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日本銀行
BANK OF JAPAN

# *Outlook for Economic Activity and Prices*

*April 2020*

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

# Outlook for Economic Activity and Prices (April 2020)

## The Bank's View[1]

### Summary

- Japan's economy is likely to remain in a severe situation for the time being due to the impact of the spread of the novel coronavirus (COVID-19) at home and abroad. The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is expected to be somewhat weak for the time being, mainly affected by the spread of COVID-19 and the decline in crude oil prices.
- Thereafter, as the impact of the spread of COVID-19 wanes at home and abroad, Japan's economy is likely to improve, supported by accommodative financial conditions and the government's economic measures, as well as through the expected materialization of pent-up demand (i.e., demand that has been constrained) and a projected recovery in production from the decline brought about by the spread of COVID-19. The year-on-year rate of change in the CPI is likely to increase gradually. In this Outlook Report, the impact of the spread of COVID-19 is assumed to wane on a global basis through the second half of 2020.
- That said, future developments are extremely unclear, as they could change depending on the timing of the spread of COVID-19 subsiding and on the magnitude of the impact on domestic and overseas economies. The aforementioned outlook for economic activity and prices is based mainly on the assumption that, while the impact of the spread of COVID-19 remains, firms' and households' medium- to long-term growth expectations will not decline substantially and the smooth functioning of financial intermediation will be ensured with financial system stability being maintained, although this assumption entails high uncertainties.
- With regard to the risk balance, risks to both economic activity and prices are skewed to the downside, mainly due to the impact of COVID-19.

[1] "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on April 27, 2020.

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

Japan's economy has been in an increasingly severe situation due to the impact of the spread of COVID-19 at home and abroad. Overseas economies have become depressed rapidly, reflecting the impact of the COVID-19 pandemic. In this situation, exports and industrial production have declined. Business sentiment has deteriorated, and the deceleration in the pace of increase in business fixed investment has become evident recently. With the growing impact of the spread of COVID-19, the employment and income situation has started to show some weakness, and private consumption has decreased significantly, mainly in services such as eating and drinking as well as accommodations. Meanwhile, housing investment has been more or less flat and public investment has increased moderately. Financial conditions have been accommodative on the whole but less so in terms of corporate financing, as seen in deterioration in firms' financial positions. On the price front, the year-on-year rate of change in the CPI (all items less fresh food, and the same hereafter) is at around 0.5 percent. As for inflation expectations, relatively weak indicators have been observed.

## II. Outlook for Economic Activity and Prices in Japan

### A. Outlook for Economic Activity and Prices for the Time Being

Japan's economy is likely to remain in a severe situation for the time being due to the impact of the spread of COVID-19 at home and abroad.

The world currently is in a pandemic; the outbreak of COVID-19 was first identified in China and it spread rapidly worldwide, including to Asia, Europe, and the United States. Economic activity has been disrupted significantly as a result of preventive measures against the spread of COVID-19 taken by each country and region, such as restrictions on going outside and immigration/emigration, as well as orders to suspend business and production activities. Until the spread of COVID-19 subsides, economic activity is likely to remain constrained and thus overseas economies are expected to remain depressed.

In this situation, Japan's exports, including inbound tourism consumption, are likely to remain weak. Despite being supported by the government's economic measures, domestic demand, mainly in terms of private consumption, is expected to remain weak, with economic activity being constrained due to the impact of the spread of COVID-19.

The year-on-year rate of change in the CPI has been positive but is likely to be somewhat weak for the time being, mainly affected by the spread of COVID-19 and the decline in crude oil prices.

## B. Outlook for Economic Activity and Prices from a Somewhat Long-Term Perspective

In this Outlook Report, while there are extremely high uncertainties over the outlook for economic activity from a somewhat long-term perspective, it is assumed that the impact of the spread of COVID-19 on the economy will wane on a global basis through the second half of 2020.[2]

Based on this assumption, the growth pace of overseas economies is likely to increase. This is because, from around the second half of 2020, pent-up demand and a recovery in production from the decline brought about by the spread of COVID-19 are expected to exert upward pressure on these economies, and the effects of aggressive macroeconomic policies taken by each country and region are likely to materialize.

Japan's economy also is expected to improve as the impact of the spread of COVID-19 wanes at home and abroad. Exports are likely to head toward an increase again with the growth pace of overseas economies rising. In addition, domestic demand is expected to turn toward a pick-up and then increase, supported by accommodative financial conditions and the government's economic measures, as well as through the expected materialization of pent-up demand.

As for prices, with the economy improving in such a manner, the year-on-year rate of change in the CPI is likely to increase gradually.

## C. Financial Conditions

Looking at the financial conditions on which the above outlook is based, global financial and capital markets have been unstable and corporate financing has been affected globally, both reflecting the spread of COVID-19. That said, the government and central bank of each country and region have been making responses aggressively, with a view to maintaining stability in financial markets and ensuring smooth corporate financing. In Japan, the government has implemented various measures to support corporate financing. While pursuing "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control," the Bank has implemented various powerful monetary easing measures since March with a view to ensuring smooth financing, such as of firms, and maintaining

[2] According to the baseline scenario in the April 2020 *World Economic Outlook* released by the International Monetary Fund (IMF), it is assumed that the pandemic will fade in the second half of 2020 and containment measures taken by each country and region will be lifted gradually. The outlook for economic activity and prices presented in this Outlook Report generally is based on the same assumption.

stability in financial markets.[3] In this situation, it is expected that financial conditions will remain accommodative and further downward pressure on the real economy from the financial side will be avoided.[4]

## III. Risks to Economic Activity and Prices

The outlook for economic activity and prices is extremely unclear, as it could change depending on the timing of the spread of COVID-19 subsiding and on the magnitude of the impact on domestic and overseas economies. In addition, the aforementioned outlook is based mainly on the assumption that, while the impact of the spread of COVID-19 remains, firms' and households' medium- to long-term growth expectations will not decline substantially and the smooth functioning of financial intermediation will be ensured with financial system stability being maintained, although this assumption entails high uncertainties. Major upside and downside risks to economic activity and prices are as follows. With regard to the risk balance, risks to both economic activity and prices are skewed to the downside, mainly due to the impact of COVID-19.

Regarding the outlook for economic activity, it is necessary to pay attention to the following three risks in particular until the impact of the spread of COVID-19 subsides.

The first is the impact of the spread of COVID-19 on domestic and overseas economies. There are high uncertainties regarding the consequences of the spread of COVID-19, the timing of the spread subsiding, and the magnitude of its impact on domestic and overseas economies until the spread subsides. As it is difficult at this point to envisage when effective medicines and vaccines can be developed, it is highly unclear how long it will take for the spread of COVID-19 to subside. In addition, with regard to preventive measures against this spread, such as stay-at-home orders or requests, it is difficult to predict the magnitude of their impact on the economy. Moreover, there are high uncertainties over the pace of economic improvement after the spread of COVID-19 subsides.

The second risk is firms' and households' medium- to long-term growth expectations. If such expectations decline, triggered mainly by the spread of COVID-19 becoming prolonged, there is a risk that their appetite for spending will not increase easily even after the spread subsides. On the other hand, medium- to long-term growth expectations could increase if the issue of COVID-19 leads to an active use of various types of information

[3] See "Enhancement of Monetary Easing in Light of the Impact of the Outbreak of the Novel Coronavirus (COVID-19)" released on March 16, 2020 and "Enhancement of Monetary Easing" released on April 27, 2020.

[4] Each Policy Board member makes their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding the future conduct of policy.

and communication technology in the face of the restrictions on going outside, thereby having positive effects on the field of digital technology, such as further innovation.

The third risk is developments in the financial system. Although it is under severe stress due to the impact of the spread of COVID-19, the Bank and the government have been taking measures aggressively, with a view to ensuring smooth financing, such as of firms, and maintaining stability in financial markets. In addition, financial institutions have considerable resilience in terms of both capital and liquidity. In this situation, the financial system has maintained stability on the whole.[5] However, if the impact of the spread of COVID-19 lasts longer than expected, there is a risk that deterioration in the real economy will affect financial system stability, thereby exerting further downward pressure on the real economy. Although this risk is judged as not significant at this point, it is necessary to pay close attention to future developments.

If the aforementioned risks to economic activity materialize, prices also are likely to be affected accordingly. In addition, it is necessary to pay attention to developments in international commodity prices, including those of crude oil, and to the effects of future fluctuations in foreign exchange rates on prices.

[5] For details, see the Bank's *Financial System Report* (April 2020).

(Appendix)

## Forecasts of the Majority of the 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 | -0.4 to -0.1 | +0.6 | +0.4 |
| Forecasts made in January 2020 | +0.8 to +0.9 | +0.6 to +0.7 | +0.4 to +0.5 |
| Fiscal 2020 | -5.0 to -3.0 | -0.7 to -0.3 | -0.8 to -0.4 |
| Forecasts made in January 2020 | +0.8 to +1.1 | +1.0 to +1.1 | +0.9 to +1.0 |
| Fiscal 2021 | +2.8 to +3.9 | 0.0 to +0.7 | |
| Forecasts made in January 2020 | +1.0 to +1.3 | +1.2 to +1.6 | |
| Fiscal 2022 | +0.8 to +1.6 | +0.4 to +1.0 | |

Notes: 1. Given that there are higher uncertainties regarding the outlook, in the April Outlook Report, each Policy Board member made their forecasts as a range and submitted two figures (i.e., the highest and lowest figures) within the range of 1.0 percentage point at most. The forecasts of the majority of the Policy Board members are shown as a range excluding four figures -- namely, the two highest figures and two lowest figures among the forecasts of the nine members. (If a member submits the same forecast figure for the highest and lowest figures, it is counted as two separate figures.) In the January Outlook Report, the forecasts of the majority of the Policy Board members also were shown as a range, excluding the highest and lowest figures, but each member's forecasts took the form of point estimates. Thus, it should be noted that the definition of the forecasts of the majority of the Policy Board members in the January Outlook Report is different from that in the April Outlook Report.

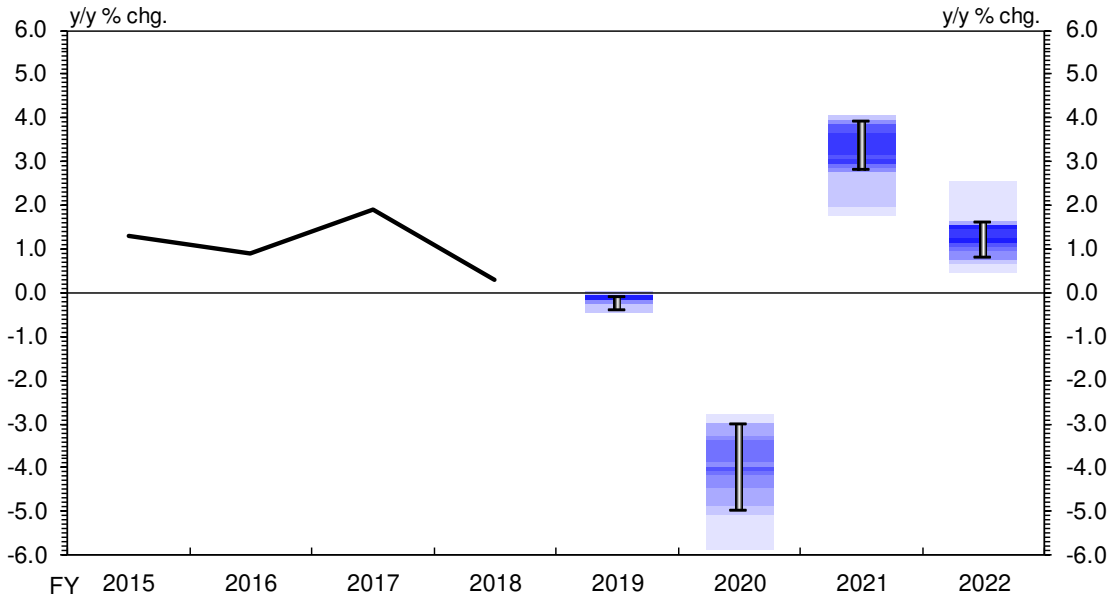
2. Each Policy Board member makes their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding the future conduct of policy.

3. The direct effects of the October 2019 consumption 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 around minus 0.3 percentage point and around minus 0.4 percentage point, respectively.

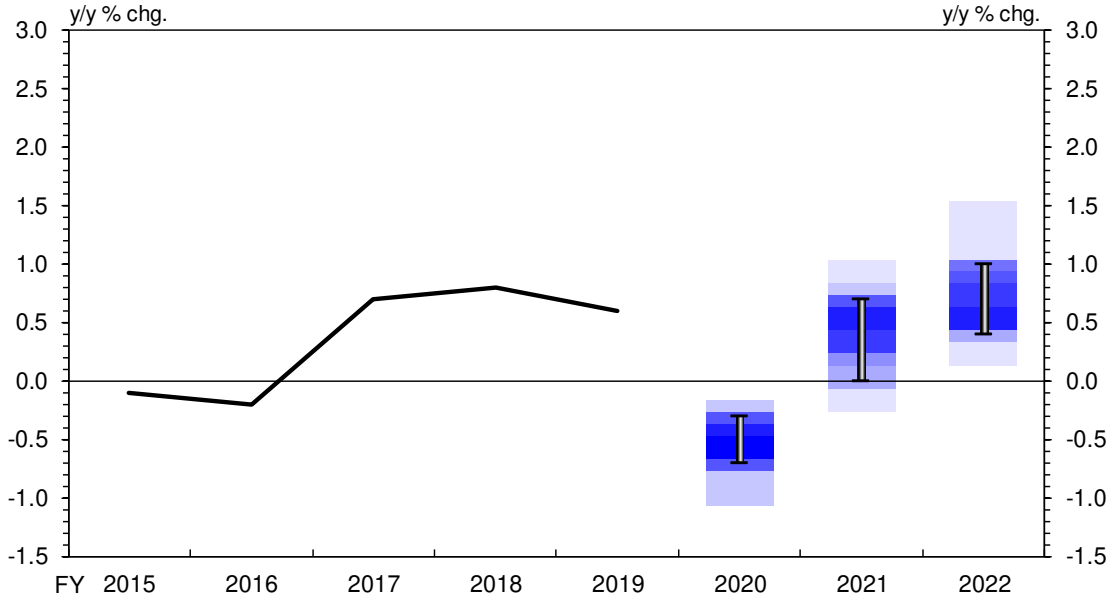
4. The CPI (all items less fresh food) for fiscal 2019 is an actual figure.

## Policy Board Members' Forecasts for Economic Activity and Prices

### (1) Real GDP




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




Notes: 1. The solid lines represent actual figures. Shaded areas, which correspond to the color-coded distribution below, indicate the number of the Policy Board members who forecasted the same figure. (Figures are shown in units of 0.1 percentage point.) The vertical lines indicate the forecasts of the majority of the Policy Board members.

member(s)

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

2. The CPI figure for fiscal 2015 excludes the direct effects of the April 2014 consumption tax hike.

## The Background[6]

# I. Current Situation of and Outlook for Economic Activity and Prices

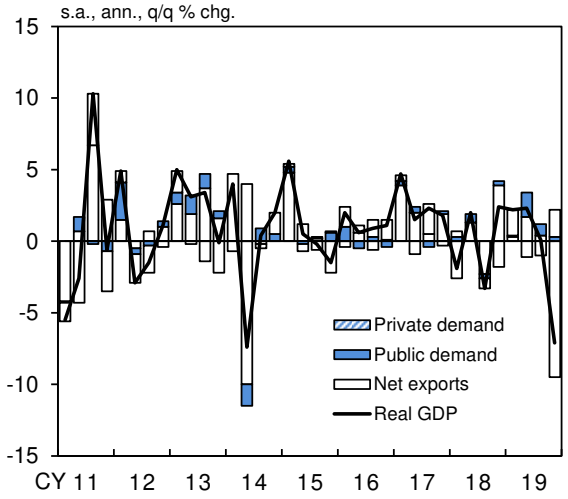
## A. Summary

### Economic Developments

Japan's economy has been in an increasingly severe situation due to the impact of the spread of COVID-19 at home and abroad.

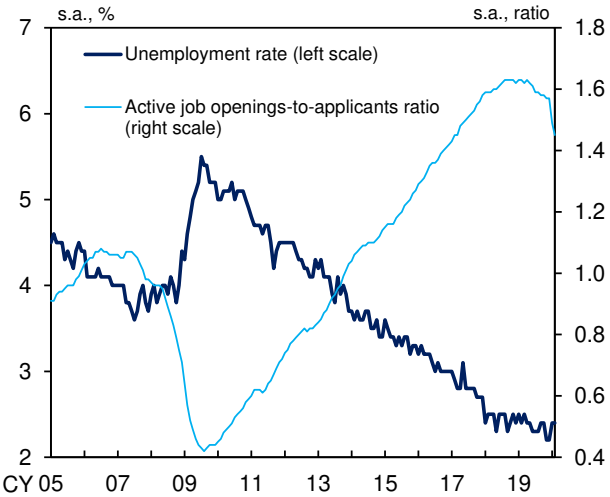
The real GDP growth rate for the October-December quarter of 2019 registered negative growth for the first time in five quarters, marking minus 1.8 percent on a quarter-on-quarter basis and minus 7.1 percent on an annualized basis (Chart 1). This is attributable to the fact that exports declined, reflecting the effects of the slowdown in overseas economies, and that domestic demand such as private consumption and business fixed investment also decreased, mainly affected by the consumption tax hike and natural disasters. Labor market conditions -- as seen in the unemployment rate and active job openings-to-applicants ratio -- have remained tight, and the number of employed persons has continued to follow an uptrend (Charts 2 and 3). However, the output gap -- which captures the utilization of labor and capital -- has narrowed within positive territory (Chart 4). Through early 2020, a pick-up was observed, mainly in private consumption, with the effects of the tax hike gradually waning. However, the situation changed significantly thereafter due to the impact of the spread of COVID-19 at home

**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.

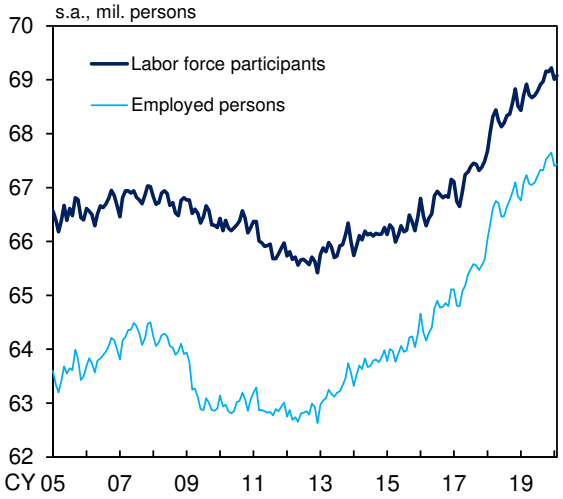
[6] "The Background" provides explanations of "The Bank's View" decided by the Policy Board at the Monetary Policy Meeting held on April 27, 2020.

and abroad, and Japan's economy has been in an increasingly severe situation. Specifically, exports have declined with overseas economies becoming depressed rapidly. As for domestic demand, the deceleration in the pace of increase in business fixed investment has become evident recently, and private consumption has decreased significantly, mainly in services such as eating and drinking as well as accommodations, with the growing impact of the spread of COVID-19.

