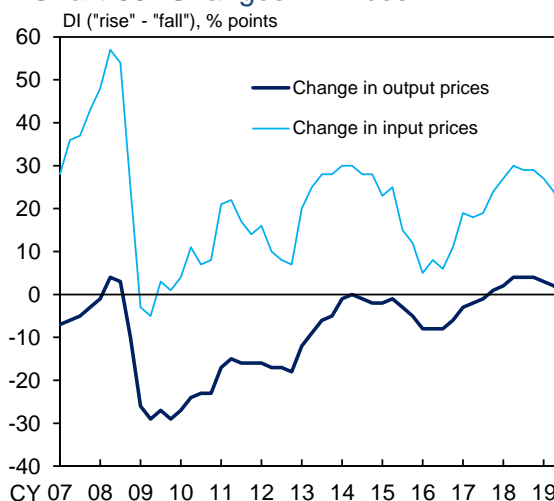
<sup>29</sup> The effects of large relative price fluctuations are eliminated by excluding items that belong to a certain percentage of the upper and lower tails of the price fluctuation distribution (10 percent of each tail in this report).

**Chart 38: Inflation Indicators**

	y/y % chg.			
	18/Q4	19/Q1	19/Q2	19/Q3
Consumer Price Index (CPI)				
Less fresh food	0.9	0.8	0.8	0.5
Less fresh food and energy	0.3	0.4	0.5	0.6
Producer Price Index (q/q % chg.)	0.4	-0.8	0.4	-0.9
Services Producer Price Index	1.2	1.1	0.9	0.5
GDP deflator	-0.3	0.1	0.4	
Domestic demand deflator	0.5	0.3	0.4	

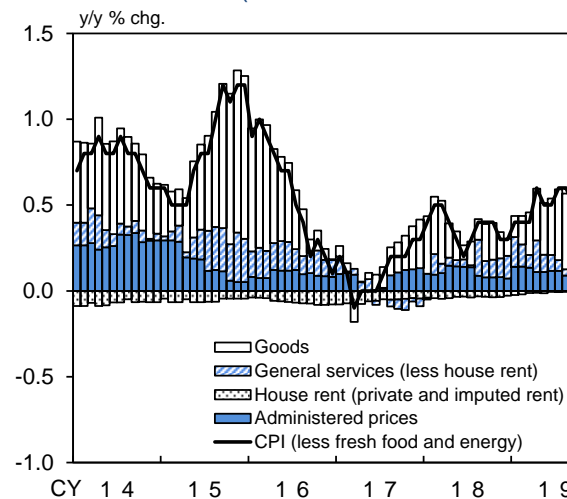
Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.  
Notes: 1. Figures for the Producer Price Index are adjusted to exclude the hike in electric power charges during the summer season.  
2. Figures for the Services Producer Price Index exclude international transportation.

**Chart 39: Changes in Prices**



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

**Chart 40: 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.

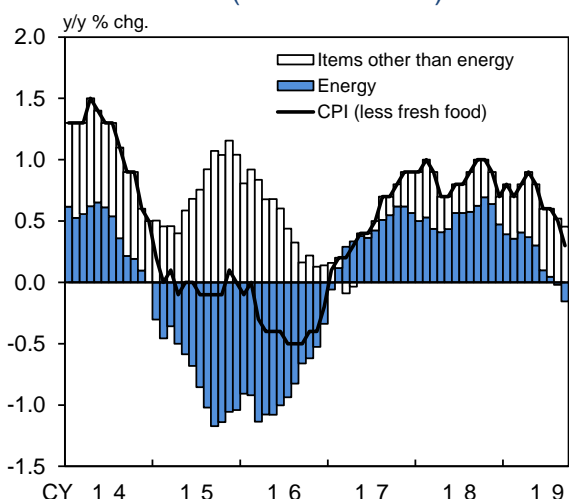
median has decreased to around 0 percent.<sup>30</sup>

Compared to the economic expansion and tight labor market conditions, the trend inflationary pressure on the CPI has remained relatively weak. This basically has continued to be affected partly by the fact that the mindset and behavior based on the assumption that wages and prices will not increase easily have been deeply entrenched among firms and households, due mainly to the experience of prolonged low growth and deflation.<sup>31</sup> Under these circumstances, firms' cautious wage- and price-setting stance, as well as households' cautiousness toward price rises, have not yet clearly changed. Firms have been making efforts to absorb a rise in labor costs by increasing labor-saving investment and streamlining their business process while limiting wage increases -- which correspond to 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, recently has been negative and has continued to contribute to pushing down price rises (Chart 43). In addition, the following factors have been constraining overall inflation: sectoral shocks

<sup>30</sup> The mode is the inflation rate with the highest density in the price fluctuation distribution. The weighted median is the average of the inflation rates of the items at around the 50 percentile point of the cumulative distribution in terms of weight.

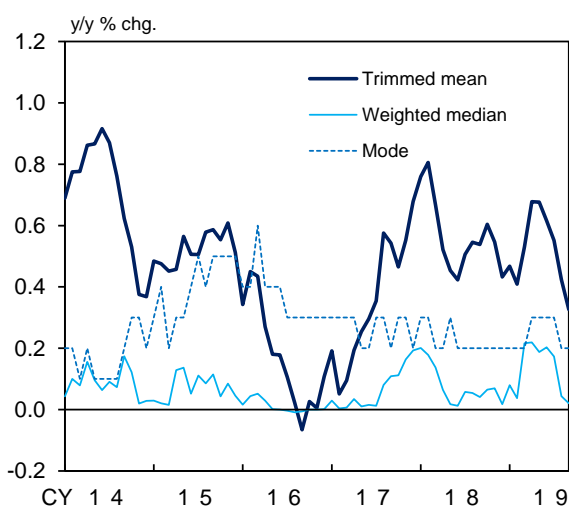
<sup>31</sup> At the 8th conference co-hosted by the Center for Advanced Research in Finance (CARF) of the University of Tokyo and the Research and Statistics Department of the Bank of Japan held on April 15, 2019, many participants expressed the view that Japan's experience of prolonged deflation amid hysteresis in forming inflation expectations explains why the price stability target of 2 percent has not yet been achieved. For details, see the Bank's research paper "Report on the 8th Conference Co-Hosted by the Center for Advanced Research in Finance (CARF) of the University of Tokyo and the Research and Statistics Department of the Bank of Japan: Discussion over Inflation Dynamics in Recent Years Focusing on Japan's Experience" published in June 2019 (available only in Japanese).

**Chart 41: CPI (less fresh food)**



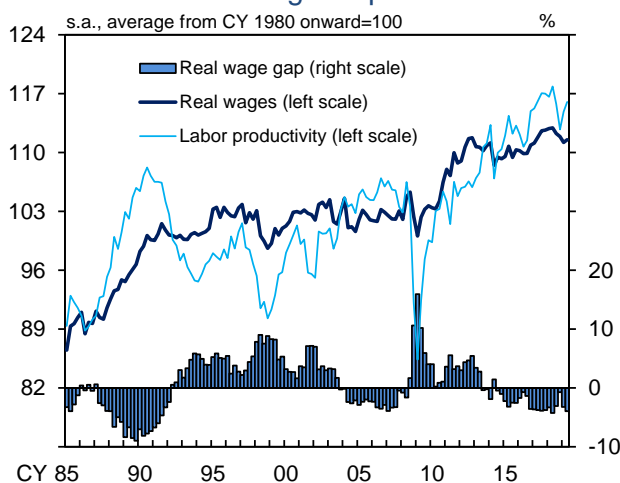
Source: Ministry of Internal Affairs and Communications.  
Notes: 1. Energy consists of petroleum products, electricity, and gas, manufactured & piped.  
2. The CPI figures are adjusted for changes in the consumption tax rate.

**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).

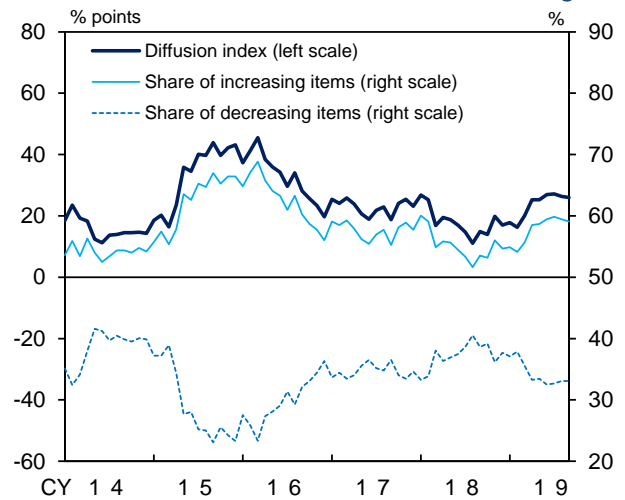
**Chart 43: Real Wage Gap**



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

such as declines in (1) prices, mainly at supermarkets, resulting from intensifying competition with other types of retail businesses and (2) prices of some items, including mobile-phone related prices, that have a large weight in the CPI; and the continued lackluster developments in administered prices and housing rent. It has been taking time to resolve these factors that have been delaying price rises. Nonetheless, in the face of upward pressure, such as of personnel expenses and distribution costs, firms' moves to raise their prices have been spreading of late, albeit at a gradual pace. In fact, looking at annual price changes across all CPI items (less fresh food), the share of price-increasing items minus the share of price-decreasing items has been on an uptrend (Chart 44).

**Chart 44: Diffusion Index of Price Changes**



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

The year-on-year rate of change in the GDP deflator has been at around 0.5 percent on the whole, due mainly to a rise in the domestic demand deflator (Chart 38). The year-on-year rate of change in the domestic demand deflator has been at around 0.5 percent, mainly led by the private consumption deflator.

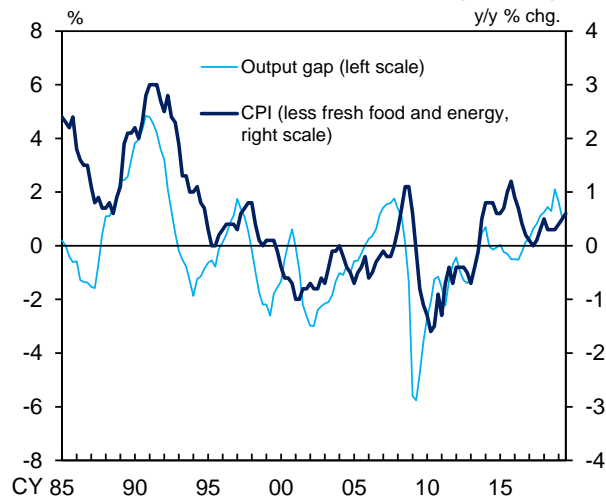
## Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the positive output gap for the April-June quarter has narrowed somewhat, as the utilization rates in some nonmanufacturing industries, while being at high levels, have declined. However, the output gap has remained substantially positive, being at around 1 percent (Charts 4 and 45). With regard to the outlook, the positive output gap is expected to narrow temporarily due to such effects as of the slowdown in overseas economies and the consumption tax hike, but it is likely to widen fairly moderately thereafter through the end of the projection period with the economic growth rate somewhat exceeding its potential.

Second, medium- to long-term inflation expectations have been more or less unchanged recently (Charts 46 and 47). As for the outlook, such expectations are likely to follow an increasing trend and gradually converge to 2 percent on the back of the following: (1) in terms of the adaptive component, as further price rises come to be observed widely with the output gap remaining positive, inflation expectations are likely to be pushed up through a rise in the observed inflation rate, and (2) in terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target, which will be effective in pushing up inflation expectations toward 2 percent.<sup>32</sup>

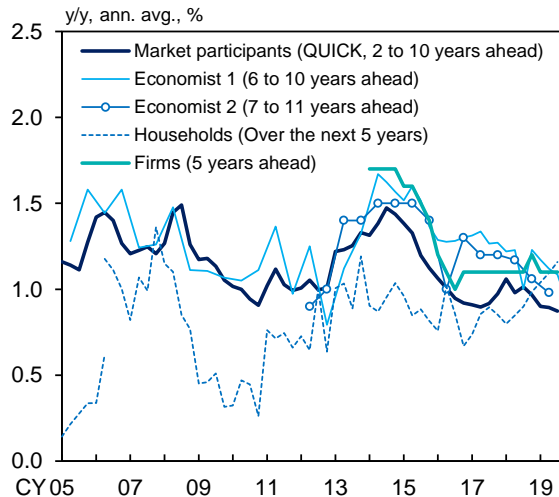
<sup>32</sup> Box 7 examines developments in inflation expectations.

### Chart 45: Inflation Rate and Output Gap



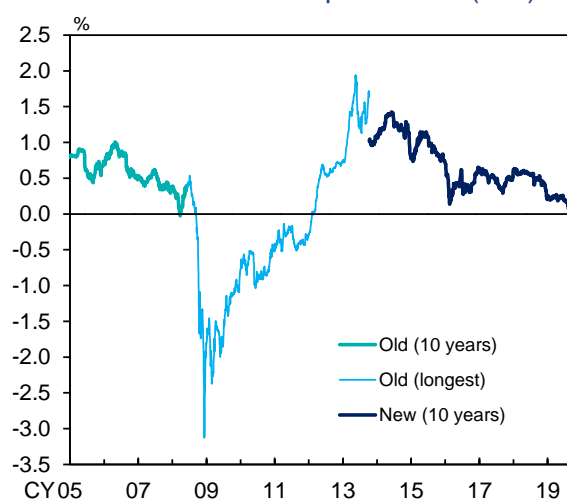
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.  
Notes: 1. The CPI figures are adjusted for changes in the consumption tax rate.  
2. The output gap is based on staff estimations.

