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日本銀行
BANK OF JAPAN

Outlook for Economic Activity and Prices

April 2022

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

Outlook for Economic Activity and Prices (April 2022)

The Bank's View[1]

Summary

- Japan's economy is likely to recover, with the impact of the novel coronavirus (COVID-19) and supply-side constraints waning and with support from an increase in external demand, accommodative financial conditions, and the government's economic measures, although it is expected to be under downward pressure stemming from a rise in commodity prices due to factors such as the situation surrounding Ukraine. Thereafter, as the negative impact of high commodity prices wanes and a virtuous cycle from income to spending intensifies gradually, Japan's economy is projected to continue growing, albeit more slowly, at a pace above its potential growth rate.
- The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is likely to increase temporarily to around 2 percent -- due to the impact of a significant rise in energy prices -- in fiscal 2022, when the effects of a reduction in mobile phone charges dissipate. Thereafter, however, the rate of increase is expected to decelerate because the positive contribution of the rise in energy prices to the CPI is likely to wane. Meanwhile, in terms of inflation excluding energy, for which prices fluctuate significantly, the year-on-year rate of change in the CPI (all items less fresh food and energy) is expected to moderately increase in positive territory on the back of improvement in the output gap and rises in medium- to long-term inflation expectations and wage inflation, and partly also of a pass-through of raw material cost increases to food in particular.
- Comparing the projections through fiscal 2023 with those presented in the previous *Outlook for Economic Activity and Prices* (Outlook Report), the projected growth rates for fiscal 2021 and 2022 are lower due to the effects of such factors as a resurgence of COVID-19, the rise in commodity prices, and a slowdown in overseas economies. However, the projected growth rate for fiscal 2023 is higher, partly owing to a rebound from the lower projection in the previous year. The projected rate of increase in the CPI for fiscal 2022 is significantly higher, mainly reflecting the impact of the rise in energy prices.
- Concerning risks to the outlook, the course of COVID-19, including variants, and its impact on domestic and overseas economies continue to warrant attention. In addition, there are extremely high uncertainties over developments in the situation surrounding Ukraine and the associated developments in commodity prices, global financial and capital markets, and overseas economies.
- 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 and the situation surrounding Ukraine, but are generally balanced thereafter. Risks to prices are skewed to the upside for the time being, mainly reflecting uncertainties over energy prices, but are generally balanced thereafter.

[1] "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on April 27 and 28, 2022.

I. Current Situation of Economic Activity and Prices in Japan

Japan's economy has picked up as a trend, although some weakness has been seen in part, mainly due to the impact of COVID-19 and the rise in commodity prices. 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 as a trend, despite the remaining effects of supply-side constraints. Corporate profits have improved on the whole, but business sentiment has seen a pause in its improvement recently, mainly due to the impact of COVID-19 and the rise in commodity prices. Business fixed investment has picked up, although weakness has been seen in some industries. The employment and income situation has remained relatively weak on the whole, although improvement has been seen in some parts. Private consumption has started picking up again, with downward pressure stemming from COVID-19, particularly on services consumption, waning. Housing investment has been more or less flat. Public investment has been relatively weak, albeit at a high level. Financial conditions have been accommodative on the whole, although weakness in firms' financial positions has remained in some segments. On the price front, the year-on-year rate of change in the CPI (all items less fresh food), despite being affected by the reduction in mobile phone charges, has been in the range of 0.5-1.0 percent, reflecting price rises in energy and other items. Meanwhile, inflation expectations, particularly short-term ones, have risen.

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

A. Baseline Scenario of the Outlook for Economic Activity

From the beginning to the middle of the projection period, Japan's economy is likely to recover, with the impact of COVID-19 and supply-side constraints waning and with support from an increase in external demand, accommodative financial conditions, and the government's economic measures, although it is expected to be under downward pressure stemming from the rise in commodity prices.

Prices of commodities, such as crude oil, natural gas, and coal, and prices of grains, such as wheat, have seen a significant rise recently, mainly reflecting heightened supply concerns as a result of Russia's invasion of Ukraine. Since Japan relies on imports for most of these commodities, rises in these prices bring about an outflow of income from Japan (i.e., trading losses), and put downward pressure on households' real income and corporate profits through rises in energy and food prices. That said, the government's measures against oil price hikes and the accumulation of household savings that has resulted from pandemic-related restrictions are expected to mitigate downward pressure on income and the consequent negative impact on spending. In addition, a self-sustaining increase in demand, including pent-up demand, is projected to continue in both the household and corporate sectors with the impact of COVID-19 and supply-side

constraints waning. For these reasons, the economy is likely to continue recovering. Specifically, in the household sector, private consumption is projected to recover, particularly led by the materialization of pent-up demand, as the situation with COVID-19 improves and as the resumption of consumption activities progresses while public health is being protected, mainly due to the widespread vaccinations and the rollout of antiviral medicines. In the corporate sector, exports and production are likely to increase, mainly for automobile-related goods, for which the effects of supply-side constraints are expected to wane, and for digital-related goods, which have seen an expansion in global demand. This is based on the projection that overseas economies will continue recovering on the whole, despite downward pressure from the situation surrounding Ukraine. Although raw material cost increases are projected to exert downward pressure, corporate profits are likely to remain at high levels on the whole, albeit with variation across industries and firm sizes, on the back of an increase in domestic and external demand and partly also of the yen's depreciation. In this situation, an uptrend in business fixed investment is expected to become clear as accommodative financial conditions provide support and supply-side constraints wane, although weakness is projected to remain for the time being in investment by the face-to-face services sector. Meanwhile, government spending is expected to be at a high level on the whole since it is projected that expenditure related to COVID-19 will continue, reflecting the government's past economic measures.

From the middle of the projection period, Japan's economy is projected to continue growing at a pace above its potential growth rate, as the negative impact of high commodity prices wanes and a virtuous cycle from income to spending intensifies gradually in the overall economy. That said, the pace of growth is highly likely to decelerate because the positive contribution of the materialization of pent-up demand is projected to wane.

In the household sector, employee income is likely to continue increasing moderately on the back of a rise in the number of non-regular employees associated with a recovery in the face-to-face services sector and of an increase in wage inflation that mainly reflects tightening labor market conditions and price rises. Due to this increase in employee income and a decline in downward pressure from rises in energy and food prices on real income, private consumption is expected to keep increasing steadily, although the materialization of pent-up demand is likely to slow. In the corporate sector, exports and production are likely to continue increasing moderately because it is projected that the growth in overseas economies, albeit decelerating, will stay at around the long-term average and that the effects of supply-side constraints, such as on semiconductors, will dissipate. Corporate profits are likely to return to an improving trend since domestic and external demand is expected to keep increasing and downward pressure stemming from raw material cost increases is likely to wane gradually. In this situation, with support from accommodative financial conditions, business fixed investment is expected to continue

increasing, including investment to address labor shortage, digital-related investment, and research and development (R&D) investment related to growth areas and decarbonization.

Looking at the financial conditions on which the above outlook is based, it is expected that they will remain accommodative as the Bank pursues Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control, and that this will support an increase in private demand.[2] That is, the environment for external funding, such as bank borrowing and the issuance of CP and corporate bonds, is projected to remain accommodative. In addition, backed by the Bank's measures to support financing, the government's measures, and efforts made by private financial institutions, firms' financial positions -- including those of small and medium-sized ones, for which weakness has remained to date -- are likely to continue on an improving trend along with an economic recovery.

Meanwhile, the potential growth rate is expected to rise moderately.[3] This is mainly because productivity is likely to increase due to advances in digitalization and investment in human capital, and because capital stock growth is projected to accelerate due to the rise in business fixed investment. 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.

B. Baseline Scenario of the Outlook for Prices

The year-on-year rate of change in the CPI (all items less fresh food) is likely to increase temporarily to around 2 percent -- due to the impact of a significant rise in energy prices -- in fiscal 2022, when the effects of a reduction in mobile phone charges dissipate. Thereafter, however, the rate of increase is expected to decelerate because the positive contribution of the rise in energy prices to the CPI is likely to wane. Meanwhile, in terms of inflation excluding energy, for which prices fluctuate significantly, the year-on-year rate of change in the CPI (all items less fresh food and energy) is expected to moderately increase in positive territory on the back of improvement in the output gap and rises in medium- to long-term inflation expectations and wage inflation, and partly also of a pass-through of raw material cost increases to food in particular.

The main factors that determine inflation rates are assessed as follows. The output gap, which captures the utilization of labor and capital, has been negative recently. However, with Japan's economy following a growth path that outpaces its potential growth rate, it is

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

[3] Under a specific methodology, Japan's recent potential growth rate is estimated to be marginally positive. However, the rate should be interpreted with considerable latitude. This is because the estimate is subject to change depending on the methodologies employed and could be revised as the sample period becomes longer over time. In addition, there are particularly high uncertainties in the current phase over how COVID-19 will affect the trends in productivity or labor supply.

projected to turn clearly positive around the second half of fiscal 2022 and then continue to expand moderately. Under these circumstances, labor market conditions are expected to tighten, partly due to a deceleration in the pace of increase in labor force participation of women and seniors, and upward pressure on wages is projected to intensify gradually. This is likely to contribute to improvement in households' tolerance of price rises and, coupled with the tight supply and demand conditions for goods and services, lead to a rise in inflation.

Medium- to long-term inflation expectations have risen, albeit at a moderate pace relative to short-term ones. Firms' price-setting stance has become increasingly active as a result of upward pressure remaining on costs from preventive measures against COVID-19 and of the recent rise in commodity prices. It is therefore likely that the pass-through of cost increases and a rise in selling prices will become widely observed, particularly for goods. The increase in actual inflation is expected to lead to a further rise in households' and firms' medium- to long-term inflation expectations through the adaptive formation mechanism and, in turn, bring about a wider range of price rises, including for services, and an increase in wage inflation.

III. Risks to Economic Activity and Prices

A. Risks to Economic Activity

Regarding the aforementioned baseline scenario of the outlook for economic activity, it is necessary to pay particular attention to the following upside and downside risks, which are associated mainly with the course of COVID-19 and the situation surrounding Ukraine.

The first is the impact of COVID-19 on private consumption as well as on firms' export and production activities. There seems to be persistent vigilance against COVID-19 by Japanese households, particularly seniors, as evidenced by their behavior during the spread of the Omicron variant since the beginning of the year. If this tendency continues and people become less willing to go out, for example, due to factors such as the spread of highly contagious new variants, there is a risk that the materialization of pent-up demand will be delayed and private consumption will be pushed down. On the other hand, if people's vigilance against COVID-19 lessens significantly with the widespread vaccinations and the rollout of antiviral medicines, household savings that have accumulated as a result of pandemic-related restrictions could be withdrawn by more than expected and private consumption could be pushed up. In the meantime, with global supply and demand conditions for digital-related goods such as semiconductors remaining tight, there is a possibility that supply-side constraints become prolonged and amplified due, for example, to a resurgence of COVID-19 at home and abroad, the resultant strict public health measures in some countries and regions, and the consequent supply-chain disruptions. If this happens, Japan's exports and production could be

pushed down and the adverse impact could even spill over to goods consumption and business fixed investment.

The second factor is developments in commodity prices. Commodity prices have risen on the back of an expansion in demand for commodities due to the global resumption of economic activity; these prices have recently been under increasing upward pressure even from the supply side due to heightened geopolitical risks concerning the situation surrounding Ukraine, in addition to the existing moves toward decarbonization. Since the rise in commodity prices due to supply factors is not accompanied by an expansion in external demand or an increase in exports, it puts greater downward pressure on economies of commodity importers like Japan through an increase in import costs. For this reason, if high commodity prices persist, Japan's economy could deviate downward from the baseline scenario through deterioration in the terms of trade. On the other hand, if these prices decline significantly on the back of, for example, an easing of geopolitical tensions, the economy could deviate upward through improvement in the terms of trade.

The third factor is developments in global financial and capital markets and in overseas economies. Amid concern in these markets over acceleration in the pace of reduction in monetary accommodation -- mainly for advanced economies facing a continued rise in inflation -- global financial conditions could tighten by more than expected through, for example, adjustments in risk asset prices and capital outflows from emerging economies. If this occurs, there is a risk that overseas economies will deviate downward from the baseline scenario. Furthermore, depending on the course of the situation surrounding Ukraine, overseas economies, particularly the euro area, which has strong economic relations with Russia and Ukraine, could be pushed down through the channels of a reduction in trade, in addition to a rise in commodity prices and amplification of supply-side constraints. Meanwhile, signs of a slowdown in the Chinese economy could become clearer due, for example, to adjustments in its real estate sector, with the medium- to long-term growth potential declining gradually.

The fourth factor considered from a somewhat long-term perspective is firms' and households' medium- to long-term growth expectations. It is expected that efforts with a view to the post-COVID-19 era, digitalization, and decarbonization will change Japan's economic structure and people's working styles. Depending on how households and firms react to such changes, their medium- to long-term growth expectations, the potential growth rate, and the output gap could go either upward or downward.

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 high uncertainties over firms' price- and wage-setting behavior, which could exert either upward or downward pressure on prices. Depending on the degree of upward pressure from raw material costs and on developments in firms' inflation expectations, the pass-through of cost increases to selling prices could accelerate by more than expected and lead prices to deviate upward from the baseline scenario. On the other hand, given that, in Japan, the behavior and mindset based on the assumption that prices and wages will not increase easily are deeply entrenched, there is a risk that moves to increase wages will not strengthen, households' tolerance of price rises will be slow to improve, and prices will deviate downward from the baseline scenario.

The second risk is future developments in foreign exchange rates and international commodity prices, as well as the extent to which such developments will spread to import prices and domestic prices. These risks may lead prices to deviate either upward or downward from the baseline scenario. In particular, due to high uncertainties over the course of the situation surrounding Ukraine, fluctuations in international commodity prices have been significant recently. In this situation, the impact on overall prices through energy and food prices warrants attention.

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 of the outlook. Although it will take time, the year-on-year rate of change in the CPI is likely to increase gradually as an underlying trend toward achieving the price stability target, mainly on the back of improvement in the output gap and rises in medium- to long-term inflation expectations and wage inflation.

The second perspective involves an examination of the risks considered most relevant to the conduct of monetary policy. Concerning risks to the outlook, the course of COVID-19, including variants, and its impact on domestic and overseas economies continue to warrant attention. In addition, there are extremely high uncertainties over developments in the situation surrounding Ukraine and the associated developments in commodity prices, global financial and capital markets, and overseas economies. 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 and the situation surrounding Ukraine, but are generally balanced thereafter. Risks to prices are skewed to the upside for the time being, mainly

[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."

reflecting uncertainties over energy prices, but are generally balanced thereafter. On the financial side, overheating has not been seen in asset markets and financial institutions' credit activities. Japan's financial system has maintained stability on the whole, despite the pandemic. Even in the case of an adjustment in the real economy and global financial markets, the financial system is likely to remain highly robust on the whole, mainly because financial institutions have sufficient capital bases. When examining financial imbalances from a longer-term perspective, if downward pressure on financial institutions' profits, such as from low interest rates, the declining population, and excess savings in the corporate sector, becomes prolonged, this could create a risk of a gradual pullback in financial intermediation. 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, it is necessary to pay close attention to future developments.[5]

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.

For the time being, while closely monitoring the impact of COVID-19, the Bank will support financing, mainly of firms, and maintain stability in financial markets, and will not hesitate to take additional easing measures if necessary; it also expects short- and long-term policy interest rates to remain at their present or lower levels.

[5] For details, see the Bank's *Financial System Report* (April 2022).

(Appendix)

Forecasts of the Majority of the Policy Board Members

y/y % chg.

	Real GDP	CPI (all items less fresh food)	(Reference) CPI (all items less fresh food and energy)
Fiscal 2021	+2.0 to +2.2 [+2.1]	+0.1	-0.8
Forecasts made in January 2022	+2.7 to +2.9 [+2.8]	0.0 to +0.1 [0.0]	-
Fiscal 2022	+2.6 to +3.0 [+2.9]	+1.8 to +2.0 [+1.9]	+0.8 to +1.0 [+0.9]
Forecasts made in January 2022	+3.3 to +4.1 [+3.8]	+1.0 to +1.2 [+1.1]	-
Fiscal 2023	+1.5 to +2.1 [+1.9]	+0.9 to +1.3 [+1.1]	+1.1 to +1.3 [+1.2]
Forecasts made in January 2022	+1.0 to +1.4 [+1.1]	+1.0 to +1.3 [+1.1]	-
Fiscal 2024	+1.1 to +1.3 [+1.1]	+1.0 to +1.3 [+1.1]	+1.2 to +1.5 [+1.5]

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

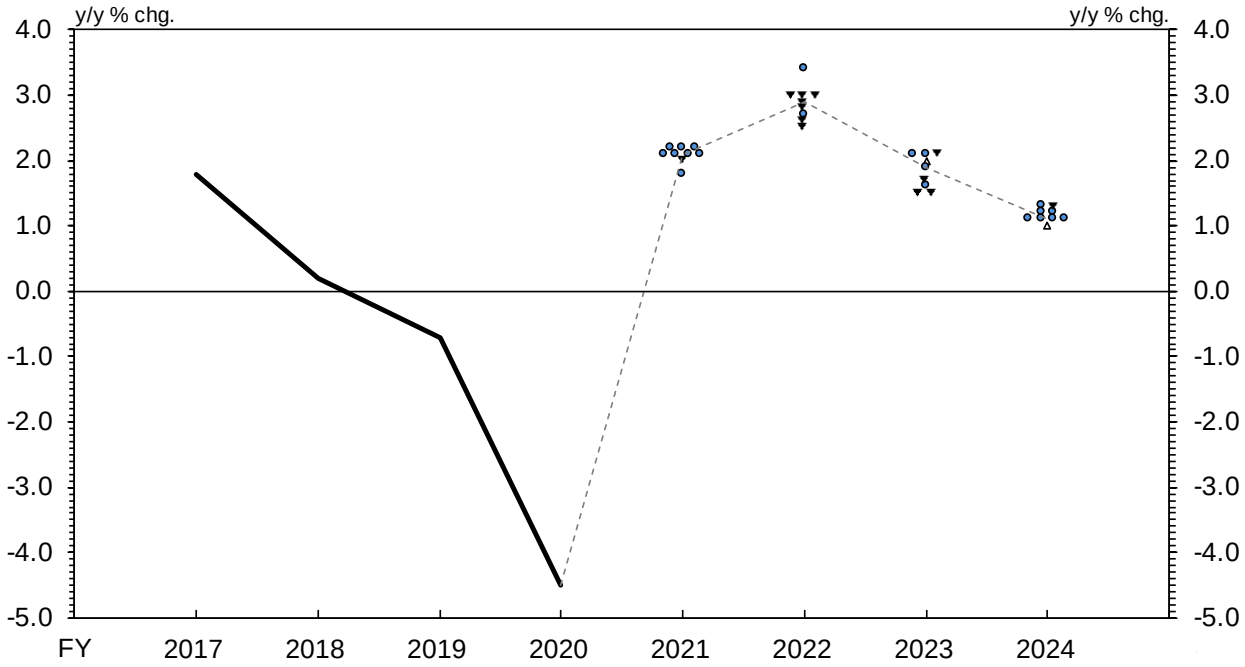
2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which they attach the highest probability of realization. These forecasts are then shown as a range, with the highest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

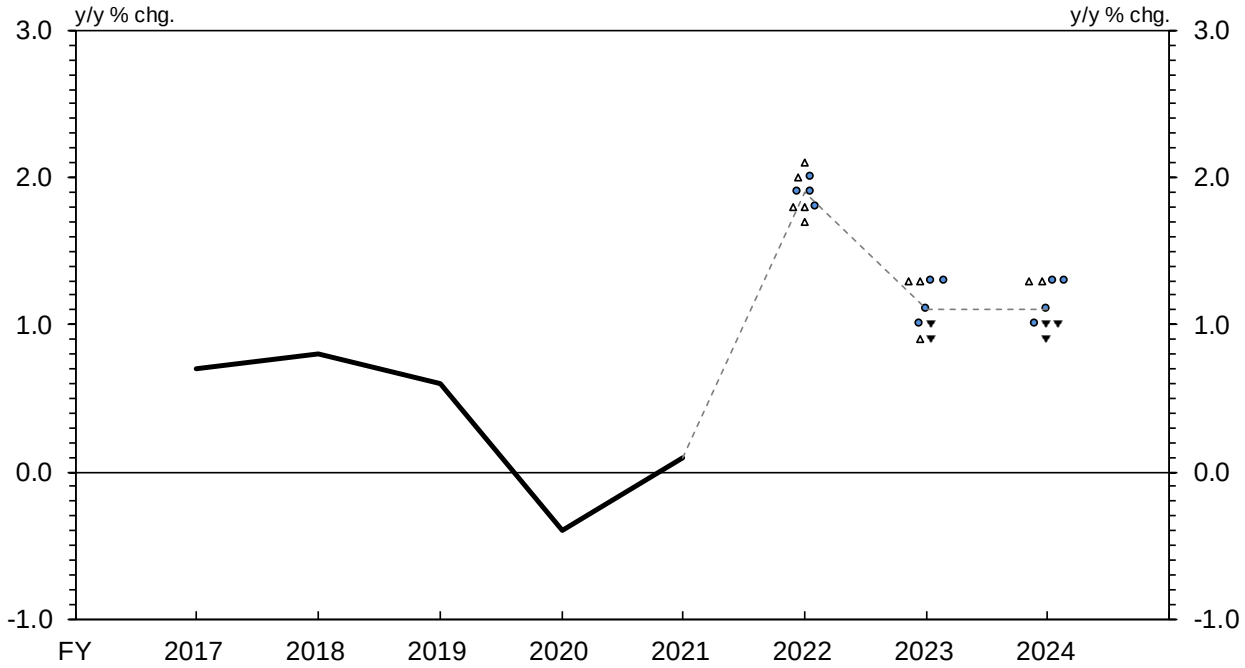
4. The CPI figures for fiscal 2021 are actual values.

