Outlook for the Japanese and Overseas Economies

ECONOMIC RESEARCH OFFICE
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MUFG Bank, Ltd.
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Contents

Executive Summary

- In 2021 and 2022, economic conditions will vary widely between developed economies and the rest of the world as COVID-19 continues to spread. Developed economies will likely recover faster as vaccination rates increase and restrictions on activities are eased, whereas the rest of the world (excluding China) will likely see slower recovery due to delays in vaccine rollouts and strains on healthcare systems.

Developed Countries

- Higher vaccination rates are helping to curb the numbers of critical cases and deaths even as new cases continue to be reported. Economic recovery will likely continue as countries learn to “coexist with COVID-19” by raising vaccination rates further and being cautious about easing restrictions on activity so as to not to overwhelm the healthcare system. The pace of recovery may vary from country to country depending on factors such as vaccine rollout, healthcare situation and economic relief measures.
  - ✓ US: The recent resurgence of cases may dampen business sentiment and consumer spending for some time, but downward pressure on the economy will likely be limited as state governments focus on raising vaccination rates rather than tightening activity restrictions. Economic recovery will likely continue unless COVID-19 spirals out of control. Economic relief measures and rising capital expenditures will help.
  - ✓ Eurozone: The recent rise in variant cases is raising concerns but the economic recovery will likely continue as major Eurozone economies work to raise vaccination rates further and ease activity restrictions mainly for vaccinated people (as is the case in the US). Governments will likely maintain accommodative fiscal and monetary policies for the time being.
  - ✓ Japan: Restrictions on activities will likely ease gradually, provided that Japan achieves its target of vaccinating all individuals who wish to be vaccinated by November. But the pace of lifting restrictions and of economic recovery will likely be slower than in the US or Europe due to a sense of caution stemming from the continued strain on the healthcare system. Monetary policy will likely remain accommodative, and fiscal spending measures will likely be incorporated into a supplementary budget in the fall.

Newly Emerging Economies

- Vaccine rollout has been slow in many newly emerging economies (China being an exception), and a fair number of countries are struggling to curb the spread of variants. Such countries are unlikely to ease restrictions on activities any time soon, and with vulnerabilities in healthcare systems, economic recoveries will generally take longer. The pace of recovery will vary from country to country depending on factors such as vaccine rollout, healthcare situation and economic relief measures.
  - ✓ China: Cases are being reported in some areas of the country but the number of daily new cases has been on a downward trend. The country will likely curb COVID-19 by continuing to strictly monitor people. China’s economy will likely keep growing steadily and remain on the trend of growth it established before the pandemic.
  - ✓ NIEs: With the case count being curbed to some extent, NIEs will likely continue their recovery as restrictions on activities are gradually eased.
  - ✓ ASEAN: Economies have struggled to curb COVID-19. With slow vaccine rollouts and vulnerable healthcare systems, restrictions on activities are unlikely to be eased for some time, and economic recovery will take longer than in develop economies.
  - ✓ Latin America: Vaccine rollouts are gradually making progress in major economies (Mexico, Brazil and Argentina) but only about 20% of the population is fully vaccinated, so economic recovery will likely slow around mid-2021, and recovery will likely continue thereafter in accordance with increases in vaccination rates (Argentina continues to face economic struggles other than the pandemic).
- Factors contributing to uncertainty include the evolution of the pandemic with variant viruses in the picture; the speed of vaccine rollout in newly emerging economies where the rollout has been slow; and US-China relations. On the evolution of the pandemic, downside scenarios are more probable as new variants may continue to emerge.

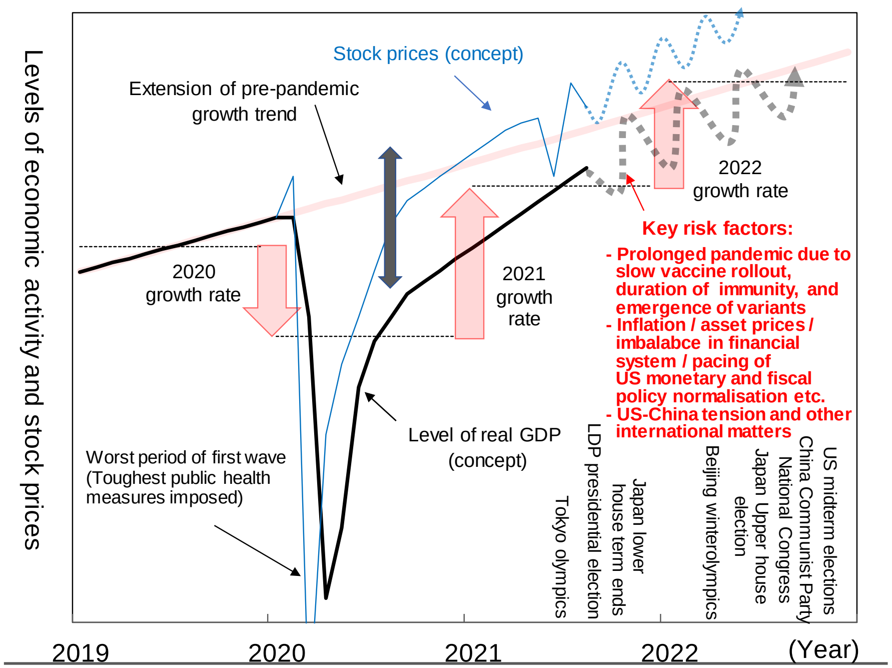
1. Overview

- In 2021 and 2022, recovery of the global economy will likely continue even as COVID-19 persists, with developed economies – Europe and the US – easing restrictions on activities in view of high vaccination rates. Recovery will be slower in economies with low vaccination rates or an overloaded, vulnerable healthcare system, as restrictions will remain in place and heightened caution will linger for the time being.
- As for the level of real GDP in major economies, annual real GDP is projected to return to its pre-pandemic 2019 level in 2021 in the US, and in 2022 in the Eurozone and Japan. In China, real GDP has mostly returned to its pre-pandemic growth trend and will likely grow at a pace comparable to that of the pre-pandemic era.

Assumptions

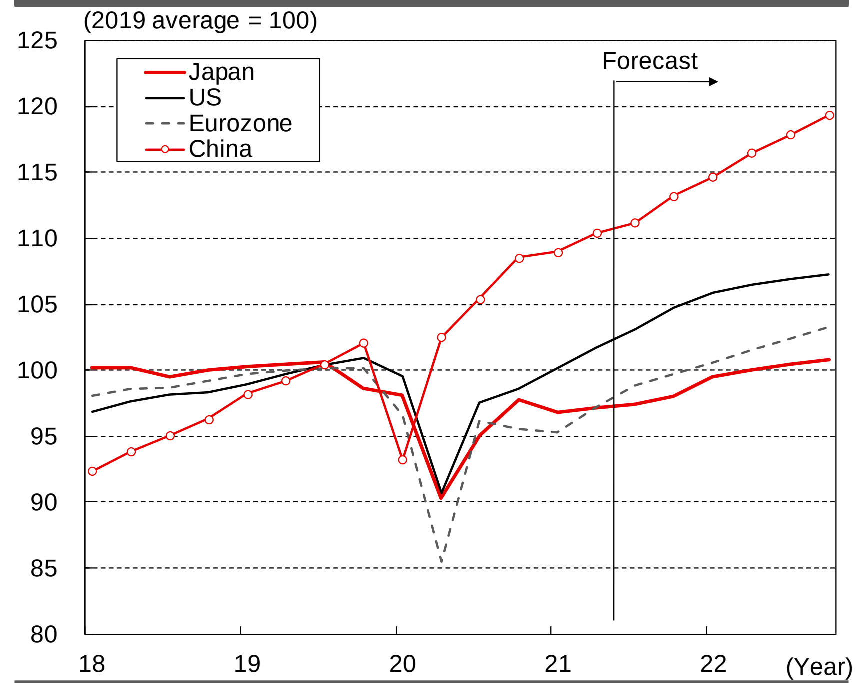
- ✓ **Effect of treatments and vaccines**: Vaccines are highly effective in preventing infections and serious illness, but herd immunity will not be achieved due to uncertainty about variant risks and the length of protection given by vaccines and difficulty in increasing vaccination rates beyond certain levels. No treatment for COVID-19 will be available in an easy-to-prescribe oral form.
- ✓ **Pandemic:** Economies with higher vaccination rates may see new waves of infections but the numbers of critical cases and deaths will be curbed and restrictions will ease. Countries with low vaccination coverage or with an overloaded healthcare system will maintain cautious stances and restrictions for the time being.
- ✓ **Policy response:** While avoiding drastic changes, countries and regions will maintain monetary and fiscal policy measures albeit on a reduced scale or scope.

Post COVID-19 Economic Activity (Concept for developed economies)



Note: Line chart is a concept illustration and not a precise depiction of GDP levels.
Source: Various statistics, MUFG Bank Economic Research Office

Real GDP in Major Economies

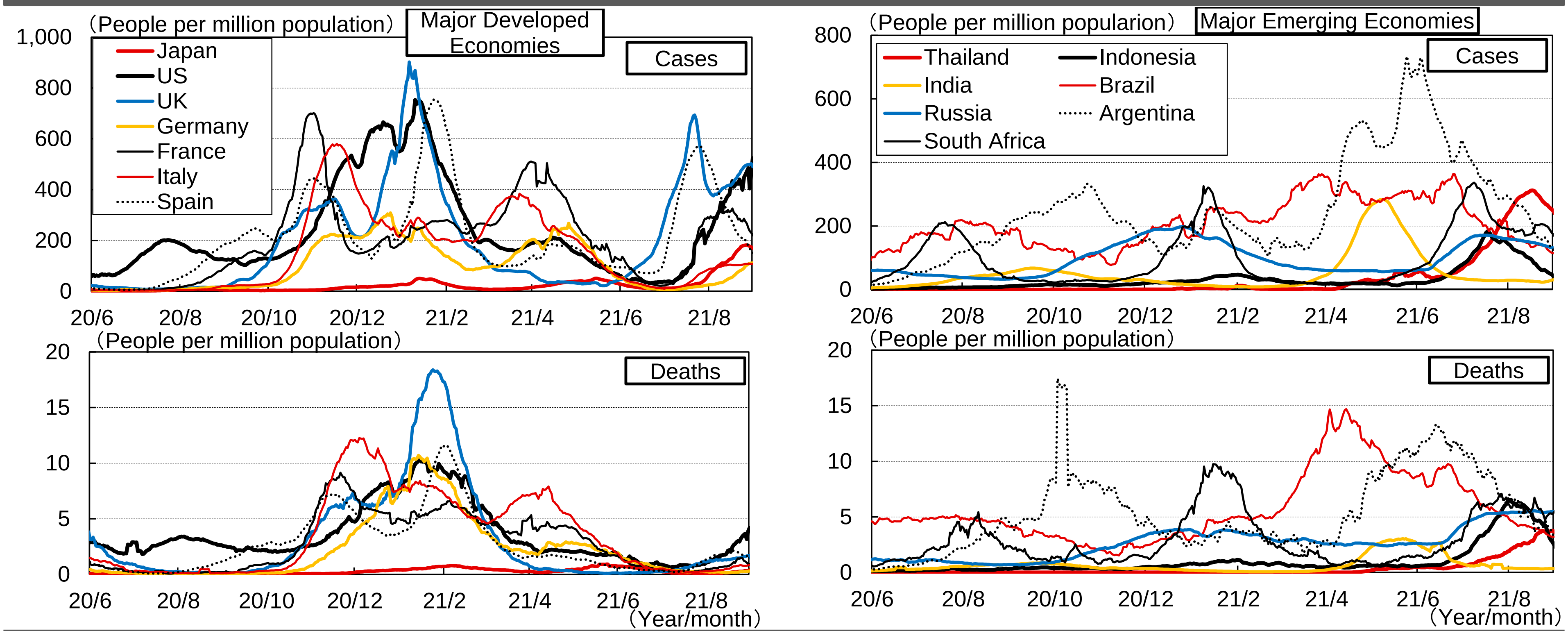


Source: Statistics from each country, MUFG Bank Economic Research Office

2. Forecasting the COVID-19 Pandemic: Number of Cases

- As of 30 August 2021, cumulative cases totalled 216 million and deaths 4.49 million, according to the World Health Organization.
- In developed economies, cases and deaths have been on a downwards trend since the start of 2021 owing to vaccine rollouts, but the number of cases started rising in June due to the spread of the Delta variant. Still, the number of deaths has been relatively controlled – a sign that vaccines are effective in preventing infections or serious illness.
- Meanwhile in many newly emerging economies where vaccination coverage is lower, the number of cases and deaths remain high as virus variants rage on. The condition worsened noticeably starting in April, especially in Asia.

COVID-19 New Cases and New Deaths by Country and Region

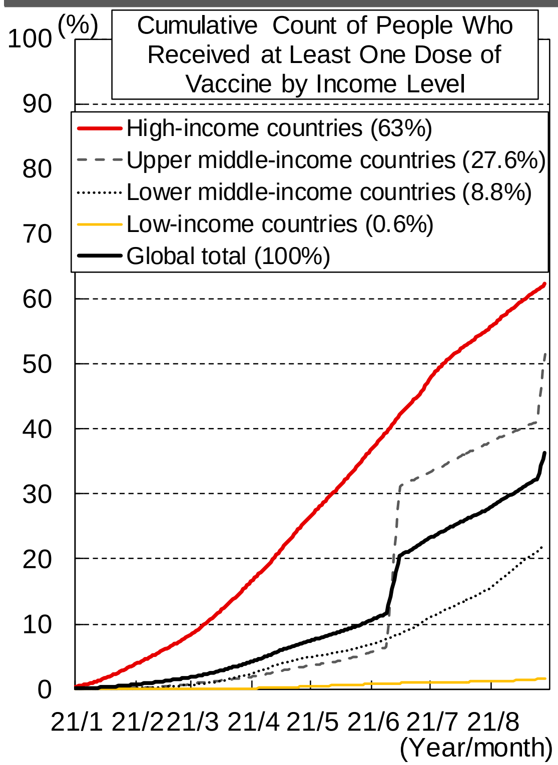


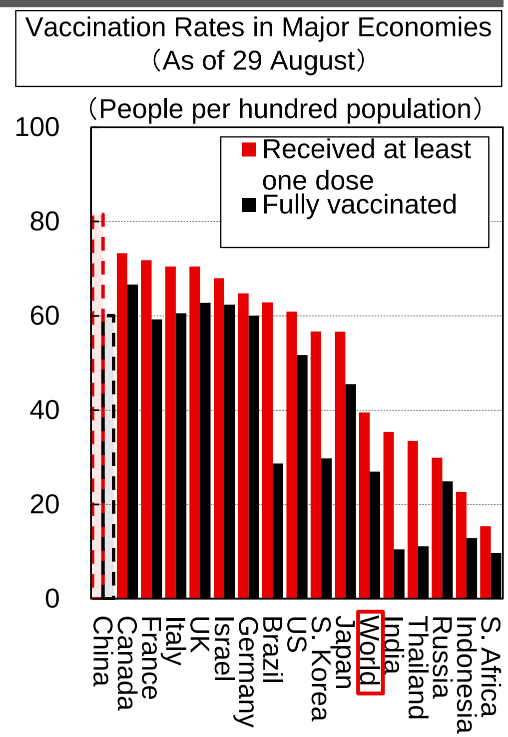
Source: World Health Organization, MUFG Bank Economic Research Office

2. Forecasting the COVID-19 Pandemic: Assessment of Vaccinations Rollouts

- While developed economies, such as the US and those in Europe, have been relatively quick to roll out vaccines, low- to middle-income emerging economies (excluding China) have been lagging behind in securing and rolling out vaccines (some may not see a full-fledged rollout until 2022).
- Vaccine effects are game-changing, yet a situation where the pandemic has calmed and global infections to come fully under control still cannot be forecast (the assumption for this Outlook report is that people will have to coexist with COVID-19).
  - ✓ Limited vaccine coverage, uneven distribution and the possible emergence and spread of highly contagious new variants make herd immunity difficult to achieve.
  - ✓ Uncertainty regarding the duration of immunity provided by vaccines (expert opinions vary on the need for a booster shot or third dose)
  - ✓ In general, the easing of restrictions on activities based on vaccine rollouts is expected to lead to economic recovery, but the capacity of healthcare systems to handle critical cases varies by economy (the resilience of healthcare systems will influence the pace that restrictions are lifted)

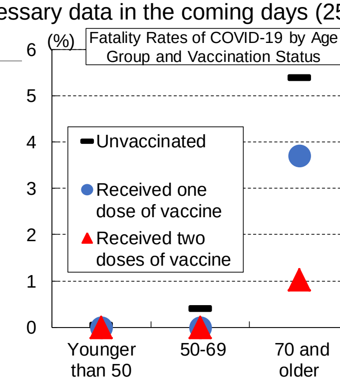
Vaccination Data by Country and Country Groups





Note: 1. 7-day moving average. Number in brackets represents share of global nominal GDP.
2. *High income*, *upper middle-income*, *lower middle-income*, *low income* are classifications by World Bank.
3. Sudden rises in *upper middle-income* and *global total* are due to addition of China data on 10 June and 26 August.
4. Dotted line bars for China are based on latest data on total doses administered and data on fully vaccinated population released on 12 August.
Source: Our World in Data website run by Oxford University, MUFG Bank Economic Research Office

Topics on Vaccines (expert views etc.)

Herd Immunity	■Oxford University professor Pollard, chair of UK Joint Committee on Vaccination and Immunisation said: **Delta variant's infections among the vaccinated and potential for future mutations make it difficult to achieve herd immunity** (10 August)
Response to variants (booster shots)	■**Israel rolled out booster shot (3rd dose of vaccine) in August in response to the Delta variant.** More than half of the roughly 1.9 million people 50 and older who received their 2nd shot 5+ months prior has received 3rd shot (16 August) ■**Vaccine makers are working to obtain authorisation for booster shot. Pfizer-BioNTechis in the process** and expects to obtain all necessary data in the coming days (25 August)
The effects of vaccines on preventing critical cases	■**For people 50 and older in Japan, fatality of those who received 2 vaccine doses is lower than that of unvaccinated people**, suggesting that vaccines lower the COVID-19-related fatality rate. 

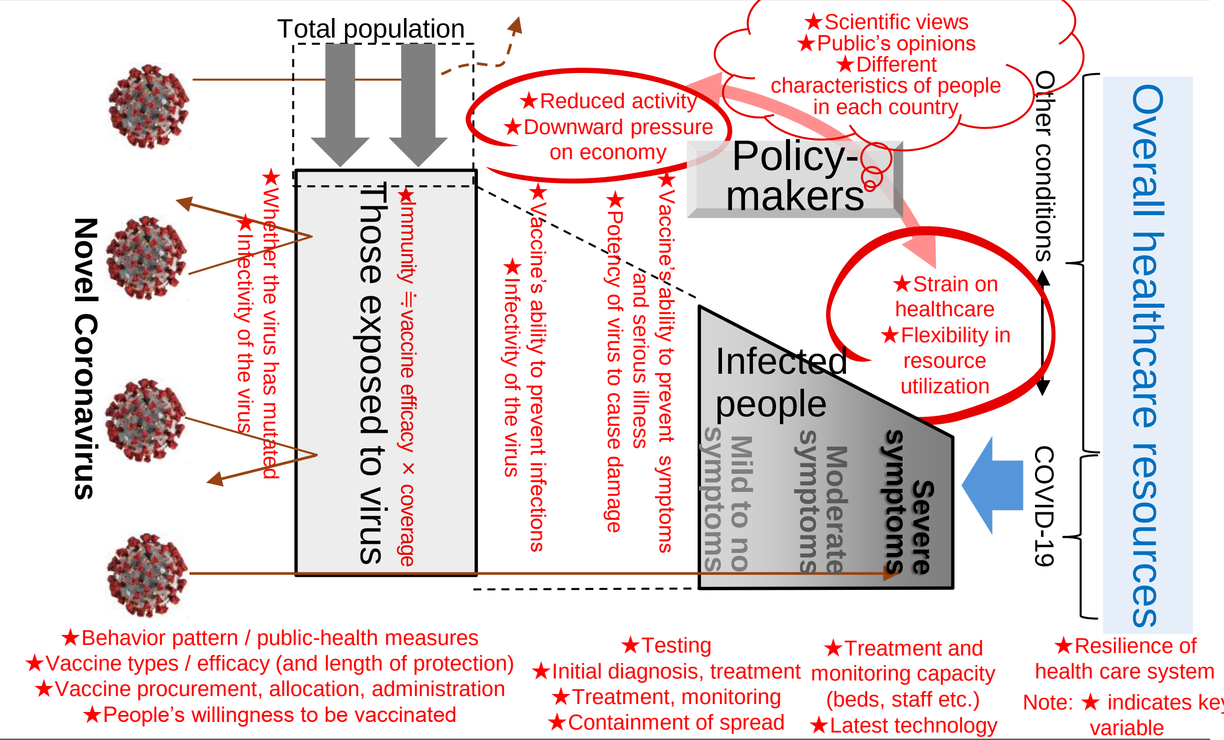
Note: Above data is compiled by the Ministry of Health, Labour and Welfare based on cases reported 1 June to 30 June.
Source: Various news reports, Ministry of Health, Labour and Welfare, MUFG Bank Economic Research Office

2. Forecasting the COVID-19 Pandemic: Factors that will Bring an End to the Covid-19 Pandemic

- More than a year and a half into the pandemic, the status of vaccine rollouts and the threat of variants have become the key factors influencing the evolution of the pandemic and economic activity around the world this year. The resilience of healthcare systems and balancing restrictions with economic activity have also became important.
- The table below is a qualitative summary of the situation going into 2022 (many variables and regional differences make it difficult to quantify impact.) Developed economies will likely pursue economic normalisation in co-existence with COVID-19 using vaccines and by keeping caseloads to the healthcare system manageable.

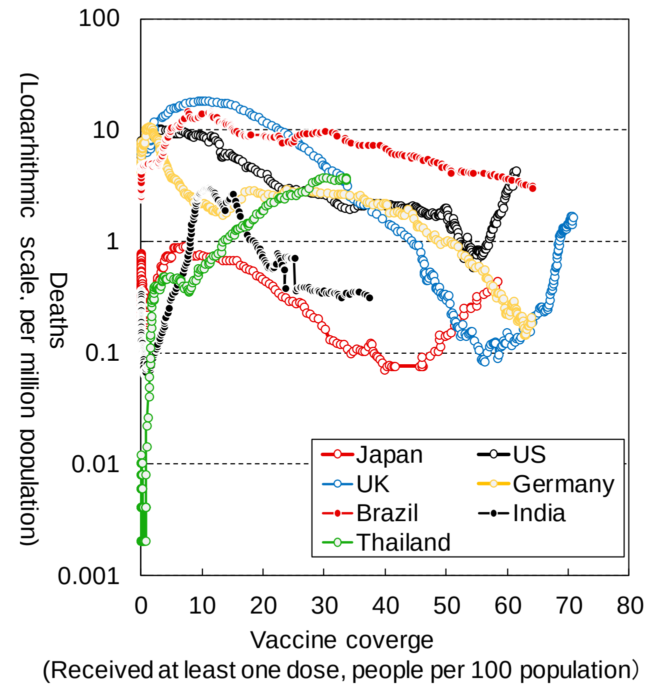
Country	Vaccine rollout / effect	Healthcare resources	Movement restrictions (see country-specific parts on timing of easing)
Developed economies	High vaccination coverage → critical cases decreased	Existing healthcare system has been able to handle critical cases	Pursue economic activity in co-existence with COVID-19. Continue easing restrictions.
China	Cases were curbed before the rollout of domestic vaccines	Curb infections by strict monitoring	Aim for "zero-Covid" by thorough lockdowns, tests and isolation
Other newly emerging economies	Vaccine rollout delayed → variants have become rampant	Some countries face serious strain on healthcare systems	Maintain restrictions and take caution when easing restrictions
Japan	Catching up to others in vaccine rollout	Existing healthcare system strained	Restrictions are eased with caution as vaccine coverage rises

Factors Influencing the Evolution of Pandemic



Note: Above diagram is conceptual illustration. Sizes of components are not to scale.
Source: Various sources, MUFG Bank Economic Research Office

Vaccine Coverage and Deaths Per Million Population



Note: 7-day moving average. Covers Dec 2020-present.
Source: Our World in Data website run by Oxford University, MUFG Bank Economic Research Office

2. Forecasting the COVID-19 Pandemic: Vaccine Rollouts in Developed Countries

- The US and countries in Europe with higher vaccination rates are also affected by the spread of the Delta variant, mainly among the unvaccinated.
- These countries will likely pursue economic normalisation in co-existence with COVID-19, by encouraging vaccination and mask wearing to curb infections and serious illness, thereby relieving strain on healthcare resources. In some cases, proof of vaccination is being used to differentiate restrictions based on vaccination status.
  - ✓ For the vaccinated, restrictions generally have been removed per related guidelines (requiring proof of vaccination at a restaurant is an example of offering freedom in exchange).
  - ✓ For the unvaccinated, restrictions have been tightened. An example is that proof of a negative COVID-19 test within a certain timeframe is required in order to use indoor facilities.

Infection Control Approaches in the US and Europe

US	・"More vaccinations and mask wearing in the areas most impacted by the Delta variant will enable us to avoid the kind of lockdowns, shutdowns, school closures, and disruptions we faced in 2020." (Statement by President Biden, 27 July) ・"We have two key ways of protecting ourselves against COVID-19. One: safe, free, and effective vaccines. And two: masks." (President Biden's remarks, 18 August)
UK	・"Thanks to the vaccine programme… we are able to take these cautious steps (to remove restrictions) now. But to take these steps we must be cautious and we must be vaccinated." (Statement by Prime Minister Boris Johnson, 12 July) ・"We will … lift legal restrictions… but we expect and recommend that people wear a face covering in crowded and enclosed spaces." (Same as above)
Germany	・German Chancellor Angela Merkel called on citizens to get vaccinated as soon as possible (Federal government press release, 10 August)
France	・"We must learn to live with the virus." (President Macron's remarks on 12 July)

Source: Government documents from each country, MUFG Bank Economic Research Office

Infection Control Guidelines in the US and Europe

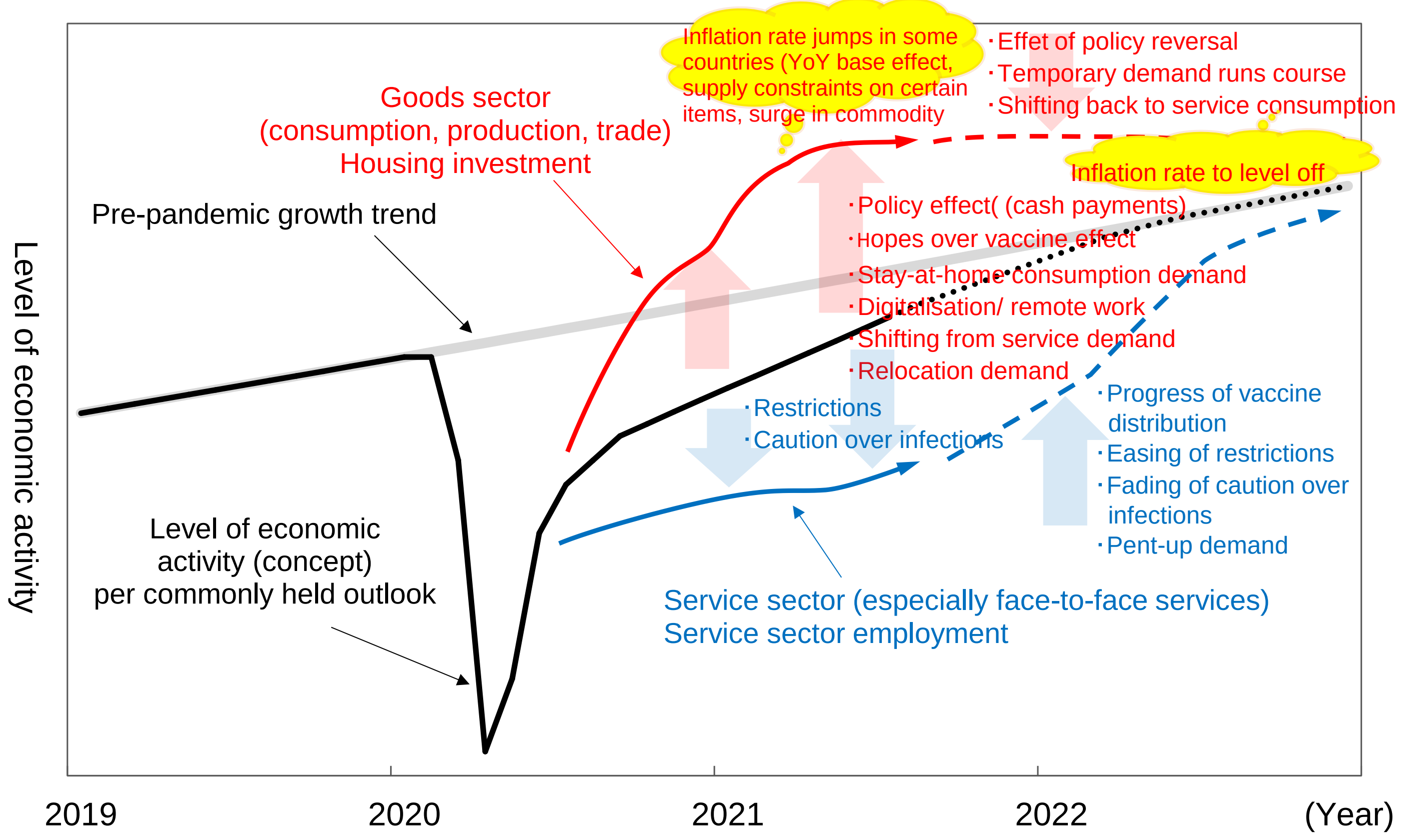
US	【The vaccinated】 ・Face coverings are recommended in public transportation and when indoors in an area where cases are on the rise. ・No restrictions on domestic travel. For international travel, proof of negative test is required before returning to the US
UK	・Tests are recommended when COVID-19-like symptoms appear. ・Isolation is recommended after a positive test or when NHS advises. ・Recommend meeting with others outdoors and keeping indoor spaces ventilated with fresh air ・Recommend minimising number and length of social contacts ・Travellers from red list or amber list countries (including Japan) will be required to isolated themselves for a period etc.
Germany	・Unvaccinated people are required to test frequently (proof of negative test is required when visiting a hospital or indoor facilities. ・Offering free tests for the unvaccinated
France	・Vaccination proof need to be presented at restaurants, public transport, indoor facilities and hospitals etc. ・Unvaccinated travelers are required to provide proof of negative test within 48 hours

Source: Government documents from each country, MUFG Bank Economic Research Office

3. Overview of Economic Trends during the COVID-19 Pandemic: Outlook for Paths of Economic Recovery

- In the economic recovery following the first wave of infections, the consumption of goods rose sharply thanks to factors such as a rebound effect, policy support, stay-at-home consumption demand and digitalisation demand. The momentum rippled through to other areas such as production, trade, and capital investment. Since the start of 2021, the effects of vaccines and additional policy support (especially in the US) have been pronounced.
- Meanwhile, consumption of services has been taking longer to recover due to lingering restrictions and caution over infections.
- Economic activity in the goods sector, which has been buoyed by policy support and stay-at-home consumption demand, is expected to decelerate gradually. Meanwhile, economic activities in the service sector are now expected to gain recovery momentum as restrictions ease in view of vaccine effects (though effects vary by region, services spending is generally expected to approach pre-pandemic trends).

Level of Economic Activity (concept)

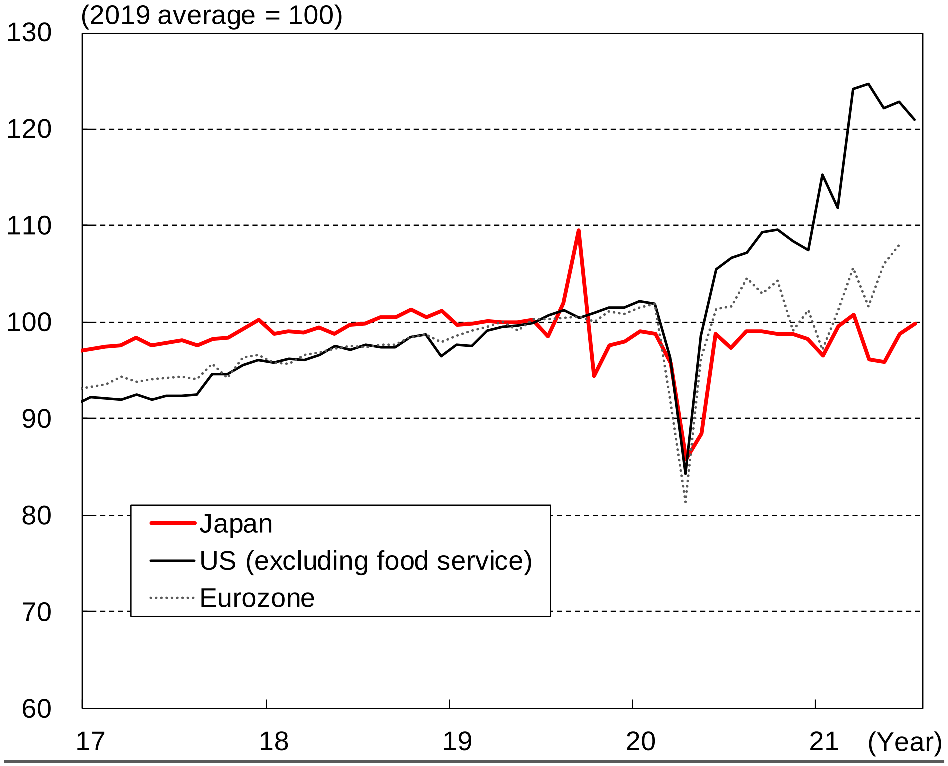


Sources: Various sources, MUFG Bank Economic Research Office

3. Overview of Economic Trends during the COVID-19 Pandemic: Economic Indicators of Developed Countries – Consumption (Goods vs Services)

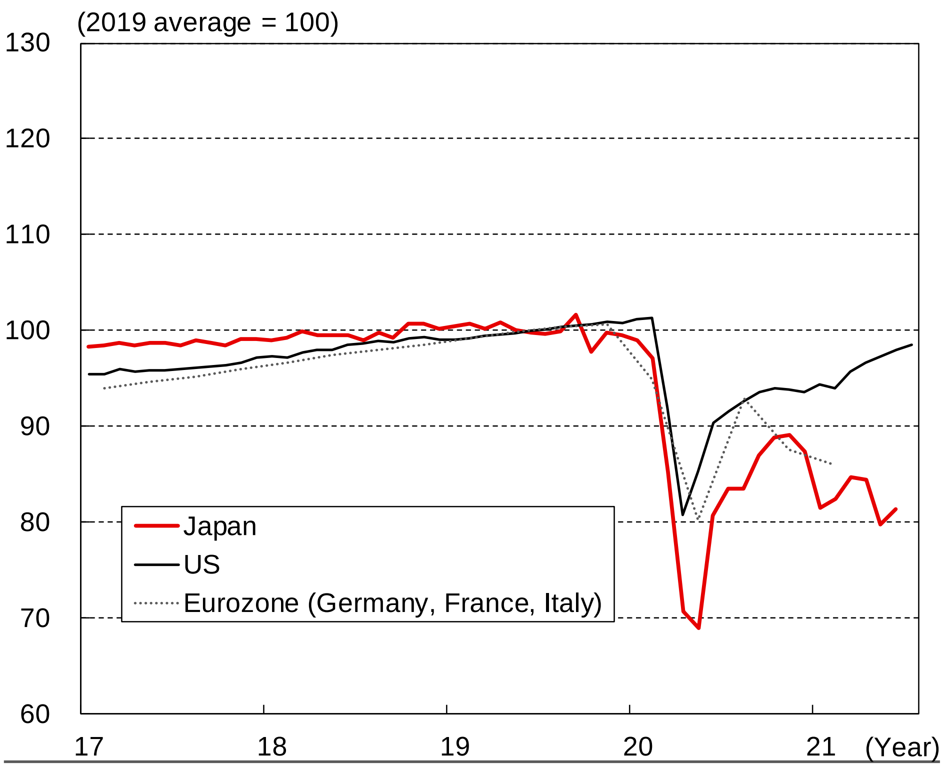
- Consumer spending on goods in major developed economies has generally recovered to pre-pandemic levels, but the pace of recovery has varied by location. Spending on goods has significantly surpassed pre-pandemic trends in the US, and is back to pre-pandemic trends in Eurozone as vaccines have helped accelerate recovery. In Japan, spending on goods is back to pre-pandemic levels, but the recovery is slower due in part to delays in the vaccine rollout.
- Meanwhile, consumer spending on services in major developed economies has generally stayed below pre-pandemic levels. Spending on services has been rising at a moderate pace in the US as the economy moves toward normalisation, but the pace of recovery is slower in the Eurozone and Japan. Especially in Japan, intermittent imposition of restrictions (i.e. state of emergency) has weakened the recovery momentum.