### Chart 46: Inflation Expectations (Survey)



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

### Chart 47: Inflation Expectations (BEI)



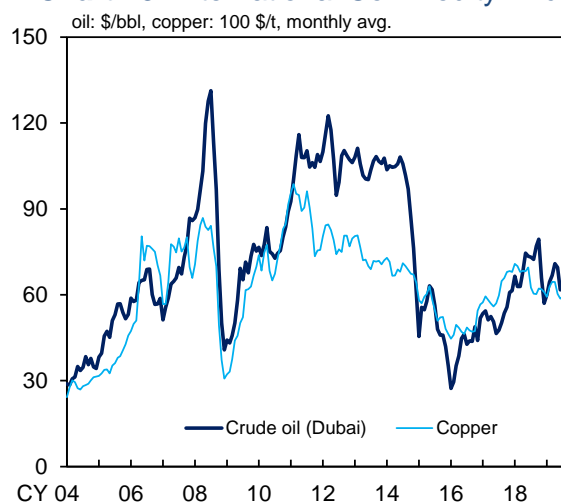
Source: Bloomberg.  
Note: BEI (break-even inflation) rates are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated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

The third factor is developments in import prices. The past decline in crude oil prices is likely to push down the CPI to some degree through the decline in energy prices for the time being (Chart 48). Thereafter, however, the effects of such downward pressure are expected to diminish gradually.

### Outlook for Prices

The outlook for the year-on-year rate of increase in the CPI (all items less fresh food and energy) in the short run is likely to be as follows. (1) It is expected that durable goods will be somewhat weak due to a decline in sales after the consumption tax hike, and the price-setting stance of dining-out, to which a reduced tax rate was not applied, will become cautious reflecting price competition with ready-made meals. However, (2) moves to pass on the increases in costs of raw materials and personnel expenses to prices of goods and services, such as food products, goods related to daily necessities, and housework-related services, are expected to continue. Moreover, (3) rises in fire insurance premiums, accident insurance premiums, and medical treatment fees also are projected to push up the CPI.<sup>33</sup> On the back of these factors, the year-on-year rate of increase in the CPI (all items less fresh food and energy) is likely to accelerate. Thereafter, as firms' stance shifts toward further raising wages and prices and households' tolerance of price rises increases with the output gap remaining positive, inflation expectations are projected to rise gradually and the year-on-year rate of change in the CPI (all items less fresh food

**Chart 48: International Commodity Prices**



<sup>33</sup> In addition, in net terms, the consumption tax hike and the provision of free education are likely to exert upward pressure on the CPI.



and energy) also is likely to increase gradually toward 2 percent.

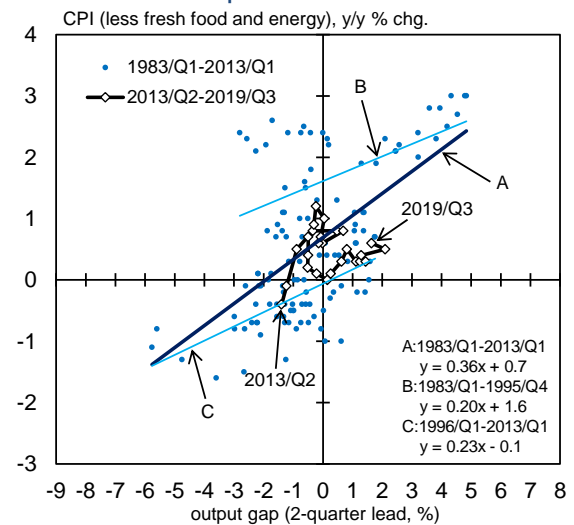
The year-on-year rate of change in the CPI (all items less fresh food) is likely to remain positive at around the current level for the time being, while a decline in energy prices, such as of electricity, will contribute to exerting downward pressure. Thereafter, the rate of change is projected to increase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

Such projections are made based on the underlying scenario that, (1) with the output gap remaining substantially positive, (2) the Phillips curve gradually will shift upward as inflation expectations rise through both the forward-looking and adaptive expectation formation mechanisms (Chart 49).

Comparing the current projections through fiscal 2021 with the previous ones, the projected rates of increase in the CPI (all items less fresh food) are lower, mainly for the first half of the projection period, reflecting such factors as the decline in crude oil prices.

In the long run, real wages -- which are determined by the balance between prices and nominal wages -- will be consistent with labor productivity (Chart 43). Under the baseline scenario, the pace of increase in real wages is expected to accelerate gradually, catching up with

**Chart 49: Phillips Curve**



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



the improvement in labor productivity. That is, with corporate profits at around historical high levels, the rate of increase in nominal wages is projected to outpace that in the CPI, reflecting tight labor market conditions. Such a rise in real wages is likely to push up consumption through an improvement in household income and increase households' tolerance of price rises, thereby contributing to a rise in the CPI.

### III. Financial Developments in Japan

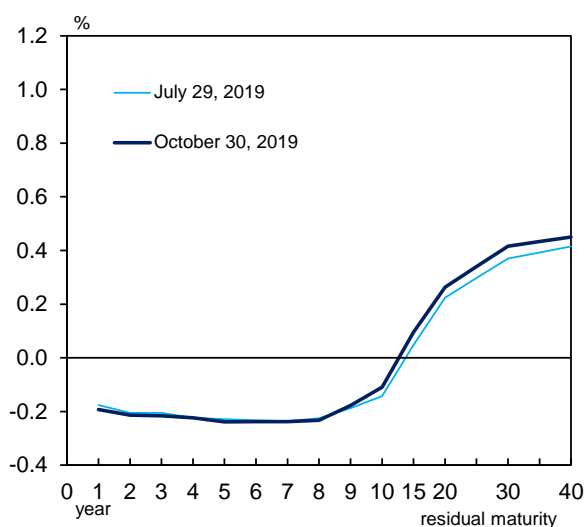
#### Financial Conditions

Financial conditions are highly accommodative.

Under "QQE with Yield Curve Control," the yield curve for Japanese government bonds (JGBs) has been in line with the current guideline for market operations, in which the short-term policy interest rate is set at minus 0.1 percent and the target level of 10-year JGB yields is around zero percent (Chart 50). That is, the yields for relatively short maturities have been in slightly negative territory. The 10-year JGB yields have been at around 0 percent, although they decreased temporarily along with the declines in U.S. and European interest rates that mainly reflected heightening tension over the U.S.-China trade friction as well as concern regarding the slowdown in the global economy. Meanwhile, although the 20-year JGB yields declined temporarily along with the 10-year yields, they have been in the range of 0.0-0.5 percent.

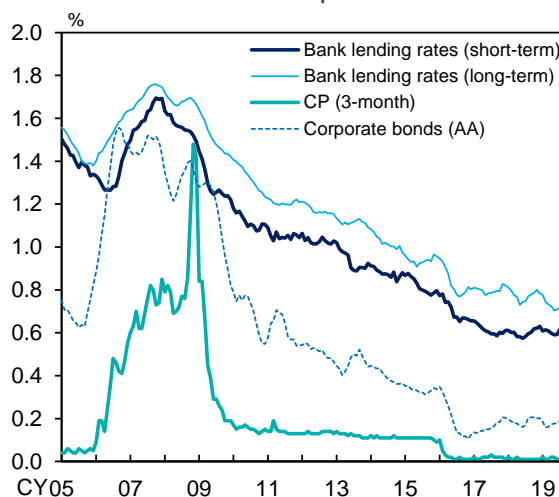
Firms' funding costs have been hovering at extremely low levels (Chart 51). Issuance rates for CP have remained at extremely low levels, and indices such as the DI in the *Tankan* suggest that conditions for its issuance have been favorable. Issuance rates for corporate bonds also have remained at extremely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

Chart 50: Yield Curves



Source: Bloomberg.

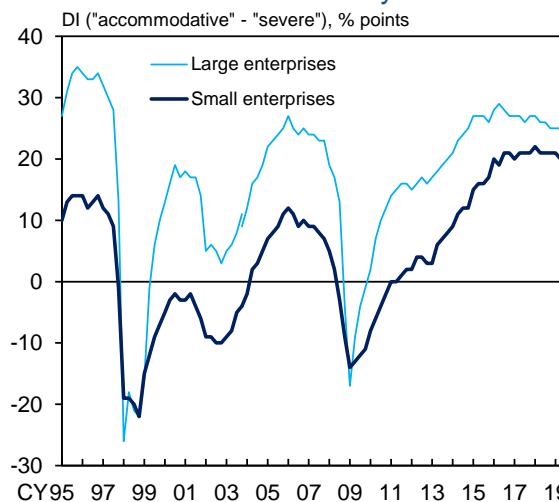
Chart 51: Bank Lending Rates and Issuance Yields for CP and Corporate Bonds



Sources: Bank of Japan; Japan Securities Depository Center; Capital Eye; I-N Information Systems; Bloomberg.

- Notes: 1. Figures for issuance yields for CP up to September 2009 are the averages for CP (3-month, rated a-1 or higher). Those from October 2009 are the averages for CP (3-month, rated a-1).  
 2. Figures for issuance yields for corporate bonds are the averages for domestically issued bonds launched on a particular date. Bonds issued by banks and securities companies, etc., are excluded.  
 3. Figures for bank lending rates and issuance yields for corporate bonds show 6-month backward moving averages.

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



Source: Bank of Japan.

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

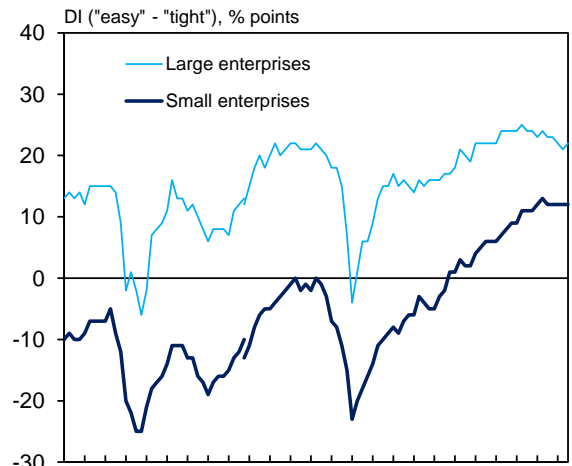
With regard to the availability of funds for firms, the DI in the *Tankan* for financial institutions' lending attitudes as perceived by firms suggests that their lending attitudes have been highly accommodative; the DI for large firms has been at a high level of around the peak in the mid-2000s, and that for small firms has been at a high level last seen at the end of the 1980s (Chart 52). Firms' financial positions have been favorable, as suggested by the DI for large firms in the *Tankan* having been at a high level of around the peak in the mid-2000s, and that for small firms having been at about the same high level seen around 1990 (Chart 53).

Demand for funds such as those for business fixed investment, as well as those related to mergers and acquisitions of firms, has increased. In these circumstances, the year-on-year rate of increase in the amount outstanding of bank lending has been in the range of 2.0-2.5 percent (Chart 54). That in the aggregate amount outstanding of CP and corporate bonds has exceeded 10 percent, being at a relatively high level.

The year-on-year rate of increase in the monetary base has been at around 3 percent, and its amount outstanding as of end-September was 520 trillion yen, of which the ratio to nominal GDP was 94 percent.<sup>34</sup> The year-on-year rate of increase in the money stock (M2) has been at around 2.5 percent, partly reflecting an increase in bank lending (Chart 55).

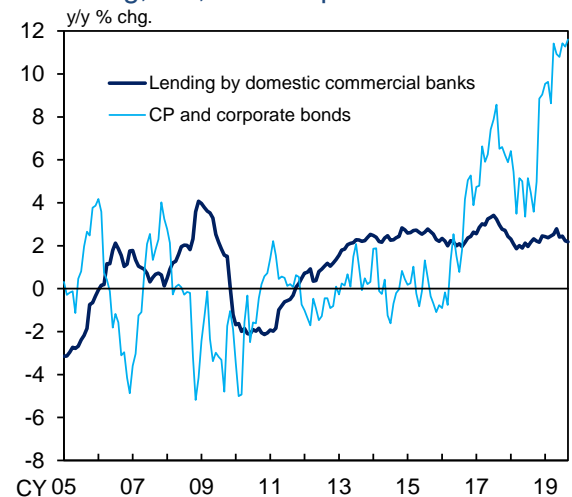
<sup>34</sup> It is assumed that the figure for nominal GDP is unchanged from the April-June quarter of 2019.