With regard to the outlook, Japan's economy is likely to remain in a severe situation for the time being due to the impact of the spread of COVID-19 at home and abroad. Exports, including inbound tourism consumption, are likely to remain weak as overseas economies are expected to remain depressed, reflecting the impact of the COVID-19 pandemic. Regarding domestic demand, private consumption -- mainly in terms of services consumption -- is expected to remain weak, despite being supported by the government's economic measures.[7]

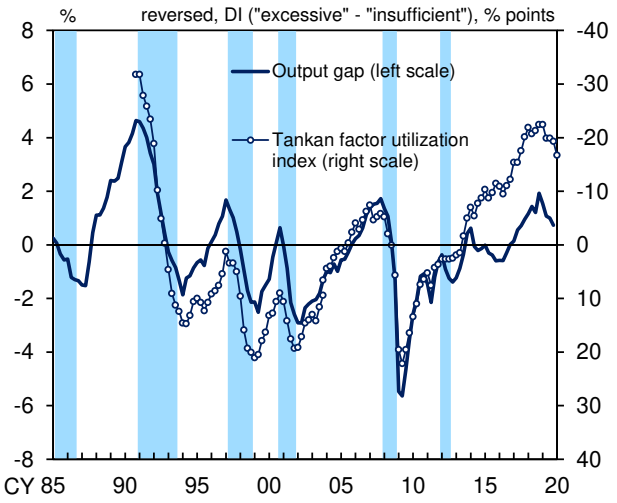
From a somewhat long-term perspective, as the impact of the spread of COVID-19 wanes at home and abroad, Japan's economy is likely to improve with the growth rates of overseas economies rising. This is because, in this situation, the synergistic effects of monetary easing and the government's economic measures stimulating

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




Source: Ministry of Internal Affairs and Communications.

**Chart 4:** Output Gap



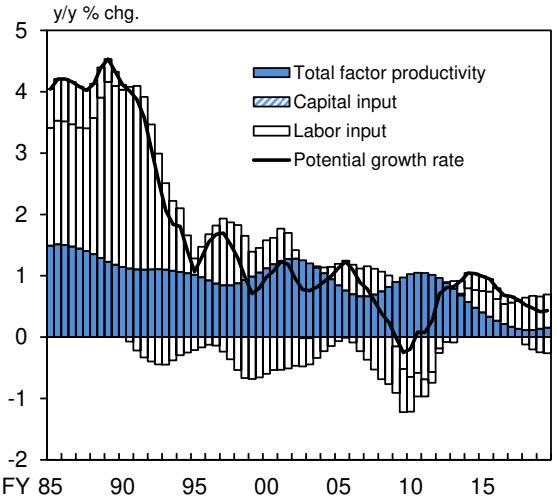

Source: Bank of Japan.
Notes: 1. The output gap is based on staff estimations.
2. The Tankan factor utilization index is calculated as the weighted average of the production capacity DI and the employment conditions DI for all enterprises. The capital and labor shares are used as weights. There is a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

[7] The Emergency Economic Measures for Response to COVID-19 -- with a project size of around 117.1 trillion yen and fiscal spending of around 48.4 trillion yen -- was decided by the Cabinet in April 2020. This Outlook Report assumes that the supplementary budget for fiscal 2020 will be enacted and implemented based on the measures, and thereby domestic demand, mainly in terms of private consumption, will be supported.

demand are expected to materialize and pent-up demand is likely to exert upward pressure on the economy. Exports are expected to head toward an increase again with the growth rates of overseas economies rising. Business fixed investment -- mainly construction investment related to urban redevelopment projects, labor-saving investment to address labor shortage, as well as software and research and development (R&D) investments for growth areas -- is likely to return to an uptrend with some time lag, supported by accommodative financial conditions, although it is projected to decline temporarily, mainly in machinery investment by manufacturers. Private consumption also is likely to turn to a pick-up, in line with a loosening of preventive measures against the spread of COVID-19, and then increase. Meanwhile, government spending is expected to steadily increase due to expansion such as in construction related to restoration and reconstruction following natural disasters, as well as to national resilience, and then remain at a high level.

In sum, Japan's economy is likely to remain in a severe situation for the time being due to the impact of the spread of COVID-19, and thereafter improve as the impact of the spread of COVID-19 wanes at home and abroad. In this Outlook Report, while there are high uncertainties over the duration of the impact of the spread of COVID-19 on the economy, it is assumed that the impact will wane on a global basis through the second half of 2020. Based on this assumption, Japan's real GDP growth rate is expected to register relatively large negative growth for fiscal 2020 but become comparatively higher for fiscal 2021, partly reflecting a rebound from the decline.

**Chart 5:** Potential Growth Rate




Source: Bank of Japan.
Note: Based on staff estimations. Figures for the second half of fiscal 2019 are those for 2019/Q4.

## Price Developments

The year-on-year rate of change in the CPI (all items less fresh food) is at around 0.5 percent.

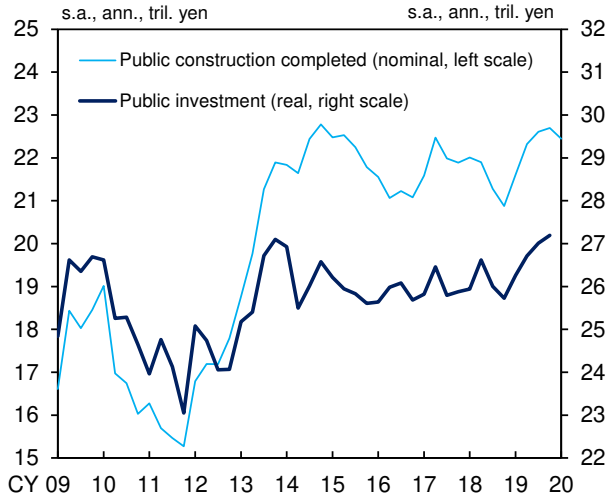
Regarding the outlook, it is likely to be somewhat weak for the time being, mainly affected by the spread of COVID-19 and the decline in crude oil prices. Specifically, (1) charges for hotels and package tours to overseas are expected to decline, directly affected by the spread of COVID-19, and (2) the CPI items that are sensitive to economic activity, such as food products and dining-out, are likely to become somewhat weak. In addition, (3) the decline in energy prices such as those of petroleum products is expected to exert downward pressure on the CPI. In this situation, medium- to long-term inflation expectations are likely to be somewhat weak for the time being. Thereafter, however, it is expected that the effects of the decline in energy prices will wane and medium- to long-term inflation expectations will rise moderately as the economy improves. Thus, the year-on-year rate of change in the CPI (all items less fresh food) is likely to increase gradually.

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

### Government Spending

Public investment has increased moderately (Chart 6). The amount of public construction completed, which is a coincident indicator, has continued to increase moderately, reflecting the progress in construction related to restoration and reconstruction following natural disasters as well as to national resilience.[8,9]

**Chart 6:** Public Investment

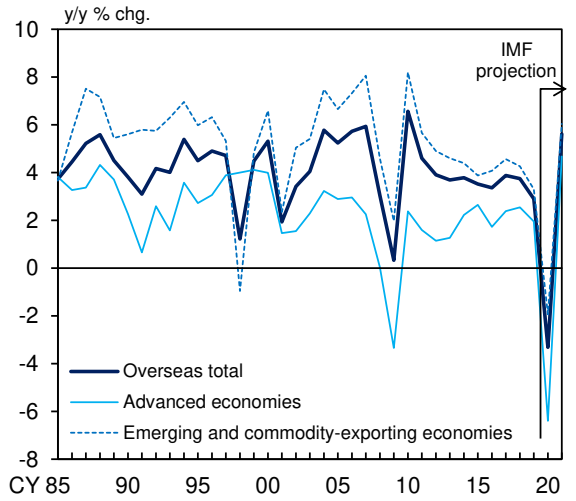



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2020/Q1 is the January-February average.

### Overseas Economies

Overseas economies have become depressed rapidly, reflecting the impact of the COVID-19 pandemic (Chart 7).[10] The Global Manufacturing PMI shows that business sentiment of manufacturing firms bottomed out and then headed toward a pick-up in the second half of 2019, mainly on the back of the cycle for IT-related goods shifting toward a phase of improvement and the progress in the U.S.-China trade negotiations; however, it recently has deteriorated significantly due to the impact of the COVID-19 pandemic (Chart 8). Under the

**Chart 7:** Overseas Economies




Sources: IMF; Ministry of Finance.
Note: Figures are the weighted averages of real GDP growth rates using countries' share in Japan's exports as weights. Annual GDP growth rates are from the "World Economic Outlook (WEO)" as of April 2020. 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.

[8] In view of the three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience decided by the Cabinet in December 2018 -- with a total project size of around 7 trillion yen -- measures to maintain functions, such as of important infrastructure, are to be implemented intensively over three years from fiscal 2018 through fiscal 2020.

[9] Based on the Comprehensive Economic Measures to Create a Future with Security and Growth -- with a project size of around 26.0 trillion yen and fiscal spending of around 13.2 trillion yen -- which was decided by the Cabinet in December 2019, the supplementary budget for fiscal 2019 and the initial budget for fiscal 2020 were enacted. This Outlook Report assumes that public investment is expected to be pushed up, mainly led by construction related to restoration and reconstruction following natural disasters as well as to flood control.

[10] With regard to the impact of the spread of COVID-19 on developments in overseas economies, see Box 1.

circumstances, economic activity both in the manufacturing and nonmanufacturing sectors has been constrained significantly, and trade activity also has dropped sharply.

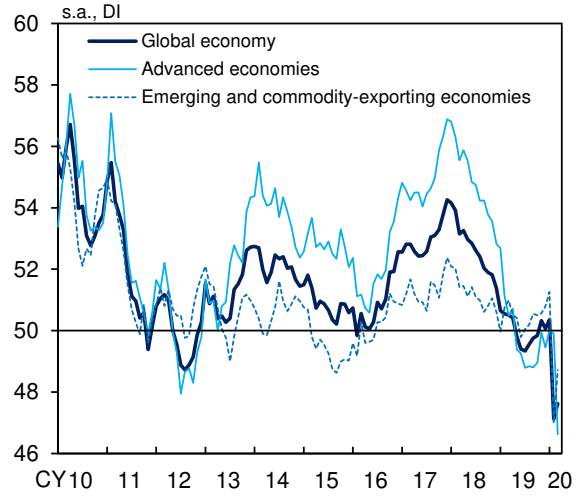
Looking at developments by major region, the U.S., European, and emerging and commodity-exporting economies other than China have become depressed rapidly due to the impact of the spread of COVID-19. On the other hand, the Chinese economy seems to be showing signs of a pick-up following a plunge, as the impact of the spread of COVID-19 has waned.

## Exports and Imports

Exports have declined with overseas economies becoming depressed rapidly (Chart 10).[11] By region, although exports to advanced economies such as the United States and the European Union (EU) were on an increasing trend through the middle of last year, they recently have declined clearly, mainly for automobile-related goods and capital goods exports (Chart 11). Those to emerging economies, such as China as well as the NIEs and the ASEAN economies, have continued to show some weakness, mainly for capital goods exports, although a pick-up has been observed in IT-related goods exports. By goods, a downtrend in automobile-related exports has been evident due to a decline in global automobile sales, although the recent shift of production sites to overseas almost has been completed (Chart 12). Excluding developments in semiconductor production equipment, which are

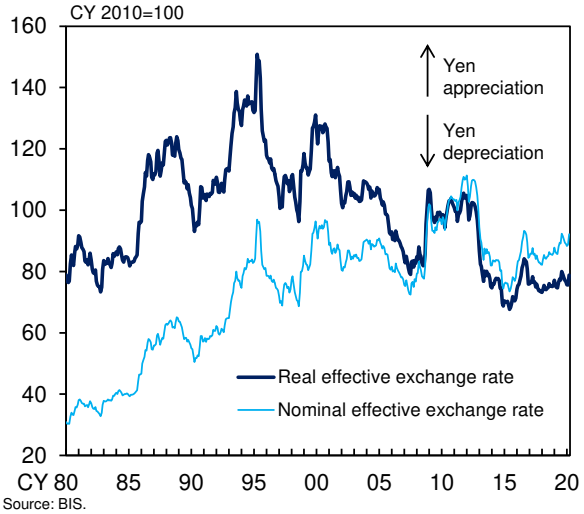
[11] With regard to the impact of the spread of COVID-19 on Japan's economy, such as in terms of exports of goods and services as well as private consumption, see Box 2.

**Chart 8:** Global Manufacturing PMI



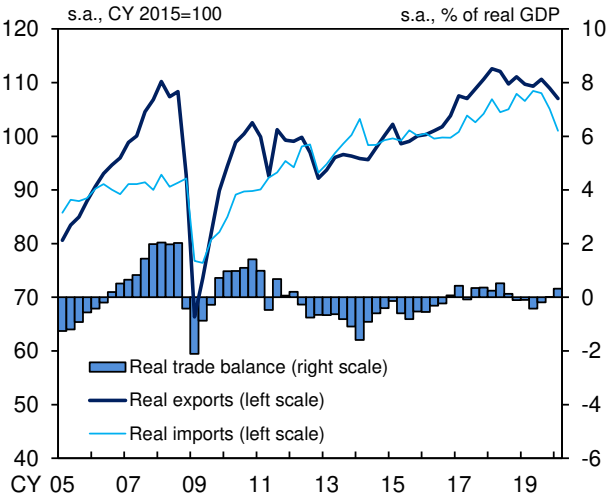

Sources: IHS Markit (© and database right IHS Markit Ltd 2020. All rights reserved.), etc.
Note: Figures for the global economy are the "J.P. Morgan Global Manufacturing PMI." Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages 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 20 countries and regions, such as China, South Korea, Taiwan, Russia, and Brazil.

**Chart 9:** Effective Exchange Rates




Source: BIS.
Note: Figures are based on the broad index of the "Effective Exchange Rate." Those prior to 1994 are calculated using the narrow index.

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




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

affected by the cycle for IT-related goods, exports of capital goods have declined clearly, reflecting a global decrease in business fixed investment. On the other hand, IT-related exports have been firm, mainly for parts for data centers and 5G-related equipment. Meanwhile, exports of intermediate goods were on a moderate uptrend through last autumn, mainly regarding cosmetics and pharmaceuticals, but the pace of increase has decelerated recently.

The pace of increase in the world trade volume clearly has been below world economic growth, and it has been negative on an annual basis since the second half of last year (Chart 13).[12] Japan's share of exports in the world trade volume has been more or less flat recently (Chart 14).

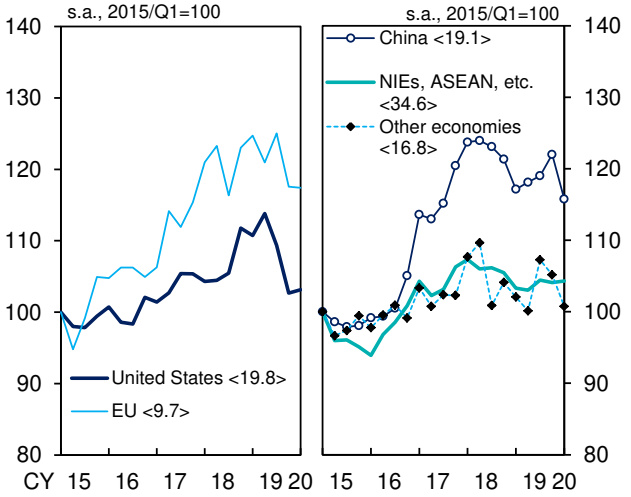
Imports have decreased clearly, due in part to weak production activity, mainly in China, that has resulted from the spread of COVID-19 (Chart 10).