Retail Sales in Major Developed Economies



Source: Statistics from each country, MUFG Bank Economic Research Office

Consumer Spending on Services in Major Developed Economies

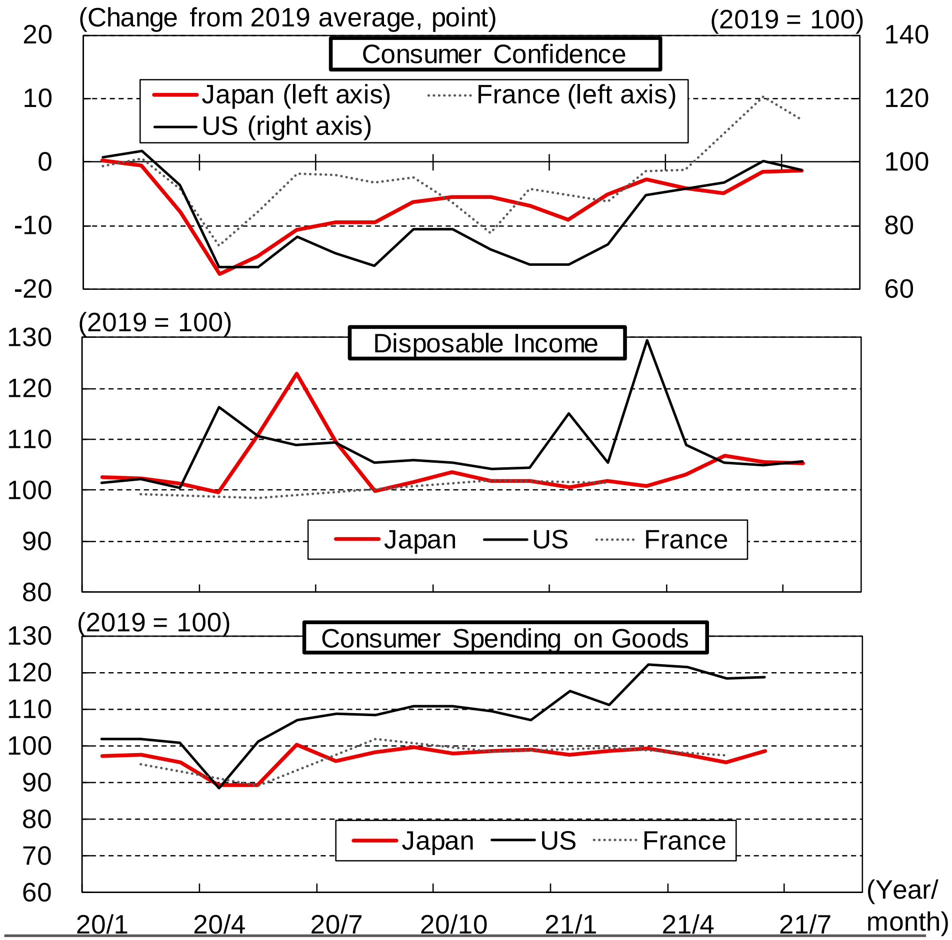


Note: Japan data is real value, US and Eurozone data is nominal value.
Source: Statistics from each country, MUFG Bank Economic Research Office

3. Overview of Economic Trends during the COVID-19 Pandemic: Economic Indicators of Developed Countries – Impact of Pandemic on Consumption

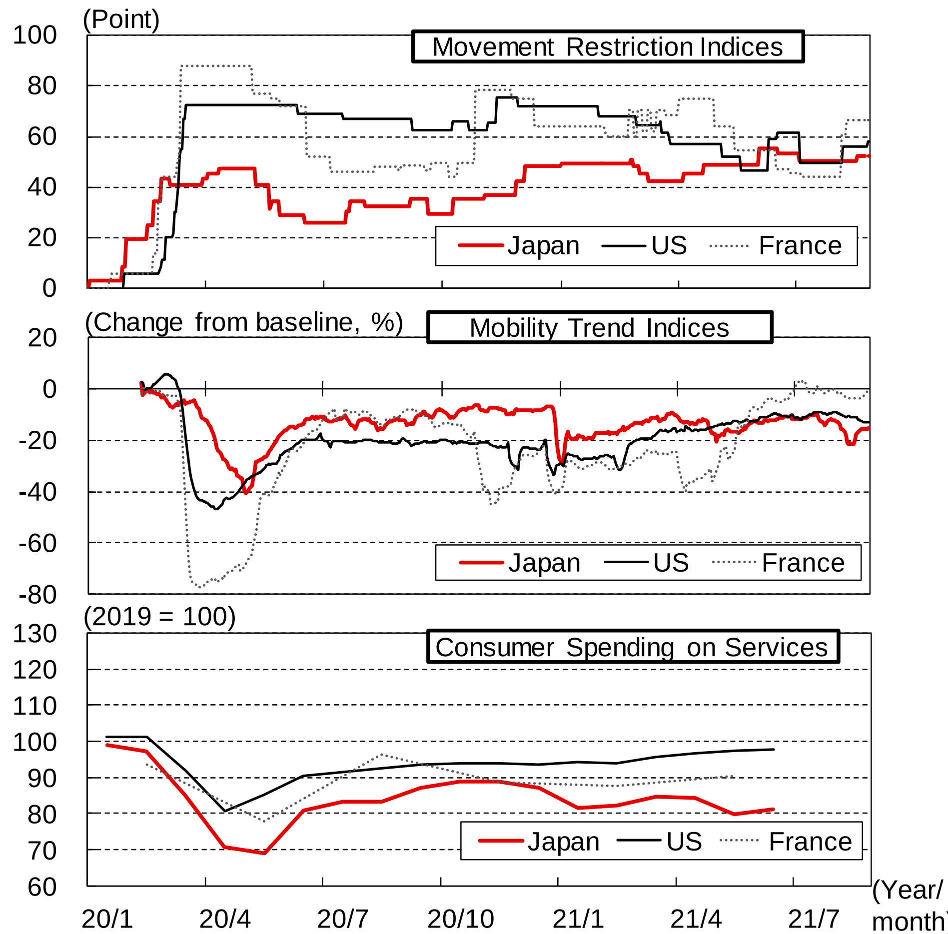
- Consumer confidence has generally recovered in major developed economies. In the US, consumer spending on goods has risen notably due to stay-at-home consumption demand and multiple rounds of economic relief payments to households, which boosted disposable income substantially.
- Meanwhile, consumer spending on services has yet to recover to 2019 levels. As the Delta variant spreads, recovery may stall temporarily as marginal restrictions (requiring proof of vaccination, delaying office reopening etc.) are tightened.

Consumer Confidence, Disposable Income, Goods Consumption in Japan, US, France



Note: Japan disposable income is for workers' households with two or more persons .
Source: Statistics from each country, MUFG Bank Economic Research Office

Movement Restrictions, Mobility Trend, Service Consumption in Japan, US, France

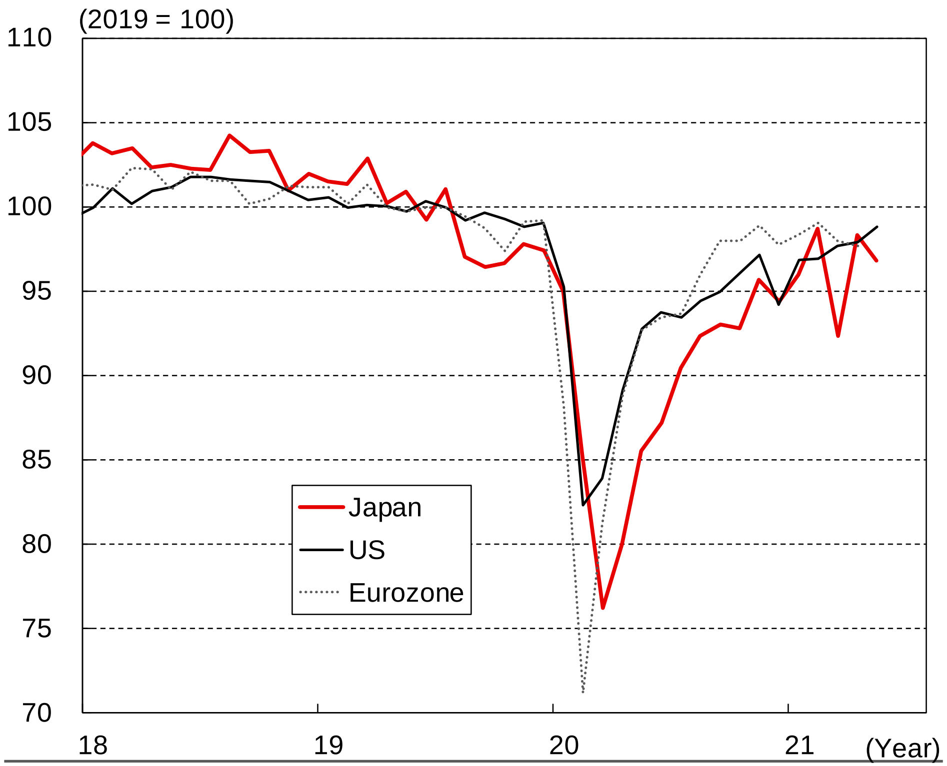


Source: Statistics from each country, MUFG Bank Economic Research Office

3. Overview of Economic Trends during the COVID-19 Pandemic: Economic Indicators of Developed Countries – Production and Exports

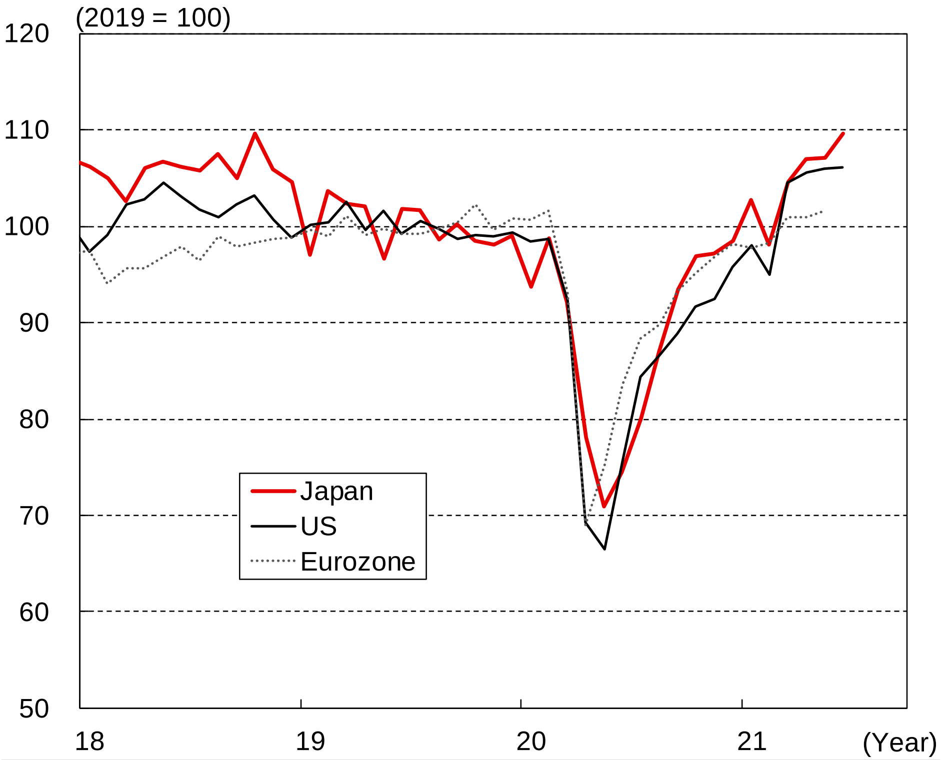
- **Production:** Industrial production in major economies has not recovered to pre-pandemic levels due in part to supply constraints. Recovery is delayed especially for automobiles due to semiconductor shortages.
- **Exports:** Exports have recovered to pre-pandemic levels, supported by swift economic recovery in the US and China. Exports are expected to remain firm as domestic demand in other major developed economies gains recovery momentum, even though the pace of export growth may slow.

Industrial Production of Major Developed Economies



Source: Statistics from each country, MUFG Bank Economic Research Office

Exports by Major Developed Economies



Source: Statistics from each country, MUFG Bank Economic Research Office

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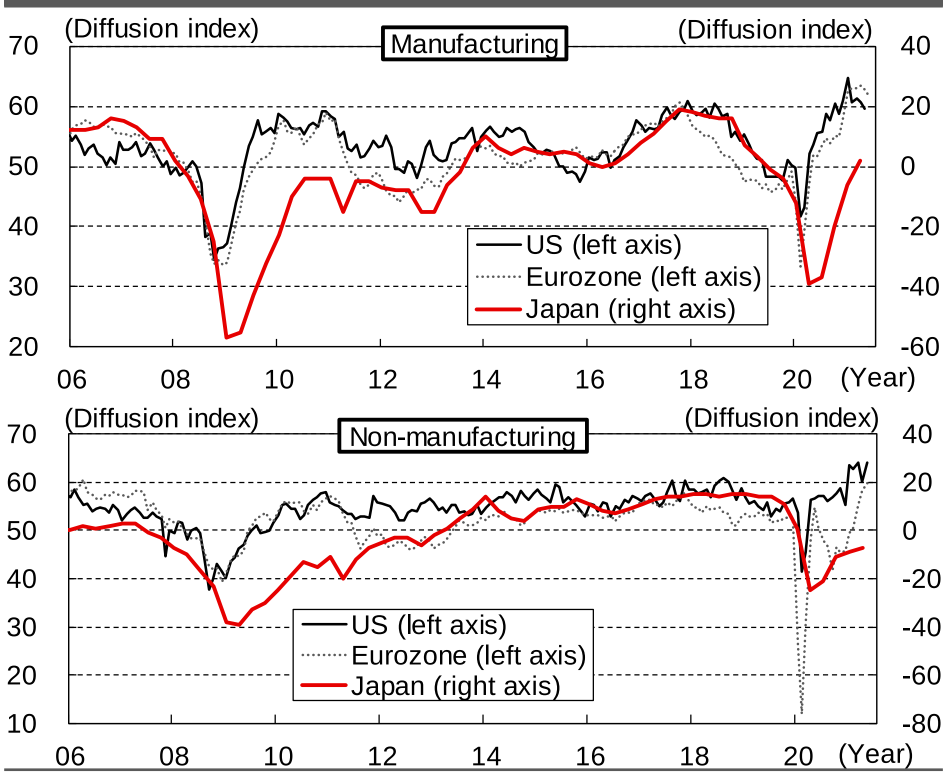
3. Overview of Economic Trends during the COVID-19 Pandemic: Economic Indicators of Developed Countries – Business Sentiment and Investment

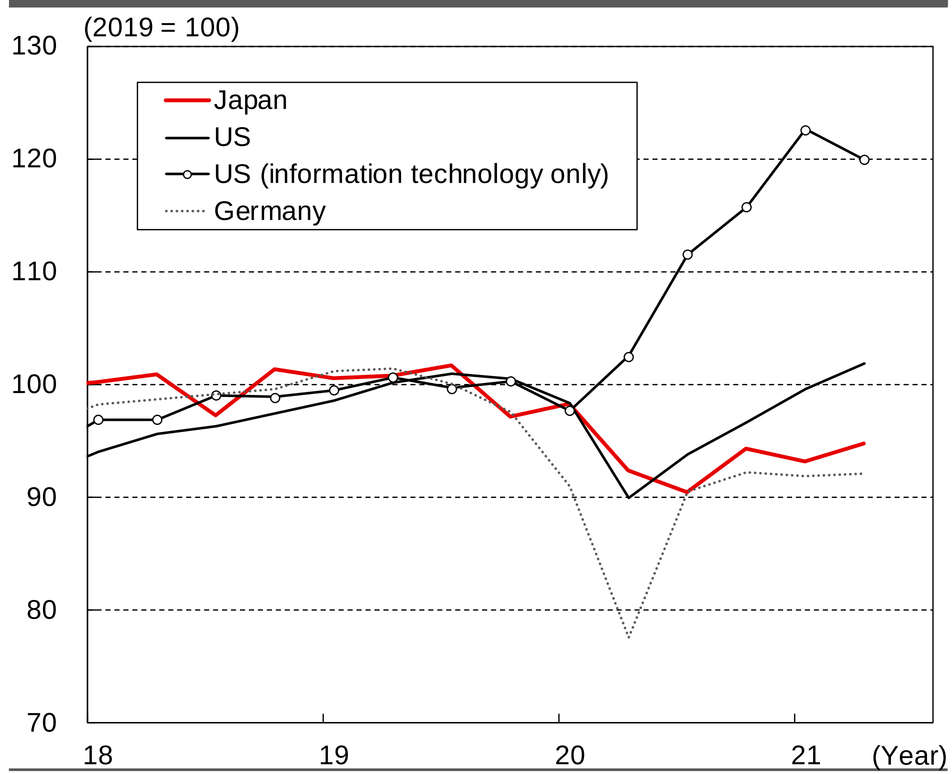
- **Business sentiment:** As economies reopen in the US and Eurozone, business sentiment has improved in these economies ahead of Japan. Sentiment indices are at historically high levels due in part to the tight supply-demand balance (supplier delivery indices rise with more delays in delivery and push up the headline indices). In Japan, business sentiment is slow to recover especially in the non-manufacturing sector due to intermittent imposition of restrictions under a state of emergency since the start of this year.
- **Capital expenditure:** Increase in work from home during the pandemic created more demand for IT for home offices. In the US, investment in IT equipment (i.e. personal computers) and software has risen sharply, supporting the recovery of overall capital expenditures to pre-pandemic levels.

Business Sentiment of Major Developed Economies



Source: Statistics from each country, MUFG Bank Economic Research Office

Capital Expenditures of Major Developed Economies

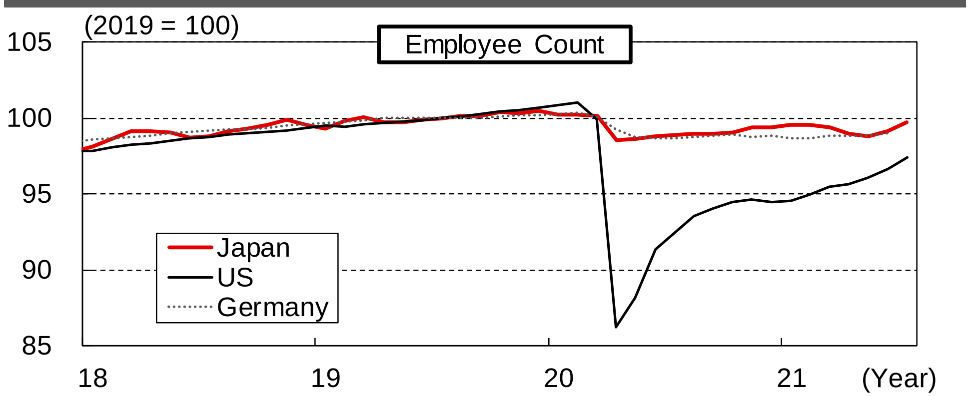


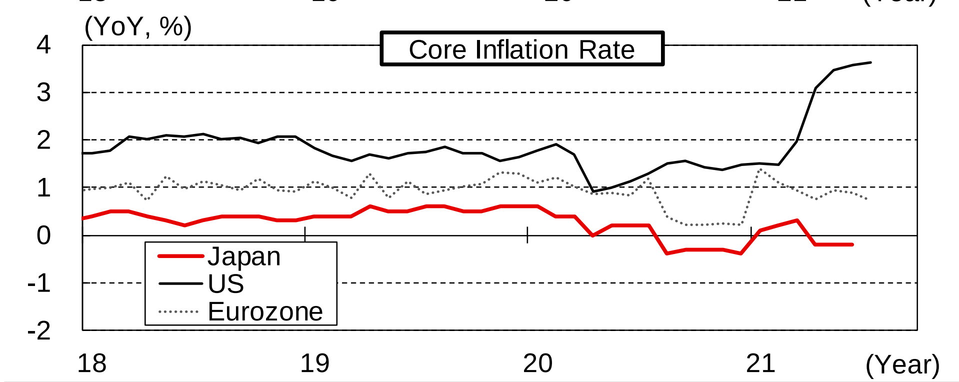
Source: Statistics from each country, MUFG Bank Economic Research Office

3. Overview of Economic Trends during the COVID-19 Pandemic: Economic Indicators of Developed Countries – Employment and Inflation

- **Employment**: Has not recovered to pre-pandemic levels even in the US and Eurozone where economies are reopening steadily. With the wide spread of the Delta variant, recoveries may stall or slow temporarily.
- **Inflation**: The increase in the Consumer Price Index (CPI) has accelerated in the US due to the tight balance between supply and demand of goods, especially for select items such as used vehicles. However, most recently, the increase in CPI month-over-month slowed for three straight months. In Japan, CPI has declined year-over-year in recent months due to temporary factors, such as a drop in mobile phone service charges.
- **Supply constraints**: The problem of tight supplies has affected the upstream of supply chains as well, and commodity prices have increased sharply. In the manufacturing sector, supplier deliveries indices are at historically high levels and the ongoing shortage of semiconductors is unlikely to be resolved any time soon. These supply constraints are unlikely to halt the overall growth of the economy, but the impact may linger for some time in certain industries, such as transportation equipment.

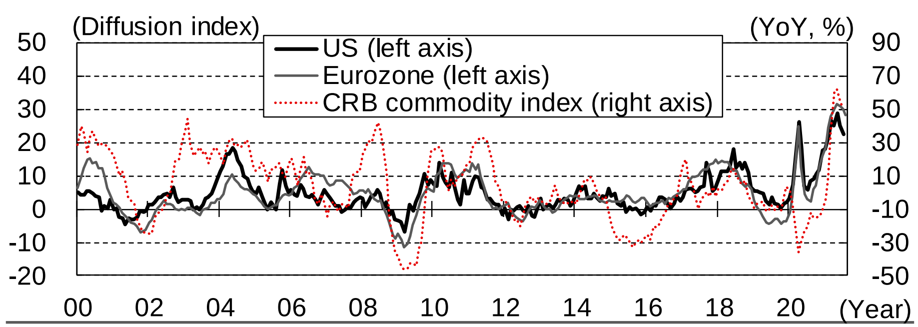
No. of Employees and Core Inflation Rates in Major Developed Economies





Source: Statistics from each country, MUFG Bank Economic Research Office

Commodity Price (CRB Index) and Supplier Deliveries Indices of US and Eurozone Manufacturing Sector



Source: Statistics from each country, MUFG Bank Economic Research Office

Views on Semiconductor Shortages

	Remarks (release date in brackets)
IHS Markit	Automotive semiconductor shortages will resolve and the sector will be able to meet demand in Q1 2022 (22 June)
General Motors	Semiconductor shortage remains fluid as supply chain challenges continue in 2nd half of the year (4 August)
Volkswagen	"We expect supply of chips in the 3rd quarter to be very volatile and tight" (19 August)

Source: Company documents, MUFG Bank Economic Research Office

4-1. Overview

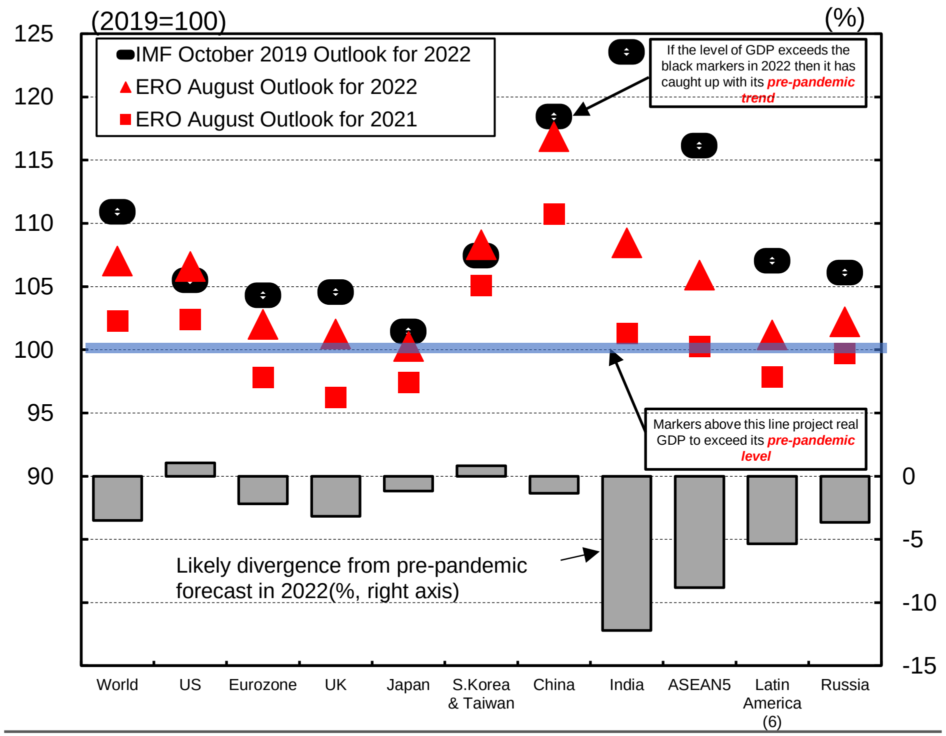
- In 2021-2022 there is likely to be some divergence in the global economy. Emerging economies (excluding China) are set to face a slower economic recovery compared to advanced economies.
  - ✓ We expect that advanced economies will continue to ease restrictions with the benefit from improving vaccination coverage. While goods consumption has already recovered in many places, the recovery in services consumption may take longer. In Japan, where there is more scope for an improvement in vaccination coverage and strained healthcare resource, the rebound effect from loosening restrictions and easing cautiousness is likely to accelerate economic recovery at the end of 2021 at the earliest.
  - ✓ China's economy will steadily grow thanks to its zero-Covid strategy. However, the pace of the recovery in other emerging markets is likely to remain sluggish due to low vaccination coverage and pressure from high hospitalisation rates.
- The recovery to the pre-pandemic level of activity throughout the year is forecast to happen in 2021 in the US and newly-emerging economies in Asia, and 2022 in the Eurozone and Japan. But it is worth noting that emerging-Asian economies besides from China are well below their pre-pandemic growth trajectory.

Global Economic Outlook Table (Selected Countries and Regions)

Real GDP growth rate	2020	MUFG outlook (Aug) 2021	MUFG outlook (Aug) 2022	MUFG outlook (May) 2021	MUFG outlook (May) 2022
World	- 3.2	5.7	4.6	5.7	4.4
US	- 3.4	6.0	4.1	6.0	4.3
Eurozone	- 6.5	4.6	4.3	4.0	4.4
UK	- 9.8	6.7	5.2	6.0	5.2
Japan (fiscal year)	- 4.5	3.1	2.7	3.6	2.6
Japan (calendar year)	- 4.6	2.1	2.9	2.2	3.0
Asia (11 countries)	- 0.8	7.2	5.6	7.3	5.3
China	2.3	8.3	5.5	8.4	5.5
ASEAN (5 countries)	- 3.4	3.8	5.6	4.7	5.0
Indonesia	- 2.1	3.7	5.2	4.3	4.5
Thailand	- 6.1	1.5	4.3	2.2	4.0
Malaysia	- 5.6	4.3	5.8	5.9	5.1
The Philippines	- 9.6	4.9	6.8	6.2	6.1
Vietnam	2.9	5.7	7.3	6.8	6.4

Source: National statistics, IMF, MUFG Economic Research Office

Economic Outlook for Major Regions (Pre-pandemic vs Latest Forecast)

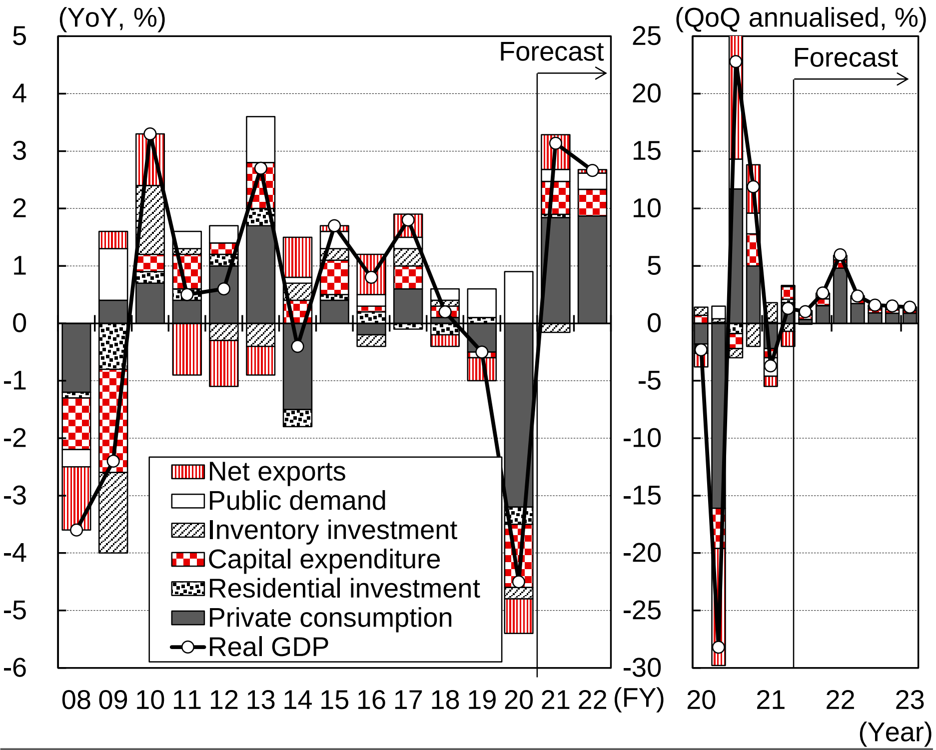


Note: The pre-pandemic real GDP trend was calculated from the October 2019 IMF Outlook.
Source: IMF, MUFG Bank Economic Research Office

4-2. Japanese Economy: Overview

- The real GDP growth rate for the April-June quarter (first preliminary estimate) was 1.3% QoQ annualised. Although small, it marks a return to positive growth due in part to a rebound from the fall in real GDP the previous quarter. Capital expenditure, residential investment and exports recorded relatively strong growth, whereas private consumption was curbed by the third state of emergency.
- Downward pressure continued into the July-September quarter, particularly on private consumption, owing to the fourth state of emergency. However, it is likely the economy will recover in the future assuming vaccinations will continue and restrictions will be eased in stages. That being said, there are still concerns that the medical system is stretched, and the pace of recovery is predicted to be gradual.
- The real GDP growth rate is forecast to recover to 3.1% YoY in FY2021, after which it will continue to gradually recover into FY2022 and record strong growth of 2.7% YoY for that year which will be partly caused by the carry-over effect. In terms of the level of real GDP, the economy will return to its pre-COVID-19 level (FY2019) in FY2022.

Japan Real GDP and Outlook (Fiscal Year, Quarterly)



Source: Cabinet Office, MUFG Bank Economic Research Office

Japan Real GDP and Outlook (Fiscal Year, QoQ Annualised)

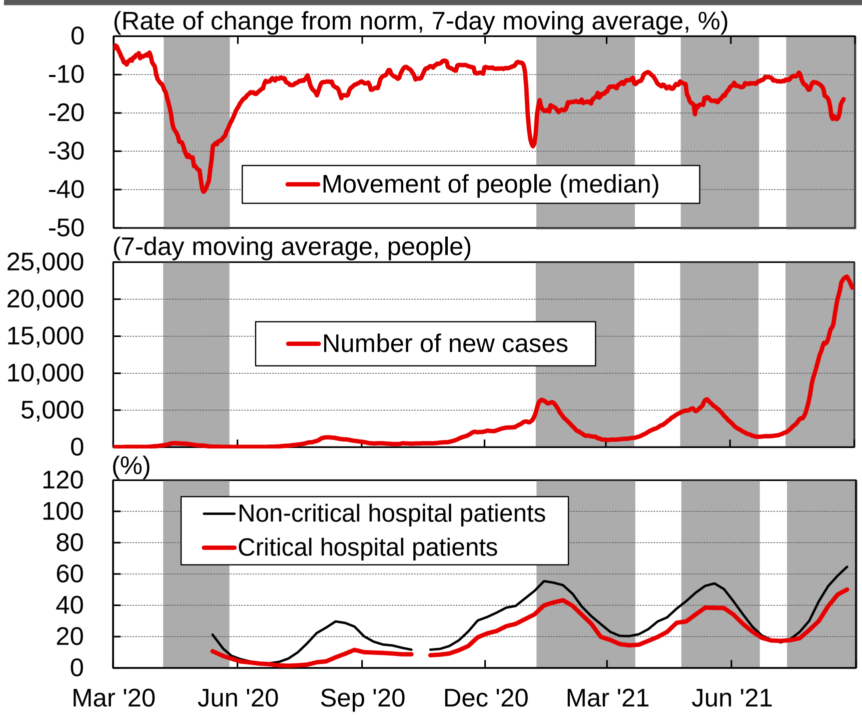
	FY2019 (Actual)	FY2020 (Actual)	FY2021 (Outlook)	FY2022 (Outlook)
Real GDP	-0.5	-4.5	3.1	2.7
Private consumption	-1.0	-5.9	3.4	3.5
Residential investment	2.5	-7.2	1.6	-0.1
Capital expenditure	-0.6	-6.8	3.6	2.9
Inventory investment (contribution)	0.0	-0.2	-0.2	0.0
Public demand	1.9	3.5	0.8	1.1
Net exports (contribution)	-0.4	-0.6	0.6	0.1
Exports	-2.2	-10.4	14.1	3.3
Imports	0.2	-6.8	10.2	2.9
Nominal GDP	0.3	-3.9	3.0	3.0
GDP Deflator	0.9	0.6	-0.2	0.3

Source: Cabinet Office, MUFG Bank Economic Research Office

4-2. Japanese Economy: Situation Surrounding the Pandemic

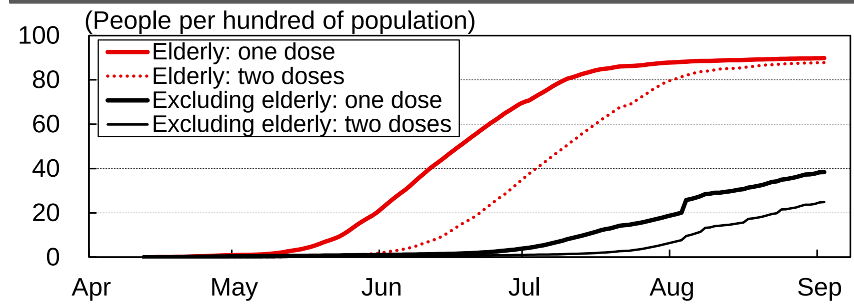
- After the third state of emergency was lifted in June, with the exception of Okinawa, the government then declared a fourth state of emergency in Tokyo from 12th July. At present, this state of emergency has been extended until 12th September and has been expanded to cover 21 prefectures.
- A sharp rise in the number of COVID-19 cases has increased the pressure on the system of medical care (the number of those recuperating at home has also increased). Even if mobility and the number of new cases are reduced, it is likely the burden on the medical care system will remain for the time being, which means restrictions may be extended, such as the state of emergency and priority preventative measures.
- The government predicts it is on schedule to finish vaccinating all citizens who want to be vaccinated between October and November. Based on the number of elderly vaccinated, who were offered a vaccine first (the spread of infection and critical cases has been relatively contained), it is likely the downward pressure on medical resources will lessen after the vaccine rollout, and restrictions will be eased.
- That being said, there is uncertainty about the risk of variants and the continued efficacy of vaccines, and it is predicted that society's sense of caution about the spread of infection will remain for the time being. Japan is likely to reach for a return to economic normalcy while allowing a certain rise in the number of cases and living "with COVID" (restrictions will be eased at a gradual pace).