**Chart 53: Financial Position**



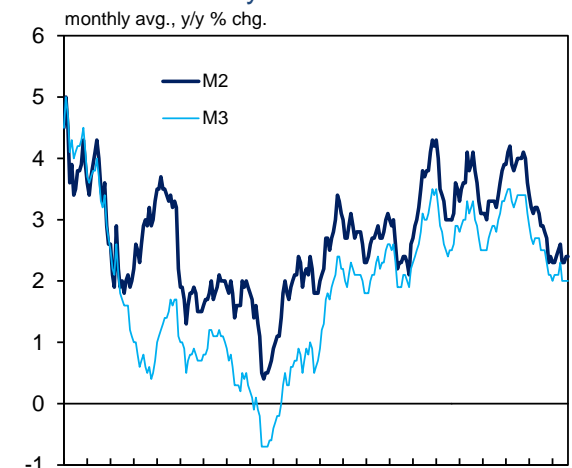
CY95 97 99 01 03 05 07 09 11 13 15 17 19  
Source: Bank of Japan.  
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

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



CY 05 07 09 11 13 15 17 19  
Sources: Bank of Japan; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.  
Note: Figures for lending by domestic commercial banks are monthly averages. Figures for CP and corporate bonds are those at the end of period.

**Chart 55: Money Stock**



CY98 00 02 04 06 08 10 12 14 16 18 19  
Source: Bank of Japan.

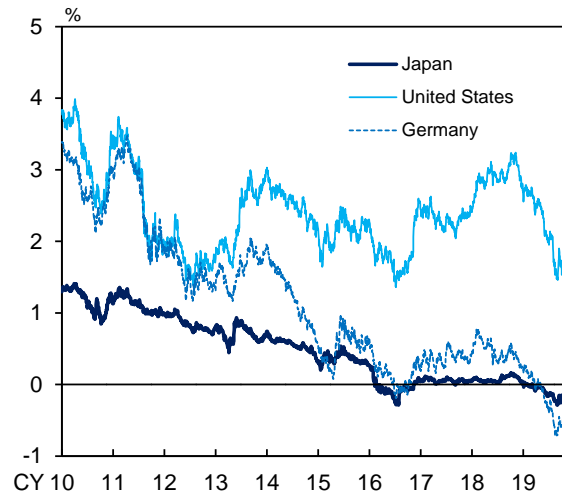
## Developments in Financial Markets

With regard to developments in global financial markets, after the turn of August, there were temporary declines in stock prices and long-term interest rates in many economies, due mainly to the heightening tension over the U.S.-China trade friction as well as concern regarding the slowdown in the global economy. Subsequently, stock prices and long-term interest rates have risen, albeit with fluctuations, mainly reflecting expectations for progress in U.S.-China trade negotiations.

Yields on 10-year government bonds in the United States declined temporarily after the turn of August, due mainly to the heightening tension over the U.S.-China trade friction, concern regarding the slowdown in the global economy, and speculation about monetary easing by the Federal Reserve (Chart 56). They subsequently have risen, mainly reflecting expectations for progress in U.S.-China trade negotiations. Yields on 10-year government bonds in Germany had decreased generally in line with those in the United States, declining temporarily to the historical low level of the range of minus 0.7-0.8 percent in late August. They subsequently have risen, mainly reflecting expectations for progress in U.S.-China trade negotiations and developments in the United Kingdom's exit from the EU.

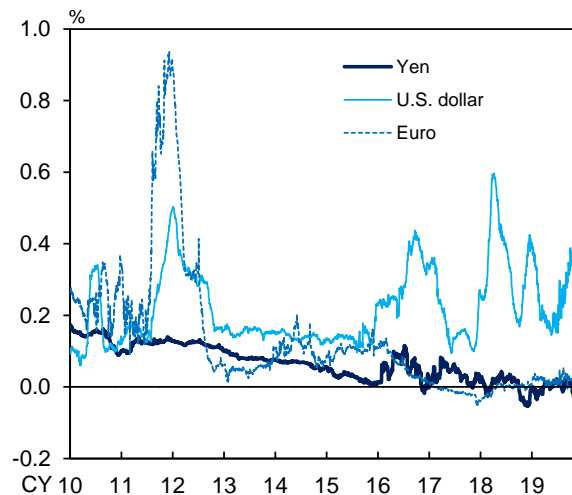
With regard to the LIBOR-OIS spreads for major currencies, those for the U.S. dollar have widened somewhat, partly due to the effects of the increased issuance of U.S. Treasury bills, while those for the euro and the yen have remained at

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



Source: Bloomberg.

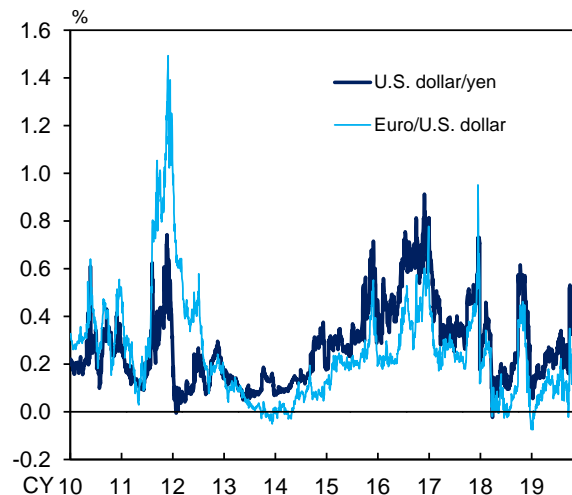
**Chart 57: LIBOR-OIS Spreads**



Source: Bloomberg.

Note: LIBOR-OIS spreads are LIBOR (3-month) minus yields on overnight index swaps (3-month).

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



Source: Bloomberg.

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

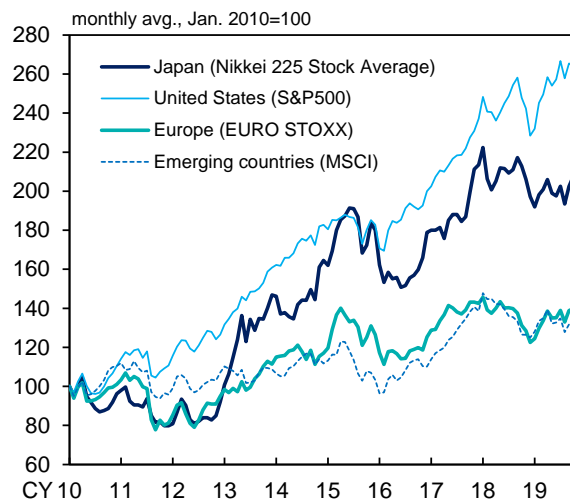
low levels (Chart 57). Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market have risen since end-September, partly against the background of transactions conducted in view of the year-end (Chart 58).

Regarding the stock market, stock prices in the United States fell temporarily after the turn of August, due mainly to an increase in investors' risk aversion that reflected the heightening tension over the U.S.-China trade friction. Subsequently, they have risen, albeit with fluctuations, partly because risk sentiment has improved, mainly reflecting expectations for progress in U.S.-China trade negotiations (Chart 59). Stock prices in Europe and Japan fell and subsequently have started to rise, along with those in the United States.

In the Japan real estate investment trust (J-REIT) market, prices have risen (Chart 60).

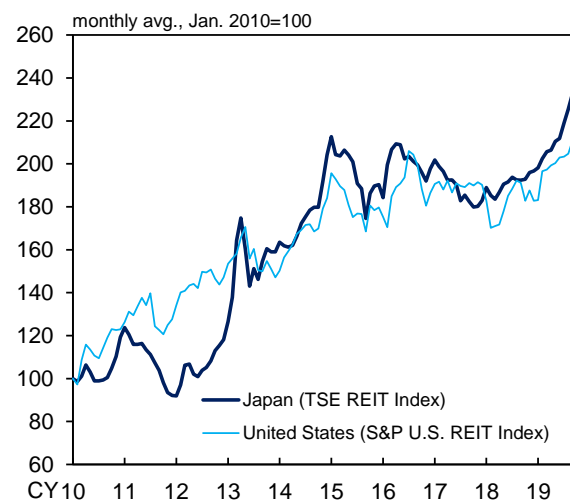
In foreign exchange markets, while the yen appreciated temporarily against the U.S. dollar and the euro, mainly against the background of the increase in investors' risk aversion, it subsequently has depreciated, due mainly to an improvement in risk sentiment (Chart 61).

**Chart 59: Selected Stock Prices**



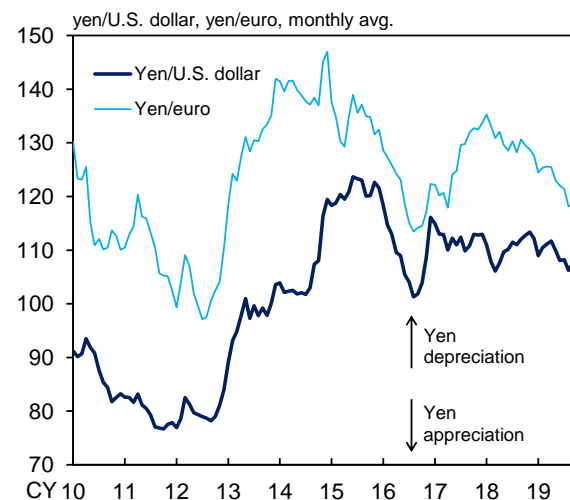
Source: Bloomberg.  
Note: Figures for emerging countries are based on the MSCI Emerging Markets Index calculated in the local currencies.

**Chart 60: Selected REIT Indices**



Source: Bloomberg.

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

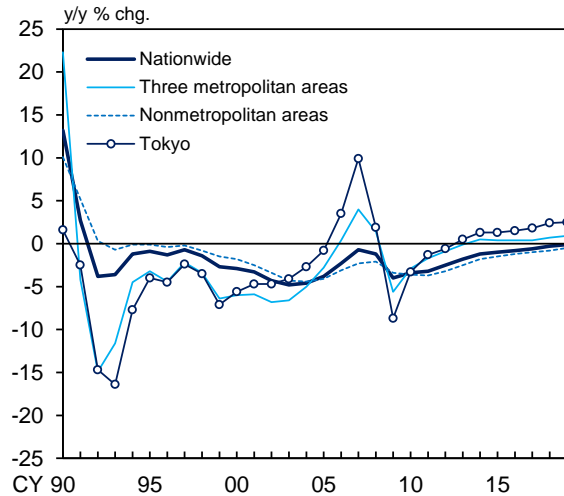


Source: Bloomberg.

## Land Prices

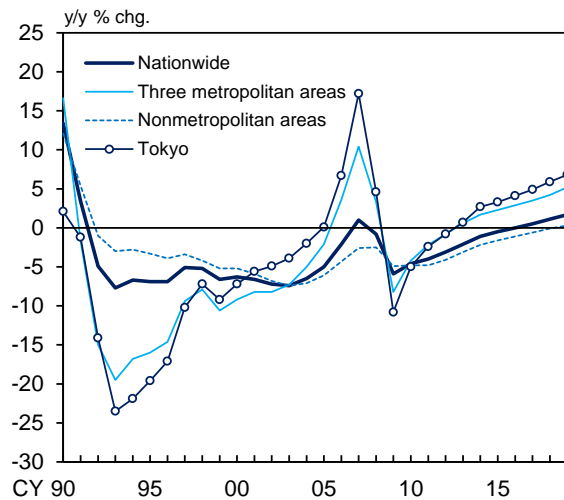
Land prices as a whole have been rising moderately. According to the *Land Price Research by Prefectural Governments* for 2019 (as of July 1), while the year-on-year rate of decline in residential land prices has decelerated to around 0 percent, the rate of increase in commercial land prices has accelerated (Charts 62 and 63). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rate of increase in both commercial and residential land prices has accelerated. In nonmetropolitan areas, the year-on-year rate of change in commercial land prices has turned positive for the first time in 28 years, and the rate of decline in residential land prices has continued to decelerate.

### Chart 62: Residential Land Prices



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

### Chart 63: Commercial Land Prices



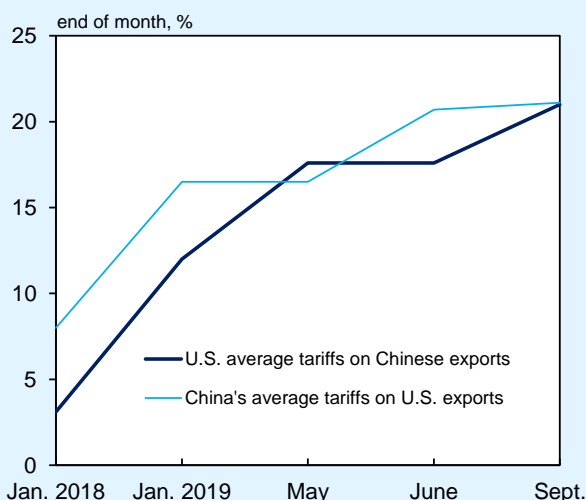
Source: Ministry of Land, Infrastructure, Transport and Tourism.  
 Notes: 1. Based on the "Land Price Research by Prefectural Governments." Figures are as of July 1.  
 2. Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo,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

## (Box 1) Factors behind the Delay in the Timing of a Pick-Up in the Growth Pace of Overseas Economies

The baseline scenario for overseas economies presented in the October 2019 Outlook Report is that the growth pace is likely to pick up after a period of continued slowdowns. However, it is expected that the timing of a pick-up will be delayed compared to that forecasted in the previous Outlook Report. The main factors behind this delay are (1) the impact of the intensified and prolonged U.S.-China trade friction and (2) the fact that it has been taking some time for the effects of China's fiscal policy to materialize.