## External Balance

The nominal current account surplus increased through the January-February period this year (Chart 15). Looking at the breakdown of developments in the current account balance, the surplus in the nominal trade balance increased. This is attributable to the fact that, while exports declined, imports decreased significantly, mainly against the background of weak production activity in China and the past decline in crude oil prices. The services balance, which was at around zero, has marked a deficit recently,

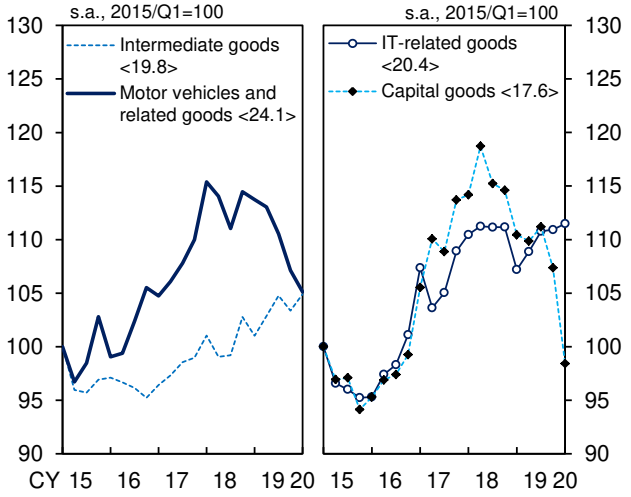
[12] The world trade volume is calculated by adding up real imports in each country.

**Chart 11:** Real Exports by Region



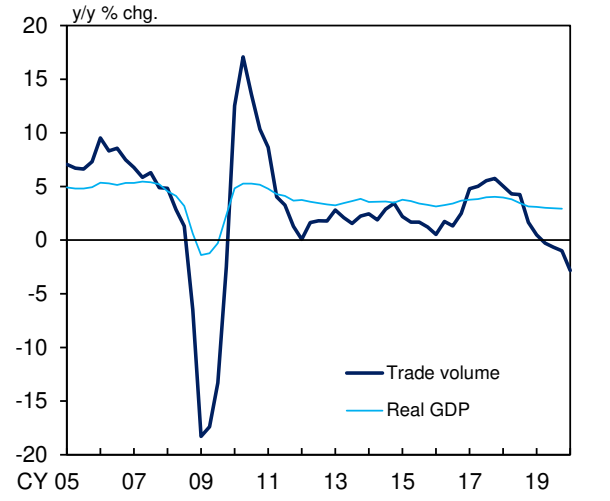

Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports in 2019.
2. "EU" does not include the United Kingdom for the entire period.

**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 2019.

**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 2020/Q1 is the percentage change from the January-March 2019 average to the January-February 2020 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.

reflecting a significant deterioration in the travel balance that is due to the impact of the spread of COVID-19. On the other hand, the primary income balance has maintained a relatively large surplus.

Meanwhile, the number of inbound visitors, which affects travel receipts in the services balance, has declined significantly since this February, mainly affected by preventive measures against the spread of COVID-19, such as restrictions on immigration (Chart 16). Reflecting these developments, travel receipts have declined significantly.

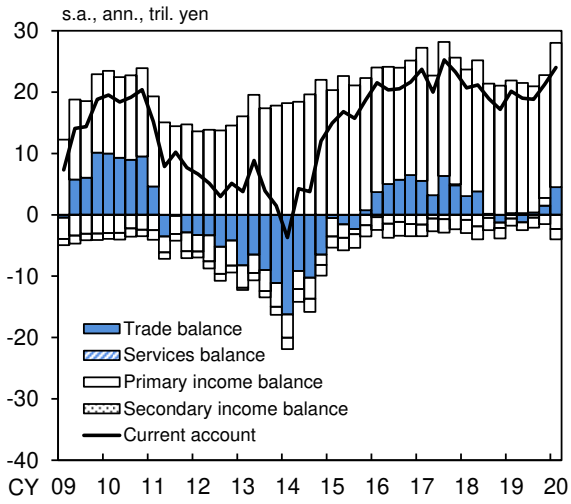
## Industrial Production

Industrial production has declined with overseas economies becoming depressed rapidly (Chart 17). By major industry, according to the data available through February, transport equipment production has been more or less flat at a low level, pushed down by weak automobile sales abroad, although a recovery from the decline brought about by last autumn's natural disasters has been observed. The production of machinery (i.e., "general-purpose, production, and business-oriented machinery" in the *Indices of Industrial Production*) has continued on a downtrend, affected largely by a decline in capital goods exports, despite being pushed up by a recovery from the decline brought about by natural disasters. On the other hand, the production of electronic parts and devices has picked up on the back of an increase in overseas demand for parts for data centers and 5G-related equipment. Meanwhile, the shipments-inventories balance (i.e., the year-on-year rate of change in

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

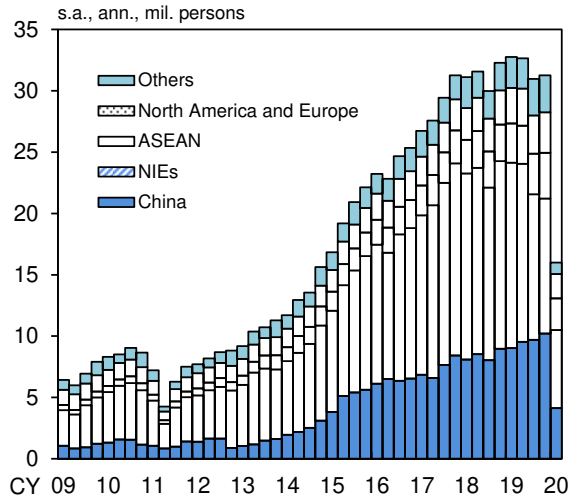

Source: CPB Netherlands Bureau for Economic Policy Analysis.
Note: Japan's share of exports in world trade is obtained by dividing Japan's real exports by world real imports (2010 prices). The figure for 2020/Q1 is the January-February average.

**Chart 15:** Current Account




Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2020/Q1 are January-February averages.

**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.

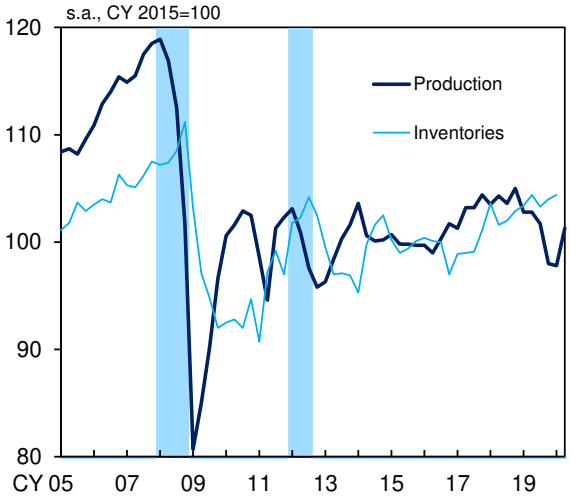
shipments minus that in inventories) has deteriorated, mainly for production goods (Chart 18).

## Corporate Profits

Corporate profits were at high levels on the whole but downward pressure has intensified recently due to the impact of the spread of COVID-19. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC), developments through last year in the ratios of profits to sales for all industries and enterprises suggest that these ratios became lower compared to a while ago, mainly reflecting the effects of the slowdown in overseas economies and natural disasters, but remained at high levels from a somewhat long-term perspective (Chart 19).

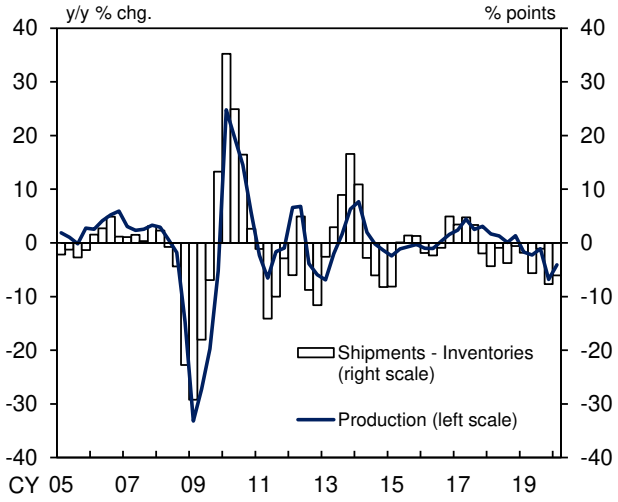
Business sentiment has deteriorated due to the impact of the spread of COVID-19. According to the diffusion index (DI) for business conditions in the March 2020 *Tankan* (Short-Term Economic Survey of Enterprises in Japan), that for all industries and enterprises has turned negative, reflecting the impact of the spread of COVID-19 (Chart 20). By industry, the DI for the manufacturing sector has deteriorated in a wide range of industries, including automobiles, general-purpose, production, and business-oriented machinery, as well as iron and steel. The DI for the nonmanufacturing sector has deteriorated significantly, mainly in accommodations, eating and drinking services, as well as services for individuals, against the background of self-restraint from going outside and holding events in response to preventive measures against the spread of COVID-19. Thus,

**Chart 17:** Industrial Production



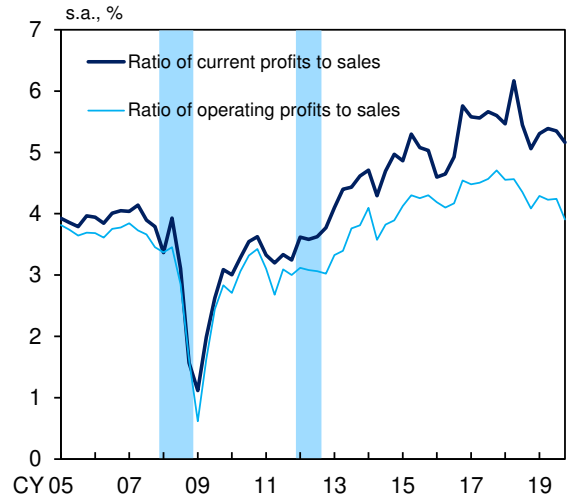

Source: Ministry of Economy, Trade and Industry (METI).
Notes: 1. Shaded areas indicate recession periods.
2. The production figures for 2020/Q1 and Q2 are calculated based on METI projections for March and April 2020.
The inventories figure for 2020/Q1 is that for February.

**Chart 18:** Shipments-Inventories Balance




Source: Ministry of Economy, Trade and Industry.
Note: The production figure and the shipments figure for 2020/Q1 are January-February averages. The inventories figure for 2020/Q1 is that for February.

**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.

recent developments in corporate profits warrant attention.

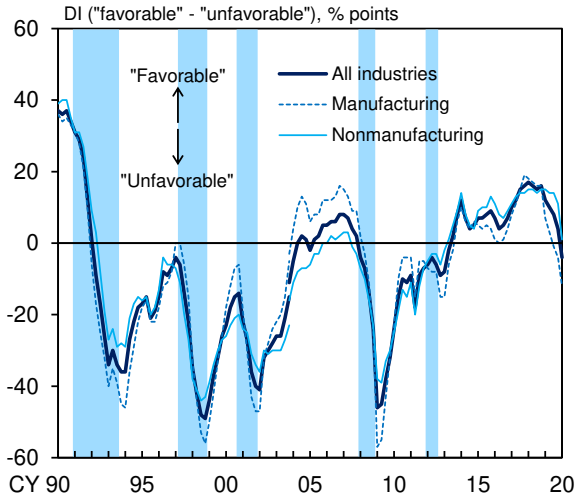
## Business Fixed Investment

The deceleration in the pace of increase in business fixed investment has become evident recently (Chart 21). The aggregate supply of capital goods -- a coincident indicator of machinery investment -- has shown some weakness recently, mainly due to the effects of the slowdown in overseas economies. The pace of increase in private construction completed (nonresidential) -- a coincident indicator of construction investment -- has decelerated clearly of late.

Machinery orders -- a leading indicator of machinery investment -- continued on an increasing trend through mid-2019 but have been somewhat weak recently, mainly from the manufacturing sector, against the background of the prolonged slowdown in overseas economies (Chart 22). Construction starts (in terms of planned expenses for private and nonresidential construction) -- a leading indicator of construction investment -- have decreased, partly due to a reactionary decline to the increase in large-scale construction and moves to refrain from starting construction work in view of the Olympic Games that had been scheduled to take place this summer.

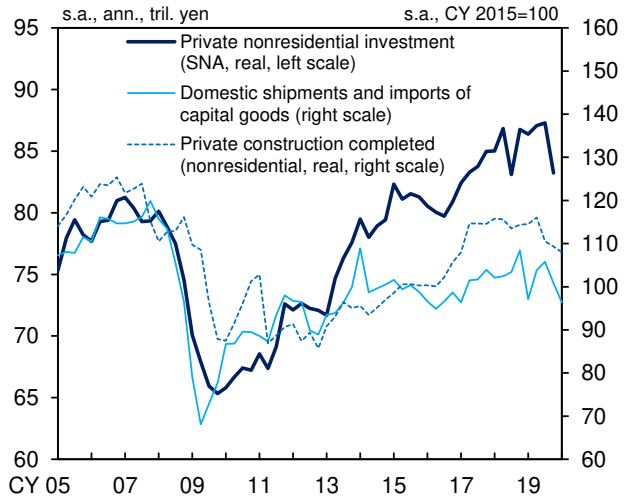
Firms' positive business fixed investment stance seems to be maintained at present in terms of investment aimed at improving efficiency and saving labor in order to deal with labor shortage,

**Chart 20:** Business Conditions



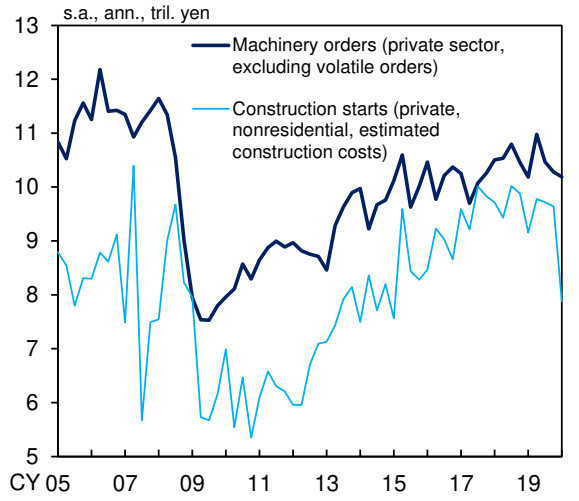

Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. All enterprises. There is a discontinuity in the data in December 2003 due to a change in the survey framework.
2. Shaded areas indicate recession periods.

**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 2020/Q1 are January-February averages.
2. Real private construction completed is based on staff calculations using price indices in the "Construction Cost Deflators."

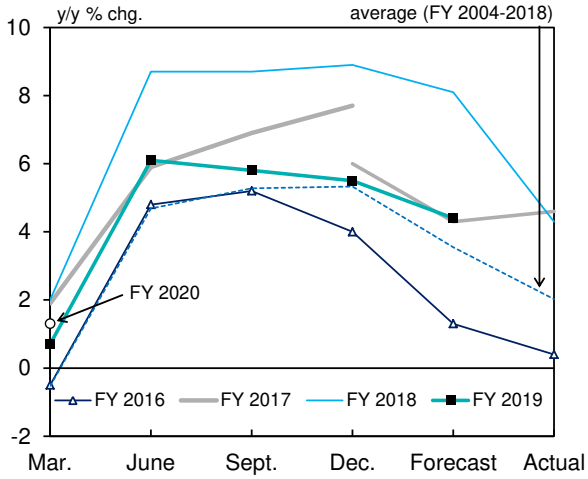
**Chart 22:** Leading Indicators of Business Fixed Investment




Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Volatile orders: orders for ships and orders from electric power companies.
2. Figures for 2020/Q1 are January-February averages.

as well as of R&D investment for growth areas. According to the March *Tankan*, business fixed investment is expected to continue increasing for fiscal 2019 and 2020, exceeding the past average as of the March survey (Chart 23). Business fixed investment (on the basis close to GDP definition; business fixed investment -- including software and R&D investments, but excluding land purchasing expenses -- in all industries and enterprises including financial institutions) is expected to see year-on-year rates of increase of 4.4 percent for fiscal 2019 and 1.3 percent for fiscal 2020. However, attention needs to be paid to whether recent changes in the environment surrounding corporate profits that reflect the spread of COVID-19 will not exert downward pressure on business fixed investment.

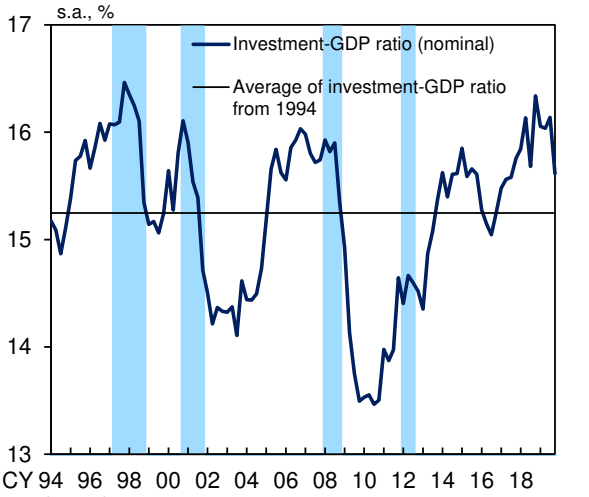
**Chart 23:** Developments in Business Fixed Investment Plans




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.

The nominal investment-GDP ratio maintained its high level with an increase in business fixed investment (Chart 24). However, the ratio recently has declined somewhat as the pace of increase in business fixed investment has decelerated.

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




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

## Employment and Income Situation

With the growing impact of the spread of COVID-19, the employment and income situation has started to show some weakness.