Mobility and Number of COVID-19 Cases and Hospital Cases



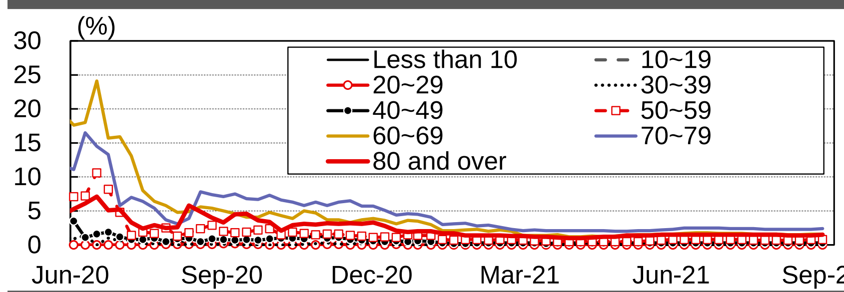
Source: Ministry of Internal Affairs and Communications, MUFG Bank Economic Research Office

General Public Vaccine Rollout (Total Including Workplaces)



Note: For "excluding elderly", there are days when the cumulative total is lower to eliminate duplicates in workplaces. Total is cumulative
Source: Prime Minister of Japan and His Cabinet, MUFG Bank Economic Research Office

Rate of Critical COVID-19 Patients in Japan by Age



Note: Rate of critical patients is the number of critical patients of those requiring hospital treatment by age
Source: Ministry of Health, Labour and Welfare, MUFG Bank Economic Research Office

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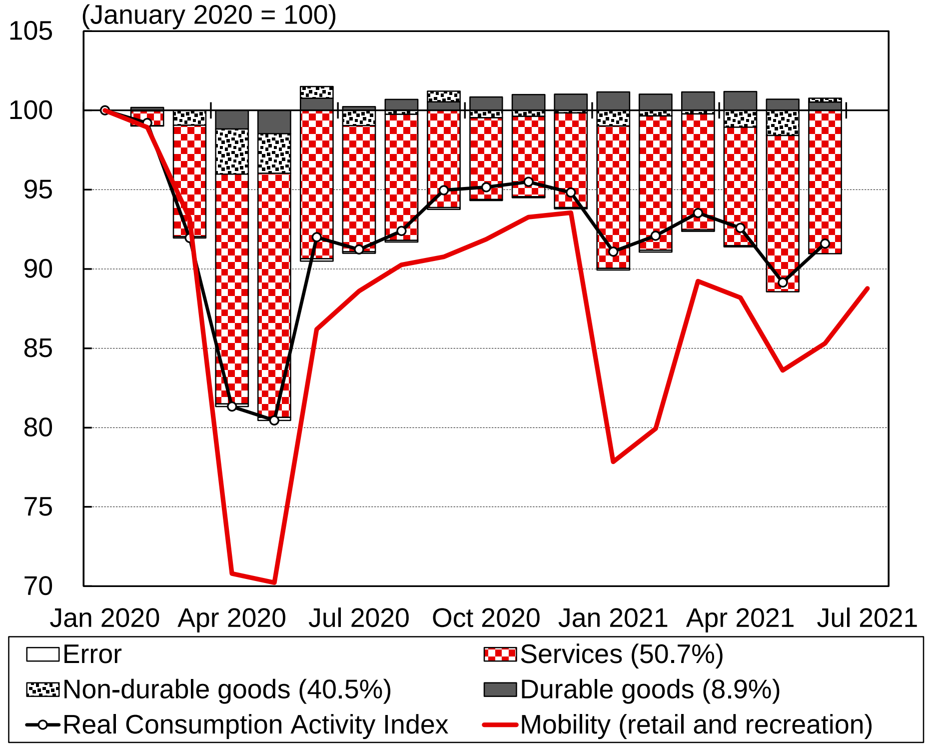
4-2. Japanese Economy: Private Consumption

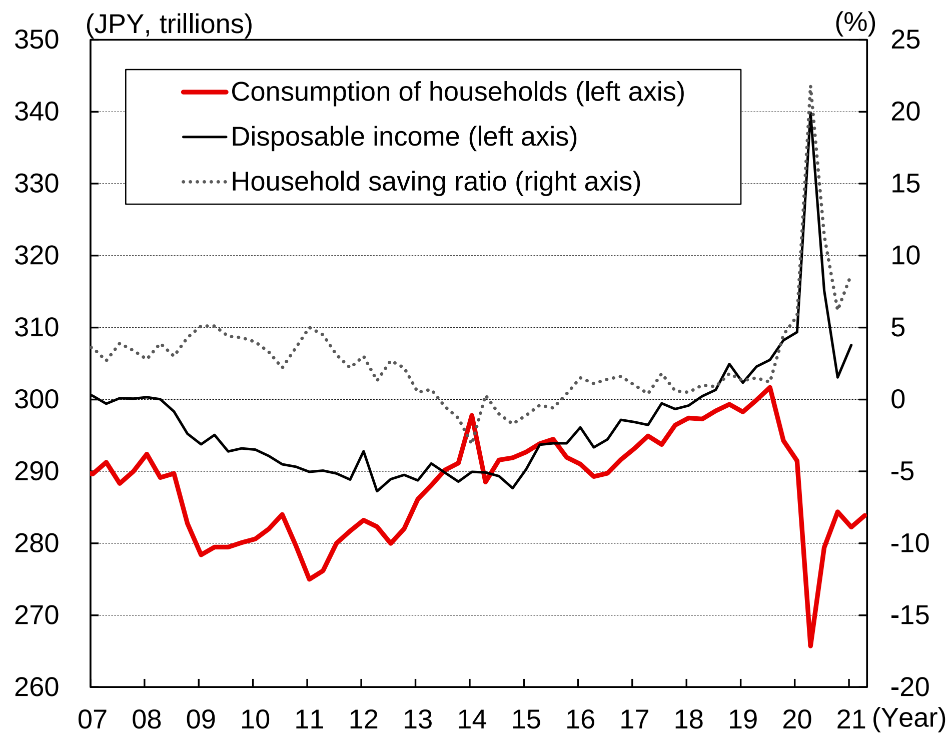
- Business hours – particularly those of dining establishments and shopping centres – have been restricted at present under the fourth state of emergency. The impact of these restrictions is smaller than during the first state of emergency due in part to efforts to balance curbing the spread of infection with economic activities, and an increase in online consumption. Nevertheless, there has been an obvious slump, especially in consumption of services, and the effect of a intermittent states of emergency since the start of this year is clear.
- From the October-December quarter onwards, after the state of emergency is lifted and the vaccine rollout has ended, restrictions will be eased in stages and there is likely to be a gradual recovery of consumption of services, which has been suppressed due to a loss of spending opportunities up until now. Household savings have accumulated significantly as a result of fewer spending opportunities due to the pandemic, and a withdrawal of these savings in the future will likely underpin a recovery of consumption.
- The risk of a spread of infection and a highly cautious attitude towards infection among the public will continue after the vaccine rollout.

Consumption Activity Index by Item



Note: Figure in brackets denotes weight of item as a contribution to the Consumption Activity Index. Mobility is the average for that month
Source: Bank of Japan, MUFG Bank Economic Research Office

Private Consumption, Disposable Income and Household Savings

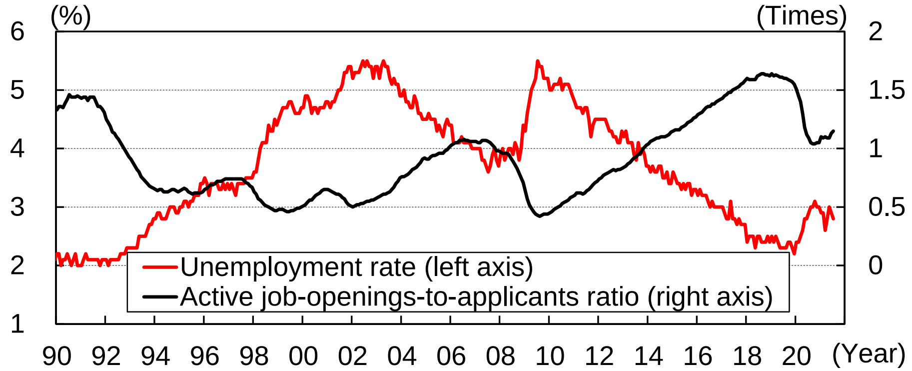


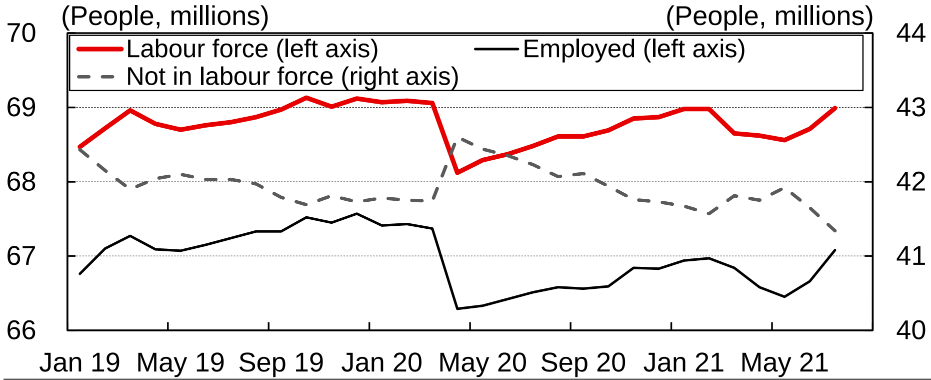
Source: Cabinet Office, Ministry of Internal Affairs and Communications, MUFG Bank Economic Research Office

4-2. Japanese Economy: Employment and Income

- Although the unemployment rate decreased in July (2.8%) from the previous month, the declaration of a fourth state of emergency means the downward pressure on the labour market will continue to grow in the short term. As most government policies to support workers are cut back or ended in the latter half of this financial year, an adjustment of labour will take place in some sectors and it will be important to keep an eye on the impact this may have on the unemployment rate. That being said, it is likely the labour market will continue to improve on the whole as the economic recovery gathers momentum after the vaccine rollout and demand for labour picks up, leading to a gradual decrease in the unemployment rate.
- The monthly real wage income of employees shows a decrease in both the number of employees and wages per capita due to the impact from the third state of emergency, and the recovery up until now has taken a downturn. Nevertheless, the support for employees from the government up until now has meant the fall in real wage income has been relatively small. Looking ahead, there will be some areas of continued weakness due to a slow recovery in the labour market in some industries, yet policies that will likely be formed this autumn are forecast to underpin wages to some extent. Taking this into account, income will probably start to recover again on the whole as demand for labour picks up, which in turn will support private consumption.

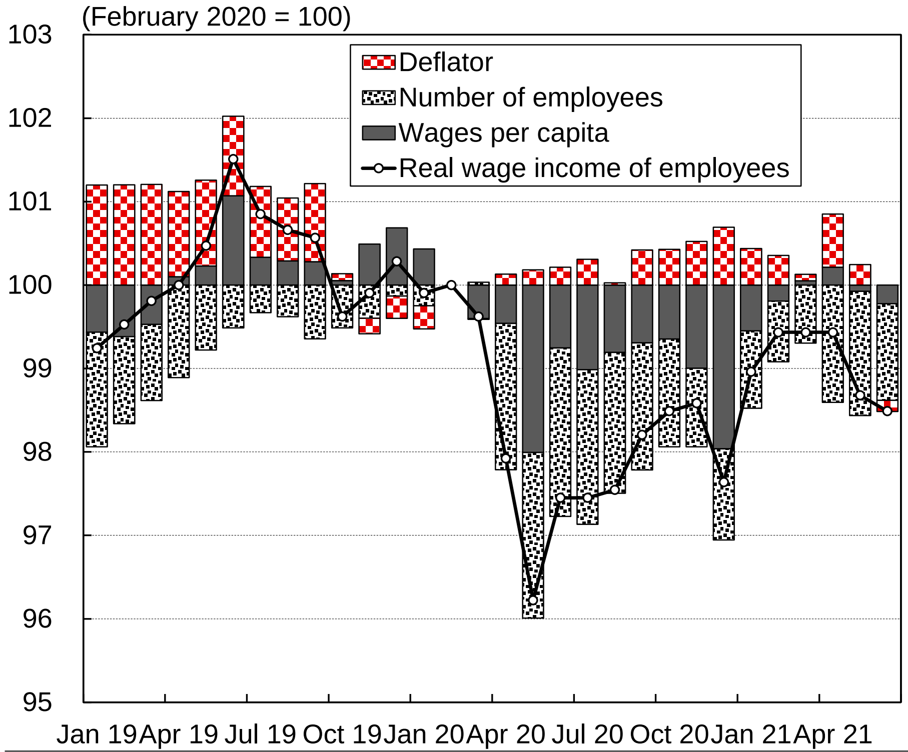
Labour-Related Indicators





Source: Ministry of Internal Affairs and Communications,
MUFG Bank Economic Research Office

Real Wage Income of Employees



Source: Cabinet Office, Ministry of Internal Affairs and Communications,
MUFG Bank Economic Research Office

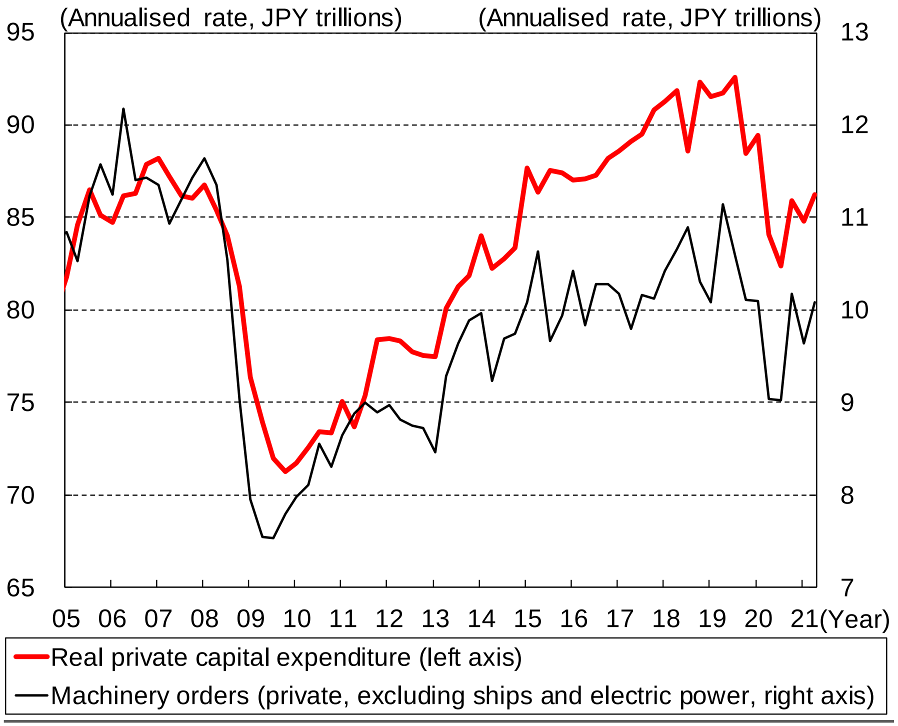
4-2. Japanese Economy: Capital Expenditure and Exports

- Looking at machinery orders, which are a leading indicator of capital expenditure, those received by the manufacturing sector continue to grow at a firm pace as business conditions surrounding the manufacturing sector continue to improve and the feeling of surplus capital eases. On the other hand, orders received by the non-manufacturing sector continue to see-saw as a result of COVID-19 restrictions, and the pace of recovery is generally a gradual one.

- That being said, corporations' planned fixed investment for this year (R&D, software and fixed investment excluding land purchasing expenses) increased 9.3% YoY according to the Bank of Japan's Tankan Survey in June. Taking into account the slump that occurred the previous fiscal year, this growth is a little soft, but there does appear to be a clear rise. Although there will be continued downward pressure, particularly on the non-manufacturing sector, it is likely that capital expenditure will clearly follow an upward trend on the whole thanks to a recovery in business conditions, even in the non-manufacturing sector, as restrictions are slowly eased.

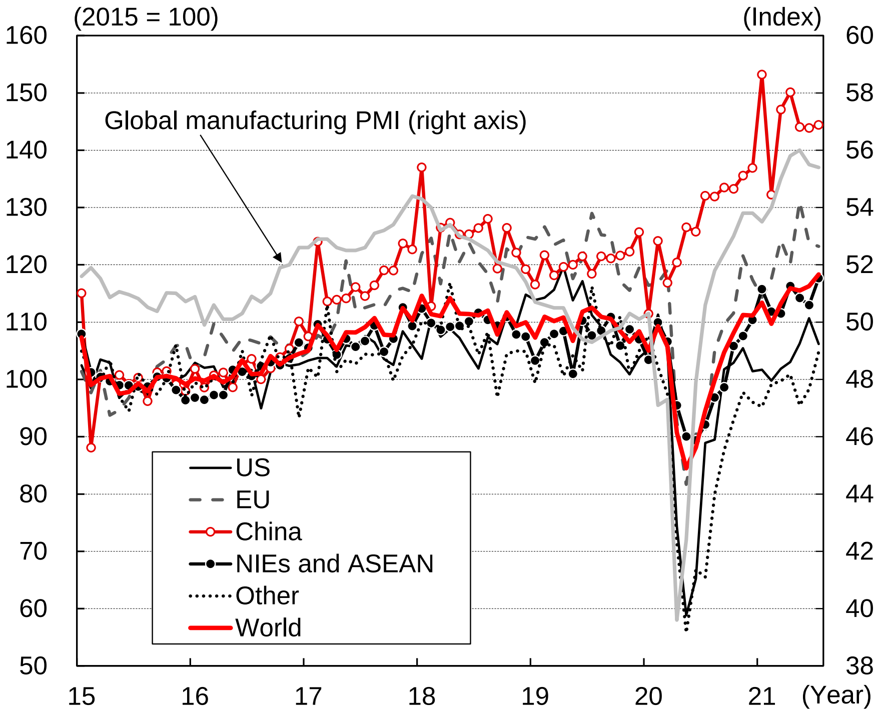
- Real exports of goods showed robust growth in the April-June quarter owing to a recovery of overseas economies. According to the breakdown by country and region, exports to China exhibited strong growth, and those to NIEs and ASEAN continue to increase. Despite some downward pressure in the future caused by the shortage of semiconductors, it appears the economies of export destinations will continue to recover and, although the pace of growth will slow, Japanese exports will remain firm.

Real Capital Expenditure and Machinery Orders



Note: Annualised rate of "machinery orders" (private companies excluding ships and electric power companies) calculated by Economic Research Office
Source: Cabinet Office, MUFG Bank Economic Research Office

Real Exports by Country and Region

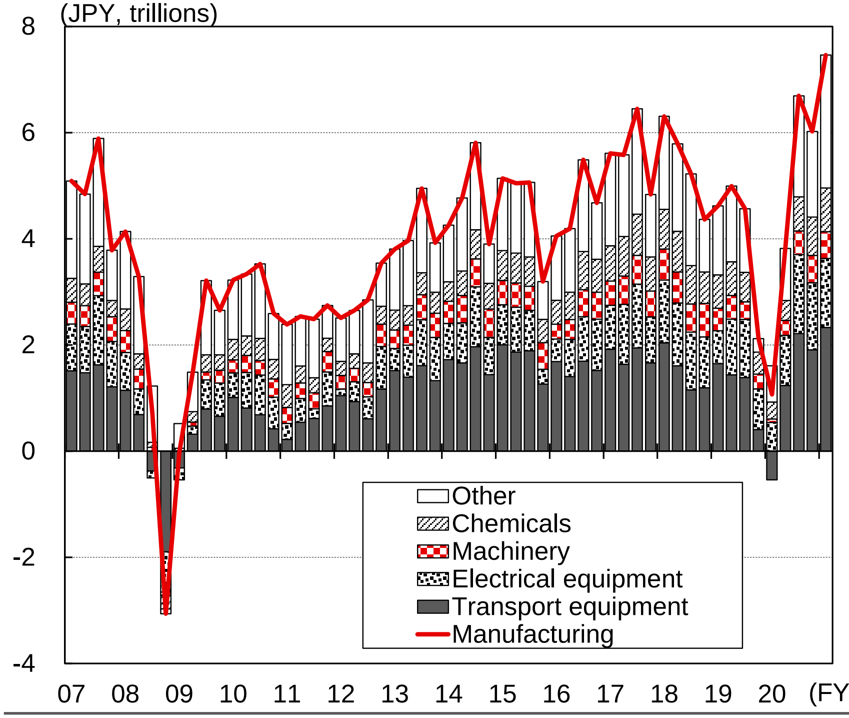


Note: The UK is included in "other" for the entire period shown
Source: Bank of Japan, MUFG Bank Economic Research Office

4-2. Japanese Economy: Business Results

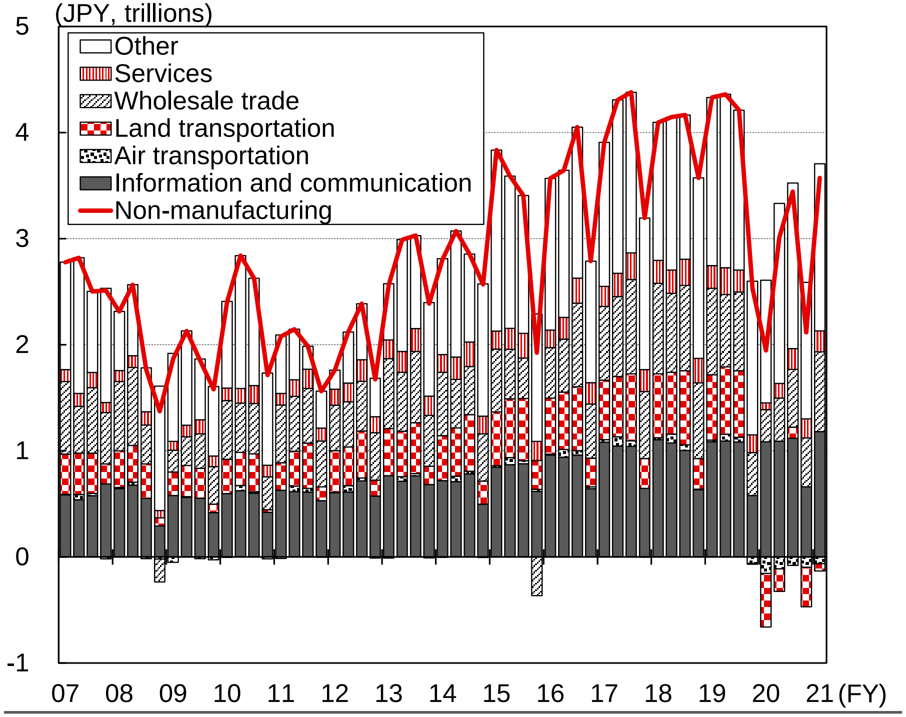
- Ordinary profits of corporations listed on the first section of the Tokyo Stock Exchange (excluding financial corporations) have been recovering since the slump that took place in the April-June quarter last year – the first fall since the global financial crisis. In the April-June quarter of this year, total ordinary profits as a whole recorded significant growth as it rebounded from the fall in growth that occurred during the same quarter last year.
- According to the breakdown of ordinary profits, strong growth in industries such as “machinery”, “transport equipment” and “electrical equipment” stand out in the manufacturing sector, and the level of ordinary profits across wide range of industries is higher than it was during the same quarter in 2019. On the other hand, the deficit in industries such as “air transportation” and “land transportation” continues, and the recovery is slow due to the impact of restrictions. As a result, ordinary profits in for the non-manufacturing sector remain below the level they were at during the same quarter in 2019.
- Looking ahead, it appears industries in the manufacturing sector will continue to grow at a firm pace as the Japanese and overseas economies recover. Meanwhile, downward pressure on certain industries in the non-manufacturing sector will continue to increase for the time being. As a result, total ordinary profits are forecast to recover at a gradual pace. After the vaccines are distributed, restrictions will be slowly eased and it is likely there will be a marked recovery in business results in the non-manufacturing sector as face-to-face services pick up.

Ordinary Profits of Manufacturing Corporations Listed on the First Section of Tokyo Stock Exchange



Note: “Ordinary profits” of 710 firms that have published their Apr-Jun 2021 results as of 31 Aug and have published data continually since FY2006.
Source: Bloomberg, MUFG Bank Economic Research Office

Ordinary Profits of Non-Manufacturing, Non-Financial Corporations Listed on the First Section of Tokyo Stock Exchange



Note: "Ordinary profits" of 640 firms that have published their Apr-Jun 2021 results as of 31 Aug and have published data continually since FY2006
Source: Bloomberg, MUFG Bank Economic Research Office

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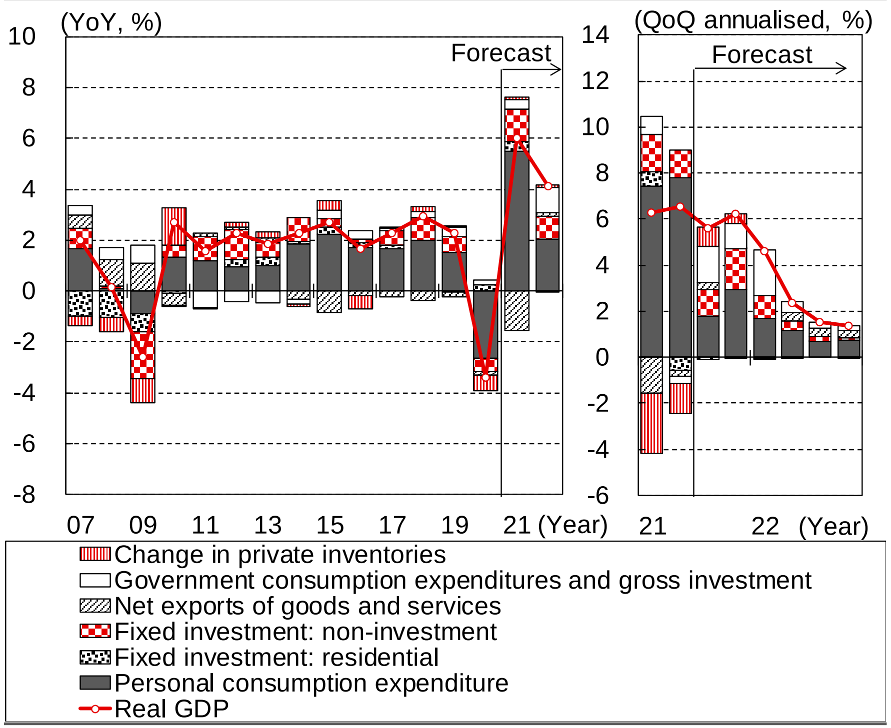
4-3. US Economy: Overview

- The US real GDP growth rate for the April-June quarter (second estimate) was 6.6% QoQ annualised, thereby maintaining its strong growth from the previous quarter (6.3% QoQ annualised). The level of real GDP has recovered to its pre-pandemic, 2019 level at a lightning-fast pace. Personal consumption expenditure grew at a firm pace, increasing 11.9% QoQ annualised thanks to cash benefits received under economic policies by the Biden administration in March and April and an easing of restrictions. Non-residential fixed investment also continued to record strong growth and increased 9.3% QoQ annualised on the back of robust domestic demand.
- There are still concerns about another rise in cases due to the spread of variants, but policies of most states focus on “vaccination”, rather than “tightening restrictions on movement”. Although it is possible that personal consumption expenditure will plateau for a while, there is not expected to be a large downturn. In the corporate sector, productivity and investment will increase further as the economy normalises, despite supply constraints, such as the labour shortage brought about in part by the COVID-19 pandemic (page 25) and the semiconductor shortage. The real GDP growth rate for 2021 is forecast to hit 6.0% YoY.
- Of the economic policies announced by President Biden in March and April, the Senate has decided to reduce the scale of those related to infrastructure investment. The House of Representatives will also decide and pass bills this autumn, the effects of which are forecast to take hole from the start of next year. As a result, the real GDP growth rate for 2022 is expected to be 4.1% YoY – a continuation of the strong growth.

Real GDP and Breakdown of Demand Components



Source: Department of Commerce, MUFG Bank Economic Research Office

GDP Outlook by Calendar Year

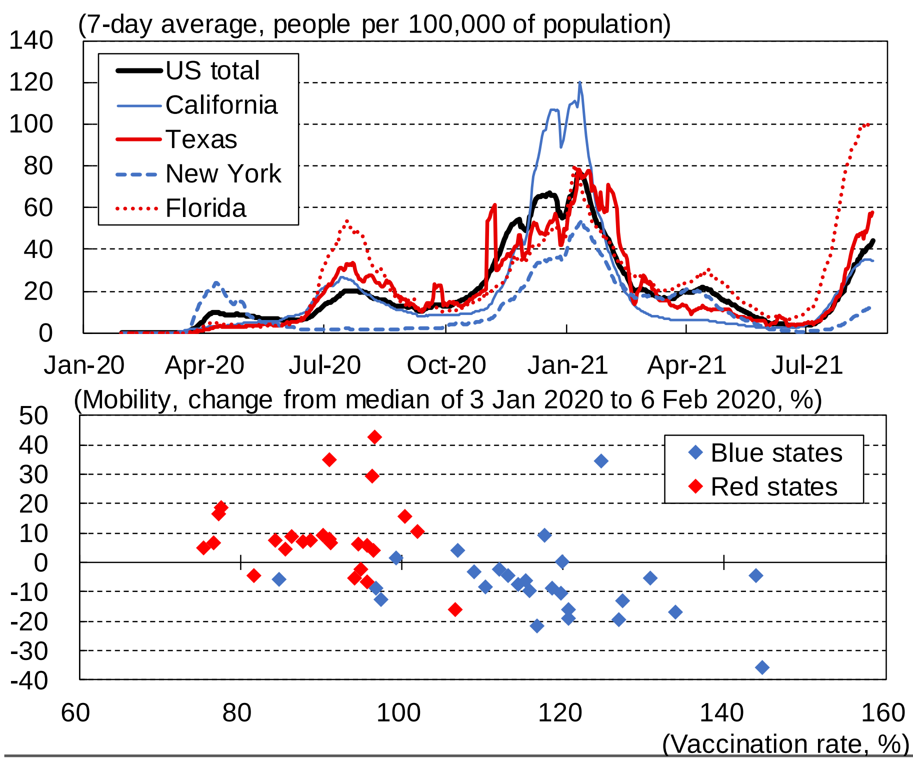
	2020 (actual)	2021 (outlook)	2022 (outlook)
Real GDP	-3.4	6.0	4.1
Personal consumption	-3.8	8.0	2.9
Residential investment	6.8	9.7	-1.6
Non-residential investment	-5.3	8.8	6.2
Change in inventories (contribution)	-0.6	0.1	0.1
Government consumption expenditure	2.5	2.1	5.8
Net exports (contribution)	-0.1	-1.6	0.1
Exports	-13.6	5.0	5.7
Imports	-8.9	12.8	3.0
Nominal GDP	-2.2	9.8	6.9

Source: Department of Commerce, MUFG Bank Economic Research Office

4-3. US Economy: Situation Surrounding the Pandemic

- Even in the US, where the vaccinations are progressing, there was a another rise in cases due to a spread of the Delta variant. In red states (those that voted for the Republican Party at the Presidential Election) in particular, mobility is recovering and the spread of infection is swift, even despite a relatively slow vaccine rollout.
- President Biden and local government introduced a new vaccination policy in response to the rise in cases. In Florida, where there has been a considerable rise in cases, the number of vaccinations is starting to increase at a faster pace, despite the state governor refusing to tighten restrictions on movement. In the future, it is thought that states will not introduce strict measures, such as closing shops, and will aim to slow the spread of infection by raising the vaccination rate.

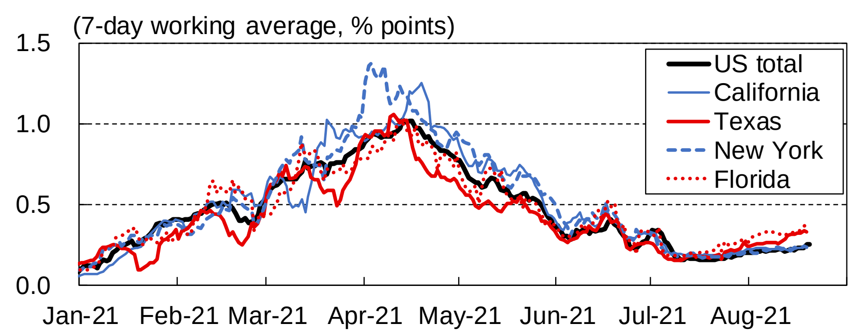
Number of COVID-19 cases, Mobility and Vaccination Rates (as of 9 Aug)



Note: Blue states are those that voted for the Democratic Party during the 2020 presidential election. Red states are those that voted for the Republican Party. Mobility is the median
Source: Centers for Disease Control and Prevention, MUFG Bank Economic Research Office

Vaccine Rollouts and Vaccination Rates (% of Population)

	Vaccination policy
All US	President Biden called for state government offer USD 100 to they newly vaccinated. He also announced that small- and medium-sized businesses will be reimbursed for offering their employees paid leave to get their family vaccinated.
California	Proof of vaccination is required by patrons and employees to go indoors in some places in San Francisco. Proof of vaccination or a negative PCR test is required for health care workers and school teachers and staff.
New York	Proof of vaccination is required by patrons and employees to go indoors in some places in New York City.



Source: Centers for Disease Control and Prevention, MUFG Bank Economic Research Office

4-3. US Economy: Economic Policies under Consideration

- In August, the Senate approved the USD 1.1 trillion Bipartisan Infrastructure Investment and Jobs Act (USD 548 billion in new expenditures over five years). Compared with the American Jobs Plan announced by President Biden in March, the spending on infrastructure will be lower, but it is likely to underpin growth from 2022 after it is passed in the House of Representatives in autumn and comes into effect.
- The Budget for FY2022, which will raise expenditures over the next ten years by USD 3.5 trillion (a fiscal deficit of up to USD 1.75 trillion, was passed in both the House of Representatives and the Senate by the Democratic Party alone. However, despite moderates in the Democratic Party expressing their approval of the decision (at the start of legislative process), they did convey their concerns about the scale of expenditures and the rise in the fiscal deficit. As a result, a reduction of the scale of the bill during the legislative process was unavoidable and is it predicted that it will have a limited effect in terms of stimulating the economy.

The American Jobs Plan and the Infrastructure Investment and Jobs Act

The American Jobs Plan (Published in March)	Amount (USD tn)	Infrastructure Investment and Jobs Act (Agreed by Senate in Aug)	Amount (USD bn)
Expenditure (8 years)	2.25	**Expenditure (5 years)**	548
Transform infrastructure	1.26	**Transport**	284
Expand access to care	0.4	**Water**	126
Revitalize manufacturers and small businesses	0.3	**Power**	73
Invest in R&D	0.18	**Broadband**	65
Workforce development	0.11	**-**	-
Income (15 years)	2.75	**Income**	-
Raise corporate tax rate	1.3	**Unused COVID-19 relief fund**	260
Raise minimum tax rate	0.75	**Increase in income from economic growth**	56
Eliminate tax incentives for FDII	0.4	**Unused federal unemployment aid**	53
Other	0.3	**Other**	-

Source: Department of Labor, Department of Commerce, MUFG Bank Economic Research Office

Summary of Budget

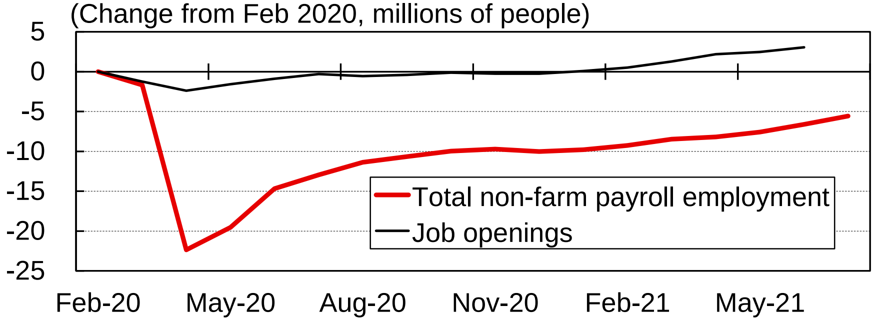
	Main Points		Amount (USD bn)
Total	-		1,749
Insurance, education, employment, pensions	• Expand access to infant education and care • Offer free enrollment at community colleges		726
Banks, housing, cities	• Construct and preserve affordable housing		332
Energy, natural resources	• Offer incentives to power companies to invest in clean energy • Offer cash incentives for the purchase of thermal-resistant electric homes		198
Agriculture, nutrition, forestry	• Reduce carbon dioxide emissions and prevent wildfires • Invest in regional development and clean energy		135
Finance	**Increase in expenditures**	• Establish system of paid leave for family and nursing care • Expand eligibility for Medicare • Extend tax cuts for those with infants	**Max -1**
	Increase in income, decrease in expenditures	• Reform corporate & international tax • Raise taxes for wealthy, strengthen tax enforcement • Lower cost of medicine	
Other		-	359

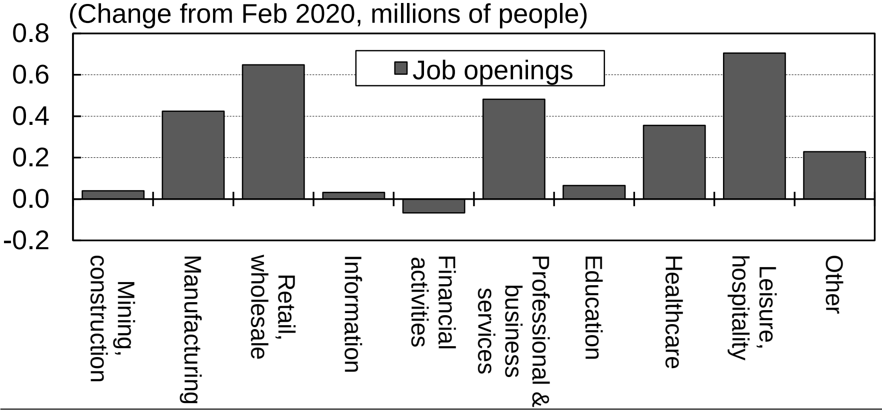
Source: Department of Commerce, MUFG Bank Economic Research Office

4-3. US Economy: Employment and Private Consumption

- The number of non-farm payrolls continued to record strong growth of 9.43 million in July from similar levels the previous month (9.38 million month-on-month. Meanwhile, the number of job offerings in June was 10,073,000 (an increase of 590,000 from May), which is a new record high. Vacancies are starting to appear as demand for labour recovers, which precedes that of supply.
- The breakdown of job openings by sector show a marked rise in the “retail and wholesale” and “leisure and hospitality” industries, which average wages are comparatively low and it is difficult to work remotely. It is thought that concerns about a spread of infection, the need for child care brought about by school closures and a rise in unemployment benefits has limited the labour supply. While concerns about the spread of COVID-19 will remain, other limitations are expected to disappear in September and the number of employees will continue to rise steadily on the whole.
- Real personal consumption expenditure fell by 0.1% MoM in July. While consumption of services marked its fifth month of increases with a rise of 0.6% MoM, growth of consumption of goods turned negative: -1.6% MoM. High-frequency data shows the recovery of consumption of services such as dining and travel has plateaued at present, yet personal consumption expenditure is expected to maintain its overall trend of recovery considering the possibility infection will be controlled due to further progress in vaccinations and restrictions on movement.