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 Background[6]

I. Current Situation of Economic Activity and Its Outlook

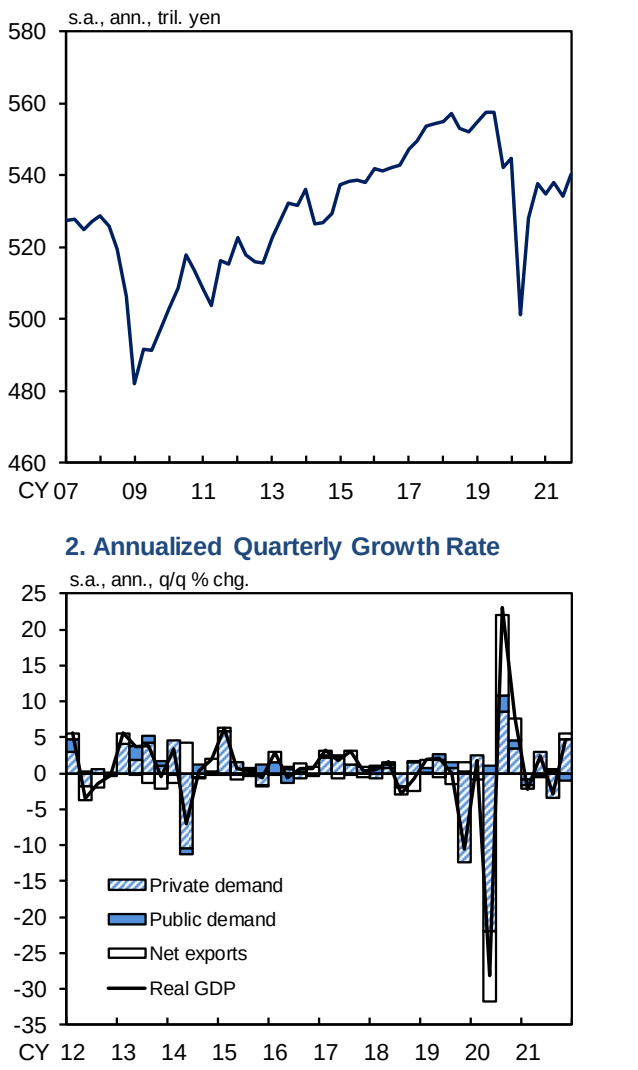
A. Economic Developments

Japan's economy has picked up as a trend, although some weakness has been seen in part, mainly due to the impact of COVID-19 and the rise in commodity prices.

Real GDP decreased for the July-September quarter of 2021 and then increased significantly for the October-December quarter, registering 1.1 percent on a quarter-on-quarter basis and 4.6 percent on an annualized basis (Chart 1). Looking at the breakdown, with the number of confirmed new cases of COVID-19 having been at a subdued level through the end of last year, private consumption increased clearly, particularly for services consumption. On the other hand, although exports and business fixed investment turned positive on a quarter-on-quarter basis, their paces of increase were only moderate as the effects of supply-side constraints remained.

Monthly indicators and high-frequency data since then suggest that Japan's economy has continued on a pick-up trend, although some weakness has been seen in part, mainly due to the impact of COVID-19 and the rise in commodity prices. Specifically, in Japan, as the Omicron variant spread rapidly and priority measures to prevent the spread of disease were

Chart 1: Real GDP

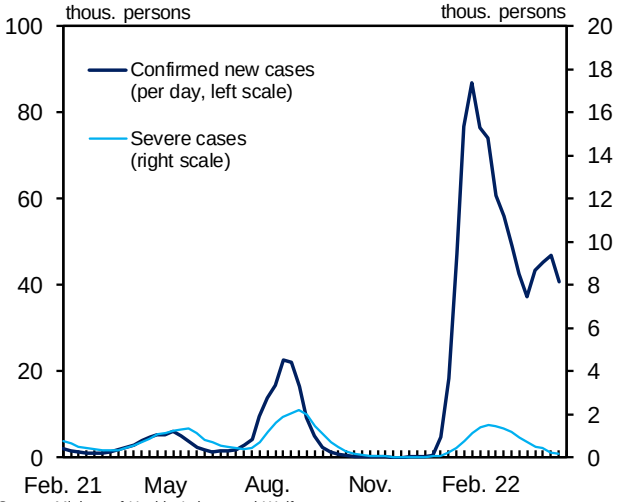


Source: Cabinet Office.

[6] "The Background" provides explanations of "The Bank's View" decided by the Policy Board at the Monetary Policy Meeting held on April 27 and 28, 2022.

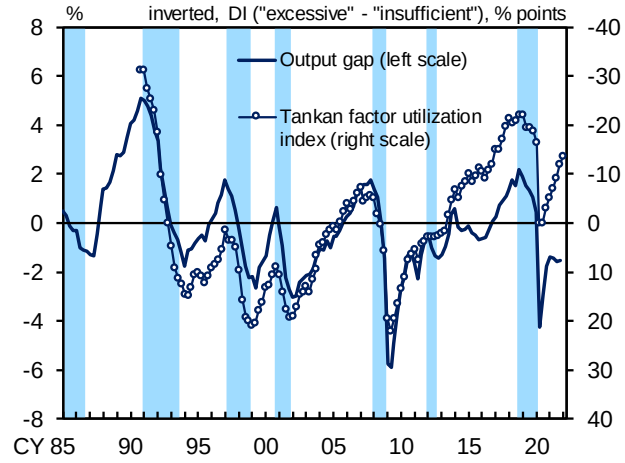
put in place for 36 prefectures at maximum, the number of people going out was constrained significantly from the second half of January to the first half of February and private consumption declined to the level seen around last autumn (Chart 2). Thereafter, however, as the number of confirmed new cases turned to a decline and the priority measures were lifted for all prefectures as of March 21, the number of people going out has seen a gradual increase and private consumption seems to have started picking up again. Exports and production have continued on an uptrend, mainly on the back of a recovery in overseas economies, despite the remaining effects of supply-side constraints, such as on semiconductors. In this situation, although business sentiment has become somewhat cautious due to such factors as the resurgence of COVID-19 and a surge in commodity prices, corporate profits have continued improving on the whole. Business fixed investment has continued to pick up, and the business fixed investment plan for fiscal 2022 in the March 2022 *Tankan* (Short-Term Economic Survey of Enterprises in Japan) indicates that investment is expected to increase, as was the case for fiscal 2021.

Chart 2: Confirmed New Cases and Severe Cases of COVID-19



Source: Ministry of Health, Labour and Welfare.
Note: Figures for confirmed new cases are weekly averages. Figures for severe cases are those at the end of the week.

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 output gap -- which captures the utilization of labor and capital -- for the October-December quarter of 2021 was more or less unchanged from the previous quarter (Chart 3).

Japan's economy is likely to recover, with the impact of COVID-19 and supply-side constraints waning and with support from an increase in external demand, accommodative financial conditions, and the government's economic

measures, although it is expected to be under downward pressure stemming from the rise in commodity prices due to factors such as the situation surrounding Ukraine.[7,8] Thereafter, as the negative impact of high commodity prices wanes and a virtuous cycle from income to spending intensifies gradually, Japan's economy is projected to continue growing, albeit more slowly, at a pace above its potential growth rate.

With regard to the outlook by demand component, Japan's goods exports are expected to increase, mainly for automobile-related goods, for which supply-side constraints are likely to wane, and for digital-related goods, which have seen an expansion in global demand. This is based on the projection that overseas economies will continue recovering on the whole, despite downward pressure from the situation surrounding Ukraine. Thereafter, goods exports are expected to continue increasing moderately toward the end of the projection period as the growth in overseas economies, albeit decelerating, stays at around the long-term average. Inbound tourism demand, which is categorized under services exports, is expected to remain subdued while entry and travel restrictions continue. However, it is likely to gradually recover as the resumption of economic

[7] Box 4 provides an analysis of the impact of a rise in commodity prices on Japan's economy through comparisons with the 2007-2008 period.

[8] On November 19, 2021, the Cabinet decided on the Economic Measures for Overcoming Coronavirus Infections and Opening Up a New Era, with a project size of around 78.9 trillion yen and fiscal spending of around 55.7 trillion yen. The implementation of the budget based on the aforementioned measures is expected to support economic activity, mainly through increases in government consumption and private consumption. The government also formulated comprehensive emergency measures to counter sharply rising crude oil prices, commodity prices, and the like in April 2022.

activity progresses around the world while public health is being protected and as the restrictions are lifted. Private consumption is expected to be pushed down by deterioration in real income due to rises in energy and food prices. However, it is projected to recover, particularly on the back of the materialization of pent-up demand, as the situation with COVID-19 improves and as the resumption of economic activity progresses gradually while public health is being protected, mainly due to the widespread vaccinations and the rollout of antiviral medicines. Thereafter, with downward pressure due to price rises in energy and other items waning and employee income continuing to improve, private consumption is expected to keep increasing, albeit more slowly. Employee income is likely to increase moderately. This is because, while employment of regular workers is projected to remain firm, due mainly to structural labor shortage, employment of non-regular workers in industries such as face-to-face services is also expected to improve with a lag from the recovery in domestic and external demand. Another reason is that wage inflation is likely to increase, mainly due to tightening labor market conditions and price rises. An uptrend in business fixed investment is expected to become clear. This is based on the projection that corporate profits, despite downward pressure from commodity price rises, will remain at high levels on the whole, and that there will be medium- to long-term investment spending, which includes investment to address environmental issues, on the back of accommodative financial conditions and the waning of supply-side constraints. Meanwhile, public investment is projected to be more or less flat with construction related to building national resilience being at a high level. Government

consumption is likely to remain at a high level as a result of expenditure related to COVID-19 included in the government's economic measures, such as regarding enhancement of the COVID-19 vaccination and medical treatment systems, and thereafter see a lowering in its level due to a reduction in such expenditure.

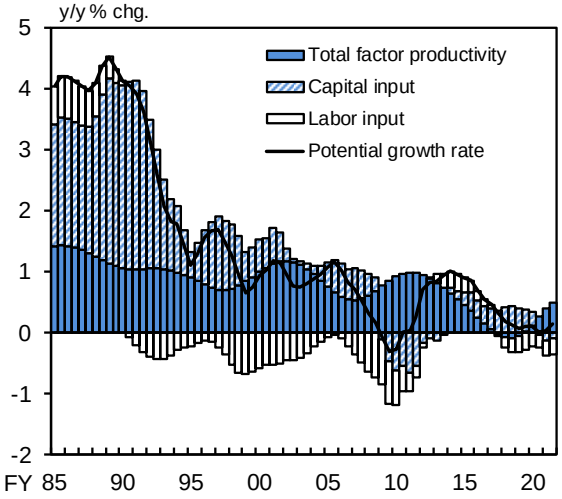
Reflecting these developments in demand both at home and abroad, Japan's economic growth rate is expected to be at a relatively high level for fiscal 2022. This is based on the projection that, although domestic demand will be pushed down to a certain degree by the rise in commodity prices, the growth rate will be supported by external demand, accommodative financial conditions, and the government's economic measures, with the impact of COVID-19 and supply-side constraints waning. For fiscal 2023, with downward pressure from the rise in commodity prices waning, the growth rate is projected to remain relatively high, although the pace of increase is likely to decelerate, mainly due to slower materialization of pent-up demand and a waning of the effects of the government's economic measures. The growth rate for fiscal 2024 is expected to decelerate, mainly due to the waning of pent-up demand, but the economy is likely to continue growing at a pace slightly above its potential growth rate, with external demand continuing to increase and accommodative financial conditions being maintained. Comparing the projections with those presented in the previous Outlook Report, the projected growth rates for fiscal 2021 and 2022 are lower due to the effects of such factors as a resurgence of COVID-19, the rise in commodity prices, and a slowdown in overseas economies. The projected

growth rate for fiscal 2023 is higher, partly owing to a rebound from the lower projection in the previous year.

The potential growth rate seems to have remained marginally positive recently (Chart 4). This is because, although the growth rate of total factor productivity (TFP) has increased slightly, working hours have continued on a downtrend, reflecting working-style reforms, and the pace of capital stock accumulation has decelerated as a result of past declines 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 on the back of advances in digitalization and a resultant improvement in efficiency of resource allocation, (2) the pace of decline in working hours will slow with the effects of working-style reforms diminishing, and (3) growth in capital stock will accelerate cyclically. However, there remain high uncertainties over the extent of advancement and sustainability of innovation by the corporate sector and transfer of production factors among sectors, both of which aim at adapting to the post-pandemic economic and industrial structures, including efforts toward digitalization and addressing climate change. 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 2022, Japan's economy is likely

Chart 4: Potential Growth Rate



Source: Bank of Japan.
Note: Figures are staff estimates. Figures for the second half of fiscal 2021 are those for 2021/Q4.

to recover. This is because, although domestic demand, such as business fixed investment and private consumption, is expected to be pushed down by significant price rises in commodities, including crude oil, through deterioration in the terms of trade, it is projected that downward pressure stemming from COVID-19 on services consumption will wane and the effects of supply-side constraints on exports and production will ease gradually. Another reason is that an increase in external demand, accommodative financial conditions, and the government's economic measures are likely to provide support. Specifically, goods exports are expected to keep increasing since it is projected that overseas economies will continue recovering on the whole, despite downward pressure from the situation surrounding Ukraine, and that the effects of supply-side constraints will wane gradually. However, it is highly likely that exports will remain susceptible to supply-side constraints in the short run, mainly against the background of disruptions in distribution networks due to lockdowns in China. Private consumption is expected to be pushed down by deterioration in real income due to rises in energy and food prices. However, it is projected to recover, particularly supported by the materialization of pent-up demand, as the situation with COVID-19 improves and as the resumption of economic activity progresses gradually while public health is being protected, mainly due to the widespread vaccinations and the rollout of antiviral medicines. An uptrend in business fixed investment is expected to become clear because corporate profits are projected to remain at high levels on the whole, despite downward pressure from commodity price rises, and because the effects of supply-side constraints are likely to wane gradually. That said, weakness

is expected to remain for the time being in construction investment, such as for restaurants and hotels, and in machinery investment by some firms in the transportation industry, including railway vehicles and aircraft. Meanwhile, overall government spending is projected to be more or less flat because public investment is projected to level off on the back of continued expenditure related to COVID-19 included in the government's economic measures.

In fiscal 2023, the growth rate of Japan's economy is projected to remain relatively high with downward pressure from the rise in commodity prices waning and domestic and external demand remaining on an uptrend. However, the pace of increase is likely to decelerate, mainly due to slower materialization of pent-up demand and the waning of the effects of the government's economic measures. Japan's goods exports are projected to continue increasing moderately, as overseas economies keep growing, albeit decelerating, and as the effects of supply-side constraints, such as on semiconductors, dissipate. Inbound tourism demand, which is categorized under services exports, is projected to increase, reflecting a gradual global recovery in travel demand. Business fixed investment is expected to continue increasing, including investment to address labor shortage, digital-related investment, and R&D investment for growth areas and to address environmental issues. Private consumption is expected to keep increasing, albeit more slowly. This is based on the projection that employee income will continue to improve, downward pressure on real income stemming from past rises in energy and food prices will wane, and pent-up

demand will continue to materialize, albeit more slowly. Meanwhile, although progress in construction related to building national resilience and an uptrend in healthcare and nursing care expenditures are likely to provide support, government spending is expected to decline, reflecting the reduction in expenditure related to COVID-19.

In fiscal 2024, although the pace of economic growth is likely to decelerate, mainly due to the waning of pent-up demand, Japan's economy is expected to continue growing at a pace slightly above its potential growth rate, with external demand continuing to increase and accommodative financial conditions being maintained. Goods exports are likely to continue increasing moderately while the growth rates of overseas economies are expected to converge toward about the same level as the long-term average. Inbound tourism demand, which is categorized under services exports, is projected to keep increasing on the back of a continued global recovery in travel demand. Business fixed investment is expected to continue to be supported by increases in investment to address labor shortage, digital-related investment, and investment for growth areas and to address environmental issues. However, it is likely to see moderate deceleration in the pace of increase due to adjustment pressure stemming from the accumulation of capital stock. Although pent-up demand is likely to wane, private consumption is projected to continue increasing moderately for both goods and services, as employee income continues to improve. Government spending is expected to turn to a moderate increase on the back of progress in construction related to

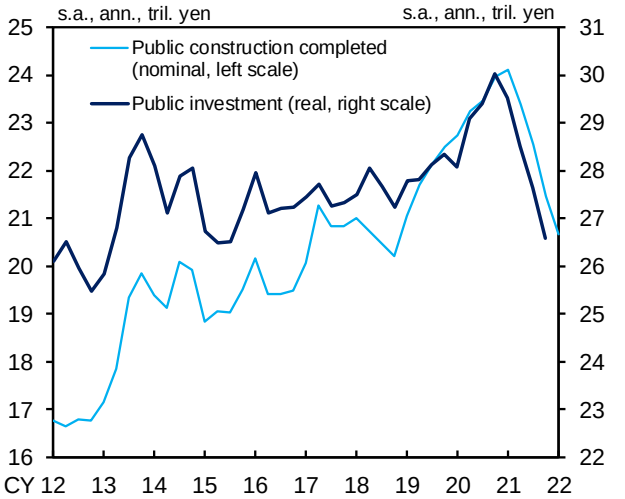
building national resilience and of an uptrend in healthcare and nursing care expenditures.

B. Developments in Major Expenditure Items and Their Background

Government Spending

Public investment has been relatively weak, albeit at a high level (Chart 5). The amount of public construction completed, which is a coincident indicator, has been relatively weak recently, mainly reflecting a decline in construction related to restoration and reconstruction following natural disasters, although construction related to building national resilience has been at a high level, albeit with fluctuations. Orders received for public construction, which is a leading indicator, have been more or less flat on average, as orders associated with the government's economic measures are being placed, albeit with monthly fluctuations, mainly for construction related to building national resilience. The value of public works contracted has been more or less flat on average.

Chart 5: Public Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2022/Q1 is the January-February average.

As for the outlook, it is projected that public investment will be more or less flat, with construction related to building national resilience being at a high level.[9] Government consumption is likely to remain at a high level as a result of expenditure related to COVID-19 included in the government's economic measures, such as regarding enhancement of the COVID-19 vaccination and medical treatment systems.

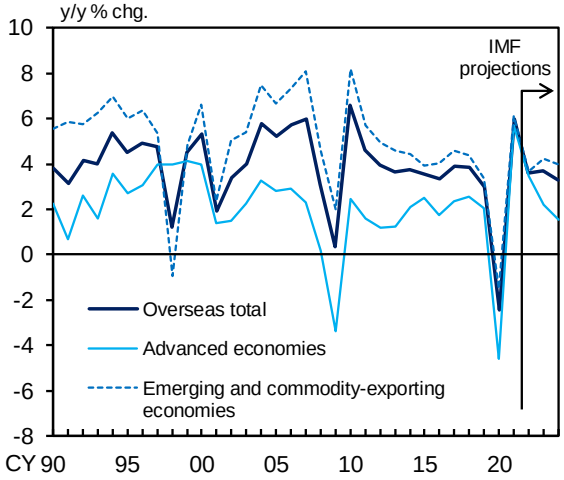
[9] The five-year acceleration measures for building national resilience with a project size of about 15 trillion yen were decided by the Cabinet in December 2020. In these measures, public investment projects for disaster prevention, disaster mitigation, and building national resilience are to be implemented intensively over five years from fiscal 2021 through 2025. The government's economic measures decided by the Cabinet in November 2021 also include efforts to implement the acceleration measures.

Thereafter, government consumption is projected to see a lowering in its level due to the reduction in such expenditure.

Overseas Economies

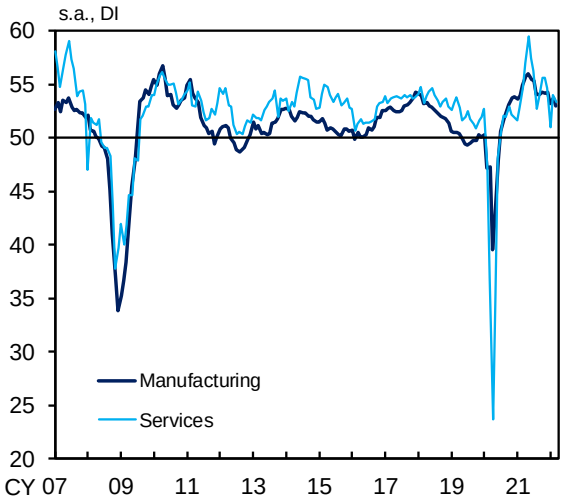
Overseas economies have recovered on the whole, albeit with variation across countries and regions (Chart 6). By region, the U.S. economy has continued to recover, particularly for private consumption, with savings accumulated to date being withdrawn and pent-up demand materializing. European economies have recovered as a trend on the back of continued resumption of economic activity, although they have decelerated due to such factors as the impact of a rise in energy prices. The Chinese economy has also recovered as a trend, mainly with support from fiscal policy, but the pace of improvement has remained slow, partly due to downward pressure stemming from a rapid spread of COVID-19. Emerging and commodity-exporting economies other than China have picked up on the whole, although some economies have been pushed down by the situation surrounding Ukraine. Turning to Asia, which is closely related to Japan's economy, the NIEs and the ASEAN economies have recovered because exports have continued to increase and domestic demand has improved. Looking at the current situation for the global economy in terms of the Global PMI, figures for both the manufacturing and services industries have remained at relatively high levels, clearly exceeding 50 (Chart 7). The world trade volume has increased on the whole, led by demand for digital-related goods, although the effects of supply-side constraints have remained,

Chart 6: Overseas Economies



Sources: IMF; Ministry of Finance.
Note: Figures are the weighted averages of real GDP growth rates using countries' share in Japan's exports as weights. The real GDP growth rates are compiled by the IMF, and the rates from 2022 onward are its projections in the April 2022 *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.

Chart 7: Global PMI



Source: Copyright © 2022 by S&P Global Market Intelligence, a division of S&P Global Inc. 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.

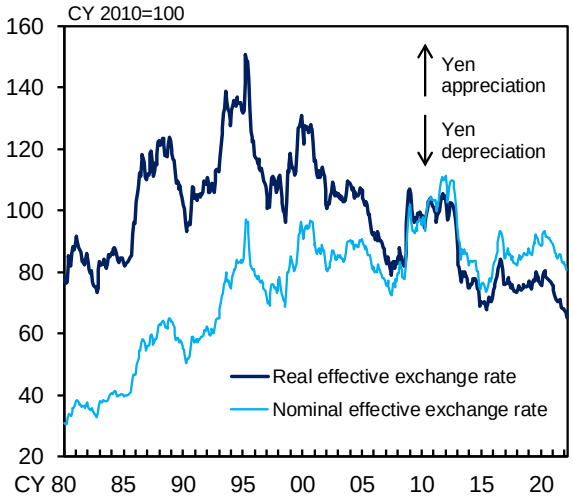
particularly on automobile-related goods (Chart 8).[10]

As for the outlook, despite downward pressure from the situation surrounding Ukraine, overseas economies are likely to continue growing on the whole, albeit with variation across countries and regions, as the impact of COVID-19 wanes gradually.[11] By region, the U.S. economy is expected to keep registering relatively high growth for the time being, particularly for private consumption, with pent-up demand continuing to materialize. Thereafter, the growth rate is projected to slow gradually. European economies are likely to be pushed down by energy price rises and a reduction in trade, particularly with Russia, resulting from the situation surrounding Ukraine, but are projected to continue recovering as a trend with the impact of COVID-19 waning and with the positive contribution of aggressive fiscal policy to investment. The Chinese economy is projected to return to a steady growth path, due in part to the effects of fiscal stimulus measures, such as through infrastructure investment, despite the remaining effects of the spread of COVID-19. Partly reflecting a recovery in external demand, emerging and commodity-exporting economies other than China are likely to follow an improving trend on the whole, albeit with variation across countries and regions due to such factors as the effects of rises in energy and food prices resulting from the situation surrounding Ukraine.