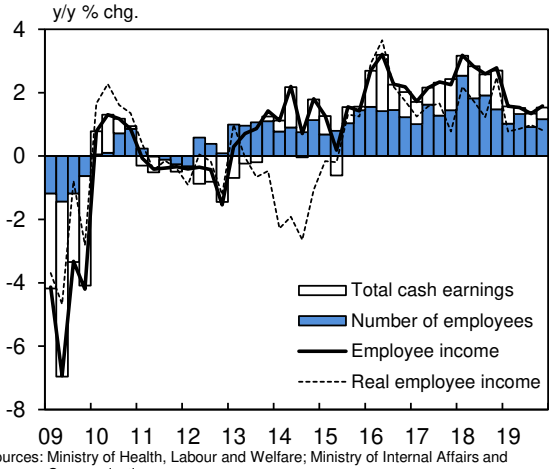
Looking at labor market conditions, although the active job openings-to-applicants ratio was at a high level through the start of this year, exceeding the peak marked during the bubble period, it has registered a relatively large decline recently, due in part to the impact of the spread of COVID-19

(Chart 2).[13] The employment conditions DI in the *Tankan* shows that, although a perception of labor shortage has remained strong, mainly for the nonmanufacturing sector, it has weakened for accommodations, eating and drinking services as well as services for individuals with the growing impact of the spread of COVID-19.

On the employment side, the *Labour Force Survey*-based number of employees continued to increase steadily through the January-February period this year (Chart 25). Against this backdrop, the unemployment rate has been at a low level in the range of 2.0-2.5 percent (Chart 2). Meanwhile, the labor force participation rate has remained on an uptrend, mainly for women (Chart 26).

On the wage side, total cash earnings per employee have continued to increase moderately, mainly led by scheduled cash earnings, although the pace of increase has decelerated somewhat, reflecting a weak rise in bonuses and a decline in non-scheduled cash earnings (Chart 27).[14, 15]

**Chart 25:** Employee Income

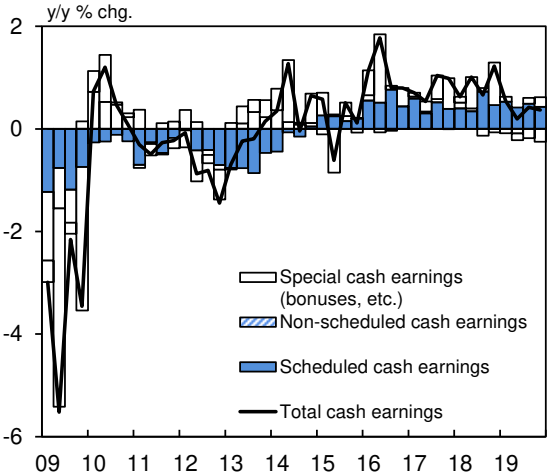



Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Employee income = total cash earnings ("Monthly Labour Survey") × number of employees ("Labour Force Survey")
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 2020/Q1 is the January-February average.

**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.

[13] The large decline in the job openings-to-applicants ratio since January 2020 seems to be attributable to the fact that some establishments have postponed the submission of job-offer forms to the Public Employment Security Offices, reflecting a substantial increase in the number of items to be completed on such forms. That said, even excluding this factor, the recent job openings-to-applicants ratio likely has declined, affected by the slowdown in overseas economies and the spread of COVID-19.

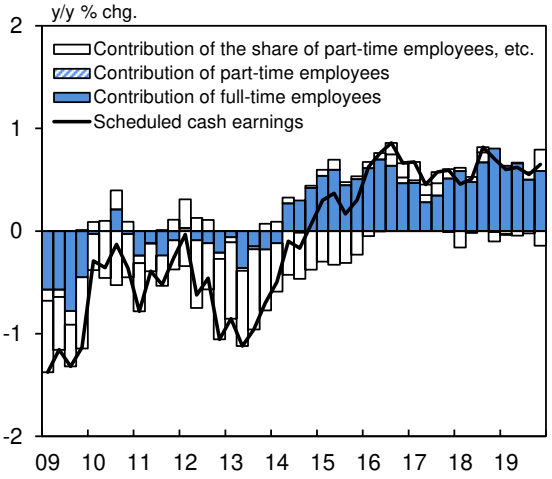
[14] From the June 2019 *Monthly Labour Survey*, the Ministry of Health, Labour and Welfare started to release figures for establishments in Tokyo with 500 or more employees based on all such establishments. As for figures used in the charts in this Outlook Report, those taken from the June 2019 survey 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.

[15] Wages in the *Monthly Labour Survey* are assessed on the basis of continuing observations, which are less affected by the sample revisions.

More recently, however, non-scheduled cash earnings, for example, likely have started to be affected by temporary store closures and shorter operating hours under preventive measures against the spread of COVID-19.

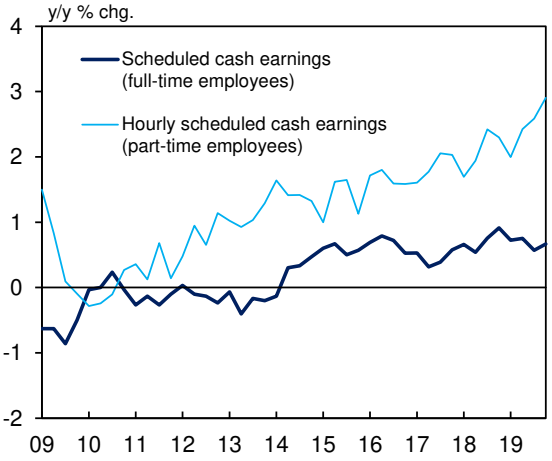
Looking at developments in nominal wages in detail, scheduled cash earnings have continued to increase moderately, mainly due to a rise in wages of full-time employees (Chart 28). The year-on-year rate of increase in scheduled cash earnings of full-time employees has been at around 0.5-1.0 percent (Chart 29).[16] That in hourly scheduled cash earnings of part-time employees -- which are sensitive to labor market conditions -- has continued to register relatively high growth of around 3 percent, partly affected by an increase in minimum wages. On the other hand, amid the underlying downward pressure stemming from a decrease in non-scheduled hours worked brought about by working-style reforms, non-scheduled cash earnings have been on a declining trend. This is due in part to a decline in production activity in the manufacturing sector that results from the slowdown in overseas economies and to the effects of constrained economic activity that reflects preventive measures against the spread of COVID-19. Growth in special cash earnings has decelerated recently, reflecting a weak rise in bonuses that resulted from slow growth in corporate profits.

**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.

**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.

[16] With regard to the base pay increase for fiscal 2020, the rate of increase in wages was 0.46 percent according to the third aggregate results compiled by the Japanese Trade Union Confederation (Rengo). The rate remained positive, despite declining somewhat from the actual rate for fiscal 2019 (0.56 percent).

In light of the aforementioned employment and wage conditions, the labor share for the October-December quarter of 2019 rose clearly, with employee income increasing and nominal GDP declining (Chart 30).

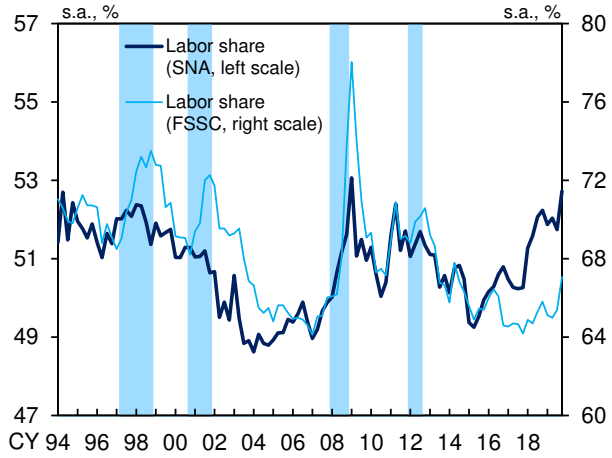
## Household Spending

Private consumption has decreased significantly with the growing impact of the spread of COVID-19, mainly in services such as eating and drinking as well as accommodations.

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 -- showed a relatively significant decline for the October-December quarter of 2019, mainly due to the reactionary decline to the increase in demand prior to the consumption tax hike and the effects of natural disasters.[17] Subsequently, a pick-up seen for the January-February period was small, partly because the impact of the spread of COVID-19 has started to be observed (Charts 31 and 32).

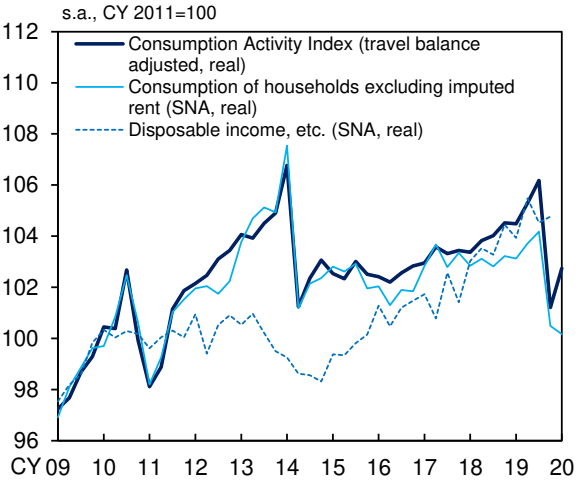
Looking at private consumption by type, durable goods picked up moderately, with the reactionary decline to the increase in demand prior to the tax hike bottoming out and the effects of natural disasters waning, but have started to decline since March due to the impact of the spread of

**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.

**Chart 31:** Private Consumption

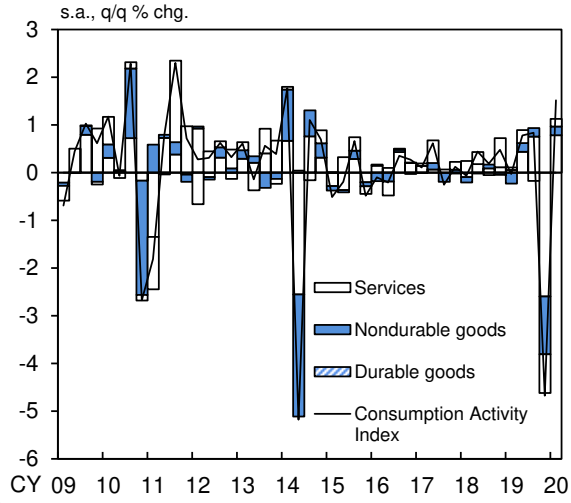



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. The Consumption Activity Index is based on staff calculations. Figures for the Consumption Activity Index (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2020/Q1 is the January-February average.
2. The figure for consumption of households excluding imputed rent for 2020/Q1 is based on staff calculations using the "Synthetic Consumption Index" (February).
3. "Disposable income, etc." consists of disposable income and "adjustment for the change in pension entitlements." Real values are obtained using the deflator of consumption of households.

[17] 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.

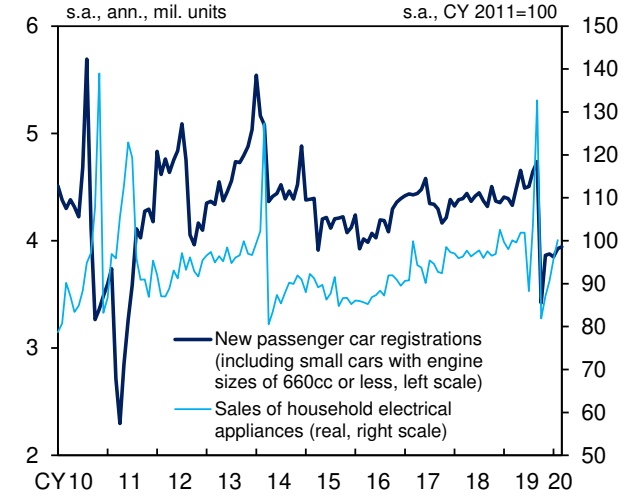
COVID-19. Specifically, sales of automobiles showed a relatively large decline, affected by such factors as supply constraints due to natural disasters, and then picked up, albeit at a moderate pace (Chart 33). Recently, however, the impact stemming from the spread of COVID-19 has started to be observed. Sales of household electrical appliances declined temporarily, reflecting the reactionary decline to the increase in demand prior to the tax hike and temporary store closures due to natural disasters, but subsequently picked up, mainly led by televisions and personal computers. However, they have shown some weakness again since March, reflecting self-restraint from going outside. Although some weakness was observed due to the effects of the unusually warm winter, nondurable goods have been firm owing to the effects of the reduced tax rate and point reward program for cashless payments, as well as to a recent rise in demand for food in reflection of a shift from dining-out. Services consumption continued on its moderate increasing trend, reflecting a trend rise in communications and medical care, but recently has declined substantially due to the impact of the spread of COVID-19. Dining-out maintained its moderate uptrend, led mainly by fast food, but seems to be decreasing largely of late, mainly reflecting self-restraint from going outside (Chart 34). Both overseas and domestic travel have declined significantly amid the growing impact of the spread of COVID-19. Other services, such as entertainment as well as railway and passenger services, also seem to be decreasing substantially due to the effects of self-restraint from going outside and temporary store closures.

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



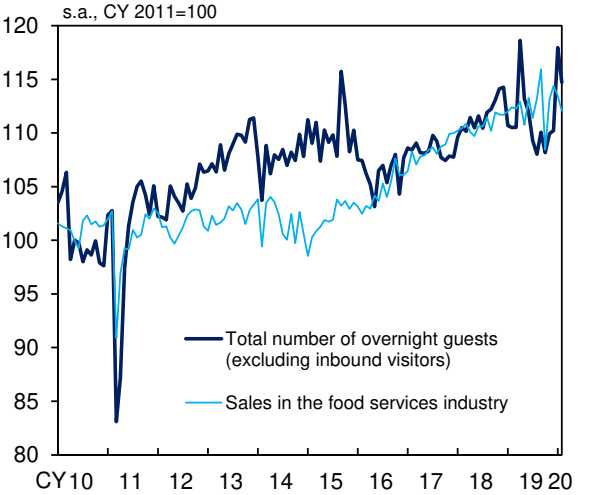

Sources: Bank of Japan, etc.
Notes: 1. Based on staff calculations. The Consumption Activity Index is adjusted for the travel balance. Figures for the components are not adjusted for the travel balance. Figures for 2020/Q1 are January-February averages.
2. Nondurable goods include goods classified as "semi-durable goods" in the SNA.

**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



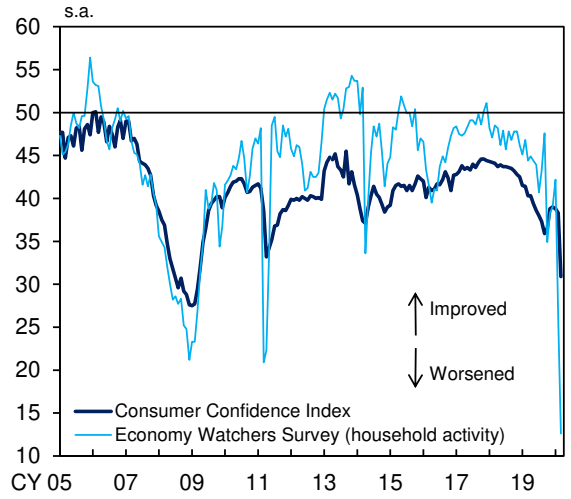

Sources: Japan Tourism Agency; Japan Foodservice Association, "Market Trend Survey of the Food Services Industry."
Note: Figures for the "total number of overnight guests (excluding inbound visitors)" in 2010 are calculated using those of accommodation facilities with more than nine employees.

Looking at confidence indicators related to private consumption, the Consumer Confidence Index picked up after bottoming out in September 2019 but has deteriorated amid the growing concern over the spread of COVID-19 (Chart 35). The DI of the *Economy Watchers Survey* also has worsened significantly of late.

The propensity to consume through the October-December quarter of 2019 was more or less flat, with fluctuations resulting from the tax hike (Chart 36).

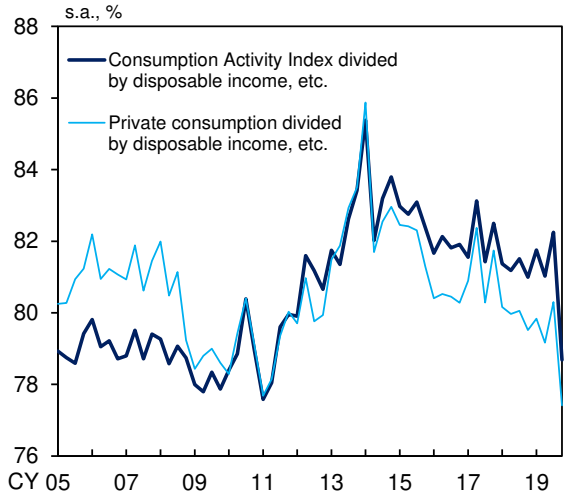
Housing investment has been more or less flat (Chart 37). The number of housing starts -- a leading indicator of housing investment -- has been declining recently. Looking at the breakdown, owned houses have registered a reactionary decline to the increase in demand prior to the tax hike last year, albeit to a small extent compared with that of the tax hike in 2014. Detached houses built for sale have shown some weakness recently, albeit with fluctuations that depend on whether there are large-scale properties. Housing for rent continued on a downtrend, mainly against the background of cautious lending attitudes of financial institutions, but the pace of decline has slowed recently due to an increase in condominiums for rent.

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



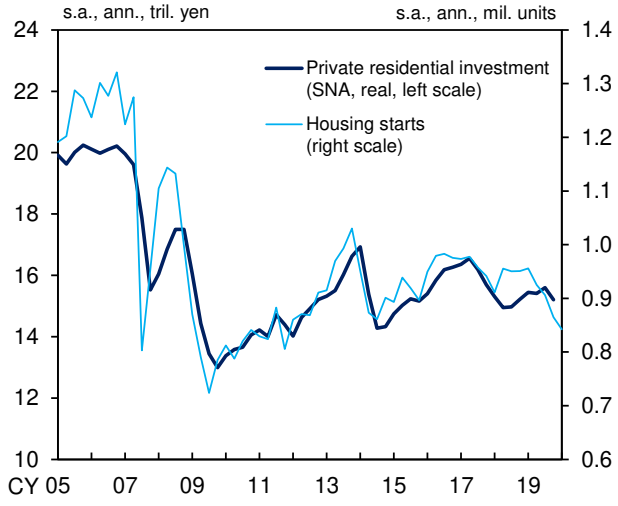

Source: Cabinet Office.
Note: Figures for the "Economy Watchers Survey" are those for the current economic conditions DI.