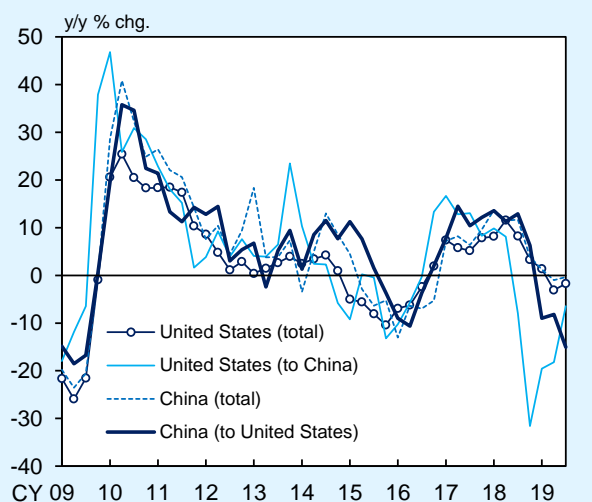
With regard to the U.S.-China trade friction, it seems to be intensifying and becoming prolonged as both countries have increased the size of additional tariffs incrementally (Chart B1-1). Under the circumstances, trade activities in the United States and China have been more or less flat, reflecting the decline in the trade volume between them (Chart B1-2). Amid heightening uncertainties such as over trade policy, manufacturers' sentiment has deteriorated and their fixed investment has been somewhat weak (Charts B1-3 and B1-4). This situation in the manufacturing sector caused by the U.S.-China trade friction was pointed out already as a global phenomenon in the previous Outlook Report. The intensified and prolonged U.S.-China trade friction is likely to exert downward pressure on the economy for longer than expected, thereby delaying the timing of a pick-up in overseas economies.

**Chart B1-1: Average Tariffs of the United States and China**



Source: Bown, Chad P. 2019. "US-China Trade War Tariffs: An Up-to-Date Chart." PIIE Chart, Peterson Institute for International Economics, October 11, 2019. <https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date-chart>.

**Chart B1-2: Nominal Exports of the United States and China**



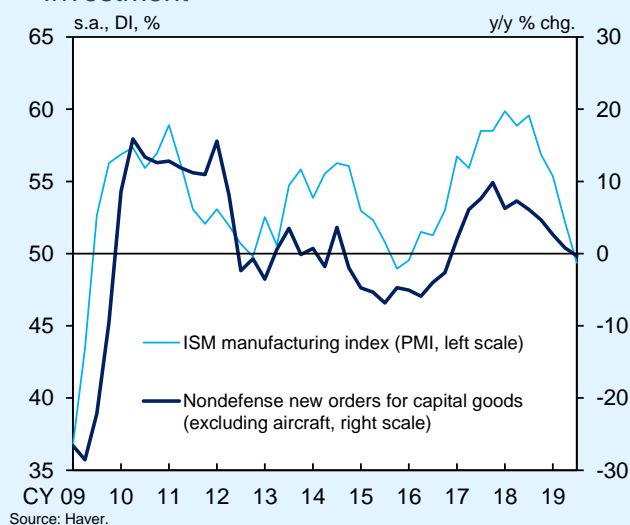
Sources: Haver, CEIC.  
Note: U.S. dollar basis. Based on staff calculations. The figure for "United States (to China)" for 2019/Q3 is the July-August average.



Regarding China's fiscal policy, the authorities have conducted expansionary measures since the turn of the year with the aim of easing downward pressure on the economy stemming mainly from the U.S.-China trade friction. Such measures include those to reduce corporate burden, such as through tax cuts, and to expand infrastructure investment. The former measures are expected to encourage manufacturers' fixed investment. However, as seen in some weakness in business fixed investment, the effects of the measures have been limited thus far, mainly reflecting the heightening uncertainties mentioned earlier. With regard to the measures for infrastructure investment, local governments' land sales revenues -- which seem to have been allocated to capital for infrastructure investment projects -- have declined, reflecting the central government's stance of attaching importance on deleveraging and stability in real estate prices (Chart B1-5). The issuance of local government special bonds, which is also a means of funding infrastructure investment, has increased; however, this has not necessarily led to an acceleration in the growth rate of infrastructure investment because there are restrictions on the use of funds as capital for investment projects (Chart B1-6).

Thus, regarding the effects of China's expansionary fiscal policy, there has been some delay in their materialization. However, these are expected to materialize gradually. The central government has eased the restrictions on local government special bonds recently by, for example, partly allowing their use as capital. In addition, regarding monetary policy, measures to increase lending to manufacturing firms have been implemented in an incremental manner --

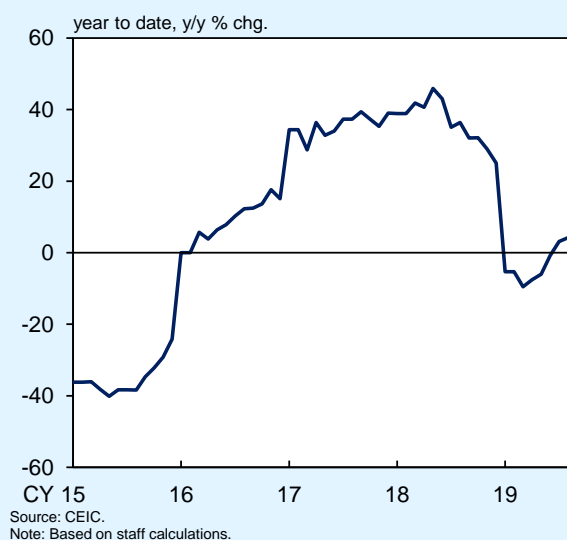
**Chart B1-3: U.S. Manufacturing PMI and Investment**



**Chart B1-4: China's Manufacturing PMI and Investment**



**Chart B1-5: China's Land Sales Revenues**



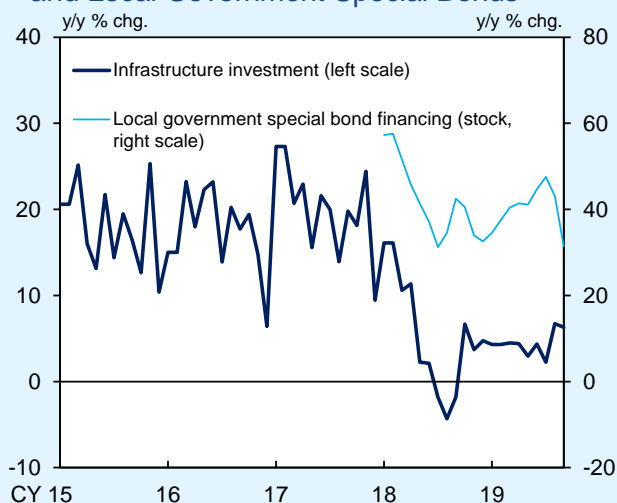


including a reduction in the reserve requirement ratio by the central bank and a revamp of the loan prime rate, which is a reference rate for banks when lending money -- while manufacturing firms have become cautious toward fixed investment, mainly against the background of heightening uncertainties.

Moreover, overseas economies are likely to raise their growth rates and grow moderately on the whole, mainly on the back of (1) the materialization of effects of macroeconomic policies in economies other than China and (2) the progress in global adjustments in IT-related goods.

However, it is necessary to continue to carefully examine downside risks that the U.S.-China trade friction might intensify and become prolonged further, since they are expected to exert a larger impact than before on overseas economies including the United States and China.

**Chart B1-6: China's Infrastructure Investment and Local Government Special Bonds**



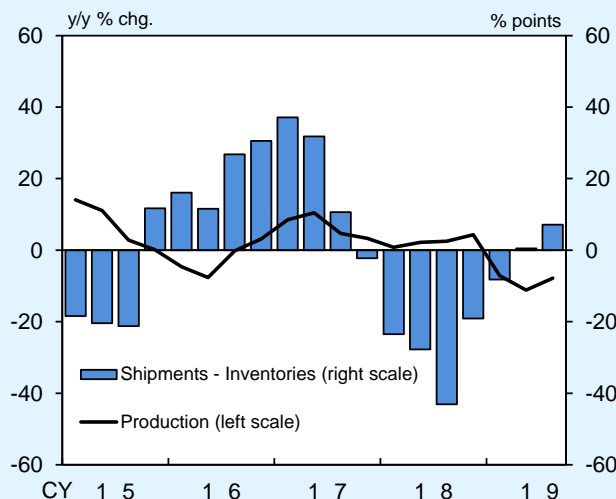
Source: CEIC.  
 Notes: 1. Figures for infrastructure investment are based on staff calculations using investment in fixed assets in the tertiary industry such as transportation and water conservancy.  
 2. Figures for local government special bond financing are based on the "Aggregate Financing to the Real Economy." Data on the year-on-year rate of change in monthly local government special bond financing are available from January 2018 onward.

## (Box 2) Developments in Exports by Goods

This box examines the current situation of and outlook for exports by goods; namely, (1) IT-related goods, (2) capital goods, and (3) automobile-related goods.

Japan's IT-related exports had continued on a downtrend since the second half of 2018 due to the deterioration in the global cycle for IT-related goods. However, they have increased, albeit slightly, since the April-June quarter of 2019. The global cycle for IT-related goods appears to be bottoming out recently, reflecting progress in inventory adjustments. Looking at the shipments-inventories balance of electronic parts and devices for Japan, the phase of inventory reductions has almost come to an end, and thus an increase in shipments can lead to a rise in production (Chart B2-1). Average patterns in the past show that the cycle for IT-related goods bottoms out and the adjustment phase comes to an end around 5-6 quarters after the peak.<sup>35</sup> Since the most recent peak in its cycle was around the April-June quarter of 2018, it seems consistent with past patterns that the cycle is currently bottoming out (Chart B2-2). As for the outlook, anecdotal evidence suggests that Japan's exports of IT-related goods, especially for smartphones and data centers, are expected to pick up through the year-end, as the cycle for IT-related goods is likely to gradually shift toward a rising phase. Since demand related to the introduction of 5G communication technology is expected to fully take hold after the turn of 2020,

**Chart B2-1: Shipments-Inventories Balance of IT-Related Goods**

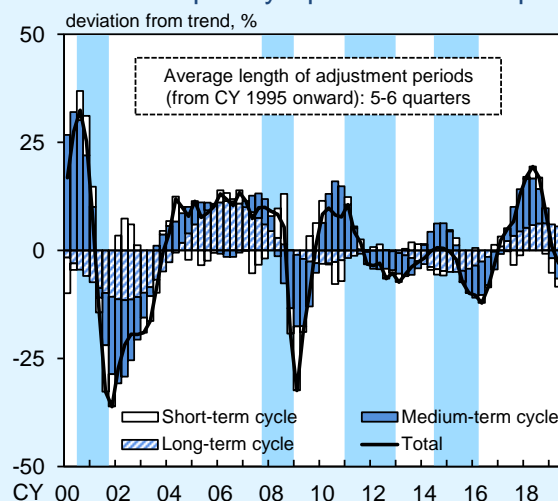


Source: Ministry of Economy, Trade and Industry.

Notes: 1. Figures are for electronic parts and devices.

2. The production figure and the shipments figure for 2019/Q3 are July-August averages. The inventories figure for 2019/Q3 is that for August.

**Chart B2-2: Global Cycle for IT-Related Goods: Frequency Spectrum Decomposition**



Notes: 1. The cycles are extracted by applying frequency spectrum decomposition to world semiconductor shipment data compiled by WSTS. Based on staff calculations.

2. The estimation period is 1995/Q1-2019/Q3. Figures for 2019/Q3 are July-August averages.

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

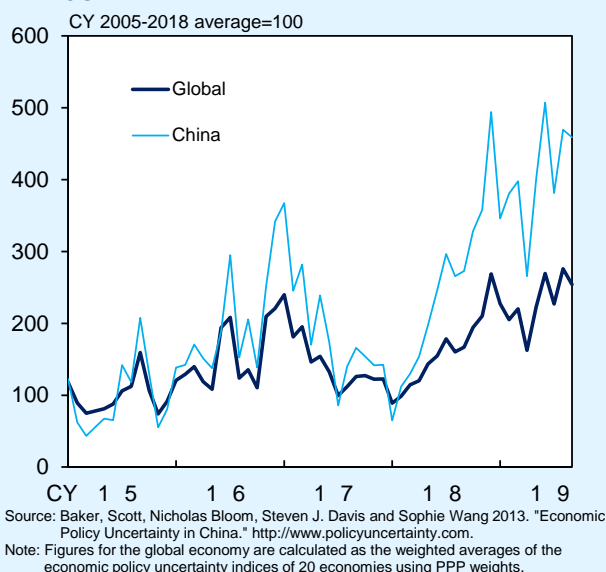
<sup>35</sup> For details, see Box 4 in the April 2019 Outlook Report.

IT-related exports are likely to return to a steady uptrend.