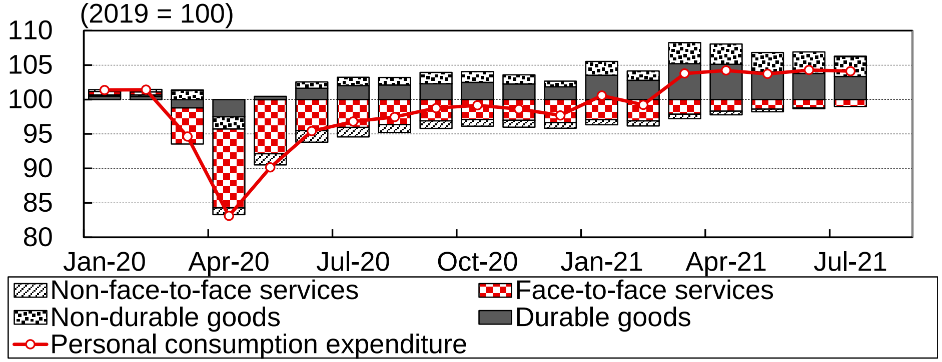
Number of Employees and Job Openings and Job Openings by Sector

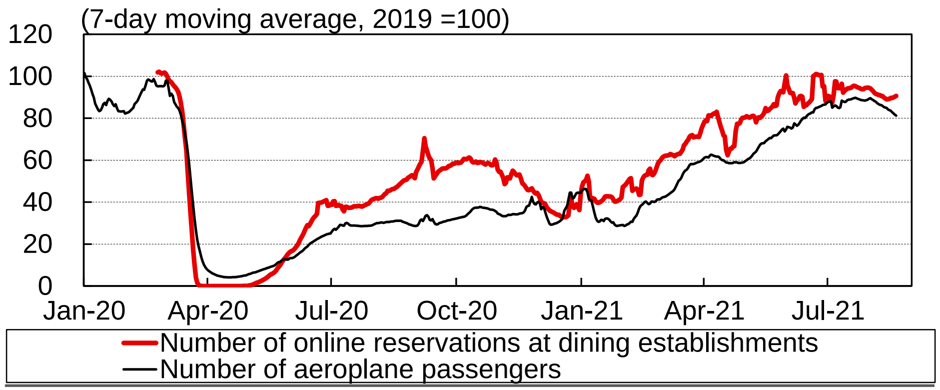




Source: US Department of Labor, MUFG Bank Economic Research Office

Private Consumption, Online Reservations and Aeroplane Passengers





Source: US Department of Commerce, US Department of Homeland Security, Open Table, MUFG Bank Economic Research Office

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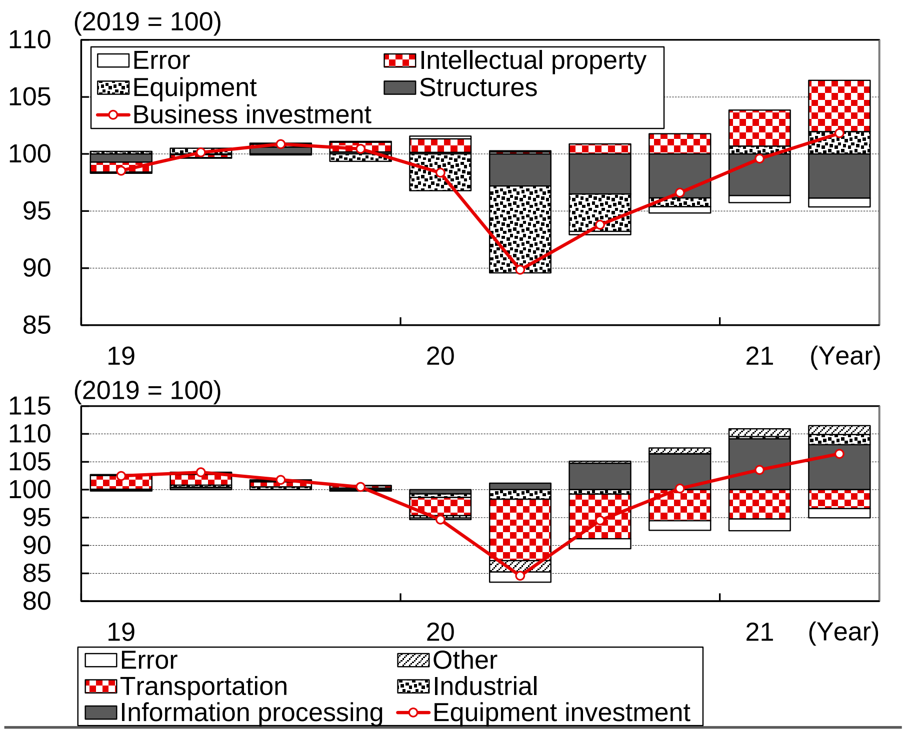
4-3. US Economy: Capital Expenditure

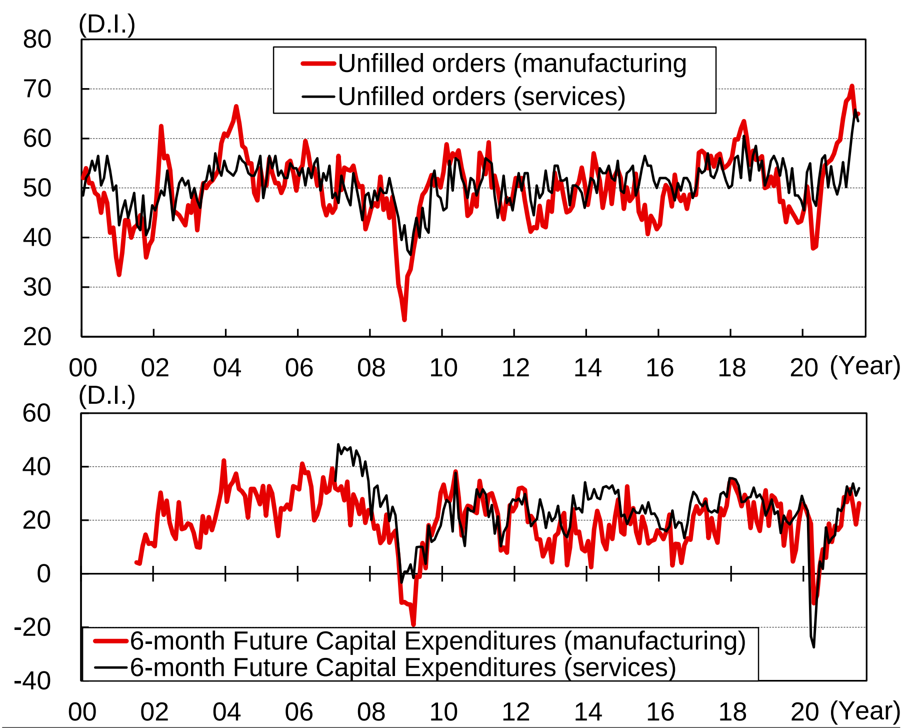
- During the pandemic, there was a need to adjust by working from move, which resulted in strong growth of investment in “information processing equipment” (laptops) and software, which in turn drove the overall growth of business investment.
- In the April-June quarter, growth of investment in equipment and intellectual property slowed from 9.3% QoQ annualised from 12.9% QoQ annualised in the January-March quarter, yet it maintained a strong level of growth. A breakdown of investment in equipment shows quarter-on-quarter growth of “information processing” turned negative, whereas growth of investment in “transportation” and “industrial” equipment accelerated.
- The manufacturing sector and services both have a high level of “unfilled orders”, which is an indicator of business sentiment. It appears production has not caught up to demand amid supply constraints. Appetite for business investment is also at a high level due to strong demand, and is forecast to continue to recover depending on whether or not supply constraints are still present.

Business Investment and Investment in Equipment



Source: Department of Commerce, MUFG Bank Economic Research Office

Change in Major US Domestic and Foreign Policies



Source: IHS Markit, Federal Reserve Bank of New York, Federal Reserve Bank of Dallas MUFG Bank Economic Research Office

4-3. US Economy: Monetary Policy

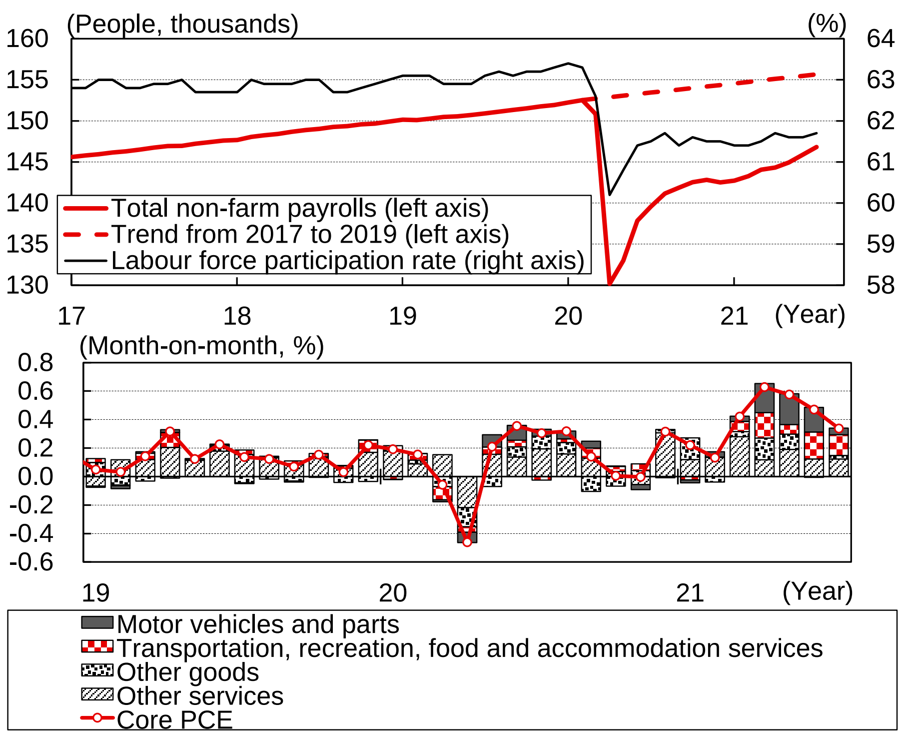
- In the minutes for the Federal Open Market Committee (FOMC) meeting in July, "most" participants noted: "provided that the economy were to evolve broadly as they anticipated, they judged that it could be appropriate to start reducing the pace of asset purchases this year". Chairman Powell expressed a similar view during the Jackson Hole symposium. While some FOMC participants did say that tapering would be possible in September, the number was fewer than half of those with voting rights.
- The total non-farm payrolls is still around 9 million lower than it was before the COVID-19 pandemic, and private consumption expenditure (PCE deflator) slowed for the third consecutive month to 0.3% MoM in July. According to the minutes from the FOMC meeting in July, "many" participants emphasised the importance of communicating with the market once tapering had started so that it does not immediately lead to a rise in expectations. At the Jackson Hole symposium, Chairman Powell stuck to this message, explaining that tapering does not directly signal the timing of a rate hike.
- Looking ahead, the US Fed is likely to announce a tapering at the FOMC meeting in November or December, whereas the start of interest rate hikes as a result of a recovery of the number of employees will take place in 2022 or earlier. Most FOMC participants appear cautious about raising interest rates, and it the rise in long-term interest rates will probably remain at a gradual pace.

Opinions on Tapering of FOMC Participants with 2021 Voting Rights

Member	Timing of tapering	Statement
Powell	None	-
Clarida	This year	Expects the central bank to maintain the pace of its asset purchases through the rest of 2021
Brainard	From October	Will be more confident in judging the process of pulling back support once she has September's data in hand
Bowman	None	-
Quarles	None	-
Waller	Possible in September	Thinks Fed could be ready by September (depending on the next two jobs reports)
Williams	None	-
Barkin	Did not state	It is credible to think we will get there (an environment whereby the Fed can start tapering) in the next few months
Bostic	Between October and December, but September is possible	Goal of "substantial progress" could be accomplished after another month or two of strong job improvement. Tapering could begin between Oct~Dec, or sooner, if the gains in Aug are stronger than expected
Daly	This year or early next	My own view is we'll probably be in a good position to taper at the end of this year or early next
Evans	Did not state	Wants to see a "few more" monthly employment reports

Note: Members in bold are on the Board of Governors. Others are Federal Reserve Bank presidents
Source: Federal Reserve Board, news reports, MUFG Bank Economic Research Office

Non-Farm Payrolls, Labour Force Participation Rate, Core PCE

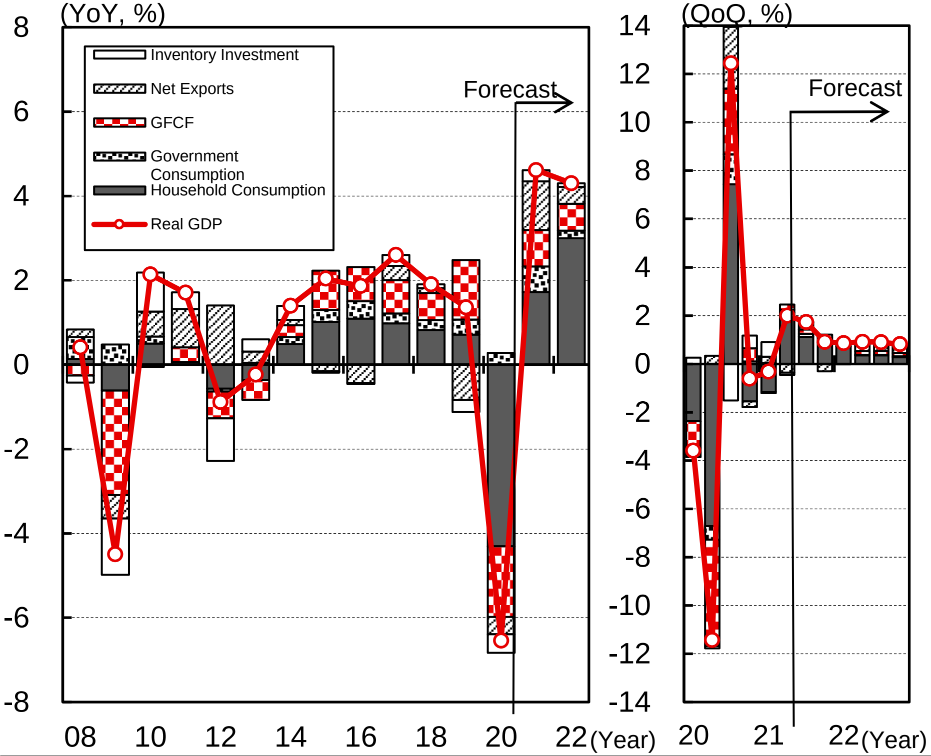


Source: Department of Labor, Department of Commerce, MUFG Bank Economic Research Office

4-4. European Economies: Eurozone - Overview

- Eurozone real GDP increased by 2.0% QoQ in Q2 (second estimate) and was positive for the first time in three quarters. The rollout of vaccinations was accelerated, the COVID caseload (which had been elevated from autumn 2020) started to decline, and mobility restrictions were gradually relaxed.
- Caution has increased as COVID variants have spread rapidly but major Eurozone countries have been working to increase vaccine demand and plan to continue relaxing restrictions for vaccinated citizens. As governments will not rush to tighten fiscal policy and the ECB is likely to maintain its accommodative policy stance, we expect that GDP will continue to recover from Q3.
- The recovery after the steep decline in real GDP experienced in 2020 is likely to take around two years and we expect that GDP will return to its pre-pandemic level in 2022. We forecast growth rates of 4.6% YoY in 2021 and 4.3% YoY in 2022.

Eurozone Real GDP Forecast



Note: Q2 expenditure breakdown data is a MUFG Bank estimate.

Source: Eurostat, MUFG Bank Economic Research Office

Table of Real GDP Forecast of Major European Countries

(QoQ, %) (YoY, %)

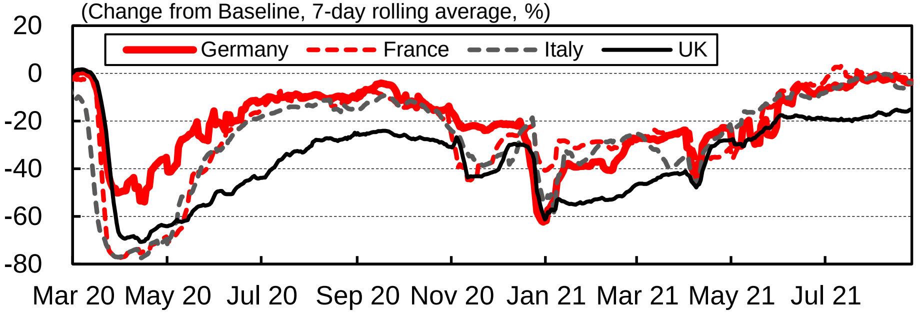
	2020			2021		2020	2021	2022
	Q2	Q3	Q4	Q1	Q2	Actual	Forecast	Forecast
Eurozone	-11.4	12.4	-0.6	-0.3	2.0	-6.5	4.6	4.3
Germany	-10.0	9.0	0.7	-2.1	1.5	-4.8	3.4	4.5
France	-13.5	18.8	-1.0	-0.0	0.9	-8.0	6.0	4.0
Italy	-13.1	16.0	-1.8	0.2	2.7	-8.9	5.6	4.2
UK	-19.5	16.9	1.3	-1.6	4.8	-9.8	6.7	5.2

Source: Eurostat, Office of National Statistics, MUFG Bank Economic Research Office

4-4. European Economies: Eurozone – Situation Surrounding the Pandemic

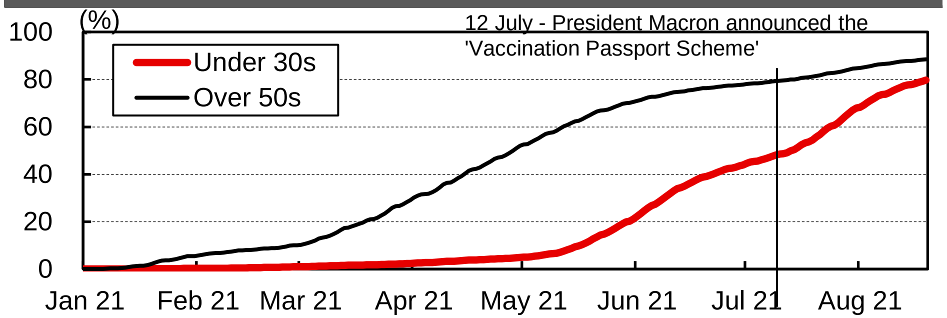
- In Germany, there are various countermeasures in place by region, and local governments are gradually relaxing restrictions for the vaccinated. However, there are still rising concerns surrounding new variants so the government is currently reviewing a third vaccination jab for the elderly, and is strengthening restrictions for the unvaccinated.
- In France, President Emmanuel Macron remarked that “we will have to live with [the virus] for a long time to come” and showed his stance for relaxing restrictions. The government has plans to maintain freedom for vaccinated people through the following: 1. strongly encouraging citizens to be vaccinated and 2. providing evidence of vaccination in places such as restaurants from August.
- In Italy, even though the state of emergency was extended from late-July to late-December, from 1 July, all areas were registered as a ‘white zone’, which is the lowest COVID-19 risk level. Like France, Italy has made presenting ‘evidence of vaccination’ mandatory, and is urging citizens to get vaccinated.
- In the UK, the government abolished the majority of restrictions on 19 July, but some local governments and companies continue to create their own strategies against the virus. Infections became more numerous with young people being the main group from June and throughout July. As a result, vaccinations that were originally for over 18s are now planned to be offered to 16-17 year olds.

Changes to Mobility for Major European Countries



Source: Google Statistics, MUFG Bank Economic Research Office

Vaccination Uptake by Age Group in France



Restriction Policies in Major European Countries

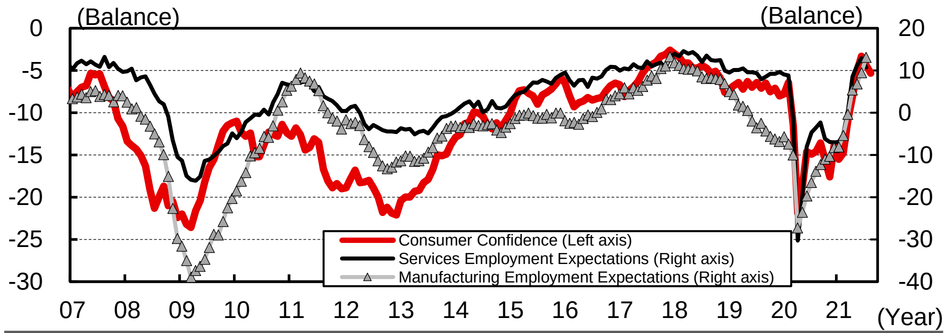
	Restrictions	Vaccinations
Germany	・Policies across the country vary by region, **but each local government has loosened requirements for showing a negative test result, and night curfews for those already vaccinated.** ・While Foreign Minister Maas stated that ‘When everyone in Germany has received a vaccine offer, there is no longer a legal or political justification for any kind of restriction’, fears over the increasing spread of variants are growing (right column).	**・The government ministers mentioned the possibility of introducing restrictions for unvaccinated citizens.** ・There are plans to start booster jabs for elderly citizens from September.
France	・Prime Minister Macron said that ‘We should aim to co-exist with the virus over strengthening restrictions’. **Policies are designed to more strongly incentivise citizens to get vaccinated (right column).**	**・From August, it is mandatory for citizens to show a ‘vaccination passport’ in places such as public transport and dining establishments. There will be a shift in policy that will grant more freedom to citizens who have had all their vaccinations.**
Italy	・The declaration of emergency was extended from late-July to late-December. However**, a colour-code system was implemented across the country to highlight the risk of infection in areas**. On 1 July, all areas were changed to ‘white zones’ (the lowest risk).	**・Showing your ‘Vaccination Passport’ and ‘Negative-COVID-19 status’ at public places, such as dining establishments, is mandatory.**
UK	・The government implemented a policy to abolish the majority of legal restrictions on 19 July. **Policies following this date were entrusted to local governments and companies to set up their own ways to deal with COVID-19.** ・In certain regions, the rule of wearing masks on public transport continues and many companies are still implementing work-from-home work styles.	・On 4 August, the government advisory board recommended expanding vaccinations to 16-17 year olds. Until this time, vaccinations were offered to all over-18s. ・Booster vaccinations will be offered for the elderly from September.

Source: Various press reports, MUFG Bank Economic Research Office

4-4. European Economies: Eurozone – Labour, Income and Private Consumption

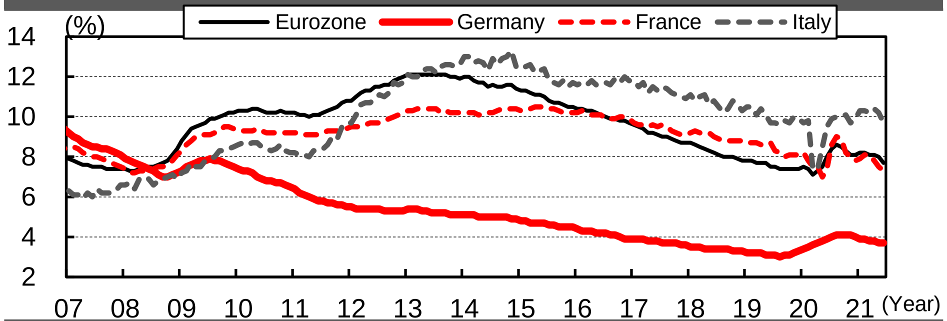
- In the Eurozone, the third wave of the pandemic has peaked out and vaccinations are progressing well, so each country's restrictions have been relaxed slightly. Mobility also started to return to normal in May of this year.
- Private consumption in Q1 continued to be below the previous year due to factors such as restrictions on movement, but with the scaling back of the restrictions, consumer confidence has started to recover since the beginning of the year. We predict that this, in combination with governments' income support schemes, will cause private consumption to improve in Q2 compared to the previous year and quarter, and will continue into Q3.
- In the Eurozone, the rise in unemployment is relatively small compared to the historic fall in economic activity because short-time work schemes have been adopted in the face of restrictions on economic activity and declining demand for labour. In June, the Eurozone's unemployment rate was 7.7%, which has been improved. When looking at the most recent European Commission confidence indicators, positive balances in employment expectations for the manufacturing and services sectors suggests rapid improvement and so we expect that the unemployment rate will continue to improve.

Eurozone Consumer Confidence and Employment Expectations



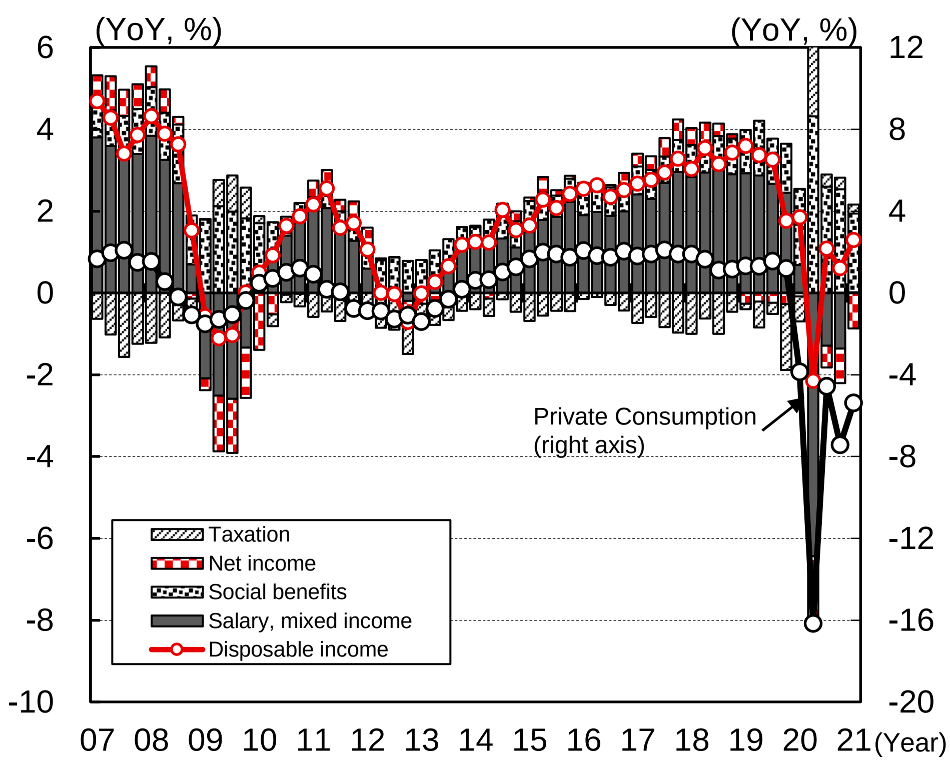
Source: Eurostat, European Commission, MUFG Bank Economic Research Office

Eurozone Unemployment Rate



Source: Eurostat, MUFG Bank Economic Research Office

Eurozone Disposable Household Income and Private Consumption



Source: Eurostat, MUFG Bank Economic Research Office

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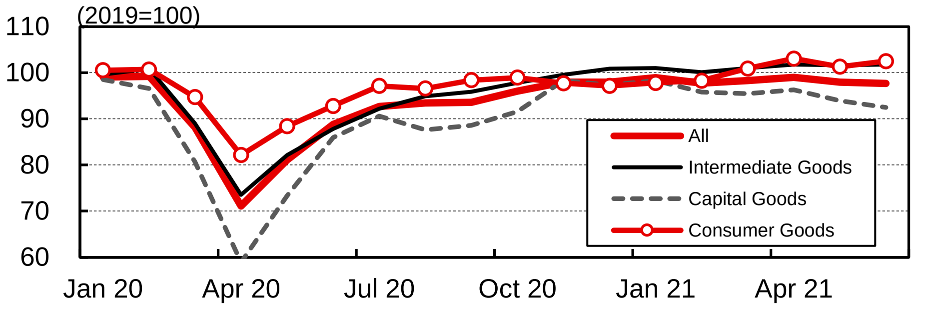
4-4. European Economies: Eurozone – Capital Expenditure and Exports

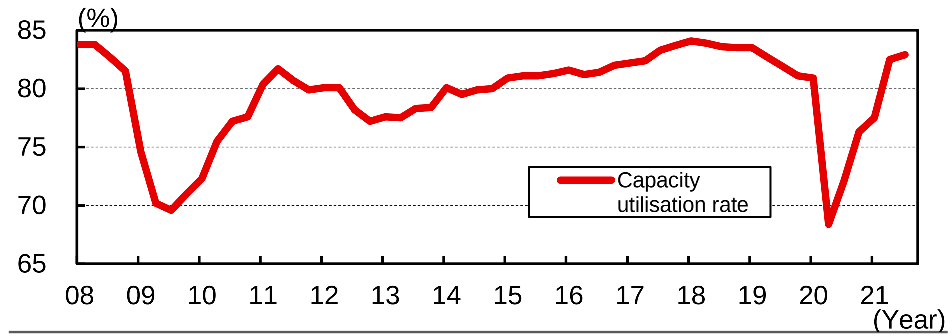
- Industrial production in the euro area fell slightly (-0.3% MoM) in June, but output has almost returned to pre-pandemic levels. The breakdown suggests that the supply shortage of semiconductors is affecting output of capital goods (including automobiles), but the production of intermediate goods remains encouraging.
- Euro area exports of machinery and transport goods remain below the pre-pandemic level. However, exports of a range of other goods are recovering steadily. Total exports are now returning to pre-pandemic levels. Growth in export volumes is likely to remain positive as the global economic recovery continues.
- Capacity utilisation in the euro area was 82.9% in July (+0.4 points from April-June average) and has now recovered to its pre-pandemic level. The numbers of firms that cite “insufficient equipment” as the main factor limiting manufacturing activity has increased and we expect a recovery in machinery and capacity investment as COVID-19 restrictions are gradually removed.

Eurozone Production by Type



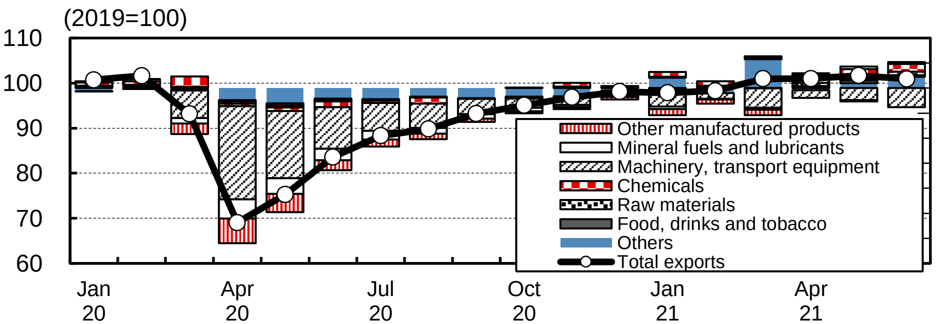
Source: Eurostat, MUFG Bank Economic Research Office

Eurozone Capacity Utilisation



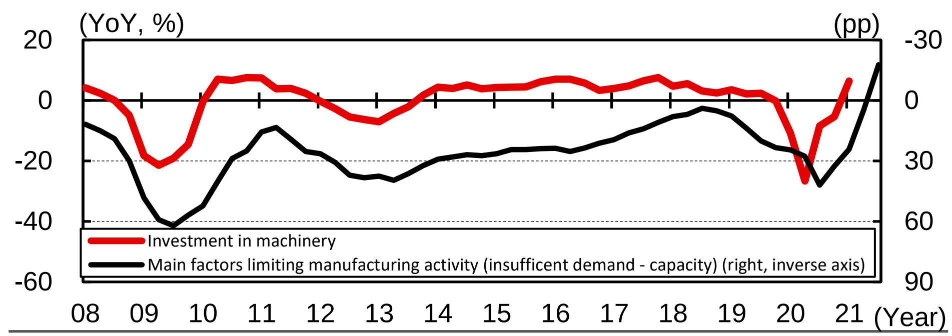
Source: European Commission, MUFG Bank Economic Research Office

Extra-Euro Area Exports and Contributions by Item



Source: Eurostat, MUFG Bank Economic Research Office

Eurozone Machinery Investment



Source: Eurostat, European Commission, MUFG Bank Economic Research Office

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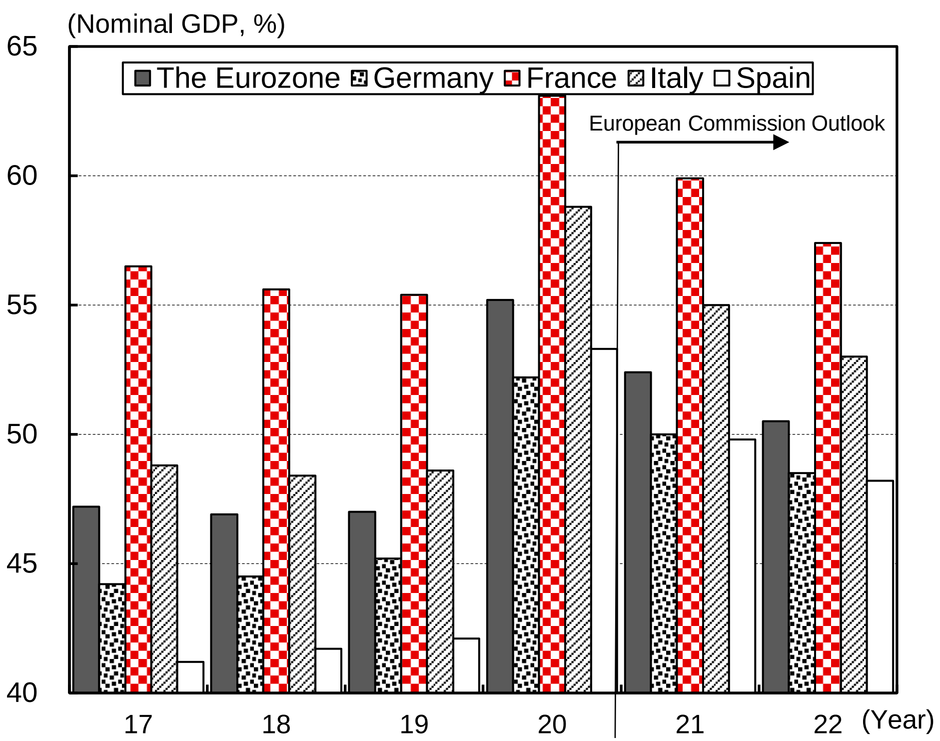
4-4. European Economies: Eurozone – Policy Response

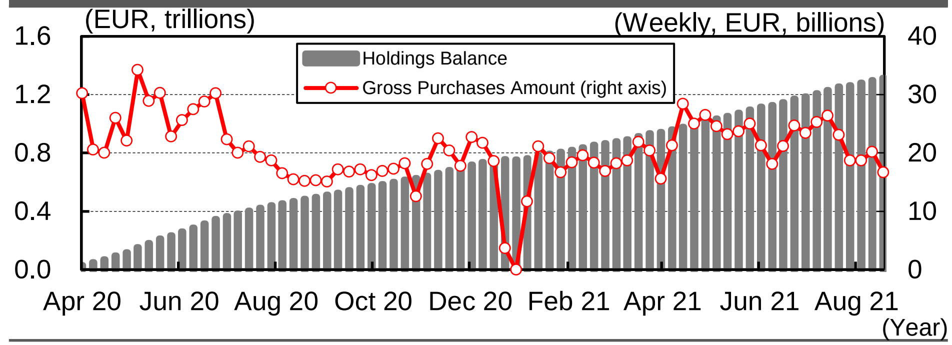
- After emergency spending last year in response to the pandemic, each country within the euro area is set to have smaller budget expenditure in 2021. However, even though they may be some negative impact from reducing budget expenditure, we think that fiscal policy support will remain suitable. Much of the EU recovery fund will be used to support digitalisation and climate change issues.
- At the ECB March meeting, in response to the US long-term interest rates, the pace of asset purchases were increased under the Pandemic Emergency Purchasing Programme (PEPP). At the June and July meeting, this policy was announced to continue. In the meeting in early July, the existing monetary policy was revised for the first time in 18 years, and the inflation target was changed from “below but close to 2%” to “2%”. This was said to allow a rise above target on a temporary basis.
- When considering the monetary policy outlook through to 2022, we would note that, as an increase in underlying inflationary pressures is limited, more time will be needed for the economy to recover to levels of activity recorded before the pandemic. We expect the ECB to maintain its current accommodative monetary environment with low interest rates.