**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.
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 2020/Q1 is the January-February average.

## C. Price Developments in Japan

### Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has declined on a quarter-on-quarter basis, reflecting developments in international commodity prices and foreign exchange rates (Chart 38). The year-on-year rate of increase in the services producer price index (SPPI, excluding international transportation) has decelerated, due mainly to pressure stemming from cost cuts in response to slow growth in corporate profits, turning negative for this March, mainly because of the impact of the spread of COVID-19.[18]

The year-on-year rate of change in the CPI (all items less fresh food and energy) and that in the CPI (all items less fresh food) are both at around 0.5 percent (Charts 38 and 40).

Looking at the breakdown of developments in the year-on-year rate of change in the CPI (all items less fresh food and energy, excluding the effects of the consumption tax hikes and policies concerning the provision of free education), the rate of increase has accelerated on the whole, as there have been moves to pass on the increases in raw materials and personnel expenses to prices of goods and services, such as food products and dining-out. On the other hand, CPI items of some services (travel-related), such as charges for hotels, have shown some weakness

[18] Under these circumstances, the net "rise" for the input prices DI in the *Tankan* has decreased, partly reflecting the decline in commodity prices such as crude oil prices and a decrease in demand. The output prices DI has turned to a net "fall" (Chart 39).

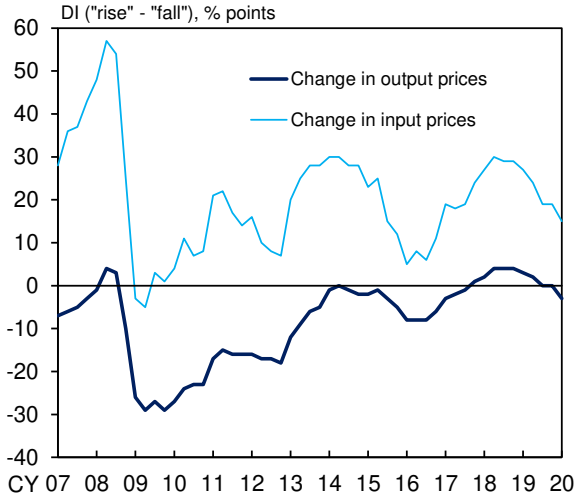
**Chart 38:** Inflation Indicators

y/y % chg.

| | 19/Q2 | 19/Q3 | 19/Q4 | 20/Q1 |
|---|---|---|---|---|
| Consumer Price Index (CPI) | | | | |
| Less fresh food | 0.8 | 0.5 | 0.6 | 0.6 |
| Adjusted figure | | | 0.2 | 0.2 |
| Less fresh food and energy | 0.5 | 0.6 | 0.8 | 0.7 |
| Adjusted figure | | | 0.6 | 0.4 |
| Producer Price Index (q/q % chg.) | 0.4 | -0.9 | -0.1 | -0.3 |
| Services Producer Price Index | 0.9 | 0.5 | 0.4 | 0.2 |
| GDP deflator | 0.4 | 0.6 | 1.2 | |
| Domestic demand deflator | 0.4 | 0.2 | 0.7 | |

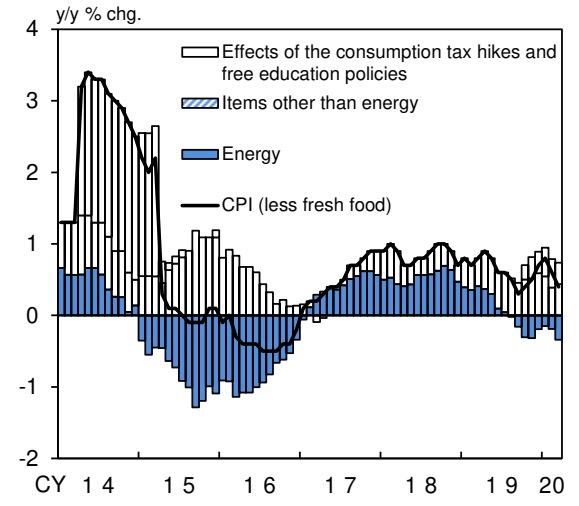
Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
Notes: 1. Adjusted figures exclude the effects of the consumption tax hike and policies concerning the provision of free education.
2. Figures for the Producer Price Index are adjusted for the hike in electric power charges during the summer season.
3. Figures for the Services Producer Price Index exclude international transportation.
4. Figures for the Producer Price Index and the Services Producer Price Index exclude the effects of the consumption tax hike.

**Chart 39:** Changes in Prices




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

**Chart 40:** CPI (less fresh food)




Source: Ministry of Internal Affairs and Communications.
Note: Energy consists of petroleum products, electricity, and gas, manufactured & piped.

recently due to a decline in inbound tourism demand that reflects the impact of the spread of COVID-19 (Chart 41).

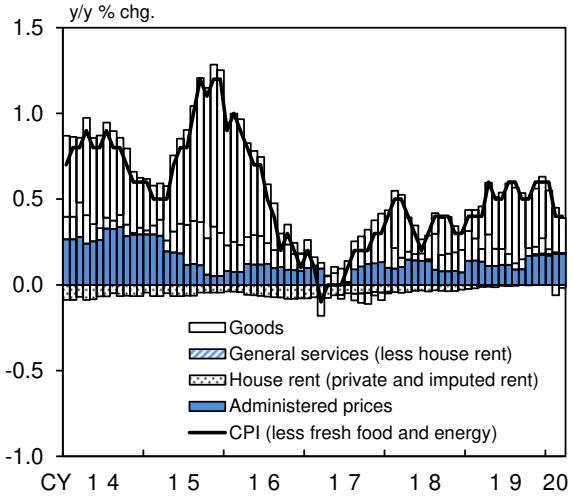
The year-on-year rate of change in the GDP deflator has been in the range of 1.0-1.5 percent on the whole against the background of the rise in the domestic demand deflator (Chart 38). The year-on-year rate of change in the domestic demand deflator has been in the range of 0.5-1.0 percent, mainly led by the private consumption deflator that is partly affected by the tax hike.

## Environment surrounding Prices

In order to examine price developments, the main factors that determine inflation rates are assessed as follows. First, the output gap for the October-December quarter of 2019 remained positive, although it narrowed from the July-September quarter (Charts 4 and 42). However, the output gap seems to be somewhat weak recently due to the impact of the spread of COVID-19.

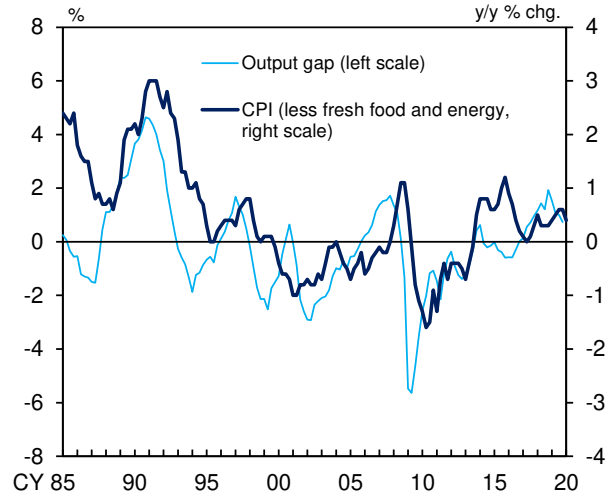
Second, as for medium- to long-term inflation expectations, relatively weak indicators have been observed (Charts 43 and 44). With regard to the outlook, inflation expectations are likely to weaken somewhat for the time being, reflecting some weakness in actual prices that includes the effects of the decline in energy prices. Thereafter, however, as the economy improves, such expectations are projected to rise moderately on the back of an increase in actual prices and the Bank pursuing monetary easing through its strong commitment to achieving the price stability target.

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



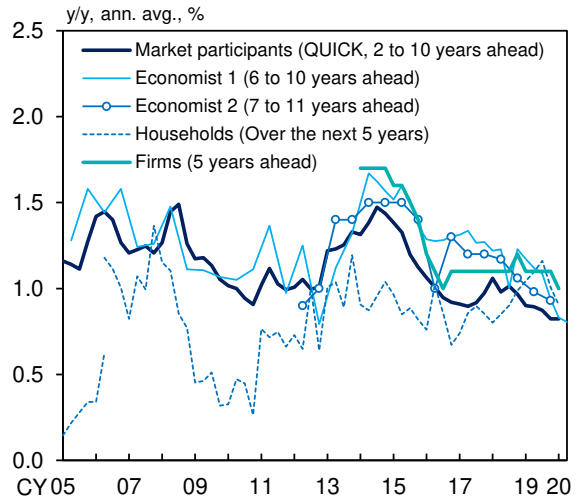

Source: Ministry of Internal Affairs and Communications.
Notes: 1. Administered prices (less energy) consist of "public services" and "water charges."
2. The CPI figures exclude the effects of the consumption tax hikes and policies concerning the provision of free education.

**Chart 42:** Inflation Rate and Output Gap




Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures exclude the effects of the consumption tax hikes and policies concerning the provision of free education.
2. The output gap is based on staff estimations.

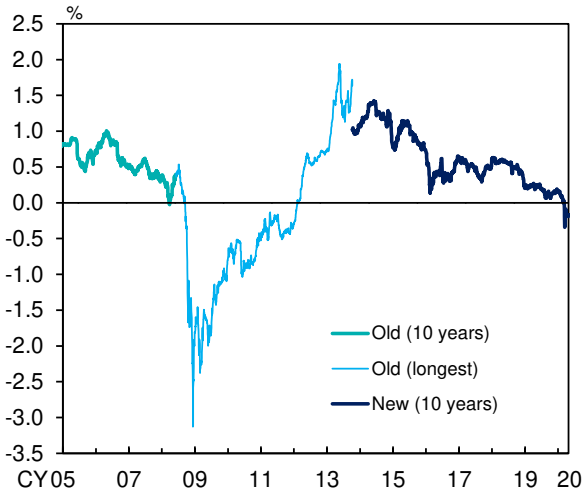
**Chart 43:** Inflation Expectations (Survey)




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)."

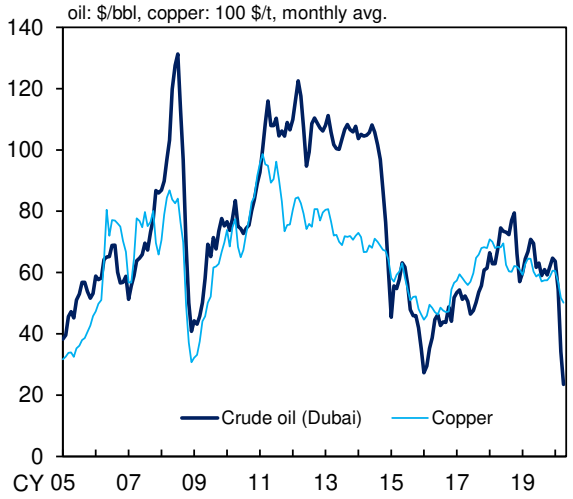
The third factor is developments in import prices. Crude oil prices of late have declined significantly, mainly against the background of a rapid decrease in demand due to the spread of COVID-19 (Chart 45). Such developments in crude oil prices are likely to push down the CPI for the time being through the decline in energy prices.

**Chart 44:** Inflation Expectations (BEI)



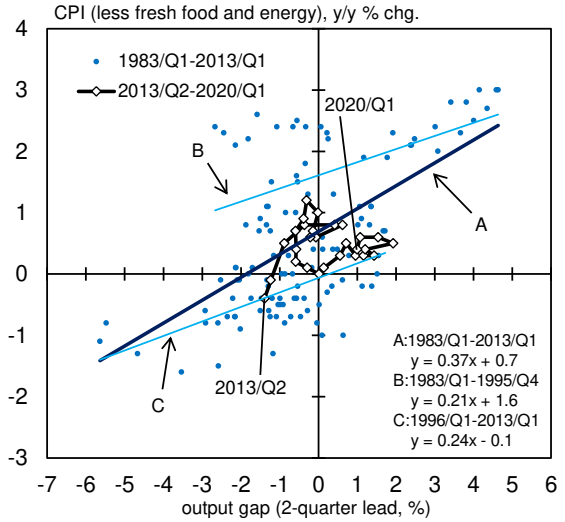

Source: Bloomberg.
Note: BEI (break-even inflation) rates are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using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

**Chart 45:** International Commodity Prices




Sources: Nikkei Inc.; Bloomberg.

**Chart 46:** Phillips Curve




Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures exclude the effects of the consumption tax hikes and policies concerning the provision of free education.
2. The output gap is based on staff estimations.

## II. Financial Developments in Japan

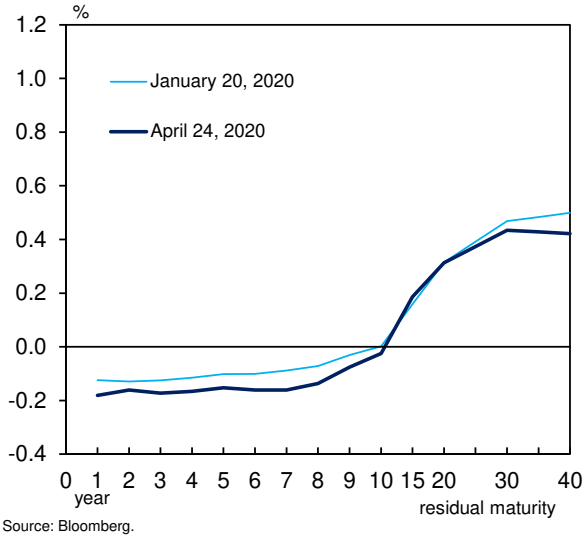
### Financial Conditions

Financial conditions have been accommodative on the whole but less so in terms of corporate financing, as seen in deterioration in firms' financial positions.[19]

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 47). That is, the yields for relatively short maturities have been in slightly negative territory. Partly because the Bank increased the amount of JGB purchases and frequency of those auctions, the 10-year JGB yields have been at around 0 percent, although they temporarily were unstable, as with U.S. and European long-term interest rates. Meanwhile, the 20-year JGB yields have been in the range of 0.0-0.5 percent, although they fluctuated largely as with the 10-year yields.

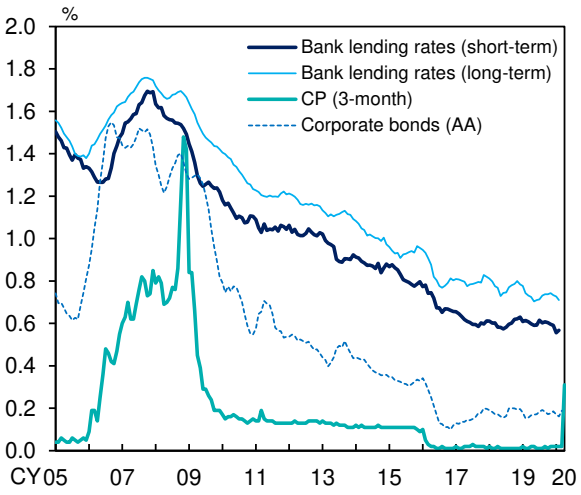
Firms' funding costs have been hovering at low levels on the whole, while temporarily showing a rise in issuance rates in the market, mainly for CP after the start of April (Chart 48). Indices such as the DI in the March *Tankan* suggest that issuance conditions for CP have been favorable, and issuance rates have been at low levels on the whole. However, the rates have risen significantly

**Chart 47:** Yield Curves




Source: Bloomberg.

**Chart 48:** 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). The figure for April 2020 is the average for April 1-23.
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.

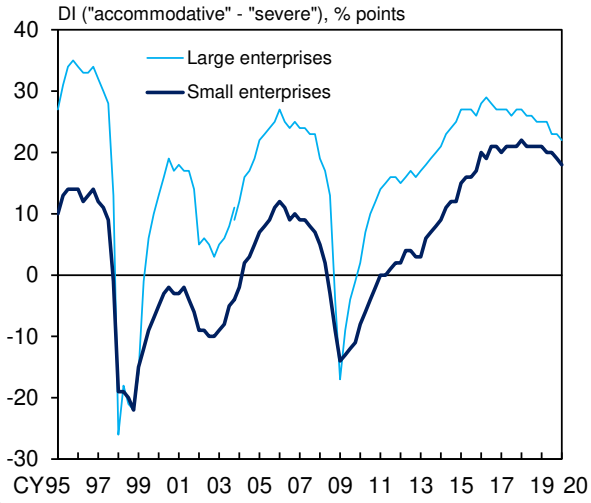
[19] See Box 3 for the impact of the spread of COVID-19 on financial conditions at home and abroad and responses taken by the central bank of each country and region.

since the start of April, reflecting deterioration in supply-demand conditions. As background to this, while demand for working capital has increased due to the spread of COVID-19, investors' risk-taking stance has become somewhat cautious. Although issuance rates for corporate bonds have been at extremely low levels, they have risen somewhat since the start of April. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been at around historical low levels.

With regard to the availability of funds for firms, the DI in the *Tankan* for financial institutions' lending attitudes as perceived by firms suggests that such attitudes have remained accommodative on the whole, although the DIs for large and small firms have declined somewhat against the background of a smaller proportion of firms answering that financial institutions' lending attitudes are "accommodative" (Chart 49). On the other hand, despite remaining favorable on the whole, the DIs for firms' financial positions in the *Tankan* have deteriorated, mainly reflecting a decline in sales due to the spread of COVID-19, and those for industries in particular that are largely affected by the spread of COVID-19 have declined significantly (Chart 50).

