

Not to be released until 2:00 p.m.
Japan Standard Time on
Monday, July 19, 2021.



Outlook for Economic Activity and Prices

July 2021



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

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Outlook for Economic Activity and Prices (July 2021)

The Bank's View¹

Summary

- Although the level of Japan's economic activity, mainly in the face-to-face services sector, is expected to be lower than that prior to the pandemic for the time being, the economy is likely to recover, with the impact of the novel coronavirus (COVID-19) waning gradually, mainly due to progress with vaccinations, and supported by an increase in external demand, accommodative financial conditions, and the government's economic measures. Thereafter, as the impact subsides, it is projected to continue growing with a virtuous cycle from income to spending intensifying.
 - The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is likely to be at around 0 percent in the short run. Thereafter, it is expected to increase gradually, mainly on the back of continued improvement in economic activity, the effects of a rise in energy prices for the time being, and a dissipation of the effects of a reduction in mobile phone charges.
 - Comparing the projections with those presented in the previous *Outlook for Economic Activity and Prices* (Outlook Report), the projected growth rate for fiscal 2021 is somewhat lower due to the impact of COVID-19, but that for fiscal 2022 is somewhat higher. The projected rate of increase in the CPI for fiscal 2021 is higher, mainly due to higher energy prices.
 - The outlook for economic activity and prices provided in this Outlook Report is highly unclear, since it could change depending on the consequences of COVID-19 and their impact on domestic and overseas economies. The outlook is based on the premises that, while the impact 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. However, these premises entail high uncertainties.
 - With regard to the risk balance, risks to economic activity are skewed to the downside for the time being, mainly due to the impact of COVID-19, but are generally balanced for the middle of the projection period onward. Risks to prices are skewed to the downside.
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¹ "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on July 15 and 16, 2021.

I. Current Situation of Economic Activity and Prices in Japan

Japan's economy has picked up as a trend, although it has remained in a severe situation due to the impact of COVID-19 at home and abroad. Overseas economies have recovered on the whole, albeit with variation across countries and regions. In this situation, exports and industrial production have continued to increase steadily. In addition, corporate profits and business sentiment have improved on the whole. Business fixed investment has picked up, although weakness has been seen in some industries. The employment and income situation has remained weak due to the impact of COVID-19. Private consumption has been stagnant due to strong downward pressure on consumption of services, such as eating and drinking as well as accommodations. Housing investment has stopped declining. Public investment has continued to increase moderately. Financial conditions have been accommodative on the whole, although weakness in firms' financial positions has been seen. On the price front, the year-on-year rate of change in the CPI (all items less fresh food, and the same hereafter) has been at around 0 percent recently due to the rise in energy prices, despite being affected by COVID-19 and the reduction in mobile phone charges. Meanwhile, inflation expectations have been more or less unchanged.

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

A. Baseline Scenario of the Outlook for Economic Activity

Japan's economy is likely to recover, although the level of economic activity, mainly in the face-to-face services sector, is expected to be lower than that prior to the pandemic for the time being. That is, as the impact of COVID-19 wanes gradually, mainly due to progress with vaccinations, and the economy is supported by the increase in external demand, accommodative financial conditions, and the government's economic measures, the virtuous cycle from income to spending is expected to operate. Thereafter, as the impact subsides, the economy is projected to continue growing with the virtuous cycle intensifying.

This baseline scenario is based on the assumption that, while taking preventive measures against COVID-19 and improving economic activity simultaneously, the impact of COVID-19 will wane gradually, mainly due to progress with vaccinations, and then almost subside in the middle of the projection period. The outlook also is based on the premises that, in Japan, while the impact 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.

Looking at the outlook for economic activity based on the assumption and premises in more detail, as the impact of COVID-19 wanes due to progress with vaccinations, overseas economies are likely to continue growing, albeit with variation across countries

and regions, supported also by aggressive macroeconomic policies taken mainly in advanced economies. In this situation, Japan's goods exports are projected to continue increasing firmly, supported by an expansion in digital-related demand and a recovery in business fixed investment, both on a global basis. Inbound tourism consumption, which is categorized under services exports, is expected to remain subdued while entry and travel restrictions continue but likely to recover thereafter.

Corporate profits are projected to continue improving on the back of a recovery in domestic and external demand, despite being pushed down by deterioration in the terms of trade that reflects a recent rise in international commodity prices. In this situation, an uptrend in business fixed investment is expected to become clear, mainly for machinery and digital-related investments, supported by improvement in corporate profits, accommodative financial conditions, and the government's economic measures, although construction investment by the face-to-face services sector is projected to remain weak for the time being.

Although private consumption, mainly of face-to-face services, is likely to be at a relatively low level for the time being, it is expected to pick up again with the impact of COVID-19 waning gradually and supported also by the government's economic measures. Thereafter, as the impact subsides, an uptrend in private consumption, including that of face-to-face services, is projected to become evident, supported also by improvement in employee income. Employee income is likely to turn to a pick-up with a time lag following the recovery in domestic and external demand, and then increase moderately.

Meanwhile, public investment is projected to steadily increase, reflecting progress such as in construction related to restoration and reconstruction following natural disasters, as well as to building national resilience. Thereafter, it is expected to be at a relatively high level. Government consumption is likely to increase clearly for fiscal 2021, mainly reflecting a pick-up in healthcare expenditure and enhancement of the testing and vaccination system and the medical treatment system, but see a lowering in its level thereafter.

B. Baseline Scenario of the Outlook for Prices

The year-on-year rate of change in the CPI is likely to be at around 0 percent in the short run.² The reduction in mobile phone charges is projected to push down the CPI, whereas the rise in energy prices is likely to push it up. However, when excluding these temporary factors, the year-on-year rate of change in the CPI is expected to be steady at a slightly

² The CPI forecasts in this Outlook Report are based on the current 2015-base index. The statistics authority that compiles the CPI has announced its plan to rebase the CPI to the base year of 2020 and retroactively revise its figures for the year-on-year rate of change from those for January 2021 onward, both in August 2021. With the rebasing, the reduction in mobile phone charges will have a larger impact than the current index, mainly because the weight of such charges in the CPI will rise. Therefore, the year-on-year rate of increase in the CPI is highly likely to be revised downward for the 2020-base index.

positive level. Although weakness in demand amid the situation of COVID-19 is projected to have an impact on prices, it is likely that firms' price cuts that aim at stimulating demand will still not be observed widely, given that one of the reasons for the decrease in demand is vigilance against COVID-19 and that there have been cost increases because of taking preventive measures against COVID-19.

Thereafter, the year-on-year rate of change in the CPI is expected to increase gradually, mainly on the back of continued improvement in economic activity, the effects of the rise in energy prices for the time being, and the dissipation of the effects of the reduction in mobile phone charges. Medium- to long-term inflation expectations, which have been more or less unchanged, also are expected to rise again as firms' price-setting stance gradually becomes active with the impact of COVID-19 subsiding.

C. Financial Conditions

The Bank has pursued Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control. It also has conducted various powerful monetary easing measures since March 2020 in response to the impact of COVID-19 with a view to supporting financing, mainly of firms, and maintaining stability in financial markets. The government has conducted various measures to support financing, mainly of firms. Private financial institutions have actively fulfilled the functioning of financial intermediation. In this situation, although weakness in firms' financial positions has been seen, the environment for external funding, such as bank borrowing and the issuance of CP and corporate bonds, has remained accommodative. Owing to the continuation of powerful monetary easing by the Bank, the government's measures, and efforts made by private financial institutions, the Bank considers that financial conditions will remain accommodative and further downward pressure on the real economy from the financial side will be avoided.³

III. Risks to Economic Activity and Prices

A. Risks to Economic Activity

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

The first is the impact of COVID-19 on domestic and overseas economies. The consequences of COVID-19 and their impact on domestic and overseas economies entail high uncertainties. There is a risk that downward pressure on Japan's economy will increase due to the spread of COVID-19, including variants. On the other hand, if, for

³ 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.

example, the vaccine rollout accelerates and pent-up demand for services consumption materializes relatively early, economic activity could improve by more than expected. The pace of recovery in overseas economies could also change depending on progress with the vaccine rollout and the course COVID-19 takes, including the spread of variants, in countries and regions around the world. In addition, international commodity prices have risen against the background of the global economy recovering from the depression triggered by the impact of COVID-19, and attention should be paid to developments in international commodity prices and their impact on Japan's economy.

The second risk is firms' and households' medium- to long-term growth expectations. If such expectations decline due to a shock caused by COVID-19 that pushes down the economy considerably, there is a risk that firms' and households' appetite for spending will not increase easily even after the impact of COVID-19 subsides. On the other hand, medium- to long-term growth expectations could increase if active use of information and communication technology to prevent infection, an undertaking of investment to meet new demand, and efforts to address climate change issues have positive effects on economic activity, such as further innovation. These developments are likely to be encouraged by the government's measures to transform the economic structure toward the post-COVID-19 era and by accommodative financial conditions.

The third risk is developments in the financial system. Although COVID-19 has affected the financial side as well, the Bank and the government have taken measures aggressively with a view to supporting financing, mainly 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 and the smooth functioning of financial intermediation has been ensured. However, if COVID-19 has a larger impact 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.

B. Risks to Prices

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 the following two risks that are specific to prices.

The first is uncertainties over firms' price-setting behavior, including those over the impact of COVID-19 on their behavior. In the baseline scenario of the outlook for prices, as described earlier, it is projected that firms' price cuts that aim at stimulating demand will still not be observed widely and that their price-setting stance will gradually become active with the impact of COVID-19 subsiding. That said, firms' price-setting behavior in the

future entails uncertainties given, for example, that the entrenched mechanism of adaptive inflation expectations formation in Japan is complex and sticky.

The second is future developments in foreign exchange rates, international commodity prices, and import prices, as well as the effects of such developments on domestic prices. These risks may lead prices to deviate either upward or downward from the baseline scenario. Thus, attention should continue to be paid to them, including the extent to which cost increases are passed on to prices.

IV. Conduct of Monetary Policy

In the context of the price stability target, the Bank assesses the aforementioned economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy.⁴

The first perspective involves an examination of the baseline scenario for the outlook. The year-on-year rate of change in the CPI is likely to increase gradually toward achieving the price stability target, although it will take time. In other words, prices are expected to increase gradually, since it is projected that upward pressure on them will intensify at a gradual pace with the economy continuing to improve and that medium- to long-term inflation expectations also will rise again.

The second perspective involves an examination of the risks considered most relevant to the conduct of monetary policy. The outlook for economic activity and prices is highly unclear, since it could change depending on the consequences of COVID-19 and their impact on domestic and overseas economies. The outlook is based on the premises that, while the impact 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. However, these premises entail high uncertainties. With regard to the risk balance, risks to economic activity are skewed to the downside for the time being, mainly due to the impact of COVID-19, but are generally balanced for the middle of the projection period onward. Risks to prices are skewed to the downside. Looking at the current situation from the perspective of financial imbalances, the aggregate credit relative to the size of the economy has been increasing at a pace significantly above the past trend. This is because financial institutions have responded to demand for working capital, mainly by firms, which has increased due to the impact of COVID-19, and the increase in the aggregate credit therefore does not seem to show overheating of financial activities. On this basis, when examining financial imbalances from a longer-term perspective,

⁴ As for the examination from two perspectives in the context of the price stability target, see the Bank's statement released on January 22, 2013, entitled "The 'Price Stability Target' under the Framework for the Conduct of Monetary Policy."

prolonged downward pressure on financial institutions' profits could create a risk of a gradual pullback in financial intermediation, given the existing factors -- such as the prolonged low interest rate environment, the declining population, and excess savings in the corporate sector -- as well as the recent impact of COVID-19. On the other hand, under these circumstances, the vulnerability of the financial system could increase, mainly due to the search for yield behavior. Although these risks are judged as not significant at this point, mainly because financial institutions have sufficient capital bases, it is necessary to pay close attention to future developments.

As for the conduct of monetary policy, the Bank will continue with QQE with Yield Curve Control, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2 percent and stays above the target in a stable manner.

The Bank will continue to support financing, mainly of firms, and maintain stability in financial markets through (1) the Special Program to Support Financing in Response to the Novel Coronavirus (COVID-19), (2) an ample provision of yen and foreign currency funds without setting upper limits, mainly by purchasing Japanese government bonds (JGBs) and conducting the U.S. dollar funds-supplying operations, and (3) purchases of exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs) with upper limits of about 12 trillion yen and about 180 billion yen, respectively, on annual paces of increase in their amounts outstanding.

For the time being, the Bank will closely monitor the impact of COVID-19 and will not hesitate to take additional easing measures if necessary, and also it expects short- and long-term policy interest rates to remain at their present or lower levels.

Forecasts of the Majority of the Policy Board Members

y/y % chg.

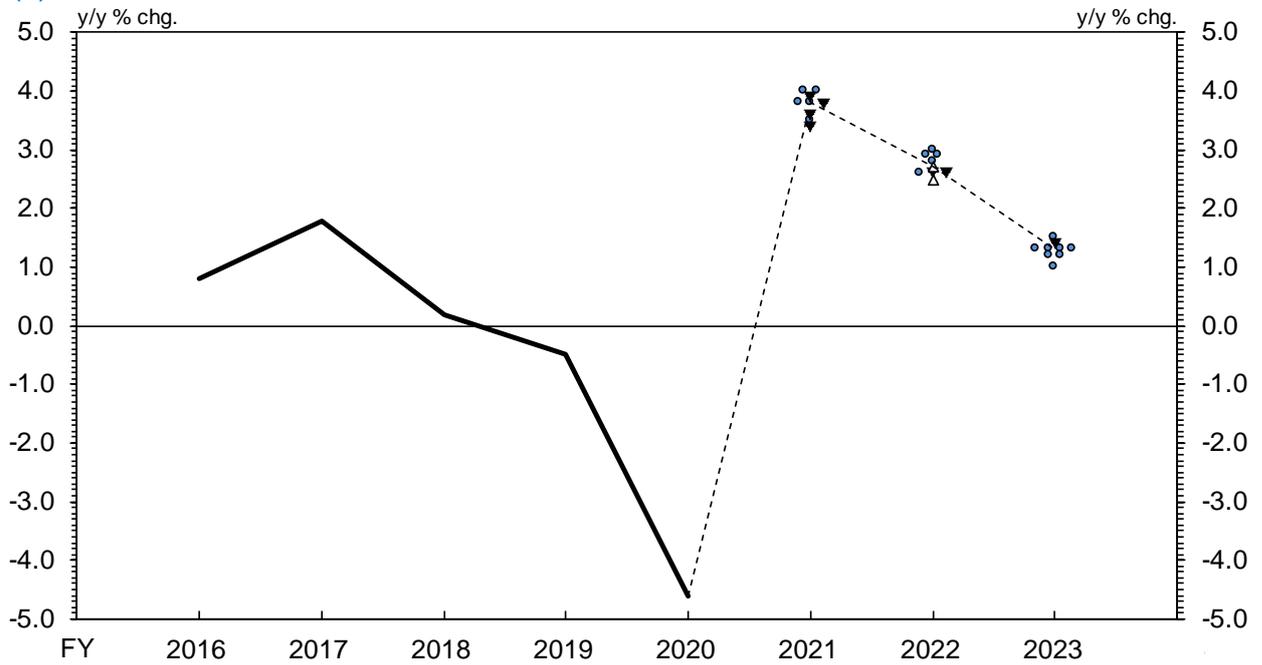
	Real GDP	CPI (all items less fresh food)
Fiscal 2021	+3.5 to +4.0 [+3.8]	+0.3 to +0.6 [+0.6]
Forecasts made in April 2021	+3.6 to +4.4 [+4.0]	0.0 to +0.2 [+0.1]
Fiscal 2022	+2.6 to +2.9 [+2.7]	+0.8 to +1.0 [+0.9]
Forecasts made in April 2021	+2.1 to +2.5 [+2.4]	+0.5 to +0.9 [+0.8]
Fiscal 2023	+1.2 to +1.4 [+1.3]	+0.9 to +1.1 [+1.0]
Forecasts made in April 2021	+1.2 to +1.5 [+1.3]	+0.7 to +1.0 [+1.0]

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

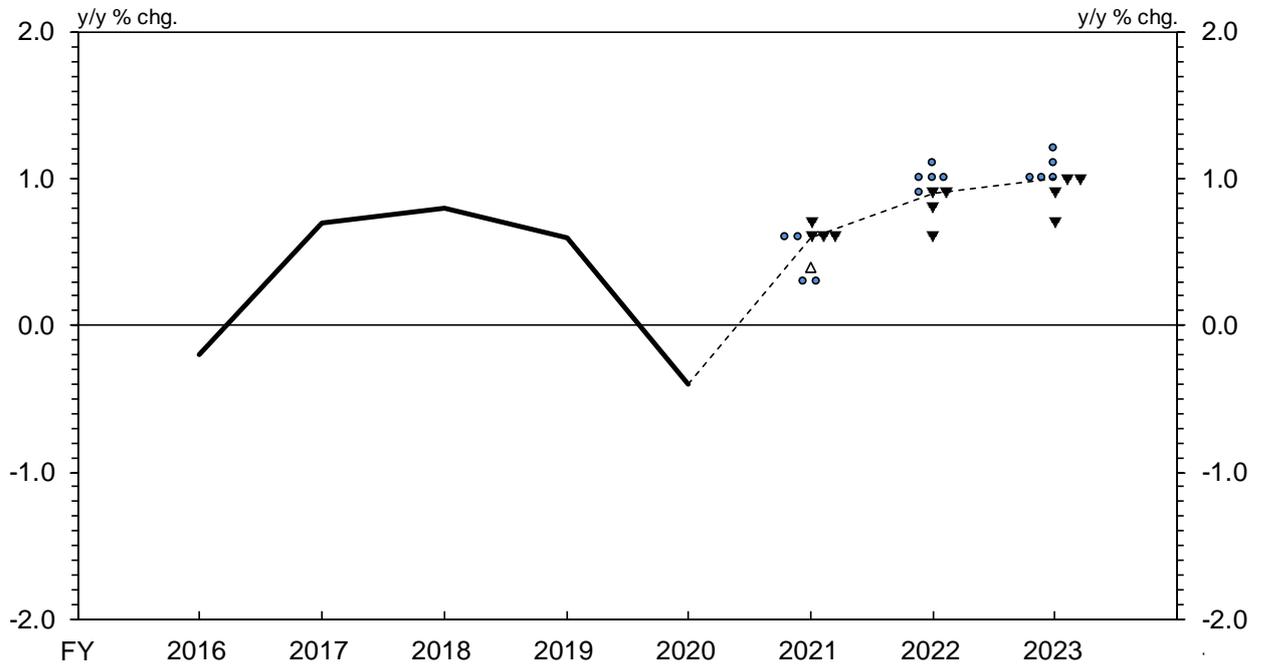
2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which they attach the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.
3. 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.
4. A reduction in mobile phone charges by major carriers conducted in spring 2021 is estimated to directly push down the CPI for fiscal 2021 by around 0.6 percentage points.
5. The CPI forecasts in this Outlook Report are based on the current 2015-base index. The statistics authority that compiles the CPI has announced its plan to rebase the CPI to the base year of 2020 and retroactively revise its figures for the year-on-year rate of change from those for January 2021 onward, both in August 2021. With the rebasing, the reduction in mobile phone charges will have a larger impact than the current index, mainly because the weight of such charges in the CPI will rise. Therefore, the year-on-year rate of increase in the CPI is highly likely to be revised downward for the 2020-base index.

Policy Board Members' Forecasts and Risk Assessments

(1) Real GDP



(2) CPI (All Items Less Fresh Food)



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

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

The Background⁵

I. Current Situation of Economic Activity and Its Outlook

A. Economic Developments

Japan's economy has picked up as a trend, although it has remained in a severe situation due to the impact of COVID-19 at home and abroad.

The real GDP growth rate for the January-March quarter of 2021 was minus 1.0 percent on a quarter-on-quarter basis and minus 3.9 percent on an annualized basis, registering negative growth for the first time in three quarters, which is attributable to the resurgence of COVID-19 since the end of 2020 and the second state of emergency (Chart 1). Looking at the breakdown, although exports continued to rise steadily due to a recovery in overseas economies, business fixed investment remained more or less flat and private consumption declined for face-to-face services in particular, mainly reflecting the effects of the requests to shorten operating hours and of the suspension of the "Go To Travel" campaign.

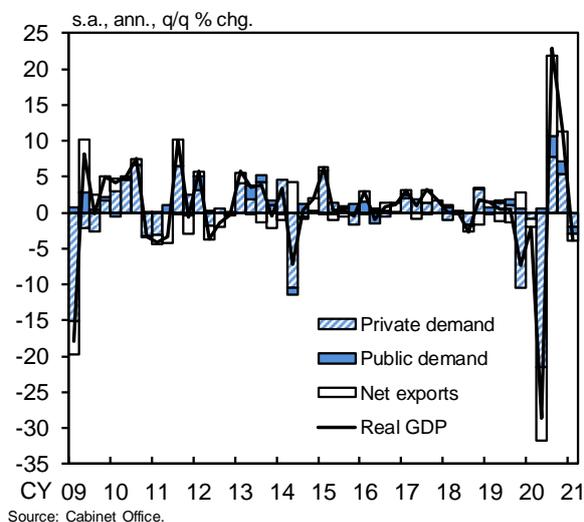
Monthly indicators and high-frequency data since then suggest that, despite strong downward pressure remaining on the household sector in particular, which is mainly affected by the spread of COVID-19 and the resultant public health measures, the pick-up trend in economic activity has continued, supported by a virtuous cycle in the corporate sector, particularly the

Chart 1: Real GDP

1. Level



2. Annualized Quarterly Growth Rate

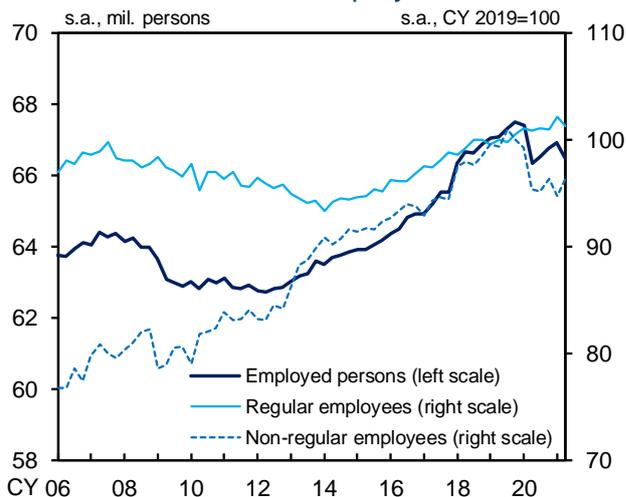


⁵ "The Background" provides explanations of "The Bank's View" decided by the Policy Board at the Monetary Policy Meeting held on July 15 and 16, 2021.

manufacturing industry. Specifically, face-to-face services, such as dining-out and travel, have remained under strong downward pressure, mainly stemming from the effects of the state of emergency and of priority measures to prevent the spread of disease, and thus private consumption as a whole has been stagnant. Under these circumstances, the employment and income situation has remained weak, mainly for non-regular employees in sectors hit significantly by the impact of COVID-19, although the number of regular employees has continued to increase moderately (Chart 2). On the other hand, exports and production have continued to increase firmly, with the recovery in overseas economies becoming further evident on the back of an acceleration in vaccinations in advanced economies and the additional economic measures in the United States. Against this background, a virtuous cycle from corporate profits to business fixed investment, triggered by an increase in external demand, has operated continuously.