Eurozone Government Expenditure



Source: European Commission, MUFG Bank Economic Research Office

Asset Purchases of Pandemic Emergency Purchase Programme (PEPP)



Source: ECB, MUFG Bank Economic Research Office

ECB Monetary Policy Strategy Outline

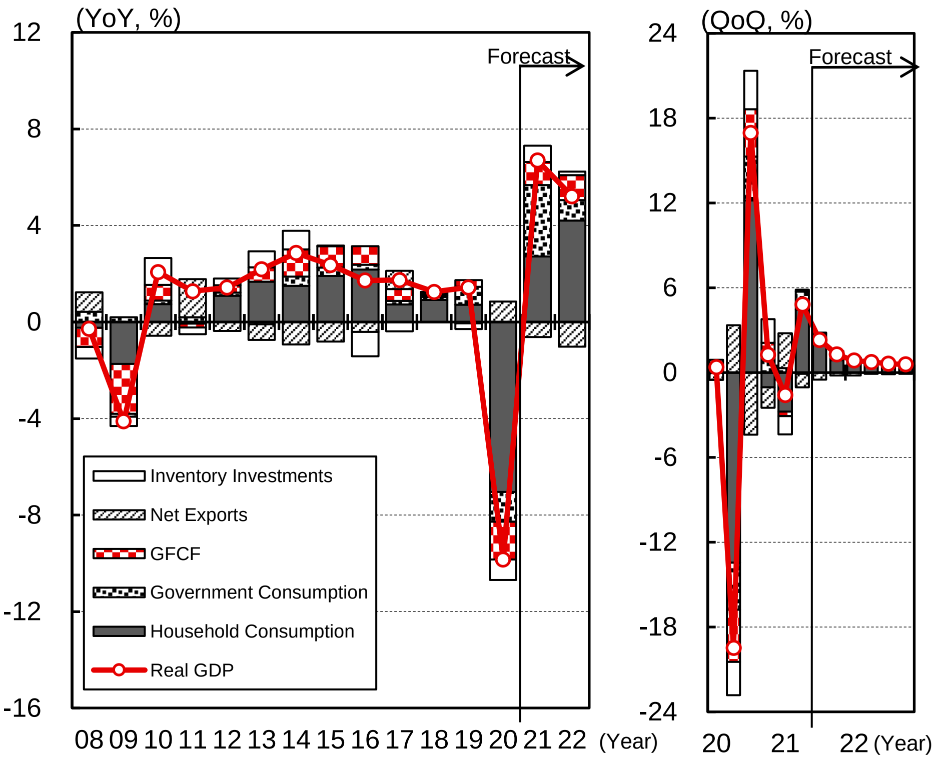
1. Inflation Target	The Governing Council of the ECB considers that price stability is best maintained by aiming for two per cent inflation. The commitment to this target is symmetric. This may imply a transitory period in which inflation is moderately above target.
2. Price Measure	The ECB confirmed that HICP will remain the appropriate price measure in line with current monetary policy. But the ECB recognises that the inclusion of costs related to owner-occupied housing would be preferred, and aims to consider price measures that include these estimates in the future.
3. Climate Change	The ECB recognises that addressing climate change is a global challenge, and will aim to adapt its framework on climate change-related information concerning asset purchases and collateral.

Source: ECB, MUFG Bank Economic Research Office

4-4. European Economies: UK Economy – Overview

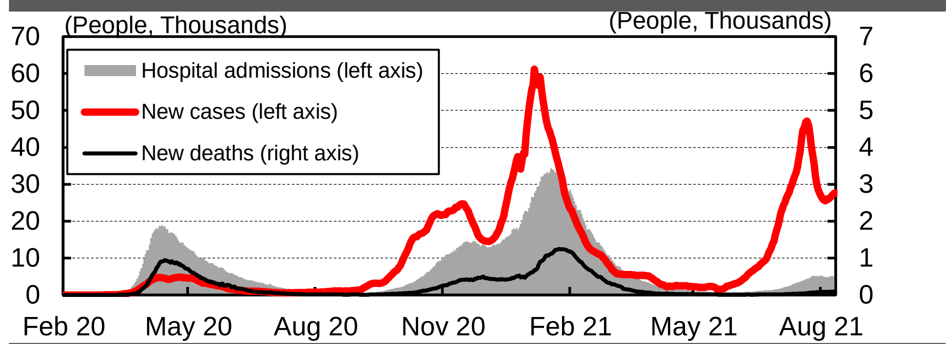
- UK GDP expanded by 4.8% QoQ in Q2 as the gradual loosening of COVID restrictions led to consecutive quarters of positive growth.
- The number of cases in the UK has increased since early June, but the rise in new deaths and hospitalisations were not as high when compared to last spring. The rollout of vaccinations has progressed rapidly and the majority of legal restrictions were removed on 19 July, which was ahead of other European countries.
- While COVID restrictions were withdrawn rapidly, we expect that the UK government and the Bank of England will remain cautious when it comes to their respective withdrawal of fiscal and monetary policy support as the economy recovers. This is likely to help private consumption, which will also benefit from pent-up demand and accumulated savings which were built up during lockdown. However, there is a chance that heightened concern around the prevalence of COVID cases will continue to be a barrier to consumption.
- The UK economy has recovered from its low level in 2020. Real GDP is forecasted to expand by 6.7% YoY in 2021 and 5.2% YoY in 2022. If the pace of growth is maintained, real GDP is likely to return to pre-pandemic levels in 2022.

Real GDP Outlook for the UK



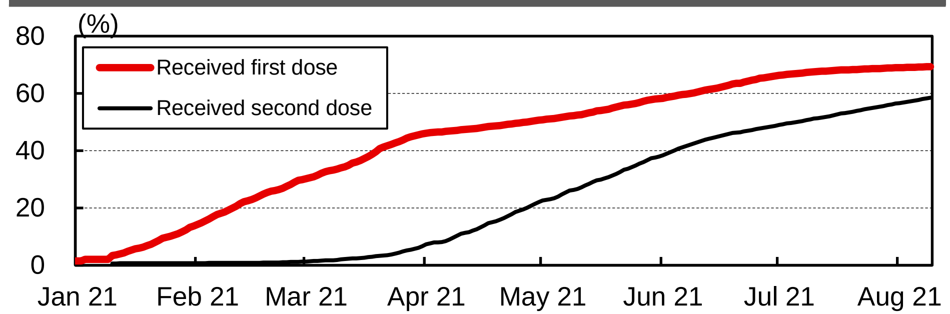
Source: ONS, MUFG Bank Economic Research Office

New COVID-19 Cases and Hospital Admissions in the UK



Source: WHO, NHS, MUFG Bank Economic Research Office

UK Vaccination Rates

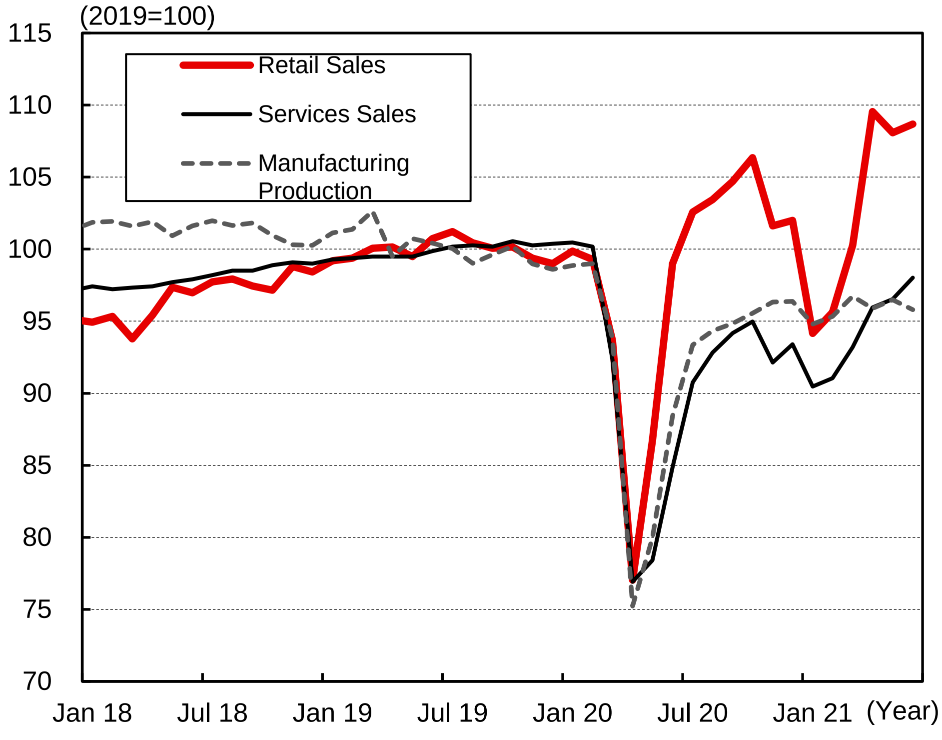


Source: Our World in Data (Managed by Oxford University), MUFG Bank Economic Research Office

4-4. European Economies: UK Economy – Corporate and Household Sectors

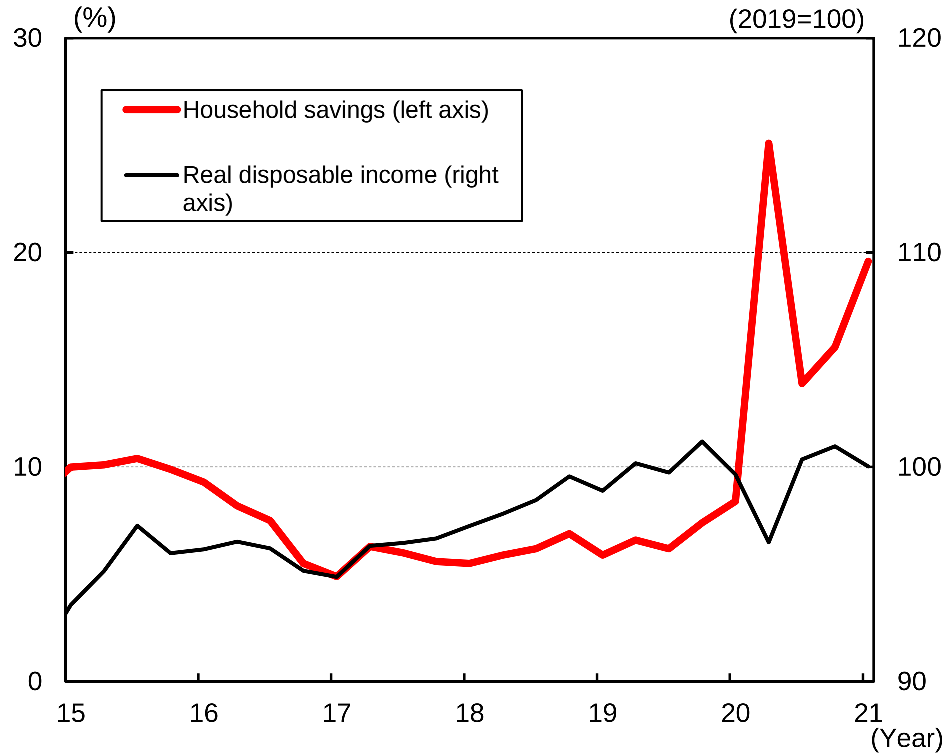
- UK corporate sector activity is following a w-shaped path of recovery, which hit the lowest point recorded in spring 2020. Sales in retail and services sectors have diverged following a loosening of some restrictions from March, but both remain on a path of improvement. Manufacturing production is set to continue its gradual recovery as domestic and international demand bounces back.
- As a result of income and employment support from the Furlough scheme and forced restraints on consumption from restrictions, households' savings have risen considerably. It can be presumed that a tendency to rein in consumption over fears of higher COVID cases following the lifting of restrictions, but the large amount of savings may be a factor behind any increase in consumption.
- The government Furlough scheme is currently planned to gradually reduce in scope from July, and finish at the end of September. Currently 2 million people are using the scheme (p.35). While it is unavoidable that employment and income levels will fall following the end of the Furlough scheme, we forecast that consumption will continue to improve on the basis of support from savings and the momentum of the economy's recovery after abolishing restrictions.

UK Manufacturing Production, Retail and Services Sales



Source: ONS, MUFG Bank Economic Research Office

UK Household Savings and Real Disposable Income



Source: ONS, MUFG Bank Economic Research Office

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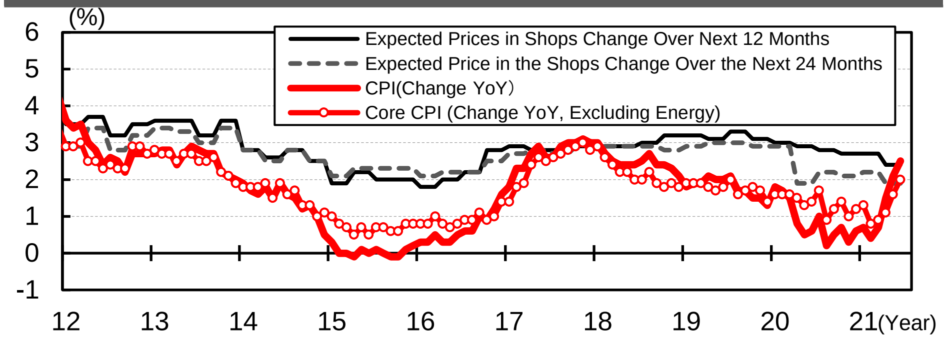
4-4. European Economies: UK Economy – Policy Response

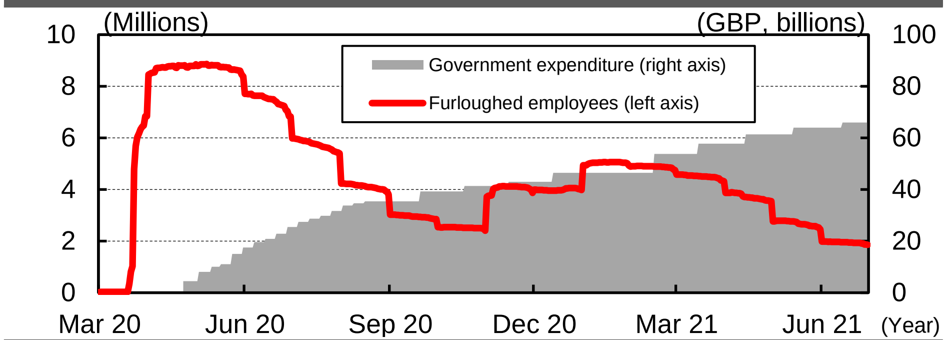
- UK CPI inflation has reached over 2% due to energy price base effects and the re-opening of the economy following the lifting of restrictions. This does not necessarily mean that future inflation expectations will also increase. Looking past the increase in energy prices and the effect of the economic recovery, we think that pressure from higher commodity prices will ease and that higher inflation will only be temporary.
- The Bank of England (BoE) published their plans in August for an exit strategy from its monetary support measures. When the current policy rate of 0.1% reaches 0.5%, the BoE will start to reduce its asset holdings by allowing maturing bonds to roll off the balance sheet, and will then consider actively selling bonds once rates reach at least 1.0%. (The previous plan was to maintain its QE stock until Bank Rate reaches 1.5%). The chance of sudden rate hikes seems low as the BoE has concluded that the higher inflation is transitory, but we predict that pressure for an exit from its current monetary stance will begin in earnest in 2022.
- The UK government has shown that it would like to reduce its emergency fiscal support if the state of the economy allows it. While the government may adjust some policies, it will not want to jeopardise its underlying support to the recovery.

UK CPI and Inflation Expectations (BoE Economic Surveys)



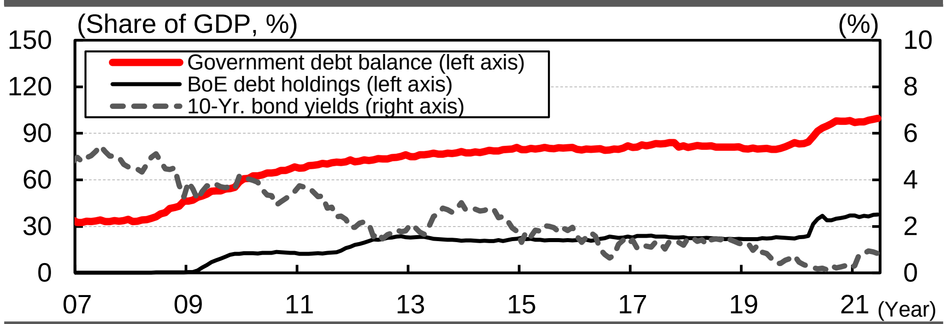
Source: ONS, BoE, MUFG Bank Economic Research Office

UK Furlough Scheme Adoption and Government Expenditure



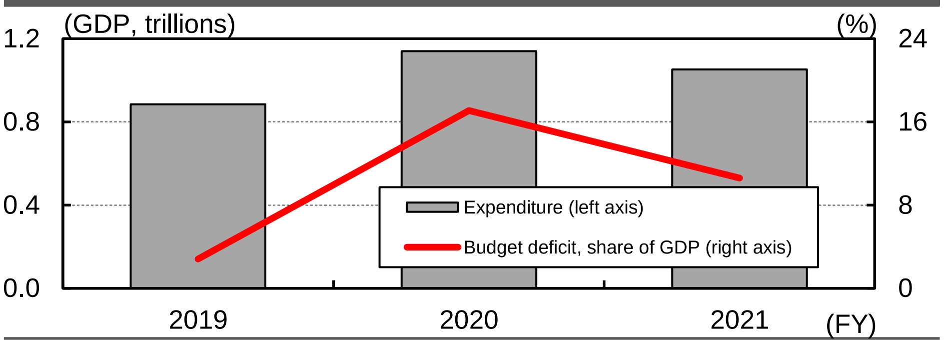
Source: ONS, MUFG Bank Economic Research Office

UK Government Debt Balance and Central Bank 10-Yr Bond Yields



Source : ONS, BoE, MUFG Bank Economic Research Office

UK Expected Expenditure and Budget Deficit



Source: ONS, MUFG Bank Economic Research Office

4-5. Asian and the Australian Economies: Overview

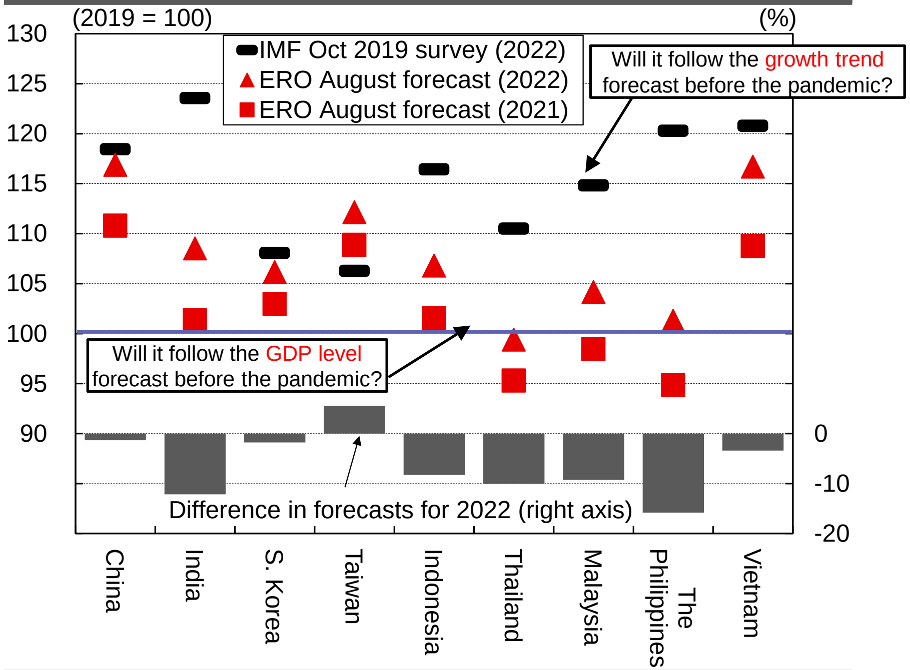
- COVID-19 cases rose in some regions in China from early August due to the spread of variants, but the cases fell once a negative PCR test was required in order to travel to certain regions. China has curbed the spread of infection domestically, and its economy is forecast to continue to record firm growth.
- There is a clear difference in the pace of economic recovery between NIEs and ASEAN depending on their COVID-19 situation. In NIEs, there was a period where COVID-19 cases rose temporarily, yet economies have been able to bring the spread of infection under control for the most part and have continued to recover due to the gradual easing of restrictions on movement. NIEs are forecast to greatly exceed their pre-COVID 2019 GDP levels in 2021. On the other hand, COVID-19 cases are rising in ASEAN economies, vaccines rollouts are slow and health care systems are in a vulnerable state. Therefore, it is unlikely restrictions on movement will be eased soon, which means economic recoveries are forecast to take place after those of developed countries. The level of real GDP is forecast to remain well below the trend of growth established before the pandemic, even in 2022.
- Australia is experiencing a temporary rise in COVID-19 cases and has placed restrictions on movement, which in turn has put downward pressure on its economy. Nevertheless, it appears foreign and domestic demand will continue to recover for the most part once restrictions are eased. The real GDP growth rate is forecast to return to pre-pandemic level in 2021.

Outlook for Asian and the Australian Economies

	Real GDP growth rate (%)			Consumer Price Index (%)		
	2020 (Actual)	2021 (Forecast)	2022 (Forecast)	2020 (Actual)	2021 (Forecast)	2022 (Forecast)
Asia (11 countries/regions)	- 0.8	7.2	5.6	2.9	2.5	2.8
China	2.3	8.3	5.5	2.5	1.5	2.3
India (FY basis)	- 7.3	9.3	7.1	6.2	5.5	4.8
NIEs	- 0.9	4.9	3.2	0.2	1.7	1.5
South Korea	- 1.0	4.0	3.1	0.5	1.9	1.5
Taiwan	3.0	5.7	3.0	- 0.2	1.6	1.4
Hong Kong	- 6.1	6.1	3.0	0.3	1.6	2.0
Singapore	- 5.4	6.1	4.0	- 0.2	1.6	1.5
ASEAN 5	- 3.4	3.8	5.6	1.4	2.3	2.6
Indonesia	- 2.1	3.7	5.2	2.0	1.9	2.9
Thailand	- 6.1	1.5	4.3	- 0.8	1.1	1.2
Malaysia	- 5.6	4.3	5.8	- 1.1	2.5	1.8
The Philippines	- 9.6	4.9	6.8	2.6	4.2	3.0
Vietnam	2.9	5.7	7.3	3.1	3.3	3.7
Australia	- 2.5	4.2	3.0	0.8	2.2	2.0

Source: National statistics of each country, MUFG Bank Economic Research Office

Level of Real GDP Forecasts of Major Asian Economies for 2022 (Comparison of IMF's Pre-Pandemic and ERO's May Outlooks)



Note: Forecast calculated using the IMF's forecast made in October 2019 and assumptions about the level of real GDP based on the trend of growth since the start of the COVID-19 pandemic
Source: IMF, MUFG Bank Economic Research Office

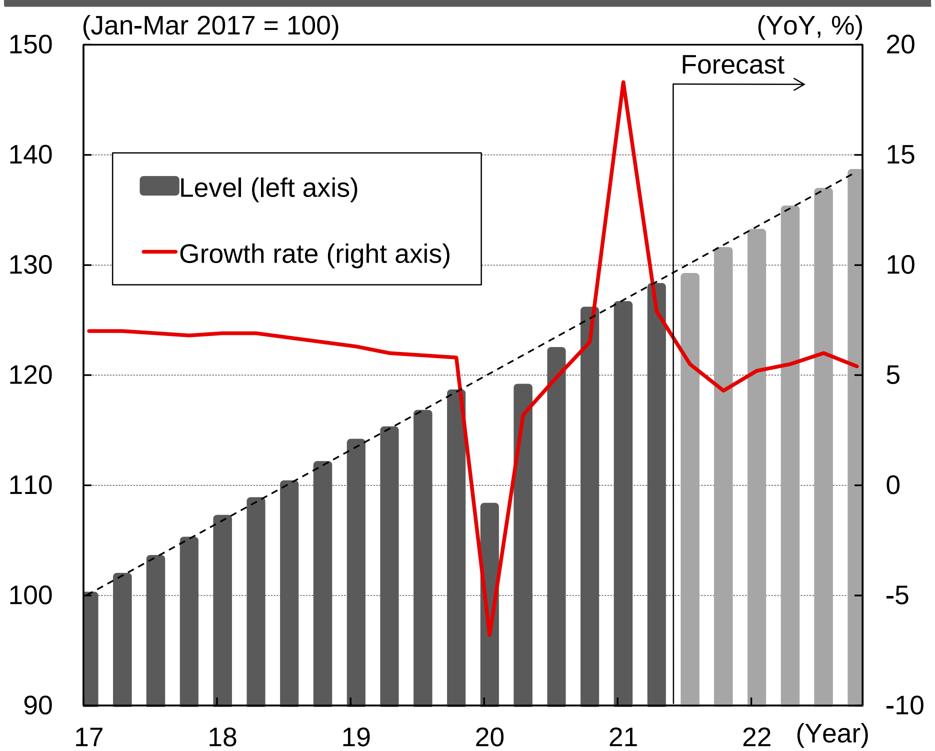
4-5. Asian and the Australian Economies: China – Overview and Investment

- China has brought its domestic COVID-19 cases under control with continued strict monitoring. The real GDP growth rate was comparatively high (7.9% YoY) in the April-June quarter, due in part to a rebound from the previous year. The level of GDP remains in line with the trajectory of growth recorded before the pandemic. While it appears there was a rise in COVID-19 cases at the start of August due to the spread of variants, the number of daily new cases is around 100 and it has already started to decrease.

- Fixed asset investment continues to grow at a robust pace and exceeds the level it was at in 2019 before the pandemic. At the National People's Congress in March, the government decided to issue special government bonds to fund infrastructure (RMB 3.65 trillion are scheduled to be issued this year). On the other hand, it is thought to be unlikely that monetary and fiscal policies will be tightened considerably next year (2022). In addition, "new infrastructure investment" – a continued focal point of the government – is expected to underpin total fixed asset investment, which means investment is likely to remain firm going forwards.

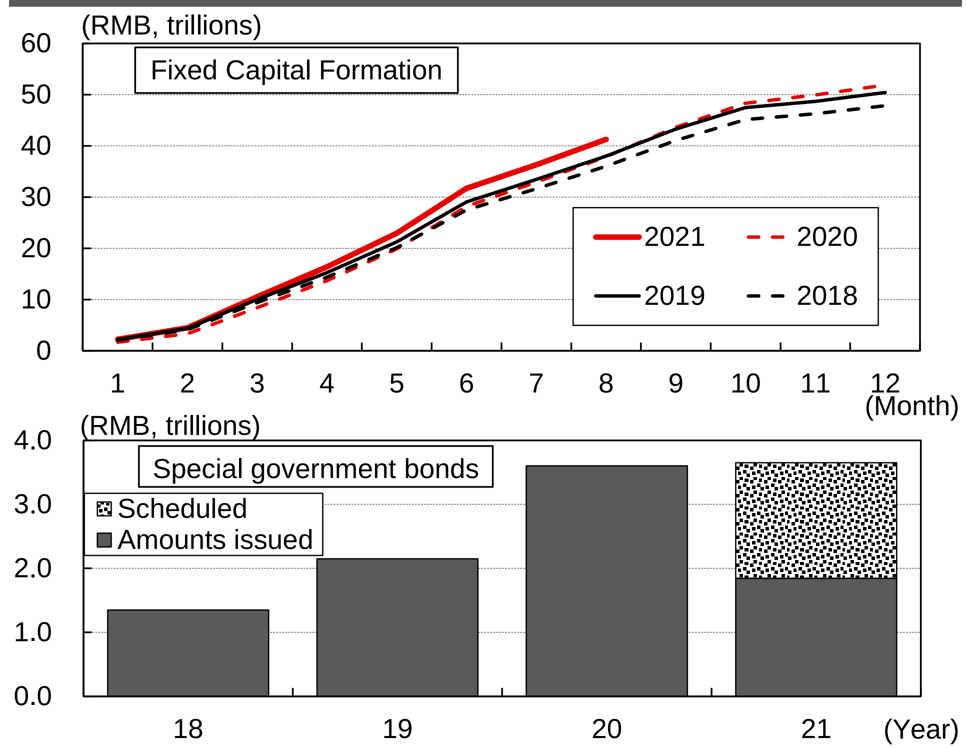
  "New investment infrastructure" is comprised of 3 fields: information infrastructure (5G, IoT, AI), fusion infrastructure (a shift away from conventional technology using internet and big data) and innovation infrastructure (high-tech public infrastructure that supports scientific research).

China's Real GDP Growth Rate



Note: "Level" is calculated based on YoY seasonally adjusted figures published by the National Bureau of Statistics
Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

Fixed Capital Formation (Cumulative) and Special Gov. Bonds (as of Jul)

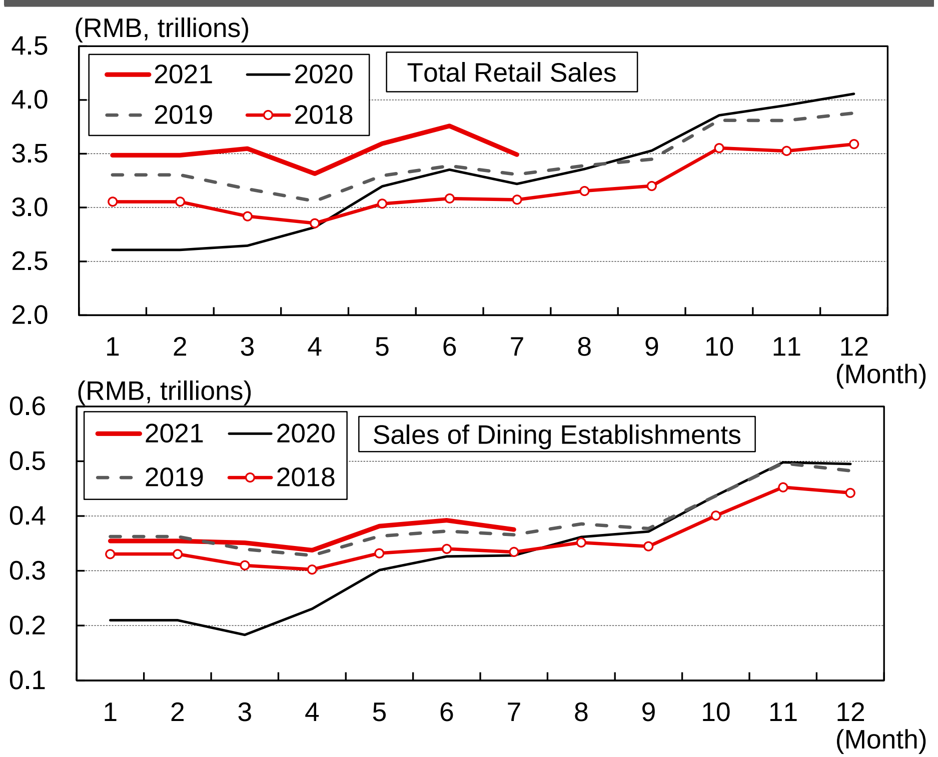


Note: "Fixed Capital Formation" is calculated using the total amount from Jan to Dec 2021 published by the National Bureau of Statistics and the growth rate for other years
Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

4-5. Asian and the Australian Economies: China – Private Consumption

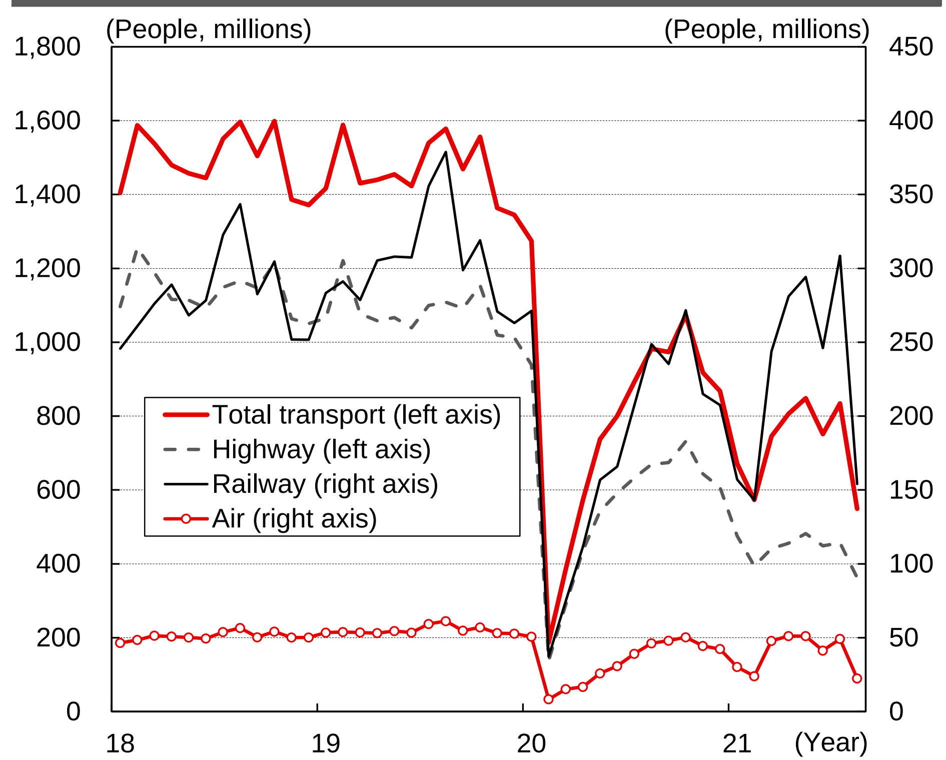
- Retail sales – an indicator of private consumption – totalled RMB 3.5 trillion in July, which equates to growth of 8.5% YoY (5.6% compared with the same month in 2019 before the pandemic). Sales of automobiles decreased for the first time in around a year due to a shortage in the supply of semiconductors used in automobiles and natural disasters, such as floods, put downward pressure on overall retail sales. While this amount is higher than the level in 2019 before the COVID-19 pandemic, growth of sales slowed from the previous month "Sales of dining establishments" remain above their pre-pandemic level, but the pace of recovery has slowed.
- It is difficult to grasp the situation in face-to-face services from retail statistics. Looking at transport passengers instead, it appears the recovery has stalled temporarily after a continuous recovery since March due to the current rise in variant cases among other factors.
- Taking into consideration the fact that China has been able to curb its number of COVID-19 cases and that some sources of downward pressure are temporary, the recovery in face-to-face services is forecast to continue and private consumption will grow at a firm pace on the whole. However, it will be important to keep an eye on the risk of a rise in cases due to variants.

Total Retail Sales and Sales of Dining Establishments in China



Note: Result for January and February is the total of both months divided equally into two
Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

Number of Transport Passengers in China



Source: China Ministry of Transport, China Railway Corporation, MUFG Bank Economic Research Office

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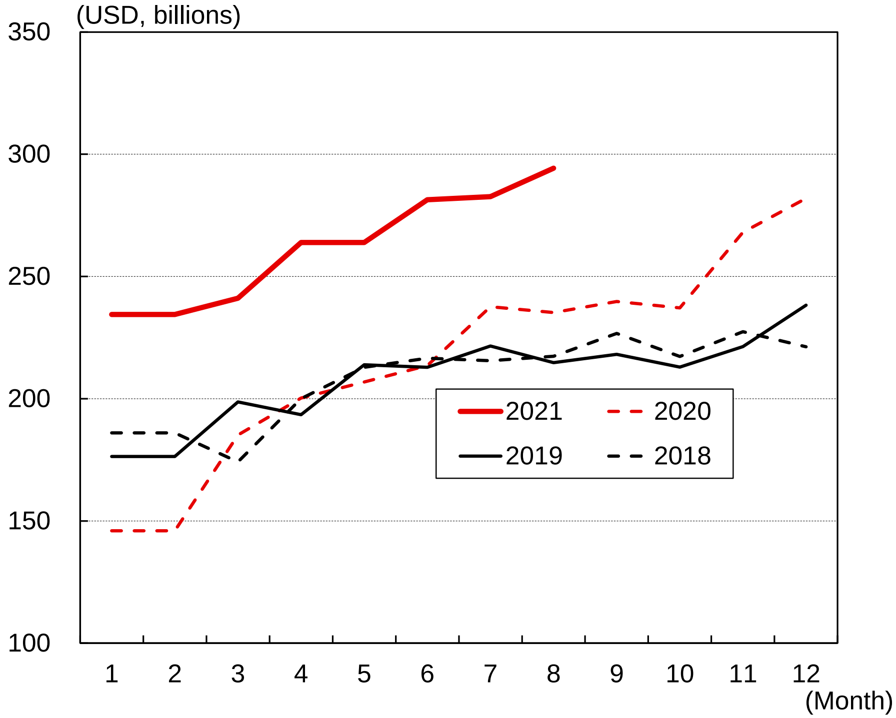
4-5. Asian and the Australian Economies: China – Exports and Production

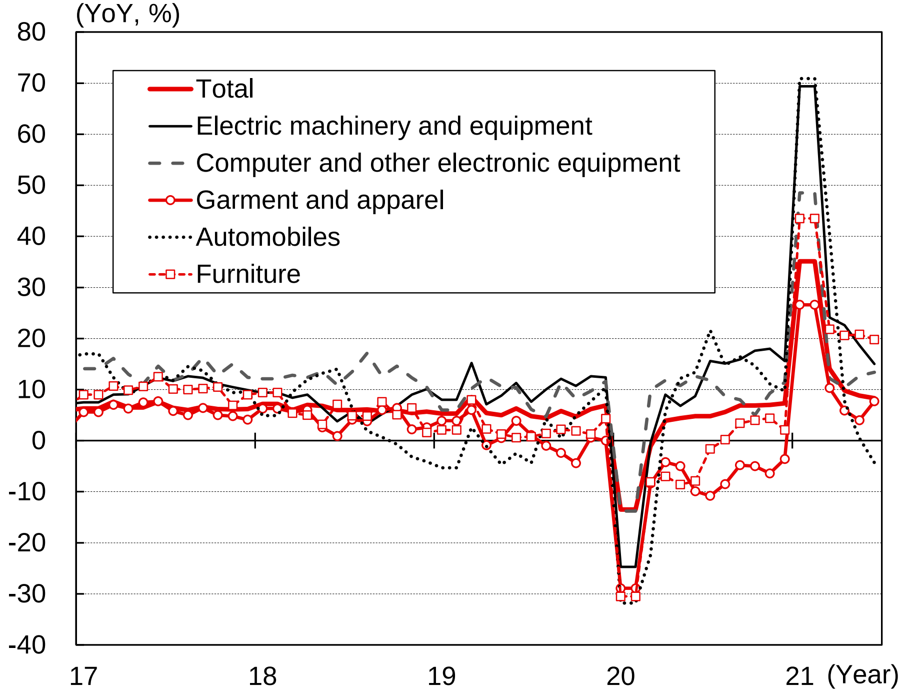
- Total exports were RMB 282.8 billion in July (19.3% YoY). Although there was some weakness in garments and apparel, machinery and electronic equipment recorded a high level and drove total growth of exports. Although growth of exports will slow due to the high level recorded last year, economic recoveries overseas and the change in global demand brought about by and the pandemic (demand for equipment as activities move online) have been a positive factors, and exports are forecast to remain at high levels for the time being.
- Real added value industrial production shows comparatively strong growth despite the continued decrease in production of automobiles owing to a shortage of semiconductors for automobiles. This is because overall growth was led by the production of furniture, which experienced strong growth due to a rebound from last year, electric machinery and equipment, which remains strong due to a rise in exports, and computer and other electronic equipment. Although it is unclear when the shortage of semiconductors used in automobiles will end, growth of production is forecast to remain firm for the most part underpinned by electric machinery and equipment, which in turn will be supported by strong exports.