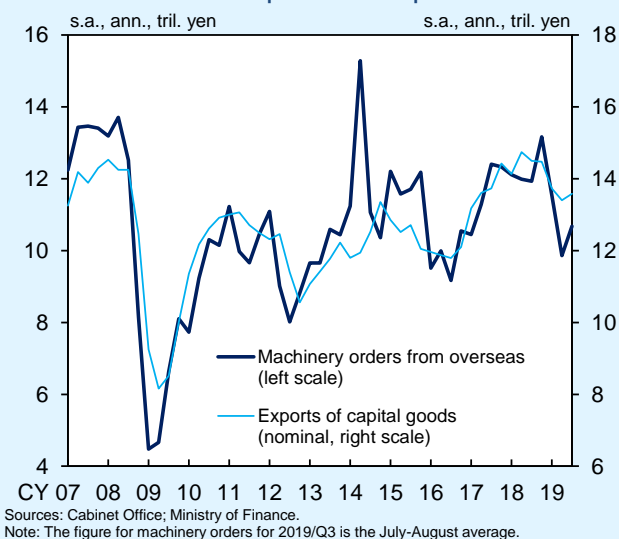
Next, capital goods exports have been relatively weak, amid signs of a further deceleration in business fixed investment in China and neighboring countries. The Global Economic Policy Uncertainty Index recently has risen substantially, mainly led by China, against the background of heightening uncertainties accompanying the intensified and prolonged U.S.-China trade friction (Chart B2-3). This increase in uncertainties has led to postponement of business fixed investment, especially by firms that incorporate Chinese firms into their supply chains, and thus seems to have brought about the recent slowdown in the world trade volume in capital goods. Regarding the outlook, capital goods exports will likely continue showing some weakness for the time being, given that the declining trend in machinery orders from overseas -- a leading indicator of Japan's capital goods exports -- has continued (Chart B2-4). From a somewhat longer-term perspective, it is expected that the trade volume in capital goods will gradually head to a recovery and Japan's capital goods exports also will return to a moderate increasing trend, as protectionist moves are likely to be prevented from being more intensified and global uncertainties are expected to follow a downtrend. However, downside risks to this outlook are large, depending on the outcome of U.S.-China trade negotiations.

Meanwhile, although Japan's automobile-related exports had continued to increase, mainly on the back of the rising value-added of automobiles and

**Chart B2-3: Economic Policy Uncertainty Index**

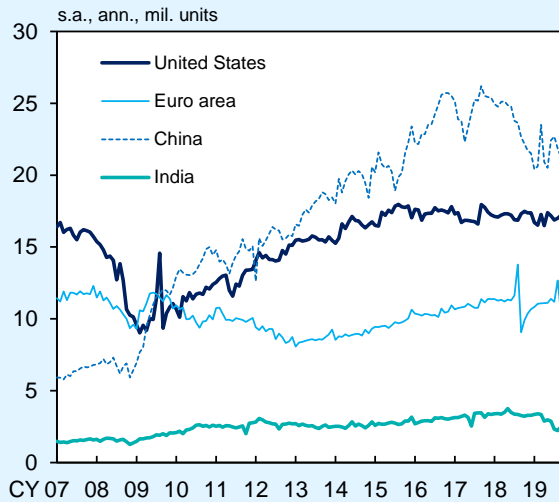


**Chart B2-4: Machinery Orders from Overseas and Exports of Capital Goods**



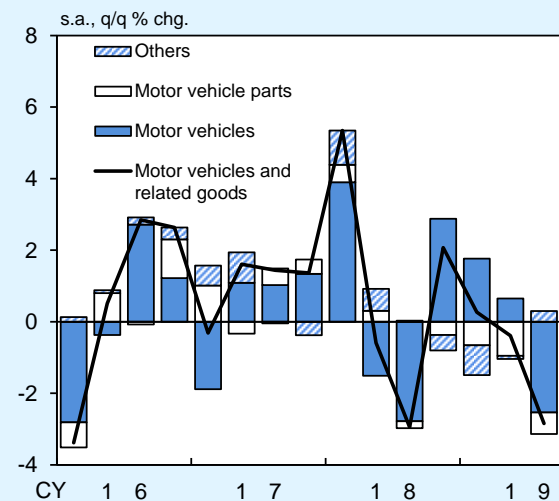
a high environmental performance, they have started to show some weakness recently, affected by the decline in global automobile sales. Global automobile sales, particularly in emerging economies, have been somewhat weak, mainly due to (1) weak corporate demand, (2) the tightening of financial conditions in some emerging economies, and (3) stricter environmental regulations (Chart B2-5). A breakdown of automobile-related exports shows that exports of motor vehicles to advanced economies, which so far had been firm, have shown increasing signs of peaking out, reflecting inventory adjustments by Japanese automakers in the United States; moreover, exports of motor vehicle parts have continued to decline since end-2018, mainly led by those to China, which has been affected by the economic slowdown and environmental regulations (Chart B2-6). As for the outlook, while Japan's automobile-related exports are likely to follow a declining trend for the time being, they are expected to gradually head to a recovery thereafter, as it is projected that corporate demand will pick up along with the global recovery in business fixed investment and progress gradually will be made in responding to environmental regulations.

**Chart B2-5: Motor Vehicle Sales in Major Economies**



Sources: BEA; ECB; CEIC.  
 Note: Figures for the United States are based on motor vehicle sales excluding heavy trucks. Figures for the euro area are based on new passenger car registrations. Figures for China and India are based on passenger car sales.

**Chart B2-6: Real Exports of Motor Vehicles and Related Goods**



Sources: Bank of Japan; Ministry of Finance.

### (Box 3) Export Conditions and Their Risk Assessment

The baseline scenario of the October 2019 Outlook Report is that the timing of a pick-up in the growth pace of overseas economies is likely to be delayed for longer than expected. Accordingly, the timing of Japan's exports moving out of the relatively weak phase and returning to an increasing trend also is expected to be delayed. However, further deterioration is likely to be avoided, with overseas economies continuing to grow moderately on the whole. This box quantitatively examines risks surrounding this outlook for exports.

Since the second half of 2018, the manufacturing sector's sentiment as well as its production and trade activity on a global basis have been somewhat weak, particularly in Asia, mainly against the background of the slowdown in business fixed investment in emerging economies such as China and the deterioration in the cycle for IT-related goods. In this situation, the level of the world trade volume generally has been flat, and its year-on-year rate of change has declined to around 0 percent recently (Chart B3-1). With regard to the outlook, the world trade volume is expected to remain weak for a while, but thereafter its pace of increase is likely to accelerate gradually and return to around the same level as that of world economic growth (Chart 13).

This outlook for the world trade volume is based on the assumption that further deceleration in overall overseas economies will be avoided as

**Chart B3-1: World Trade Volume and Manufacturing PMI**



Sources: CPB Netherlands Bureau for Economic Policy Analysis; IHS Markit (© and database right IHS Markit Ltd 2019. All rights reserved.).  
 Notes: 1. Figures for the trade volume are those for real imports. The figure for 2019/Q3 is the July-August average.  
 2. Figures for the Global Manufacturing PMI are the "J.P. Morgan Global Manufacturing PMI."

the deterioration in the manufacturing sector's sentiment as well as its production and trade activity will not have a large impact on the nonmanufacturing sector. On this point, the fact that accommodative financial conditions generally have been maintained on a global basis, including in emerging economies, can be considered as playing an important role in underpinning domestic demand in these economies and mitigating the negative impact of weak external demand.

On the other hand, as outlined in Box 1, the U.S.-China trade friction seems to be intensifying and becoming prolonged, and the materialization of the effects of fiscal policy in China has been delayed. Thus, for the time being, attention should be paid to the risk that exports will decline along with the further slowdown in overseas economies. Examining the degree of this risk by looking at SCOPE (Surveillance Indices for Critical Overseas Perils to Exports) -- an early warning indicator of Japan's exports -- the number of indicators signaling a deterioration in export conditions was 7 out of 18 in September, representing an increase to around 40 percent of all indicators (Charts B3-2 and B3-3).<sup>36</sup> Developments since the previous Outlook Report are as follows. The following 5 indicators already have signaled a deterioration: (1) the New Export Orders Index of the Global Manufacturing PMI, (2) the OECD business confidence index, (3) the WSTS world semiconductor shipments, (4) world vehicle sales, and (5) the New Export Orders Index of the Japan Manufacturing PMI. In addition to these indicators, mainly reflecting the effects of

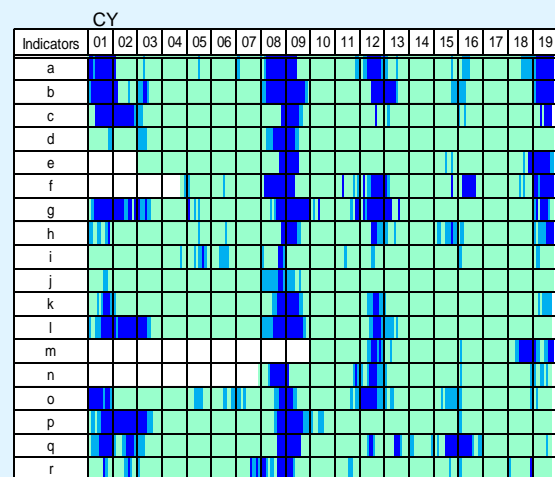
<sup>36</sup> For details of SCOPE, see Box 1 in the January 2019 Outlook Report.

**Chart B3-2: Monitoring Indicators**

Indicators		
World		
Corporate	a	Global Manufacturing PMI: New Export Orders Index
	b	OECD business confidence index
	c	WSTS world semiconductor shipments
Household	d	OECD consumer confidence index
	e	World vehicle sales
Japan		
Corporate	f	Japan Manufacturing PMI: New Export Orders Index
	g	Machinery orders from overseas: Electronic and communication equipment
U.S.		
Corporate	h	ISM Manufacturing Index: New Export Orders Index
	i	Philadelphia Fed Manufacturing Business Outlook Survey: Future shipments
Household	j	University of Michigan Surveys of Consumers: Current Economic Conditions
Euro Area		
Corporate	k	Business Climate Indicator: Industry, production expectations
	l	Business Climate Indicator: Services sector, demand expectations
Asia		
Corporate	m	Output of metal shaping machinery in China
	n	China Manufacturing PMI
Overall	o	Taiwan National Development Council's Monitoring Indicators: Total score
Financial Markets	p	MSCI World Index
	q	MSCI Emerging Markets Index
	r	VIX Index

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

**Chart B3-3: SCOPE**



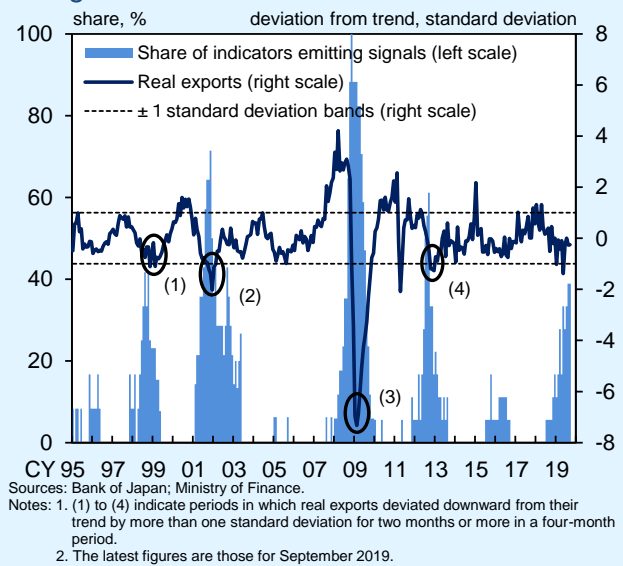
Sources: Haver; Bloomberg; Cabinet Office; WSTS Inc.; Wards Intelligence; IHS Markit (© and database right IHS Markit Ltd 2019. All rights reserved.).  
Notes: 1. This chart visualizes the possibility of a significant decrease in real exports by depicting indicator values relative to their respective threshold values. Based on staff calculations.  
2. Shaded areas in the chart represent the following for an indicator relative to the threshold set for the indicator: (1) areas shaded in dark blue indicate that the indicator is above the threshold value; (2) areas in light blue indicate that the indicator lies between the threshold value and half of the threshold value; (3) areas in green indicate that the indicator lies below half of the threshold value; and (4) areas in white indicate that no data are available.



the intensified and prolonged U.S.-China trade friction and the slowdown in the Chinese economy, the following also have been signaling a deterioration recently: (6) the New Export Orders Index of the ISM Manufacturing Index and (7) the output of metal shaping machinery in China. The number of indicators signaling a deterioration in export conditions remains small compared to the past four periods when exports decreased substantially -- that is, the phases in which real exports showed a decline of more than one standard deviation from their trend over a certain period at the time of (1) the Asian financial crisis, (2) the collapse of the dot-com bubble, (3) the global financial crisis, and (4) the European debt crisis (Chart B3-4). However, the number of indicators signaling a deterioration clearly has exceeded that during the period of the so-called China shock from the second half of 2015 through the first half of 2016, and downside risks to exports can be assessed as increasing.