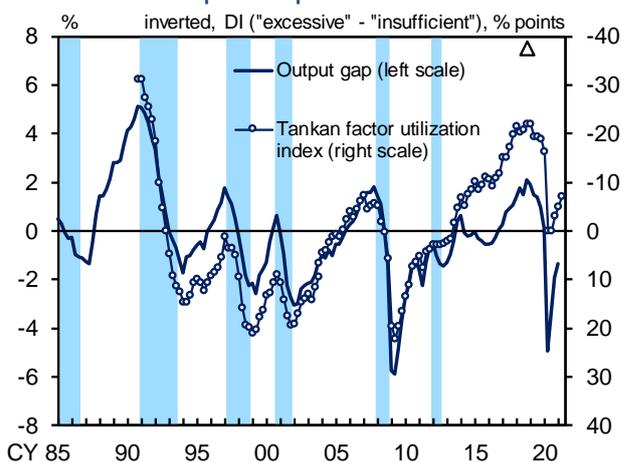
The output gap -- which captures the utilization of labor and capital -- continued to improve in negative territory from the bottom hit in the April-June quarter of 2020, when the gap had deteriorated substantially. The negative output gap for the January-March quarter of 2021 also improved, even though private consumption declined (Chart 3). This improvement reflects solid indicators related to labor market conditions, such as the unemployment rate and the labor force participation rate, and a rise in the capacity utilization rate for the manufacturing industry. That said, it seems highly likely that the output gap for the April-June quarter has seen a slowdown in its

Chart 2: Number of Employed Persons



Source: Ministry of Internal Affairs and Communications.
 Note: Figures for regular employees and non-regular employees prior to 2013 are based on the "detailed tabulation" in the "Labour Force Survey." Figures for 2021/Q2 are April-May averages.

Chart 3: Output Gap



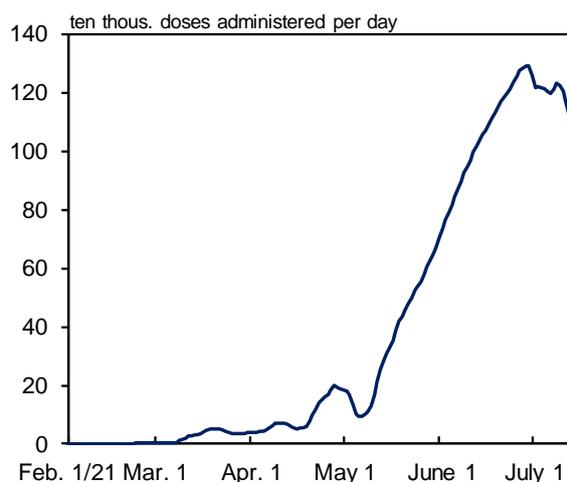
Source: Bank of Japan.
 Notes: 1. Figures for the output gap are staff estimates.
 2. The *Tankan* factor utilization index is calculated as the weighted average of the production capacity DI and the employment conditions DI for all industries and enterprises. The capital and labor shares are used as weights. There is a discontinuity in the data for December 2003 due to a change in the survey framework.
 3. Shaded areas denote recession periods. The triangle indicates the latest economic peak.

pace of improvement, due to such effects as of the third state of emergency.

Meanwhile, the pace of vaccinations in Japan has accelerated clearly (Chart 4). Although there remain uncertainties over the course COVID-19 will take for the time being, including the spread of variants, there is an increasing likelihood that, on the back of steady progress with vaccinations in Japan, downward pressure on private consumption will subsequently wane, as suggested by the situations in other countries where vaccinations are progressing ahead of Japan (Chart 5).⁶

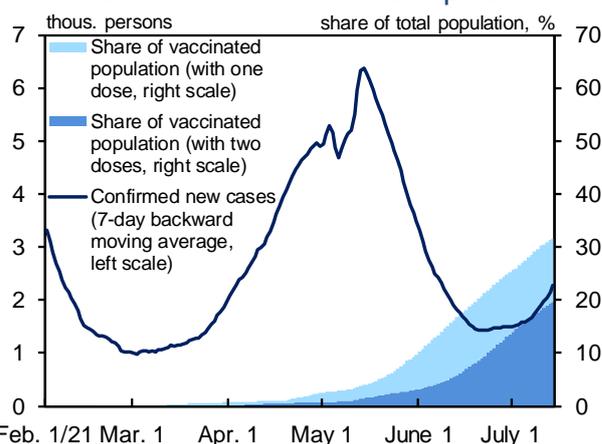
As for the outlook, Japan's economy is likely to recover, with the impact of COVID-19 waning gradually, mainly due to progress with vaccinations, and supported by an increase in external demand, accommodative financial conditions, and the government's economic measures.⁷ That said, while vigilance against COVID-19 continues, the level of Japan's economic activity, mainly in the face-to-face services sector, is expected to be lower than that prior to the pandemic for the time being. From the middle of the projection period, when it is assumed that the impact of COVID-19 will

Chart 4: Pace of Progress with COVID-19 Vaccinations



Sources: Prime Minister's Office of Japan; Ministry of Health, Labour and Welfare.
 Notes: 1. Figures are the total number of vaccine doses administered to the "general public (incl. the elderly)" and to "healthcare professionals and others" (7-day backward moving average).
 2. Figures may be revised upward retroactively when additional vaccinations are reported after the date they were administered.

Chart 5: Confirmed New Cases of COVID-19 and Share of Vaccinated Population



Sources: Prime Minister's Office of Japan; Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.
 Notes: 1. Figures for the share of vaccinated population are calculated using the total number of vaccine doses administered to the "general public (incl. the elderly)" and to "healthcare professionals and others."
 2. Figures for the share of vaccinated population may be revised upward retroactively when additional vaccinations are reported after the date they were administered.

⁶ Box 1 outlines the resumption of economic activity in the United States and Europe and examines its impact on global economic activity and prices.

⁷ On December 8, 2020, the Cabinet decided on the Comprehensive Economic Measures to Secure People's Lives and Livelihoods toward Relief and Hope, with a project size of around 73.6 trillion yen and fiscal spending of around 40.0 trillion yen. The implementation of the third supplementary budget for fiscal 2020 and the initial budget for fiscal 2021 based on the aforementioned measures is expected to support economic activity, mainly through increases in public investment and government consumption.

subside on the back of progress with the widespread vaccinations, a recovery in the level of economic activity is expected to be further evident, including in the face-to-face services sector, as a virtuous cycle from income to spending intensifies.

With regard to the outlook by demand component, goods exports are projected to continue increasing firmly, supported by the expansion in digital-related demand and the recovery in business fixed investment, both on a global basis, with vaccinations and aggressive macroeconomic policies continuing to be conducted, mainly in advanced economies. This increase in goods exports is also likely to be supported by a pick-up in automobile-related goods, mainly reflecting a mitigation of the effects of the semiconductor shortage. On the other hand, inbound tourism demand, which is categorized under services exports, is expected to remain subdued while entry and travel restrictions continue but likely to recover toward the pre-pandemic level as vaccinations progress around the world and such restrictions are lifted. Private consumption, mainly of face-to-face services, is likely to be at a low level while public health measures remain in place. However, as the impact of COVID-19 wanes gradually due to progress with vaccinations in Japan, it is expected to pick up again, supported also by the government's economic measures. From the middle of the projection period, as people's consumption activities mostly become unconstrained by COVID-19 along with the widespread vaccinations, an uptrend in private consumption, mainly of services, is projected to become evident with employee income improving. Employee

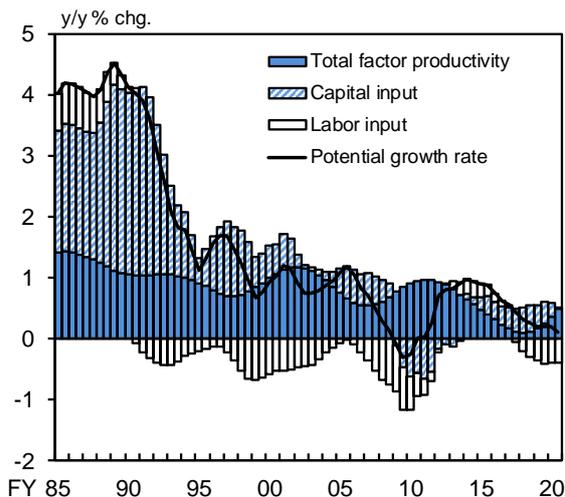
income is likely to turn to a pick-up with a time lag following the recovery in domestic and external demand, despite weakness remaining in employment of non-regular workers in the face-to-face services industry. Then, it is projected to increase moderately toward the second half of the projection period. An uptrend in business fixed investment is expected to become clear, mainly for machinery and digital-related investments, supported by improvement in corporate profits and accommodative financial conditions, although construction investment by the face-to-face services industry is projected to remain weak for the time being. Meanwhile, public investment is likely to steadily increase, reflecting such progress as in construction related to restoration and reconstruction following natural disasters, as well as to building national resilience, which is included in the government's additional economic measures formulated at the end of 2020. Thereafter, it is expected to be at a relatively high level. Government consumption is projected to increase clearly for fiscal 2021, reflecting a pick-up in healthcare expenditure, enhancement of the COVID-19 testing system, and progress with vaccinations. Thereafter, however, government consumption is projected to see a lowering in its level since expenditure related to COVID-19 is likely to decrease.

Reflecting these developments in demand both at home and abroad, Japan's economic growth rate is expected to mark a relatively large positive figure for fiscal 2021 with the impact of COVID-19 waning gradually and supported by an increase in external demand, accommodative financial conditions, and the government's economic measures. The rate is projected to continue to

register firm growth for fiscal 2022 on the back of an increase in domestic and external demand due to progress with vaccinations. The rate for fiscal 2023 is expected to continue growing at a pace slightly above its potential growth rate, with external demand increasing steadily and accommodative financial conditions being maintained, although the pace is likely to decelerate from that for fiscal 2021 and 2022. Comparing the projections with those presented in the previous Outlook Report, the projected growth rate for fiscal 2021 is somewhat lower due to the impact of COVID-19, but that for fiscal 2022 is somewhat higher.

The potential growth rate seems to have been at around 0 percent or marginally positive recently, although total factor productivity (TFP) has slightly picked up (Chart 6). This is because working hours have continued on a downtrend that reflects working-style reforms and because the growth of capital stock has decelerated as a result of the past decline in business fixed investment stemming from the impact of COVID-19. As for the outlook, the potential growth rate is expected to rise moderately. This is based on the projection that (1) the TFP growth rate will increase moderately, mainly reflecting advancement in digitalization and a resultant improvement in efficiency of resource allocation and firms' adaptation to the situation in terms of organizational management, (2) the pace of decline in working hours will slow with the effects of working-style reforms diminishing, and (3) the growth of capital stock will accelerate cyclically. However, the extent of the negative impact that the COVID-19 pandemic will ultimately have on factors such as human and organizational capital

Chart 6: Potential Growth Rate



Source: Bank of Japan.
Note: Figures are staff estimates.

is still highly unclear. In addition, there remain high uncertainties over how much innovation by the corporate sector and transfer of production factors among industries, both of which aim at adapting to the post-pandemic economic and industrial structures, will advance or be sustained. Under these circumstances, the output gap and the potential growth rate, which are estimated based on a specific assumption regarding trends, should be interpreted with some latitude.

Details of the outlook for each fiscal year are as follows. In fiscal 2021, as the impact of COVID-19 wanes gradually at home and abroad and the growth rates of overseas economies rise, Japan's economy is expected to recover, partly supported by the government's economic measures and accommodative financial conditions. That said, the level of economic activity, mainly in the face-to-face services sector, is likely to remain lower than that prior to the pandemic with vigilance against COVID-19 continuing. Exports are expected to follow a clear uptrend, led by those of capital goods and IT-related goods, on the back of high economic growth in the United States that reflects the additional economic measures and of the global expansion in digital-related demand. This uptrend in exports is also likely to be supported by a pick-up in exports of automobile-related goods, mainly because of a mitigation of the effects of the semiconductor shortage. Private consumption, mainly of face-to-face services, is likely to remain stagnant, affected by COVID-19 and public health measures. Thereafter, with the impact of COVID-19 waning gradually, mainly due to progress with vaccinations, it is expected to increase, albeit only moderately, supported also

by a pick-up in employee income and the government's economic measures. Corporate profits are likely to continue on an improving trend on the back of a recovery in domestic and external demand, despite being affected by deterioration in the terms of trade that reflects the recent rise in international commodity prices. As for business fixed investment, construction investment, such as for commercial facilities and hotels, is likely to remain at a low level. However, with corporate profits improving, business fixed investment as a whole is expected to increase clearly, pushed up by an undertaking of postponed investment projects and an increase in digital-related investment. Meanwhile, with regard to government spending, owing to the additional economic measures decided last fiscal year, public investment in construction related to building national resilience is likely to increase steadily, and government consumption is expected to continue showing a clear increase, pushed up by spending related to such factors as the COVID-19 testing and vaccinations, in addition to the pick-up in healthcare expenditure.

In fiscal 2022, the economy is expected to continue growing firmly, with domestic and external demand increasing, partly due to further progress with vaccinations. Exports are likely to continue increasing firmly, reflecting improvement in overseas economies, although the pace of increase is projected to be slower than in fiscal 2021. In this situation, corporate profits are expected to continue following their improving trend and business fixed investment is likely to continue increasing, including for digital-related investment, investment to address environmental issues, and research and development (R&D)

investment for growth. As vigilance against COVID-19 dissipates on the back of the widespread vaccinations, an uptrend in private consumption is expected to become evident, also supported by the materialization of pent-up demand for services. Meanwhile, although progress with construction related to building national resilience and an uptrend in healthcare and nursing care expenditures are projected to serve as support, government spending is likely to turn to a decline on the whole since expenditure related to COVID-19 is expected to decrease.

In fiscal 2023, with the widespread vaccinations at home and abroad and an increase in consumption activities that involve people's movements and going out, Japan's economy is expected to grow at a pace slightly above its potential growth rate, partly supported by accommodative financial conditions. Regarding exports, with overseas economies continuing to grow at around the same pace as the long-term average, goods exports are likely to continue increasing moderately and inbound tourism demand, which is categorized under services exports, also is projected to increase clearly, reflecting a global recovery in travel demand due to progress with vaccinations. Although increases in investment for growth and investment to address environmental issues, as well as a recovery in construction investment by the services sector, are expected to serve as support, business fixed investment is likely to see moderate deceleration in the pace of increase due to adjustment pressure stemming from the accumulation of capital stock. Private consumption is projected to continue to see a solid increase for both goods and services, since

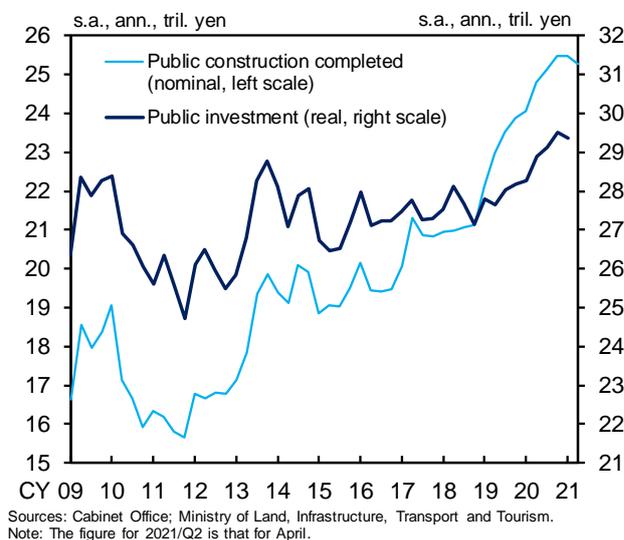
it is likely to be pushed up by improvement in employee income and a rise in the propensity to consume that comes along with dissipation of the impact of COVID-19. Meanwhile, despite being pushed down by a decrease in expenditure related to COVID-19, overall government spending is expected to remain at a high level that is more or less the same as that of fiscal 2022, supported by progress in construction related to building national resilience and by an uptrend in healthcare and nursing care expenditures.

B. Developments in Major Expenditure Items and Their Background

Government Spending

Public investment has continued to increase moderately (Chart 7). Since early 2019, the amount of public construction completed, which is a coincident indicator, has continued to increase moderately, mainly for construction related to restoration and reconstruction following natural disasters. Orders received for public construction, which is a leading indicator, have shown a steady increase, as orders are being placed, mainly for construction related to building national resilience, which was budgeted in the additional economic measures for fiscal 2020.⁸ As for the outlook, public investment is expected to continue increasing steadily for the time being, reflecting the progress in construction related to building national resilience. Then, toward the end of the projection period, it is projected to be at a relatively high level, supported by construction related to, for example, controlling flooding and addressing decaying infrastructures. Government consumption is expected to increase clearly for fiscal 2021, reflecting the pick-up in healthcare expenditure, enhancement of the COVID-19 testing system, and progress with vaccinations. From fiscal 2022 onward, government consumption is projected to see a lowering in its level since expenditure related to COVID-19 is

Chart 7: Public Investment



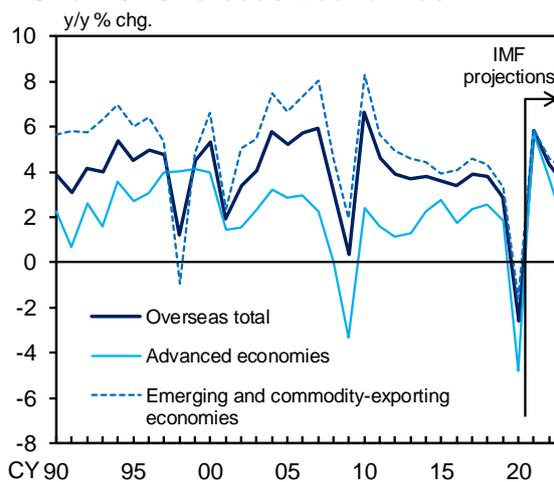
⁸ Following the three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience, which expired at the end of fiscal 2020, a new plan for building national resilience with a targeted period from fiscal 2021 through 2025 and a project size of about 15 trillion yen was decided by the Cabinet in December 2020. In reflection of this plan, public investment projects for disaster prevention, disaster mitigation, and building national resilience have been incorporated into the third supplementary budget for fiscal 2020 as major measures. Therefore, the implementation of the budget is expected to push up public investment.

likely to decrease, although it is expected to be supported by the uptrend in healthcare and nursing care expenditures.

Overseas Economies

Overseas economies have recovered on the whole, albeit with variation across countries and regions (Chart 8). By region, an improving trend in economic activity has been intensifying in advanced economies, as public health measures have been lifted in stages on the back of progress with vaccinations. On the other hand, although emerging economies have been positively affected by an economic recovery in advanced economies through the trade channel, downward pressure on domestic demand in some of those economies has intensified again due to the number of confirmed cases increasing or remaining high. Taking a detailed look at developments in overseas economies, the U.S. economy has recovered clearly with economic activity resuming and on the back of private consumption being pushed up by the additional economic measures. As for European economies, economic activity, including that in the face-to-face services sector, has picked up from the state of being pushed down, amid improvement in households' and firms' sentiment. The Chinese economy has continued to recover, as improvement has been seen in a wider range of sectors -- that is, not only in manufacturing but also nonmanufacturing. Regarding emerging and commodity-exporting economies other than China, a pick-up has been maintained on the whole, although domestic demand in some economies and regions has been pushed down due to the resurgence of COVID-19. Turning to Asia, which is deeply related to Japan's economy, the NIEs

Chart 8: Overseas Economies

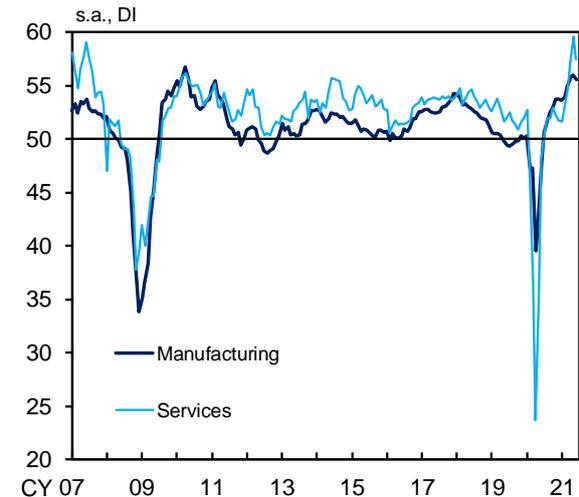


Sources: IMF; Ministry of Finance.
 Note: Figures are the weighted averages of real GDP growth rates using countries' share in Japan's exports as weights. The real GDP growth rates are compiled by the IMF, and the rates from 2021 onward are its projections in the April 2021 "World Economic Outlook" (WEO). Figures for advanced economies are those for the United States, the euro area, and the United Kingdom. Figures for emerging and commodity-exporting economies are those for the rest of the world.

have continued on a recovery trend, supported by an increase in IT-related exports in particular, whereas some ASEAN countries have seen sluggish domestic demand, mainly for private consumption, due to the number of confirmed cases increasing or remaining high. Looking at the current situation for the global economy in terms of the Global PMI, business sentiment in the manufacturing industry has continued to improve steadily, and that in the services industry, for which recovery was somewhat slower, also has improved clearly of late (Chart 9). In this situation, although automobile-related trade has been affected by supply-side constraints due to the semiconductor shortage, the world trade volume has continued to increase firmly, supported by steady digital-related demand, and has clearly exceeded the pre-pandemic level of late (Chart 10).⁹

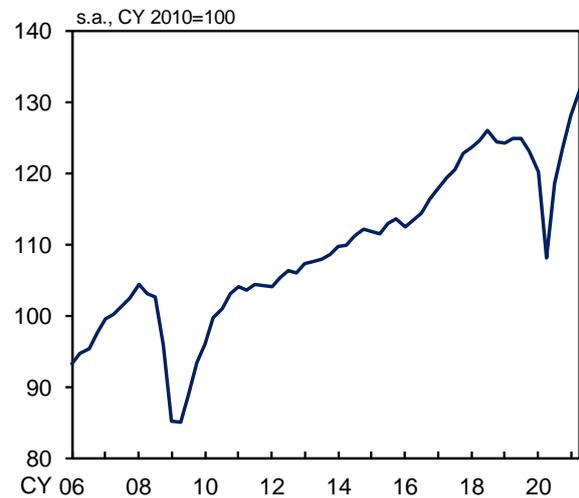
As for the outlook, with the impact of COVID-19 waning gradually, overseas economies are likely to continue recovering on the whole, partly supported by aggressive macroeconomic policies taken mainly in advanced economies. The pace of economic improvement is highly likely to be uneven across countries, primarily due to the different paces in the vaccine rollout. However, in the first half of the projection period, the global economy is expected to continue registering relatively high growth, led by advanced economies and China. That is, the U.S. and European economies are expected to continue recovering clearly, as the resumption of economic activity progresses further through this summer and as households' spending attitudes become

Chart 9: Global PMI



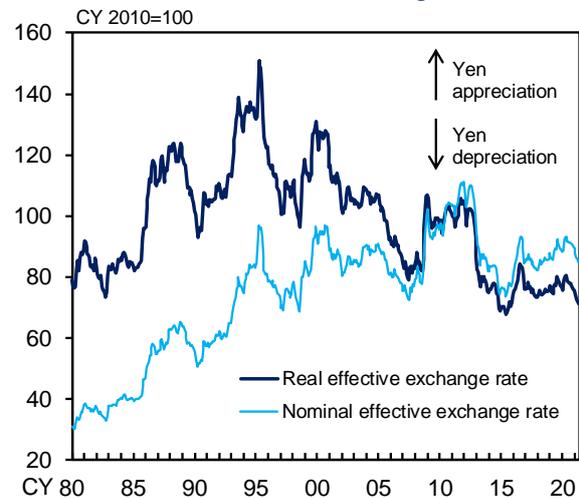
Source: IHS Markit (© and database right IHS Markit Ltd 2021. All rights reserved.).
 Note: Figures for manufacturing are the "J.P.Morgan Global Manufacturing PMI." Figures for services are the "J.P.Morgan Global Services Business Activity Index."