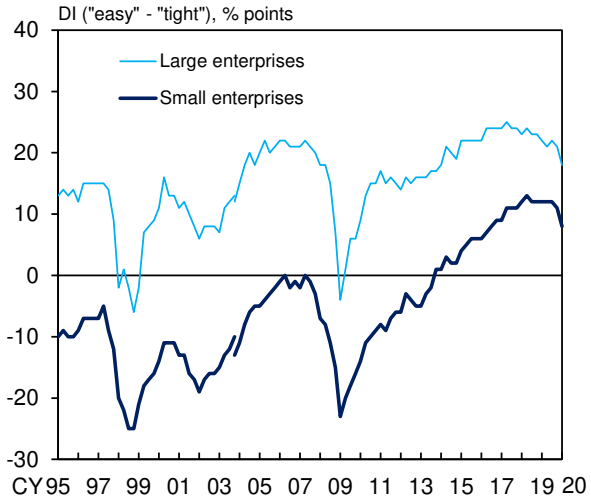
Growth in firms' demand for funds was supported thus far by, for example, rises in demand for funds for business fixed investment, as well as that related to mergers and acquisitions of firms. Recently, however, there has been an increase in demand for funds that is mainly brought about by a decline in sales and the need to secure funds, both of which are due to the impact of the spread

**Chart 49:** 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.

**Chart 50:** Financial Position

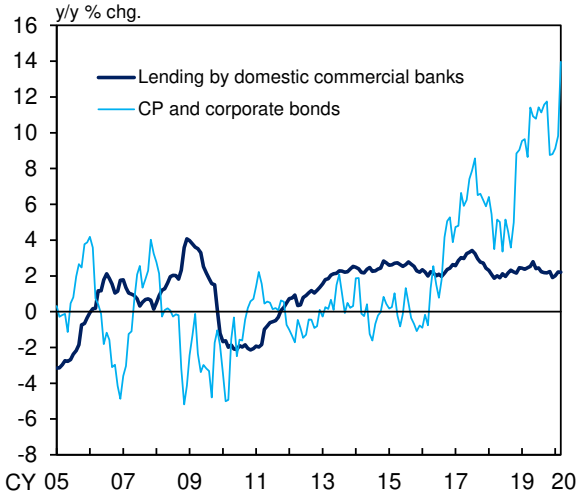



Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data in December 2003 due to a change in the survey framework.

of COVID-19. 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 51). That in the aggregate amount outstanding of CP and corporate bonds has been at a relatively high level that exceeds 10 percent. In particular, the year-on-year rate of increase in the amount outstanding of CP has accelerated significantly. This is because, against the background of demand for funds mainly brought about by a decline in sales and the need to secure funds, both of which are due to the impact of the spread of COVID-19, active issuance was observed even toward the fiscal year-end, when the amount outstanding of CP usually declines.

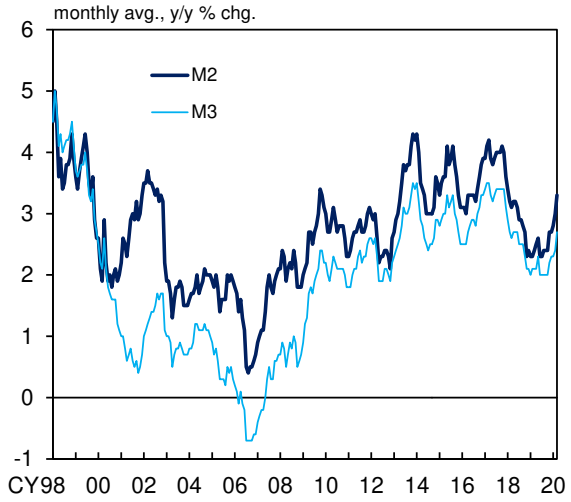
The year-on-year rate of increase in the monetary base has been in the range of 2.5-3.0 percent, and its amount outstanding as of end-March was 510 trillion yen, of which the ratio to nominal GDP was 93 percent.[20] The year-on-year rate of increase in the money stock (M2) has been in the range of 3.0-3.5 percent, partly reflecting an increase in bank lending (Chart 52).

**Chart 51:** Amount Outstanding of Bank Lending, CP, and Corporate Bonds




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

**Chart 52:** Money Stock




Source: Bank of Japan.

[20] It is assumed that the figure for nominal GDP is unchanged from the October-December quarter of 2019.

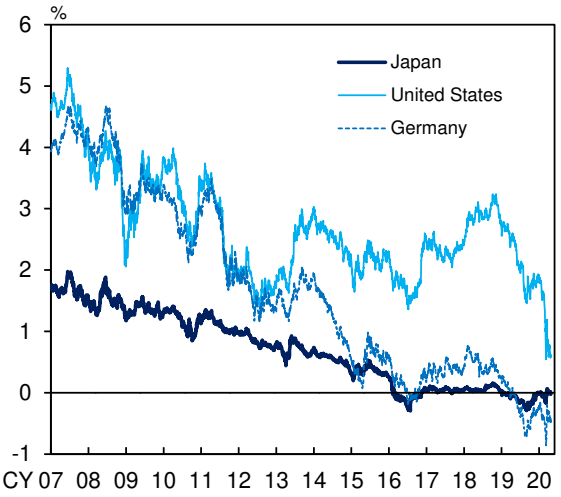
## Developments in Financial Markets

Developments in global financial markets have been highly volatile; stock prices and long-term interest rates have declined in many economies, mainly against the background of a rise in investors' risk aversion due to the spread of COVID-19, and supply-demand conditions in U.S. dollar funding markets have tightened. Tension in global financial markets has been abating somewhat to date, partly due to policy responses taken by the central bank of each country and region, such as the active supply of funds and asset purchases, but the markets have remained nervous.

Yields on 10-year government bonds in the United States have declined significantly, temporarily marking a record low, mainly against the background of the rise in investors' risk aversion and monetary easing by the Federal Reserve (Chart 53). Meanwhile, although the yields were volatile, as seen in a temporary increase even amid the rise in investors' risk aversion, they have turned to a decline again with the Federal Reserve conducting active purchases of Treasury securities. Yields on 10-year government bonds in Germany have fluctuated largely; they temporarily marked a record low along with those in the United States but subsequently increased.

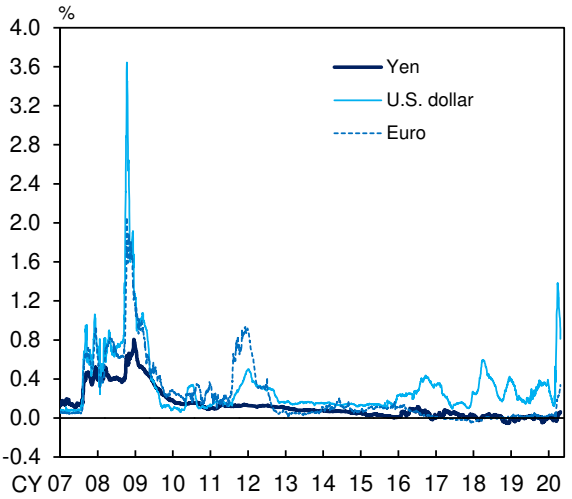
With regard to the LIBOR-OIS spreads for major currencies, those for the U.S. dollar have widened largely. This is mainly because prime money market funds (MMFs) -- the major providers of U.S. dollars -- became reluctant to provide funds in response to increased withdrawals of cash from them in a situation where U.S. dollar funding

**Chart 53:** 10-Year Government Bond Yields in Selected Advanced Economies




Source: Bloomberg.

**Chart 54:** LIBOR-OIS Spreads

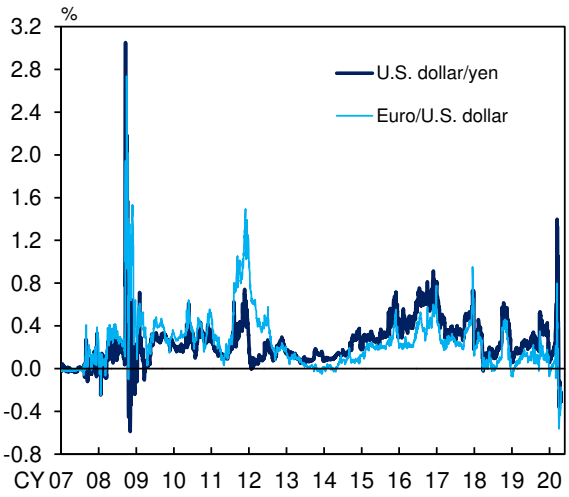



Source: Bloomberg.
Note: LIBOR-OIS spreads are LIBOR (3-month) minus yields on overnight index swaps (3-month).

demand has increased, reflecting the spread of COVID-19 (Chart 54). The LIBOR-OIS spreads for the euro also have widened somewhat. Meanwhile, those for the yen have remained at low levels. Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market have expanded to a level not seen since the global financial crisis, reflecting a rise in demand for funds toward the fiscal year-end amid tight supply-demand conditions in U.S. dollar funding markets (Chart 55). However, the premiums turned to a decline and have dissipated recently. This is because of the fact that a large amount of U.S. dollars was provided through the U.S. dollar funds-supplying operations conducted by the central bank of each country and region, including the Bank of Japan, and that the fiscal year-end demand is over now. However, U.S. dollar funding costs through the dollar/yen foreign exchange swap market have remained relatively high compared to the OIS rate, albeit at a lower level compared to a while ago.

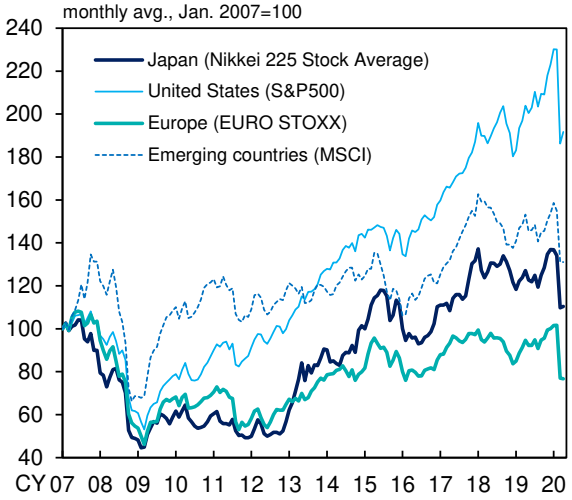
Regarding the stock market, stock prices in the United States were at record high levels until around mid-February. However, in response to COVID-19 also spreading in the United States and Europe, investors' risk aversion heightened, leading to a significant decline in U.S. stock prices from late February (Chart 56). Subsequently, although they have recovered somewhat as the U.S. government's economic measures have been perceived as favorable, they have remained at levels that are around 20 percent lower than the latest peak. Stock prices in Europe and Japan have moved in line with those in the United States.

**Chart 55:** Dollar Funding Premiums through Foreign Exchange Swaps



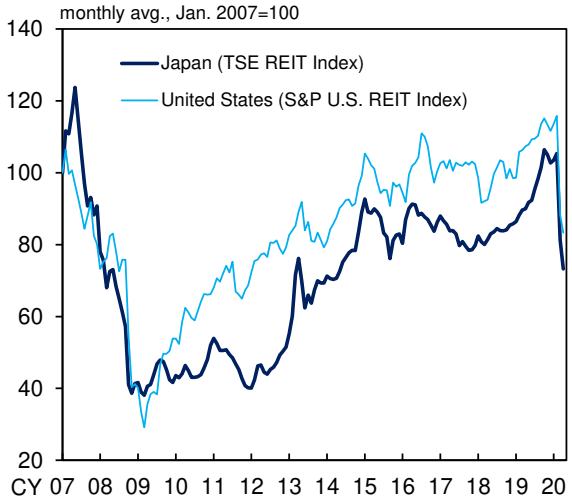

Source: Bloomberg.
Note: U.S. dollar funding rate from yen or euro minus 3-month dollar LIBOR.

**Chart 56:** Selected Stock Prices




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

**Chart 57:** Selected REIT Indices




Source: Bloomberg.

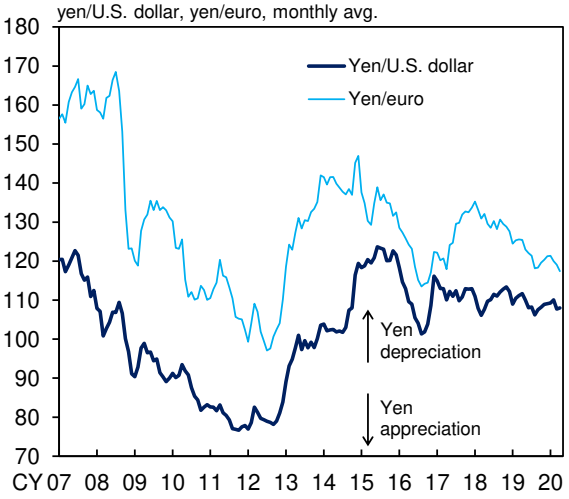
In the Japan real estate investment trust (J-REIT) market, prices have declined significantly, due to the rise in investors' risk aversion (Chart 57).

In foreign exchange markets, the yen has appreciated somewhat against the U.S. dollar and the euro, albeit with very large fluctuations (Chart 58). Taking a detailed look at developments in the yen against the dollar, mainly reflecting the relatively firm U.S. economy, the yen depreciated against the U.S. dollar and was in the range of 112-113 yen. It then appreciated to the range of 101-102 yen as global investors' risk aversion heightened, due mainly to the spread of COVID-19. It subsequently depreciated, reflecting an increase in demand for U.S. dollar funds. Thus, the yen showed large fluctuations against the U.S. dollar.

## Land Prices

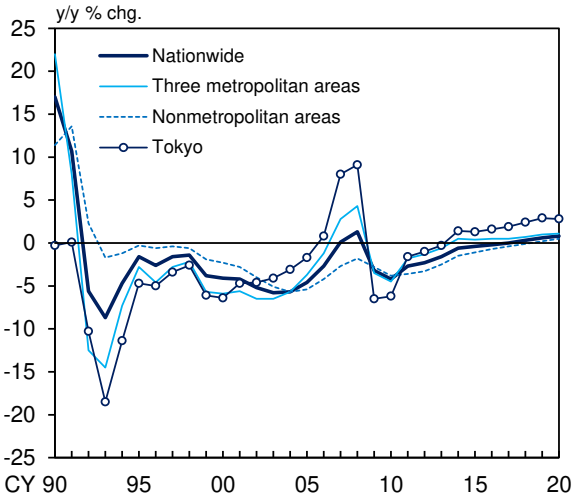
Land prices have risen moderately on the whole. According to the *Land Market Value Publication* for 2020 (as of January 1), the year-on-year rates of increase in both commercial and residential land prices have accelerated (Charts 59 and 60). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rates of increase in both commercial and residential land prices also have accelerated. In nonmetropolitan areas, the year-on-year rates of increase in both commercial and residential land prices have accelerated as well.

**Chart 58:** Yen/U.S. Dollar and Yen/Euro



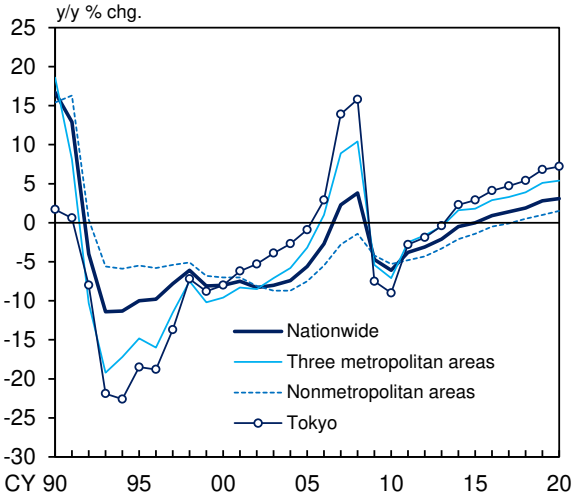

Source: Bloomberg.

**Chart 59:** Residential Land Prices




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

**Chart 60:** Commercial Land Prices

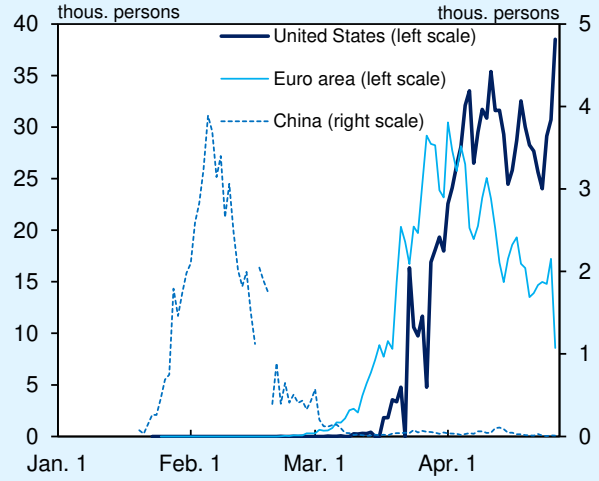



Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the "Land Market Value Publication." Figures are as of January 1.
2. Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures),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

## (Box 1) Developments in Overseas Economies since the Outbreak of COVID-19

Since the January 2020 Outlook Report, overseas economies have become depressed rapidly, reflecting the impact of the COVID-19 pandemic. These economies are expected to remain depressed until the spread of COVID-19 subsides. This box starts by looking at economic developments in China, where the outbreak of COVID-19 and its impact on economic activity were first observed, and then examines recent developments in the U.S. and European economies.