Chart 8: 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 2022/Q1 is the January-February average.

Chart 9: 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.

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

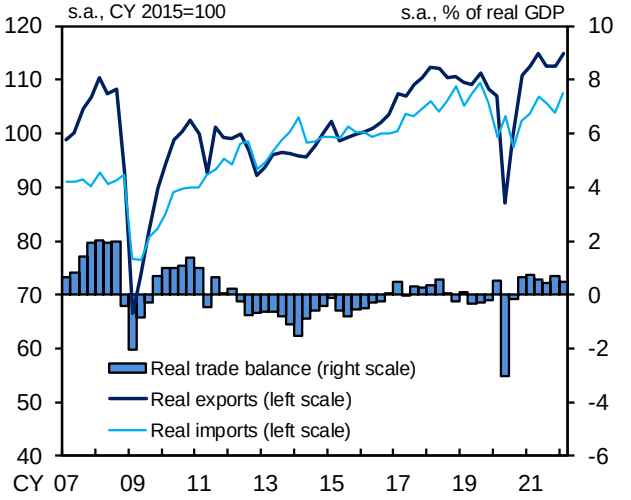
[11] Box 1 summarizes the impact of the situation surrounding Ukraine on overseas economies.

With regard to the outlook for the world trade volume, while sluggishness is expected to be seen for the time being due to the remaining effects of supply-side constraints and the impact of the situation surrounding Ukraine, the volume is projected to increase firmly thereafter. That said, in the second half of the projection period, the pace of increase is likely to decelerate gradually as the growth rates of overseas economies gradually converge toward about the same level as the long-term average.

Exports and Imports

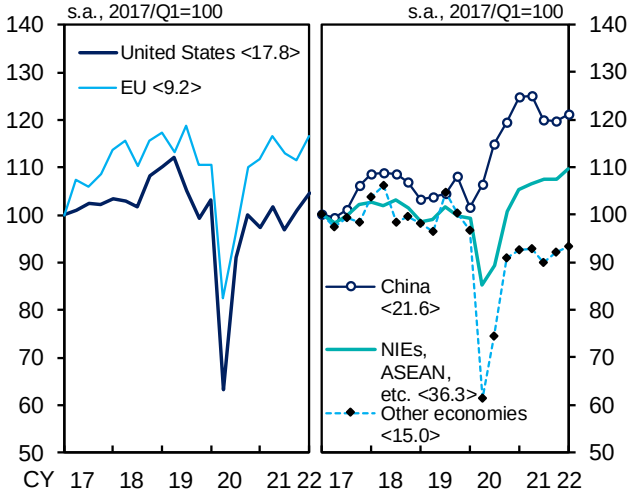
Exports have continued to increase as a trend on the back of the recovery in overseas economies, despite the remaining effects of supply-side constraints (Chart 10). By region, exports to advanced economies and emerging economies have continued on an uptrend due to the recovery in those economies and the expansion in global demand for digital-related goods, despite the effects of supply-side constraints remaining on automobile-related goods in particular (Chart 11). By goods, IT-related exports have increased, as exports of goods such as semiconductors for smartphones and data centers have been solid (Chart 12). Exports of capital goods have also increased, albeit with fluctuations, supported by steady machinery investment on a global basis and by strong demand for semiconductor production equipment that reflects the expansion in demand for digital-related goods. On the other hand, exports of automobile-related goods have picked up only moderately. This is because, although the impact of parts procurement difficulties from the ASEAN countries, which occurred last summer, has waned significantly, the global supply and demand conditions for

Chart 10: Real Exports and Imports



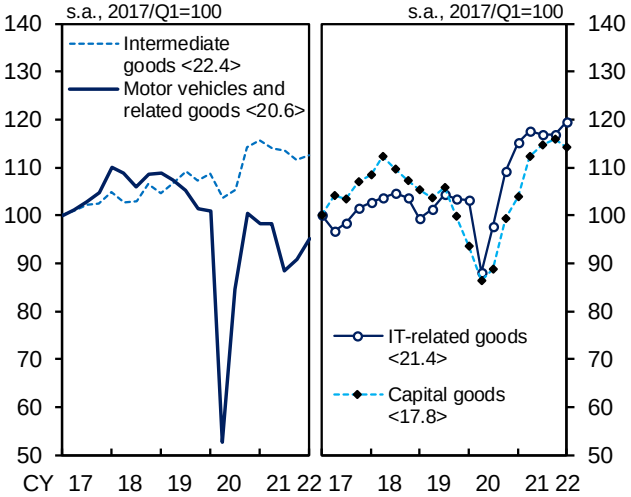
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations.

Chart 11: Real Exports by Region



Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports in 2021.
2. Figures for the EU exclude those for the United Kingdom for the entire period.

Chart 12: Real Exports by Type of Goods



Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each type of goods in Japan's total exports in 2021.

semiconductors have remained tight and parts procurement difficulties have intensified temporarily due, for example, to the spread of COVID-19 in Japan. Meanwhile, exports of intermediate goods have been more or less flat, mainly on the back of solid demand for materials related to digital goods, although weakness has been seen in exports of chemicals, such as cosmetics, to China.

Exports are likely to continue increasing, mainly for automobile-related goods, for which supply-side constraints are likely to wane, and for digital-related goods, which have seen an expansion in global demand. This is based on the projection that overseas economies will continue recovering on the whole, despite downward pressure from the situation surrounding Ukraine.[12] However, it is highly likely that exports will remain susceptible to supply-side constraints in the short run, mainly against the background of disruptions in distribution networks due to the lockdowns in China. With growth in the world trade volume slowing gradually, as described earlier, the pace of increase in exports is projected to decelerate in the second half of the projection period, as economic growth of Japan's primary export destinations, such as the United States, also decelerates.

[12] Of Japan's exports and imports, Russia accounts for around 1 percent and around 2 percent, respectively, and Ukraine accounts for around 0.1 percent for each of them (as of 2021). Japan's economy is expected to be affected by the situation surrounding Ukraine, primarily through downward pressure on overseas economies and deterioration in Japan's terms of trade due to commodity price rises, rather than directly through a reduction in trade with these two countries.

Meanwhile, Japan's share of exports in the world trade volume has declined recently, affected by the production decline in automobiles, of which Japan accounts for a large share within world exports (Chart 13). As for the outlook, mainly reflecting changes in the trade volume of automobile-related goods, Japan's share of exports is likely to continue fluctuating for the time being. Thereafter, however, it is projected to converge toward a level that is around the average seen before the pandemic.

Reflecting a pick-up in domestic demand, purchases of vaccines, and the waning of the effects of supply-side constraints, imports have continued on an uptrend (Chart 10). They are expected to follow a moderate uptrend on the back of developments in induced demand due to increases in domestic demand and exports.

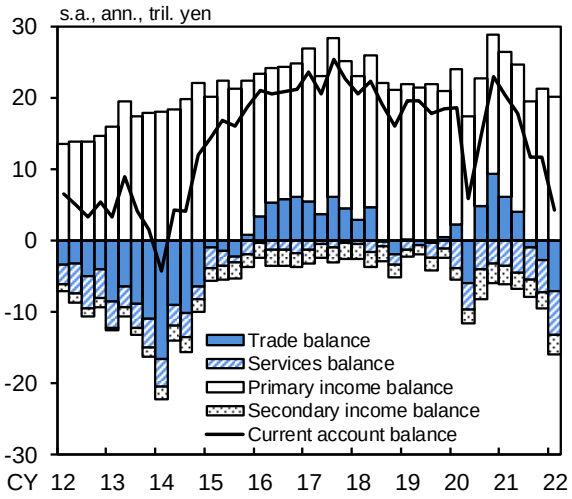
External Balance

The nominal current account surplus has decreased markedly, mainly reflecting the impact of a rise in import prices associated with high commodity prices (Chart 14). Looking at the breakdown, the nominal trade balance has been in deficit recently, reflecting rises in international commodity prices, such as crude oil prices. The services balance has continued to register a deficit, mainly against the background of deterioration in the travel balance, which is due to subdued inbound tourism demand (Chart 15). On the other hand, the primary income balance has continued to register a relatively large surplus because receipts, mainly of dividends, have been at high levels, reflecting a recovery in overseas economies.

Chart 13: Japan's Share of Exports in World Trade Volume

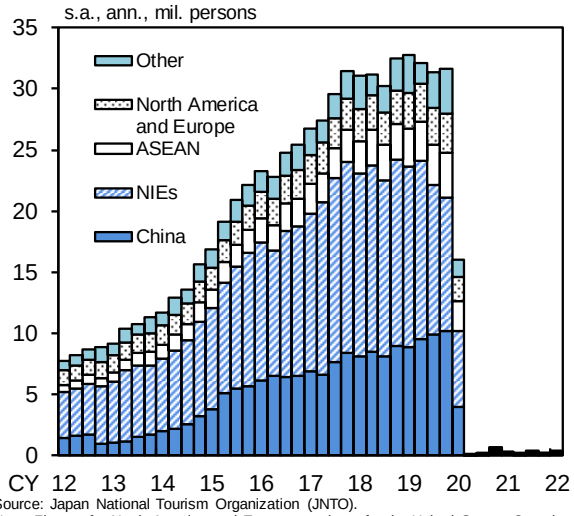
Source: CPB Netherlands Bureau for Economic Policy Analysis.
Note: Japan's share of exports in world trade volume is obtained by dividing Japan's real exports by world real imports (2010 prices). The figure for 2022/Q1 is the January-February average.

Chart 14: Current Account



Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2022/Q1 are January-February averages.

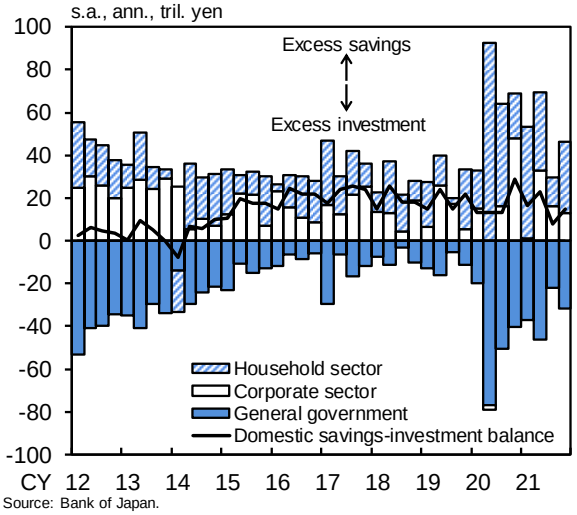
Chart 15: Number of Inbound Visitors



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.

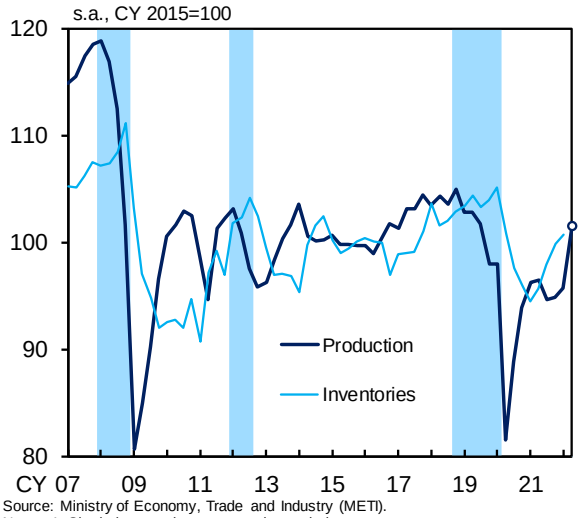
The nominal current account surplus is expected to remain at a low level for the time being, mainly due to a rise in import prices associated with high commodity prices. Thereafter, it is likely to follow a moderate expanding trend on the back of an increase in goods exports, an expanding surplus in the primary income balance due to the recovery in overseas economies, and a decrease in deficit in the services balance that reflects improvement in inbound tourism demand. In terms of the savings-investment balance, overall excess savings in Japan's economy are projected to remain at a low level for the time being but thereafter 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 (Chart 16).

Chart 16: Savings-Investment Balance



Source: Bank of Japan.

Chart 17: Industrial Production



Source: Ministry of Economy, Trade and Industry (METI).
Notes: 1. Shaded areas denote recession periods.
2. The figure denoted by the round marker is calculated based on METI projections for April and May 2022.

Industrial Production

Industrial production has continued to increase as a trend on the back of a rise in domestic and external demand, despite the remaining effects of supply-side constraints (Chart 17). By major industry, production of "electronic parts and devices" has continued on an uptrend, mainly for production of semiconductors for smartphones and data centers. Production of "general-purpose, production, and business-oriented machinery" has been at a high level, mainly for semiconductor production equipment and construction machinery, on the back of solid demand for business fixed investment (i.e., machinery investment) at home and abroad. In contrast, production of "transport equipment" has picked up only moderately. This is because, although the impact of parts procurement difficulties from the ASEAN countries, which occurred last summer, has waned significantly,

the global supply and demand conditions for semiconductors have remained tight and parts procurement difficulties have intensified temporarily, reflecting the impact of the domestic factors of a resurgence of COVID-19 and this March's earthquake. Meanwhile, production of "electrical machinery, and information and communication electronics equipment" has been at a low level on the whole, as production of "basic exchange for mobile customer premises equipment" has remained relatively weak, although the effects of the semiconductor shortage have waned somewhat for personal computers and household electrical appliances.

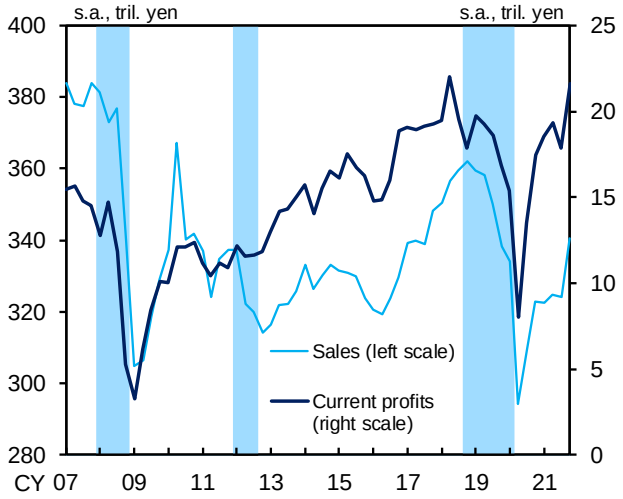
Industrial production is likely to keep increasing, mainly for automobile-related goods, for which supply-side constraints are likely to wane, and for digital-related goods, which have seen an expansion in global demand. This is based on the projection that overseas economies will continue recovering on the whole, despite downward pressure from the situation surrounding Ukraine. However, it is highly likely that industrial production, as with exports, will remain susceptible to supply-side constraints in the short run, mainly against the background of disruptions in distribution networks due to the lockdowns in China. The growth rate in industrial production is expected to decline gradually in the second half of the projection period with the pace of increase in exports decelerating.

Corporate Profits

Corporate profits have improved on the whole. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* (FSSC),

current profits for all industries and enterprises had already exceeded the pre-pandemic levels seen around 2019 in the first half of fiscal 2021 (Chart 18). With the number of confirmed new cases of COVID-19 being contained, current profits further improved for the October-December quarter of 2021, registering the highest levels since the past peak in the April-June quarter of 2018. In detail, corporate profits have been pushed down by continued supply-side constraints, such as on semiconductors, and by raw material cost increases. However, they have been pushed up by (1) a hike in export prices and a rise in dividends from subsidiaries abroad on the back of steady external demand, (2) a reduction in advertising and business travel expenses during the COVID-19 pandemic, and (3) various measures to support firms, such as employment adjustment subsidies and subsidies for firms that complied with the requests to shorten operating hours. By industry and firm size, current profits for manufacturers have been at high levels on the whole for large firms; while profits for automobile and related industries have decreased somewhat with the effects of supply-side constraints remaining, those for industries related to basic materials have been firm, partly reflecting a hike in selling prices. The overall profits of small and medium-sized firms have been pushed up by, for example, an increase in profits of food manufacturers resulting from a pick-up in private consumption. As for nonmanufacturers, current profits have improved clearly regardless of firm size, particularly for the face-to-face services and transportation industries, on the back of a pick-up in private consumption.

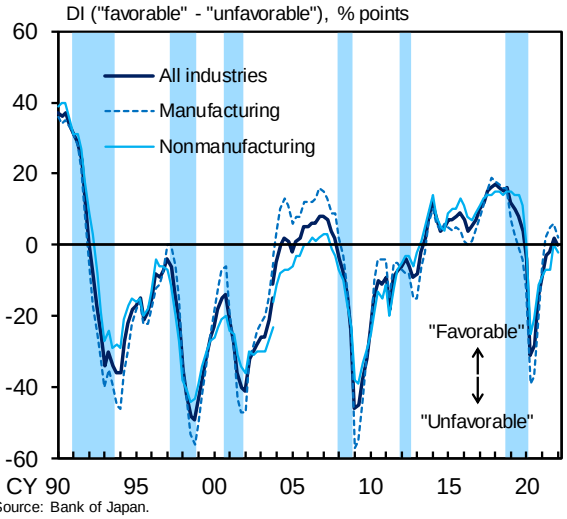
Chart 18: Corporate Profits



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

Business sentiment has seen a pause in its improvement recently, mainly due to the impact of COVID-19 and the rise in commodity prices. According to the March *Tankan*, the diffusion index (DI) for business conditions for all industries and enterprises has deteriorated slightly after having improved for six consecutive quarters (Chart 19). With regard to manufacturing, the DI has deteriorated slightly but remained higher than the level registered in the December 2019 survey conducted before the pandemic. Specifically, the DIs for a wide range of industries have been pushed down by raw material cost increases, and those for some industries have been partly affected by procurement difficulties with components. However, the DIs for industries such as production machinery and electrical machinery have remained at favorable levels on the back of steady global demand for digital-related goods and business fixed investment, and a hike in selling prices at home and abroad seems to have also supported business sentiment of a wide range of industries. The DI for overall nonmanufacturing has deteriorated slightly; while the DIs for information services and other industries have improved due to firm demand, those for the services for individuals and accommodations as well as eating and drinking services industries have deteriorated clearly, affected by the rapid spread of the Omicron variant since the turn of the year, and the DIs for industries such as construction have been affected by a rise in material prices.

Chart 19: 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.

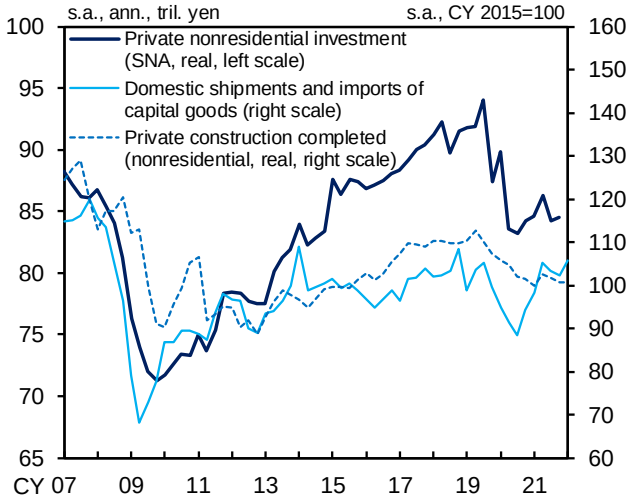
Regarding the outlook for corporate profits, it is highly likely that they will temporarily weaken somewhat from the current high levels because the impact of recent rises in commodity prices is

expected to materialize gradually. Thereafter, although the effects of various measures to support firms are expected to dissipate, corporate profits are projected to improve again, reflecting a recovery in the level of economic activity and the resultant rise in product prices, with the impact of the rise in commodity prices waning gradually.

Business Fixed Investment

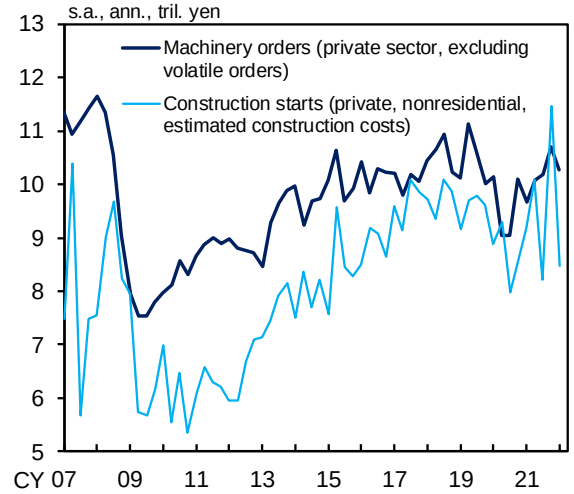
Business fixed investment has picked up, although weakness has been seen in some industries (Chart 20). The aggregate supply of capital goods -- a coincident indicator of machinery investment -- has increased, mainly for digital- and labor saving-related investments, such as semiconductor production equipment and construction machinery. Private construction completed (nonresidential) -- a coincident indicator of construction investment -- has continued to increase moderately in nominal terms, mainly due to a rise in construction of logistics facilities on the back of an expansion in e-commerce and to progress in urban redevelopment projects. However, in real terms, it has been more or less flat due to a rapid rise in material prices.

Chart 20: Coincident Indicators of Business Fixed Investment



Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Figures for 2022/Q1 are January-February averages.
2. Figures for real private construction completed are based on staff calculations using the construction cost deflators.

Chart 21: Leading Indicators of Business Fixed Investment

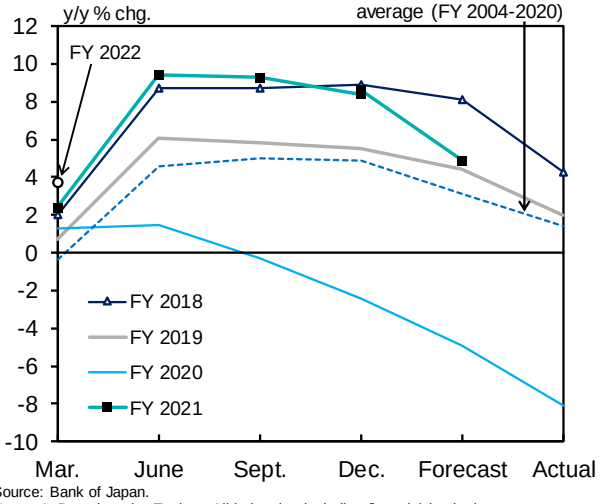


Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Volatile orders are orders for ships and orders from electric power companies.
2. Figures for 2022/Q1 are January-February averages.