Chart 10: World Trade Volume



Source: CPB Netherlands Bureau for Economic Policy Analysis.
 Note: Figures for the world trade volume are those for world real imports. The figure for 2021/Q2 is that for April.

Chart 11: Effective Exchange Rates



Source: BIS.
 Note: Figures are based on the broad effective exchange rate indices. Figures prior to 1994 are calculated using the narrow indices.

⁹ The world trade volume is calculated by adding up real imports in each country.

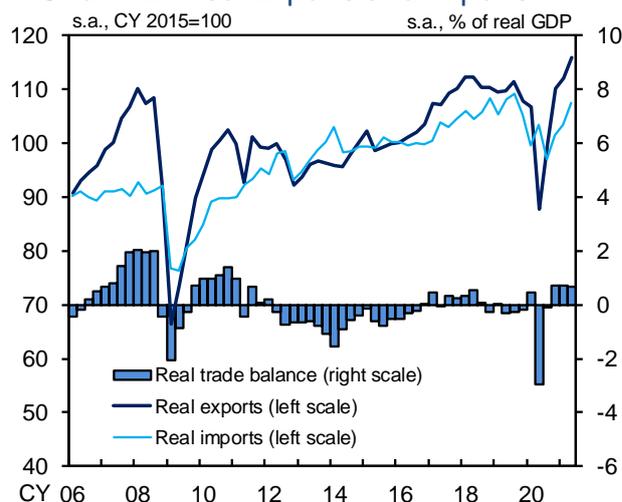
active. The Chinese economy is projected to return to a steady growth path that is led by private demand, with a virtuous cycle from income to spending gathering strength. Toward the end of the projection period, the growth rates of overseas economies are likely to gradually decelerate toward the long-term average with the stimulus effects of macroeconomic policies dissipating.

With regard to the outlook for the world trade volume, a steady increase is expected to continue, led by strong growth of digital-related goods and capital goods. The pace of increase is likely to decelerate gradually in the second half of the projection period since digital-related demand is expected to be under some downward pressure, partly due to a peaking-out of stay-at-home demand.

Exports and Imports

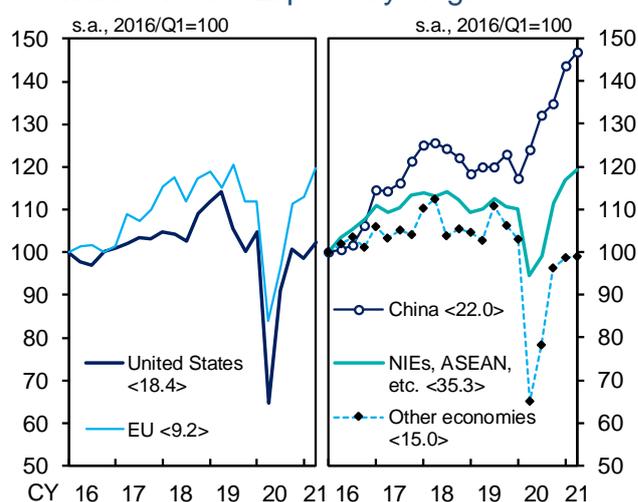
Exports have continued to increase steadily, reflecting the recovery in overseas economies (Chart 12). By region, exports to advanced economies have increased moderately, despite being affected by a slowdown in exports of automobile-related goods that is due to the semiconductor shortage (Chart 13). Exports to emerging economies have increased firmly, mainly those to Asia, supported by the steady expansion in digital-related demand on a global basis. By goods, the pace of increase in exports of automobile-related goods, particularly for automobiles to the United States, has decelerated clearly of late, mainly due to the effects of the semiconductor shortage (Chart 14). IT-related exports have continued to increase clearly

Chart 12: Real Exports and Imports



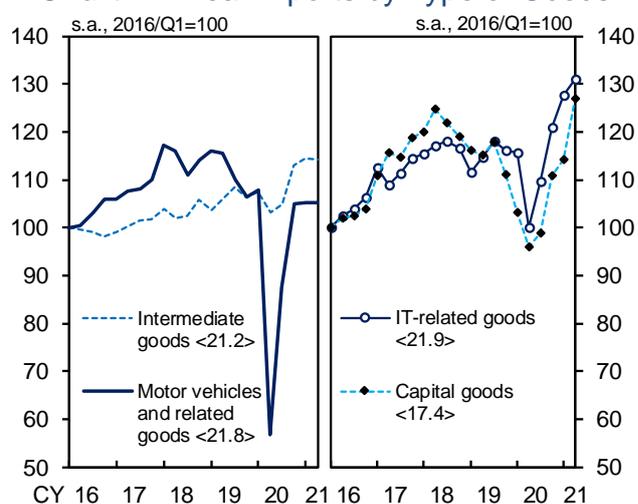
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations. Figures for 2021/Q2 are April-May averages.

Chart 13: 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 2020. Figures for 2021/Q2 are April-May averages.
2. Figures for the EU exclude those for the United Kingdom for the entire period.

Chart 14: 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 2020. Figures for 2021/Q2 are April-May averages.

because demand has been firm for a wide range of goods, including those related to smartphones and personal computers, as well as parts for data centers and on-board equipment for motor vehicles. Exports of capital goods have continued to see a firm increase, supported by a global rise in machinery investment and by steady exports of semiconductor production equipment that reflect the expansion in digital-related demand. Exports of intermediate goods have continued to increase; this is mainly for chemicals such as cosmetics, particularly to Asia.

Chart 15: Japan's Share of Exports in World Trade Volume



Source: CPB Netherlands Bureau for Economic Policy Analysis.
 Note: Japan's share of exports in world trade volume is obtained by dividing Japan's real exports by world real imports (2010 prices). The figure for 2021/Q2 is that for April.

Regarding the outlook, supported by steady expansion in digital-related demand and the recovery in business fixed investment, both on a global basis, exports are projected to continue increasing firmly on the whole, led by those of capital goods and IT-related goods. This is also expected to be supported by a mitigation of downward pressure on exports of automobile-related goods, which stems from the effects of the semiconductor shortage. The pace of increase in exports is likely to decelerate in the second half of the projection period, with growth in the world trade volume slowing somewhat, as described earlier, and economic growth of the United States, China, and the NIEs, which are Japan's primary export destination, also decelerating.

Meanwhile, Japan's share of exports in the world trade volume has recovered to the pre-pandemic level recently (Chart 15). As for the outlook, it is expected to increase temporarily, due to a rise in exports of automobile-related goods that reflects a mitigation of the effects of the semiconductor

shortage and to steady exports of capital goods. Thereafter, however, based on the assumption that the shift of production sites to overseas will not accelerate, Japan's share of exports is projected to converge toward a level that is around the average seen before the pandemic.

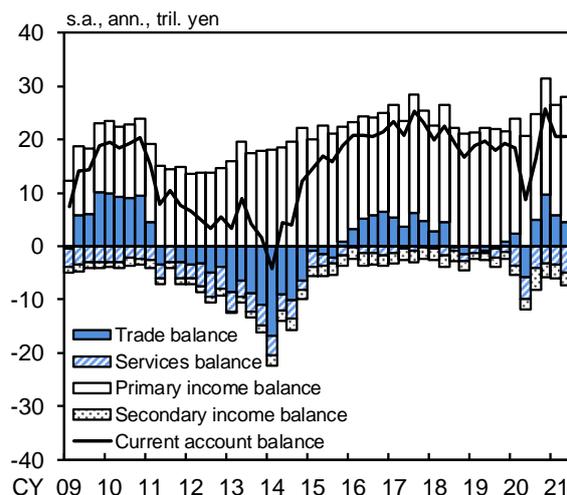
Imports have increased, reflecting domestic demand for goods and purchases of vaccines (Chart 12). They are expected to follow a moderate uptrend on the back of developments in induced demand due to increases in domestic demand and exports.

External Balance

The nominal current account surplus had been on an expanding trend after hitting a bottom around last spring, but has declined recently (Chart 16). Looking at the breakdown of developments in the current account balance, the nominal trade surplus has decreased, reflecting the rise in international commodity prices, such as crude oil prices. The services balance has continued to register a deficit of late, pushed down by deterioration in the travel balance, as described later, since last spring. The primary income balance has continued to register a relatively large surplus on the back of the recovery in overseas economies. Meanwhile, there are still almost no inbound visitors, and thus inbound tourism demand has remained subdued (Chart 17). Against this background, the net travel balance has remained at a deteriorated level.

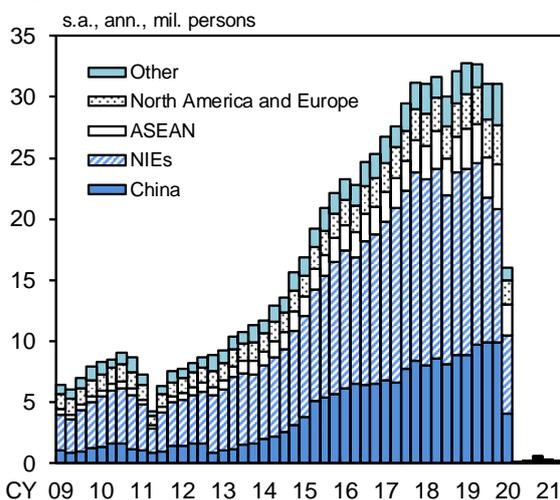
The nominal current account surplus is expected to be more or less unchanged for the time being,

Chart 16: Current Account



Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2021/Q2 are April-May averages.

Chart 17: Number of Inbound Visitors



Source: Japan National Tourism Organization (JNTO).
Note: Figures for North America and Europe are those for the United States, Canada, the United Kingdom, France, and Germany. Figures for 2021/Q2 are April-May averages.

since the trade balance is projected to be pushed down by the recent rise in international commodity prices. Thereafter, however, it is likely to follow a moderate expanding trend, supported by improvement in the primary income balance that reflects the recovery in overseas economies. In terms of the savings-investment balance, overall excess savings in Japan's economy are expected to be more or less unchanged for the time being, partly due to deterioration in the terms of trade stemming from the recent rise in international commodity prices (Chart 18). However, toward the end of the projection period, they are projected to follow a moderate expanding trend because the fiscal balance is likely to improve at a pace that somewhat exceeds the pace of decline in excess savings in the private sector.

Industrial Production

Industrial production has continued to increase steadily on the back of the rise in domestic and external demand (Chart 19). By major industry, transport equipment production continued to increase clearly through the second half of last year. However, it saw a deceleration in the pace from the turn of the year, mainly due to the effects of the semiconductor shortage, and has declined recently to a relatively large extent. Production of machinery (i.e., "general-purpose, production, and business-oriented machinery" in the *Indices of Industrial Production*) has continued to increase firmly, mainly for semiconductor production equipment and construction machinery, on the back of a recovery in demand for machinery investment at home and abroad. Production of electronic parts and devices has continued to increase evidently for a wide range

Chart 18: Savings-Investment Balance

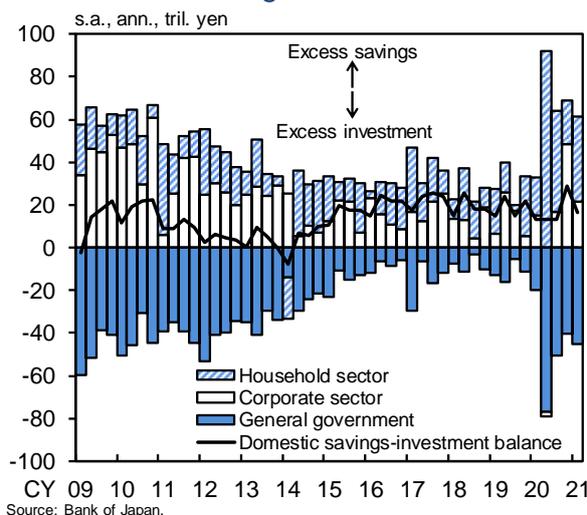
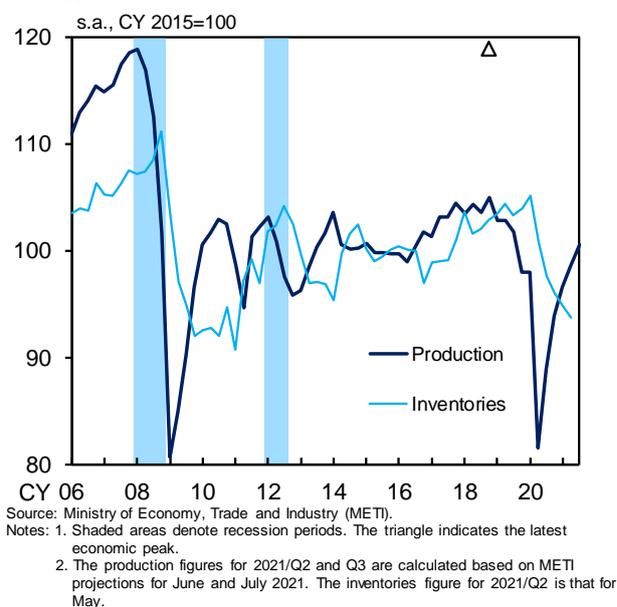


Chart 19: Industrial Production



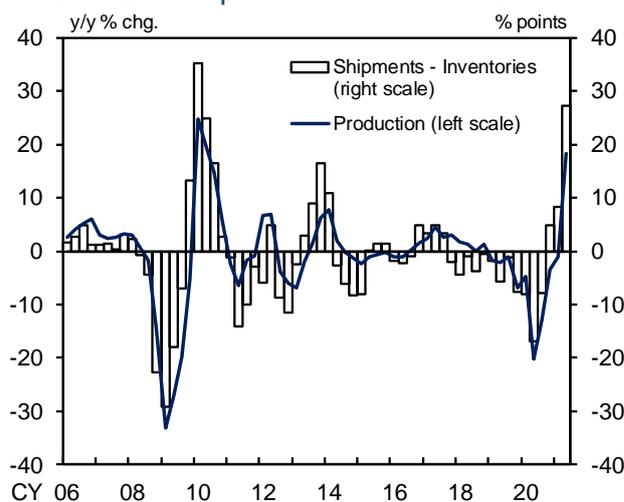
of items, reflecting steady demand for parts for data centers, those related to smartphones and personal computers, and those for on-board equipment for motor vehicles. Meanwhile, the shipments-inventories balance (i.e., the year-on-year rate of change in shipments minus that in inventories) has improved clearly since an increase in shipments and progress in inventory adjustments have been observed at the same time across a wide range of industries (Chart 20).

Industrial production is likely to continue increasing steadily, mainly on the back of a mitigation of the effects of the semiconductor shortage in transport equipment production, as well as solid digital-related demand and a global recovery in demand for business fixed investment.

Corporate Profits

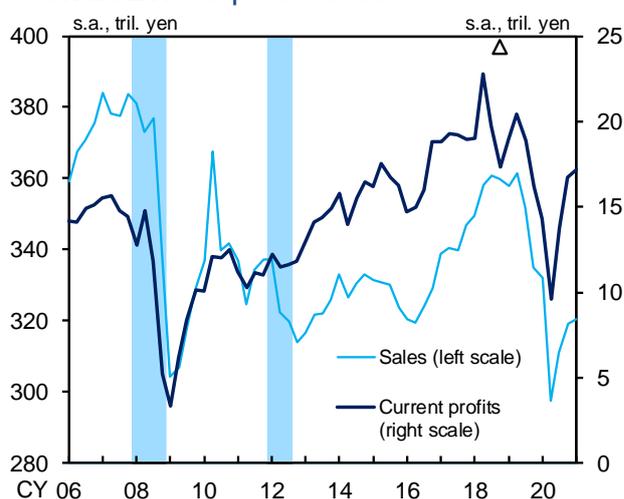
Corporate profits have improved on the whole, although weakness has been seen in some industries, such as face-to-face services. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC), current profits for all industries and enterprises improved for three consecutive quarters in the January-March quarter of 2021 (Chart 21). Although sales have remained below the pre-pandemic level despite picking up, current profits already have exceeded that level. A clearer improvement in current profits than in sales is attributable to a reduction in selling, general and administrative (SG&A) expenses -- such as advertising and business travel expenses -- during the COVID-19 pandemic and the underpinnings of various measures to support

Chart 20: Shipments-Inventories Balance



Source: Ministry of Economy, Trade and Industry.
 Note: The production figure and the shipments figure for 2021/Q2 are April-May averages. The inventories figure for 2021/Q2 is that for May.

Chart 21: Corporate Profits

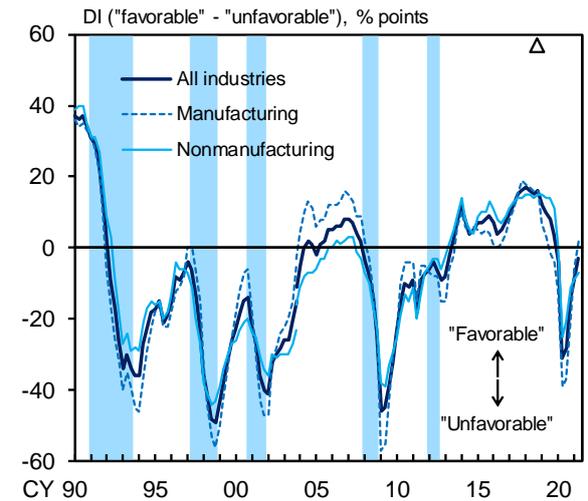


Source: Ministry of Finance.
 Notes: 1. Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly," Excluding "finance and insurance."
 2. Figures from 2009/Q2 onward exclude pure holding companies.
 3. Shaded areas denote recession periods. The triangle indicates the latest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

firms, such as employment adjustment subsidies and subsidies for sustaining businesses.¹⁰ Looking at current profits by industry and firm size, a clear improvement has been observed in the manufacturing industry regardless of firm size, supported by increases in exports and production and by cost cuts. As for the nonmanufacturing industry, current profits of large firms have continued to show weak developments, mainly for the transportation industry, such as of airlines and railways. Those of small and medium-sized firms for the January-March quarter deteriorated, affected by the resurgence of COVID-19 and the second state of emergency, although they have been pushed up by various subsidies.

A clear improvement in business sentiment also has continued on the whole, although weakness has remained in some industries, such as face-to-face services. According to the June 2021 *Tankan* (Short-Term Economic Survey of Enterprises in Japan), the diffusion index (DI) for business conditions for all industries and enterprises has improved for four consecutive quarters after hitting a bottom in the June 2020 survey (Chart 22). With regard to the manufacturing industry, although the DI for the automobile industry has deteriorated due to the effects of the semiconductor shortage, those for a wide range of industries, such as general-purpose machinery, production machinery, and electrical machinery, have continued to improve clearly. This is mainly on the back of the steady expansion in digital-related demand on a global basis and a pick-up in business fixed investment at home and abroad. As for the nonmanufacturing industry, the DI for the accommodations as well

Chart 22: Business Conditions



Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. All enterprises. There is a discontinuity in the data for December 2003 due to a change in the survey framework.
2. Shaded areas denote recession periods. The triangle indicates the latest economic peak.

¹⁰ For details, see Box 2 in the April 2021 Outlook Report.

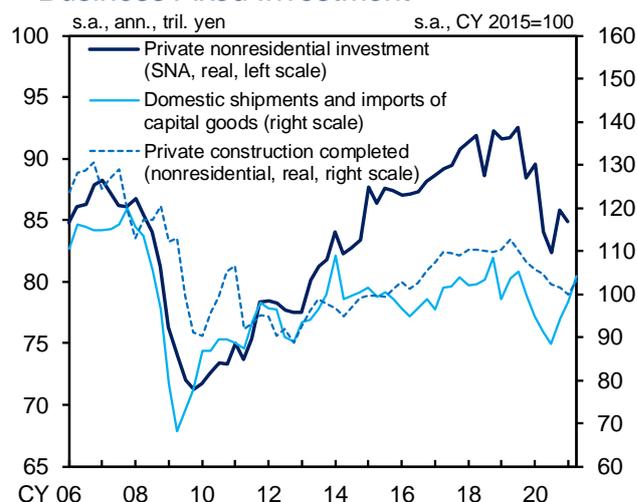
as eating and drinking services industries has remained at a subdued level and that for the retail industry has deteriorated, both affected by COVID-19 and public health measures. However, the DIs for such industries as goods rental and leasing, wholesaling, transport and postal activities, as well as services for individuals have improved, mainly reflecting a pick-up in economic activity and a resultant increase in logistics.

Corporate profits are likely to continue increasing clearly for the time being, pushed up by a rise in the sales volume that reflects the recovery in domestic and external demand and by a reduction in SG&A expenses, despite being pushed down by deterioration in the terms of trade stemming from recent rises in crude oil prices and other primary commodity prices.¹¹ Thereafter, although the pace of increase is expected to slow, partly due to dissipation of the effects of various measures to support firms, corporate profits, including those of the nonmanufacturing industry, are likely to continue on a firm improving trend, reflecting a recovery in the level of economic activity.

Business Fixed Investment

Business fixed investment has picked up, although weakness has been seen in some industries (Chart 23). Supported by improvement in corporate profits, the aggregate supply of capital goods -- a coincident indicator of machinery investment -- has continued to increase firmly, mainly for digital-related goods,

Chart 23: Coincident Indicators of Business Fixed Investment



Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.