In order to quantitatively assess these downside risks to exports, probability distributions of the rates of change in Japan's exports over the next three months (exports at risk) were estimated using quantile regression, within which the aforementioned share of SCOPE indicators emitting signals was an explanatory variable (Chart B3-5[1]). Statistically speaking, this means estimating conditional probability distributions of the rates of change in Japan's exports over the next three months given the share of SCOPE indicators emitting signals. Looking at the estimation results, the latest probability distribution suggests that risks are increasingly skewed to the downside compared with one year ago and at the time of the China shock, although

**Chart B3-4: Share of Indicators Emitting Signals**

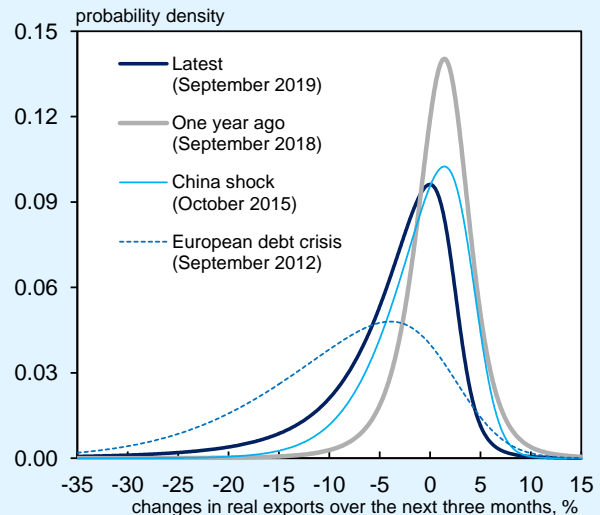


**Chart B3-5: Exports at Risk**

**1. Estimation Model Specification**

(Quantile regression)  
**Dependent variable:**  
 Rate of change in real exports over the next three months  
**Explanatory variables:**  
 (a) Share of indicators emitting signals for the reference month (this variable is set to 0 when the share is below the peak observed in the preceding six months)  
 (b) Rate of change in real exports over the past three months  
 (c) Constant

**2. Estimation Results**



the degree is not as severe as at the time of the European debt crisis (Chart B3-5[2]).

Thus, downside risks to Japan's exports are increasing as the manufacturing sector's production and trade activity on a global basis has decelerated against the background of the intensified and prolonged U.S.-China trade friction and slowdowns in emerging and commodity-exporting economies such as China. Under these circumstances, attention should be paid to the possibility that the risk of a substantial decrease in exports would increase further if a tightening of financial conditions, such as a significant decline in stock prices and a rise in credit risk premiums, also were to occur, as seen in the past four periods when exports fell sharply.



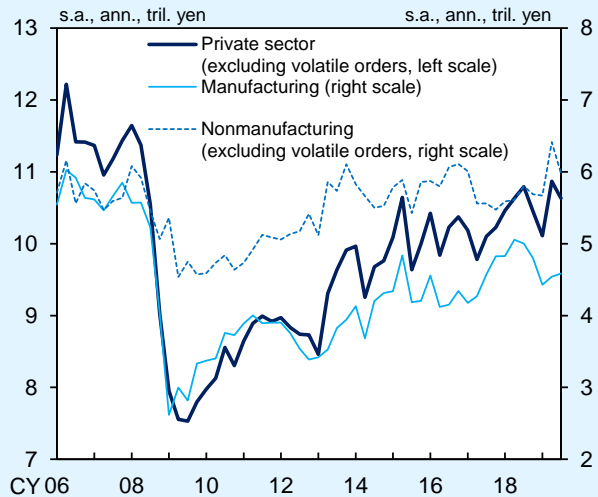
**(Box 4) Steady Business Fixed Investment**  
**despite the Slowdown in Overseas Economies (1):**  
**Machinery and Software Investments as well as R&D Investment**

Although the slowdown in overseas economies has affected exports as well as manufacturers' sentiment and corporate profits, overall business fixed investment has maintained an uptrend. Boxes 4 and 5 examine business fixed investment by type with regard to the reasons why it has remained steady thus far despite the slowdown in overseas economies. This box starts by looking at machinery and software investments as well as research and development (R&D) investment.

Looking at machinery orders, a leading indicator of machinery investment, the manufacturing sector has continued to show some weakness recently (Chart B4-1). By industry, "general-purpose, production, and business-oriented machinery" has declined clearly, reflecting the weakness in capital goods exports (Chart B4-2). "Electrical machinery" has been at a low level from a somewhat longer-term perspective, although it has picked up to some extent recently. While "automobiles, parts, and accessories" had followed a moderate uptrend, it has been somewhat weak recently, mainly for "metal cutting machines." Machinery investment in the manufacturing sector will likely remain somewhat weak for a while, with the timing of a pick-up in the growth pace of overseas economies being delayed.

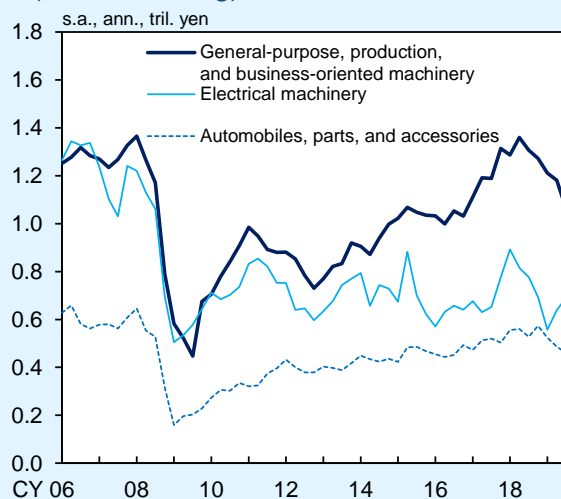
On the other hand, machinery orders by the nonmanufacturing sector have maintained their

**Chart B4-1: Machinery Orders**



Source: Cabinet Office.  
 Notes: 1. Volatile orders: orders for ships and orders from electric power companies.  
 2. Figures for 2019/Q3 are July-August averages.

**Chart B4-2: Machinery Orders (Manufacturing)**

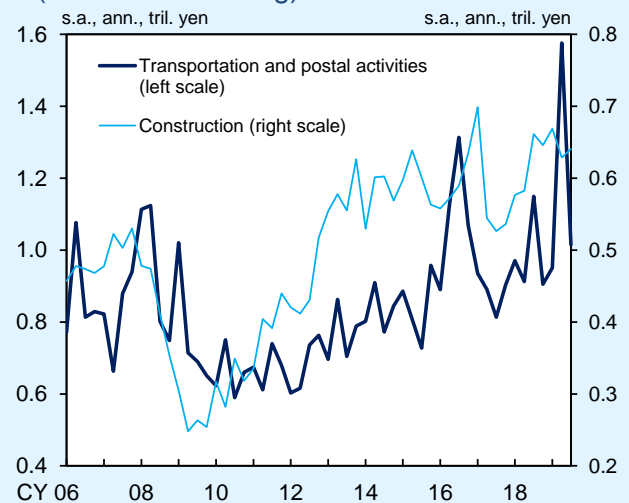


Source: Cabinet Office.  
 Notes: 1. Figures for general-purpose, production, and business-oriented machinery up through 2011/Q1 are the sum of figures for general machinery and precision instruments under the previous industrial classification.  
 2. Figures for 2019/Q3 are July-August averages.

firmness, albeit with fluctuations. By industry, growth in "transportation and postal activities" and "construction" has accelerated recently -- mainly for "industrial machinery," including "conveying, elevating, materials handling machinery," and for "electronic and communication equipment" such as computers -- due to strong demand for improving efficiency and saving labor to address labor shortage (Chart B4-3). This strong demand also has led to an increase in software investment in the nonmanufacturing sector. Looking at the *Tankan*, software investment has seen a clear increase in recent years, mainly in industries such as "retailing," "accommodations, eating and drinking services," and "construction," which are labor-intensive and where labor shortage tends to constrain businesses (Chart B4-4). In fiscal 2019, software investment is expected to maintain its steady increase, due in part to the introduction of the multiple consumption tax rates associated with the tax hike and of cashless payments.

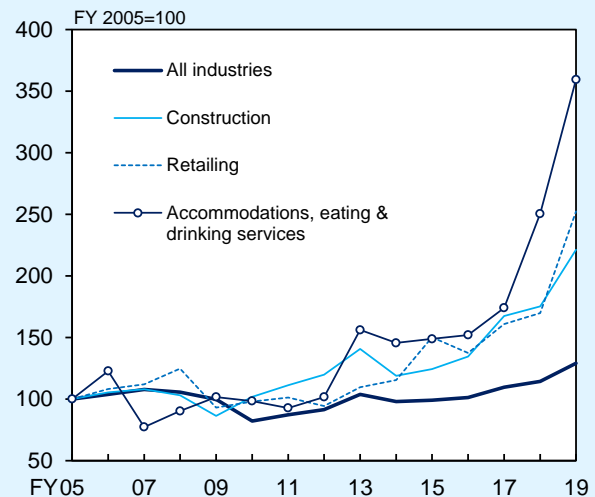
Meanwhile, the increasing trend in R&D investment for growth areas has continued (Chart B4-5). According to a survey by the Development Bank of Japan, R&D investment plans for fiscal 2019 by industry show that "transport equipment" -- which accounts for more than 40 percent of total R&D expenditure -- is expected to maintain its growth pace with the aim of developing advanced technologies for the future, such as assisted and automated driving as well as vehicle electrification, despite the decline in global automobile sales. "Chemicals," which accounts for the second largest share of R&D expenditure following "transport equipment," also is projected to increase substantially, mainly for the development of new materials in the fields of

**Chart B4-3: Machinery Orders (Nonmanufacturing)**



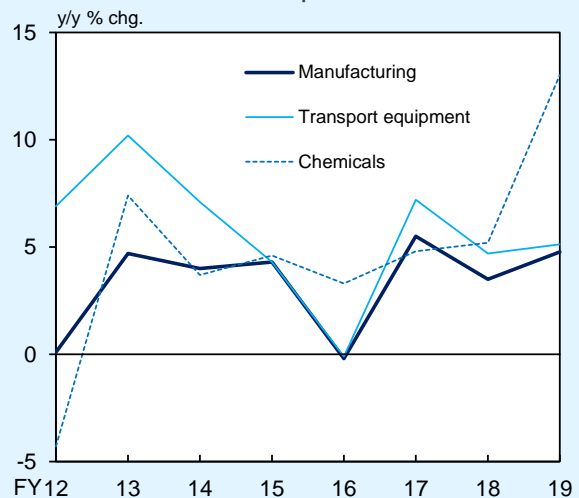
Source: Cabinet Office.  
Notes: 1. Excluding orders for ships.  
2. Figures for 2019/Q3 are July-August averages.

**Chart B4-4: Software Investment (*Tankan*)**



Source: Bank of Japan.  
Note: Figures up through fiscal 2018 are actual results. Figures for fiscal 2019 are forecasts from the September 2019 survey.

**Chart B4-5: R&D Expenditure**



Source: Development Bank of Japan.  
Note: Figures are of firms with capital of 1 billion yen or more on a consolidated basis. Figures for fiscal 2019 are based on staff calculations, in which figures for planned expenditure for fiscal 2019 are adjusted for average changes from planned to actual expenditure for fiscal 2012-2018.

automobiles and electronics as well as the product development related to pharmaceuticals and biotechnology.

The aforementioned machinery and software investments aimed at improving efficiency and saving labor in order to deal with labor shortage and R&D investment for growth areas are less susceptible to short-term economic developments such as fluctuations in overseas economies, and thus appear to underpin overall business fixed investment. From a somewhat longer-term perspective, these investments are expected to raise the potential growth rate through, for example, (1) an improvement in labor productivity due to a rise in capital intensity and (2) an increase in total factor productivity mainly brought about by developing new products.

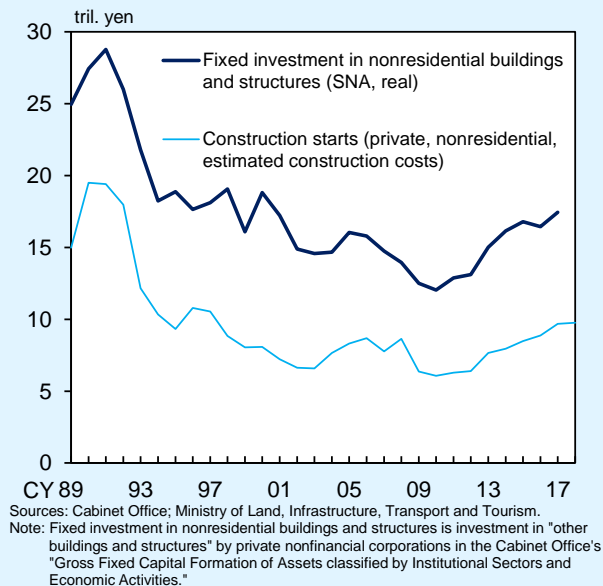
However, it is necessary to pay attention to the possibility that firms' investment stance will become cautious though a further deterioration in their sentiment and corporate profits if the slowdown in overseas economies is prolonged for a longer period or the growth rates of overseas economies decline further.