Machinery orders -- a leading indicator of machinery investment -- have increased, albeit with fluctuations (Chart 21). By industry, orders by the manufacturing industry have increased, mainly led by "general-purpose, production, and business-oriented machinery" and electrical machinery, for both of which exports and production have continued on an uptrend. Orders by the nonmanufacturing industry have been fluctuating on the whole. Specifically, orders by

the transportation industry -- including "rolling machines" (i.e., railway vehicles) and "motor vehicles" -- which was strongly affected by COVID-19, have remained weak. In contrast, orders by the construction industry, which has been making digital-related and labor-saving investments, have been on an uptrend. Construction starts (in terms of planned expenses for private and nonresidential construction) -- a leading indicator of construction investment -- have picked up when fluctuations are smoothed out. This is because, although the construction of stores and accommodation facilities -- mainly by the eating and drinking as well as accommodations industries -- has remained weak, construction starts have been supported by an uptrend in construction of logistics and other facilities, as well as by progress in urban redevelopment projects. Looking at the business fixed investment plan in the March *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) for fiscal 2021 shows a year-on-year rate of increase of 4.9 percent (Chart 22). Although this is a downward revision from the previous survey conducted last December, mainly resulting from supply-side constraints on capital goods and the impact of COVID-19, the actual results for fiscal 2021 are expected to be clearly positive, mainly on the back of improvement in corporate profits. That said, looking at the investment plan by sector, upward revisions to it during the fiscal year, which are usually seen in the March *Tankan* surveys, have been limited for small nonmanufacturing firms, suggesting that some industries have been affected by the

Chart 22: Developments in Business Fixed Investment Plans



Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. All industries including financial institutions.
2. Including software and R&D investments and excluding land purchasing expenses. R&D investment is not included before the March 2017 survey.
3. There is a discontinuity in the data for December 2021 due to a change in the survey sample.

resurgence of COVID-19 and high raw material and fuel costs. The plan for fiscal 2022, which was surveyed for the first time in the March *Tankan*, shows that the year-on-year rate of increase in business fixed investment for all industries and enterprises including financial institutions is expected to be 3.7 percent, indicating a relatively high increase compared with the past March *Tankan* surveys.

With regard to the outlook, as corporate profits remain at high levels on the whole despite being pushed down by the impact of the rise in commodity prices, an uptrend in business fixed investment is expected to become clear on the back of accommodative financial conditions and the waning of supply-side constraints. Specifically, investment that is projected to be undertaken includes (1) machinery investment induced by the increase in exports, (2) IT-related investment to address labor shortage and digitalize business activities, (3) construction investment in logistics facilities, resulting from the expansion in e-commerce, and in offices and commercial facilities due to redevelopment projects, and (4) R&D investment for growth areas and to address environmental issues, such as toward decarbonization. That said, weakness is projected to remain for a while in investment by industries that are significantly affected by such factors as COVID-19 -- for example, renewal investment in railway vehicles and aircraft by the transportation industry and construction investment by the eating and drinking as well as accommodations industries. Toward the end of the projection period, the pace of increase in business fixed investment is projected to slow due to a deceleration in the pace of increase in domestic and external

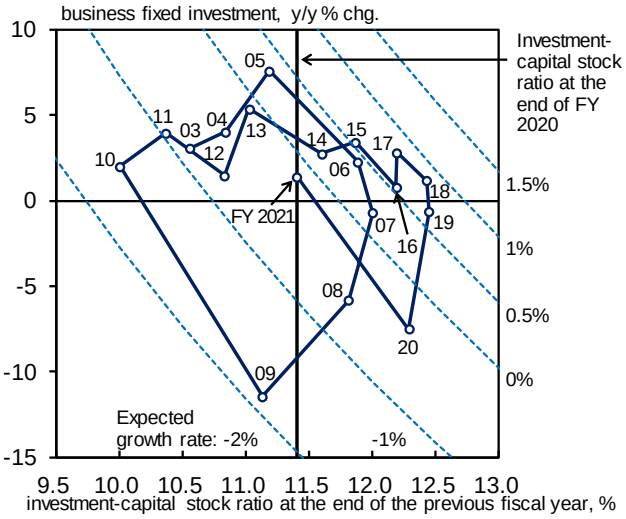
demand and cyclical adjustment pressure stemming from the accumulation of capital stock (Chart 23). However, it is expected that business fixed investment will continue increasing even at the end of the projection period since many medium- to long-term investment projects, such as those listed in (2) to (4) above, will be carried out irrespective of the different phases of business cycles.

Employment and Income Situation

The employment and income situation has remained relatively weak on the whole, although improvement has been seen in some parts.

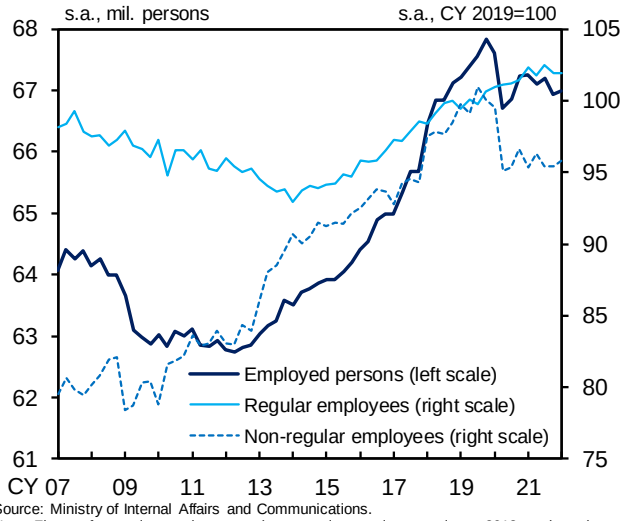
The number of employed persons has remained at a relatively low level, mainly for non-regular employees in the face-to-face services industry (Chart 24). However, the number of regular employees has continued on a moderate uptrend, mainly in the medical, healthcare, and welfare services industry as well as the information and communications industry, both of which have faced a severe labor shortage. Despite remaining at relatively low levels, total hours worked per employee have picked up. With regard to labor market conditions, the labor force participation rate has remained more or less flat when fluctuations are smoothed out (Chart 25). The unemployment rate also has remained more or less flat, in the range of 2.5-3.0 percent, albeit with fluctuations. The active job openings-to-applicants ratio has risen moderately, mainly due to steady job openings for full-time employees in industries with labor shortage (Chart 26).

Chart 23: Capital Stock Cycles



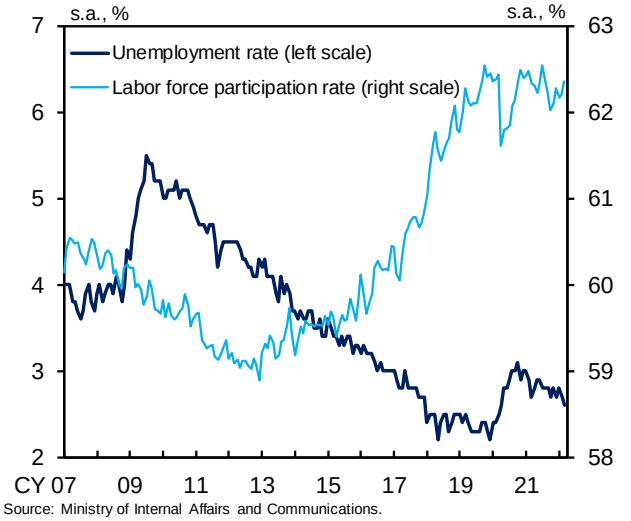
Source: Cabinet Office.
Note: Each broken line represents the combination of the rate of change in business fixed investment and the investment-capital stock ratio at a certain expected growth rate. The figure for fiscal 2021 is the 2021/Q2-Q4 average.

Chart 24: 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*.

Chart 25: Unemployment Rate and Labor Force Participation Rate

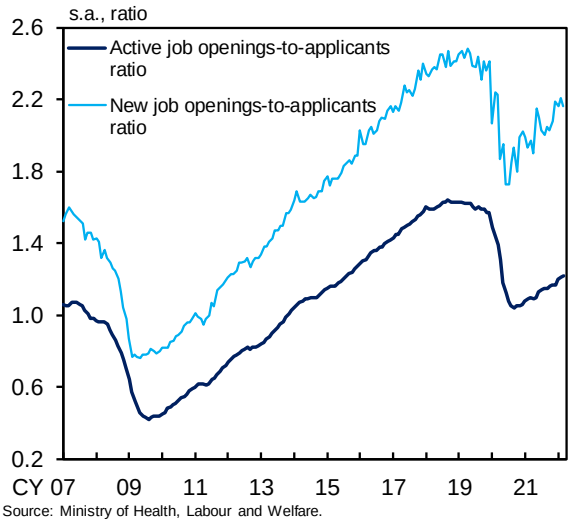


Source: Ministry of Internal Affairs and Communications.

With regard to the outlook for the number of employees, regular employees are likely to continue increasing, mainly in industries with labor shortage, such as medical, healthcare, and welfare services, information and communications, as well as construction. Non-regular employees are also expected to increase in industries such as face-to-face services as the impact of COVID-19 wanes. That said, the pace of increase in the number of employees is projected to be moderate for the time being compared with a rise in the level of economic activity. This is because firms are likely to cope with an increase in demand by making use of their hoarded labor force to some extent. Thereafter, it is projected that the pace of increase in the number of employees will temporarily accelerate but then decelerate toward the end of the projection period, partly because it will become more difficult for labor supply -- including labor participation of women and seniors -- to increase, reflecting factors such as demographic changes. Under these circumstances, the unemployment rate is expected to be at around the current level for a while, but then follow a moderate declining trend with a time lag following a recovery in economic activity.

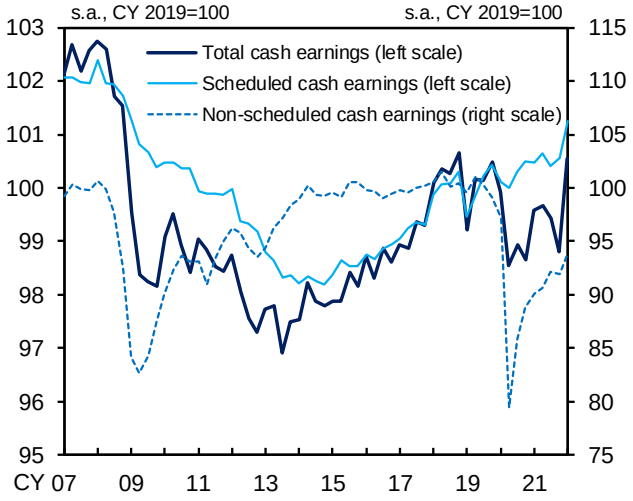
On the wage side, total cash earnings per employee declined significantly for the April-June quarter of 2020 (Charts 27 and 28). [13] Subsequently, they have increased moderately,

Chart 26: Job Openings-to-Applicants Ratio



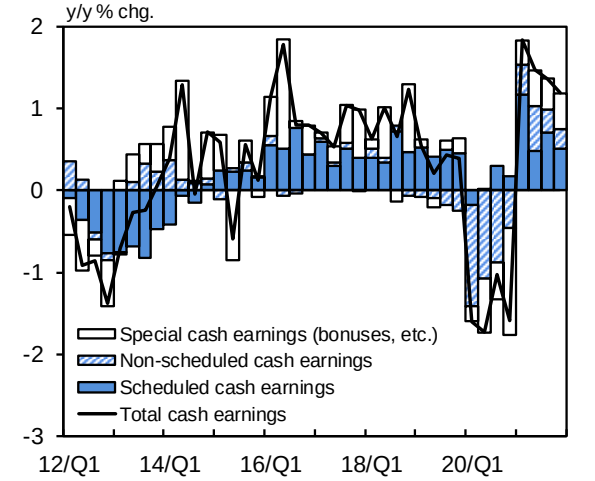
Source: Ministry of Health, Labour and Welfare.

Chart 27: Nominal Wages



Source: Ministry of Health, Labour and Welfare.
Note: Figures for 2022/Q1 are January-February averages.

Chart 28: Decomposition of Developments in Nominal Wages

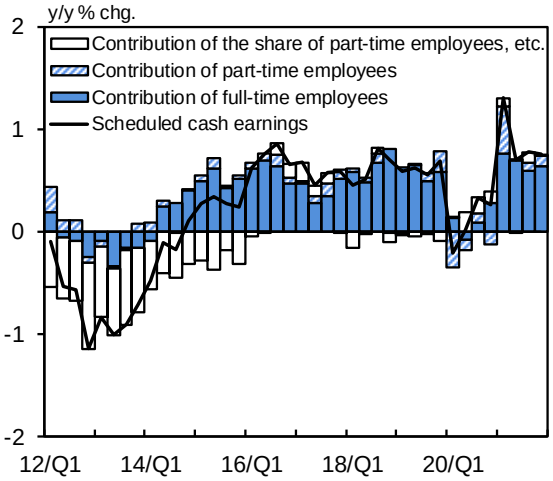


Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

[13] The year-on-year rate of increase in wages in the *Monthly Labour Survey* is assessed on the basis of continuing observations, which are less susceptible to fluctuations due to sample revisions. On the other hand, the level of wages from a somewhat long-term perspective is assessed based on the survey results of all establishments, which cover a larger number of observations than do the results of continuing observations.

reflecting a pick-up in overall economic activity. The year-on-year rate of change in scheduled cash earnings has continued to increase moderately (Chart 29). Looking at the breakdown, that for full-time employees has been slightly less than 1 percent, with continued labor shortage. The year-on-year rate of change in hourly scheduled cash earnings for part-time employees has been in the range of 1.0-1.5 percent, albeit with fluctuations, partly due to the fact that minimum wages increased last October. Non-scheduled cash earnings have been on a pick-up trend, reflecting developments in production in the manufacturing industry, and their year-on-year rate of change has registered a relatively large positive figure. However, the level has remained considerably below that prior to the pandemic. Relative to 2020, when a significant decline was observed, the levels of special cash earnings have picked up, reflecting improvement in business performance. However, they have remained relatively low.

Chart 29: Decomposition of Developments in Scheduled Cash Earnings

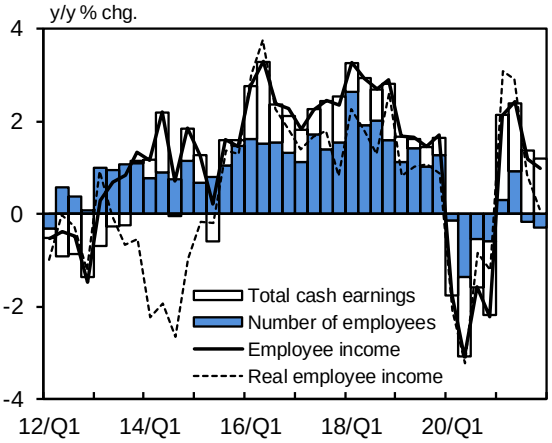


Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

With regard to the outlook for wages, it likely will remain difficult for the overall rate of increase in scheduled cash earnings to accelerate for the time being. This is because, although a rise in wage increases following the annual spring labor-management wage negotiations is expected to push up wages of full-time employees, a rise in the share of part-time employees resulting from a recovery in the employment of non-regular workers is projected to push down scheduled cash earnings through compositional changes. Thereafter, the rate of increase in scheduled cash earnings is expected to accelerate. This is based on the projection that labor market conditions will tighten for both regular and non-regular

employees -- partly because it will become more difficult for labor supply to increase, as described earlier -- business performance will improve, and the inflation rate will rise. Despite the declining trend in non-scheduled hours worked brought about by progress with working-style reforms, non-scheduled cash earnings are likely to increase moderately, reflecting improvement in economic activity. Special cash earnings (bonuses) are likely to increase steadily, albeit with a certain lag following improvement in corporate profits. Taking all of these factors into account, the rate of increase in total cash earnings per employee is projected to accelerate gradually.

Chart 30: 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).

In light of the aforementioned employment and wage conditions, employee income has been on a moderate improving trend (Chart 30). However, it has remained at a relatively low level. With regard to the outlook, employee income is likely to continue increasing moderately on the back of economic improvement and see a clear rise in its level.

Household Spending

Private consumption decreased temporarily due to the impact of a resurgence of COVID-19 at the beginning of the year, but has started picking up again, with downward pressure stemming from COVID-19, particularly on services consumption, waning.

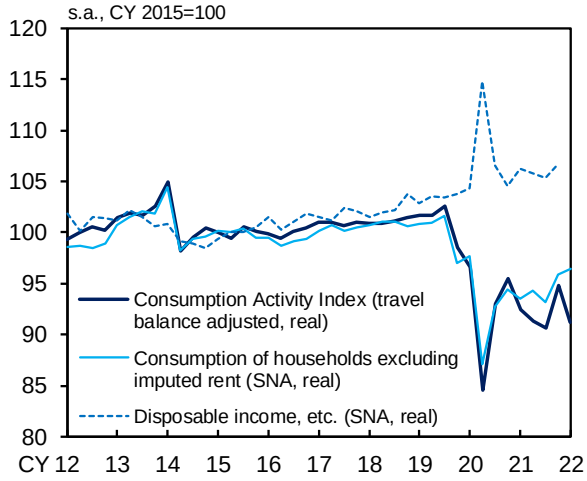
The Consumption Activity Index (CAI, travel balance adjusted) -- which is calculated by combining various sales and supply-side statistics

from the viewpoint of gauging Japan's consumption activity in a comprehensive manner -- increased clearly for the October-December quarter of 2021, with the number of confirmed new cases of COVID-19 being at a low level (Charts 31 and 32).[14] However, the CAI for the January-February period declined by 3.8 percent relative to the October-December quarter, mainly due to services consumption, as the Omicron variant spread rapidly and priority measures to prevent the spread of disease were put in place across wide areas. Based on various sources, such as high-frequency indicators, statistics published by industry organizations, and anecdotal information from firms, services consumption -- although cautiousness remains -- seems to have picked up gradually thereafter, reflecting the decline in the number of confirmed new cases of COVID-19 and a lifting of priority measures to prevent the spread of disease in late March (Chart 33). Meanwhile, goods consumption seems to have been relatively firm, partly due to stay-at-home consumption for food in particular.

Looking at private consumption by type, durable goods have been relatively weak on the whole with the effects of supply-side constraints remaining (Chart 34). Specifically, the number of new passenger car registrations increased temporarily through December, but its level has decreased again since the turn of the year because the global supply and demand

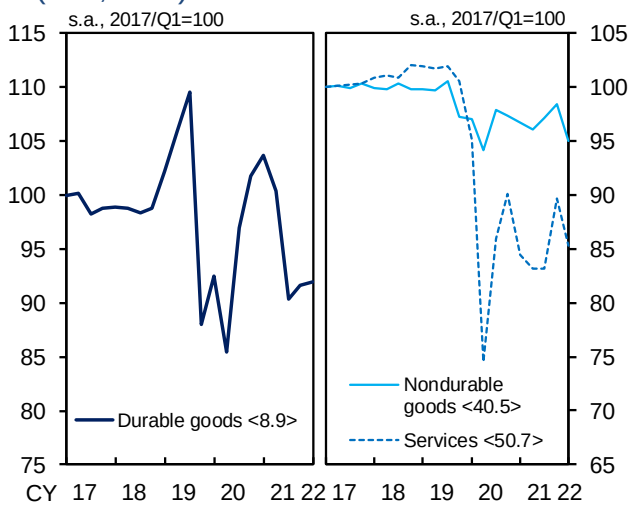
[14] Regarding the CAI, see the Bank's research paper "Revision of the Consumption Activity Index to Capture Recent Changes in Consumption Patterns" released in July 2021. The CAI Plus, which explicitly incorporates online consumption, has shown similar developments to the CAI, but the negative value has been slightly smaller for the CAI Plus since the outbreak of COVID-19, reflecting an increase in online consumption.

Chart 31: Private Consumption



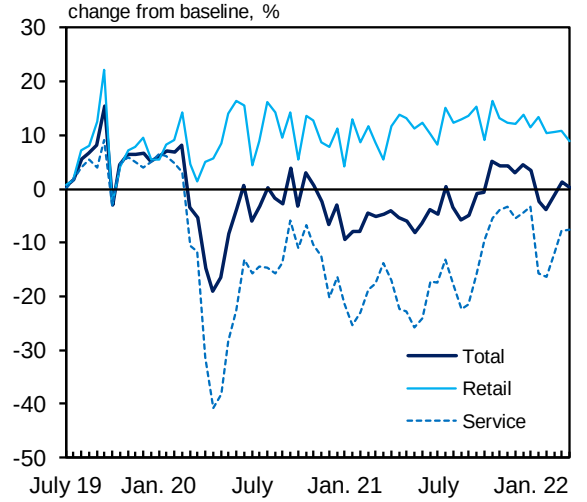
Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. Figures for the Consumption Activity Index (CAI) are based on staff calculations. The CAI figures (travel balance adjusted) exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2022/Q1 is the January-February average.
2. The figure for consumption of households excluding imputed rent for 2022/Q1 is based on staff calculations using the Synthetic Consumption Index (January).
3. "Disposable income, etc." consists of disposable income and adjustment for the change in pension entitlements. Real values are obtained using the deflator of consumption of households.

Chart 32: Consumption Activity Index (CAI, Real)



Sources: Bank of Japan, etc.
Notes: 1. Based on staff calculations. Figures in angular brackets show the weights in the CAI. Figures for 2022/Q1 are January-February averages.
2. Nondurable goods include goods classified as semi-durable goods in the SNA.

Chart 33: Consumption Developments Based on Credit Card Spending

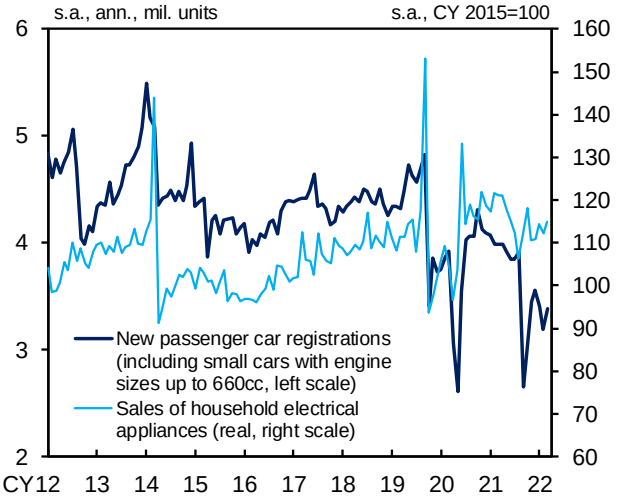


Source: Nowcast Inc./ JCB, Co., Ltd., "JCB Consumption NOW."
Notes: 1. Figures are from the reference series in *JCB Consumption NOW*, which take changes in the number of consumers into account.
2. The baseline is the average for the corresponding half of the month for fiscal 2016 through fiscal 2018.

conditions for semiconductors have remained tight and parts procurement difficulties have intensified temporarily due, for example, to the spread of COVID-19 in Japan. Sales of household electrical appliances have been firm, with the impact of shortages of some products due to supply-side constraints waning. Nondurable goods have been more or less flat on average, despite being affected by the spread of COVID-19. Food and daily necessities had been steady on the back of stay-at-home consumption, but stay-at-home demand for these goods seems to have waned somewhat to date. On the other hand, clothes and personal effects declined temporarily since the turn of the year due to the impact of the resurgence of COVID-19 but improvement has been seen thereafter, with the number of confirmed new cases of COVID-19 turning to a decline.