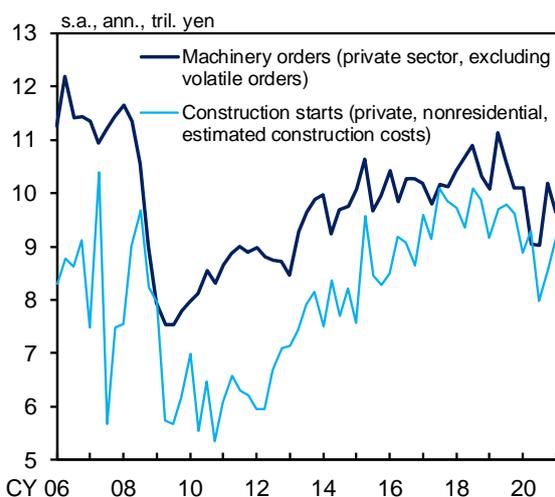
Notes: 1. The figure for domestic shipments and imports of capital goods for 2021/Q2 is the April-May average. The figure for private construction completed for 2021/Q2 is that for April.

2. Figures for real private construction completed are based on staff calculations using the "Construction Cost Deflators."

¹¹ Box 2 empirically analyzes the impact of the rise in international commodity prices on corporate profits through deterioration in the terms of trade of Japan's economy.

such as personal computers and goods related to base stations and 5G networks, and for construction machinery. On the other hand, with large-scale Olympic Games-related construction having almost completed, private construction completed (nonresidential) -- a coincident indicator of construction investment -- remained on a moderate declining trend due to the effects of a decrease in construction of stores and accommodation facilities, mainly by the eating and drinking as well as accommodations industries. However, the declining trend is coming to a halt.

Chart 24: Leading Indicators of Business Fixed Investment

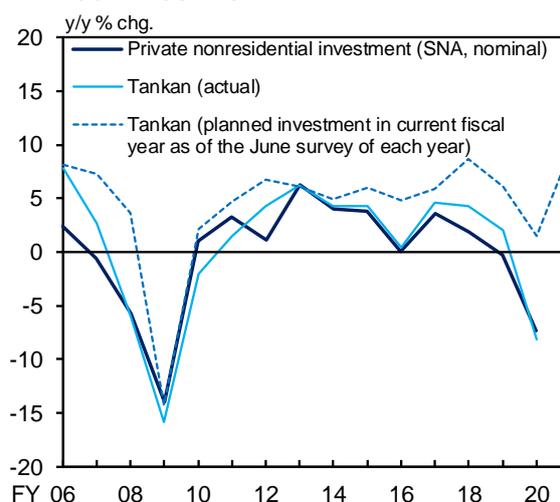


Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
 Notes: 1. Volatile orders are orders for ships and orders from electric power companies.
 2. Figures for 2021/Q2 are April-May averages.

When fluctuations are smoothed out, machinery orders -- a leading indicator of machinery investment -- have shown a pick-up (Chart 24). By industry, orders by the manufacturing industry have continued to pick up, mainly led by "general-purpose, production, and business-oriented machinery" and electrical machinery, reflecting increases in exports and production. Orders by the nonmanufacturing industry have been fluctuating on the whole. This is because orders by the transportation industry -- including "rolling machines" (i.e., railway vehicles) and "motor vehicles" -- which is strongly affected by COVID-19, have been weak, whereas orders by the construction as well as the finance and insurance industries have been on an increasing trend, mainly for digital-related and labor-saving investments. Construction starts (in terms of planned expenses for private and nonresidential construction) -- a leading indicator of construction investment -- have picked up on the whole. This is because, although the construction of stores and accommodation facilities -- mainly by the eating and drinking as well as accommodations

industries, which have been affected by COVID-19 -- has continued to decrease, construction starts have been supported by an increase in construction of warehouses, such as logistics facilities, on the back of expansion in e-commerce, as well as by progress in urban redevelopment projects and construction demand for medical, healthcare, and welfare services facilities. Looking at the business fixed investment plan in the June 2021 *Tankan*, 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) was minus 8.1 percent for fiscal 2020 in terms of the year-on-year rate of change, registering a decline for the first time in 10 years (Chart 25). However, the plan for fiscal 2021 shows that the year-on-year rate of change in business fixed investment is likely to turn to a clear increase of 9.4 percent.

Chart 25: Planned and Actual Business Fixed Investment



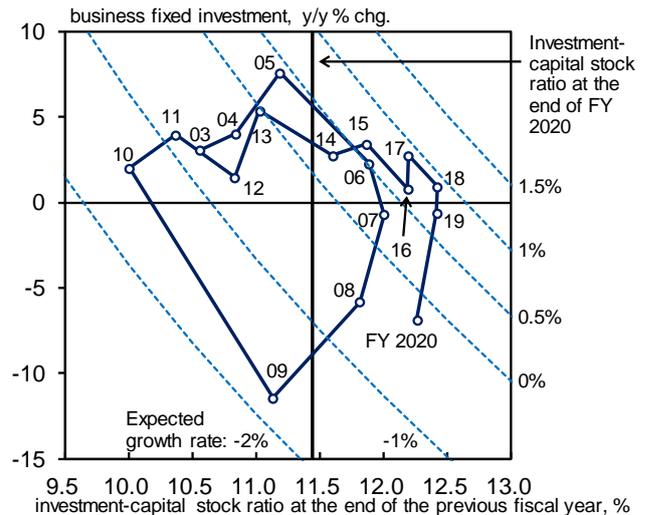
Sources: Bank of Japan; Cabinet Office.
 Note: The *Tankan* figures include software and R&D investments and exclude land purchasing expenses. R&D investment is not included before the March 2017 survey. The figures are for all industries including financial institutions.

As for the outlook, an uptrend in business fixed investment is expected to become clear, supported by improvement in corporate profits and accommodative financial conditions. Specifically, investment that is expected to be undertaken includes (1) machinery investment triggered by an increase in exports, (2) software investment to address labor shortage, expand the use of teleworking, and digitalize, for example, sales activities, (3) construction investment in logistics facilities accompanied by an expansion in e-commerce, (4) R&D investment for growth areas, and (5) investment to address environmental issues, such as toward decarbonization, which also receives policy

support. That said, reflecting the prolonged impact of COVID-19 and a delay in recovery in inbound tourism demand, renewal investment in railway vehicles and aircraft by the transportation industry and construction investment such as in restaurants, commercial facilities, and hotels by the services industry are projected to remain sluggish for a while. Toward the end of the projection period, since the pace of increase in exports is likely to decelerate and the effects to push up corporate profits through various subsidies are expected to dissipate, the pace of increase in business fixed investment is projected to slow, partly pushed down by cyclical adjustment pressure stemming from the accumulation of capital stock. However, business fixed investment is expected to continue increasing even at the end of the projection period since there are likely to be many medium- to long-term investment projects, such as those listed in (2) to (5) above, that are less susceptible to business cycles.

The outlook for business fixed investment is assessed from the viewpoint of the capital stock cycle, which is based on the assumption that such investment will be undertaken in order to achieve the level of capital stock necessary for production activity under certain growth expectations (Chart 26). Business fixed investment temporarily entered a phase of capital stock adjustment in fiscal 2020, pushed down mainly by a depression in economic activity brought about by the impact of COVID-19. That said, it is expected to reenter an increasing phase, supported by improvement in corporate profits and accommodative financial conditions, and along with a moderate rise in the expected growth rate.

Chart 26: Capital Stock Cycles



Source: Cabinet Office.

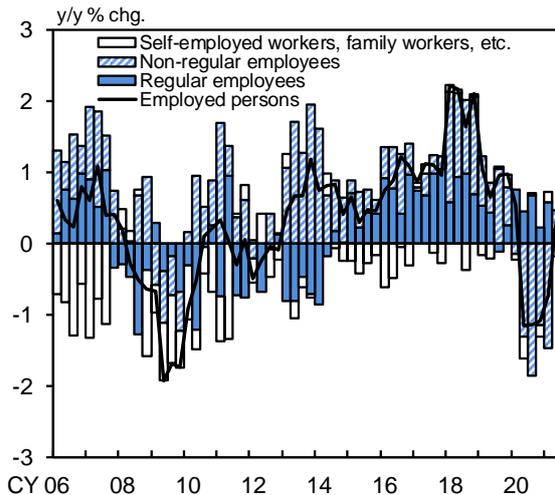
Note: Each broken line represents the combination of the rate of change in business fixed investment and the investment-capital stock ratio at a certain expected growth rate.

Employment and Income Situation

The employment and income situation has remained weak due to the impact of COVID-19.

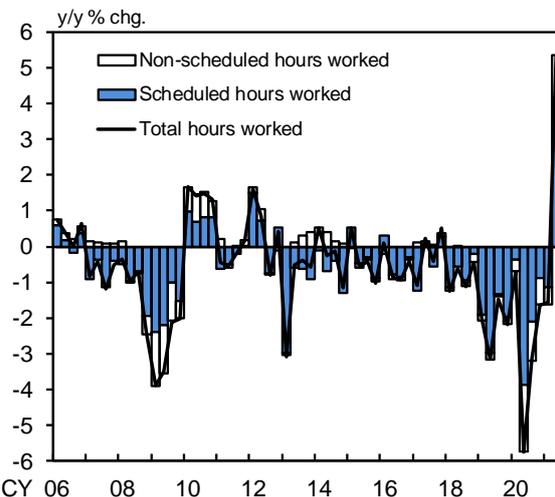
The year-on-year rate of change in the number of employed persons, which declined significantly last spring, has bottomed out, reflecting a pick-up trend in overall economic activity (Charts 2 and 27). However, it has remained at a relatively low level, mainly for non-regular employees in the face-to-face services industry. In contrast, on the back of the adoption of equal pay for equal work from last April, the number of regular employees has continued to increase moderately, mainly in the medical, healthcare, and welfare services industry as well as the information and communications industry, both of which have faced acute labor shortage. The year-on-year rate of change in total hours worked per employee continued to register a relatively large negative figure but has seen somewhat high growth of late, partly due to a rebound from the significant decline seen last year because of the large-scale absences from work (Chart 28). With regard to labor market conditions, the labor force participation rate increased as seniors, women, and student part-time workers that were temporarily out of the labor market around last spring started returning to it (Chart 29). However, partly because this reentering to the labor market has peaked out, the increase in the labor force participation rate has leveled off recently. The unemployment rate has been more or less flat at around 3 percent, albeit with fluctuations. The active job openings-to-applicants ratio continued to decline clearly from the beginning of last year but bottomed out in the middle of the year, mainly due to an increase in job openings that reflects a

Chart 27: Number of Employed Persons



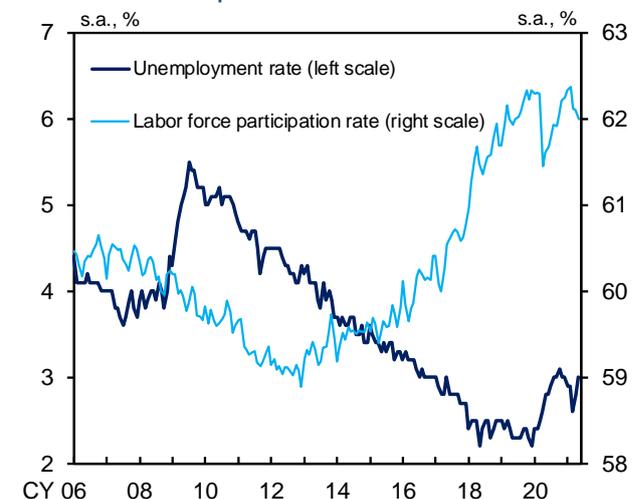
Source: Ministry of Internal Affairs and Communications.
Note: "Self-employed workers, family workers, etc." includes executives of companies or corporations. Figures prior to 2014 are based on the "detailed tabulation" in the "Labour Force Survey." Figures for 2021/Q2 are April-May averages.

Chart 28: Hours Worked



Source: Ministry of Health, Labour and Welfare.
Note: Figures for 2021/Q2 are April-May averages.

Chart 29: Unemployment Rate and Labor Force Participation Rate



Source: Ministry of Internal Affairs and Communications.

pick-up in economic activity (Chart 30). Subsequently, it has remained more or less flat at a level slightly above 1.

With regard to the outlook, as the impact of COVID-19 wanes and the level of economic activity rises, the number of employees is expected to follow a moderate increasing trend since labor absorption is expected to progress, mainly in industries with labor shortage, such as medical, healthcare, and welfare services, the wholesale and retail trade, and construction. The unemployment rate is likely to remain more or less flat at around the current level for a while, partly because the employment adjustment subsidies program is expected to be gradually scaled back along with economic improvement. Thereafter, however, it is projected to follow a moderate declining trend with a time lag following a recovery in economic activity.

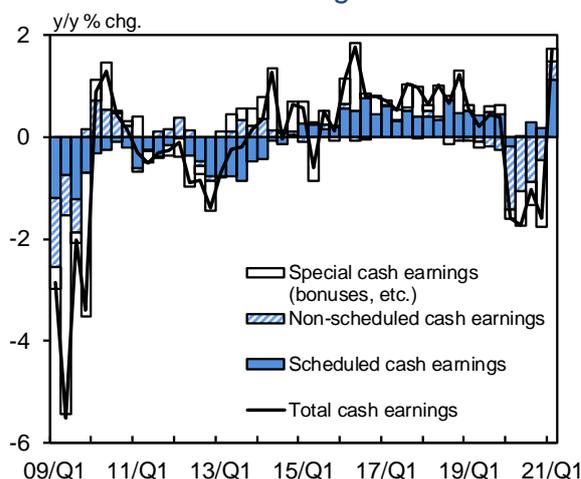
On the wage side, the year-on-year rate of change in total cash earnings per employee continued to decline but has been positive recently due to the effects of a rebound from the decline seen last year and of a rise in scheduled cash earnings in some industries (Chart 31).¹² The year-on-year rate of change in scheduled cash earnings has been positive to a relatively large extent on the back of (1) a rebound from the decline seen last year, (2) rising wages of full-time employees in the medical, healthcare, and welfare services industry, which faces a severe labor shortage, and (3) a fall in the share of

Chart 30: Job Openings-to-Applicants Ratio



Source: Ministry of Health, Labour and Welfare.

Chart 31: Nominal Wages



Source: Ministry of Health, Labour and Welfare.

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

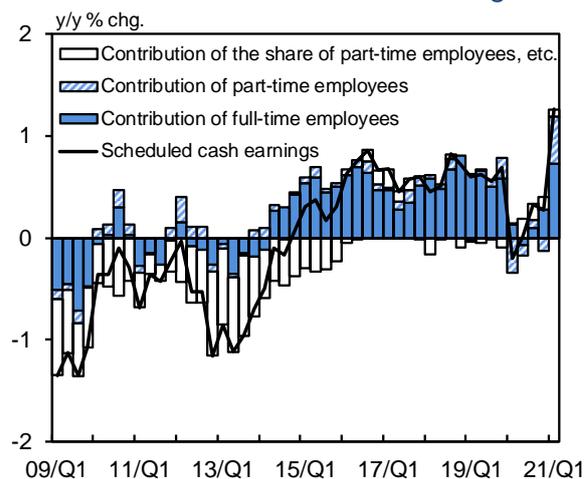
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

¹² Wages in the *Monthly Labour Survey* are assessed on the basis of continuing observations, which are less affected by the sample revisions.

part-time employees, mainly due to the adoption of equal pay for equal work (Chart 32). The year-on-year rate of change in non-scheduled cash earnings has been positive, reflecting a rebound from the significant decline seen last year as well as a recovery in the manufacturing industry's production activity. Developments in special cash earnings have been weak amid the remaining impact of deterioration in business performance for fiscal 2020.

With regard to the outlook for wages, the year-on-year rate of change in scheduled cash earnings is likely to be relatively high temporarily, partly affected by a rebound from the decline seen last year and wage increases in the medical, healthcare, and welfare services industry. That said, against the background of the rate of wage increases for fiscal 2021 discussed at the annual spring labor-management wage negotiations decelerating slightly compared with that for the previous fiscal year, it likely will remain difficult for the rate of increase in scheduled cash earnings to accelerate for a while, partly because a rise in the share of part-time employees resulting from a recovery in the employment of non-regular workers is likely to somewhat push down such earnings. From the middle of the projection period, scheduled cash earnings are expected to rise moderately since the rate of wage increases discussed at the annual spring labor-management wage negotiations is likely to rise again, reflecting improvement in business performance and a rise in the inflation rate. On the other hand, the year-on-year rate of change in non-scheduled cash earnings is likely to turn positive, reflecting a recovery in non-scheduled hours worked that is due to improvement in

Chart 32: Scheduled Cash Earnings



Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

economic activity. Subsequently, the rate of increase is expected to decelerate toward the end of the projection period. Special cash earnings (bonuses), which lag behind corporate profits by about half a year, are likely to stop declining sooner or later, reflecting improvement in corporate profits, and continue increasing steadily thereafter. Under these circumstances, the year-on-year rate of change in total cash earnings per employee is projected to be positive, mainly due to rises in non-scheduled cash earnings and special cash earnings. Thereafter, from the middle of the projection period, it is expected to continue increasing moderately, led by a rise in scheduled cash earnings.

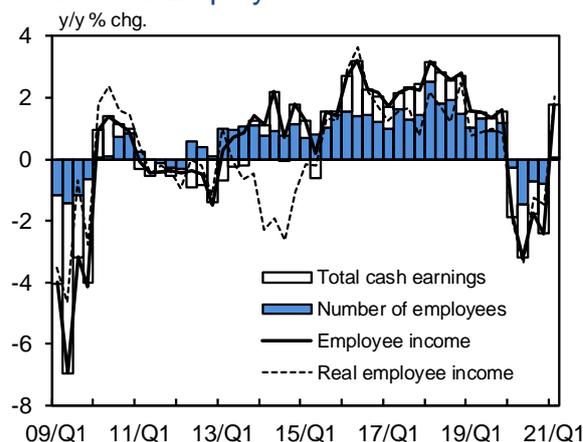
In light of the aforementioned employment and wage conditions, employee income, which had continued to decline clearly, has turned positive recently on a year-on-year basis (Chart 33). It is likely to continue improving moderately on the back of modest rises in employment and wages due to economic improvement.

Household Spending

Private consumption has been stagnant due to strong downward pressure on consumption of 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 -- increased for two consecutive quarters; namely,

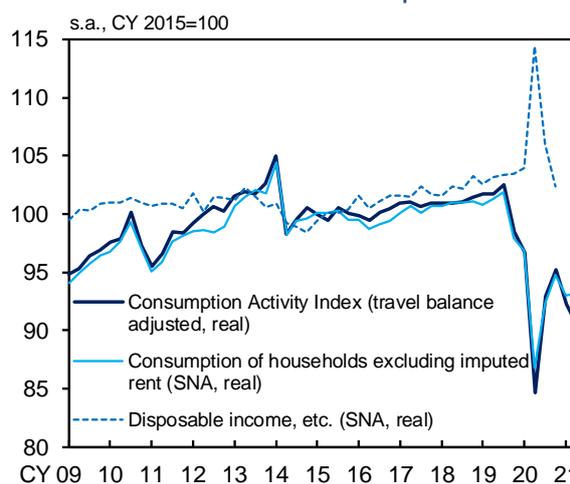
Chart 33: Employee Income



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 from 2016/Q1 onward are based on continuing observations following the sample revisions of the "Monthly Labour Survey."
 4. Figures for real employee income are based on staff calculations using the CPI (less imputed rent).

Chart 34: Private Consumption



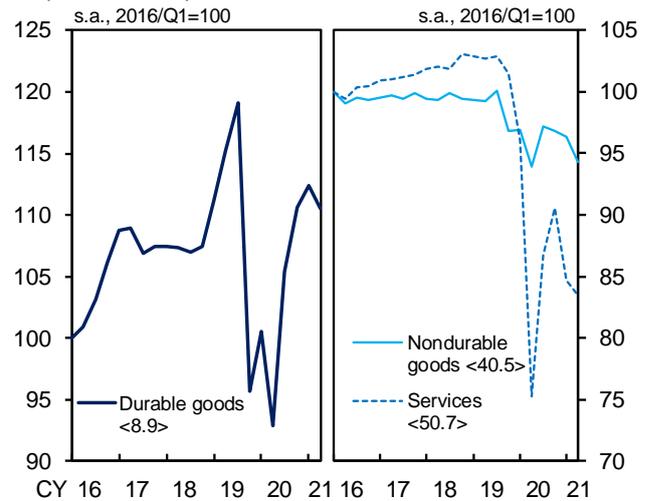
Sources: Bank of Japan; Cabinet Office, etc.

- Notes: 1. Figures for the Consumption Activity Index (CAI) are based on staff calculations. The CAI figures (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2021/Q2 is the April-May average.
 2. The figure for consumption of households excluding imputed rent for 2021/Q2 is based on staff calculations using the "Synthetic Consumption Index" (April).
 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.

the July-September and October-December quarters of 2020.¹³ However, the CAI for the January-March quarter of 2021 turned to a decline, partly due to the effects of the second state of emergency, and that for the April-May period relative to the January-March quarter became negative because the resurgence of COVID-19 and the resultant conduct of public health measures have weighted on it (Charts 34 and 35). Since then, various sources, such as high-frequency indicators, statistics published by industry organizations, and anecdotal information from firms, have suggested that consumption activity seems to have stayed at a low level on the whole amid public health measures remaining in place (Chart 36).

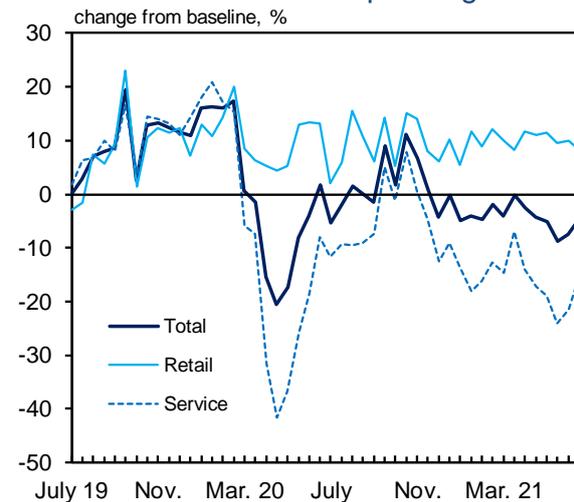
Looking at private consumption by type, durable goods continued to increase from the bottom hit around last spring, mainly on the back of an expansion in stay-at-home demand, but the pace has decelerated recently (Chart 37). Specifically, the number of new passenger car registrations was on an increasing trend until the end of last year but has been on a declining trend to date, albeit slightly, reflecting the effects of supply-side constraints due to the semiconductor shortage. Sales of household electrical appliances, mainly for personal computers, televisions, and white goods, increased moderately on the back of the expansion in stay-at-home demand. However, they have seen a deceleration in their pace of increase recently. Nondurable goods picked up from the decline seen around last spring but have decreased again since the turn of this year,

Chart 35: Consumption Activity Index (CAI, Real)



Sources: Bank of Japan, etc.
 Notes: 1. Based on staff calculations. Figures in angular brackets show the weights in the CAI. Figures for 2021/Q2 are April-May averages.
 2. Nondurable goods include goods classified as semi-durable goods in the SNA.