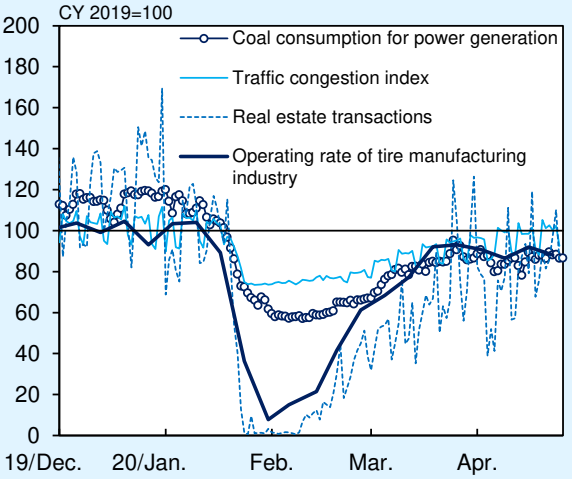
**Chart B1-1:** Confirmed New Cases of COVID-19 in Major Economies




Source: CEIC.
Note: Figures are calculated based on World Health Organization (WHO) data. There is a discontinuity in the data for February 17 to 19 for China due to the difference in the basis. Figures for China from March 16 onward are from the National Health Commission of the People's Republic of China.

In China, COVID-19 spread rapidly from late January, but the pace decelerated from around early February as the Chinese authorities implemented strict preventive measures against this spread, such as restrictions on people's movement and going outside, as well as the suspension of operations at factories (Chart B1-1). Recently, the spread has subsided. Meanwhile, under the strict preventive measures, supply constraints, such as labor shortage and supply chain disruptions materialized, and a decline in demand was brought about by increasing cautiousness in households' and firms' sentiment. Thus, economic activity plunged in a wide range of industries (Chart B1-2). Since early February, however, as the spread of COVID-19 started to subside, the preventive measures have been loosened and factories have resumed their operations, leading to a rise in their operating rates. Electricity consumption also has been recovering, and economic activity seems to be showing signs of a pick-up on the whole.

**Chart B1-2:** High-Frequency Indicators for China

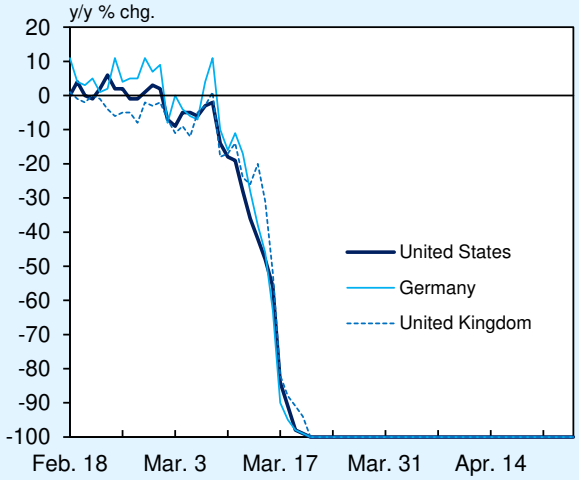



Source: Wind.
Note: Coal consumption for power generation consists of the coal consumption of six major electricity producers. The traffic congestion index shows the average for 100 cities. Figures for real estate transactions are based on the total traded area for major cities. Operating rate figures for the tire manufacturing industry are based on the survey results of tire manufacturers for passenger cars.

Although the spread of COVID-19 has subsided in China recently, a rapid spread has been observed in Europe and the United States (Chart B1-1). Since mid-March, strict preventive measures -- similar to those conducted in China -- have been implemented in these economies, thereby affecting a wide range of economic activities. Demand has dropped sharply for many firms in the services industry, mainly due to restrictions on going outside. Looking at the number of seated diners at restaurants, for example, it declined significantly from mid-March and there have been almost no diners recently (Chart B1-3). In the manufacturing sector, there have been supply constraints, including disruptions in the domestic and overseas supply chain, as well as suspension of operations at factories as a measure to prevent the spread of COVID-19. Regarding the automobile sector, it is becoming more likely that suspension of operations at factories will be extended; in addition to such constraints on the supply side, there has been a decline on the demand side, due mainly to restrictions on going outside (Chart B1-4). That said, according to the recent market forecasts, motor vehicle sales are expected to pick up gradually as the impact of the spread of COVID-19 wanes, and exceed this year's levels in 2021.

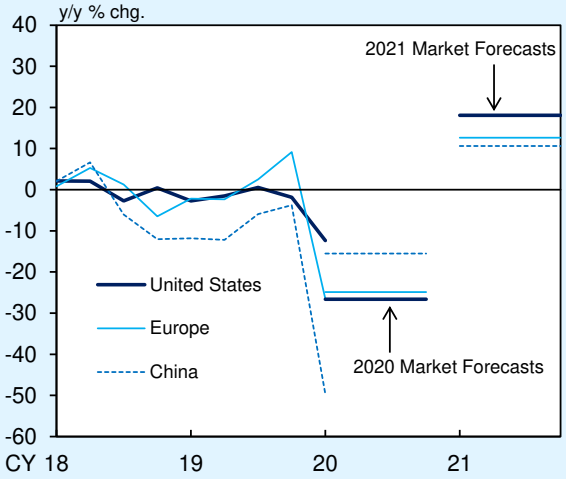
A rapid depression in the European and U.S. economies also has exerted a large impact on the employment side. In the United States, initial claims for unemployment insurance have increased significantly, exceeding the past peak level (Chart B1-5). In Germany, the number of firms introducing short-time work has surged. Attention needs to be paid to developments in the

**Chart B1-3:** Seated Diners at Restaurants in the United States and Europe



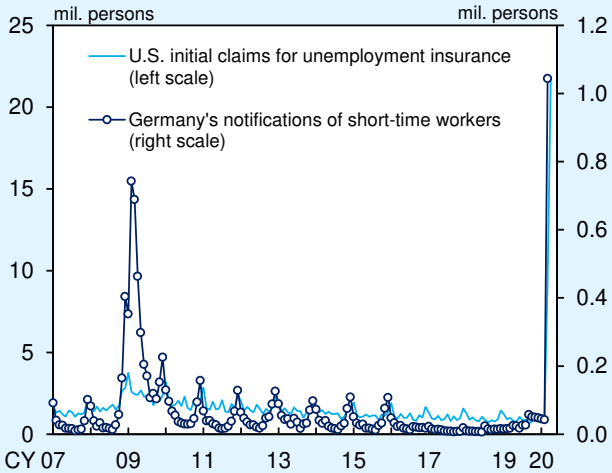

Source: OpenTable.
Note: Figures are based on year-over-year seated diners at restaurants on the OpenTable online network.

**Chart B1-4:** Motor Vehicle Sales in Major Economies




Source: IHS Markit.
Note: Figures are based on passenger vehicle sales, including commercial vehicles of less than six tons in terms of gross vehicle weight. Figures for 2020/Q1 are estimates. Figures for the market forecasts are as of April 15.

**Chart B1-5:** Labor Market Indicators in the United States and Germany




Sources: Haver; German Federal Employment Agency.
Note: Monthly figures for the United States are obtained by adding up weekly figures. The figure for April 2020 is based on data up to the week ending April 18.

employment and income situation, which is a key factor for a pick-up in overseas economies.

In response to the aforementioned impact of the spread of COVID-19, each country and region has not only strengthened its health care systems but also aggressively announced or implemented large-scale fiscal policy measures, such as employment measures and support for small and medium-sized firms, both of which are aimed at mitigating downward pressure on the economy (Chart B1-6).

Overseas economies are expected to remain depressed for the time being. However, as the impact of the spread of COVID-19 wanes -- as seen in China recently -- their growth pace is likely to increase. This is because pent-up demand and a recovery in production from the decline brought about by the spread of COVID-19 are expected to exert upward pressure on these economies, and the effects of aggressive macroeconomic policies taken by each country and region also are likely to materialize. Nevertheless, there are high uncertainties regarding the consequences of the spread of COVID-19, the timing of the spread subsiding, and the magnitude of its impact on the economy, and thus these factors warrant attention.

**Chart B1-6:** Main Fiscal Policy Measures in Major Economies

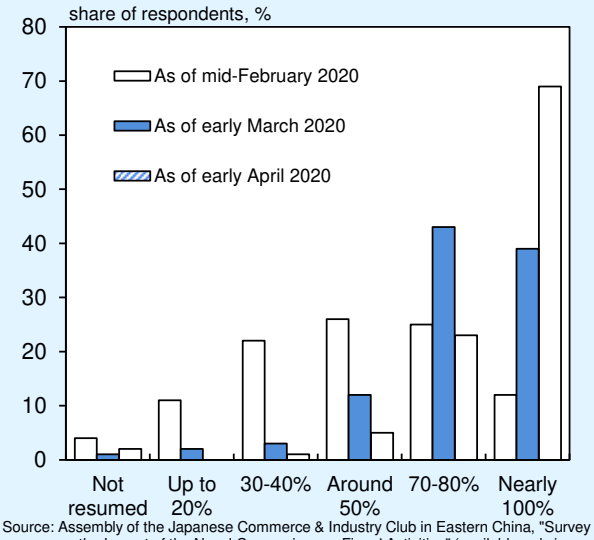
| | |
|---|---|
| United States | ・Expansion of unemployment benefits, extension of the periods that benefits are paid, and cash payments to individuals<br>・Support for financing such as to small and medium-sized enterprises and the aviation industry |
| EU | ・Employment measures including compensation for the loss of earnings attributable to the short-time work<br>・Support for financing such as through providing guarantees with a focus on small and medium-sized enterprises |
| China | ・Employment measures including incentives for small and medium-sized enterprises to promote the recruitment of college graduates<br>・Reduction of corporate burden such as through tax cuts<br>・Increase in the issuance of local government special bonds to provide funding for key projects, etc. |

Sources: National governments, etc.

## (Box 2) Developments in Japan's Economy since the Outbreak of COVID-19

The spread of COVID-19 has affected Japan's economy, mainly through the following three channels: (1) a decline in exports of goods due to depressed overseas economies; (2) a decrease in exports of services (inbound tourism demand); and (3) a fall in domestic private consumption that reflects self-restraint from going outside and holding events. This box examines the impact of the spread of COVID-19 on Japan's economy in terms of exports of goods and services as well as domestic private consumption.

**Chart B2-1:** Degree of Japanese Firms' Business Resumption in China




Source: Assembly of the Japanese Commerce & Industry Club in Eastern China, "Survey on the Impact of the Novel Coronavirus on Firms' Activities" (available only in Japanese).
Note: Figures are for firms that are members of the Japanese Commerce & Industry Club in Eastern China (Shanghai, Jiangsu, Zhejiang, and Anhui) and have production bases there. Figures as of mid-February (Feb. 19-21) are based on responses collected from 570 firms, those as of early March (Mar. 4-6) from 481 firms, and those as of early April (Apr. 1-6) from 424 firms.

### *Developments in Exports of Goods*

Starting with Japan's exports of goods by region, those to China continued to increase through the end of last year but then declined for the January-March quarter this year due to the effects of preventive measures against the spread of COVID-19 taken by the Chinese authorities (Chart 11). However, as outlined in Box 1, economic activity in China seems to be showing signs of a pick-up on the whole, since the authorities gradually have permitted the movement of people and the restart of factories with the spread of COVID-19 starting to subside. According to a survey asking Japanese firms about their production bases located in China, production activities appear to be recovering, particularly in regions with a small number of new cases of infections, although there are still some firms that have not fully resumed operations, due mainly to logistical disruptions (Chart B2-1). Given these circumstances, exports to China are expected to

stop declining and then start picking up moderately.

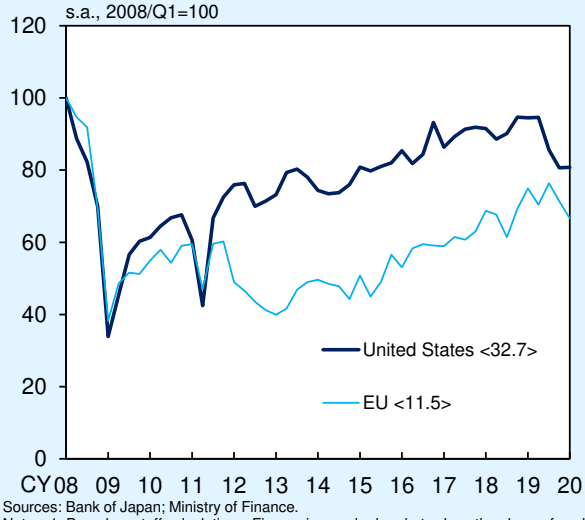
On the other hand, exports to the United States and Europe have declined clearly, mainly for automobile-related goods and capital goods exports. Recently, economic activity in these economies, particularly in the service sector, has dropped sharply as a result of restrictions on going outside, including lockdowns of cities, and automobile sales also have declined, as outlined in Box 1 (Chart B1-4). Past experience suggests that, when automobile sales decline in the United States and Europe, Japan's automobile-related exports to these economies tend to decrease accordingly (Chart B2-2). Thus, in the short run, these exports are projected to be under further downward pressure, as automobile sales in the United States and Europe are expected to be weak.

***Developments in Exports of Services***

Turning to exports of services, developments in the number of visitors to Japan -- which affect Japan's travel receipts -- show that, while the number picked up from last autumn owing to an increase in visitors from China, it has decreased significantly since this February due to the impact of the spread of COVID-19 (Chart B2-3). Since the start of April, the number of inbound visitors seems to be declining further, partly reflecting a strengthening of immigration restrictions on travelers from abroad.

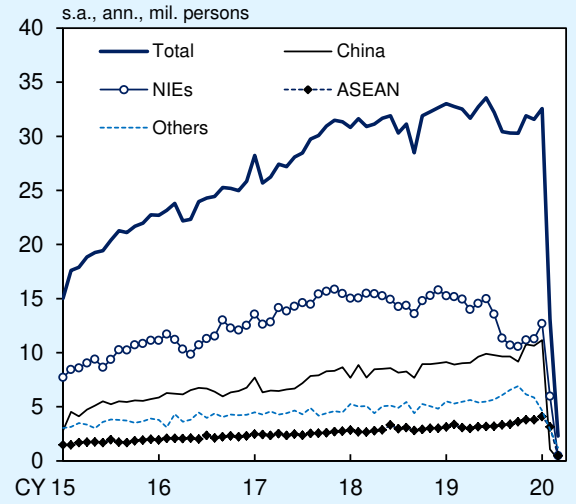
Looking at developments during the outbreak of severe acute respiratory syndrome (SARS) in

**Chart B2-2:** Real Exports of Motor Vehicles and Related Goods to the U.S. and the EU



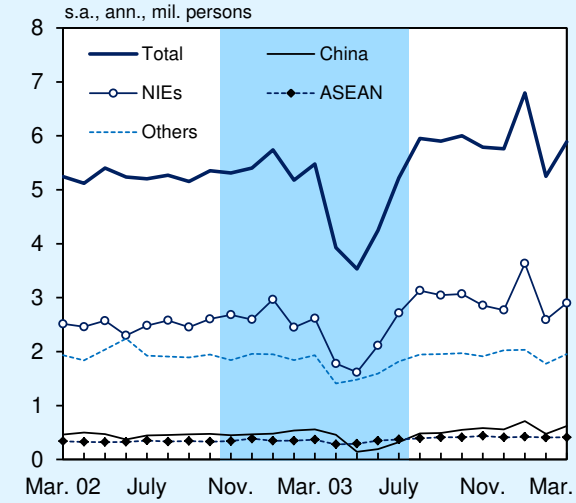

Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports of motor vehicles and related goods in 2019.
2. "EU" does not include the United Kingdom for the entire period.

**Chart B2-3:** Number of Inbound Visitors




Source: Japan National Tourism Organization (JNTO).

**Chart B2-4:** Number of Inbound Visitors during the SARS Outbreak



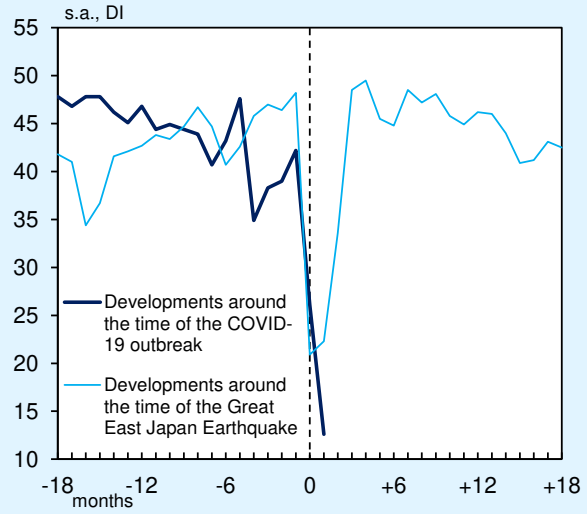

Source: Japan National Tourism Organization (JNTO).
Note: The shaded area indicates the period from November 2002, when the SARS outbreak started, through July 2003, when the World Health Organization (WHO) announced that the outbreak had been contained.

2003, the number of inbound visitors fell sharply in April and May, then started to recover in June before the containment of the outbreak was announced, and in July generally returned to the level seen before the outbreak (Chart B2-4). This experience suggests that, once the spread of COVID-19 subsides and immigration restrictions are lifted, the number of inbound visitors is likely to recover gradually. However, it is necessary to pay due attention to the possibility that the pace of recovery will be only moderate because COVID-19 has been spreading globally with a time lag and its impact is likely to last for a considerable period.