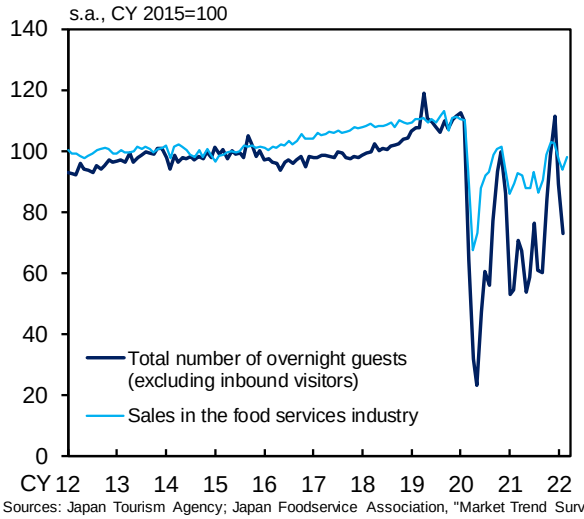
Services consumption picked up clearly for the October-December quarter of 2021, reflecting the number of confirmed new cases of COVID-19 being contained. However, it decreased from the second half of January to the first half of February this year as the Omicron variant spread rapidly and priority measures to prevent the spread of disease were put in place across wide areas (Charts 33 and 35). Subsequently, services consumption seems to have picked up gradually, partly reflecting the decline in the number of confirmed new cases and a lifting of the priority measures in late March (Charts 36 and 37). Dining-out temporarily declined from the second half of January due to the impact of the resurgence of COVID-19 and requests to shorten operating hours and other restrictions, but it seems to have picked up for March. Domestic

Chart 34: Consumption of Durable Goods



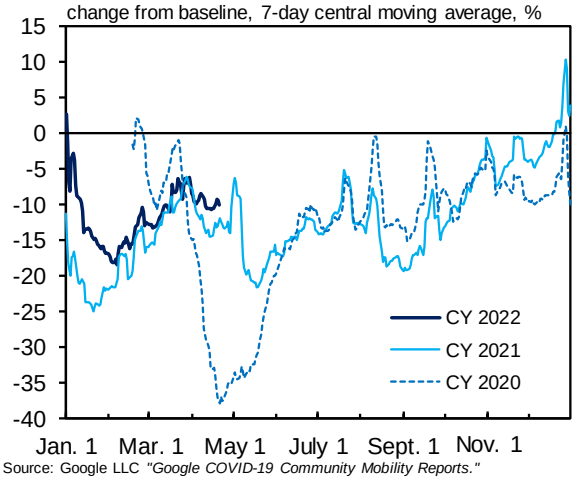
Sources: Japan Automobile Dealers Association; Japan Light Motor Vehicle and Motorcycle Association; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications.
Note: Figures for real sales of household electrical appliances are based on staff calculations using the retail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

Chart 35: Consumption of Services



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

Chart 36: Mobility Trends Based on Location Data



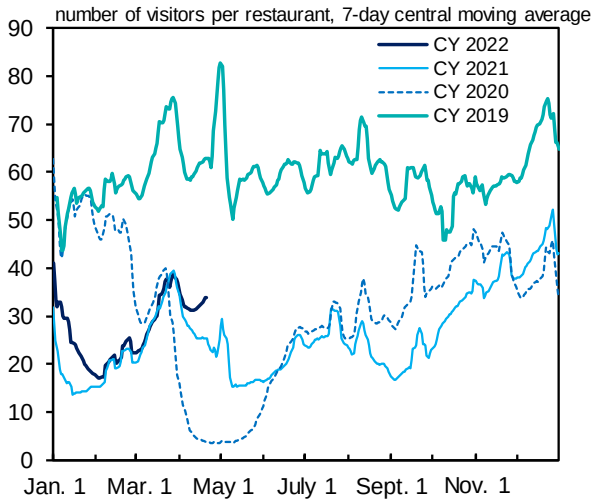
Source: Google LLC *"Google COVID-19 Community Mobility Reports."* https://www.google.com/covid19/mobility/. Accessed: April 28, 2022.
Notes: 1. The baseline is the median on the corresponding day of the week during the 5-week period from January 3 to February 6, 2020.
2. Figures are mobility trends for places such as restaurants, shopping centers, and theme parks.
3. The latest figure is the average for April 18-24.

travel declined through February. Anecdotal information from firms suggests that it seems to have somewhat picked up thereafter, partly owing to a resumption of measures conducted by the local governments to support tourism (travel and accommodation discounts aimed at local residents). Meanwhile, there is still almost no overseas travel due to continued travel restrictions.

Looking at confidence indicators related to private consumption, the Consumer Confidence Index has deteriorated since the turn of the year due to the impact of COVID-19 and expectations for higher inflation (Chart 38). The current economic conditions DI (household activity-related) of the *Economy Watchers Survey* -- which asks firms for their views on the direction of the economy -- deteriorated for the January-February period for a wide range of industries, such as those related to food and beverages and to retail. Thereafter, it improved for March as the impact of COVID-19 had waned, although business sentiment had been partly pushed down by price hikes.

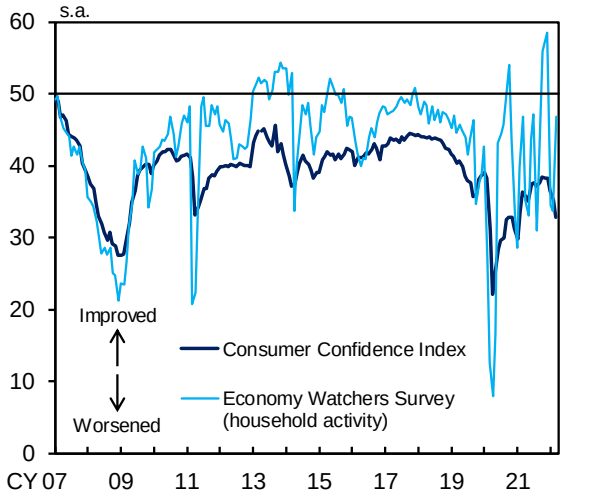
Regarding the outlook, private consumption is expected to be pushed down by deterioration in real income due to rises in energy and food prices. However, it is projected to recover, particularly led by the materialization of pent-up demand, as the situation with COVID-19 improves and as the resumption of economic activity progresses gradually while public health is being protected, mainly due to the widespread vaccinations and the rollout of antiviral medicines. Thereafter, although the pace of increase in private consumption is likely to be moderate due to

Chart 37: Number of Visitors to Restaurants



Source: TableCheck Inc.
Notes: 1. Figures are for about 6,000 restaurants that use the reservation and customer management system for restaurants provided by TableCheck Inc.
2. The latest figure is the average for April 18-24.

Chart 38: Confidence Indicators Related to Private Consumption



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

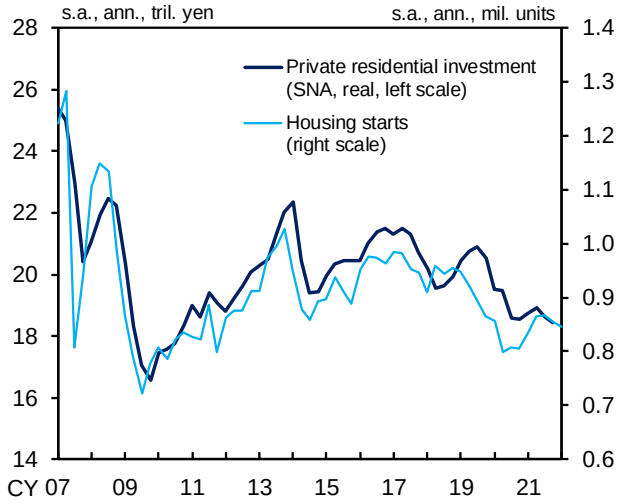
slower materialization of pent-up demand, private consumption is expected to continue increasing as downward pressure stemming from price rises in energy and other items wanes and employee income keeps improving. The propensity to consume is likely to follow an uptrend with the impact of COVID-19 waning; toward the end of the projection period, it is expected to somewhat exceed the average level seen prior to the pandemic (Chart 39).[15]

Chart 39: 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.

Housing investment has been more or less flat (Chart 40). Specifically, the number of housing starts -- a leading indicator of housing investment -- has been more or less flat, albeit with fluctuations due to revisions to the tax deduction system for housing loans. For the time being, housing investment is likely to be more or less flat, albeit with fluctuations. Thereafter, it is expected to follow a moderate declining trend toward the end of the projection period, reflecting demographic developments.

Chart 40: Housing Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2022/Q1 is the January-February average.

[15] "Forced savings," which is funds on hand that accumulated under the impact of COVID-19, mainly because households lost opportunities to spend, is expected to see moderate withdrawals. For details, see Box 3 in the April 2021 Outlook Report.

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 continued to increase clearly on a quarter-on-quarter basis, reflecting developments in international commodity prices and foreign exchange rates (Chart 41). The year-on-year rate of increase in the services producer price index (SPPI, excluding international transportation) has been in the range of 0.5-1.0 percent; while the rate of increase for advertising has decelerated, that for leasing accelerated, reflecting a rise in property prices, and there has been an impact of rises in personnel expenses and fuel costs.

The year-on-year rate of change in the CPI (all items less fresh food), despite being affected by the reduction in mobile phone charges, has been in the range of 0.5-1.0 percent, reflecting price rises in energy and other items (Chart 42). That in the CPI (all items less fresh food and energy, excluding temporary factors such as the effects of the reduction in mobile phone charges) has increased moderately in positive territory and has been slightly less than 1 percent recently (Charts 41 and 43).[16]

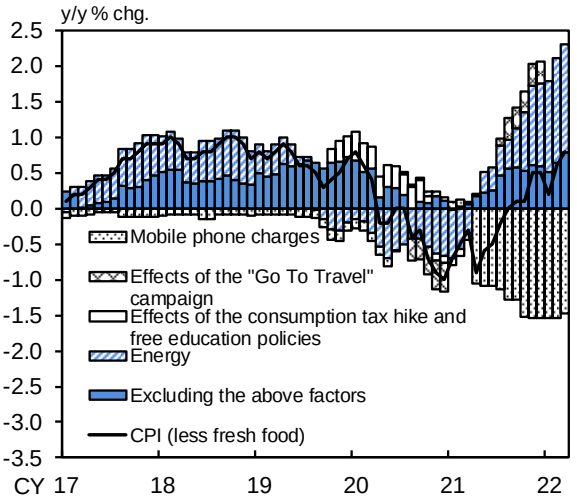
Chart 41: Inflation Indicators

y/y % chg.

	21/Q2	21/Q3	21/Q4	22/Q1
Consumer Price Index (CPI)				
Less fresh food	-0.6	0.0	0.4	0.6
Adjusted figure	0.4	1.0	1.7	2.1
Less fresh food and energy	-0.9	-0.5	-0.7	-0.9
Adjusted figure	0.2	0.6	0.6	0.7
Producer Price Index (q/q % chg.)	2.5	1.9	2.5	2.2
Services Producer Price Index	1.0	0.8	0.8	0.9
GDP Deflator	-1.1	-1.2	-1.3	
Domestic demand deflator	0.3	0.5	1.1	

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.
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.

Chart 42: CPI (Less Fresh Food)



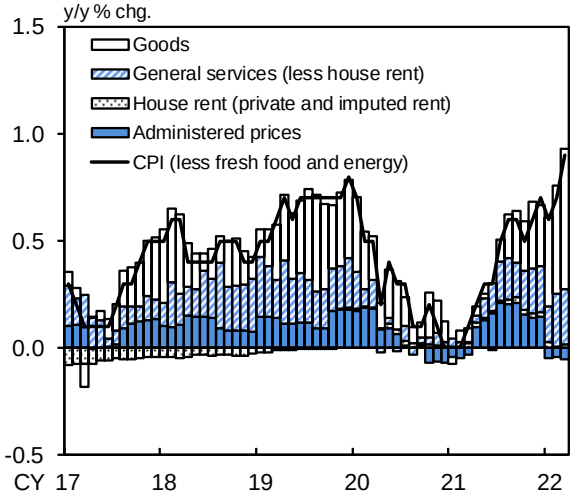
Source: Ministry of Internal Affairs and Communications.
Notes: 1. Figures for energy consist of those for petroleum products, electricity, and gas, manufactured & piped.
2. Figures for the "effects of the consumption tax hike and free education policies" from April 2020 onward are staff estimates and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

[16] The CPI figures that exclude "temporary factors such as the effects of the reduction in mobile phone charges" are calculated by excluding (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.

Looking at the breakdown of developments in the year-on-year rate of change in the CPI (all items less fresh food and energy, excluding temporary factors such as the effects of the reduction in mobile phone charges), the rate of increase in goods prices has accelerated, and the rate of change in general services prices has continued to increase moderately in positive territory. In contrast, the year-on-year rate of change in administered prices has turned slightly negative (Chart 43). The rate of change in goods prices has increased in positive territory, mainly due to a pass-through of raw material costs to food products. Regarding general services, dining-out and housework-related services have seen a moderate pass-through of raw material costs and personnel expenses. The rate of change in administered prices has turned slightly negative on a year-on-year basis, mainly because the effects of a hike in fire and earthquake insurance premiums at the beginning of last year have dissipated and there has been a reduction in auto insurance premiums.

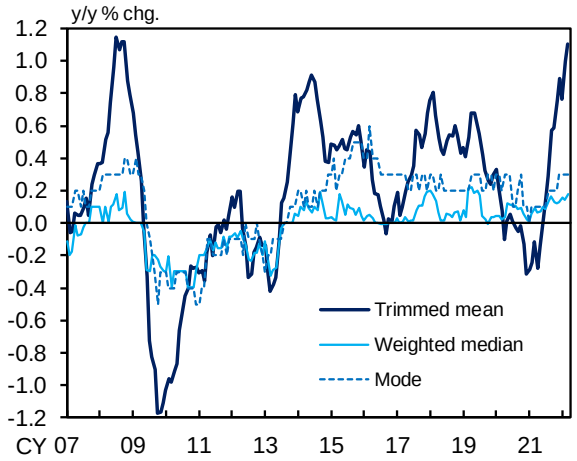
The indicators for capturing the underlying trend in the CPI have exhibited the following developments (Chart 44).[17] The trimmed mean of the year-on-year rate of change in the CPI has increased to slightly more than 1 percent due to

Chart 43: CPI (Excluding Temporary Factors)



Source: Ministry of Internal Affairs and Communications.
Notes: 1. Administered prices (less energy) consist of "public services" and "water charges."
2. The CPI figures are 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.

Chart 44: Various Measures of Core Inflation

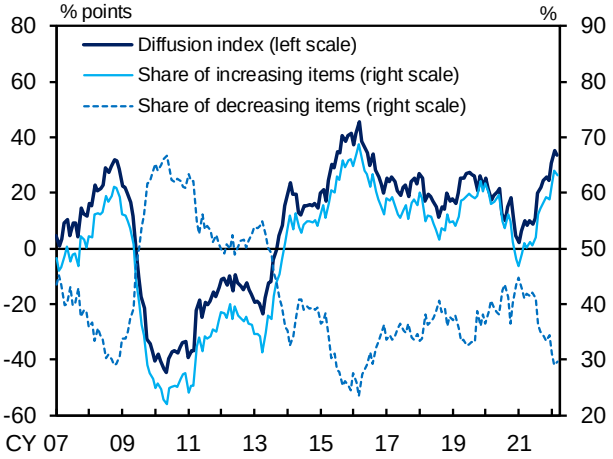


Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
Note: Based on staff calculations using the CPI excluding the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel 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.

[17] 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.

price rises in a wide range of food products. The weighted median and the mode, which is less susceptible to developments in certain CPI items, have been slightly positive, as there have been only small changes in prices of many items categorized under general services, including housing rent, and under administered prices, excluding energy. Looking at the year-on-year price changes across all CPI items (less fresh food), the share of price-increasing items minus the share of price-decreasing items has continued on an uptrend in positive territory because the number of price-increasing items has risen steadily for food products and daily necessities, items for which upward pressure on costs has been strong (Chart 45).

Chart 45: 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.

Meanwhile, the year-on-year rate of change in the domestic demand deflator has been at around 1 percent (Chart 41). This is because, while the private consumption deflator has been at around 0 percent on a year-on-year basis, deflators such as for business fixed investment and housing investment have increased clearly, reflecting rises in material and other prices. On the other hand, the year-on-year rate of change in the GDP deflator has been in the range of minus 1.0 to minus 1.5 percent, pushed down by an increase in the import deflator in reflection of developments in crude oil prices, for example.

Environment Surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap is projected to turn clearly positive around the second half of fiscal 2022 with the economy returning to a growth path that

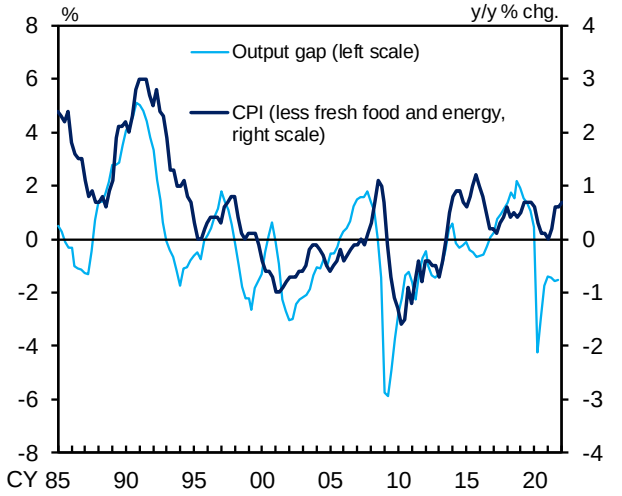
outpaces its potential growth rate, although it is expected to be affected by downward pressure on the economy that mainly results from deterioration in the terms of trade (Charts 3 and 46). Thereafter, the output gap is likely to continue to expand moderately.

Second, medium- to long-term inflation expectations have risen, albeit at a moderate pace relative to short-term ones, and are likely to follow an uptrend (Charts 47 and 48). That is, in terms of the adaptive component, inflation expectations are likely to be pushed up by actual price and wage increases along with improvement in the output gap. 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.

Third, import prices have continued to see a significant increase, mainly because international commodity prices of energy-related items, such as crude oil, and grains, such as wheat, have surged as a result of such factors as Russia's invasion of Ukraine. Meanwhile, the international commodity price of copper has been at a record high level (Chart 49). The rise in international commodity prices and the resultant increase in the PPI seen recently will consequently make a positive contribution to the CPI, with upstream cost increases gradually being passed downstream.[18] For the time being, a rise in

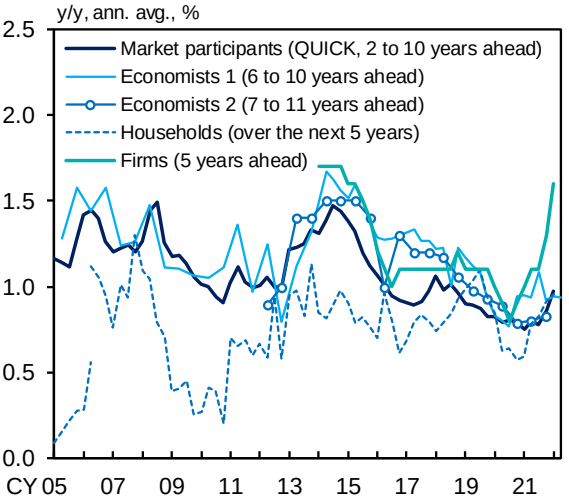
[18] Box 2 outlines the effects that a rise in energy prices has on consumer prices, and Box 3 presents the effects that a rise in raw material costs, mainly for food, has on consumer prices.

Chart 46: Inflation Rate and Output Gap



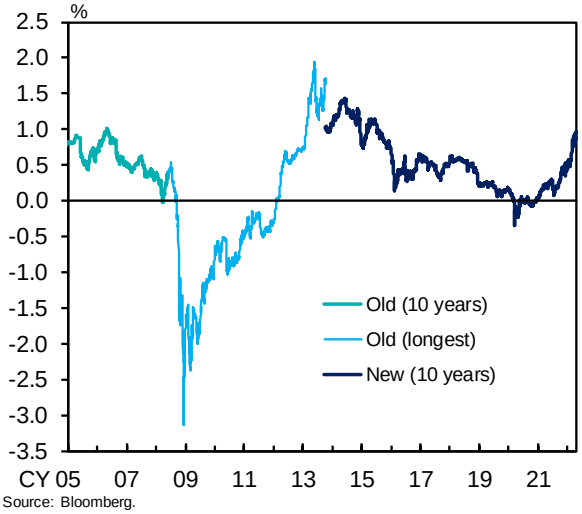
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion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

Chart 47: 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*.

Chart 48: 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.

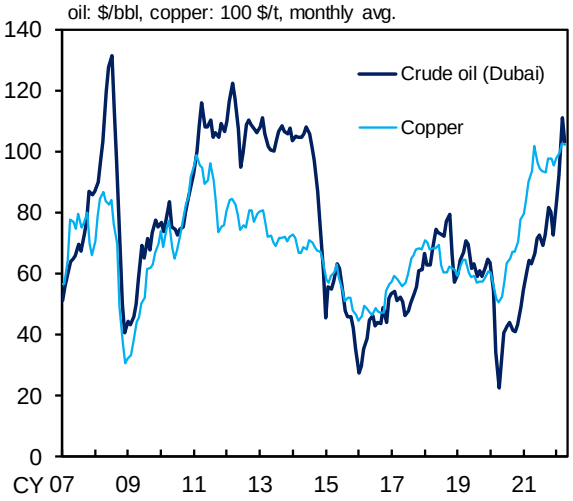
energy prices, such as for petroleum products, electricity charges, and manufactured and piped gas charges, and a pass-through of cost increases to prices of the CPI items, mainly for food and dining-out, are expected to be factors that push up the year-on-year rate of change in the CPI (all items less fresh food).