Chart 36: Consumption Developments Based on Credit Card Spending



July 19 Nov. Mar. 20 July Nov. Mar. 21
 Source: NOWCAST, Inc./ JCB, Co., Ltd., "JCB Consumption NOW."
 Notes: 1. Figures are from the reference series in "JCB Consumption NOW," which take changes in the number of consumers into account.
 2. The baseline is the average for the corresponding half of the month for 2016 through 2018.

¹³ Regarding the CAI, see the Bank's research paper "Revision of the Consumption Activity Index to Capture Recent Changes in Consumption Patterns" released in July 2021.

mainly because demand such as for clothes has waned due to the resurgence of COVID-19 and the conduct of public health measures. Food and daily necessities have been firm, supported by an expansion in stay-at-home demand, albeit with some fluctuations depending on the situation with COVID-19. Clothes and cosmetics have dropped again since the turn of this year, mainly reflecting a decrease in opportunities to go out due to the resurgence of COVID-19 and the reinstatement of the state of emergency.

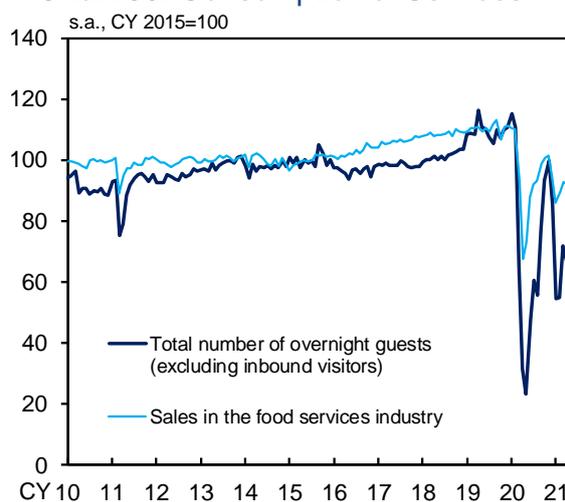
Services consumption showed a relatively significant decline after the turn of this year, mainly affected by the second state of emergency and the suspension of the "Go To Travel" campaign (Chart 38). It temporarily headed toward a pick-up in March but declined again for the April-May period, affected by the resurgence of COVID-19 and the conduct of public health measures. Dining-out had been picking up through March from the decline stemming from such factors as the second state of emergency, but it dropped again for the April-May period due to the resurgence of COVID-19 as well as the requests to shorten operating hours and stop serving alcohol. Domestic travel also had picked up temporarily in March, partly supported by measures conducted by the local governments to support tourism, but dropped again through May due to the effects of the resurgence of COVID-19. Based on various sources, such as high-frequency indicators and anecdotal information from firms, services consumption headed toward a pick-up temporarily from late June, partly on the back of improvement in consumer sentiment that is due to progress with vaccinations. However, downward pressure

Chart 37: 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 38: 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 in 2010 are calculated using those for the survey results (year-on-year basis) of accommodation facilities with more than nine employees.

seems to have intensified again of late, partly stemming from the fourth state of emergency declared for Tokyo (Charts 39 and 40). Meanwhile, there is still almost no overseas travel due to continued travel restrictions.

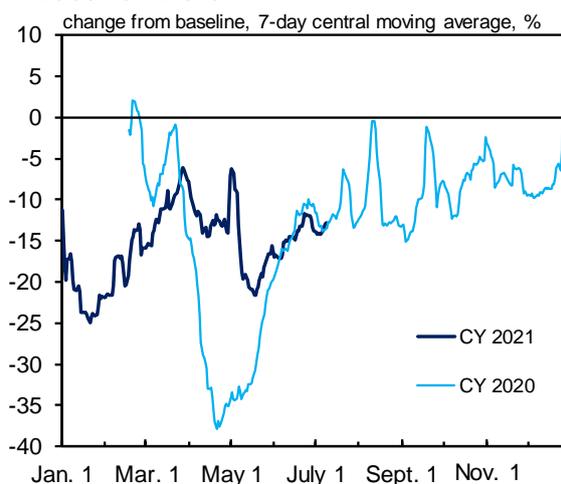
Meanwhile, looking at confidence indicators related to private consumption, the Consumer Confidence Index and the DI of the *Economy Watchers Survey* deteriorated through May, affected by the resurgence of COVID-19 and the conduct of public health measures, but improved for June, reflecting an easing of public health measures and progress with vaccinations (Chart 41).¹⁴

In the outlook, private consumption, mainly of face-to-face services, is likely to be subdued at a low level, while public health measures remain in place. However, thereafter, as the impact of COVID-19 wanes gradually, it is expected to pick up again, supported also by the materialization of the pent-up demand. With the impact of COVID-19 subsiding on the back of the widespread vaccinations, an uptrend in private consumption is projected to become evident from the middle of the projection period, supported by improvement in employee income and moderate withdrawals of "forced savings," which is funds on hand that accumulated under the impact of COVID-19, mainly because households lost opportunities to spend.¹⁵ Under these circumstances, the propensity to consume is likely

¹⁴ It should be noted that the effects of the fourth state of emergency declared for Tokyo have not been reflected in these indicators.

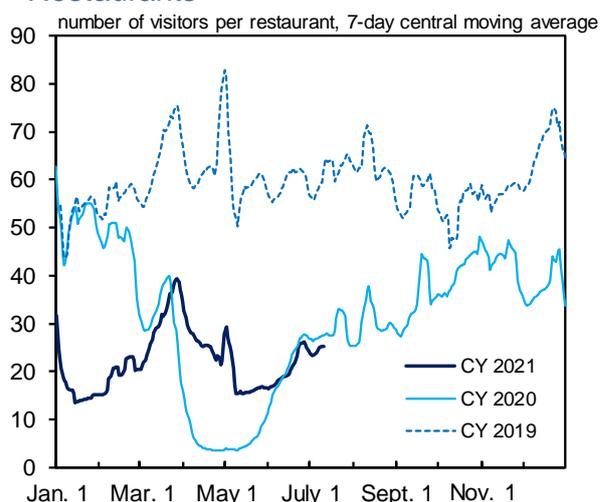
¹⁵ See Box 3 in the April 2021 Outlook Report for the basic ideas on the projected pace of withdrawals of "forced savings."

Chart 39: Mobility Trends Based on Location Data



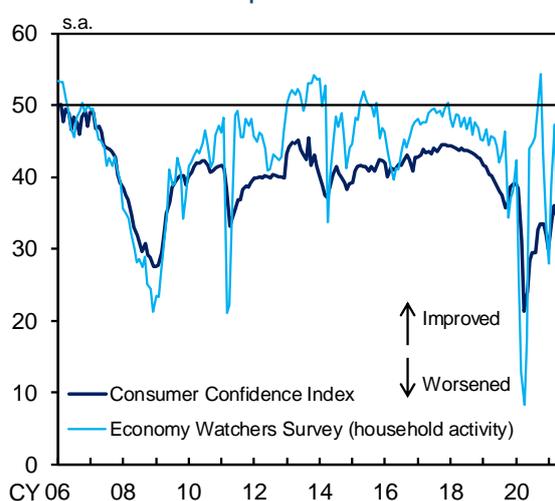
Source: Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/>. Accessed: July 16, 2021.
Notes: 1. The baseline is the median on the corresponding day of the week during the 5-week period from January 3 to February 6, 2020.
2. Figures are mobility trends for places such as restaurants, shopping centers, and theme parks.

Chart 40: Number of Visitors to Restaurants



Source: TableCheck Inc.
Note: Figures are for about 5,000 restaurants that have installed the reservation and customer management system for restaurants provided by TableCheck Inc.

Chart 41: Confidence Indicators Related to Private Consumption



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

to follow an uptrend with the impact of COVID-19 waning, and in the second half of the projection period, when vaccinations are expected to become widespread, it is likely to be pushed up to a level that is slightly higher than the average level seen prior to the pandemic, reflecting moderate withdrawals of "forced savings" (Chart 42).

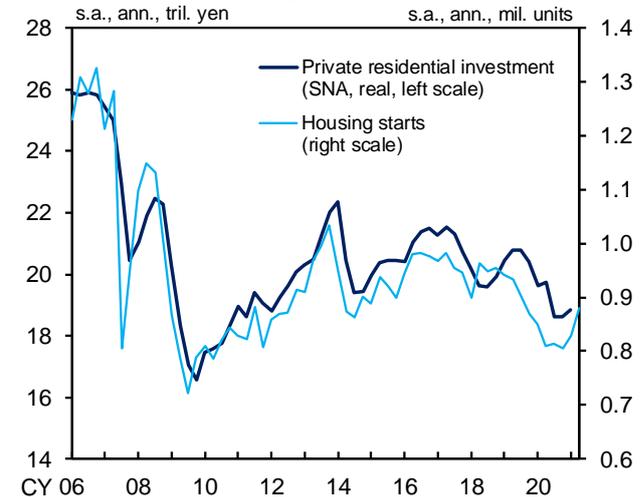
Housing investment has stopped declining (Chart 43). The number of housing starts -- a leading indicator of housing investment -- declined due to the effects of the consumption tax hike and COVID-19 but has picked up recently. As for the outlook, with downward pressure stemming from such effects dissipating, housing investment is likely to temporarily pick up, partly supported by accommodative financial conditions. Thereafter, it is expected to follow a moderate declining trend again toward the end of the projection period, reflecting demographic developments.

Chart 42: Average Propensity to Consume



Source: Cabinet Office.
 Note: Average propensity to consume = Consumption of households / Disposable income, etc.
 "Disposable income, etc." consists of disposable income and adjustment for the change in pension entitlements.

Chart 43: Housing Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
 Note: The figure for 2021/Q2 is the April-May average.

II. Current Situation of Prices and Their Outlook

Developments in Prices

The rate of change in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has increased clearly on a quarter-on-quarter basis, reflecting the rise in international commodity prices (Chart 44).¹⁶ The year-on-year rate of change in the services producer price index (SPPI, excluding international transportation) has been positive at around 1 percent, mainly reflecting a rebound from the decline seen last year.

The year-on-year rate of change in the CPI (all items less fresh food) has been at around 0 percent recently due to a rise in energy prices, despite being affected by COVID-19 and a reduction in mobile phone charges (Chart 45).¹⁷ That in the CPI (all items less fresh food and energy, excluding the effects of mobile phone charges, etc.) has been slightly positive (Chart

¹⁶ Box 3 explains how prices are affected by the rise in international commodity prices and tight supply and demand conditions of products.

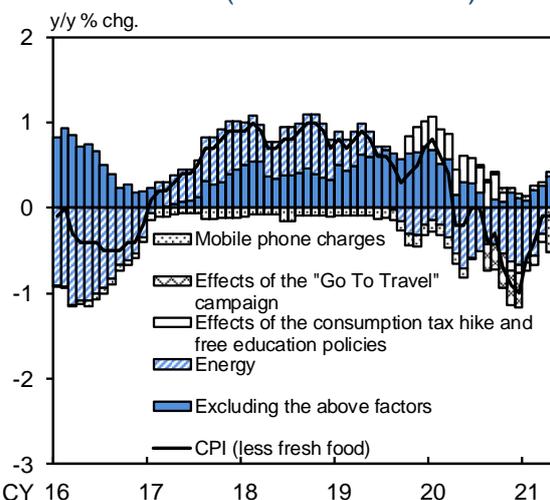
¹⁷ Low-cost mobile phone plans by major carriers, which became available from mid-March 2021, have pushed down the year-on-year rate of change in the CPI (all items less fresh food) for April 2021 onward by around 0.6 percentage points. It should be noted that, given the rebasing of the CPI to use 2020 as the base year, which is scheduled to take place in August 2021, it is highly likely that the effects of the reduction in mobile phone charges on the overall CPI will be larger for the new 2020-base index than the current 2015-base one because (1) the weight of mobile phone charges in the 2020-base index will increase compared with that in the 2015-base index and (2) the index level of such charges, which has declined, will be reset. However, this entails uncertainties since the model formula used for calculating mobile phone charges as the CPI item also will be revised upon the rebasing.

Chart 44: Inflation Indicators

	y/y % chg.			
	20/Q3	20/Q4	21/Q1	21/Q2
Consumer Price Index (CPI)				
Less fresh food	-0.2	-0.9	-0.4	0.0
Adjusted figure	-0.3	-0.4	-0.3	0.6
Less fresh food and energy	0.1	-0.3	0.2	-0.2
Adjusted figure	0.1	0.1	0.3	0.4
Producer Price Index (q/q % chg.)				
Services Producer Price Index	-0.5	-0.2	0.2	1.1
GDP Deflator				
Domestic demand deflator	0.2	-0.6	-0.4	

Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
 Notes: 1. Figures for the producer price index (PPI) are adjusted for the hike in electric power charges during the summer season. Figures for the services producer price index (SPPI) exclude international transportation. Both sets of figures exclude the effects of the consumption tax hike.
 2. Adjusted figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hike, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses.
 3. Figures for the CPI and the SPPI for 2021/Q2 are April-May averages.

Chart 45: CPI (Less Fresh Food)



Source: Ministry of Internal Affairs and Communications.
 Notes: 1. Figures for energy consist of those for petroleum products, electricity, and gas, manufactured & piped.
 2. Figures for the "effects of the consumption tax hike and free education policies" from April 2020 onward are staff estimates and include the effects of measures such as free higher education introduced in April 2020.

44).¹⁸,¹⁹ Looking at the breakdown of developments in the CPI (all items less fresh food), the rate of increase in goods has accelerated, mainly due to a rise in petroleum products, amid such firm developments as in daily necessities (Chart 46). The year-on-year rate of change in general services continued to be slightly positive but has turned negative recently, primarily because of the reduction in mobile phone charges. Administered prices have continued to see a deceleration in their pace of decline on the whole, mainly because the rates of decrease in electricity and in manufactured and piped gas charges have decelerated, reflecting past developments in crude oil prices.

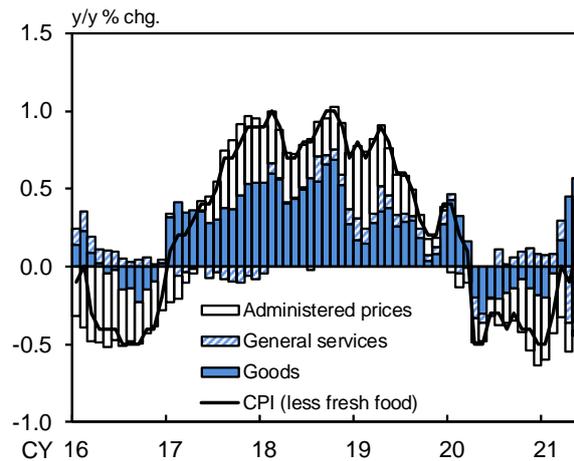
The indicators for capturing the underlying trend in the CPI have exhibited the following developments (Chart 47).²⁰ The rate of change in

¹⁸ Adjusted figures in Chart 44 exclude (1) the effects of the consumption tax hike and policies concerning the provision of free education, (2) the effects of the "Go To Travel" campaign, and (3) mobile phone charges from the CPI (all items less fresh food) and the CPI (all items less fresh food and energy), respectively.

¹⁹ The "Go To Travel" campaign pushed down the year-on-year rate of change in the CPI (all items less fresh food) by around 0.3 to 0.4 percentage points for the August-December period of 2020 and by around 0.2 percentage points for fiscal 2020. It has not been revealed when and how the campaign will be resumed, but when only the effects of the rebound from last year's decline brought about by the campaign are simply calculated, it is expected that the year-on-year rate of change in the CPI (all items less fresh food) will be pushed up by around 0.3 to 0.4 percentage points for the August-December period of 2021 and by around 0.2 percentage points for fiscal 2021.

²⁰ The trimmed mean is calculated by excluding items that belong to a certain percentage of the upper and lower tails of the price change distribution (10 percent of each tail) in order to eliminate the effects of large relative price changes. The mode is the inflation rate with the highest density in the price change distribution. The weighted median is the average of the inflation rates of the items at around the 50 percentile point of the cumulative distribution in terms of weight. All three indicators are calculated using data for each CPI item that excludes the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign.

Chart 46: Contributions of Goods and Services to the CPI



Source: Ministry of Internal Affairs and Communications.

Notes: 1. Figures for goods exclude "electricity, manufactured & piped gas & water charges."

2. Figures for administered prices consist of those for public services and "electricity, manufactured & piped gas & water charges."

3. The CPI figures exclude the effects of the consumption tax hike, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. The figures from April 2020 onward are staff estimates and exclude the effects of measures such as free higher education introduced in April 2020.

Chart 47: Various Measures of Core Inflation



Sources: Bank of Japan; Ministry of Internal Affairs and Communications.

Note: Based on staff calculations using the CPI excluding the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. The CPI figures from April 2020 onward are staff estimates and exclude the effects of measures such as free higher education introduced in April 2020.

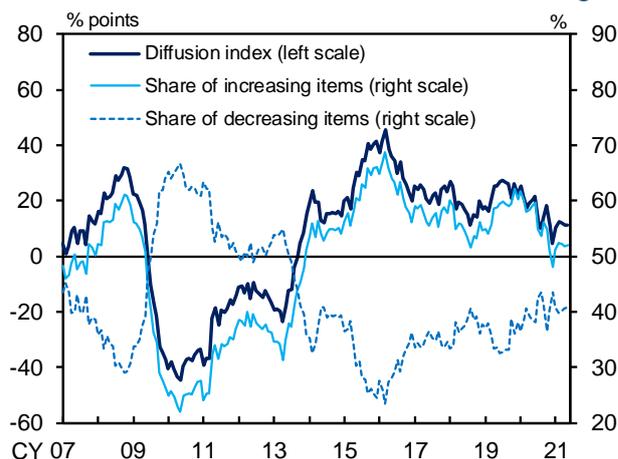
the trimmed mean has been at around 0 percent of late, albeit with fluctuations seen since the end of last year, mainly reflecting developments in some items that have large weights in the CPI. The rate of change in the mode, which is less susceptible to developments in CPI items with large weights, has been marginally positive. That in the weighted median has continued to be more or less flat, also at a marginally positive level. Looking at annual price changes across all CPI items (less fresh food), despite the net "increase" in the share of price-increasing items minus the share of price-decreasing items being maintained on the whole, it had been on a moderate declining trend, mainly because the number of price-increasing items, such as for food products as well as agricultural, aquatic, and livestock products, had been on a downtrend (Chart 48). However, the net "increase" has almost stopped declining recently.

Meanwhile, the year-on-year rate of change in the domestic demand deflator was negative for the second half of fiscal 2020, mainly due to a decline in the private consumption deflator that includes energy prices (Chart 44). On the other hand, the year-on-year rate of change in the GDP deflator has been at around 0 percent, pushed up by a decrease in the import deflator stemming from the past decline in crude oil prices.

Environment surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, it is highly possible that the pace of improvement in the output gap has slowed for the April-June quarter, mainly in terms of labor,

Chart 48: Diffusion Index of Price Changes



Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
 Note: The diffusion index is defined as the share of increasing items minus the share of decreasing items. The share of increasing/decreasing items is the share of items for which price indices increased/decreased from a year earlier. Based on staff calculations using the CPI (less fresh food) excluding the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. The CPI figures from April 2020 onward are staff estimates and exclude the effects of measures such as free higher education introduced in April 2020.

against the background of strong downward pressure on the face-to-face services industry (Charts 3 and 49). Thereafter, however, the output gap is likely to follow an improving trend, with the economy returning to a growth path that outpaces its potential growth rate due to an increase in domestic and external demand. It is expected that a positive trend will take hold in the middle of the projection period and the output gap will continue to expand moderately toward the end of the period.

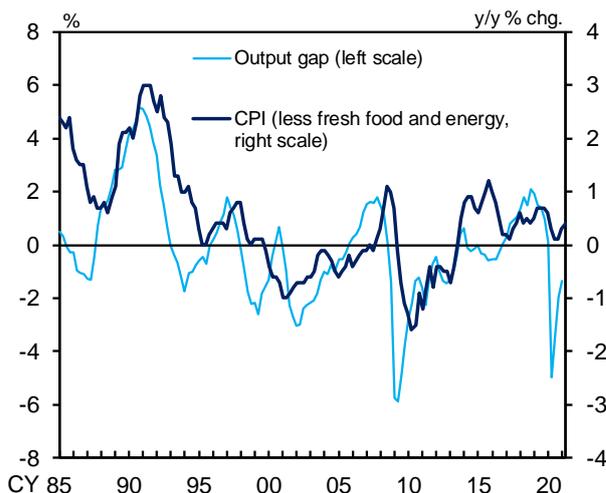
Second, medium- to long-term inflation expectations have been more or less unchanged but are likely to increase again (Charts 50 and 51). That is, in terms of the adaptive component, inflation expectations are likely to be pushed up by actual price increases along with economic improvement. In terms of the forward-looking component, the Bank will pursue monetary easing through its strong commitment to achieving the price stability target, and this is projected to be effective in pushing up inflation expectations.

The third factor is developments in import prices, which have seen a relatively large increase recently, reflecting the rise in international commodity prices, such as for crude oil and copper (Chart 52).

Outlook for Prices

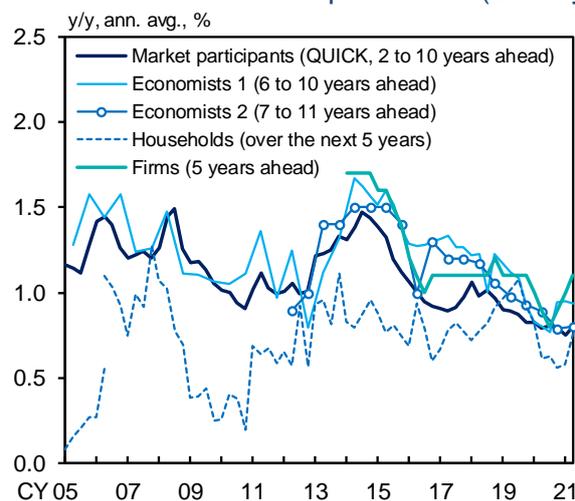
Based on the recent developments in the indicators, as described earlier, although downward pressure has been exerted on prices of some items that are sensitive to economic activity since the output gap deteriorated significantly due

Chart 49: Inflation Rate and Output Gap



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. The figure for 2021/Q2 is the April-May average.
2. Figures for the output gap are staff estimates.

Chart 50: Inflation Expectations (Survey)



Sources: Bank of Japan; QUICK, "QUICK Monthly Market Survey <Bonds>"; JCER, "ESP Forecast"; Consensus Economics Inc., "Consensus Forecasts."
Notes: 1. "Economists 1" shows the forecasts of economists in the "Consensus Forecasts." "Economists 2" shows the forecasts of forecasters surveyed for 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 show the inflation outlook of enterprises for general prices (all industries and enterprises, average) in the *Tankan*.

to the impact of COVID-19, firms' price cuts that aim at stimulating demand have not been observed widely. In other words, the inflation rate has continued to be firm compared with the degree of deterioration in the output gap, which has been seen mainly in the services sector. This is mainly because, under the impact of COVID-19, the price elasticity of demand for services has declined, costs have increased on the supply side, and demand for goods for which prices are sensitive to economic activity has been firm. Regarding the outlook, as the impact of COVID-19 wanes on the back of progress with vaccinations, the underlying trend in the inflation rate is expected to increase moderately, supported by improvement in the output gap and a rise in inflation expectations.