### *Developments in Private Consumption*

Lastly, domestic private consumption has decreased significantly, mainly in services such as eating and drinking as well as accommodations, with the growing impact of the spread of COVID-19. The *Economy Watchers Survey*, through which the impact of this spread on private consumption can be captured early, shows that business sentiment of consumption-related firms worsened in February to a low level not seen since the Great East Japan Earthquake, and deteriorated further in March due to stricter self-restraint from going outside (Chart B2-5). Looking back on developments after the Great East Japan Earthquake using the Consumption Activity Index (CAI), with which comprehensive developments in private consumption can be captured on a monthly basis, the consumption of services such as accommodations, amusement and hobbies, and food services declined significantly at that time due to consumers' self-restraint (Chart B2-6). Similar developments have been observed this time, as seen in a large decline in room occupancy rates of accommodation facilities (Chart B2-7). In

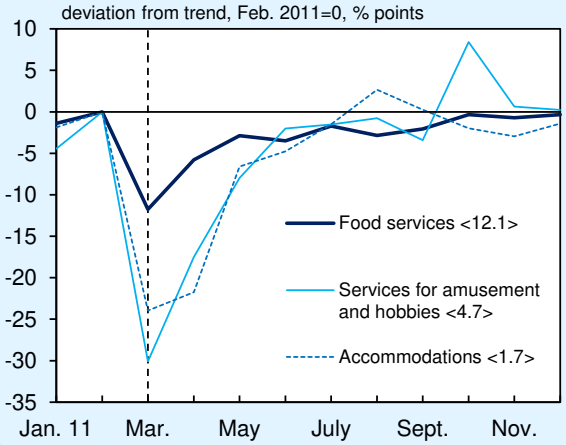
**Chart B2-5:** Economy Watchers Survey




Source: Cabinet Office.
Notes: 1. Month 0 is February 2020 for the COVID-19 outbreak and March 2011 for the Great East Japan Earthquake. The latest figure for the COVID-19 outbreak is for March 2020.
2. Figures are for the current economic conditions DI (household activity-related).

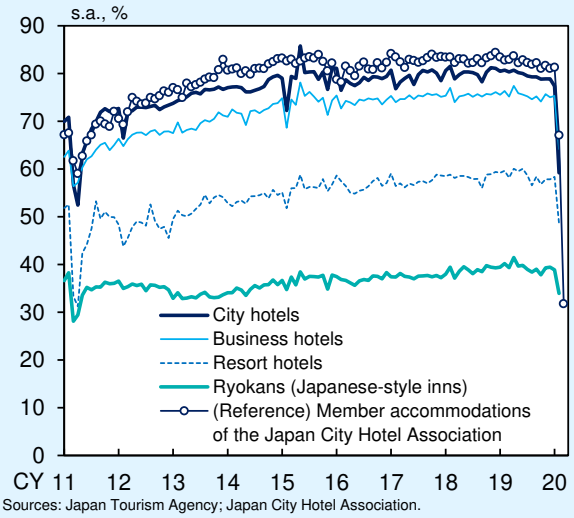
**Chart B2-6:** Developments in the CAI after the Great East Japan Earthquake

**Major Items of Services Consumption, Real**




Sources: Bank of Japan, etc.
Notes: 1. The trend is calculated using the Hodrick-Prescott (HP) filter.
2. Based on staff calculations. Figures for the items are not adjusted for the travel balance.
3. Figures in angular brackets show the weights in the Consumption Activity Index (CAI).

**Chart B2-7:** Room Occupancy Rates by Accommodation Type

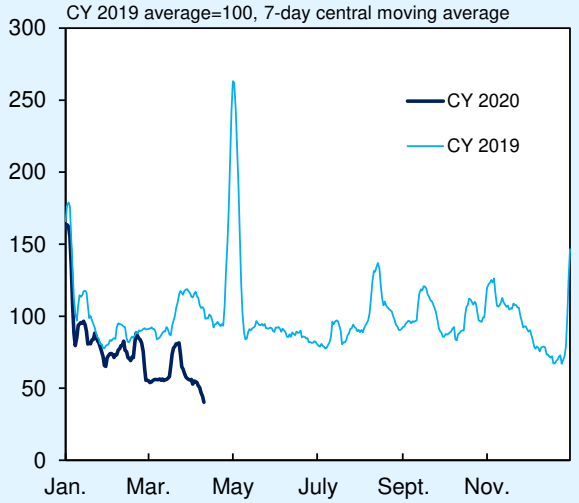



Sources: Japan Tourism Agency; Japan City Hotel Association.

addition, the Bank used mobile phone location data, which are available at a daily frequency, to investigate consumption developments since March in real time. Looking at the number of visitors at World Cultural Heritage Sites in Japan, which appears to indicate travel demand, the increase usually seen from late March to early April has not been observed this year, and the number actually has declined due to requests for self-restraint from going outside (Chart B2-8). Taking a look at the nighttime population of downtown areas in Tokyo, which appears to indicate demand for eating and drinking, it declined substantially in March, mainly reflecting self-restraint from going outside and temporary closures of restaurants, and then dropped further in April due to the declaration of a state of emergency on April 7 (Chart B2-9).

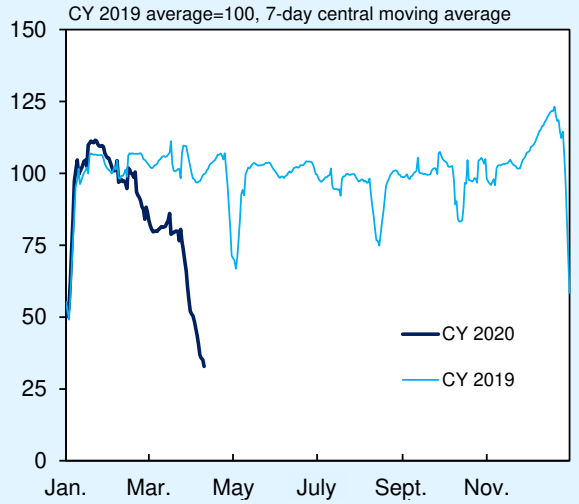
As for the outlook, with the government implementing the emergency economic measures decided by the Cabinet in April 2020, various support measures, such as cash payments for households and the easing of eligibility requirements for the employment adjustment subsidies, are expected to support private consumption. Moreover, pent-up demand is expected to materialize as the impact of the spread of COVID-19 wanes. However, it should be noted that the recovery in private consumption may be delayed since there are high uncertainties regarding the consequences of the spread of COVID-19 and the timing of the spread subsiding.

**Chart B2-8:** Number of Persons at World Cultural Heritage Sites




Sources: Agoop Corp.; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures show the aggregate population between 9h–17h at World Cultural Heritage Sites in Japan that were registered by CY 2017 based on smartphone location data.
2. The latest figure for CY 2020 is the average for April 7-13.

**Chart B2-9:** Nighttime Population of Selected Downtown Areas in Tokyo




Sources: Agoop Corp.; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures show the aggregate population between 20h–24h in the 1.5 km x 1.5 km squared areas centered around Ginza, Roppongi, and Shinjuku stations based on smartphone location data.
2. The latest figure for CY 2020 is the average for April 7-13.

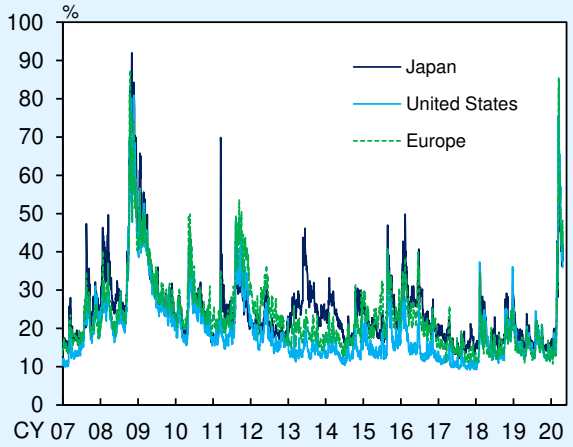
## (Box 3) Financial Conditions at Home and Abroad since the Outbreak of COVID-19

Amid the COVID-19 pandemic, financial markets at home and abroad have been highly volatile. There has been a negative impact on corporate financing worldwide, mainly reflecting a decline in sales due to constraints on economic activity. This box examines developments in financial conditions at home and abroad since the outbreak of COVID-19, and provides an overview of the responses by the Bank of Japan and other central banks under these circumstances.

Developments in global financial markets have been highly volatile since late February, when COVID-19 began to spread in the United States and Europe. Stock prices and long-term interest rates declined due to a rise in investors' risk aversion. In addition, even selling pressure on government bonds, which are considered to be safe assets -- in other words, upward pressure on long-term interest rates -- intensified temporarily, reflecting an increase in demand for U.S. dollars, as described below. Moreover, liquidity such as in the bond market decreased, due partly to changes in the environment to conduct transactions, as financial institutions reorganized their business operations, such as by splitting operations across alternative business bases and enabling employees to work from home based on business continuity planning (BCP). The primary characteristic of the current phase is that, under these circumstances, a deterioration in market functioning has been observed widely, as seen, for example, in the volatility indices for the stock and bond markets rising to a level not seen since the global financial crisis (Chart B3-1). Furthermore,

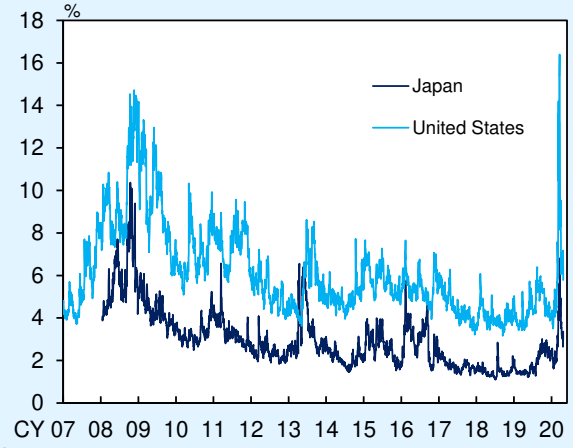
**Chart B3-1:** Stock and Bond Market Volatility

**1. Stock Prices**




Source: Bloomberg.
Note: Figures for Japan, the United States, and Europe are based on the Nikkei Stock Average Volatility Index, the VIX index, and the VSTOXX index, respectively.

**2. Options on Government Bond Futures**



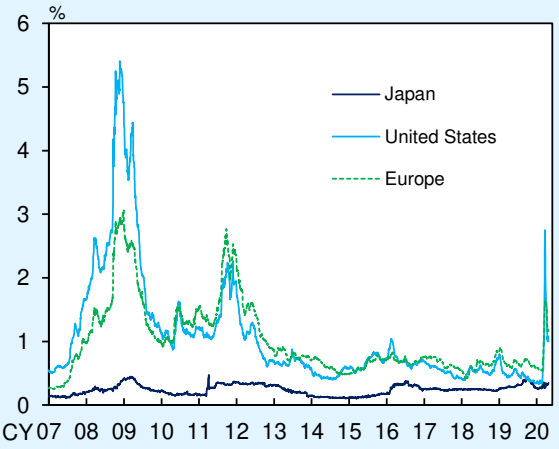

Source: Bloomberg.
Note: Figures for Japan are based on the S&P/JPX JGB VIX index, and those for the United States are based on the TYVIX index.

mainly reflecting an increase in demand for U.S. dollar due to the spread of COVID-19, supply-demand conditions in U.S. dollar funding markets tightened, and the dollar appreciated temporarily in the foreign exchange market (Charts 54, 55, and 58). Credit markets also have been volatile, as reflected in the widening spreads on corporate bonds and CP, particularly in the U.S. and the European markets, thereby having a negative impact on corporate financing (Chart B3-2).

Meanwhile, looking at Japan's financial conditions, firms' financial positions have deteriorated, mainly due to the decline in sales reflecting the impact of the spread of COVID-19 (Chart 50). Particularly, such positions, mainly of relatively small-sized firms, have worsened in the services industry -- such as accommodations as well as eating and drinking services -- and in retailing, both of which are facing a sharp decrease in sales (Chart B3-3). However, at present, financial institutions' lending attitudes have remained accommodative from a long-term perspective and the funding conditions of firms through domestic financial markets have been stable on the whole. Attention needs to be paid to whether the deterioration in the real economy will affect financial system stability; in other words, whether the smooth functioning of financial intermediation will be ensured with financial system stability being maintained (Charts 48, 49, and 51).

In response to the volatility in financial markets and the impact on corporate financing, the Bank has implemented various measures actively toward maintaining stability in financial markets and ensuring smooth financing, such as of firms.

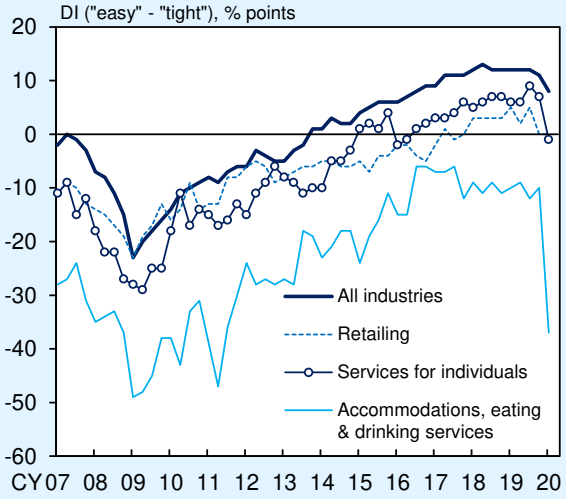
**Chart B3-2:** Yield Spreads between Corporate Bonds and Government Bonds




Sources: Bloomberg; QUICK.
Note: Figures for corporate bond yields for Japan are based on the trading reference statistics of the JSDA. For Japan, corporate bonds with a residual maturity of 3 or more but less than 7 years rated AA by R&I are used. Figures for corporate bond yields for the United States and Europe are calculated by the ICE Data Indices. For these economies, corporate bonds with a residual maturity of 3 or more but less than 5 years rated AA by Moody's, S&P, and Fitch are used.

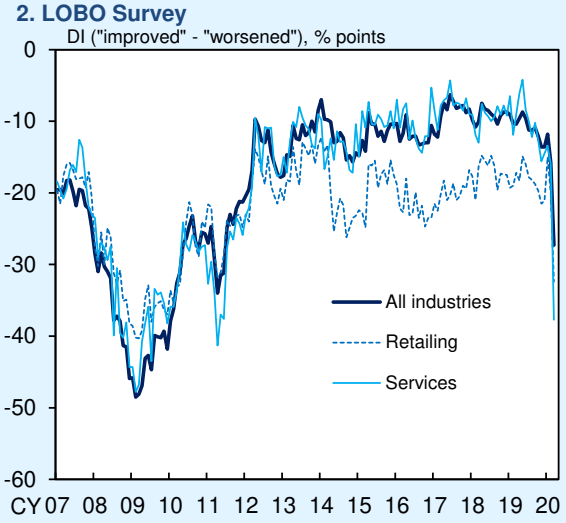
**Chart B3-3:** Financial Position of Small Enterprises

**1. *Tankan***




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

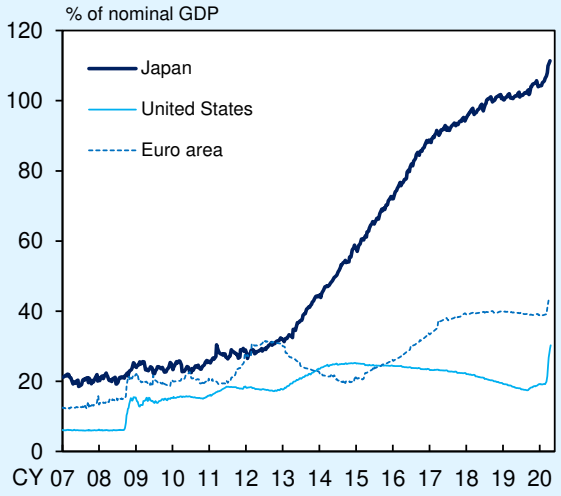
**2. LOBO Survey**




Source: Japan Chamber of Commerce and Industry.
Note: Based on the LOBO survey. The sample of the survey includes sole proprietorships.

Moreover, how to deal with the volatility in financial markets and the impact on corporate financing have become shared global issues, and the U.S. and European central banks also have implemented measures, although the specific responses vary in line with differences in the structure and situation of loan and bond markets in each economy. In addition, the six central banks have coordinated with each other to make the utmost efforts to provide U.S. dollar liquidity. In such situation, the balance sheets of central banks have expanded enormously (Chart B3-4).

**Chart B3-4:** Central Bank Assets




Source: Haver.
Note: Figures from January 2020 onward are calculated using nominal GDP for 2019/Q4.

While financial markets have remained nervous, tension has been abating somewhat due to these aggressive responses taken by the central bank of each country and region (Chart B3-5). These responses, coupled with various measures taken by the respective governments, are expected to contribute to supporting economic and financial activities.

**Chart B3-5:** Monetary Policy Measures Taken by Central Banks

| | |
|---|---|
| Japan | -- Provision of further ample funds such as through active purchases of JGBs<br>-- Ensuring of smooth financing, such as of firms, through the introduction/strengthening of special funds-supplying operations and increased purchases such as of CP and corporate bonds<br>-- Active purchases of ETFs and J-REITs to maintain stability in financial markets |
| United States | -- Lowering of the target range for the federal funds rate (twice)<br>-- Purchases of the necessary amount of Treasury securities and agency mortgage-backed securities for smooth market functioning and effective transmission of monetary policy<br>-- Establishment and enhancement of facilities such as for purchasing CP and corporate bonds and for supporting lending to firms |
| Euro Area | -- Enhancement of longer-term refinancing operations to support lending to firms and provide liquidity to the financial system<br>-- Expansion of asset purchase programs such as for CP and corporate bonds<br>-- Launch of the Pandemic Emergency Purchase Programme of private and public sector securities to counter risks to the monetary policy transmission mechanism and the outlook for the euro area |

Six Central Banks (Canada, United Kingdom, Japan, Euro Area, United States, and Switzerland)
-- Enhancement of the provision of U.S. dollar liquidity via the standing dollar liquidity swap line arrangements (by lowering the pricing on the standing arrangements, offering dollars with longer maturities, and increasing the frequency of the provision)