China's Exports



Note: In order to smooth the irregularities caused by the lunar new year, figures for January and February are an average of the two months
Source: General Administration of Customs, MUFG Bank Economic Research Office

China's Real Added-Value Industrial Production

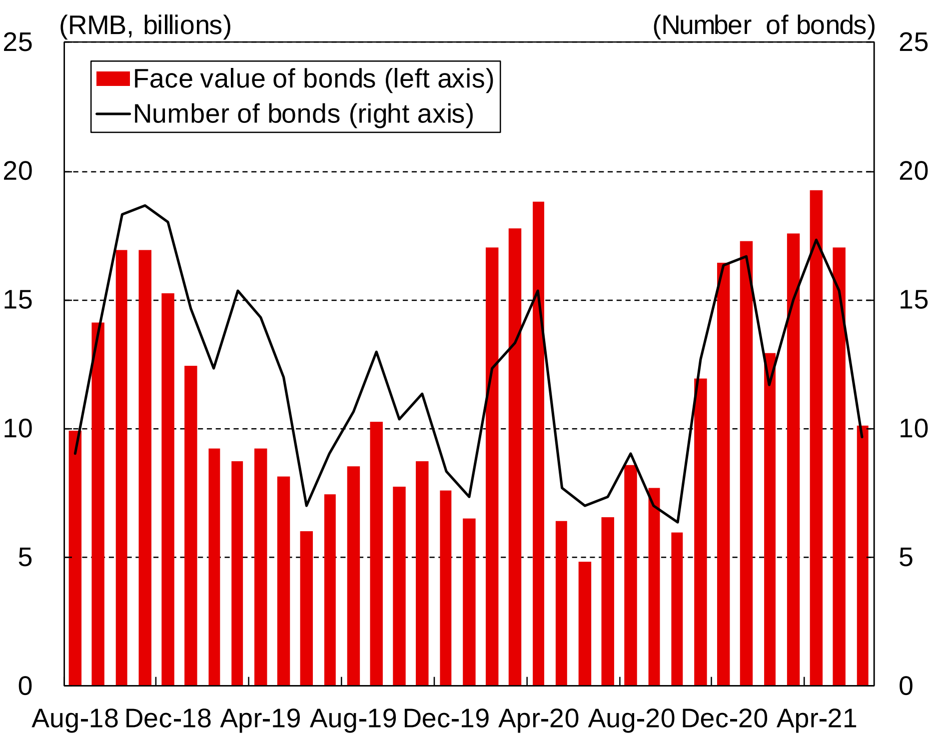


Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

4-5. Asian and the Australian Economies: China – Debt

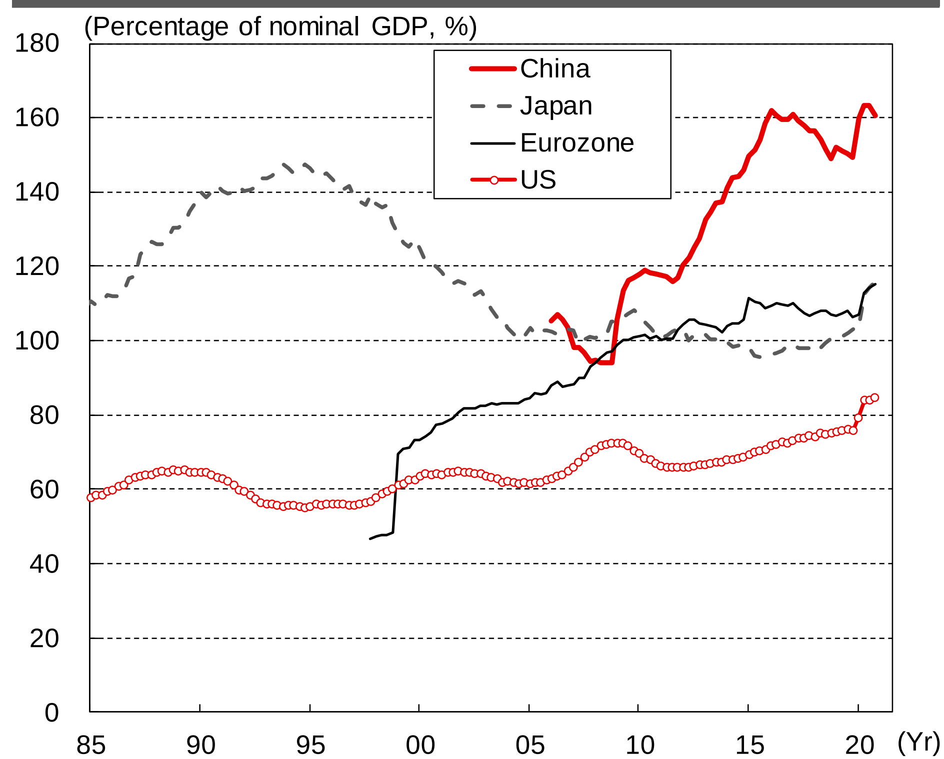
- The Chinese economy continues to recover, but the financial market shows a frequent occurrence of corporate bond defaults after the sharp rise last year. While it shows a certain amount of tolerance for defaults, the government is curbing reliance on implicit government guarantees by investors and has expressed a strong will to carry out structural reforms. On the other hand, there is an undeniable possibility that a sharp rise in defaults may put downward pressure on investment by eroding investors' appetite for corporate bonds and increasing the difficulty facing businesses in raising capital. It will be important to keep an eye on this point in the future.
- Since 2015, corporate debt of China's non-financial businesses as a percentage of nominal GDP started to fall as the government carried out deleveraging (reducing excess corporate debt), but it rose to another all-time high owing to the COVID-19 pandemic. It is thought the government is paying close attention to the issue of debt: one of the targets it set for this year at the National People's Congress in March was to establish a rate of debt to nominal GDP that is fundamentally stable.

No. and Value of Defaults on Corporate Bonds by Chinese Companies



Source: China Central Depository & Clearing Co., MUFG Bank Economic Research Office

Amount of Corporate Debt in Major Countries and Regions



Source: BIS, MUFG Bank Economic Research Office

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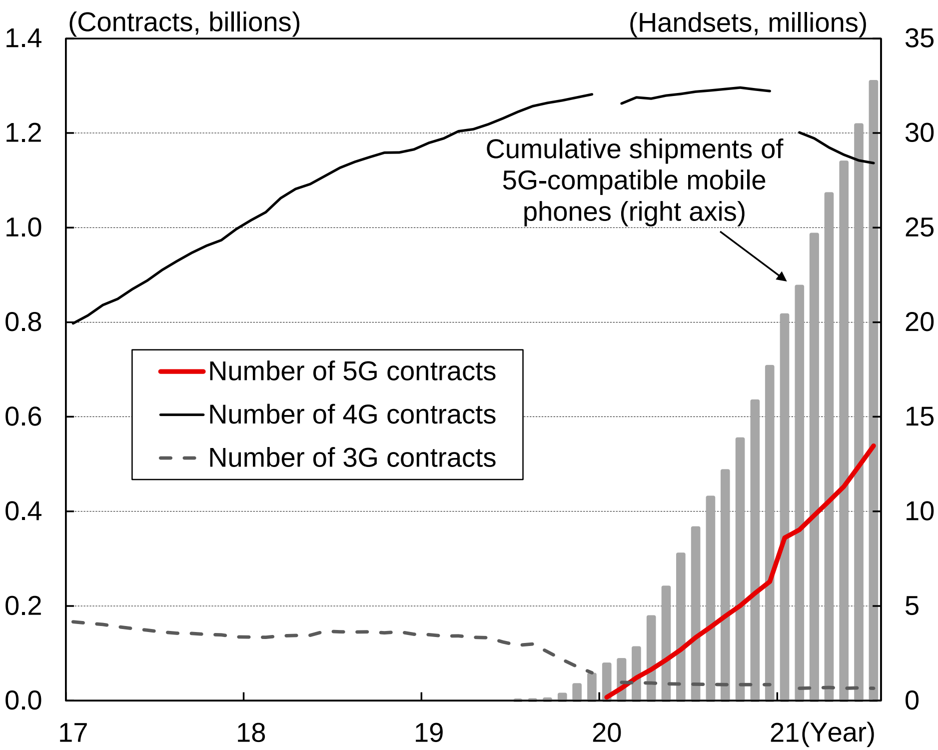
4-5. Asian and the Australian Economies: China – Policies

- The Chinese government announced a continuation of its easy monetary policies, support for small and medium-sized businesses and a plan to accelerate infrastructure investment at its Central Economic Work Conference which took place at the end of July. The government is focused on new, rather than conventional, infrastructure investment. One of these areas of new infrastructure investment is 5G, and local governments have set targets for the number of base stations. In addition, the number of shipments of 5G compatible phones and of 5G contracts in China shows further scope for expansion based on the size of China's population, and investment related to 5G is expected to maintain its momentum.
- On the other hand, there are concerns that the government will tighten regulations further on platform businesses, which have been driving China's digitalisation. Regulations for market monopolies and the handling of information are being tightened, and it is possible this will act as a headwind for platform businesses. Currently, there is a rising feeling of concern among investors, which resulted in a significant drop in the Shanghai Composite Index. It will be important to keep an eye on how the Chinese government balances digitalisation and its strict regulations.

China's 5G-Related Indicators



Source: Media reports, MUFG Bank Economic Research Office

Targets for 2022 Set During the National People's Congress

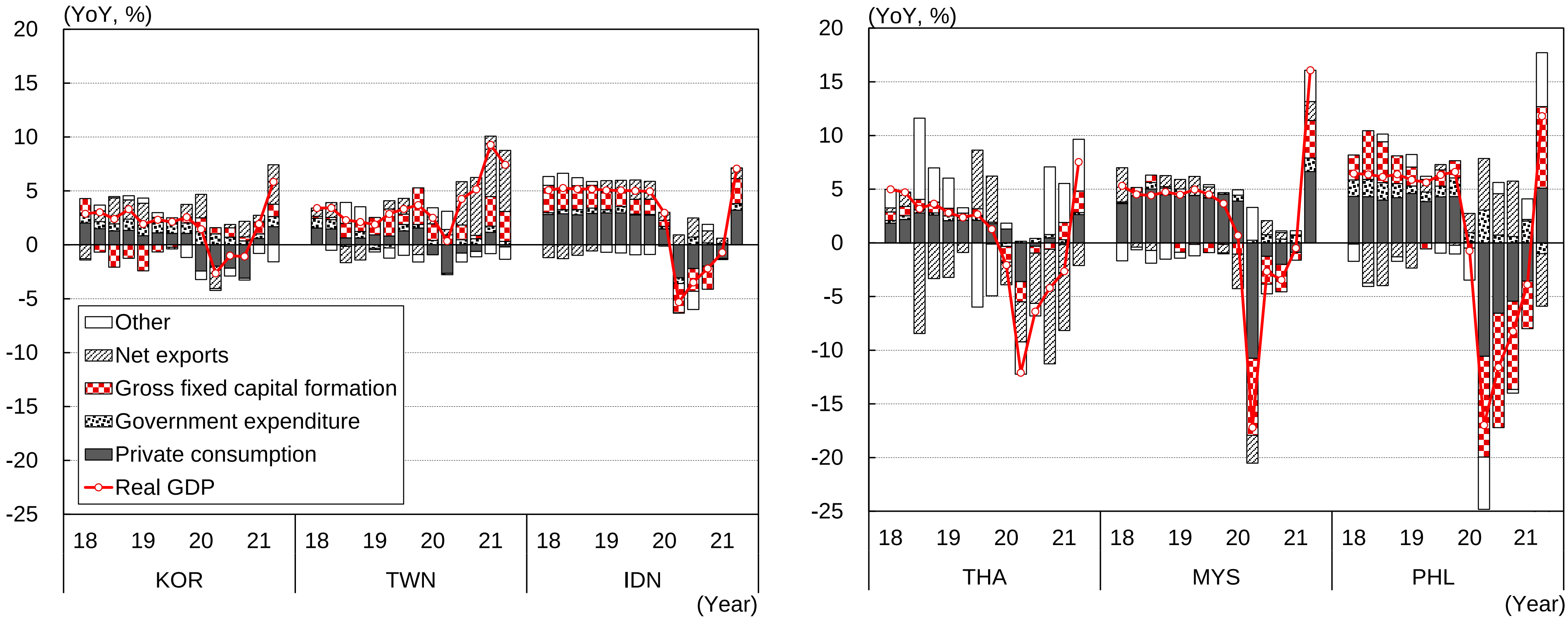
Date	Details
Dec 2020	With large platform businesses in mind, the government raised "preventing a disorderly expansion of monopolies and capital" as a major issue in 2021 as its Central Economic Work Conference
Feb 2021	Antitrust Guidelines for the Platform Economy enacted
Mar	• The government said it will revise its Antimonopoly Law in its Report on Work of the Standing Committee, delivered at the 13th National People's Congress • Orders 12 companies to pay fines for illegal business acquisitions related to internet companies under the Antimonopoly Law
Apr	• Fined a large Chinese e-commerce company RMB 18.2 billion under the Antimonopoly Law (the largest fine under this law) • The State Administration for Market Regulation held an administrative guidance meeting with 34 Chinese platform businesses
Jun	General Office of the State Council released its detailed Legislative Work Plan for this year which includes revisions to the Antimonopoly Law
Jul	• The State Administration for Market Regulation announced it will impose fines on 22 foreign and Chinese businesses for illegal mergers and acquisitions under the Antimonopoly Law • The Chinese government orders a major US-listed Chinese ride-hailing service business to suspend app downloads due to the illegal collection of private information in accordance with the Network Security Law • China's State Council cabinet and the Communist Party's General Secretary released Opinions on Strictly Cracking Down on Illegal Securities Activities in Accordance with the Law. It plans to strengthen management for confidentiality related to listing on overseas markets
Aug	Announced regulations that ban unfair competition on the internet

Source: Various news reports, MUFG Bank Economic Research Office

4-5. Asian and the Australian Economies: Other Asian Economies – Overview

- The real GDP growth of NIEs and ASEAN (5 countries) for the April-June quarter was 7.5% YoY and 8.8% YoY respectively.
- Despite a brief rise in COVID-19 cases that started with a sharp increase in cases in Taiwan in May, NIEs were successful in quickly bringing the spread of infection under control and their robust recoveries continue. South Korea and Taiwan are world leaders in semiconductors, for which global demand is currently high. As a result, exports in these countries are robust and are driving overall growth.
- On the other hand, although growth in ASEAN economies turned positive due to a rebound from the slump last year, they are still struggling to control the spread of COVID-19 and the pace of recovery started to slow from around the middle of this year, particularly that of private consumption. Consequently, the level of real GDP remains far below the growth trajectory it was on before the pandemic.
- The real GDP growth rates of NIEs and ASEAN economies are forecast to be 4.9% YoY and 3.8% YoY in 2021 and 3.2% YoY and 5.6% YoY in 2022, respectively. Recoveries will be highly dependent on the COVID-19 situation in each economy. In ASEAN in particular, where restrictions on movement are forecast to be prolonged, the pace of economic recovery will remain gradual on the whole, and is expected to remain far below the growth trend it was on before the pandemic, even in 2022.

Real GDP of Major Asian Economies

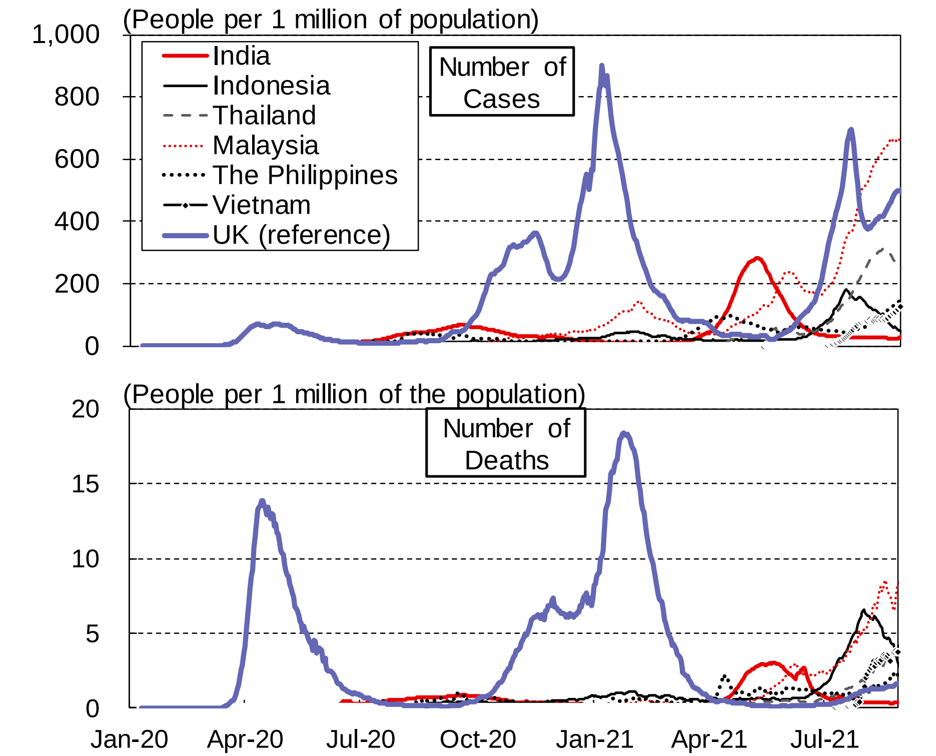


Source: National statistics of each country/region, MUFG Bank Economic Research Office

4-5. Asian and the Australian Economies: Other Asian Economies – Situation Surrounding the Pandemic

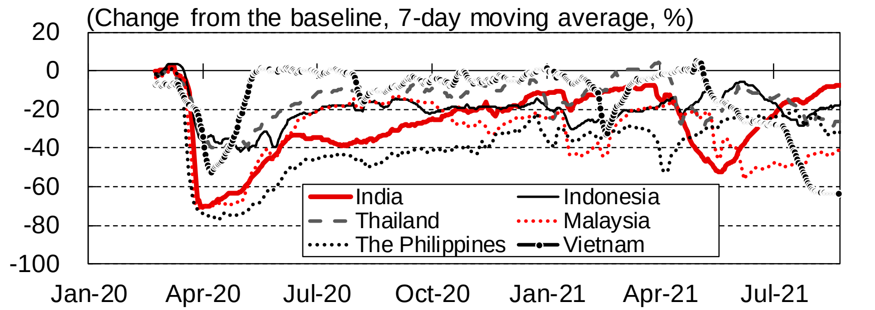
- The COVID-19 situation in Asian economies last year had been relatively calm compared with European countries and the US. However, this situation changed drastically at the start of this year due to the spread of variants and an early lead in vaccine rollouts by Europe and the US. The number of new cases and deaths is rising swiftly, particularly in ASEAN, and mobility was generally less stable compared with the latter half of 2020 as governments extended and tightened restrictions on movement.
- Asian economies are distributing vaccines quickly and it appears the pace of vaccination is accelerating at present. Nevertheless, there are many economies where the rate of vaccination remains below the global average and some economies are unable to secure a sufficient quantity of vaccines (the share of vaccines made by the US and UK which are said to be highly effective is also relatively low).
- While many countries are aiming to normalise economic activities through vaccination, such a large-scale distribution of vaccinations will probably take time, and they are forced to maintain strict restrictions on movement for the time being while the spread of infection continues. Since their health care systems are also more vulnerable, Asian countries' economic recoveries are forecast to lag behind those of developed countries.

Daily COVID-19 Cases and Deaths in Major Asian Economies



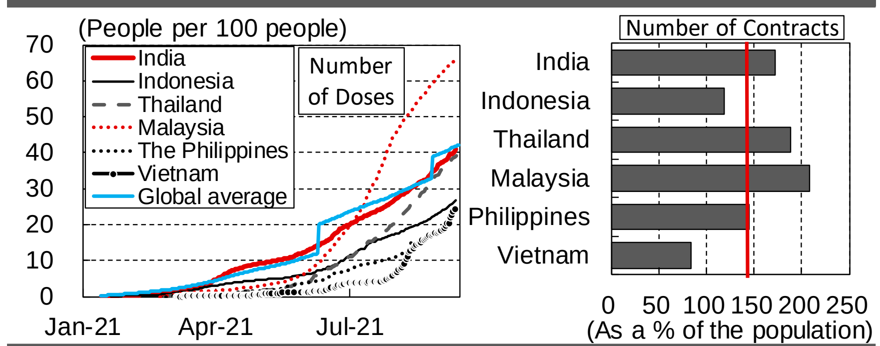
Source: World Health Organization, MUFG Bank Economic Research Office

Mobility in Major Asian Economies



Source: Google, MUFG Bank Economic Research Office

Vaccination Doses and Contracts in Major Asian Economies



Note: The percentage of people who have received at least one dose of the vaccine. The red line signifies vaccine doses necessary as a percentage of the population for everyone to receive two doses.

Source: "Our World in Data" website run by Oxford University, MUFG Bank Economic Research Office

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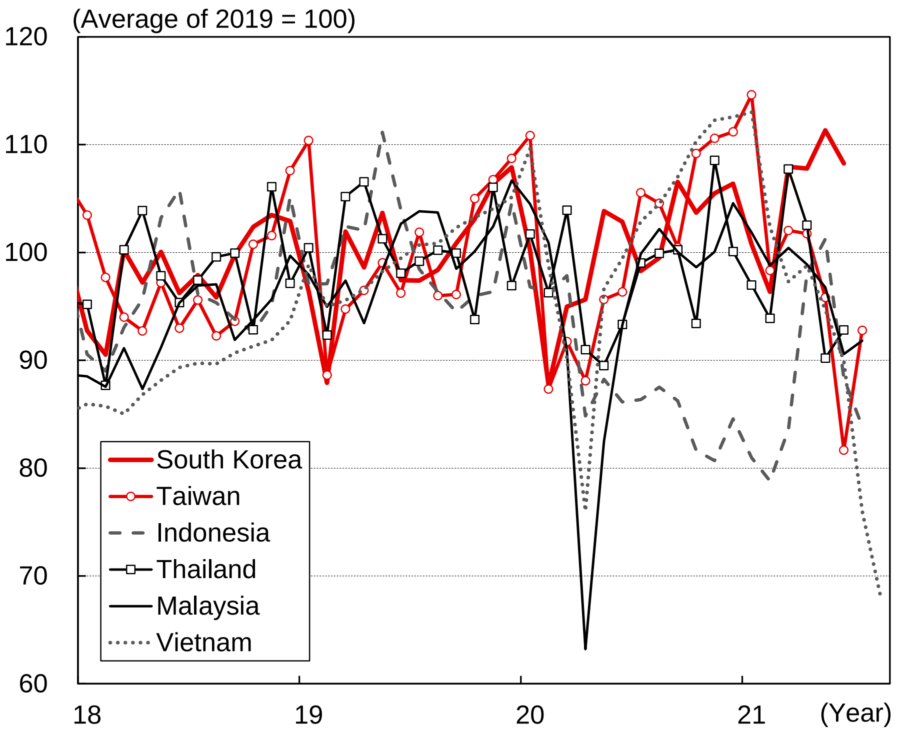
4-5. Asian and the Australian Economies: Other Asian Economies – Private Consumption

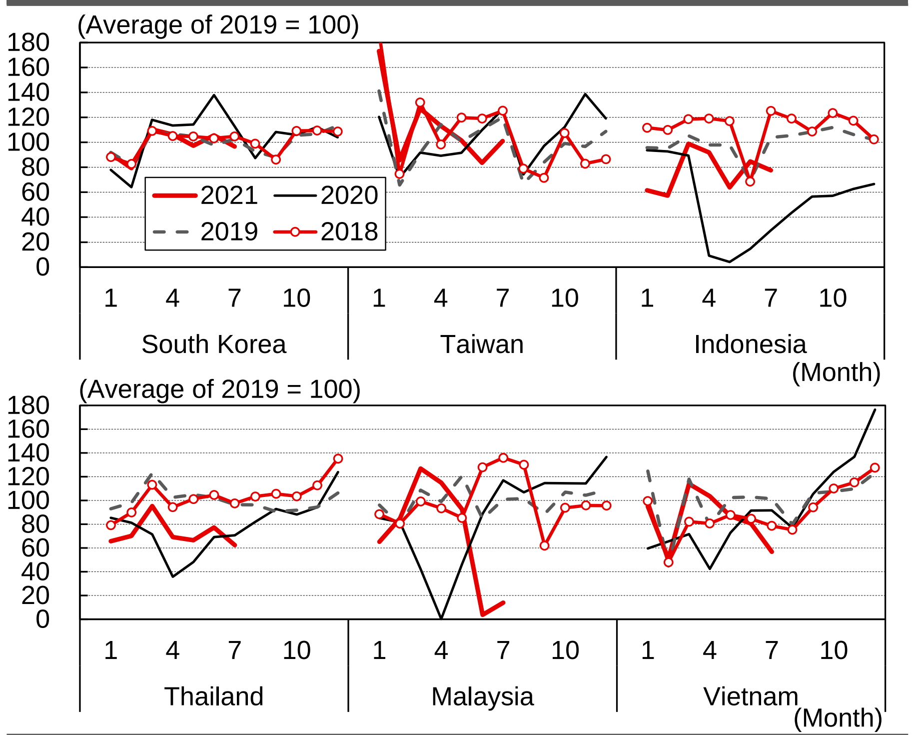
- Retail sales – an indicator of private consumption activities – continue to pick up in general, yet it appears prolonged, strict restrictions on movement have led to huge slumps in retail sales, particularly in ASEAN, where the COVID-19 situation has experienced a marked increased in severity. In addition, the number of motor vehicle sales – an indicator for consumption of durable goods – remains weak; the level of sales is lower than it was during the same month in 2019 on the whole, particularly in Malaysia, where there was a national lockdown in June.
- Looking ahead, it is thought that private consumption will gradually recover as the number and severity of COVID-19 cases are reduced due to vaccine rollouts and restrictions on movement are eased. Nevertheless, it appears healthcare systems in ASEAN economies are more vulnerable than those of developed countries on the whole, which means there is a strong possibility that the pace of recovery will be slow.

Retail Sales in Major Asian Economies



Note: Data for Thailand shows its Private Consumption Index.
Source: National statistics of each country, MUFG Bank Economic Research Office

Number of Motor Vehicle Sales in Major Asian Economies



Source: National statistics of each economy, MUFG Bank Economic Research Office

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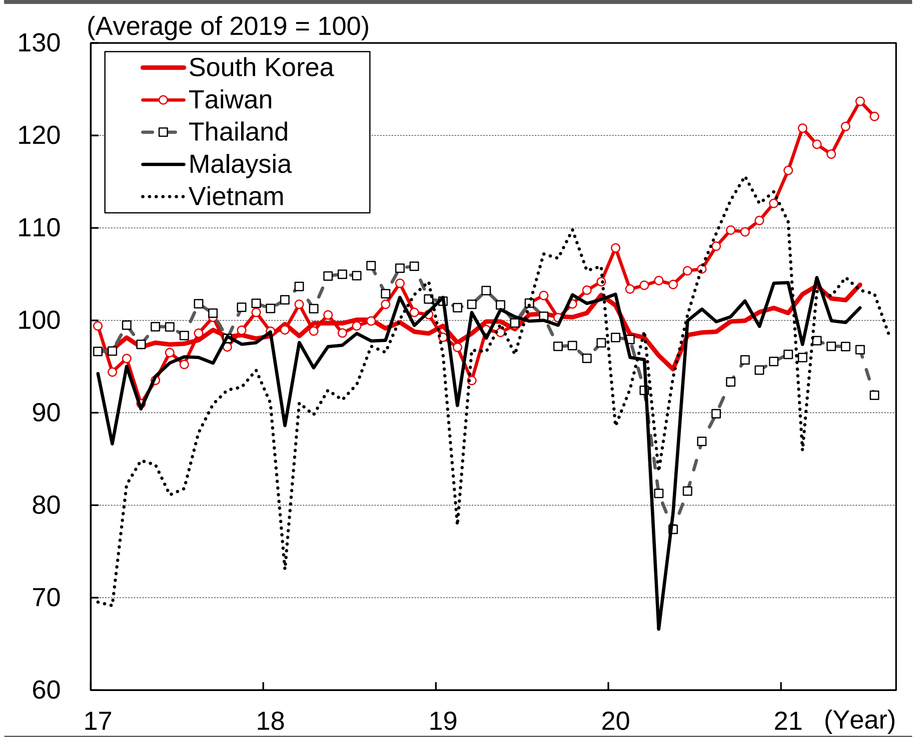
4-5. Asian and the Australian Economies: Other Asian Economies – Production and Exports

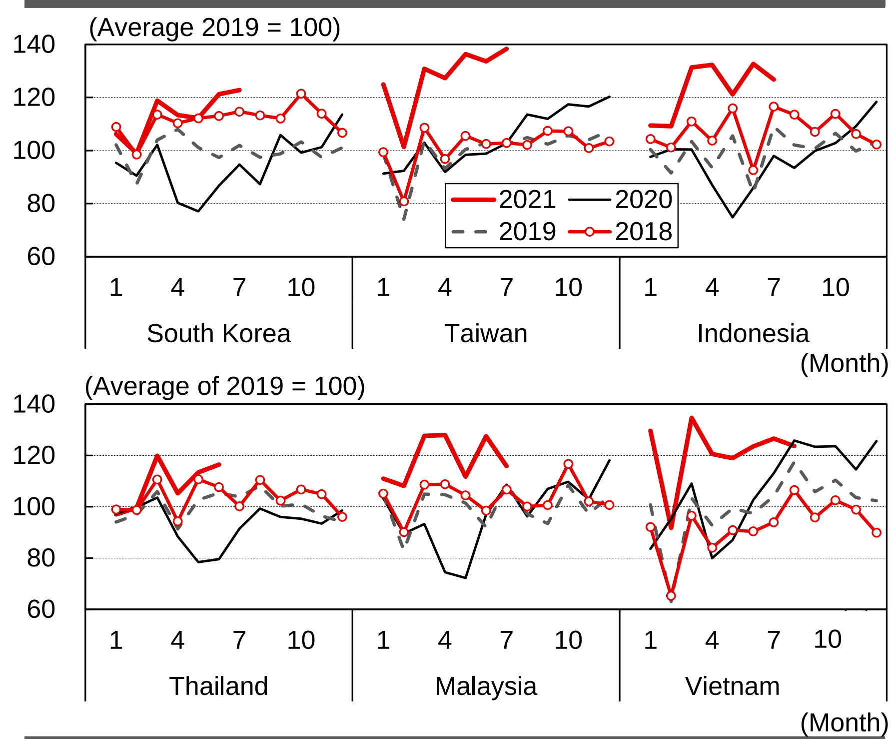
- There has been a rise in COVID-19 cases from around May in many Asian economies, yet the impact on the manufacturing sector has been limited given the relaxed restrictions on business operations. The Industrial Production Index remains close to the level it was at during the same month in 2019, but appears to be some countries where it is falling due to prolonged restrictions.
- Exports are generally robust and exceed their pre-pandemic 2019 levels. In Taiwan and some other countries, growth of exports is being driven by semiconductors and electronic equipment, for which demand increased during the pandemic, resulting in a level of exports that is much higher than it was before COVID-19.
- Looking ahead, the pace of growth in developed countries – which were very quick to recover – is expected to slow. Consequently, the pace of exports of Asian economies is also forecast to gradually slow; however, continued firm foreign demand is likely to drive economic recoveries in Asia. That being said, it is important to keep an eye on downward pressure on exports from a continued decrease in production due to prolonged restrictions on business operations.

Industrial Production of Major Asian Economies



Note: Thailand uses value added production index.
Source: National statistics of each economy, MUFG Bank Economic Research Office

Exports of Major Asian Economies



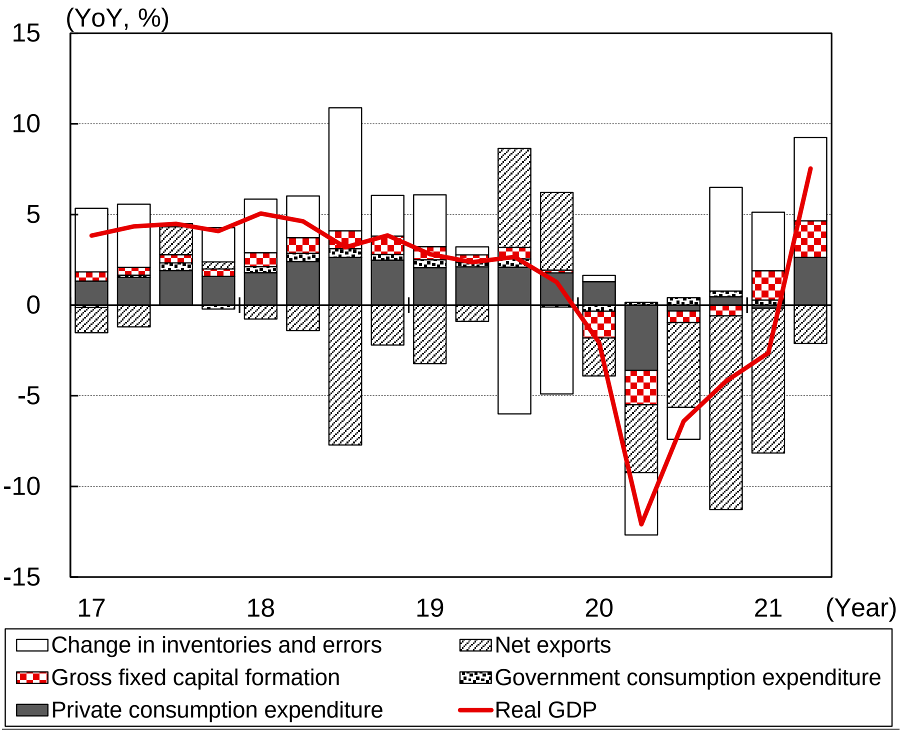
Source: National statistics of each economy, MUFG Bank Economic Research Office

MUFG

4-5. Asian and the Australian Economies: Other Asian Economies – Thailand

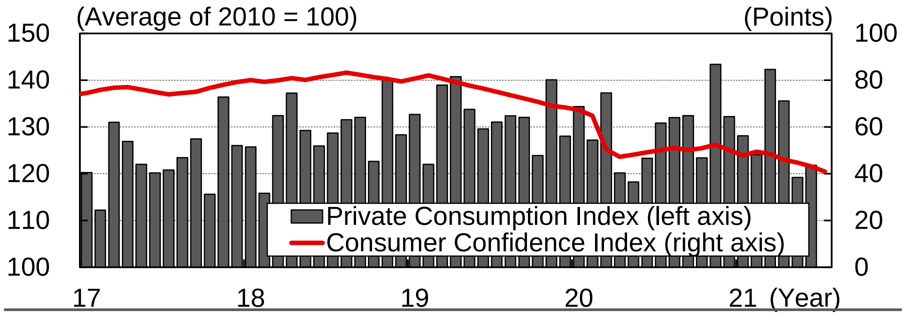
- Thailand's real GDP growth rate for the April-June quarter turned positive for the first time in six quarters, hitting 7.5% YoY. However, the rebound from the large decline that occurred the previous year (-12.1% YoY) played a significant part, and the recovery remains slow with the level of GDP still below the level it was at for the same quarter in 2019.
- The third wave of infection that started in April and its rise in severity acted as a weight on private consumption. The Private Consumption Index remains below the level it was at for the same month in 2019 before the pandemic. Exports of goods are still robust, but the number of international visitors is virtually zero.
- With no end to the spread of infection in sight, it is likely the downward pressure on private consumption will continue, and the impact of policies related to receiving tourists has been limited (the tourism industry is a major industry for Thailand), which will likely result in a slow economic recovery. As a result, the pace of Thailand's economic recovery is predicted to be slower than that of other ASEAN economies. The increase in the real GDP growth rate in 2021 is forecast to remain small at 1.5% YoY, and will increase to 4.3% YoY 2022, yet it is not expected to return to 2019 levels. The anti-government protests that started last year have heated up again and it is important to monitor the situation in case they become a source of downward pressure on the economy.