The recent rises in international commodity prices and the PPI could consequently push up the CPI, with upstream cost increases gradually being passed on to downstream. Energy prices, such as of petroleum products, electricity charges, and manufactured and piped gas charges, are likely to rise for the time being, and this is expected to clearly push up the year-on-year rate of change in the CPI (all items less fresh food). However, with regard to cost increases in items other than energy, the extent to which they will push up the CPI depends mainly on the strength of demand for consumption at any given time, and thus it is highly likely that such cost increases will be passed on only moderately to the CPI for the time being.

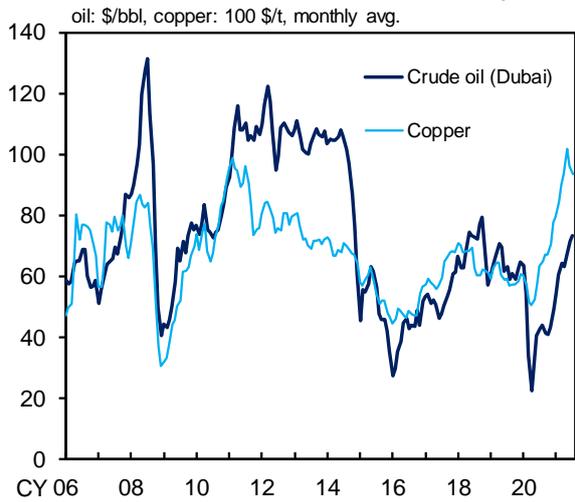
Based on this underlying scenario, the year-on-year rate of change in the CPI (all items

Chart 51: Inflation Expectations (BEI)



Source: Bloomberg.
 Note: The BEI (break-even inflation) rate is the yield spread 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 52: International Commodity Prices

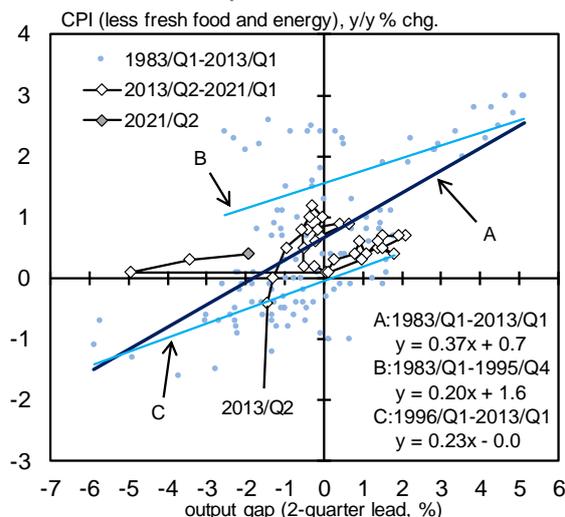


Sources: Nikkei Inc.; Bloomberg.

less fresh food and energy) is likely to be slightly negative in the short run but turn positive, albeit slightly, from this summer. The details of this projection are as follows. First, the year-on-year rate of change in mobile phone charges is likely to continue registering a significantly negative figure with the effects of low-cost plans by major carriers remaining. Second, the year-on-year rate of change in hotel charges is unlikely to accelerate for a while since demand for hotels has declined significantly, but the rate of change is expected to clearly increase from this summer due to a rebound from last year's decline brought about by the "Go To Travel" campaign. Third, the year-on-year rate of change in goods is likely to be slightly positive on the whole since it is projected that the rate of change in such goods as daily necessities will be firm, although the rate of change in durable goods, for example, will see a reactionary decline to last year's price rises caused by cancelation of sales events and an expansion in stay-at-home demand. From the middle of the projection period, the year-on-year rate of change in the CPI (all items less fresh food and energy) is likely to increase (1) with the effects of the reduction in mobile phone charges dissipating, and on the back of (2) the output gap continuing to improve steadily and (3) medium- to long-term inflation expectations rising through both the adaptive and the forward-looking expectation formation mechanisms (Chart 53).

Under these circumstances, the year-on-year rate of change in the CPI (all items less fresh food), which includes energy prices, is expected to be at around 0 percent in the short run. Thereafter, it is highly likely to increase gradually toward the end of this year, mainly affected by the rise in energy

Chart 53: Phillips Curve



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
 Notes: 1. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. The figure for 2021/Q2 is the April-May average.
 2. Figures for the output gap are staff estimates.

prices and a rebound from last year's decline brought about by the "Go To Travel" campaign. From the middle of the projection period, with the positive contribution of energy prices decreasing, the year-on-year rate of increase in the CPI (all items less fresh food) is likely to accelerate at about the same pace as that in the CPI (all items less fresh food and energy) since the effects of temporary factors, such as the reduction in mobile phone charges and the "Go To Travel" campaign, are projected to dissipate.

III. Financial Developments in Japan

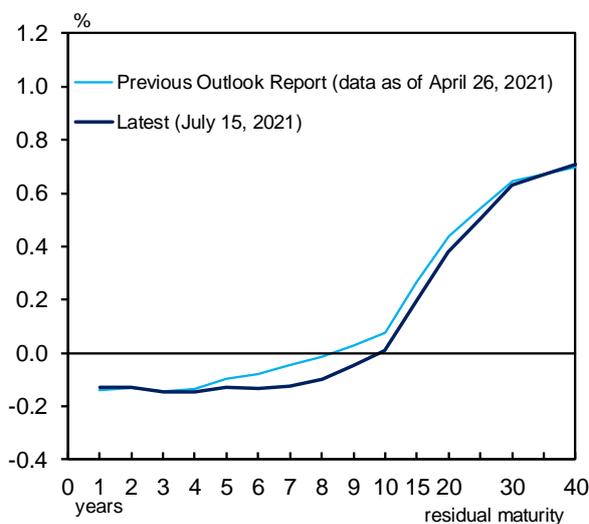
Financial Conditions

Financial conditions have been accommodative on the whole, although weakness in firms' financial positions has been seen.

Under QQE with Yield Curve Control, the yield curve for 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 54). That is, the yields for relatively short maturities have been in slightly negative territory and the 10-year JGB yields have been at around 0 percent as the Bank has purchased a necessary amount of both JGBs and treasury discount bills (T-Bills) without setting upper limits. Meanwhile, the 20-year JGB yields have been in the range of 0.0-0.5 percent.

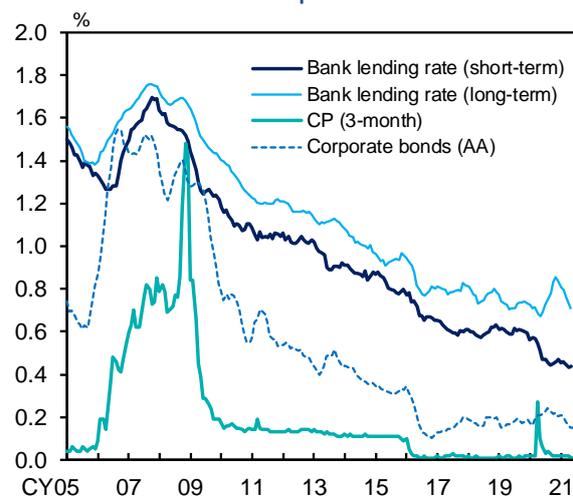
Firms' funding costs have been hovering at extremely low levels (Chart 55). Issuance rates for CP showed a significant rise in April 2020, but they declined after the Bank announced that it would increase purchases of CP. Subsequently, they have been at extremely low levels as increased demand for funds by large firms has subsided on the whole. The DI for issuance conditions for CP in the *Tankan*, which declined temporarily, has been on an improving trend, mainly reflecting stabilized issuance rates. Issuance rates for corporate bonds rose somewhat in April 2020, but they declined thereafter and have been at extremely low levels. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been at

Chart 54: Yield Curves



Source: Bloomberg.

Chart 55: 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.

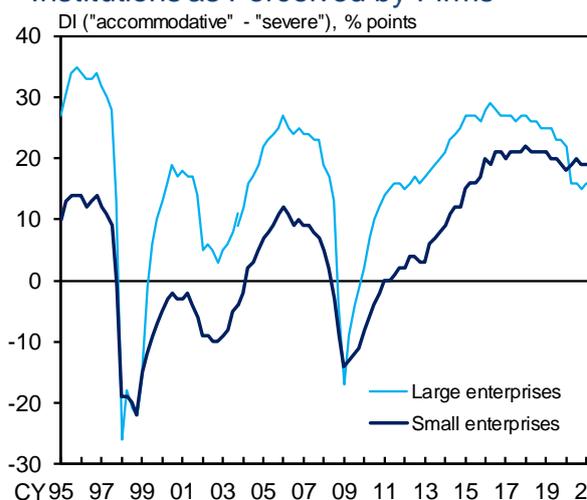
1. Figures for issuance yields for CP up through September 2009 are the averages for CP (3-month, rated a-1 or higher). Those from October 2009 onward are the averages for CP (3-month, rated a-1).
2. Figures for issuance yields for corporate bonds are the averages for domestically issued bonds launched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

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 (Chart 56). Although the DI for large firms has declined somewhat compared to a while ago, the proportion of firms answering that financial institutions' lending attitudes are "severe" has remained small for both large and small firms. As the background to these developments, there have been various measures taken by the Bank and the government to support financing, mainly of firms, as well as efforts made by financial institutions. With regard to corporate financing, the DI for firms' financial positions in the *Tankan* has improved compared with a while ago for both large and small firms, mainly on the back of a pick-up in the economy (Chart 57). However, the DI suggests that their financial positions have remained weak due to such factors as a decline in sales that reflects the impact of COVID-19. Developments in the DIs greatly vary across industries; the DI for the manufacturing industry has almost recovered to the pre-pandemic level, whereas that for the accommodations as well as eating and drinking services industries has continued to register a significant net "tight."

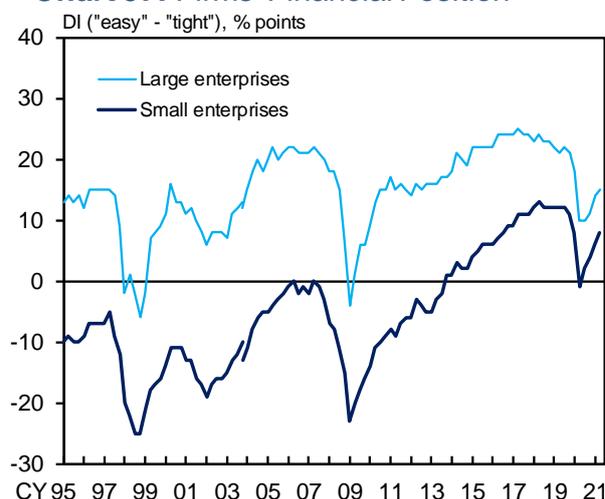
Firms' demand for funds that stems mainly from a rise in precautionary demand due to the impact of COVID-19 has been at a high level on the whole. That said, some firms, particularly large ones, have started to repay loans by compressing their increased funds on hand. Under these

Chart 56: Lending Attitudes 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 for December 2003 due to a change in the survey framework.

Chart 57: Firms' Financial Position

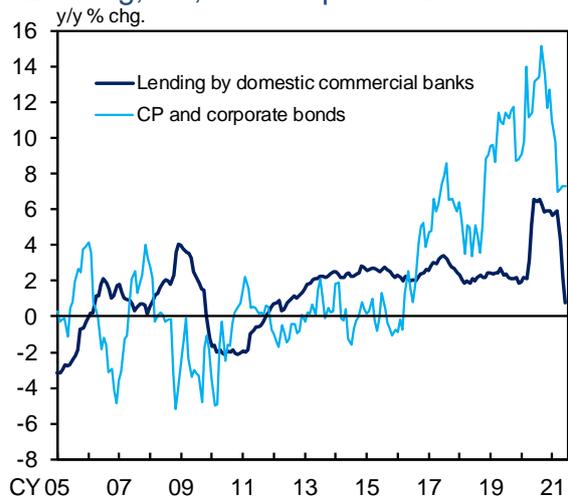


Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

circumstances, the year-on-year rates of increase in the amount outstanding of bank lending and the aggregate amount outstanding of CP and corporate bonds have decelerated, mainly due to the base effects of relatively high growth last year; the rates of increase have been in the ranges of 0.5-1.0 percent and 7.0-7.5 percent, respectively (Chart 58). That said, their amounts outstanding have continued to exceed the pre-pandemic levels significantly.

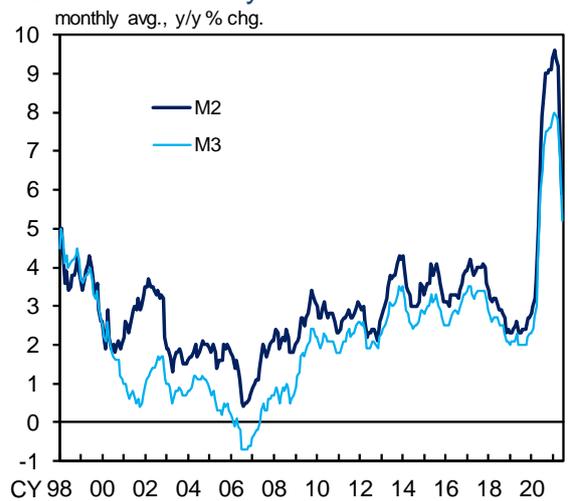
The year-on-year rate of change in the monetary base has been positive at around 20 percent, and its amount outstanding as of end-June was 660 trillion yen, of which the ratio to nominal GDP was 121 percent.²¹ The year-on-year rate of increase in the money stock (M2) has been at around 6 percent, mainly reflecting an increase in fiscal spending and a past rise in bank lending (Chart 59).

Chart 58: Amounts 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 the period.

Chart 59: Money Stock



Source: Bank of Japan.

²¹ It is assumed that the figure for nominal GDP is unchanged from the January-March quarter of 2021.

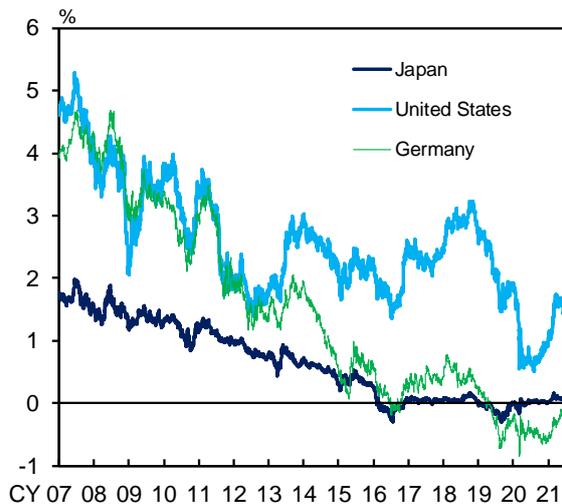
Developments in Financial Markets

Although global financial markets became nervous temporarily, mainly against the background of price developments in the United States and speculation over the monetary policy conduct by the Federal Reserve, market sentiment has remained favorable on the whole due to expectations for a recovery in the global economy that reflect progress with vaccinations. That said, attention has continued to be paid to various uncertainties, including those over the COVID-19 situation.

Yields on 10-year government bonds in the United States rose somewhat, reflecting price indices that were above market expectations. However, the yields subsequently have declined, partly because of speculation over the Federal Reserve's accommodative monetary policy stance and position adjustments by some investors (Chart 60). Yields on 10-year government bonds in Germany increased, mainly on the back of progress with vaccinations within Europe. Subsequently, however, the yields have declined along with those in the United States, amid speculation over the accommodative monetary policy stance of the European Central Bank (ECB).

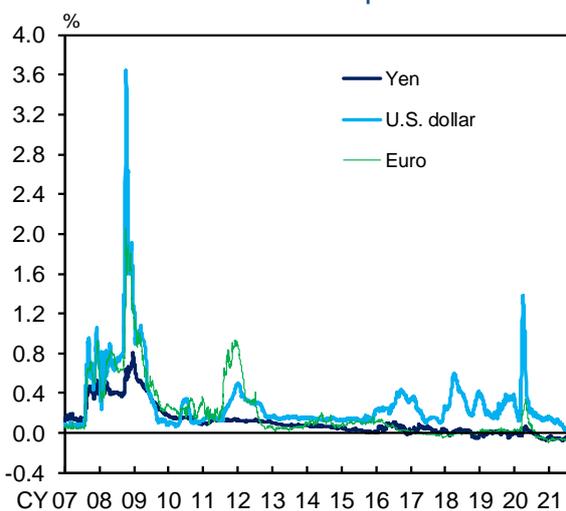
With regard to the LIBOR-OIS spreads for major currencies, those for the U.S. dollar have declined due to a decrease in U.S. dollar LIBOR amid ample liquidity in the money market (Chart 61). The spreads for the euro and the yen have been more or less flat at low levels. Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market have been at low levels

Chart 60: 10-Year Government Bond Yields in Selected Advanced Economies



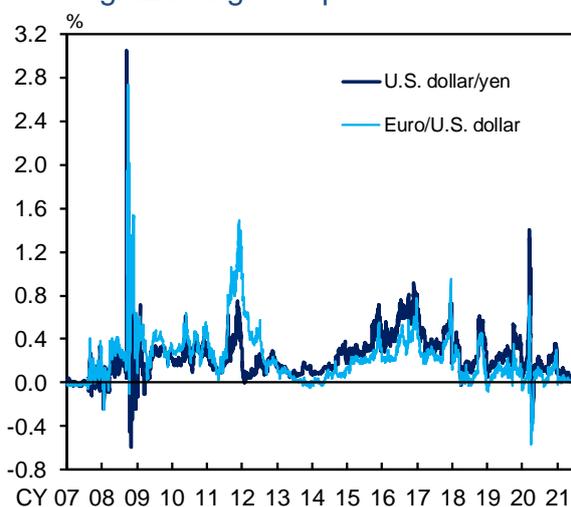
Source: Bloomberg.

Chart 61: LIBOR-OIS Spreads



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

Chart 62: Dollar Funding Premiums through Foreign Exchange Swaps



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

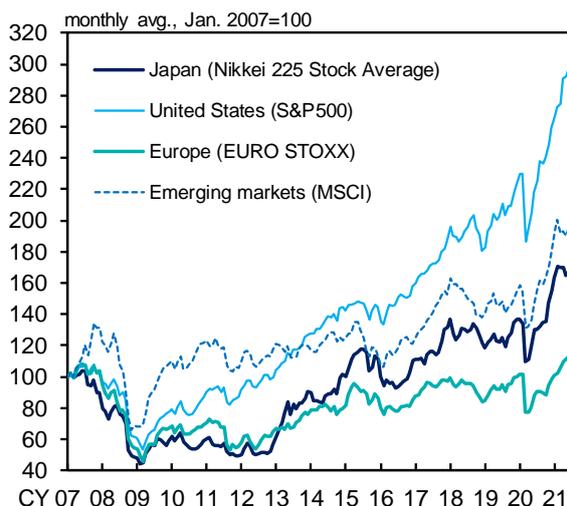
as the U.S. dollar funds-supplying operations conducted by the central bank of each country and region, including the Bank of Japan, have been functioning as a backstop (Chart 62).

Stock prices in the United States have risen due to expectations for a recovery in the global economy that reflect progress with vaccinations, although there were temporary adjustments, mainly against the background of price developments in the United States and speculation over the monetary policy conduct by the Federal Reserve (Chart 63). Stock prices in Europe also have risen somewhat. Meanwhile, those in Japan have declined somewhat amid concern such as over the COVID-19 situation. Stock prices in emerging economies have been more or less flat on the whole, while developments have differed among countries and regions, mainly reflecting the COVID-19 situation.

In the J-REIT market, REIT prices have risen for a wide range of sectors on the back of expectations for an economic recovery (Chart 64).

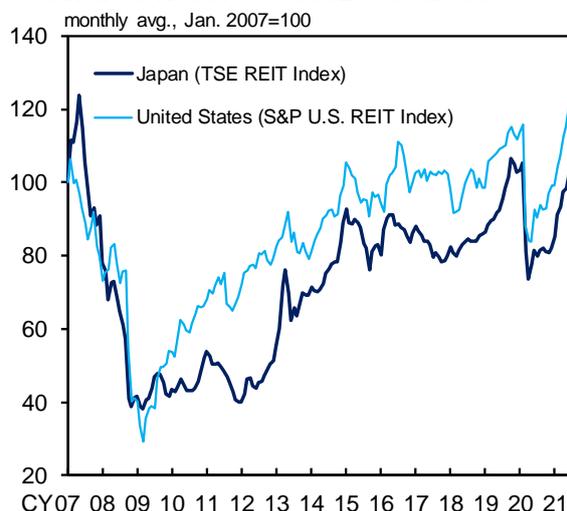
In foreign exchange markets, the yen has depreciated somewhat against the U.S. dollar amid a weaker yen against a wide range of currencies with favorable market sentiment being maintained on the whole (Chart 65). The yen depreciated against the euro, but subsequently has appreciated amid a decline in interest rates in European economies.

Chart 63: Selected Stock Price Indices



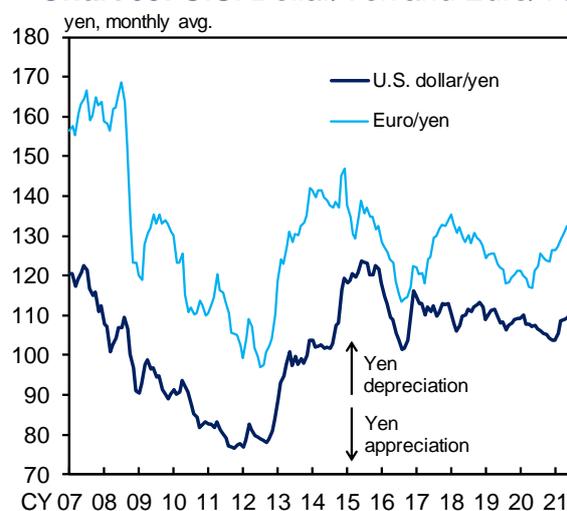
Source: Bloomberg.
Note: Figures for emerging markets are those for the MSCI Emerging Markets Index (local currency).

Chart 64: Selected REIT Indices



Source: Bloomberg.

Chart 65: U.S. Dollar/Yen and Euro/Yen



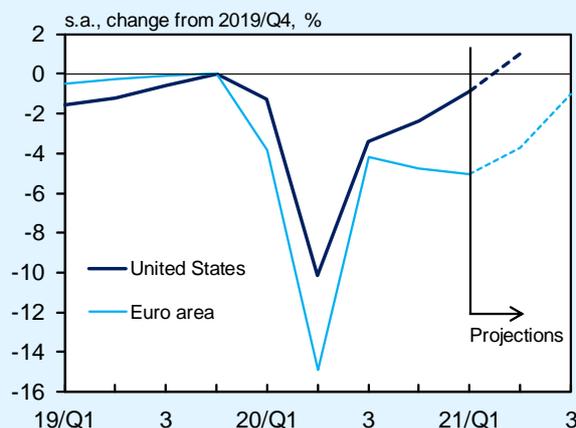
Source: Bloomberg.