Outlook for Prices

Based on this underlying scenario, the year-on-year rate of change in the CPI (all items less fresh food and energy, excluding temporary factors such as the effects of the reduction in mobile phone charges) is likely to increase in positive territory for the time being because raw material costs are expected to be passed on to items such as food. Thereafter, the year-on-year rate of change in the CPI excluding energy and the temporary factors is likely to increase steadily, albeit at a moderate pace (Chart 50). This is based on the projection that the output gap will continue to improve, despite being affected by such factors as deterioration in the terms of trade, and that medium- to long-term inflation expectations will rise through both the adaptive and the forward-looking expectation formation mechanisms.

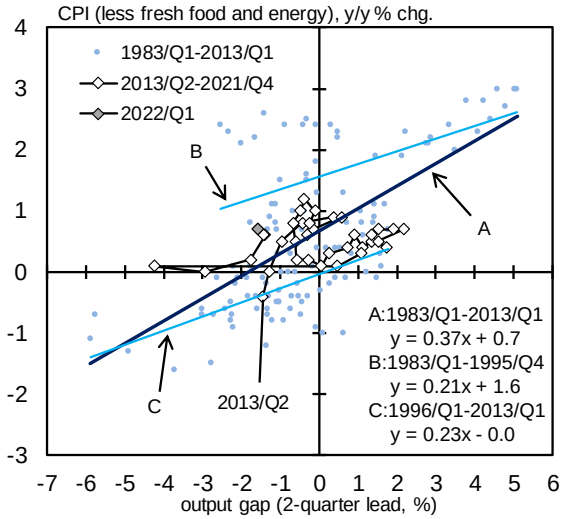
Under these circumstances, the year-on-year rate of change in the CPI (all items less fresh food), which includes energy prices and mobile phone charges, is highly likely to increase clearly in positive territory this April because prices of petroleum products such as gasoline are expected to be relatively high and the negative contribution of last April's reduction in mobile

Chart 49: International Commodity Prices



Sources: Nikkei Inc.; Bloomberg.

Chart 50: 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.
2. Figures for the output gap are staff estimates.

phone charges is projected to dissipate.[19, 20] Thereafter, the year-on-year rate of change is expected to keep seeing a relatively high increase for the time being. This is based on the projection that (1) electricity charges and manufactured and piped gas charges will continue increasing, mainly due to the rise in crude oil prices to date, (2) the effects of an additional reduction in mobile phone charges seen through around autumn 2021 will dissipate gradually, and (3) cost increases will also be passed on to items other than energy, mainly food. Subsequently, the rate of increase is likely to decelerate as the positive contributions such as of the rise in energy prices wane.

[19] If the "Go To Travel" campaign resumes and the discounts on hotel charges are reflected in the CPI, the CPI could be pushed down for the corresponding campaign period.

[20] Last December, the government introduced a measure to provide subsidies to petroleum distributors and importers as funds to contain a sharp rise in their selling prices when gasoline prices are at high levels. For details, see Box 2.

III. Financial Developments in Japan

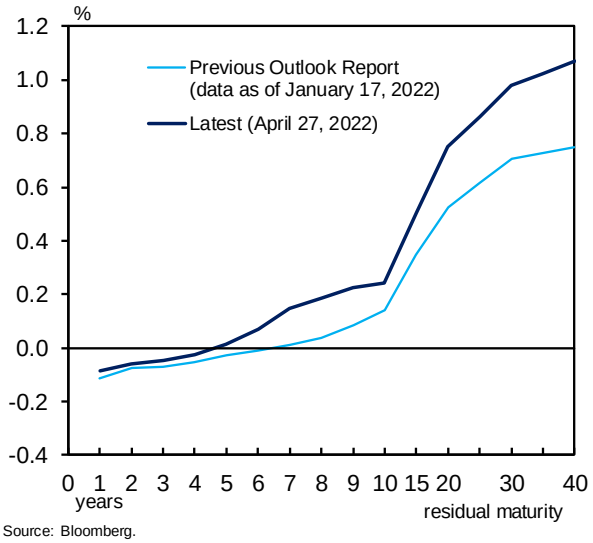
Financial Conditions

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

Under QQE with Yield Curve Control, the shape of the yield curve for JGBs has been consistent 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 51). That is, the yields for relatively short maturities have been in slightly negative territory and the 10-year JGB yields have been in the range of around plus and minus 0.25 percent from 0 percent, albeit at somewhat higher levels than in the previous Outlook Report, as the Bank has purchased a necessary amount of both JGBs and treasury discount bills (T-Bills) without setting upper limits, including through fixed-rate purchase operations. Meanwhile, the 20-year JGB yields have risen since the previous Outlook Report, and have been in the range of 0.5-1.0 percent recently.

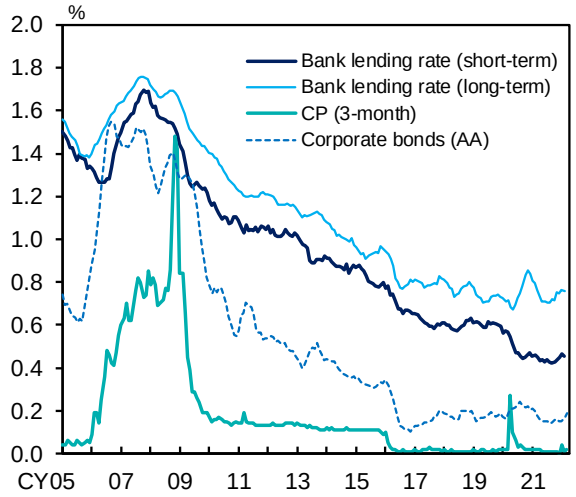
Firms' funding costs have been hovering at extremely low levels (Chart 52). Issuance rates for CP have been at extremely low levels as issuance conditions have remained favorable even from April 2022, after the Bank completed its additional purchases of CP conducted in response to COVID-19. In the corporate bond market, some firms delayed issuance of bonds with increased volatility in the market, mainly

Chart 51: Yield Curves



Source: Bloomberg.

Chart 52: Bank Lending Rates and Issuance Yields for CP and Corporate Bonds



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

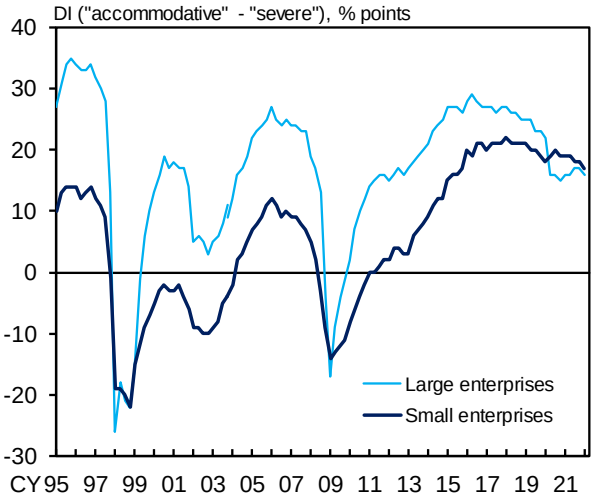
Notes: 1. Figures for issuance yields for CP up through September 2009 are the averages for CP (3-month, rated a-1 or higher). Those from October 2009 onward are the averages for CP (3-month, rated a-1).
2. Figures for issuance yields for corporate bonds are the averages for domestically issued bonds 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.

against the background of Russia's invasion of Ukraine. However, issuance conditions for corporate bonds have remained favorable on the whole and issuance rates have been at extremely low levels. Meanwhile, lending rates (the average interest rates on new loans and discounts) have been at around historical low levels.

With regard to the availability of funds for firms, the DI in the *Tankan* for financial institutions' lending attitudes as perceived by firms suggests that such attitudes have remained accommodative on the whole, owing to the respective financing support measures taken by the Bank and the government, as well as efforts made by financial institutions, although the DI for large firms has been slightly lower than the pre-pandemic level (Chart 53). Looking at corporate financing, the DI for firms' financial positions in the *Tankan* suggests that weakness has remained, particularly for firms in industries that are susceptible to the impact of COVID-19, as well as for small and medium-sized ones, and that financial positions have been affected by raw material cost increases recently; however, financial positions have been on an improving trend on the whole on the back of a pick-up in the economy (Chart 54).

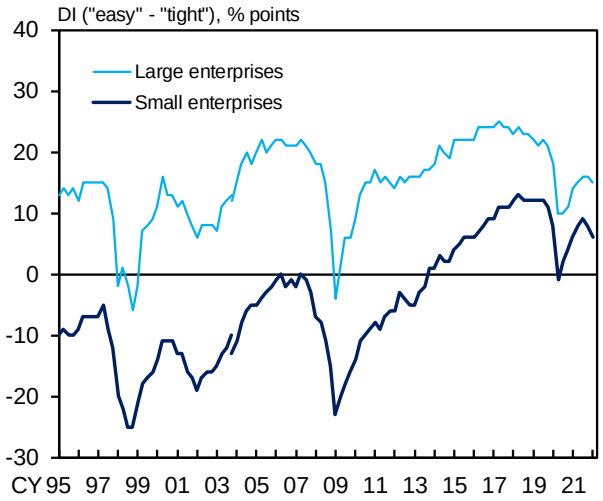
Regarding demand for funds, the year-on-year rate of change in the aggregate amount outstanding of CP and corporate bonds has increased somewhat, as the issuance of CP has risen due to an increase in demand for working capital in reflection of raw material cost increases (Chart 55). On the other hand, the year-on-year rate of increase in the amount outstanding of

Chart 53: Lending Attitudes of Financial Institutions as Perceived by Firms



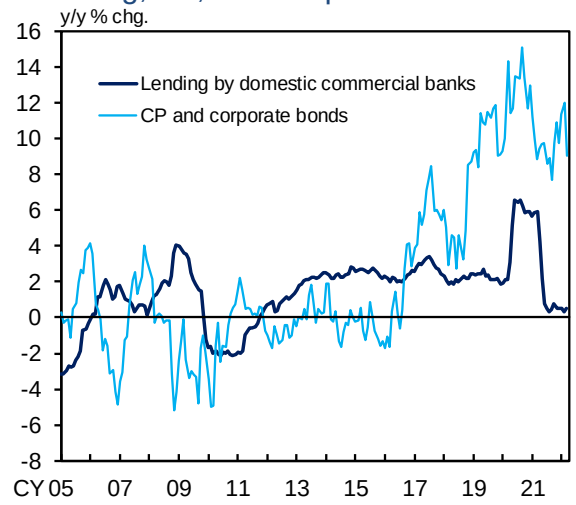
Source: Bank of Japan.
Note: Based on the *Tankan*. All industries. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

Chart 54: 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.

Chart 55: Amounts Outstanding of Bank Lending, CP, and Corporate Bonds

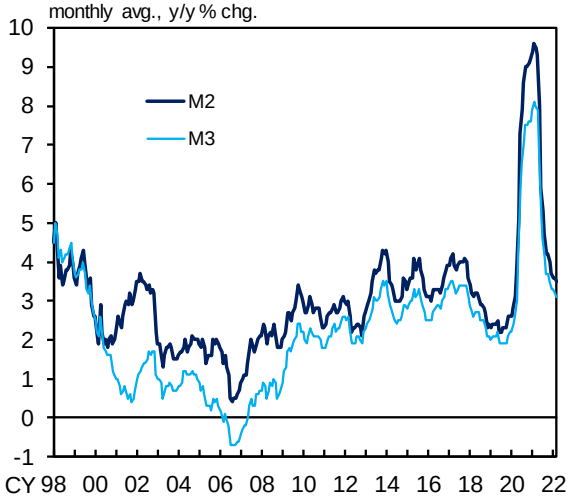


Sources: Bank of Japan; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.
Note: Figures for lending by domestic commercial banks are monthly averages. Figures for CP and corporate bonds are those at the end of the period.

bank lending has continued to be lower than a while ago, as demand for funds related to COVID-19 has subsided, although an increase in demand for working capital in reflection of raw material cost increases has been seen among some firms.

The year-on-year rate of change in the monetary base, while declining compared with a while ago, has been positive at around 8 percent recently. Its amount outstanding was 688 trillion yen, of which the ratio to nominal GDP was 127 percent.[21] Similarly, the year-on-year rate of change in the money stock (M2) has declined due to developments such as in the amount outstanding of bank lending, but has remained positive at around 3.5 percent, reflecting an increase in fiscal spending (Chart 56).

Chart 56: Money Stock



Source: Bank of Japan.

[21] The amount outstanding of the monetary base is as of end-March 2022. Nominal GDP is the figure for the October-December quarter of 2021.

Developments in Financial Markets

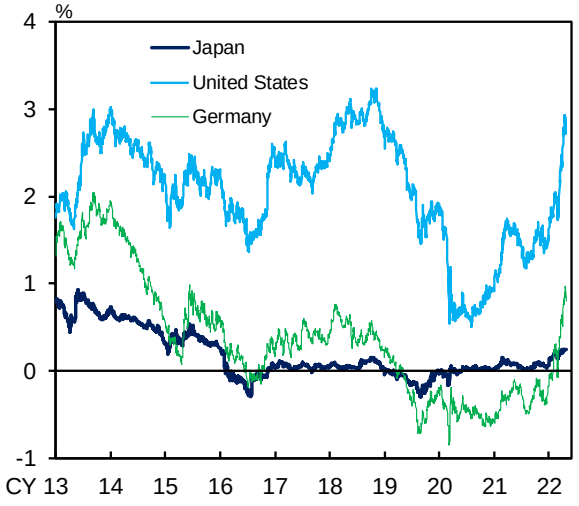
Global financial markets have seen large fluctuations on the whole, reflecting concern over acceleration in the pace of reduction in monetary accommodation, mainly in the United States, and the impact of such factors as heightened uncertainties and the rise in commodity prices as a result of Russia's invasion of Ukraine.

Yields on 10-year government bonds in the United States and Europe declined temporarily because of safe-haven flows resulting from the situation surrounding Ukraine. However, the yields have increased clearly, as the recent rise in commodity prices has further accelerated the already-high inflation in the United States and Europe and there has been concern over acceleration in the pace of reduction in the Federal Reserve's monetary accommodation (Chart 57).

Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market expanded somewhat with heightened uncertainties due to the situation surrounding Ukraine, but have remained at low levels (Chart 58).

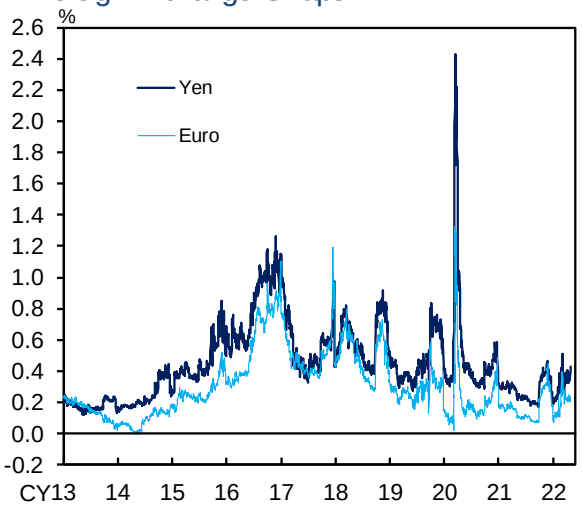
Stock prices in the United States and Europe saw a relatively large decline, reflecting a rise in long-term interest rates and deterioration in risk sentiment due to the situation surrounding Ukraine. Thereafter, they have been more or less flat, albeit with fluctuations (Charts 59 and 60). That said, stock prices in Europe have seen a comparatively large decline in view of the region's strong economic and trade relations with Russia.

Chart 57: 10-Year Government Bond Yields in Selected Advanced Economies



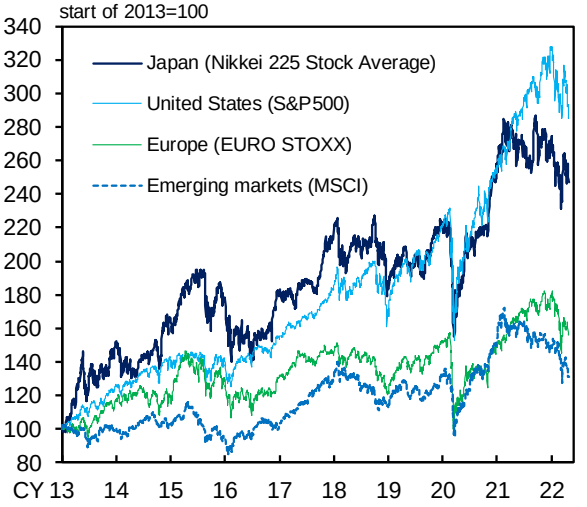
Source: Bloomberg.

Chart 58: Dollar Funding Premiums through Foreign Exchange Swaps



Source: Bloomberg.
Notes: 1. U.S. dollar funding premiums are calculated as the difference between U.S. dollar fundings rates (3-month) in the dollar/yen or euro/dollar foreign exchange swap market and those in the money market.
2. The interest rates used for the calculation are as follows: for the yen, the OIS rate; for the euro, the EONIA-referencing OIS rate before October 4, 2019, and the €STR-referencing OIS rate thereafter; for the U.S. dollar, the OIS rate before January 3, 2019, and the SOFR thereafter.

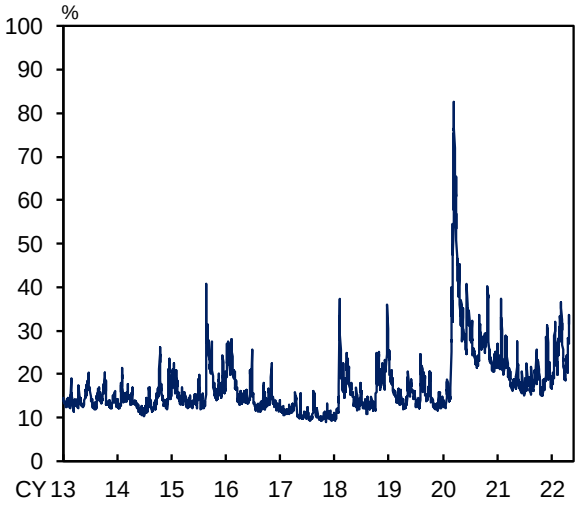
Chart 59: Selected Stock Price Indices



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

Stock prices in Japan have fluctuated more or less in line with those in the United States. Although developments in stock prices in emerging economies have differed across countries and regions, depending, for example, on the economic impact of high commodity prices and the situation with COVID-19, the prices have declined on the whole; in particular, Asian stocks have declined, partly affected by strict public health measures in China reflecting the rapid spread of COVID-19.

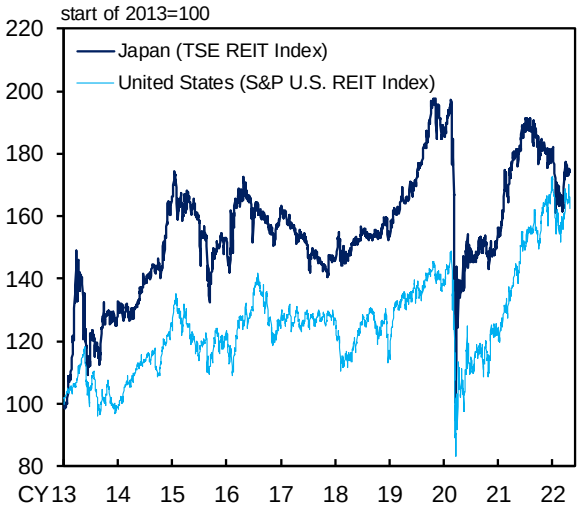
Chart 60: Stock Market Volatility (VIX)



Source: Bloomberg.

As with U.S. REIT prices, J-REIT prices have rebounded after declining (Chart 61).

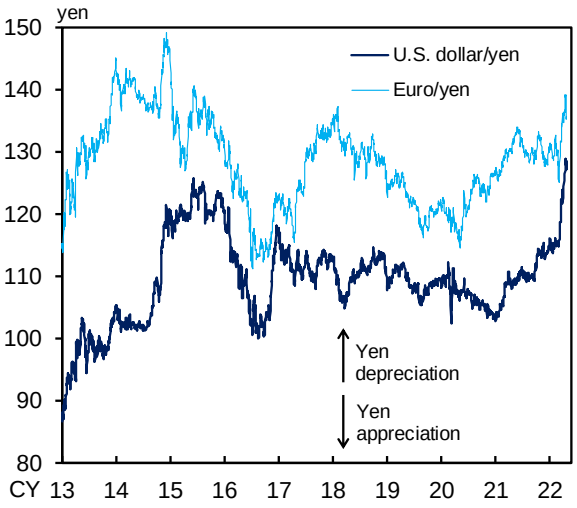
Chart 61: Selected REIT Indices



Source: Bloomberg.

In foreign exchange markets, the yen was more or less flat against the U.S. dollar immediately after Russia's invasion of Ukraine, as both currencies were purchased due to safe-haven flows (Chart 62). Thereafter, with currencies of commodity-exporting economies, including the United States, generally appreciating on the back of the rise in commodity prices, the yen has depreciated against the U.S. dollar in reflection of awareness of the differentiating direction of monetary policy between the two countries and of dollar purchasing by Japanese importers. The yen appreciated against the euro immediately after Russia's invasion of Ukraine but has depreciated thereafter, backed by a rise in interest rates in European economies.

Chart 62: U.S. Dollar/Yen and Euro/Yen

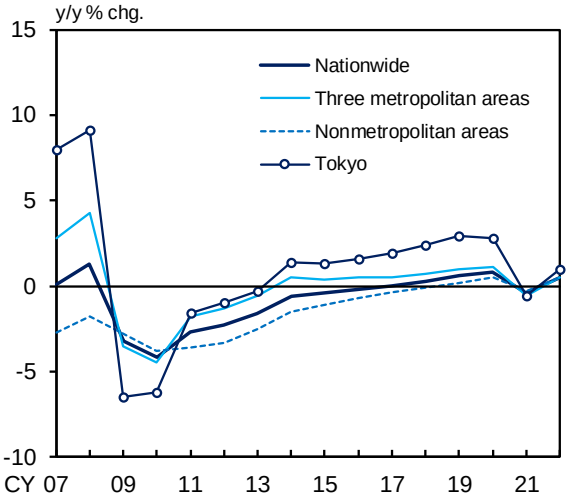


Source: Bloomberg.