Thailand's Real GDP



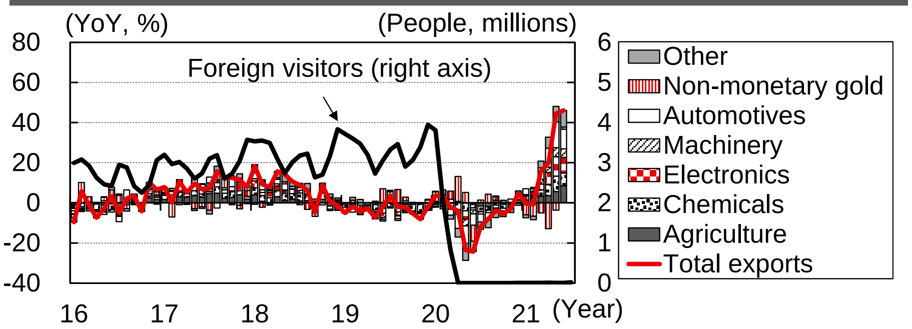
Source: Thailand's Office of the National Economic and Social Development Council , MUFG Economic Research Office

Thailand's Private Consumption and Consumer Confidence Indices



Source: Bank of Thailand, MUFG Bank Economic Research Office

Thailand's Exports and Number of International Visitors



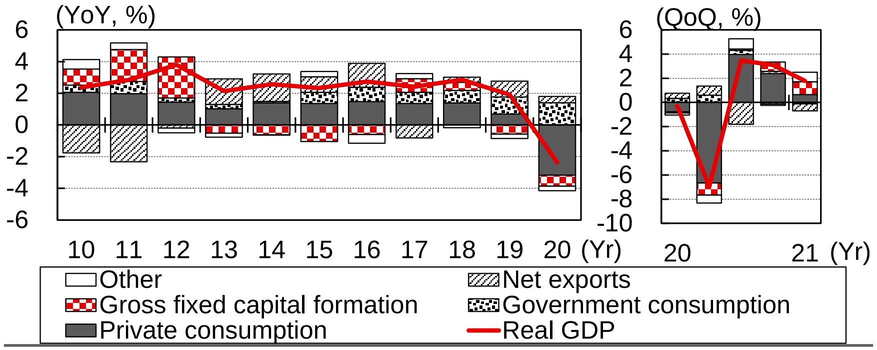
Source: Ministry of Commerce of Thailand, Ministry of Tourism and Sport, MUFG Bank Economic Research Office

MUFG

4-5. Asian and the Australian Economies: Australia

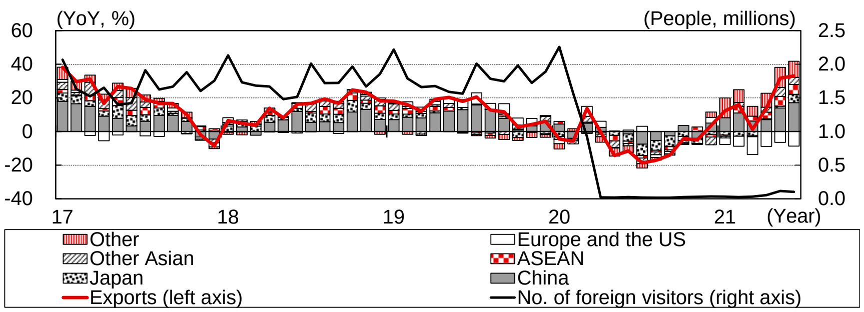
- Australia's real GDP growth rate for the April-June (scheduled to be published on 1st September) is forecast to be positive quarter-on-quarter due to its comparative success in curbing the spread of COVID-19 until May and robust domestic and foreign demand indicators. However, the apparent rise in the number of variant cases rose from around June and the continued strict restrictions on movement in some states are points to be monitored.
- Retail sales have remained robust since the start of the pandemic, but they decreased a little in June due to a rise in cases. Currently, Consumer Sentiment is on a downward trend, which means the recovery in domestic consumption activities will probably slow a little. In terms of foreign demand, the number of foreign visitors is close to zero and the tourism industry is slow to pick up, which has meant the recovery in the export of services has been slow. On the other hand, exports of goods are robust, particularly those to China.
- While restrictions on movement in response to the rise in cases is expected to put some temporary downward pressure on the economy, particularly private consumption, the economy will probably start to gradually recover again after restrictions are eased. Exports are forecast to grow at a robust pace on the back of continue demand for resources globally. The real GDP growth rate will accelerate to 4.2% YoY in 2021 and after it returns to its 2019 pre-COVID level, it is forecast to slow to around 3.0% YoY in 2022.

Australia's Real GDP



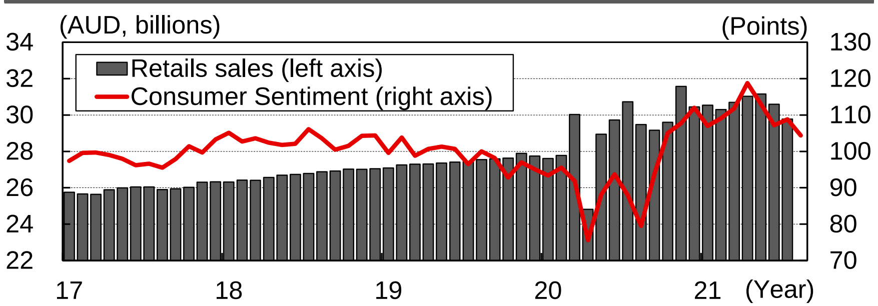
Source: Australian Bureau of Statistics, MUFG Bank Economic Research Office

Australia's Exports and Number of Foreign Visitors



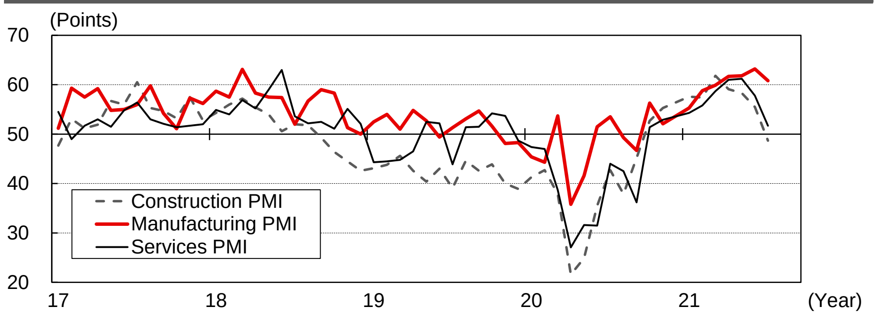
Source: Australian Bureau of Statistics, MUFG Bank Economic Research Office

Australia's Retail Sales and Consumer Sentiment



Source: Australian Bureau of Statistics, MUFG Bank Economic Research Office

Australia's PMI

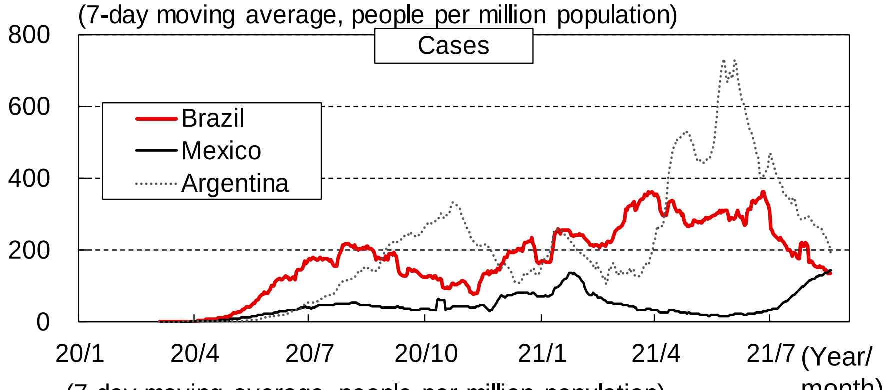


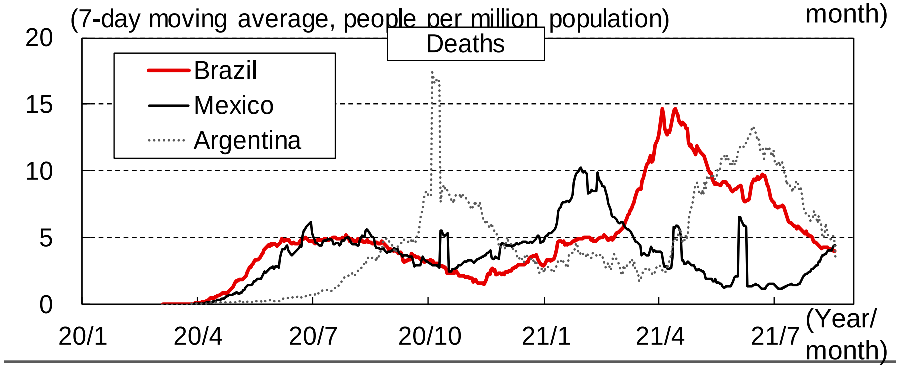
Source: The Australian Industry Group, MUFG Bank Economic Research Office

4-6. Central and South American Economies: Situation Surrounding the Pandemic

- In the three major Latin American economies, the numbers of cases and deaths have been high from the start when compared with other newly emerging economies. This year, cases have surged in Brazil and Argentina due to the spread of the Delta variant.
- Mexico has been slow to distribute vaccines. Recently, new cases and deaths have been rising.
- Meanwhile in Brazil and Argentina, where the Gamma variant was spreading before the rise of Delta variant, new cases and deaths have been on a downwards trend lately.

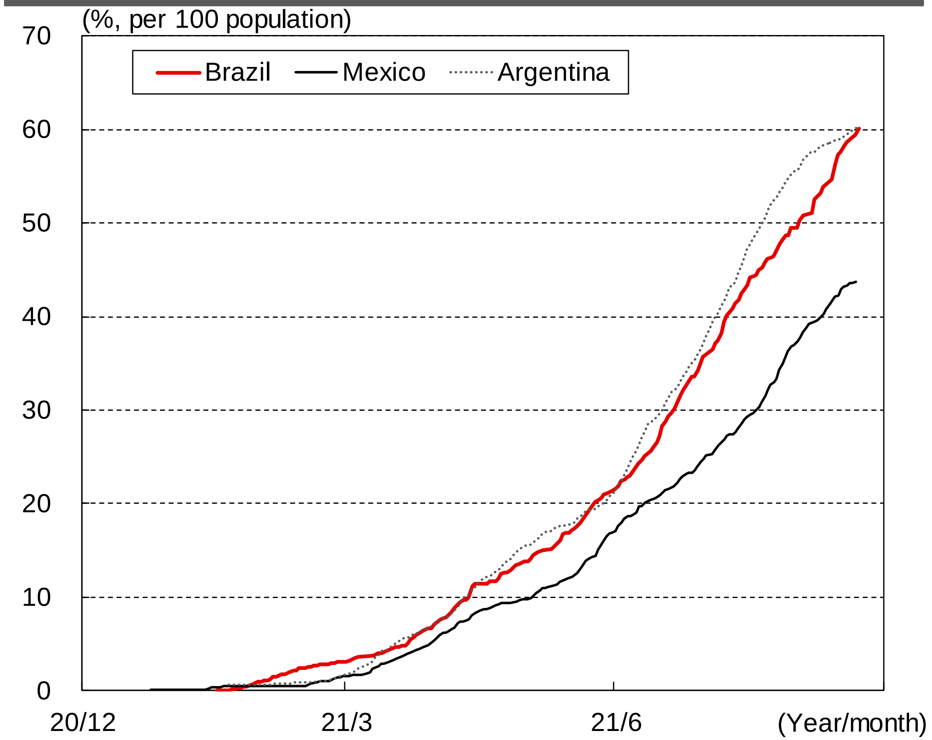
Numbers of Cases and Deaths





Source: Our *World in Data* website run by Oxford University, MUFG Bank Economic Research Office

Vaccination Coverage (of people who received at least one dose of vaccine)

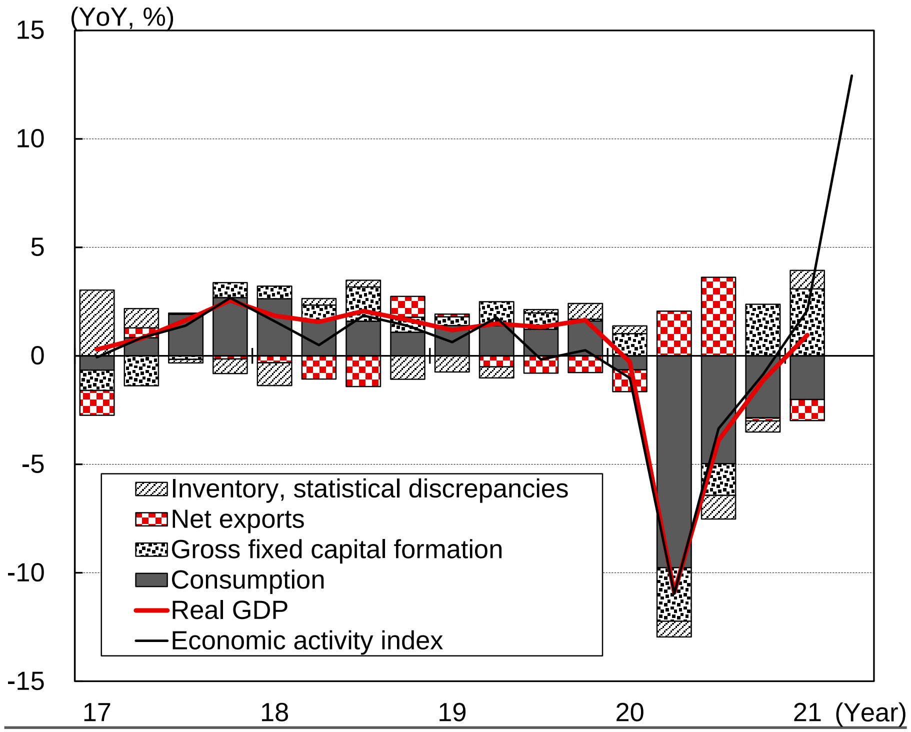


Source: Our *World in Data* website run by Oxford University, MUFG Bank Economic Research Office

4-6. Central and South American Economies: Brazil

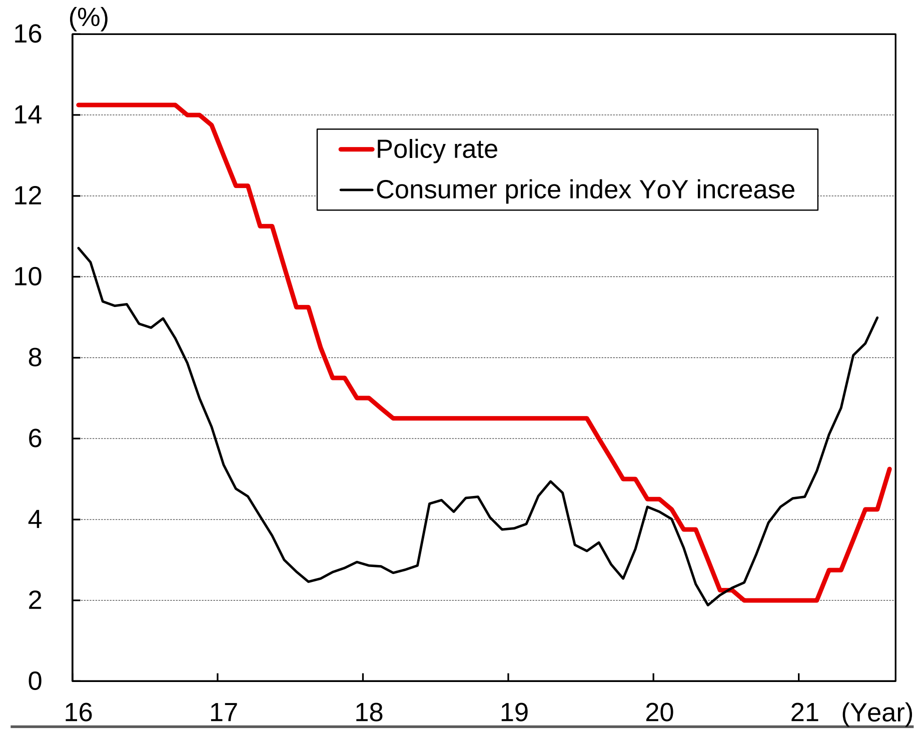
- Brazil's real GDP increased by 1.0% YoY in the January-March quarter, with the growth rate turning positive for the first time in five quarters. In the April-June quarter, real GDP likely increased at a high rate due in part to a rebound effect from the previous year's sharp decline. While cold weather in June caused serious disruptions to agricultural production during that month, the economic activity index for April and May averaged 12.9% higher than a year earlier.
- Consumer price index rose 9.0% YoY in July, accelerating further from earlier months due to higher food prices and an increase in electricity charges caused by water shortages. The CPI increase rate is well over the Central Bank of Brazil's target of up to 5.25%. The central bank implemented multiple rounds of interest rate hikes starting in March, with the policy rate rising from 2.00% to 5.25%.
- Economic relief measures implemented thus far have eroded the government's fiscal standing while inflation has eroded the real income of households. The economic recovery is likely to slow amid risks of variant spread, but recovery is expected for next year as vaccination coverage improves. We project that Brazil's real GDP will rebound by 4.0% YoY in 2021 and increase by a solid 3.5% in 2022.

Brazil Real GDP Growth Rate and Economic Activity Index



Note: For the April-June 2021 quarter, economic activity index average for April-May is compared to the April-June 2020 average.
Source: Brazilian Institute of Geography and Statistics, Institute for International Monetary Affairs

Brazil Policy Rate and Consumer Price Index

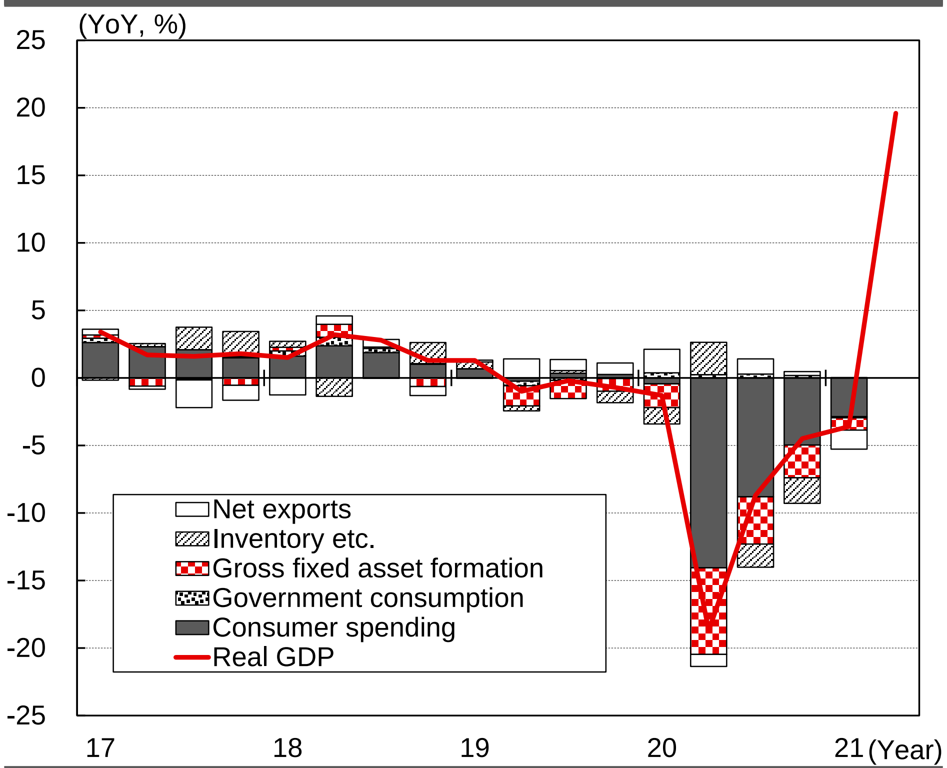


Source: Central Bank of Brazil, Institute for International Monetary Affairs

4-6. Central and South American Economies: Mexico

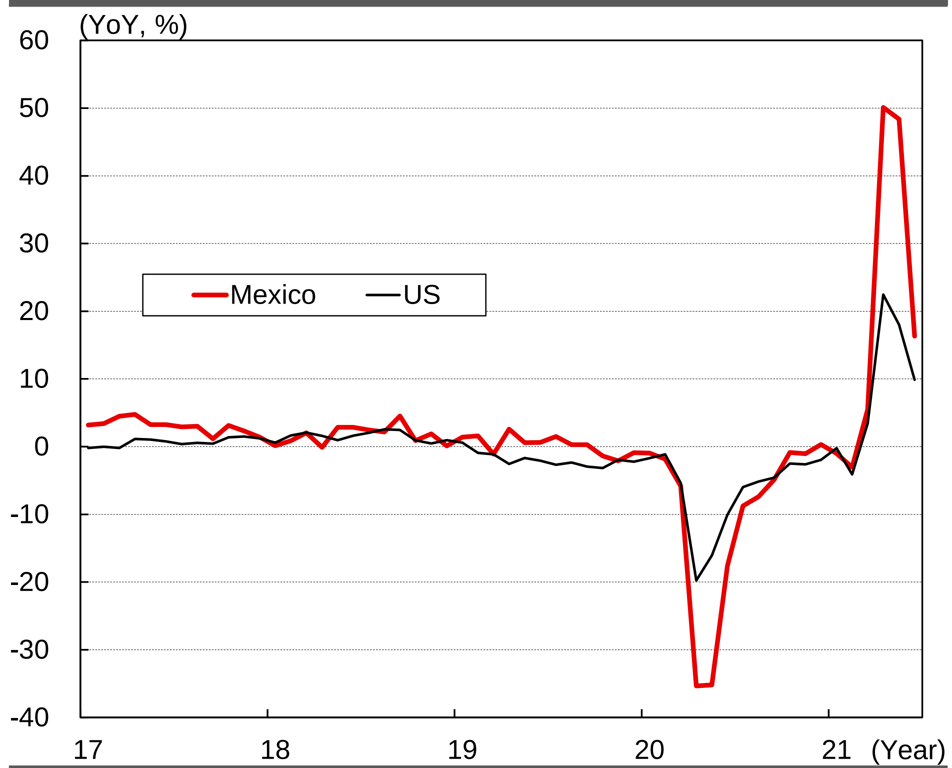
- Mexico's real GDP increased sharply, by 19.6% YoY, in the April-June quarter due to a rebound effect from the prior year's sharp decline and sharp increase in US GDP.
- Mexico's economy will likely continue its recovery, driven by export growth amid solid economic recovery in the US. With the minimum wage rising sharply for three straight years (15% YoY in 2021) and supporting consumer spending, we project that Mexico's real GDP will increase by 5.2% YoY in 2021.
- Meanwhile, the increase in the consumer price index has accelerated this year, hovering around 6% YoY in recent months. The CPI increase rate is well over the central bank target of 3% plus or minus 1% point. The Bank of Mexico in June increased its policy rate by 0.25% points in its first rate hike since December 2018. The central bank is expected to keep raising policy rates, but the economic recovery will likely continue with support from improving vaccination coverage. We project that Mexico's real GDP will increase by 3.0% YoY in 2022.

Mexico Real GDP



Source: National Institute of Statistics and Geography, Institute for International Monetary Affairs

Mexico and US Manufacturing Production

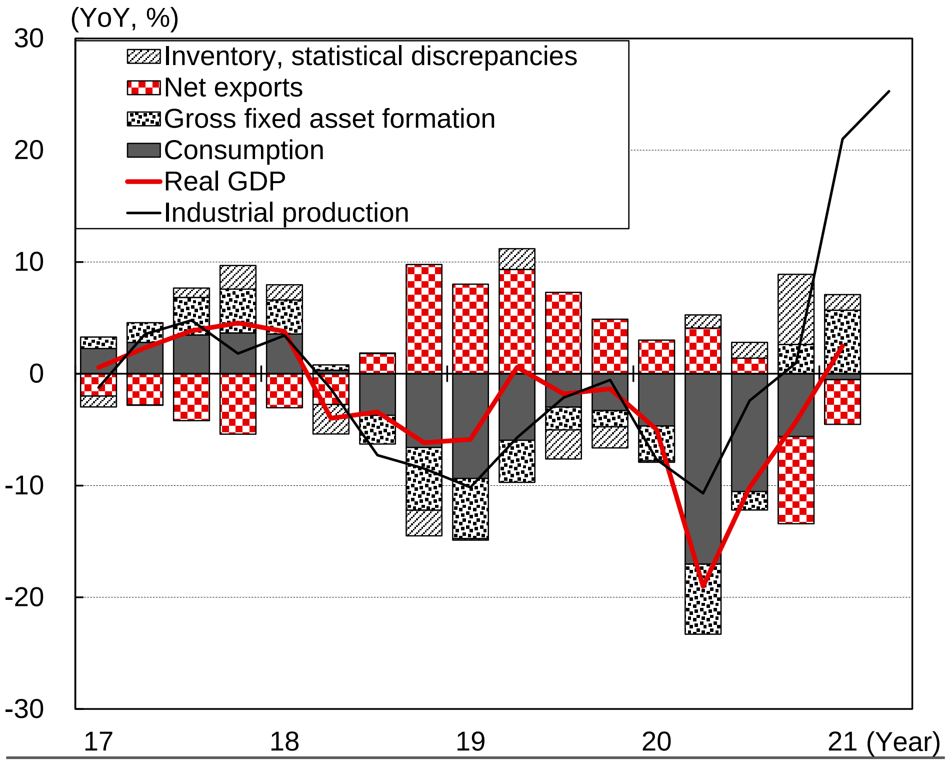


Source: Bank of Mexico, National Institute of Statistics and Geography, Institute for International Monetary Affairs

4-6. Central and South American Economies: Argentina

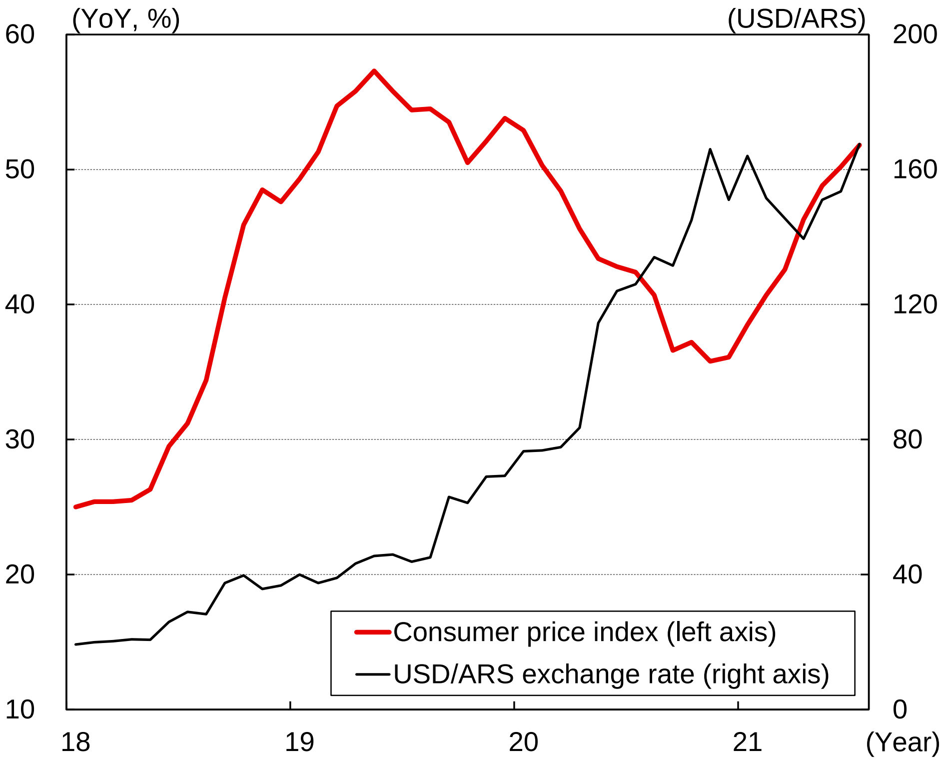
- Argentina’s annual real GDP declined for three straight years through 2020 but the quarterly real GDP increased by 2.5% YoY in the January-March 2021 quarter. Gross fixed asset formation increased YoY while consumer spending continued to decline YoY.
- With a mid-term election coming up in October, the government is showing more tolerance for further increases to the fiscal deficit. Consumer price index accelerated to 51.8% YoY in July as wages rose in indexation to price increases. As the Argentine peso (ARS) weakened again in recent months, the peso depreciated by 36.5% YoY against USD as of the end of July.
- We project that Argentina’s real GDP will increase 5.0% YoY in 2021, supported by a rebound effect, fiscal support, and foreign demand. For 2022, we project that the real GDP growth rate will slow to 2.5% YoY as the government will have to renegotiate debt restructuring with the IMF after the midterm election. IMF is demanding that Argentina should tighten its fiscal and monetary policy stance as a condition for debt restructuring.

Argentina Real GDP



Source: National Institute of Statistics and Census, Institute for International Monetary Affairs

Consumer Price Index and USD/ARS Exchange Rate

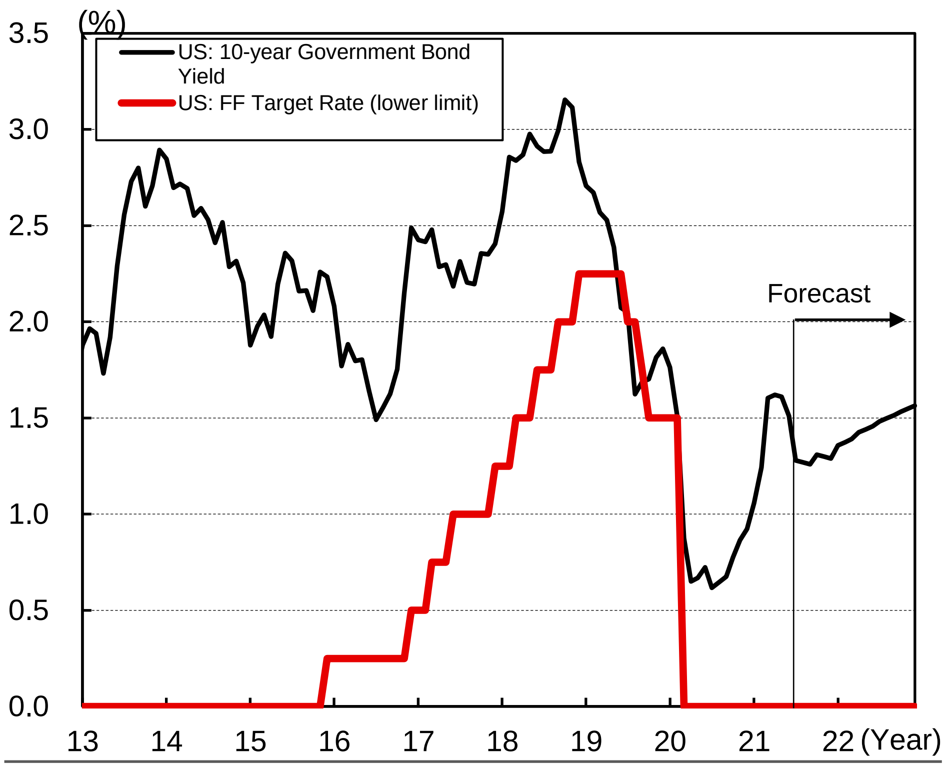


Source: National Institute of Statistics and Census, Institute for International Monetary Affairs

4-7. Financial Market Trends: Outlook for Interest Rates

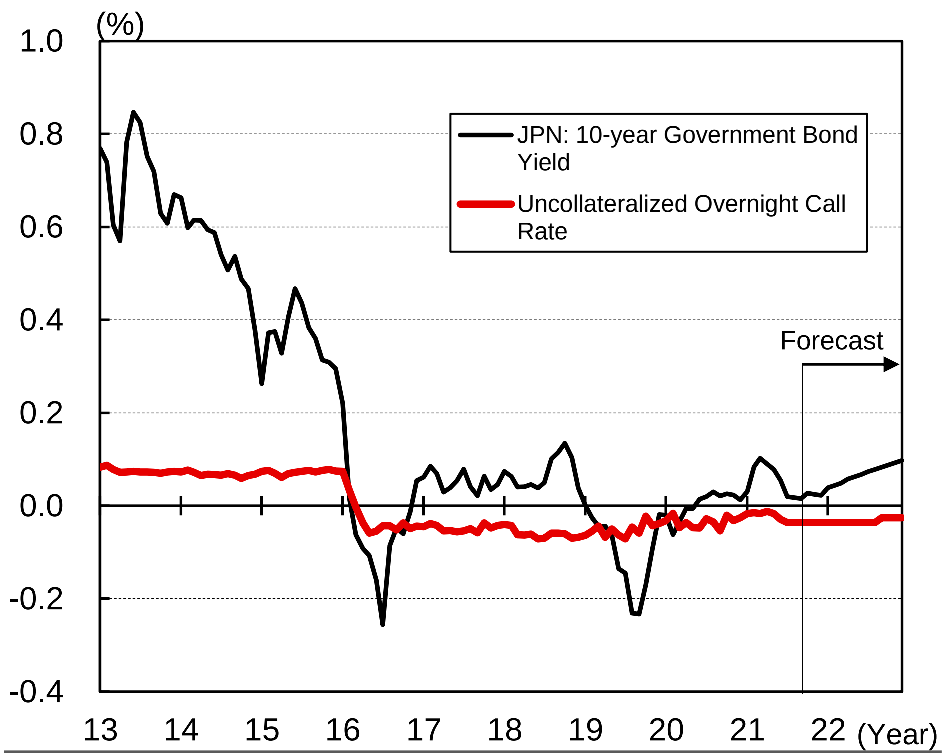
- Japan and the US have strengthened their accommodative monetary policies since the outbreak of the pandemic. In Japan, policy adjustments in March meant that the BOJ will have scope to ease away from stimulus measures, even if the inflation target has not been met. The policy rates will be kept at their current low levels.
- While the US continues to experience high inflation, especially in specific goods, concerns about the persistence of higher rates eased. 10-year bond yields have remained in the range of 1.2 to 1.4%. Employment remains far from the FOMC's goal of 'maximum employment' so caution around raising interest rates is likely to continue. We expect that any increases in the target rate will be very limited. The likelihood of reductions in asset purchases before the end of the year is high, but it is separate from interest rates and such a move is not expected to have a significant effect on long-term rates.
- In Japan, under the framework of the current monetary policy, the long-term interest rates are predicted to rise at a gradual rate alongside the US's interest rates, while the level is kept low.