(Box 1) Impact of the Resumption of Economic Activity in the United States and Europe on Global Economic Activity and Prices

Overseas economies have recovered on the whole, albeit with variation across countries and regions. In the United States and Europe in particular, with vaccinations making progress, economic activity has been resuming and economic growth has been accelerating. This box provides an overview of these developments in the resumption of economic activity in the United States and Europe and their impact on global economic activity and prices.

Starting with developments in real GDP, relatively high growth is expected to have been seen in the United States for the April-June quarter of 2021 following the January-March quarter and thus real GDP is likely to have exceeded the pre-pandemic level. It is widely expected that growth in Europe will also accelerate through this summer, with some time lag following that in the United States (Chart B1-1). The projection of GDP growth in these economies reflects the fact that public health measures have been lifted in stages as vaccinations have progressed. Against this backdrop, economic activity has been resuming, and the face-to-face services industry, which had been constrained thus far, has picked up clearly (Chart B1-2). In the United States, large-scale economic measures that have already been implemented also seem to have provided support, leading to an increase in private consumption, for example.

Chart B1-1: Real GDP for the United States and the Euro Area



Sources: Atlanta Fed; ECB; Haver.

Notes: 1. The figure for the United States for 2021/Q2 is the GDPNow model estimate released by the Atlanta Fed (as of July 9).

2. The figures for the euro area for 2021/Q2 and Q3 are ECB staff projections (as of June 10).

Chart B1-2: Mobility Trends in the United States and Europe



Source: Google LLC. "Google COVID-19 Community Mobility Reports."

<https://www.google.com/covid19/mobility/>. Accessed: July 16, 2021.

Notes: 1. Figures show 7-day backward moving averages of the percentage change in visits to places categorized as "retail and recreation" in the report released by Google.

2. The baseline is the median on the corresponding day of the week during the 5-week period from January 3 to February 6, 2020. The latest figures are for July 12.

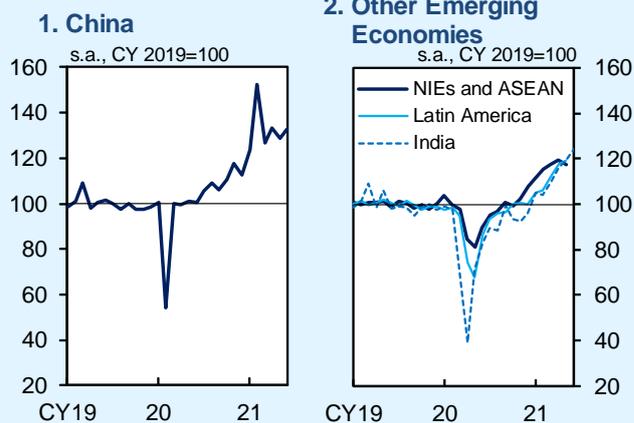
This improvement in the U.S. and European economies in turn has pushed up the global economy through the trade channel. Looking at developments by region, China's exports and production have continued to increase steadily, and exports of many other emerging economies have clearly exceeded the pre-pandemic levels (Chart B1-3). For example, exports of IT-related goods in the NIEs and the ASEAN countries have continued to increase, while minerals and food have been driving exports, mainly in Latin America.

With regard to the outlook, the U.S. and European economies are expected to continue showing relatively high growth for the time being as the resumption of economic activity progresses further. The Chinese economy is also projected to return to a steady growth path that is led by the private sector. Therefore, the global economy is likely to continue to recover, led by advanced economies and China.

However, this baseline scenario for the global economy continues to be subject to uncertainties.

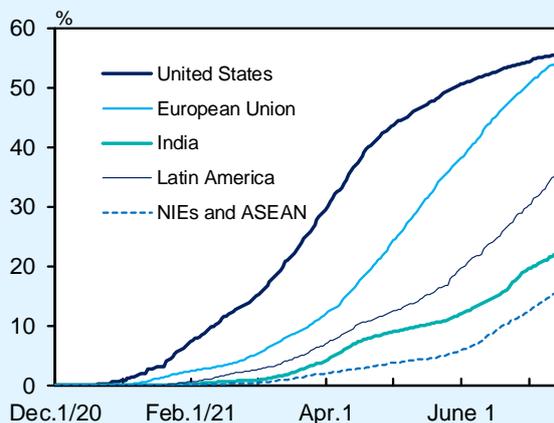
First, there remain uncertainties regarding the pace of vaccinations and the consequences of COVID-19 from a global perspective. Some emerging economies have seen delays in vaccinations, and these economies in particular face the risk of a resurgence of COVID-19 (Chart B1-4). Even in advanced economies where vaccinations are making good progress, factors such as the spread of variants may delay the resumption of economic activity.

Chart B1-3: Nominal Exports of Major Emerging Economies



Source: CEIC.
 Note: Based on staff calculations. U.S. dollar basis. Figures for the NIEs and ASEAN and Latin America are the sum of figures for the major economies in the respective regions.

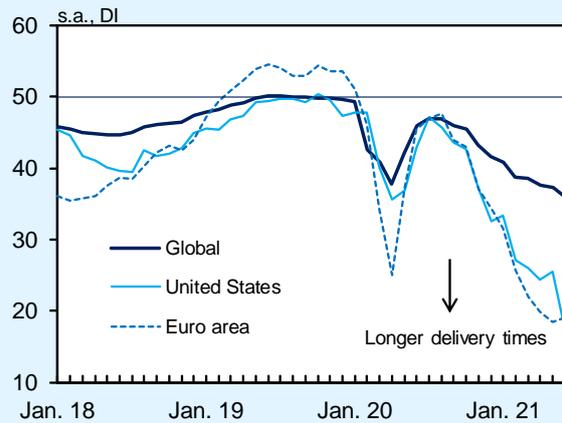
Chart B1-4: Share of People in Major Economies Who Received a Vaccine



Sources: CEIC; United Nations.
 Note: The chart shows the share of the total population who received at least one dose of the COVID-19 vaccine. Figures for Latin America and the NIEs and ASEAN are for the major economies in the respective regions. In the case of missing figures, the latest figure available prior to the relevant date is used. The latest figures are for July 14.

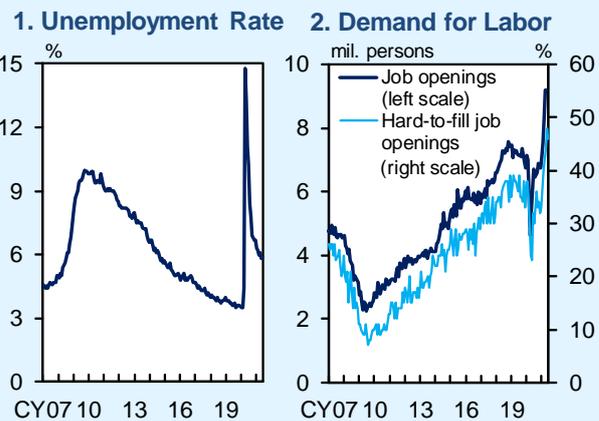
Second, with the rapid resumption of economic activity in the United States and Europe, supply-side constraints have been seen in some parts of the goods and labor markets, and delays in resolving such constraints could restrain global economic growth or put upward pressure on prices. Surveys suggest that the number of firms citing delivery delays has increased significantly, particularly in the United States and Europe, due to production shortages of raw materials and logistical constraints (Chart B1-5). In the United States, where the number of job openings has surged, mainly because face-to-face services have resumed operations, an increasing number of firms have pointed to the struggle to hire personnel even with the unemployment rate still at a high level (Chart B1-6). These constraints can be regarded as frictions associated with the rapid resumption of economic activity, and they are highly likely to gradually dissipate as production systems are reorganized and workers rejoin the labor market, partly on the back of diminishing vigilance against COVID-19. However, the resumption of economic activity after a pandemic has not been experienced in recent years, and thus it is necessary to closely monitor whether supply-side constraints become prolonged or their impact on prices intensifies. Attention also needs to be paid to how changes in the outlook for these supply-side constraints and for their impact on economic activity and prices will affect global financial markets and international commodity prices.

Chart B1-5: Suppliers' Delivery Times PMI



Source: IHS Markit© and database right IHS Markit Ltd 2021. All rights reserved.)
 Note: The suppliers' delivery times PMI is the suppliers' delivery times index in the Manufacturing PMI. Global figures are the "J.P.Morgan Global Manufacturing PMI."

Chart B1-6: Labor Market Conditions in the United States



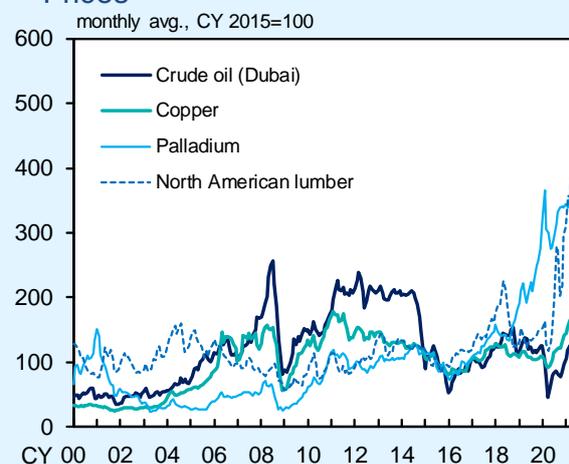
Source: Haver.
 Note: Figures for hard-to-fill job openings are the percentage of small firms with a position they are currently not able to fill.

(Box 2) Effects of Rising International Commodity Prices on Corporate Profits

International commodity prices have risen significantly of late (Chart B2-1). While price rises have been seen for a wide range of commodities, a closer look shows that, to date, prices of crude oil -- which accounts for a large share in Japan's imports of raw materials -- have not reached the high levels seen in the final phase of the "commodity supercycle," when commodity prices rose significantly until immediately before the Global Financial Crisis (GFC). Instead, the current phase is characterized by particularly large increases in prices of commodities other than crude oil, such as of copper, lumber, and some precious metals. This box examines and describes how the rise in these international commodity prices affects Japan's economy through its impact on corporate profits, taking also into account unevenness across industries and firm sizes.

The rise in international commodity prices in the current phase is essentially due to the fact that supply has not kept pace with a surge in global demand. In more detail, such rise is attributable to a combination of the following three factors. First, the pace of the recent recovery in global demand for goods has been faster than most firms had anticipated, reflecting demand from China that has already started recovering ahead of other countries, progress with vaccinations in overseas advanced economies, fiscal stimulus measures, especially in the United States, and the acceleration in digitalization triggered by the COVID-19 pandemic. It seems that actual supply

Chart B2-1: International Commodity Prices



Source: Bloomberg.

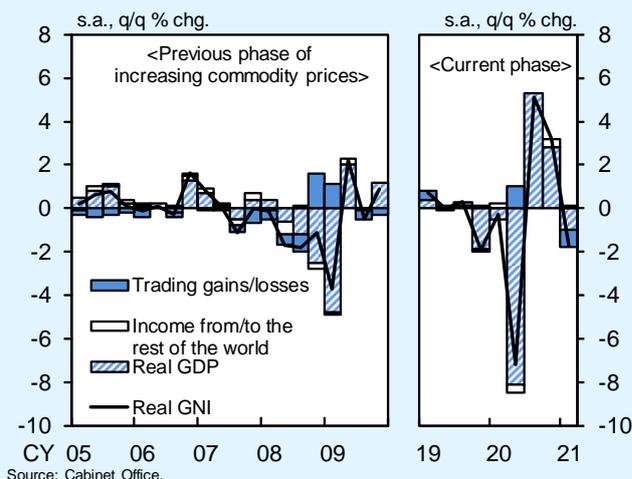
is not in the short run keeping up with the surge in demand. Second, the rise in commodity prices have further accelerated, partly because market participants have factored in a medium- to long-term uptrend in demand for some commodities due to the electrification of automobiles and environmental regulations. Examples of these commodities are copper, which is increasingly used for electric vehicle (EV) parts, and some precious metals such as palladium and rhodium, which are used for exhaust gas purification catalysts. Third, supply volume has decreased, directly affected by restrictions on activities and shipping container shortages, both continuing in various countries due to the pandemic, as well as by accidents such as sudden power outages and fires.

The effects of the rise in international commodity prices on Japan's economy through its impact on corporate profits may differ considerably depending on the underlying mechanisms. In particular, if the main reason for the rise in commodity prices is a recovery in overseas economies, as is the case in the current phase, it is necessary to take into account the following two channels through which Japan's economy is affected: an increase in external demand and deterioration in the terms of trade (i.e., the ratio of export prices to import prices). In other words, if the rise in international commodity prices is largely attributable to a positive demand shock associated with the expansion in overseas economies, exports will increase while the terms of trade will deteriorate in Japan. If the rise in international commodity prices is mainly caused by a supply shock similar to the first and second oil shocks of the 1970s, the contribution of the

income transfer from resource-importing countries to resource-exporting countries will be greater, meaning that Japan's economy will be affected by deterioration in the terms of trade to a larger degree.

In order to examine the impact of real income transfers between Japan and other countries due to such changes in global relative prices, it is useful to take a look at real gross national income (GNI).²² Around the period of 2005-2008 -- which was during the "commodity supercycle," or the phase of rising commodity prices -- Japan's real GNI was relatively weak compared with the real GDP due to trading losses as a result of price rises in commodities, particularly crude oil (Chart B2-2).²³ Similarly, during the current phase, Japan's economy has started to experience trading losses due to rising international commodity prices. It should be noted, however, that the rise in international commodity prices in the current phase has been brought about mainly by the recovery in economies accounting for a large share of Japan's exports, such as the United States, China, and the NIEs. Given this, the impact of the increase in exports essentially is likely to outweigh that of trading losses, and thus, on a net basis, the rise in international commodity prices will likely have positive effects on Japan's economy overall. The baseline scenario in this Outlook Report also assumes that, although the

Chart B2-2: Real GNI Growth Rate



Source: Cabinet Office.

²² Real GNI represents the total domestic and overseas income received by citizens (residents) and is calculated as follows: Real GNI = Real GDP + Trading gains/losses + Income from/to the rest of the world.

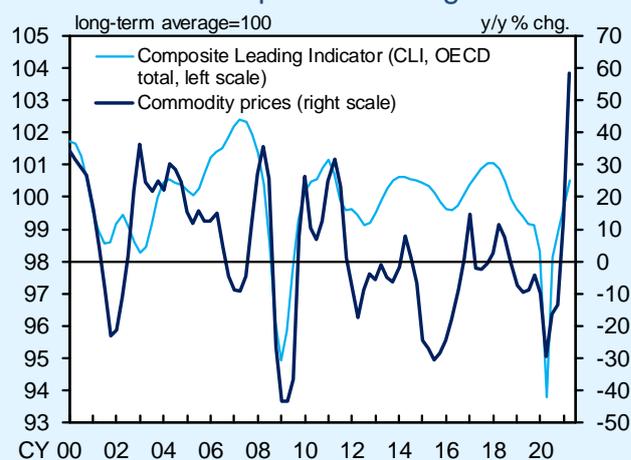
²³ Trading gains and losses represent the change in real income associated with changes in the terms of trade and are calculated as follows: Trading gains/losses = (Nominal net exports / Weighted average of export and import deflators) – Real net exports.

rise in international commodity prices to date is likely to produce a negative impact of trading losses for the time being, the positive effects of the increase in exports and the associated spillover effects, such as on business fixed investment, will likely exceed this negative impact. The following presents the results of the empirical analysis that underlie this assumption.

First, in order to empirically examine the determinants of fluctuations in international commodity prices and their effects, a simple sign-restricted vector auto-regression (VAR) model is estimated (Charts B2-3 and B2-4). The model consists of two variables: the OECD's Composite Leading Indicator (CLI, OECD total), which is used in this model as a proxy for the level of global economic activity, and the CRB Index, which is a widely used indicator of prices in international commodity markets. Specifically, two types of shocks to international commodity prices are identified: (1) demand shocks caused by the expansion in the global economy and (2) supply shocks caused by changes in the supply capacity, which are unique to primary commodities. Decomposing fluctuations in international commodity prices into these factors shows that, in the early stages of the COVID-19 pandemic since last spring, demand factors have pushed down commodity prices, mainly due to public health measures around the world, whereas supply factors have pushed them up. However, recently, demand factors instead of supply factors have started to substantially push up commodity prices.

Next, using the demand and supply shocks identified by the sign-restricted VAR model, the

Chart B2-3: International Commodity Prices and Composite Leading Indicator



Sources: OECD; Bloomberg.
Note: Figures for commodity prices are the CRB Index.

Chart B2-4: Examining the Causes of Changes in Commodity Prices

1. Analytical Approach

A two-period lag VAR model using the following two variables is estimated: the OECD's CLI (OECD total) and real commodity prices (the CRB Index deflated by the U.S. CPI; difference in logarithms). The estimation period is 1994/Q4-2021/Q1.

Demand and supply shocks are identified subject to the following sign restrictions:

- Demand increase shocks: the responses of the CLI and real commodity prices are both positive.
- Supply increase shocks: the response of the CLI is positive, while that of real commodity prices is negative.

2. Decomposition of Changes in Commodity Prices



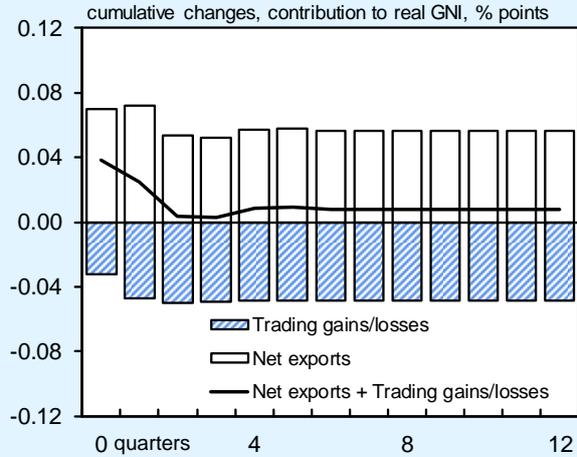
Sources: OECD; Bloomberg; Haver.
Note: The year-on-year rate of change is calculated as the 4-quarter moving sum of the log difference.

responses of Japan's net exports and trading gains or losses to these shocks are estimated (Chart B2-5). The estimation results show that, in the case of a positive demand shock, the positive contribution of net exports exceeds the negative contribution of trading losses, and thus their net impact on real GNI is positive. On the other hand, the results also show that a rise in international commodity prices due to a supply shock leads to a decrease in Japan's exports through an economic slowdown, mainly in advanced economies, many of which are resource importers, and also leads to trading losses, resulting in a clear negative impact on the economy through both channels. It should be noted that, while the analysis here focuses only on the direct effects of fluctuations in international commodity prices on exports and trading gains or losses, the spillover effects of these fluctuations on domestic demand, such as on business fixed investment, amplify the impact on the overall economy in practice. In sum, since the recent rise in commodity prices essentially is largely due to demand shocks, it will likely have positive effects on Japan's economy on a net basis.

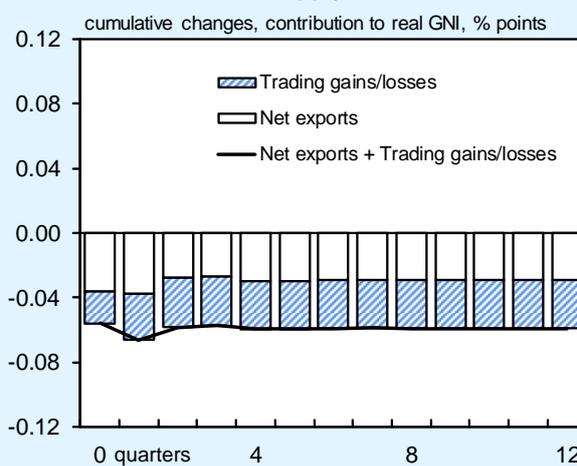
However, there are several points to note regarding this analysis. First of all, even when the basic reason for a rise in commodity prices is a positive demand shock, it is possible for commodity prices to surge beyond supply and demand fundamentals, mainly due to excessive expectations of market participants. Additional rises in commodity prices in such a situation could, similar to a supply shock, have a stronger negative impact on Japan's economy due to the associated deterioration in the terms of trade. Moreover, the effects of the rise in international

Chart B2-5: Commodity Price Increases, Net Exports, and Trading Gains/Losses

1. Response to a 1% Increase in Commodity Prices Due to Demand Factors



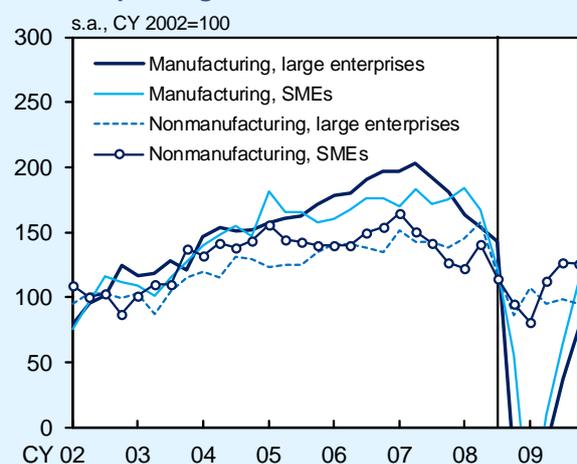
2. Response to a 1% Increase in Commodity Prices Due to Supply Factors



Sources: Cabinet Office; OECD; Bloomberg; Haver.
 Note: The charts show the response to a shock obtained by regressing net exports and trading gains/losses (contribution to real GNI on a quarter-on-quarter basis) on 2-quarter lagged values of the dependent variable and demand and supply shocks. For demand and supply shocks, the shocks to real commodity prices identified in Chart B2-4 are used. The estimation period is 1994/Q4-2021/Q1.

Chart B2-6: Period of Increasing Commodity Prices in the 2000s

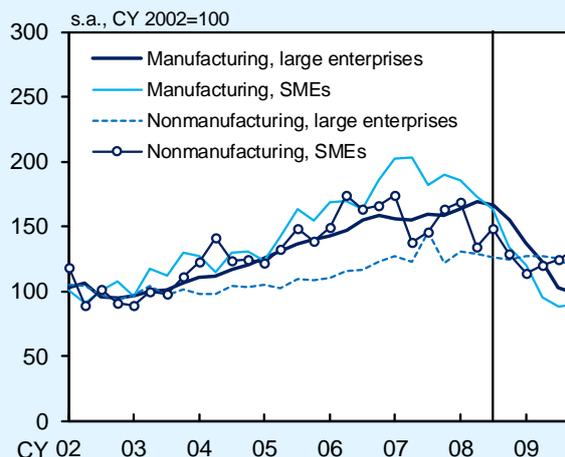
1. Operating Profits



commodity prices identified above are likely to be very uneven across industries and firm sizes, reflecting differences in input-output structures and the ability to pass on price increases. In fact, during the period from around the mid-2000s to immediately before the GFC, corporate profits and business fixed investment in Japan exhibited uneven developments across industries and firm sizes (Chart B2-6). Specifically, while fixed investment of large manufacturing firms remained steady until the start of the GFC, profits and fixed investment of small and medium-sized nonmanufacturing firms had already begun to show weakness from 2006 or 2007 -- that is, prior to the GFC -- due to the effects of deterioration in the terms of trade.