Land Prices

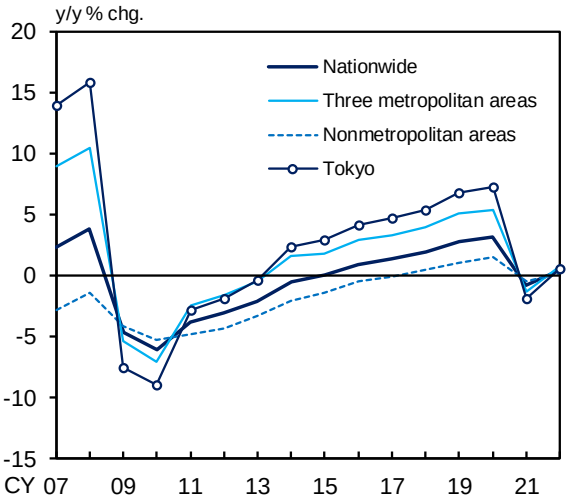
Land prices had decreased slightly due to the impact of COVID-19 but have turned to an increase recently, reflecting a pick-up in the economy. According to the *Land Market Value Publication* for 2022 (as of January 1), the year-on-year rates of change in both residential and commercial land prices have been positive at around 0.5 percent (Charts 63 and 64). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rate of change in residential land prices has turned positive for all three areas, and that for commercial land prices has also turned positive, albeit slightly, with the exception of Osaka, which has been flat. In nonmetropolitan areas, the year-on-year rates of change in both residential and commercial land prices have turned slightly positive, led by those in major cities.

Chart 63: Residential Land Prices



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

Chart 64: Commercial Land Prices

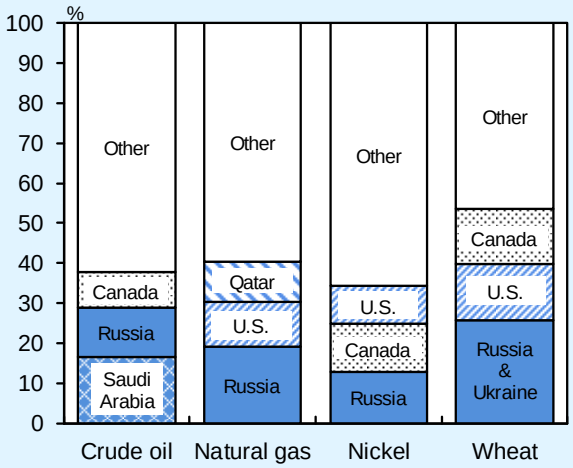


Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the *Land Market Value Publication*. Figures are as of January 1.
2. The three metropolitan areas are the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and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

(Box 1) Impact of the Situation Surrounding Ukraine on Overseas Economies

Overseas economies have recovered on the whole, albeit with variation across countries and regions. However, due to the situation surrounding Ukraine, uncertainties over overseas economies have increased. This box summarizes the impact of the situation on overseas economies via three transmission channels: (1) a rise in international commodity prices; (2) a reduction in Russia-related trade and delays and disruptions in logistics; and (3) deterioration in consumer and business sentiment.

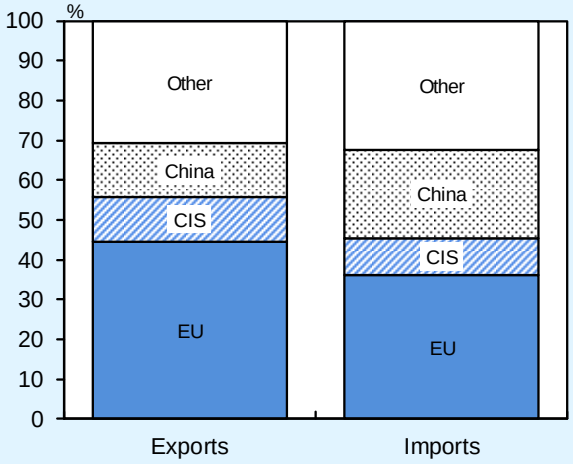
Chart B1-1: World Export Share by Commodity



Sources: BP; Trade Map, International Trade Centre: https://marketanalysis.intracen.org.
Note: Figures are as of 2020. Figures for crude oil and natural gas are based on trade volumes, while those for nickel and wheat are based on trade values.

Russia's and Ukraine's global GDP shares are relatively small, at respectively 1.9 percent and 0.2 percent (in 2020, at market prices). However, they do account for large shares of world trade in energy, some metals, and grains (Chart B1-1). Moreover, Russia has strong trade relations with the European Union (EU), which accounts for about 40 percent of both Russia's exports and imports (Chart B1-2).

Chart B1-2: Russia's Trade Partners



Source: Haver.
Note: Figures are as of 2019. CIS refers to the "Commonwealth of Independent States" as defined by the Ministry of Foreign Affairs of Japan.

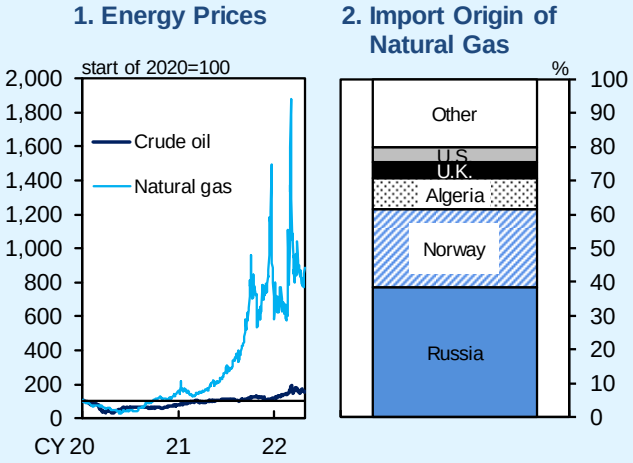
International commodity prices of energy, metals, and grains have risen (Chart B4-1). This is because, as a result of the situation surrounding Ukraine, there have been growing concerns about declining supplies of commodities, such as natural gas and crude oil, and grains from Russia and neighboring regions, which account for large shares of global exports of these commodities. In particular, the sharp rise in natural gas prices is due to growing concern about the risk of supply disruptions in the euro area, which is highly dependent on Russian gas (Chart B1-3). This

increase in commodity prices is expected to accelerate inflation globally and push down overseas economies by curbing households' consumption and production, particularly in the euro area, due to its high dependence on natural gas from Russia, and in emerging economies that depend on imports of commodities and grains.

In terms of trade and logistics, there have been prolonged supply-side constraints caused partly by supply-chain disruptions amid the resumption of economic activity from the pandemic. In this situation, some regions have been affected by the reduction in Russia-related trade as well as delays and disruptions in logistics in neighboring regions; however, there has been no rapid spread of this impact on a global basis so far (Chart B1-4). Nevertheless, the impact is likely to particularly hit the euro area, which has strong geographic and economic relations with Russia and neighboring regions, and there is a risk that global supply-side constraints will intensify through supply chains.

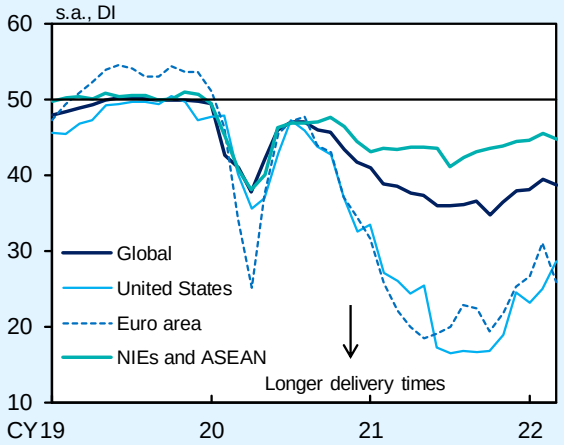
Consumer sentiment in the euro area has deteriorated substantially, mainly as a result of concerns that energy prices will remain high reflecting its strong economic relations with Russia, while no major changes have been seen in sentiment in the United States and emerging economies (Chart B1-5). Moreover, business sentiment in the manufacturing industry has generally continued to improve both in advanced and emerging economies; for example, sentiment for resource-exporting Latin American countries has risen (Chart B1-6). This suggests that the impact of the worsening situation surrounding Ukraine on business sentiment and production

Chart B1-3: Developments in Energy in the Euro Area



Sources: Bloomberg; Eurostat.
Notes: 1. Figures for crude oil and natural gas are those for Brent and Dutch TTF futures contracts, respectively.
2. Figures for natural gas imports by origin are as of 2020 and show each country's share in the total volume of euro area natural gas imports from outside the euro area.

Chart B1-4: Suppliers' Delivery Times PMI

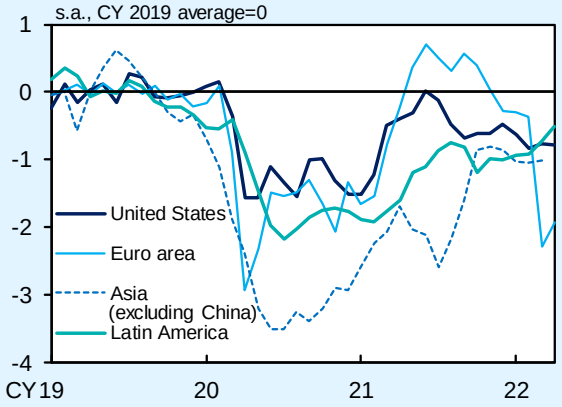


Sources: Copyright © 2022 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.; Haver; IMF.
Notes: 1. The suppliers' delivery times PMI is the suppliers' delivery times index in the Manufacturing PMI. Global figures are the J.P.Morgan Global Manufacturing PMI.
2. Figures for the NIEs and ASEAN are the weighted averages of the PMIs for seven major economies using their shares in global GDP obtained from the IMF as weights.

activity has remained limited so far. Nevertheless, it should be noted that a surge in inflation may have a negative impact on households' appetite for spending, and instability in global financial and capital markets, for example, may lead to deterioration in business sentiment and a decline in business fixed investment.

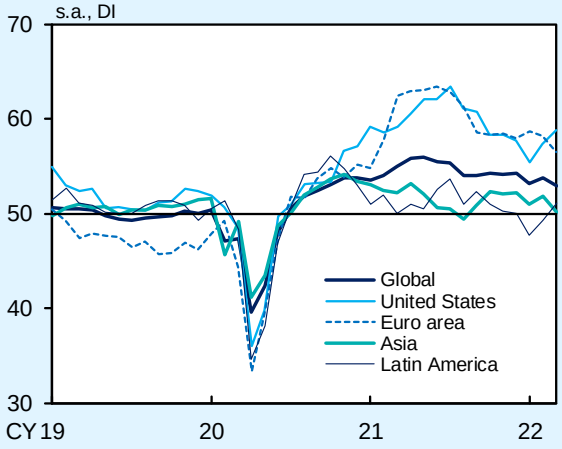
Regarding the outlook, despite downward pressure from the situation surrounding Ukraine, overseas economies are likely to continue recovering on the whole as the impact of COVID-19 wanes gradually. However, the pace of recovery is highly likely to be uneven across economies, mainly against the backdrop of a rise in commodity and grain prices and the impact on trade. In addition, there are extremely high uncertainties over the situation surrounding Ukraine, and for the time being, risks to economic activity are skewed to the downside and upside risks to prices warrant attention.

Chart B1-5: Consumer Confidence



Sources: Haver; CEIC; IMF.
Notes: 1. Figures for the United States are from the Conference Board. Those for the euro area are from the European Commission. Figures for Asia (excluding China) are the weighted averages of figures released by the authorities of four major NIEs and ASEAN economies and the figures released by Ipsos for India, and figures for Latin America are the weighted averages of figures for three major Latin American economies released by Ipsos, using economies' shares in global GDP obtained from the IMF as weights.
2. Based on staff calculations. Figures for the United States and the euro area are normalized by the standard deviation between 2000 and 2019. Figures for the other economies are normalized by the standard deviation going back as far as possible in the period from 2000 onward.

Chart B1-6: Manufacturing PMI

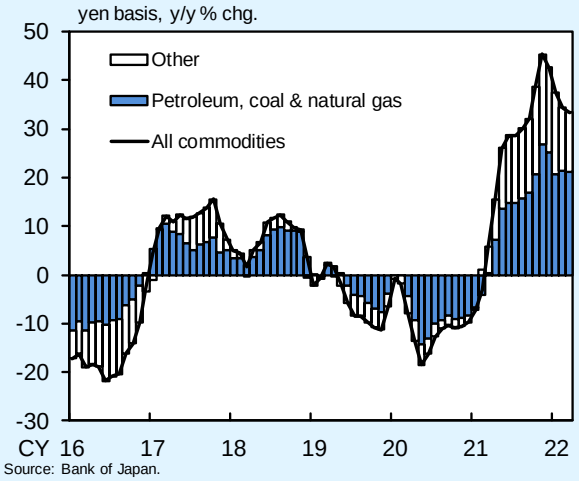


Sources: Copyright © 2022 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.; Haver; IMF.
Notes: 1. Global figures are the J.P.Morgan Global Manufacturing PMI.
2. Figures for Asia are the weighted averages of the PMIs for 11 major economies, and those for Latin America are the weighted averages of the PMIs for three major economies, using economies' shares in global GDP obtained from the IMF as weights.

(Box 2) Impact of a Rise in Import Prices of Energy-Related Items on the CPI

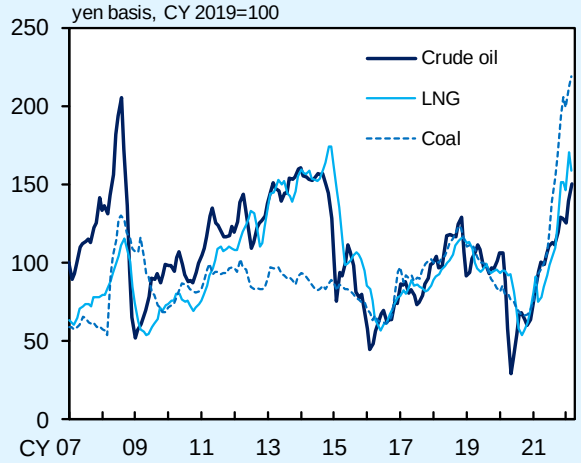
Import prices in Japan have recently risen significantly (Chart B2-1). This is mainly explained by a rise in prices of international commodities, particularly energy-related items. Import prices of crude oil, liquefied natural gas (LNG), and coal have continued on an uptrend since the second half of 2020. The basic background to this is a global recovery in demand, while it is also attributed to supply factors such as restraints on investment in production facilities for fossil fuels owing to international trends toward decarbonization. Import prices of these items have risen further to date, mainly due to supply concerns and heightened geopolitical risks as a result of Russia's invasion of Ukraine (Chart B2-2). Under these circumstances, energy prices in Japan's CPI have also risen significantly, pushing up the year-on-year rate of change in the CPI (all items less fresh food) for March 2022 by around 1.5 percentage points (Chart 42). This box examines the impact of the rise in import prices of energy-related items on Japan's CPI, mainly for petroleum products and electricity charges.

Chart B2-1: Developments in Import Prices



Source: Bank of Japan.

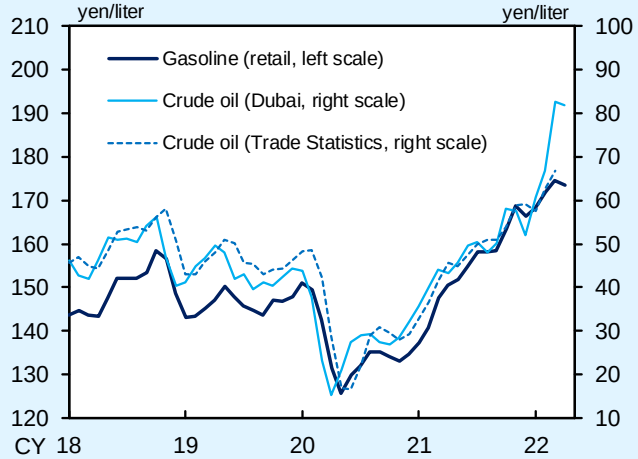
Chart B2-2: Import Prices of Energy-Related Items



Source: Bank of Japan.

With regard to the impact that the rise in import prices of energy-related items has on energy prices in the CPI, its degree and timing are different between "petroleum products" (such as gasoline and kerosene) and "electricity as well as manufactured and piped gas charges." First, retail prices of gasoline -- which has the largest weight in petroleum products -- had followed an uptrend since the second half of 2020, rapidly reflecting market prices and import prices of crude oil in yen terms (Chart B2-3). Nevertheless, as the

Chart B2-3: Crude Oil and Gasoline Prices

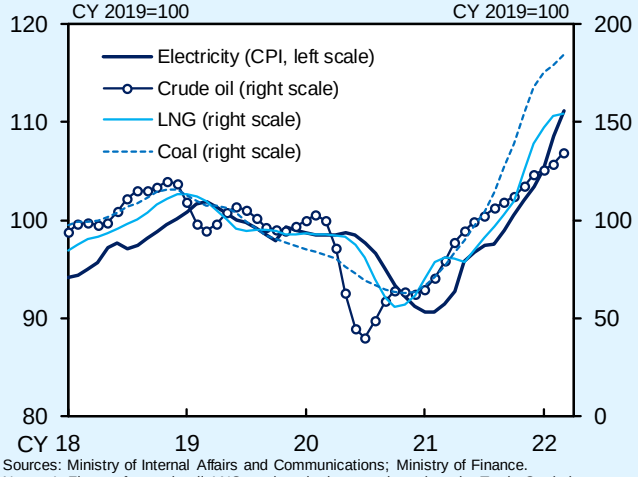


Sources: Agency for Natural Resources and Energy; Ministry of Finance; Nikkei Inc.
Note: Figures for gasoline prices include the consumption tax.

government introduced in December 2021 a measure to provide subsidies to petroleum distributors and importers, with the aim of curbing a sharp rise in fuel oil prices, the rise in gasoline prices recently has been limited compared with that in import prices of crude oil.[22] As long as measures of this kind are in place, the increase in gasoline prices is expected to be curbed, even when crude oil prices are at high levels.[23]

Second, of energy prices, electricity charges are decided by each electricity producer based on the weighted average of import prices of crude oil, LNG, and coal for the period from five to three months earlier, under the fuel cost adjustment system.[24] Thus, electricity charges in the CPI move according to market prices and import prices, such as of crude oil, with some time lag (Chart B2-4). That said, the rise in electricity charges has been limited compared with the recent surge in LNG and coal spot prices, as major electricity producers in Japan purchase a large amount of LNG and coal under long-term contracts. On the other hand, the contract prices of LNG are often set according to the developments in crude oil prices several months earlier; therefore, import prices of LNG are highly likely to rise further, affected by increases in crude oil prices to date. Taking into account such pricing

Chart B2-4: Crude Oil and Electricity Prices



Sources: Ministry of Internal Affairs and Communications; Ministry of Finance.
Notes: 1. Figures for crude oil, LNG, and coal prices are based on the *Trade Statistics* and show the 3-month backward moving averages.
2. Figures for electricity prices include the consumption tax.

[22] The subsidies are applied to fuel oil such as diesel oil, kerosene, and heavy fuel oil, in addition to gasoline. Of these items, gasoline and kerosene are covered in the CPI.

[23] The government compiled comprehensive emergency measures to counter sharply rising crude oil prices, commodity prices, and the like in April 2022. As part of these measures, it expanded subsidies to petroleum distributors and importers and extended the period during which subsidies are provided.

[24] The price setting system for manufactured and piped gas charges is roughly the same as that for electricity charges.

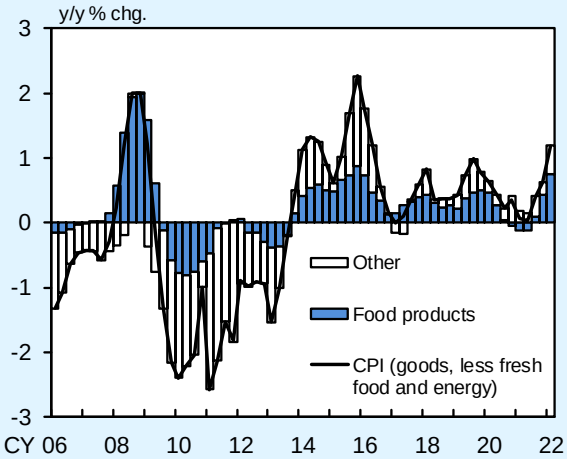
process of LNG and the fuel cost adjustment system, electricity charges are projected to continue pushing up the year-on-year rate of change in the CPI (all items less fresh food) through the second half of fiscal 2022, with somewhat of a lag from the earlier rise in prices, such as of crude oil. Nevertheless, electricity producers have their respective upper limits on the extent to which they can pass on the rise in energy costs through the fuel cost adjustment system to electricity charges for households. The energy costs that exceed the limits will not be passed on to households and thus will not affect the CPI, unless such upper limits are changed.

Lastly, the rise in import prices of energy-related items has mixed effects on the CPI for items other than energy; specifically, while it may push up the CPI for items other than energy through an increase in intermediate input costs (see also Box 3), it may also push down the CPI for such items through downward pressure on the real economy and, in turn, the output gap, brought about by deterioration in the terms of trade (see also Box 4). When considering the impact of the rise in import prices of energy-related items on the overall CPI, it is necessary to take into account these effects on the CPI for items other than energy, in addition to the aforementioned direct impact on energy prices.

(Box 3) Link between a Rise in Intermediate Input Costs and the CPI: Focusing on Food

This Outlook Report projects that higher raw material costs will be passed on to the CPI, particularly to energy and food. Looking at recent developments, especially after Russia's invasion of Ukraine, the costs of imported raw materials such as energy, food, and nonferrous metals have risen even more substantially, and the pass-through of cost increases to food at the final demand stage also appears to be accelerating. This box outlines and examines developments in costs such as of raw materials in areas other than energy, as well as the pass-through of such costs, focusing on food (for the impact of the rise in energy costs, see Box 2).

Chart B3-1: Goods Prices (Less Fresh Food and Energy)



Source: Ministry of Internal Affairs and Communications.
Note: Figures exclude the effects of the consumption tax hikes.

Developments in goods prices in the CPI (all items less fresh food and energy) show that the rate of change has steadily increased, mainly for food (less fresh food), suggesting that costs are being passed on to retail prices (Chart B3-1).

In order to quantify the upward pressure on prices from the cost side, an intermediate input cost index for the production of various consumer goods is estimated, based on the transaction structure in the input-output tables.[25] The index

[25] The intermediate input cost index is calculated by multiplying the rate of change in the prices of various intermediate goods by their respective intermediate input shares (share in domestic output) and then taking the weighted average using the personal consumption expenditure shares as weights. In order to more accurately assess input costs of services, the coverage of the input services that are aggregated for the index has been expanded from that in Box 3 in the July 2021 Outlook Report.