## (Box 5) Steady Business Fixed Investment despite the Slowdown in Overseas Economies (2): Construction Investment

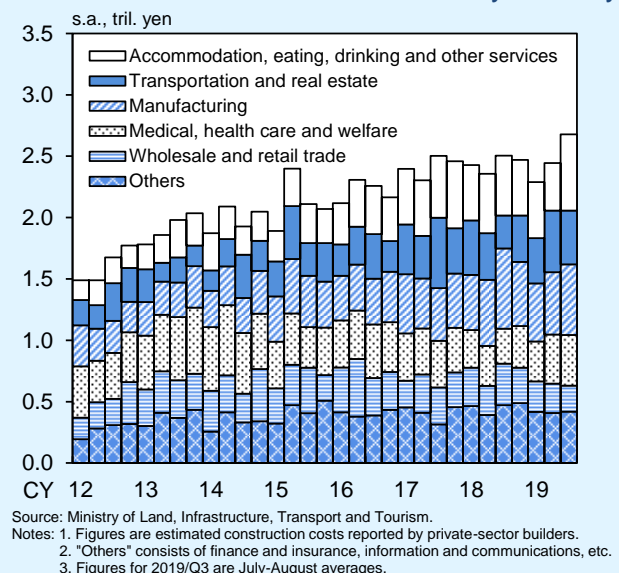
This box focuses on construction investment, which recently has continued to increase steadily.

Looking at long-term developments in fixed investment in nonresidential buildings and structures, after the boom during the bubble period from the late 1980s to the early 1990s, such investment followed a prolonged downtrend until around the global financial crisis (Chart B5-1). Subsequently, after bottoming out in the early 2010s, it turned to a moderate uptrend, due in part to the aging of existing buildings and growing demand for earthquake-related rebuilding, and has maintained its pace of increase until recently. Construction starts (private, nonresidential, estimated construction costs) -- a leading indicator of construction investment -- have continued on an uptrend even after a peak-out of Olympic Games-related demand, which contributed to their increase until around 2018 (Chart B5-2). Under these circumstances, uncompleted construction of private nonresidential buildings, which corresponds to the remaining orders received by builders, has reached a record high level, due to an increase in orders and delays in construction work that reflect labor shortage and supply constraints (Chart B5-3). Furthermore, various anecdotal evidence suggests that there seem to be quite a few large-scale redevelopment projects mainly in the heart of Tokyo that are not included in the statistics on construction starts at present, although they are scheduled to enter the

**Chart B5-1: Long-Term Time Series of Construction Investment**



**Chart B5-2: Construction Starts by Industry**

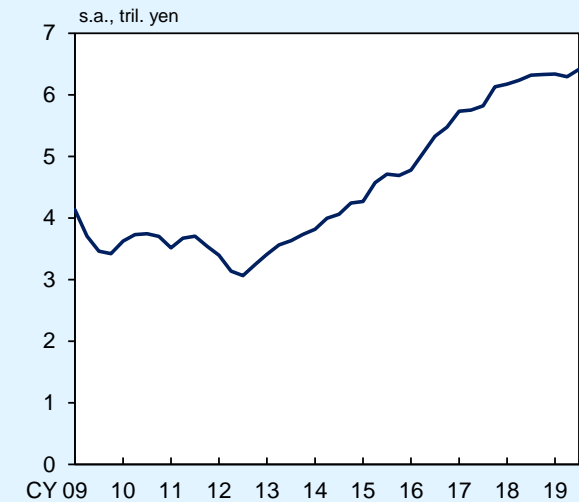


construction stage within the next one to two years. Given this, construction investment will likely maintain a moderate but sustained uptrend, as construction work makes slower progress than in the past due to labor shortage.

The steady growth in fixed investment in nonresidential buildings and structures in recent years is attributable to a combination of the following factors. (1) Demand for high-end offices in urban areas offering safety and disaster-mitigation features is increasing, as seen in office vacancy rates falling to around record low levels (Chart B5-4). (2) Demand for investment aimed at attracting foreign visitors is strengthening as inbound tourism demand is expected to increase steadily over the long run. Furthermore, (3) the cost of debt has declined, with highly accommodative financial conditions lasting for a long period (Chart B5-5).

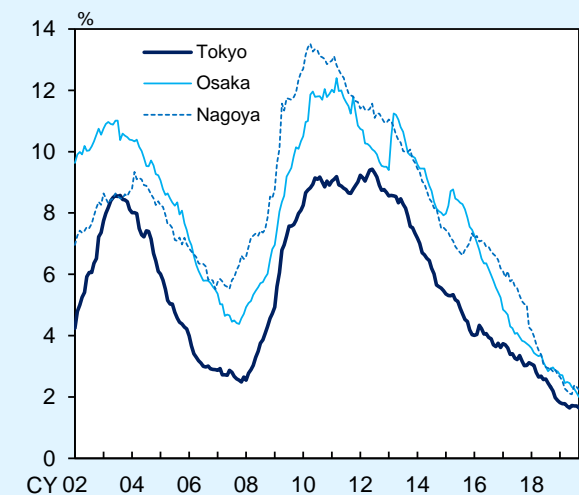
Developments in construction starts by industry are as follows (Chart B5-2). "Transportation and real estate" has been on an uptrend, led mainly by (1) the development of logistics facilities against the backdrop of the expansion of electronic commerce, (2) projects to boost the speed of railways and to expand and enhance airport facilities, and (3) urban development projects such as for international business bases and large-scale commercial complexes. Moreover, the pace of increase in "accommodation, eating, drinking, and other services" recently has accelerated, led by projects such as commercial facilities, theme parks, and hotels, with the aim of capturing steady inbound tourism demand. Meanwhile, "manufacturing" also has continued

**Chart B5-3: Uncompleted Nonresidential Construction**



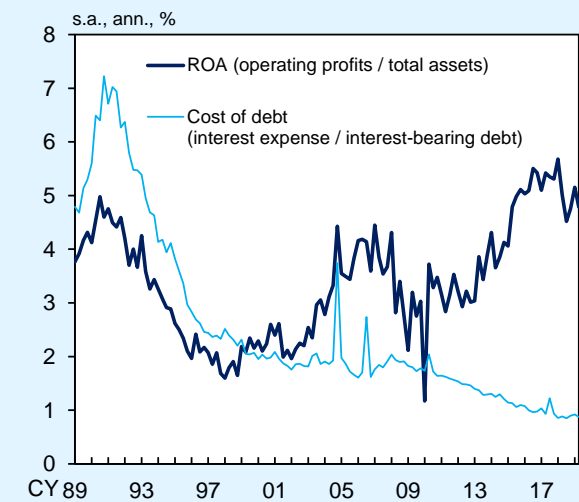
Source: Ministry of Land, Infrastructure, Transport and Tourism.  
Notes: 1. Figures are based on construction costs reported by private-sector builders.  
2. The figure for 2019/Q3 is the July-August average.

**Chart B5-4: Office Vacancy Rates**



Source: Miki Shoji Co., Ltd.

**Chart B5-5: Funding Conditions for Real Estate and Construction Industries**



Source: Ministry of Finance.  
Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Figures are for large enterprises.  
2. Interest-bearing debt = borrowings from financial institutions + borrowings from others + bonds

on a steady uptrend, supported by moves to shift production back to Japan that have been seen in part and by demand for new factories that are targeted at developing advanced technologies and making new high-value-added products.

This increase in construction investment is expected to offset the impact of the decline in manufacturers' machinery investment to some extent and underpin overall business fixed investment.

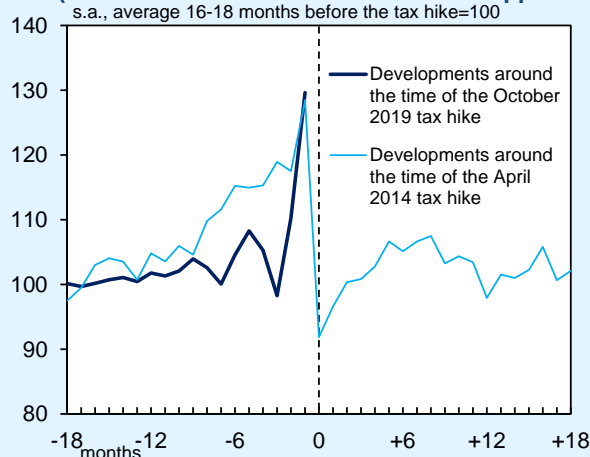
## (Box 6) Developments in Household Spending prior to the Consumption Tax Hike

While Japan's economic growth rate is pushed up before a consumption tax hike through an increase in demand led mainly by household spending, it is then pushed down after the tax hike as a result of a reactionary decline to the increase in demand and of a decrease in households' real disposable income due to price rises. With regard to the effects of the tax hike conducted in October 2019, this box examines fluctuations in demand for (1) durable goods, (2) nondurable goods, and (3) housing starts observed prior to the tax hike by comparing them with those seen before the previous tax hike in April 2014.

Starting with developments in durable goods, the increase in demand was observed mainly in September, which was just before the tax hike, and taking account of developments during several months before September, the overall increase has been limited compared to that of the previous tax hike (Chart B6-1[1]). Taking a more detailed look, automobile sales have accelerated their growth pace recently, but the increase in demand this time was constrained compared to that of the previous tax hike (Chart B6-1[2]). This seems attributable mainly to the following: (1) policy responses, such as the abolishment of the automobile acquisition tax and the reduction in automobile tax, and (2) automakers' sales strategy to introduce new car models from October. With regard to sales of household electrical appliances, an increase in demand -- mainly for televisions and personal computers -- was observed in September, which was just before the tax hike. However, the degree of

**Chart B6-1: Consumption Activity Index (CAI, Real)**

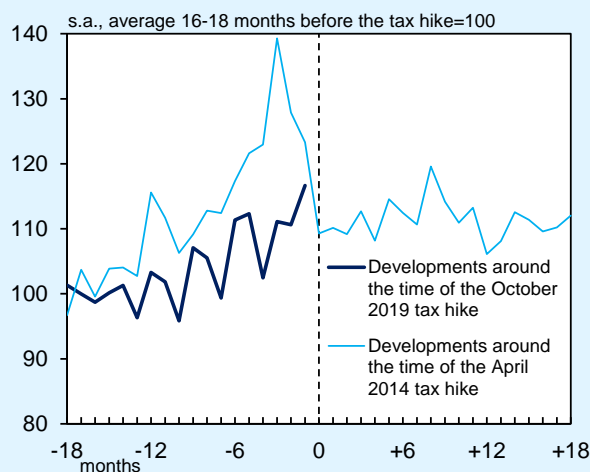
### 1. Durable Goods (Automobiles + Household Electrical Appliances)



Sources: Bank of Japan, etc.

Note: Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for September 2019. The CAI is based on staff calculations (as of October 30).

### 2. Automobiles



Sources: Bank of Japan, etc.

Note: Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for September 2019. The CAI is based on staff calculations (as of October 30).



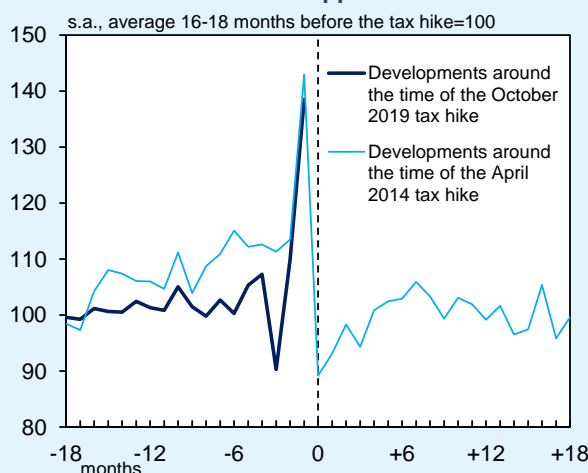
overall increase appears to have remained small compared to that of the previous tax hike, since sales of air conditioners fell in July due to irregular weather (Chart B6-1[3]).

With regard to nondurable goods, a significant increase in demand was observed, mainly in high-end products (cosmetics and luxury goods), goods related to daily necessities, and alcohol (Chart B6-1[4]). Monthly developments show that there was no remarkable increase in demand through August, but there seems to have been a significant increase in demand through end-September, which was just before the tax hike.

Next, looking at the number of housing starts, which is a leading indicator of housing investment, owned houses and detached houses built for sale increased through around June due to the effects of the increase in demand prior to the tax hike, but there already has been a reactionary decline to the increase in demand recently (Chart B6-2[2]).<sup>37</sup> However, an increase in demand prior to the tax hike was not observed in the overall number because housing for rent, which saw a substantial increase prior to the previous tax hike, has continued on a declining trend this time, reflecting waning demand for tax saving and asset management as well as cautious lending attitudes of financial institutions compared to a while ago

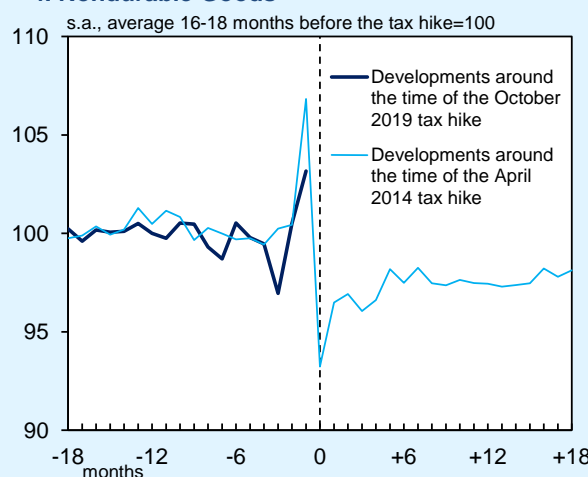
<sup>37</sup> For housing, the old consumption tax rate of 8 percent was applied to contracts made before end-March 2019, even if the handover of the property is after the start of October. For this reason, regarding orders received by housing developers, there was a rush to make contracts through March, and a reactionary decline to the increase has been observed since April. Such developments in orders have been reflected in housing starts with some time lag.