In order to empirically examine the uneven effects of the rise in international commodity prices in more detail, the responses of profit margins by industry and firm size to each of the demand and supply shocks are estimated (Chart B2-7). The estimation results show that, in the case of a positive demand shock, the positive effects on profit margins are higher for firms in the manufacturing industry -- more specifically, large firms in the industry -- which tends to receive greater benefit from increased exports, while such effects are smaller for firms in the nonmanufacturing industry, which comprises many domestic demand-oriented industries. In the case of price increases due to a supply shock, profit margins will be pushed down regardless of industry or firm size, but the negative impact on profit margins is particularly large for small firms in both industries. These variations across industries and firm sizes seem to be partly because small firms are less able to pass on cost

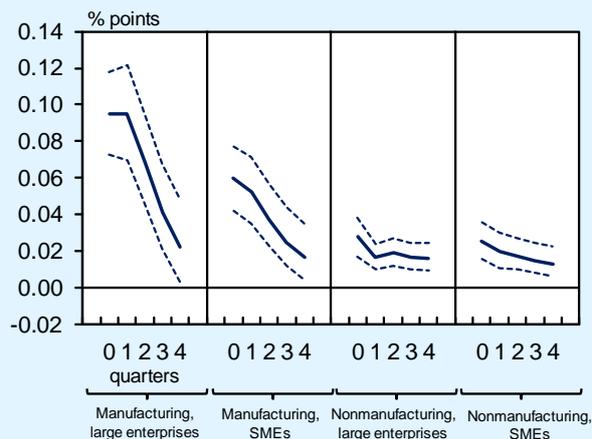
2. Business Fixed Investment



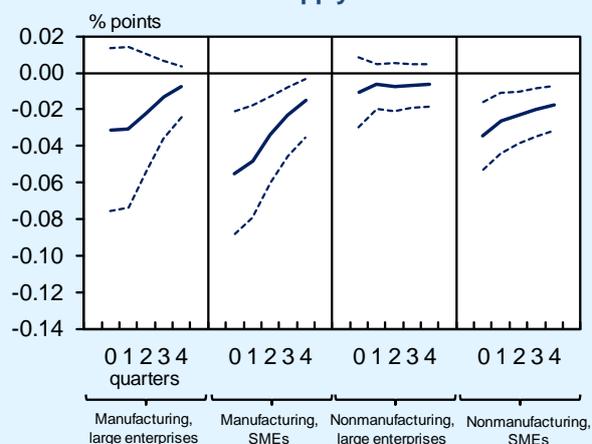
Source: Ministry of Finance.
 Note: Based on the "Financial Statements Statistics of Corporations by Industry, Quarterly." Large enterprises are enterprises with a capitalization of 1 billion yen or more, while small and medium-sized enterprises (SMEs) are enterprises with a capitalization of 10 million yen or more but less than 1 billion yen. Enterprises in "finance and insurance" are excluded. Figures for business fixed investment exclude software investment; moreover, those before 2004/Q2 exclude "business services," while those from 2004/Q2 onward exclude "goods rental and leasing." Figures for operating profits from 2009/Q2 onward exclude pure holding companies. The vertical lines represent 2008/Q3.

Chart B2-7: Commodity Price Increases and Corporate Profits

1. Response to a 1% Increase in Commodity Prices Due to Demand Factors



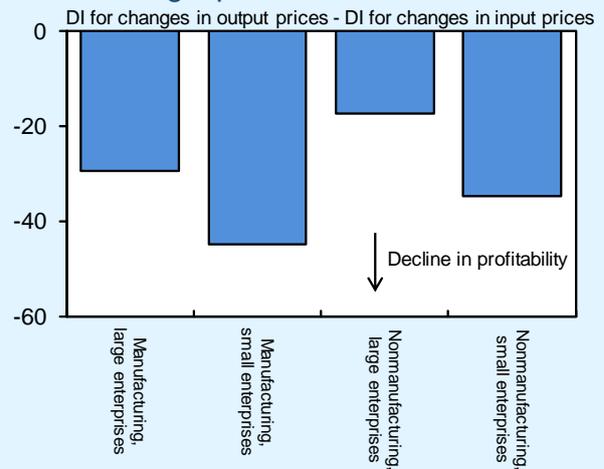
2. Response to a 1% Increase in Commodity Prices Due to Supply Factors



Sources: Ministry of Finance; OECD; Bloomberg; Haver.
 Note: The charts show the response to a shock obtained by regressing the operating profit to sales ratio (based on the "Financial Statements Statistics of Corporations by Industry, Quarterly") on 2-quarter lagged values of the dependent variable and demand and supply shocks. For demand and supply shocks, the shocks to real commodity prices identified in Chart B2-4 are used. The estimation period is 1994/Q4-2021/Q1. The broken lines show the 95 percent confidence intervals (obtained using the bootstrap method).

increases to product prices than large firms due to such factors as the severe competitive environment (Chart B2-8). During the pandemic, as described in "The Background" section of this Outlook Report, profits in the manufacturing industry have recovered relatively quickly, whereas the recovery in profits in the nonmanufacturing industry, particularly in face-to-face services, has been slow. While the gap in profitability between these industries is expected to narrow as the impact of COVID-19 subsides, it is also important to keep in mind that this gap may even widen due to the effects of rising commodity prices.

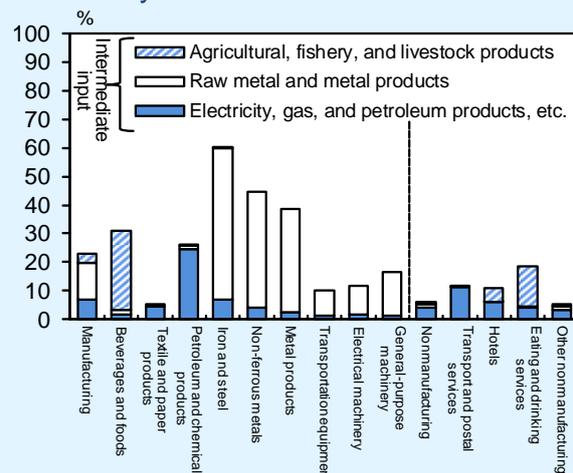
Chart B2-8: Profitability during Periods of Increasing Input Prices



Source: Bank of Japan.
 Note: Based on the *Tankan*. Periods of increasing input prices are periods when the DI for changes in input prices (all industries and enterprises) was above the average for 2000/Q1-2021/Q2.

At a more granular, individual industry level, it is also possible that the impact of rising international commodity prices on corporate profits in the current phase -- where price increases have been particularly large for commodities other than crude oil, such as copper and lumber -- will differ from in the past, when commodity price increases were mainly brought about by high crude oil prices (Chart B2-9). This primarily reflects differences in intermediate input structures across industries. It is necessary to closely monitor the impact of rising international commodity prices by industry and firm size, including through anecdotal information from firms.

Chart B2-9: Intermediate Input Ratios by Industry



Source: Ministry of Internal Affairs and Communications.
 Note: Intermediate input ratios are calculated by dividing the value of intermediate inputs by domestic output taken from the 2015 Input-Output Tables for Japan. "Electricity, gas, and petroleum products, etc." includes coal mining, crude petroleum, natural gas, petroleum and coal products, electricity, gas, and heat supply.

(Box 3) Recent Developments in International Commodity Prices and Domestic Prices

This box explains the effects of a recent rise in international commodity prices on domestic price developments, focusing on price developments at the producer level. It also outlines basic ideas regarding the effects on price developments at the consumer level.

Japan's producer price index (PPI) -- an index for goods prices at the producer level -- has shown a surge recently, and the quarter-on-quarter rate of increase for the April-June quarter of 2021 was the highest since the July-September quarter of 2008, which was the final phase of the "commodity supercycle" in the 2000s (Chart B3-1). The breakdown of developments in the quarter-on-quarter rate of change in the PPI shows that petroleum and coal products, including gasoline, have increased recently, reflecting developments in crude oil prices. In addition, a notable feature observed recently is a clear acceleration in the rates of increase in the following components: iron, steel, and building materials; nonferrous metals; and chemicals and plastic products, etc. These components are closely related to commodities other than crude oil (i.e., iron ore, iron and steel scrap, lumber, and copper).

In relation to developments in the PPI, the input and output prices DIs in the *Tankan* show the following (Chart B3-2). For the basic materials industry -- including chemicals, iron and steel, and

Chart B3-1: Producer Price Index

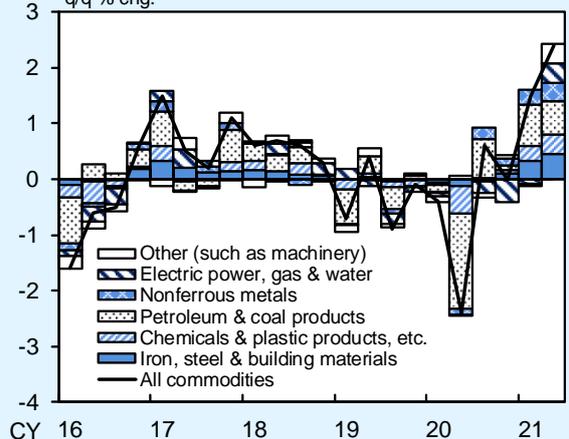
1. Quarterly Change

q/q % chg.



2. Decomposition of Quarterly Changes

q/q % chg.



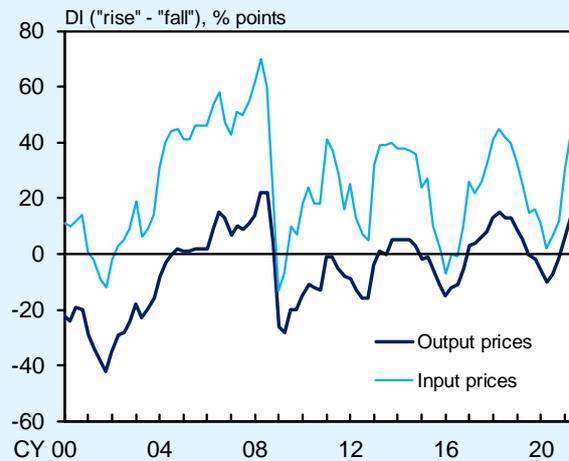
Source: Bank of Japan.
Note: Figures are adjusted for the effects of the consumption tax hike and the hike in electric power charges during the summer season.

nonferrous metals -- the input prices DI has been rising in reflection of input cost increases. The output prices DI for this industry also has been rising to some extent, partly because (1) the practice (or pricing formula) of passing on a portion of input price increases to selling prices has taken hold and (2) the supply-demand conditions for goods have been tightening, mainly in the upstream and midstream of the distribution process. These rises in the indices are consistent with the aforementioned recent rises in PPI components, such as iron, steel, and building materials, as well as nonferrous metals. On the other hand, for the processing industry -- including transportation machinery, electrical machinery, and "general-purpose, production, and business-oriented machinery" -- a rise in the output prices DI has been limited relative to that in the input prices DI. In fact, PPI components relating to machinery -- which largely consist of prices of products in the processing industry -- have seen only marginal rises, and it seems that firms in this industry have not passed on increases in intermediate input costs to selling prices to much of a degree.

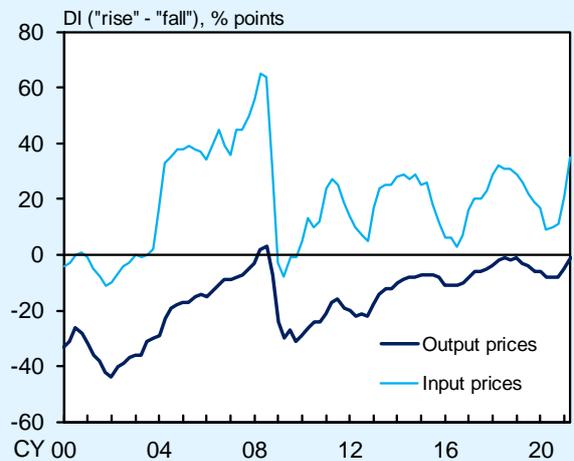
As explained, reflecting the rise in international commodity prices, the rate of increase in Japan's producer prices has been accelerating, albeit with variation across industries. That said, for now, the degree of such increase has been considerably smaller than that in the United States and also somewhat smaller than that in Europe (Chart B3-3). In the United States and Europe, firms have faced tight supply-demand conditions for products as well as logistics disruptions caused

Chart B3-2: Output and Input Prices (*Tankan*)

1. Basic Materials Industry

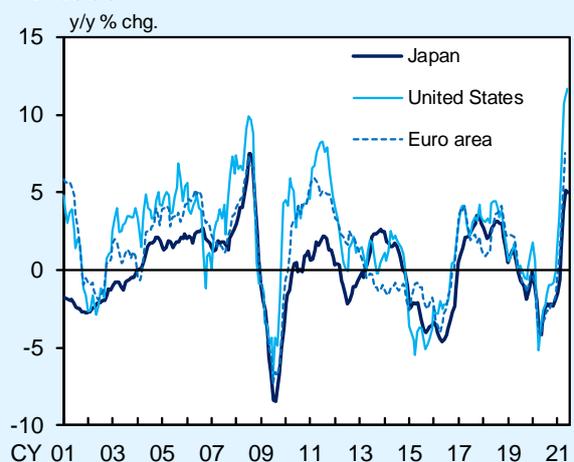


2. Processing Industry



Source: Bank of Japan.
Note: Figures are for all enterprises.

Chart B3-3: Developments in Producer Prices



Sources: Bank of Japan; BLS; Eurostat.
Note: Figures for Japan are the producer price index (PPI) for all commodities (adjusted to exclude the effects of the consumption tax hikes). Those for the United States are the PPI for final demand goods. Figures for the euro area are the PPI for total industry except construction, sewerage, waste management, and remediation activities.

partly by shipping container shortages.²⁴ Since such tightening and disruptions have been observed at the same time, severe delays have occurred in goods deliveries, as shown by the clear increase in the delivery delay indices of the manufacturing PMI explained in Box 1, and producer prices accordingly have risen substantially. In this regard, a comparison of developments in the delivery delay index and the output prices index -- which also is a subindex of the manufacturing PMI -- between Japan, the United States, and Europe suggests the following (Chart B3-4). In the cases of the United States and Europe, the output prices indices have exhibited remarkable increases in tandem with the escalation of the delivery delay indices. This seems to indicate that firms that are raising selling prices have been increasing rapidly of late, because more firms are taking into account the tightening supply-demand conditions for their products while passing on cost increases to selling prices due to the rise in commodity prices. On the other hand, in the case of Japan, although both the delivery delay index and the output prices index have increased, the recent degree of increase for both indices has been limited compared with that in the United States and Europe. Given such different developments in the indices, although inflationary pressure at the producer level is likely to heighten not only in the United States and Europe but also in Japan for the time being, the magnitude of such pressure in Japan is highly likely to remain somewhat milder than in those economies.

Chart B3-4: Delivery Delays and Output Prices (PMI)

1. United States



2. Euro Area



3. Japan



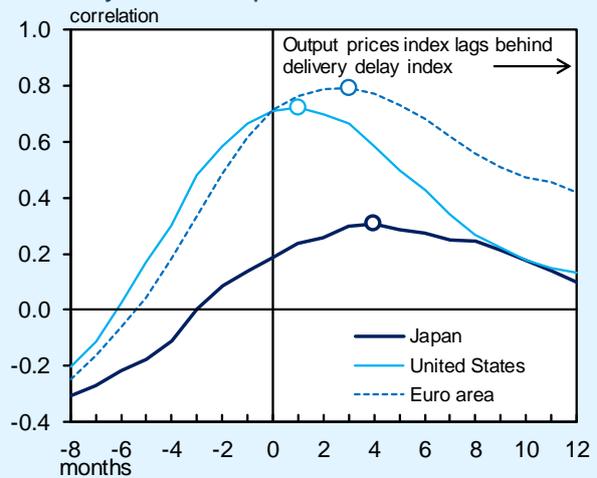
Source: IHS Markit (© and database right IHS Markit Ltd 2021. All rights reserved.).
 Notes: 1. Delivery delay index = 100 - Suppliers' delivery times index
 2. Figures for the United States and the euro area are for the respective manufacturing PMIs. Those for Japan are for the "au Jibun Bank Japan Manufacturing PMI."

²⁴ The delivery delay index in this box refers to the index calculated as 100 minus the value of the PMI suppliers' delivery times index published by IHS Markit.

The relatively small degree of rise in Japan's output prices index may be partly attributable to Japanese firms' strong tendency, at least in the short run, to ration their products without raising their selling prices when faced with excess demand. In fact, in terms of the correlation between the delivery delay index and the output prices index, these indices have far less correlation in Japan than those in the United States and Europe (Chart B3-5). This suggests that delivery delays in Japan typically are less likely to lead to a prompt rise in selling prices.

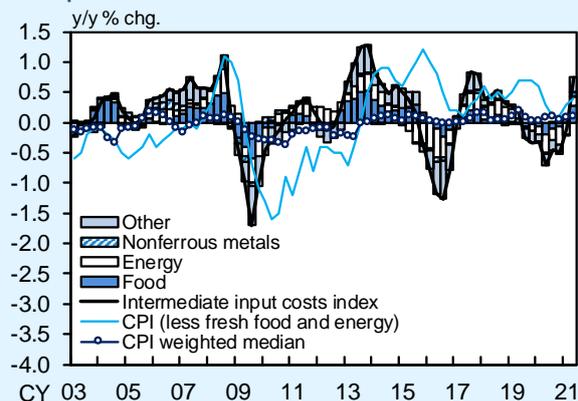
That said, such a rise in producer prices in the upstream and midstream of the distribution process may bring about inflationary pressure on downstream or consumer prices through cost increases. In order to gauge the upward pressure of upstream cost increases for a wide range of items, an index for intermediate input costs is calculated by linking input goods and transportation-related services in each industry with indices such as the import price index and the PPI, and then taking the weighted average using the input of each industry as weights (Chart B3-6). Developments in this index show that intermediate input costs have been rising clearly of late. In fact, among prices comprising the CPI, energy prices (consisting of prices of petroleum products, such as gasoline and kerosene, and of electricity as well as manufactured and piped gas charges) tend to directly reflect fluctuations in costs due to certain formulas used to compute such prices. Therefore, as mentioned in "The Background" section of this Outlook Report, the direct effects of cost increases on energy prices will at least push up the year-on-year rate of change in the CPI (all items less fresh food) for

Chart B3-5: Correlation between Delivery Delays and Output Prices



Sources: IHS Markit (© and database right IHS Markit Ltd 2021. All rights reserved.).
 Notes: 1. The estimation period is from May 2007 to June 2021.
 2. The round markers denote the maximum values of the correlation coefficients.

Chart B3-6: Developments in Intermediate Input Costs

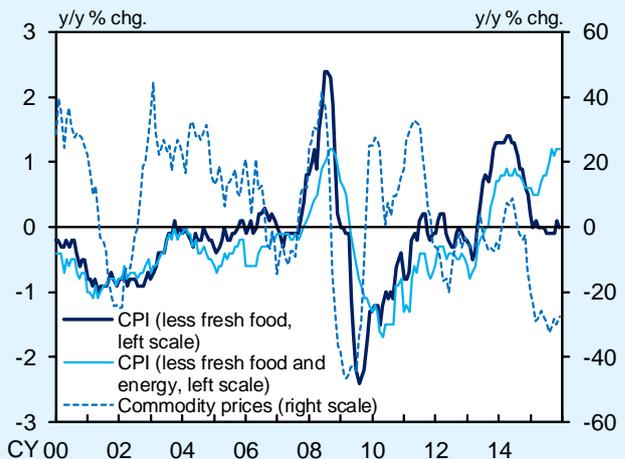


Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
 Note: Figures for CPI (less fresh food and energy) are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. Intermediate input costs index is calculated by multiplying the intermediate input ratio of each sector in the 2015 Input-Output Tables for Japan by price data from the corporate goods price index (CGPI) or the services producer price index (SPPI) and then taking the weighted average using consumption expenditure shares as weights. Figures for 2021/Q2 are April-May averages.

the time being. On the other hand, while also taking into account the spillover effects of the rise in energy prices, the extent to which upstream cost increases will be passed on to the CPI (all items less fresh food and energy) largely depends on the strength in domestic demand, including private consumption, and the consequent price-setting stance of firms in the retail and services industries.

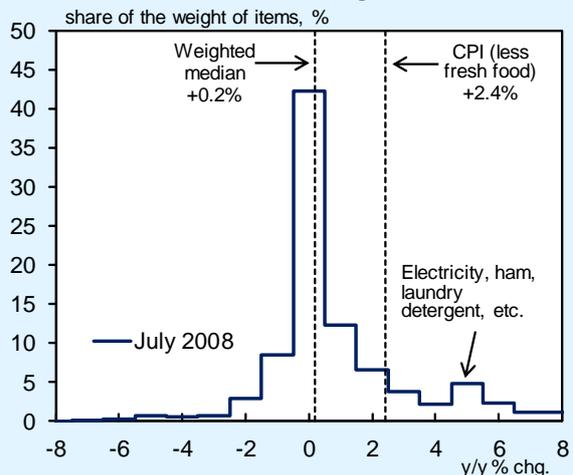
In this regard, in the final phase of the rise in commodity prices in the 2000s, the year-on-year rate of change in the CPI excluding fresh food temporarily increased to around 2.5 percent, mainly due to the rise in energy prices, and even that in the CPI excluding fresh food and energy somewhat exceeded 1 percent temporarily (Chart B3-7). That said, the price change distribution at that time shows that the rates of increase for a majority of CPI items stayed at around 0 percent, and only those for a limited number of items, for which the raw material ratio is large, saw high price rises of around 4-6 percent (Chart B3-8). The indicators capturing the underlying trend in the CPI at that time even show that the year-on-year rate of increase in the trimmed mean was at around 1 percent and the rates of increase in the mode and the weighted median stayed at less than 0.5 percent (Chart 47). Considering these past experiences, it seems highly likely that the CPI inflation that merely reflects upstream cost increases will spread to other items to only a limited extent, and thus will be only transitory. That said, since the aforementioned period of rising commodity prices in the 2000s was followed by the outbreak of the GFC -- which brought the economy into a completely different phase -- it may be difficult to

Chart B3-7: Long-Term Developments in Consumer Prices



Sources: Ministry of Internal Affairs and Communications; Bloomberg.
Note: Figures for commodity prices are the CRB Index. Figures for the CPI exclude the effects of the consumption tax hike.

Chart B3-8: Price Change Distribution



Source: Ministry of Internal Affairs and Communications.
Note: Based on staff calculations using the CPI (less fresh food). The distribution is calculated by adding up the CPI weights of items falling into each 1 percentage point bin.

grasp the effects of a rise in commodity prices in the somewhat long run from the experience during that period. Therefore, it is necessary to continue to carefully monitor the effects of the recent rise in commodity prices on domestic prices while taking into account the difference in the past and the current external environments.