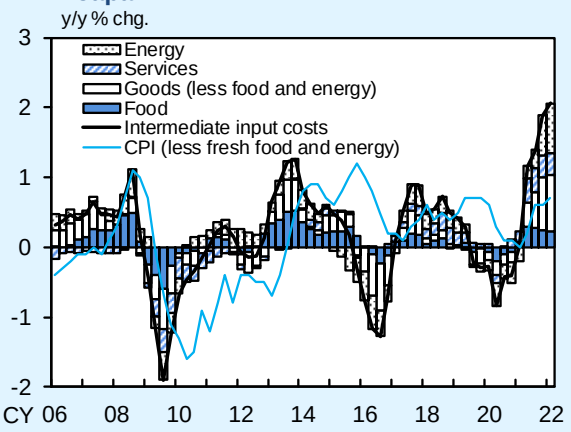
takes into account the impact of rising raw material costs, such as for crude oil and other energy, some grains (e.g., wheat), and nonferrous metals (e.g., aluminum and nickel), as well as the impact of rising input costs for various parts and components and for services such as logistics.

The intermediate input cost index corresponding to Japan's CPI (all items less fresh food and energy) shows that, (1) in the past, the index has tended to lead the CPI, and (2) the current year-on-year rate of increase in the index has already exceeded that in the 2008 and 2013 phases (Chart B3-2). On the other hand, (3) when the index is constructed for the United States using the same method, the rate of increase in Japan has been only modest compared with that in the United States. The reason appears to be that, while there have been no substantial differences between the two countries in the rate of increase in commodity prices, the input costs of services have risen significantly in the United States due to rising personnel expenses, logistics disruptions, and other factors.

Next, looking at the intermediate input costs for food, which has seen a notable increase in consumer prices recently, the rate of increase in the costs has been relatively higher than that in the intermediate input costs for the overall CPI (Chart B3-3). Considering that import costs, including prices of grains such as wheat, have risen further, reflecting the situation surrounding Ukraine, upward pressure on food costs is very likely to remain at a high level for the time being and the cost increases are projected to be passed on to consumer prices with a time lag.

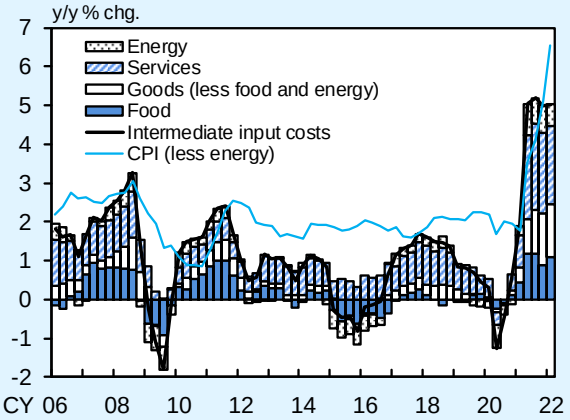
Chart B3-2: Intermediate Input Costs

1. Japan



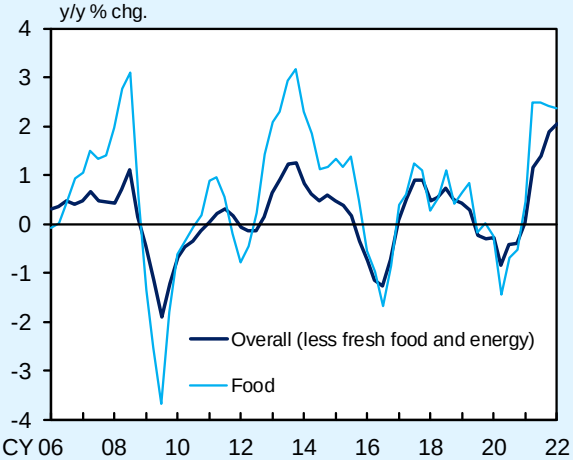
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Note: The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses. Intermediate input costs are 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.

2. United States



Sources: BEA; BLS.
Note: Intermediate input costs are calculated by multiplying the intermediate input ratio of each sector in the input-output tables for the United States for 2015 by price data from the producer price index (PPI), etc. and then taking the weighted average using consumption expenditure shares as weights.

Chart B3-3: Intermediate Input Costs for Food

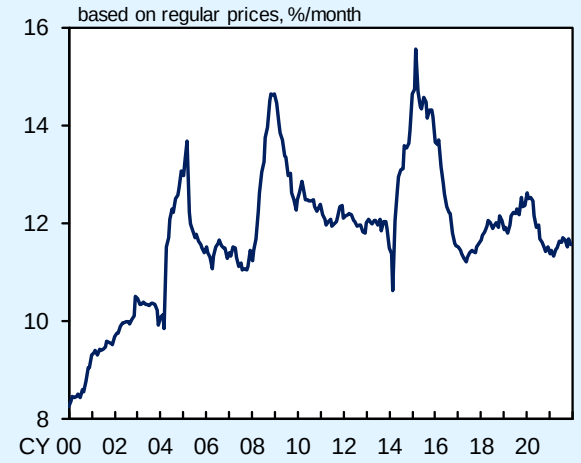


Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Note: The ratio of intermediate inputs to gross domestic output is used for calculating intermediate input costs. Therefore, intermediate input costs are relatively irresponsive to price changes in intermediate inputs in categories with a low intermediate input ratio (Intermediate inputs / Gross domestic output).

Moreover, with regard to food, there have been cases in the past phases where firms started to rapidly change their selling prices after limiting such changes for a long time. In fact, estimating the frequency of price changes for food using the Ministry of Internal Affairs and Communications' *Retail Price Survey*, which provides the source data for the CPI, shows that, (1) while until around the end of 2007 the frequency of price changes had remained low even as costs had continued to rise for a prolonged period, (2) the frequency of changes rapidly increased after the turn of 2008 (Chart B3-4).[26] Moreover, a calculation of the FK index, which represents the synchronization in the timing of price changes, following studies abroad, shows that such synchronization in the direction of price rises rapidly increased after the turn of 2008 (Chart B3-5).[27] As suggested by these factors, it should be noted that, once some food prices start to rise, the rate of increase in the CPI for food tends to accelerate.

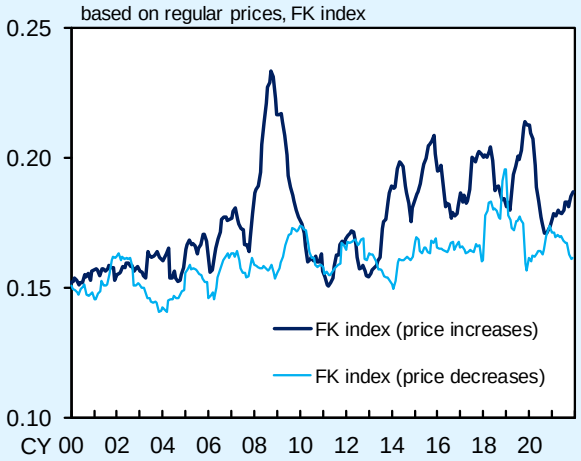
Looking at developments in the diffusion index (DI) for firms' output prices in the *Tankan* (Short-Term Economic Survey of Enterprises in Japan) to examine their recent price-setting

Chart B3-4: Frequency of Price Changes in Food Products



Source: Ministry of Internal Affairs and Communications.
Note: Figures are the frequency of price changes calculated by considering the most frequent prices in the 2 months before and after the month as the regular price (12-month backward moving averages).

Chart B3-5: Synchronization of Price Changes in Food Products



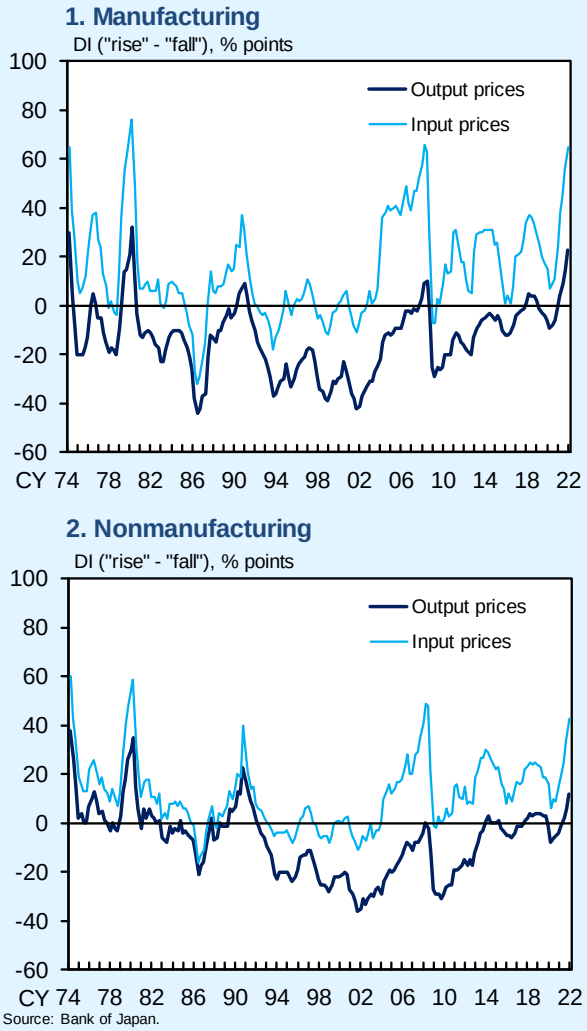
Source: Ministry of Internal Affairs and Communications.
Note: Figures represent the synchronization (FK index) of price changes calculated by considering the most frequent prices in the 2 months before and after the month as the regular price (12-month backward moving averages).

[26] With regard to the method of calculating the frequency of price changes, see "Price Setting in Japan: Evidence from CPI Micro Data," *Bank of Japan Working Paper Series*, no. 07-E-20, August 2007.

[27] The FK (Fisher-Konieczny) index is an indicator of the degree of synchronization of price changes of products, with a value close to 1 indicating a strong tendency for price changes to take place at the same time, and a value close to 0 indicating a strong tendency for price changes to take place at separate times. For details, see Fisher, T. and Konieczny, J., "Synchronization of Price Changes by Multiproduct Firms: Evidence from Canadian Newspaper Prices," *Economics Letters*, vol. 68, issue 3 (2000): 271-277; and Dias, D. et al., "On the Fisher-Konieczny Index of Price Changes Synchronization," *Economics Letters*, vol. 87, issue 2 (2005): 279-283.

stance, although not quite at the level of the input prices DI, it has reached the highest level since 1991 (i.e., at the end of the bubble period) for the nonmanufacturing industry and the highest level since 1980 (i.e., just after the second oil shock) for the manufacturing industry (Chart B3-6). Against this background, it needs to be borne in mind that the pass-through of cost increases may become more widespread for some goods that have seen substantial increases in costs, particularly food.

Chart B3-6: Output and Input Prices (*Tankan*)



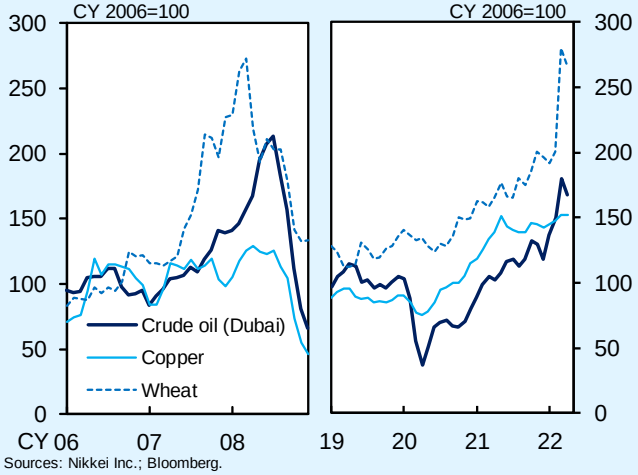
Source: Bank of Japan.
Note: Figures are for all enterprises.

(Box 4) Impact of a Rise in International Commodity Prices on Japan's Economy: Comparison with the 2007-2008 Period

The baseline scenario in this Outlook Report is that, with the impact of such factors as COVID-19 waning, Japan's economy will continue growing at a pace above its potential growth rate throughout the projection period, although it will be under downward pressure stemming from the rise in international commodity prices due to, for example, Russia's invasion of Ukraine. This box outlines the background to this baseline scenario while comparing the current phase with the period before the Global Financial Crisis (GFC) of around 2007 to 2008, which was the last time commodity prices saw a significant increase.

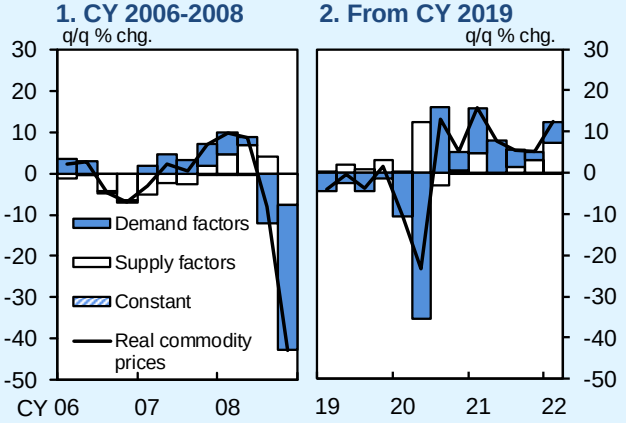
Looking back at economic developments from 2007 to around summer 2008, overseas economies had already entered a deceleration phase, mainly due to adjustment in the U.S. housing market, which had been overheated against the background of securitization. Meanwhile, international commodity prices continued to rise, partly due to factors other than actual demand, such as financialization of commodities (in the chart, these factors are categorized as supply factors) (Charts B4-1 and B4-2). Reflecting such rise in commodity prices, Japan's terms of trade deteriorated significantly, and weakness started to be seen in corporate profits and business fixed investment, mainly in the nonmanufacturing industry and among small

Chart B4-1: International Commodity Prices



Sources: Nikkei Inc.; Bloomberg.

Chart B4-2: Decomposition of Changes in Commodity Prices

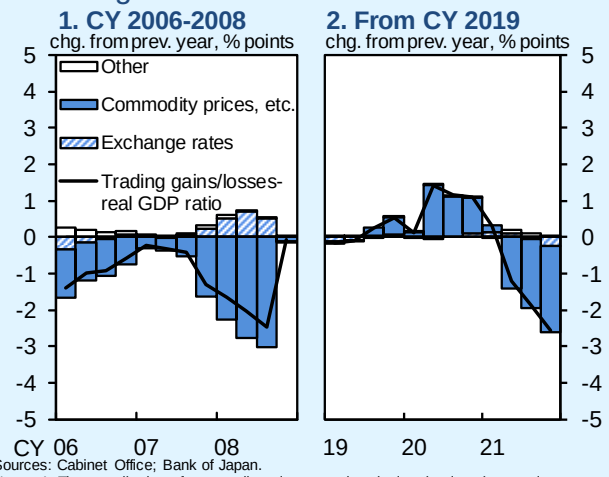


Sources: OECD; Bloomberg; BLS.

Note: A two-period lag VAR model using the following two variables is estimated: the OECD's Composite Leading Indicator (CLI, OECD total) and real commodity prices (the CRB Index deflated by the U.S. CPI). Demand and supply shocks are identified by imposing the following sign restrictions on the impulse response function of each variable. Demand increase shocks: the responses of the CLI and real commodity prices are both restricted to be positive. Supply increase shocks: the response of the CLI is restricted to be positive, while that of real commodity prices is restricted to be negative. The estimation period is 1994/Q4-2021/Q1.

and medium-sized firms (Chart B4-3).[28] Moreover, mainly owing to rises in energy and food prices, CPI inflation temporarily rose to a considerable extent, reaching 2.4 percent on a year-on-year basis for the July-August period of 2008 when excluding fresh food; this pushed down households' real income and thereby constrained private consumption (Chart B4-4). As a result, Japan's economy peaked at the beginning of 2008, before the GFC, after having experienced economic improvement for a long period from the early 2000s.

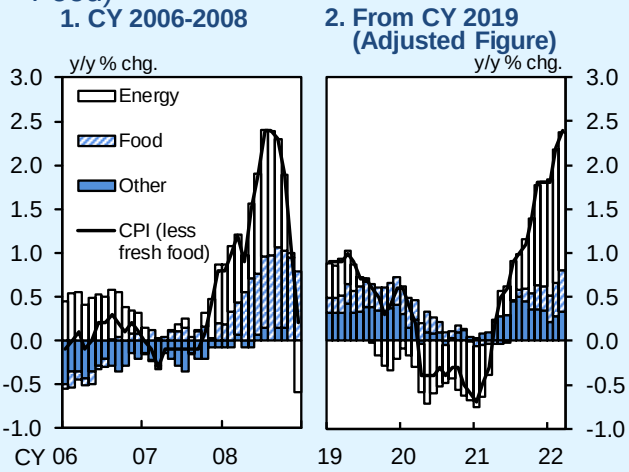
Chart B4-3: Contribution to Changes in Trading Gains and Losses



Sources: Cabinet Office; Bank of Japan.
Notes: 1. The contribution of commodity prices, etc. is calculated using changes in export/import price indexes on a contract currency basis. The contribution of exchange rates is calculated using the difference between export/import price indexes on a yen basis and those on a contract currency basis. "Other" is the contribution of other factors such as changes in quantities.
2. Trading gains/losses = (Nominal net exports / Weighted average of export and import deflators) – Real net exports

Economic conditions in the current phase have been similar to those in the 2007-2008 period in the following two respects. First, the rise in international commodity prices and the resultant deterioration in the terms of trade have been as significant as those seen in the 2007-2008 period (Charts B4-1 through B4-3). Second, the rise in the current phase was at first largely due to the effects of global recovery in demand for goods but more recently has been attributed to the increasing effects of supply factors such as supply concerns and heightened geopolitical risks as a result of Russia's invasion of Ukraine. The rise in commodity prices due to factors other than demand fundamentals tends to adversely affect the domestic economy, as was the case in the 2007-2008 period.[29]

Chart B4-4: Consumer Prices (Less Fresh Food)



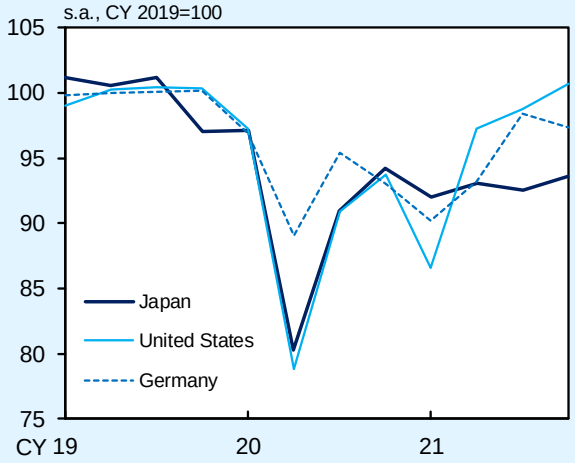
Source: Ministry of Internal Affairs and Communications.
Notes: 1. Figures from 2019 onward are staff estimates and exclude mobile phone charges and the effects of the consumption tax hike, policies concerning the provision of free education, and the "Go To Travel" campaign, which covers a portion of domestic travel expenses.
2. Figures for food exclude fresh food and alcoholic beverages and include meals outside the home.

[28] For the method of decomposing changes in commodity prices as well as developments in corporate profits and business fixed investment from 2007 to 2008, see Box 2 in the July 2021 Outlook Report.

[29] See Charts B2-5 and B2-7 in Box 2 in the July 2021 Outlook Report.

On the other hand, economic conditions in the current phase and the 2007-2008 period have been significantly different in the following three respects. First, current profits and their ratio to sales in the overall corporate sector have improved to levels exceeding those seen around the end of 2019, before the pandemic, and the levels have been clearly higher than in the 2007-2008 period (Chart 18). Therefore, corporate profits are highly likely to remain at historically high levels, despite the projected downward pressure stemming from deterioration in the terms of trade. Second, Japan's economy is currently in the recovery phase from a significant downturn due to the spread of COVID-19, and household savings that have accumulated as a result of pandemic-related restrictions are likely to mitigate to some extent the negative impact of decreased income on spending (Chart B4-5). There is more room for private consumption in Japan to recover than in the United States and major European countries, which have been ahead in terms of taking preventive measures against COVID-19 and improving economic activity simultaneously. Thus, as the impact of COVID-19 wanes, domestic demand is projected to recover, led mainly by pent-up demand. In this regard, the current phase is different from the 2007-2008 period, when the economy had already entered the "mature phase" of the business cycle after the long economic improvement. Third, as mentioned in Box 2, the rise in prices of petroleum products is likely to be curbed owing to the government's measures against oil price hikes, and this is also expected to mitigate the adverse effects of such price rises on corporate profits and households' real income.

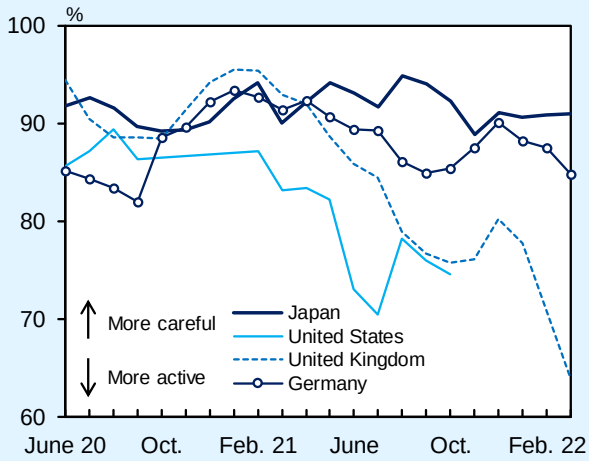
Chart B4-5: Average Propensity to Consume by Country



Sources: Eurostat; BEA; Federal Statistical Office of Germany; Cabinet Office.

Therefore, although the recent deterioration in the terms of trade is projected to restrain the growth in domestic demand through pushing down corporate profits and households' real income, Japan's economy is expected to continue recovering, unlike in the 2007-2008 period, as the impact of such factors as COVID-19 wanes. That said, there are high uncertainties on the outlook for the course of the situation surrounding Ukraine and its impact on the economy. Moreover, attention should be paid to the point that the situation with COVID-19 and its impact on private consumption will remain highly uncertain for the time being. In particular, vigilance against COVID-19 has been persistent in Japan, especially among seniors, compared with Europe and the United States; therefore, if COVID-19 resurges, for example, there is a risk that private consumption will be constrained for a prolonged period, coupled with downward pressure stemming from inflation on real income (Chart B4-6).

Chart B4-6: Percentage of People Avoiding Crowded Areas



Source: Jones, Sarah P., Imperial College London Big Data Analytical Unit and YouGov Plc. 2020, Imperial College London YouGov Covid Data Hub, v1.0, YouGov Plc, April 2020.

Note: Percentage of people answering 1, 2, or 3 (where 1 represents "always") to the question "how often have you avoided crowded areas?" (5 choices: 1-5).