### 3. Household Electrical Appliances



Sources: Bank of Japan, etc.  
 Note: Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for September 2019. The CAI is based on staff calculations (as of October 30).

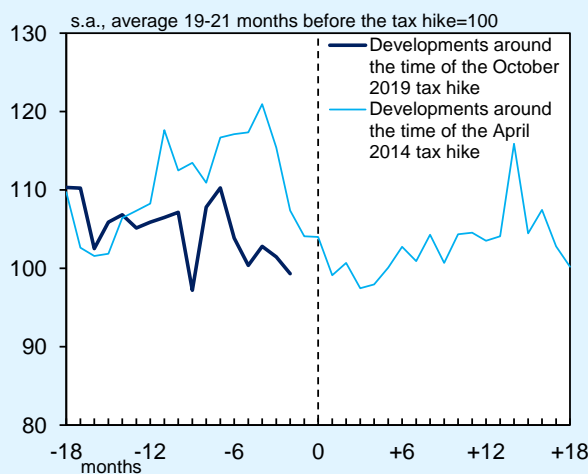
### 4. Nondurable Goods



Sources: Bank of Japan, etc.  
 Notes: 1. Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for September 2019. The CAI is based on staff calculations (as of October 30).  
 2. Nondurable goods include goods classified as "semi-durable goods" in the SNA.

## Chart B6-2: Housing Starts

### 1. Overall



Source: Ministry of Land, Infrastructure, Transport and Tourism.  
 Note: Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for August 2019.

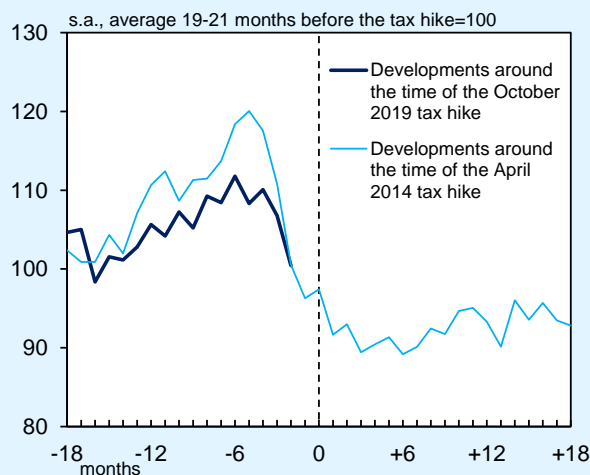


(Chart B6-2[1]).

With regard to the outlook, nondurable goods, which experienced an increase in demand prior to the tax hike to a substantial degree, are expected to see a relatively large decline in the short run. However, given that such goods have low durability, the declining phase will likely be temporary. In addition, taking into account that durable goods and housing, both of which have a long replacement cycle, have seen a small increase in demand prior to the tax hike, downward pressure stemming from a reactionary decline is expected to be limited compared with that of the previous tax hike.

However, regarding the expected decline in private consumption, it is difficult to distinguish in real time the effects of the reactionary decline to the increase in demand prior to the tax hike from those of a decrease in real income, and consumption developments are greatly affected by household sentiment at the time. Thus, uncertainties regarding the outlook for private consumption are significant, and it is necessary to continue to carefully examine developments, including anecdotal evidence.

## 2. Owned Houses + Detached Houses Built for Sale



Source: Ministry of Land, Infrastructure, Transport and Tourism.

Notes: 1. Month 0 is the month in which the consumption tax rate was raised -- namely, April 2014 or October 2019. Regarding developments around the time of the October 2019 tax hike, the latest figure is for August 2019.

2. Figures for detached houses built for sale are based on staff calculations.

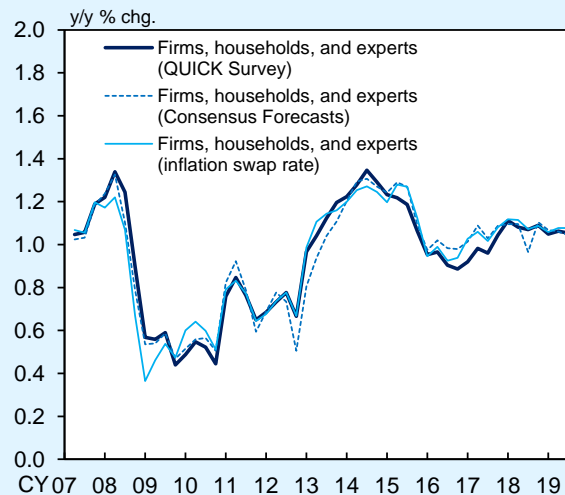
## (Box 7) Developments in Inflation Expectations

One of the factors that determine general price developments is people's inflation expectations. This box examines (1) recent developments in indicators of inflation expectations and (2) households' perception of prices as well as firms' price-setting stance.

Inflation expectations can be gauged, first of all, by directly observing survey data -- that is, indicators based on the results of surveys of households, firms, and experts (such as economists and market participants) -- and market indicators (Charts 46 and 47). However, since these indicators have their own characteristics, they do not show exactly the same developments. They also show fluctuations due to noise. In fact, looking at recent developments, while some indicate relatively weak developments, others show an increase. By extracting and synthesizing the common factors from the survey data of households', firms', and experts' inflation expectations as well as market indicators through principal component analysis, it can be confirmed that such expectations had remained in a weakening phase since summer 2015 but picked up somewhat toward 2018 and subsequently have been more or less flat (Chart B7-1).<sup>38</sup> In addition, inflation expectations also can be gauged based on various economic indicators by using economic models, and the estimates indicate similar results to principal

<sup>38</sup> For details of methods to extract and synthesize inflation expectations using principal component analysis, see "Developments in Inflation Expectations over the Three Years since the Introduction of Quantitative and Qualitative Monetary Easing (QQE)," *Bank of Japan Review Series*, no.16-E-13.

### Chart B7-1: Synthesized Inflation Expectations Indicators

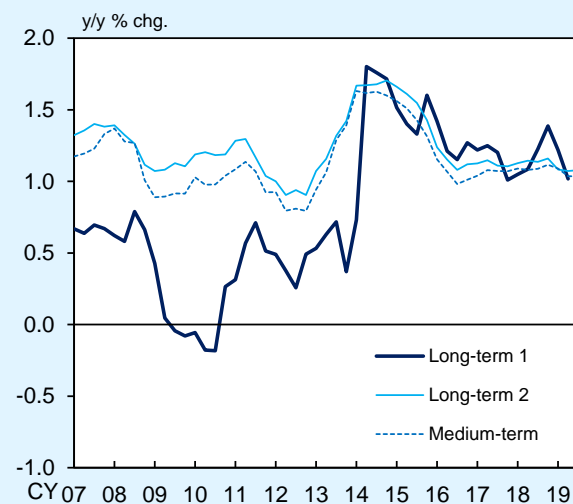


Sources: Bank of Japan; QUICK, "QUICK Monthly Market Survey (Bonds)"; Consensus Economics Inc., "Consensus Forecasts"; Bloomberg.

Notes: 1. Synthesized inflation expectations indicators are obtained by synthesizing the expectations of firms, households, and experts using principal component analysis.

2. Firms' inflation expectations are taken from the *Tankan* (using the output prices DI). Figures for households are taken from the "Opinion Survey" (using the average of inflation expectations over the next 5 years excluding responses of those expecting annual inflation of  $\pm 5\%$  or more). For experts' inflation expectations, three different types of data are used: the "QUICK Survey" (average over the next 10 years), the "Consensus Forecasts" (average for 6-10 years ahead), and the inflation swap rate (5-year, 5-year forward).

### Chart B7-2: Inflation Expectations Obtained through Estimations



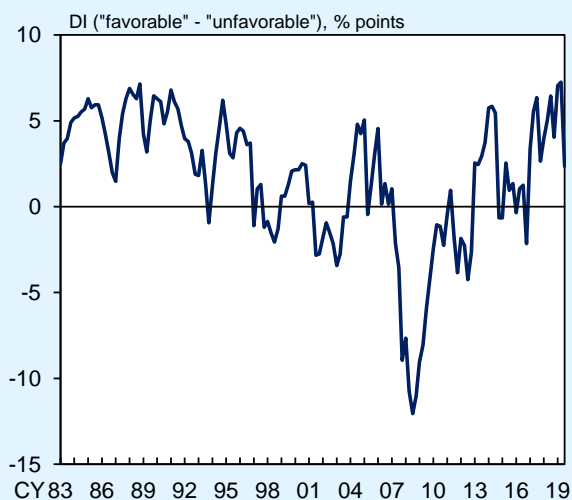
Sources: *Bank of Japan Working Paper Series*, No.18-E-8 and No.19-E-6; Bank of Japan; Cabinet Office; Ministry of Finance; Ministry of Internal Affairs and Communications; QUICK, "QUICK Monthly Market Survey (Bonds)," "QUICK *Tankan*"; JCER, "ESP Forecast"; Consensus Economics Inc., "Consensus Forecasts"; Wolters Kluwer, "Blue Chip Economic Indicators"; Bloomberg.

Note: For the estimation methods, see *Bank of Japan Working Paper Series*, No.18-E-8 for "Long-term 1." See *Bank of Japan Working Paper Series*, No.19-E-6 for "Long-term 2" and "Medium-term."

component analysis; namely, that inflation expectations have been generally more or less flat (Chart B7-2).<sup>39</sup>

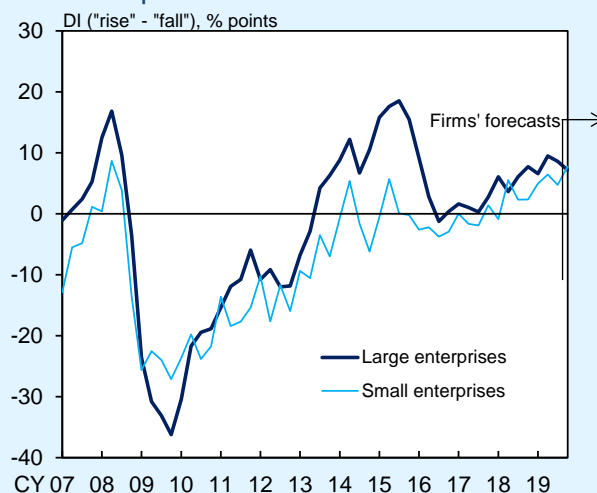
In addition to estimates using the aforementioned various indicators and economic models, it is important to monitor changes in households' perception of prices as well as firms' price-setting stance in order to grasp developments in people's inflation expectations. For example, "comments on the rise in prices" from the *Opinion Survey on the General Public's Views and Behavior* can be regarded as a measure for households' tolerance of price rises (Chart B7-3).<sup>40</sup> Households' tolerance rose following the introduction of QQE in 2013 and declined temporarily thereafter. Since 2017, however, it has remained at a level that exceeds the average since the mid-2000s, albeit with fluctuations. In addition, when aggregating the output prices DI for "retailing," "services for individuals," and "accommodations, eating and drinking services" in the *Tankan* to look at the price-setting stance of firms that are closely related to household consumption, we see that it has continued on an improving trend within positive territory, albeit at a moderate pace (Chart B7-4). Thus, there are signs that households' tolerance of price rises will increase and firms' stance will shift toward further raising prices,

**Chart B7-3: Households' Tolerance of Price Rises**



Sources: Bank of Japan; Cabinet Office.  
Notes: 1. Figures for 2004/Q4 onward are taken from the "Opinion Survey." Figures prior to 2004/Q4 are extrapolated backward using the overall livelihood DI in the "Consumer Confidence Survey."  
2. The average of figures for 2004/Q4 onward is normalized to zero.

**Chart B7-4: Output Prices in Consumption-Related Sectors**



Source: Bank of Japan.  
Note: Based on the *Tankan*. Calculated as the weighted average of the DI for changes in output prices in "retailing," "services for individuals," and "accommodations, eating & drinking services." The number of reporting enterprises is used as weights.

<sup>39</sup> The estimation methods for inflation expectations using economic models include (1) a method based on a model that incorporates learning -- in other words, the impact of people's short-term inflation forecast errors on long-term inflation expectations -- and (2) a method using a state-space model, based on theoretical relationships, for survey data and market indicators. For details, see "The Anchoring of Inflation Expectations in Japan: A Learning-Approach Perspective," *Bank of Japan Working Paper Series*, no.18-E-8; and "Inflation Expectations Curve in Japan," *Bank of Japan Working Paper Series*, no.19-E-6.

<sup>40</sup> For details, see Box 2 in the July 2018 Outlook Report.

although both have remained cautious. Regarding the outlook, it is expected that households' tolerance of price rises will increase steadily and firms' stance gradually will shift toward further raising prices as the employment and income situation is likely to continue improving with the economy maintaining an expanding trend and the output gap remaining positive.

However, there is a possibility that a rise in inflation expectations will be delayed through the adaptive formation mechanism if (1) it takes longer than projected for households' tolerance of price rises to increase and for firms' stance to shift toward further raising prices and (2) actual inflation consequently remains relatively sluggish. Due attention should be paid to this possibility because it could become greater if risks to economic activity materialize and thereby put downward pressure on the output gap in a situation where downside risks concerning overseas economies seem to be increasing.