US Policy Rates & Long-term Yields



Source: Bloomberg, MUFG Bank Economic Research Office

Japan Policy Rates & Long-term Yields

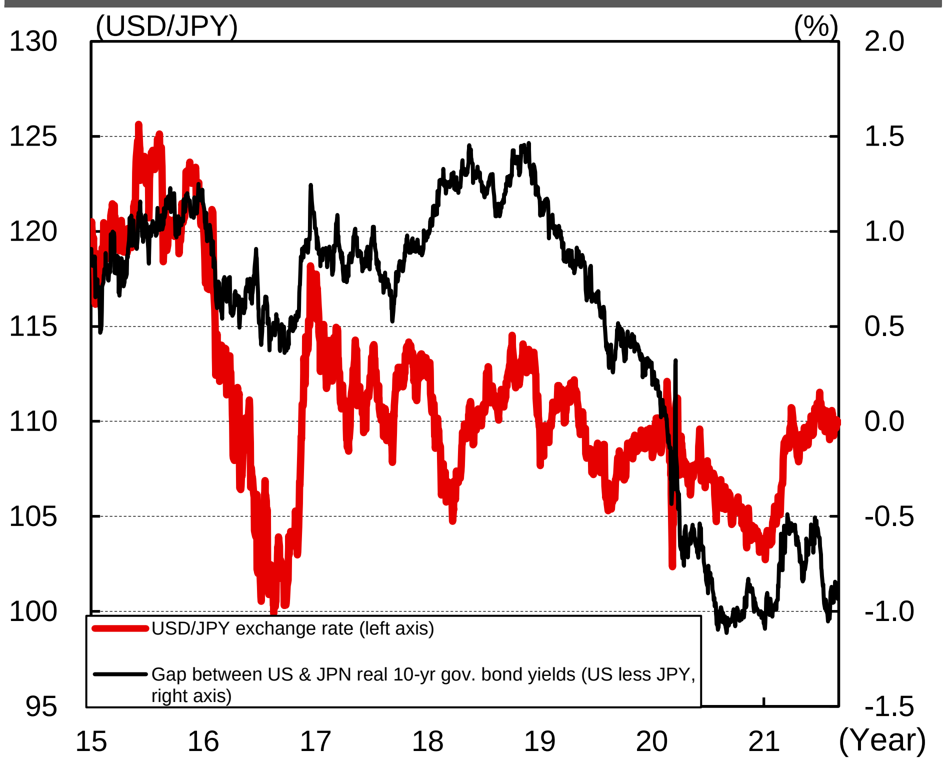


Source: Bloomberg, MUFG Bank Economic Research Office

4-7. Financial Market Trends: Outlook for the USD/JPY Exchange Rate

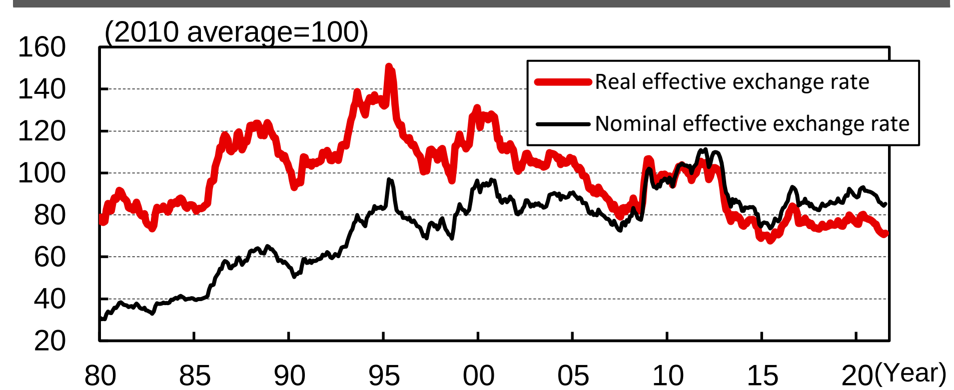
- The USD appreciated against the JPY and rose to close to JPY110 against the backdrop of a decrease in the US and Japan's real interest rate differential (due to an increase in US interest rates). However, despite the fall in the US interest rate that started in spring, the USD-JPY rate has remained in a narrow range.
- While it appears US real interest rates will start to rise gradually in the future, the negative spread between the US and Japan's long-term interest rates will continue to shrink given that Japan's real interest rate is likely to remain at its current levels. The USD-JPY exchange rate and the interest rate differential between Japan and the US has not always been consistent in the past, but it is likely the JPY will experience deflationary pressure due to the difference in interest rates.
- Meanwhile, it appears conventional upward pressures on the JPY from the purchasing parity power model will become neutral over the medium-to-long term. Business sentiment in Japan indicated there was a feeling that Japan's economic recovery is lagging behind that of the US due to Japan's intermittent states of emergency. However, upward pressure on the JPY will probably increase as the impact of vaccination becomes apparent and the economy recovery stabilises. As a result, both upward and downward pressure on the JPY will continue and it is forecast to remain relatively level against the USD.

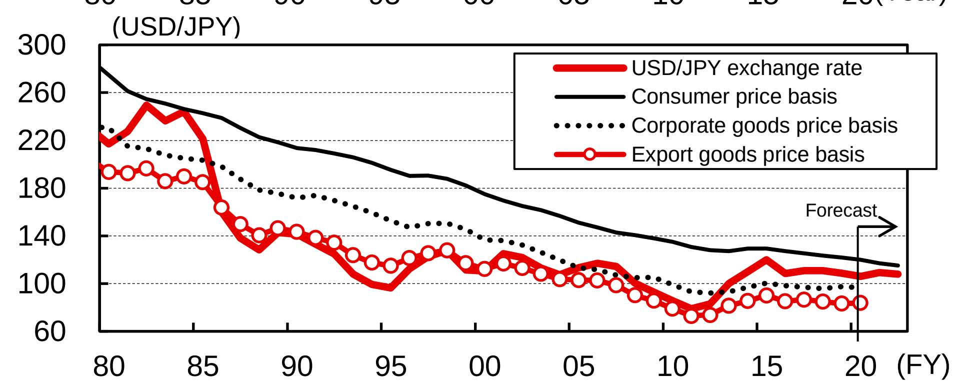
USD-JPY and Spread between US & JPN 10-Yr Real Gov. Bond Yields



Note: Real interest rate is calculated by subtracting the expected inflation rate (breakeven inflation) from the nominal interest rate.
Source: Bloomberg, MUFG Bank Economic Research Office

USD/JPY by Purchasing Power Parity





Note: "Purchasing power parity" is (Japan's price index divided by US price index) X standard rate.
Source: Bloomberg, BIS, other countries' statistical offices, MUFG Bank Economic Research Office

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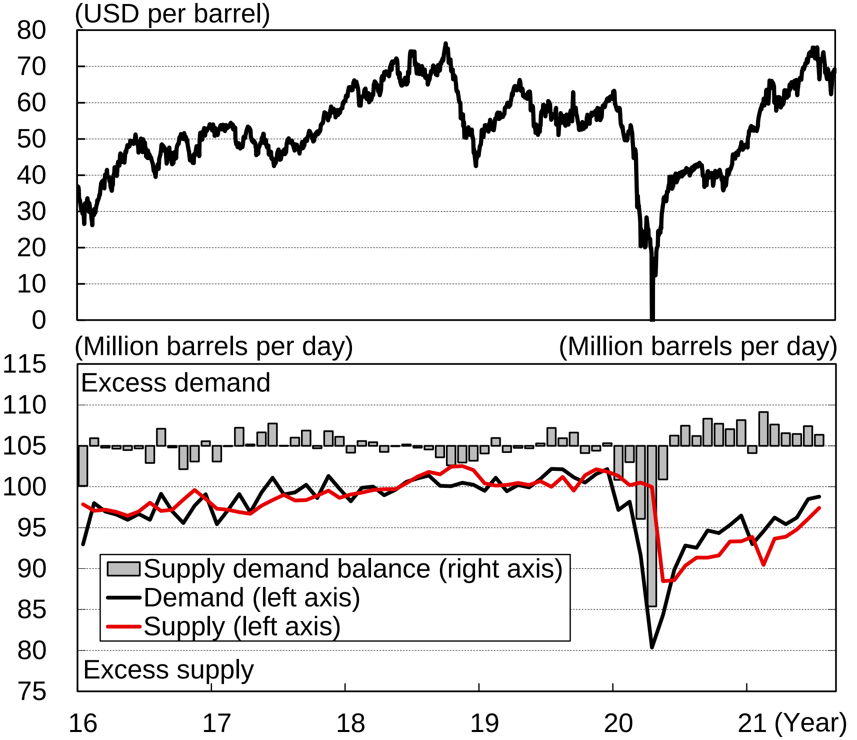
4-8. Oil Prices: Overview

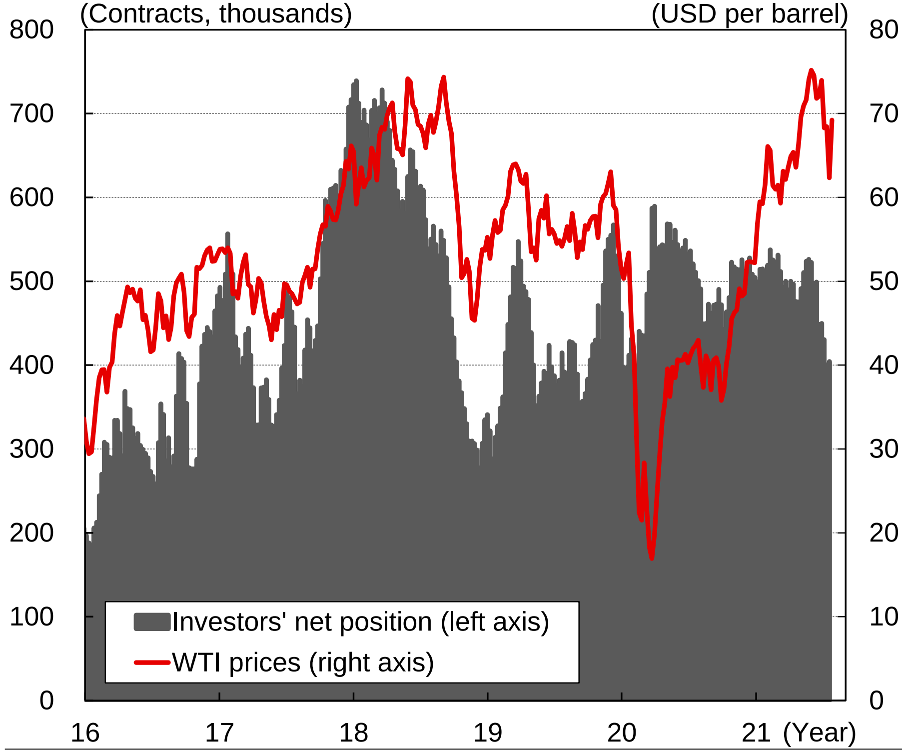
- Oil prices (WTI front month, USD per barrel) rose to around USD75 per barrel for a short while in the middle of July on the back of expectations that the rollout of vaccines would mean global economic recovery will gain momentum, as well as a fall in US oil inventories for 8 consecutive weeks from 21st May. After that, oil prices fell to close to USD 62 around mid-August owing to concerns of a rise in supply brought about by the OPEC+ decision to shrink the scale of their oil production cuts (increase output) and worries about a decrease in demand due to the spread of variants. However, a further decrease in US oil inventories and the impact of hurricanes in the US meant oil prices have risen again and are currently between USD 65 and USD 69.
- The global balance of oil supply and demand has remained tipped in the favour of excess demand since June 2020 with the exception of January this year (according to the US Energy Information Administration's monthly report published in August, the volume of global oil demand was 98.78 million barrels per day, and supply was 97.42 million barrels per day). After greatly increasing the scale of their oil production cuts in May last year due to the COVID-19 pandemic, OPEC+ is now reducing the scale of its cuts in stages as the global economy recovers and oil prices start to pick up. Nevertheless, the pace that OPEC+ will increase oil production will be gradual and sluggish US shale oil production means the supply of oil will remain squeezed on the whole.
- The net position of investment in oil futures has started to decrease as markets factor in the rise in supply by OPEC+.

Oil Prices and the Current Balance of Global Supply and Demand



Note: Supply-demand balance is demand less supply
Source: US Energy Information Administration, Bloomberg, MUFG Bank Economic Research Office

Net Position of Investors in Oil Futures and Oil Prices

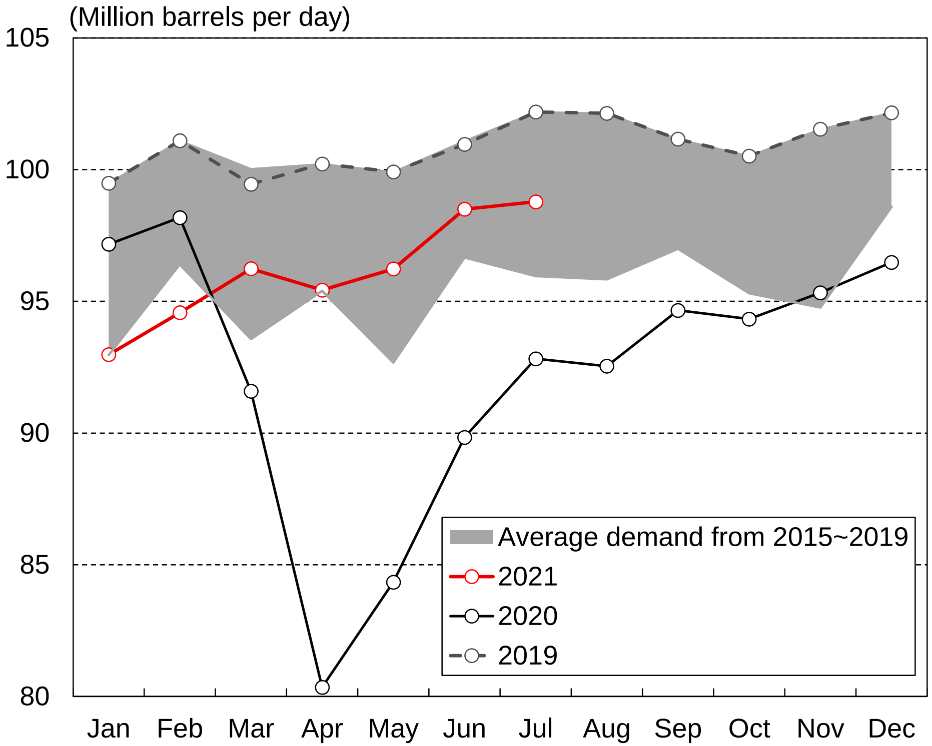


Note: Data shows investors' net position up until 17th August
Source: Bloomberg, MUFG Bank Economic Research Office

4-8. Oil Prices: Demand

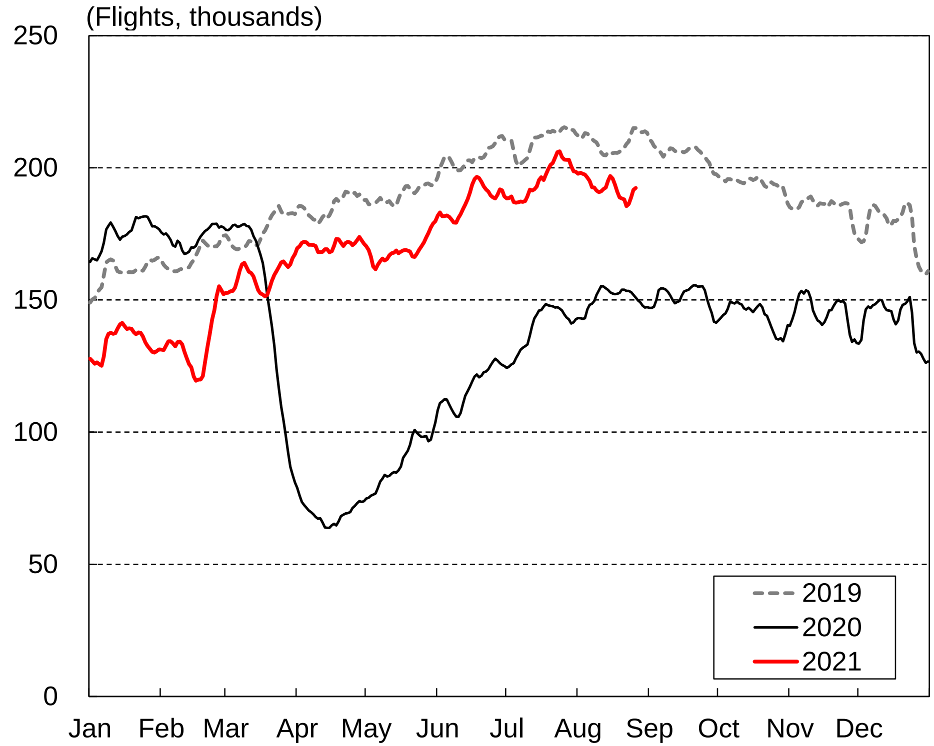
- Demand for oil plummeted for a short while due to the loss of demand for transportation (such as gasoline and jet fuel) caused by restrictions on movement at the start of the COVID-19 pandemic last year. After that, demand continued to pick up, yet it remained in the lower range of average demand from 2015 to 2019 since demand related to movement did not completely return until the start of this year. However, prices bottomed out after March within the same range and a robust recovery in demand can be seen in May and June. In July, the most recent results show demand has returned to around the median level within the 2015~2019 range.
- The number of flights globally was 18% lower at the start of this year (average of January and February) than it was during the same period in 2019 before the pandemic. However, the gap closed after March onwards (average of 1st March to 26th August) to 9% lower and demand for jet fuel, which had fallen considerably, picked up due to a recovery in demand for travel as vaccines rolled out in the US and Europe and demand for air cargo transportation remained strong. Looking ahead, countries will ease their restrictions on movement and their economies will normalise as vaccinations are administered, particularly developed countries. As a result, demand for oil is forecast to increase gradually, starting with fuel for transport.

Global Oil Demand



Source: US Energy Information Administration (EIA), MUFG Bank Economic Research Office

Number of Global Aeroplane Flights



Source: Flightradar24, MUFG Bank Economic Research Office

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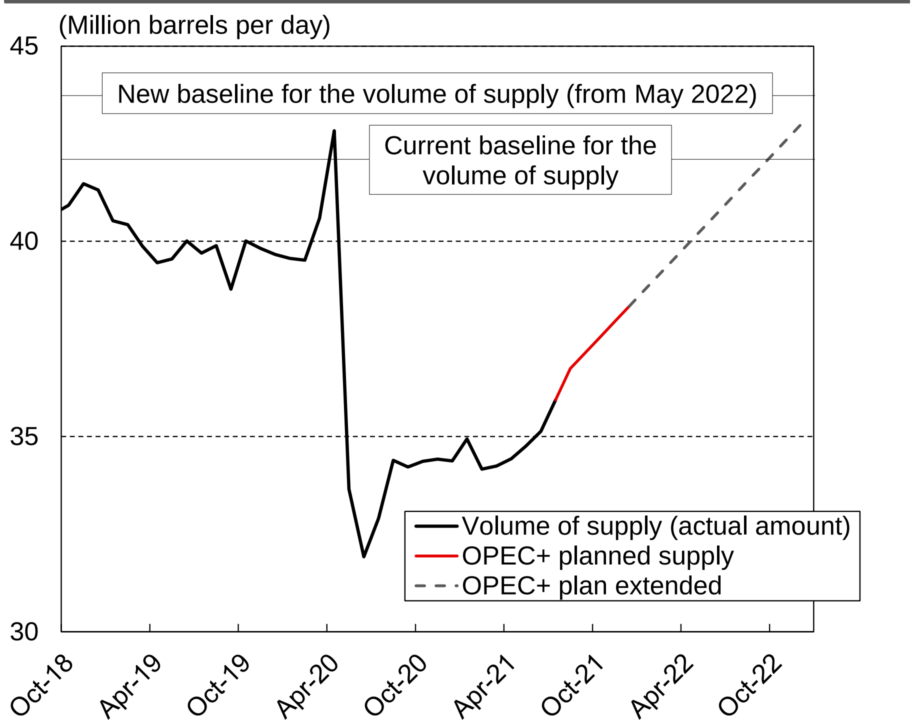
4-8. Oil Prices: Supply

- OPEC+ is decreasing the scale of its oil production cuts (i.e. increasing production) after it significantly increased the scale of its cuts in May last year in response to the COVID-19 pandemic. At its Ministerial Meeting in July, OPEC+ decided to: extend the duration of their cooperative production cuts (from April 2022 to December 2022); raise the baseline volume of oil output from May 2022 (i.e. an increase in output is possible. The current baseline for output of 43.85 million barrels per day for all of OPEC+ will increase by 1.63 million barrels per day); and to reduce the volume of its oil production cuts each month by 400,000 barrels per day from August 2021 until December 2021. The scale of cuts from January next year is still undecided, but taking into consideration the increased pace of reductions to oil production cuts and the higher baseline for the volume of oil supply, it is likely that the supply of oil will increase to meet the rise in demand.

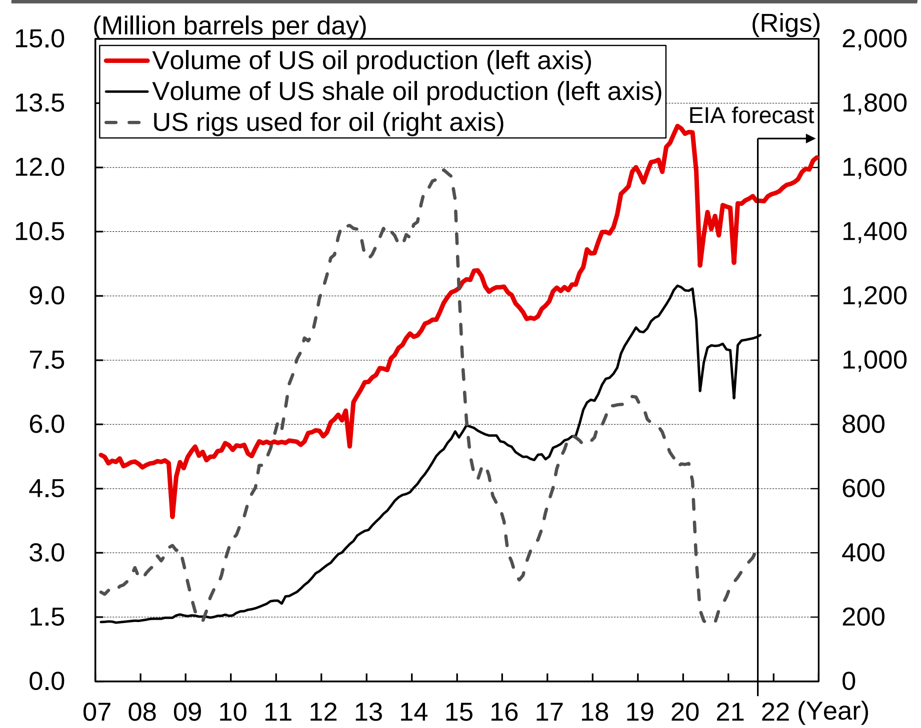
- Currently, oil prices are above the level whereby drilling new oil wells is profitable for US shale oil companies (generally said to be around USD 50~60). Therefore, the number of working rigs is gradually increasing, and the volume of shale oil production has recovered to around 60% of pre-pandemic levels. It appears the stance taken by the Biden administration when it comes to policies related to the environment and climate change means it is assumed regulations will tighten in the future, which is a barrier to increasing production. Nevertheless, the US domestic demand for oil is rising, especially for gasoline, and considering the Biden administration requested OPEC+ increase their output further to resolve this issue, it is likely US shale oil production will rise at a gradual pace.

OPEC+ Volume of Oil Production



Source: OPEC, Bloomberg, MUFG Bank Economic Research Office

Volume of US Oil and Shale Oil Production, Number of Rigs

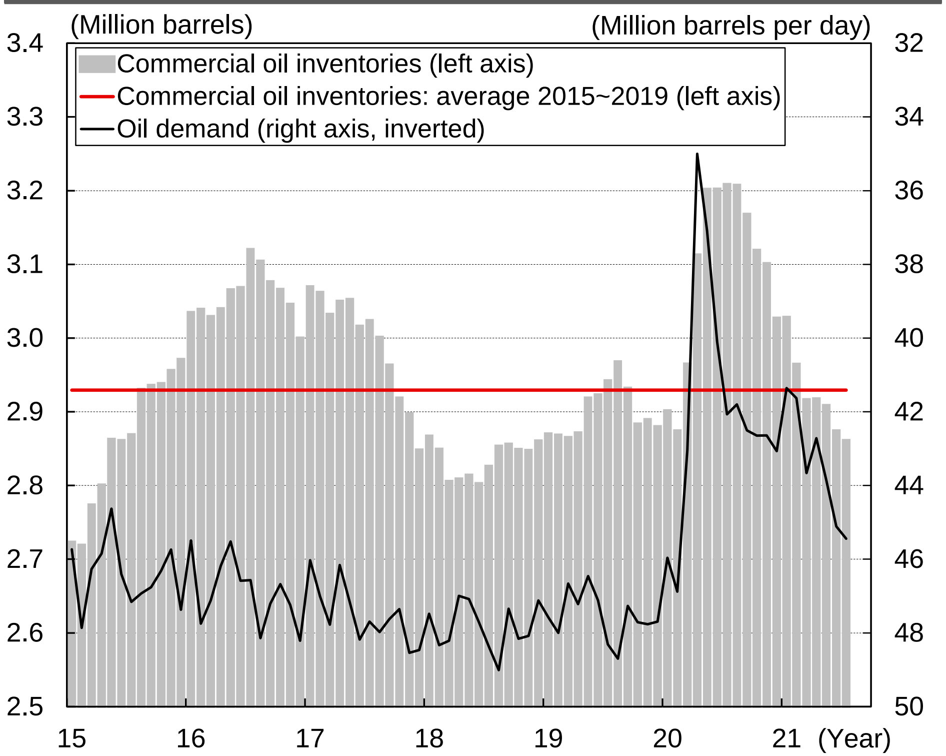


Source: Baker Hughes, EIA (US Energy Information Administration), MUFG Bank Economic Research Office

4-8. Oil Prices: Oil Stocks and the Demand-Supply Balance

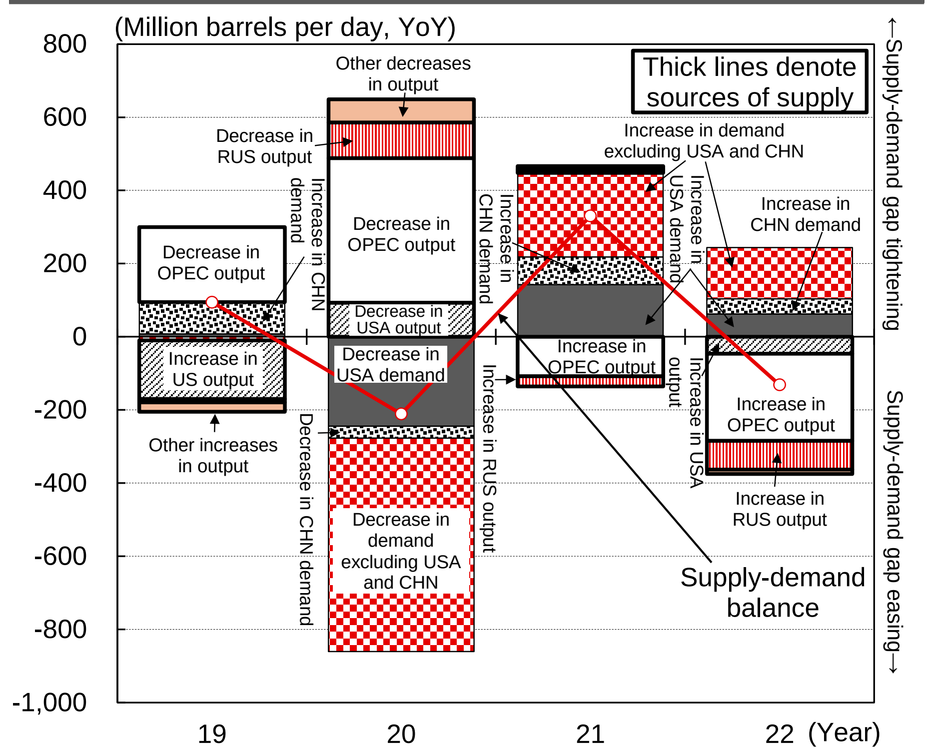
- Oil inventories show the supply of oil has been squeezed after OPEC+ increased the scale of its oil production cuts in response to the outbreak of the COVID-19 pandemic last year. Meanwhile, demand for oil is recovering globally, resulting in a decrease in oil inventories – which had accumulated for a short while due to the loss of demand – are below the average level of inventories from 2015 to 2019. Currently, the surplus oil in inventories is gone.
- There was a huge imbalance in the supply and demand for oil globally in 2020, despite OPEC+ increasing the scale of its oil production cuts, due to a sharp fall in demand for oil. In 2021, even though OPEC+ started to increase production in contrast with the previous year, it is highly likely the balance of oil supply and demand will greatly improve as economies recover and the global demand for oil picks up. While demand for oil will continue to recover in 2022 as it did in 2021, the amount of excess demand is forecast to decrease as a result of increased output from OPEC+ and a rise in US shale oil production, resulting in a supply-demand balance that will be closer to equilibrium.

OECD countries' Commercial Oil Inventories and OECD Demand



Source: US Energy Information Agency, MUFG Bank Economic Research Office

Oil Supply and Demand and Supply-Demand Balance



Note: Values from 2021 onwards are estimates by the Economic Research Office
Source: US Energy Information Administration, MUFG Bank Economic Research Office

4-8. Oil Prices: Outlook

- In the future, oil prices are predicted to fall gradually to around USD 60 per barrel at the end of 2022 as the amount of excess demand decreases and the supply-demand balance approaches equilibrium. However, oil prices may move up or down depending on the course of the COVID-19 pandemic, the outcome of negotiations over the Iran nuclear agreement and geopolitical risks in the Middle East.
- The futures curve for WTI oil prices (1 month to 5 years) shows 2-year futures are around USD 60, whereas 5-year futures are just above USD 50, which means the market expects a fall in oil prices.

Oil Price Forecast

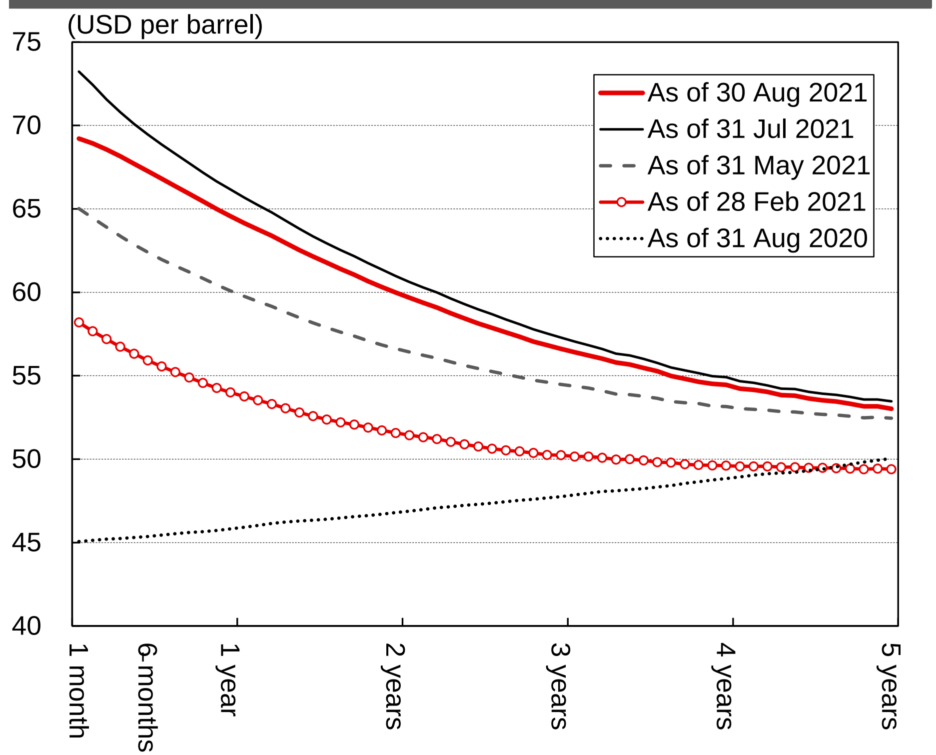
	WTI future (USD/barrel)	YoY (%)	Brent future (USD/barrel)	YoY (%)
2020 Q1	45.8	-16.6%	50.8	-20.4%
Q2	28.0	-53.3%	33.4	-51.2%
Q3	40.9	-27.5%	43.3	-30.1%
Q4	42.7	-24.9%	45.3	-27.5%
2021 Q1	58.1	27.0%	61.3	20.7%
Q2	66.1	136.1%	69.1	106.9%
Q3	69.9	70.9%	72.9	68.1%
Q4	67.9	59.0%	70.9	56.6%
2022 Q1	65.9	13.4%	68.9	12.4%
Q2	63.9	-3.3%	66.9	-3.1%
Q3	62.0	-11.3%	65.0	-10.8%
Q4	60.0	-11.6%	63.0	-11.1%

Forecast

2020	39.3	-31.0%	42.3	-34.0%
2021	65.5	66.5%	68.5	61.9%
2022	63.0	-3.9%	66.0	-3.8%

Note: Prices shown are average for period
Source: Bloomberg, MUFG Bank Economic Research Office

Oil Price Forecast



Source: Bloomberg, MUFG Bank Economic Research Office

Appendix: Global Economic Outlook

Forecast for the Global Economy

		World (weighted average of nominal GDP)				Japan (FY)	Americas					Europe					
			Developed countries	Emerging countries	Other		US	Central and South America (6 countries)				Eurozone (19 countries)				UK	Russia
									Brazil	Mexico	Argentina		Germany	France	Italy		
Nominal GDP	USD trillions	142.0	51.0	52.7	38.3	5.3	20.9	8.1	3.2	2.4	0.9	15.9	4.5	3.0	2.5	3.0	4.1
(2019)	Japan = 100	2,673	960	992	720	100	394	153	59	46	18	299	85	56	46	56	77
Real GDP	2020 Actual	-3.2	-4.6	-1.9	-3.1	-4.5	-3.4	-6.7	-4.1	-8.2	-9.9	-6.5	-4.8	-8.0	-8.9	-9.8	-3.0
YoY, %	2021 Forecast	5.7	5.1	6.7	5.1	3.1	6.0	4.9	4.0	5.2	5.0	4.6	3.4	6.0	5.6	6.7	2.8
	2022 Forecast	4.6	4.0	5.2	4.7	2.7	4.1	3.4	3.5	3.0	2.5	4.3	4.5	4.0	4.2	5.2	2.5
CPI	2020 Actual	3.2	0.7	3.9	5.7	-0.5	1.2	7.6	3.2	3.4	42.0	0.3	0.4	0.5	-0.1	0.9	3.4
(YoY, %)	2021 Forecast	3.9	2.3	3.8	6.2	-0.1	3.4	9.5	6.5	4.5	50.0	2.0	2.8	1.6	1.4	1.9	5.3
	2022 Forecast	3.3	1.6	3.7	5.1	0.6	2.0	7.3	4.0	4.0	40.0	1.5	1.6	1.2	1.2	2.0	4.2

		Asia and Oceania														
		Asia (11 countries and regions)														Australia
			China	India (FY)	NIEs (4 countries and regions)					ASEAN (5 countries)						
						S. Korea	Taiwan	Hong Kong	Singapore		Indonesia	Thailand	Malaysia	Philippines	Vietnam	
Nominal GDP	USD trillions	45.1	24.1	8.9	4.6	2.3	1.3	0.4	0.6	7.5	3.3	1.3	0.9	0.9	1.1	1.3
(2019)	Japan = 100	850	454	168	87	43	25	8	11	140	62	24	17	17	20	25
Real GDP	2020 Actual	-0.8	2.3	-7.3	-0.9	-1.0	3.0	-6.1	-5.4	-3.4	-2.1	-6.1	-5.6	-9.6	2.9	-2.5
(YoY, %)	2021 Forecast	7.2	8.3	9.3	4.9	4.0	5.7	6.1	6.1	3.8	3.7	1.5	4.3	4.9	5.7	4.2
	2022 Forecast	5.6	5.5	7.1	3.2	3.1	3.0	3.0	4.0	5.6	5.2	4.3	5.8	6.8	7.3	3.0
CPI	2020 Actual	2.9	2.5	6.2	0.2	0.5	-0.2	0.3	-0.2	1.4	2.0	-0.8	-1.1	2.6	3.1	0.8
(YoY, %)	2021 Forecast	2.5	1.5	5.5	1.7	1.9	1.6	1.6	1.6	2.3	1.9	1.1	2.5	4.2	3.3	2.2
	2022 Forecast	2.8	2.3	4.8	1.5	1.5	1.4	2.0	1.5	2.6	2.9	1.2	1.8	3.0	3.7	2.0

Note: 1. "Nominal GDP" is based on purchasing power parity
2. For "CPI", Japan is composite figure excluding fresh food, Eurozone and the UK are the EU standardised inflation rate (HICP)
3. Figures for Japan and India based on their financial years (April to following March) except Japan's nominal GDP
4. "World", "developed countries", "emerging countries" calculated using Japan data based on the calendar year, India data based on the fiscal year for nominal GDP only and other countries' data based on the calendar year
5. "Developed countries" is a total of Japan, NIEs (4 countries and regions), Australia, US, Eurozone (19 countries) and the UK. "Emerging countries" is a total of China, India, ASEAN (5 countries), Central and South America (6 countries) and Russia
6. "Central and South America (6 countries)" is a total of Brazil, Mexico, Argentina, Colombia, Chile and Peru

Source: National statistics of each country, MUFG Bank Economic Research Office

Appendix: Outlook for the Japanese Economy and Financial Markets

Outlook for the Japanese Economy (First Preliminary Estimate of GDP Statistics for Apr-Jun 2021)

Forecast

	2020				2021				2022				2023	FY2020	FY2021	FY2022
	Q1	2Q	3Q	4Q	Q1	2Q	3Q	4Q	Q1	2Q	3Q	4Q	Q1			
1. The Real Economy (QoQ annualized change)																
Real GDP	-2.3	-28.2	22.8	11.9	-3.7	1.3	1.0	2.6	6.0	2.4	1.6	1.5	1.4	- 4.5	3.1	2.7
Private Consumption	-3.2	-29.2	22.1	9.4	-4.0	3.4	0.6	2.9	9.1	3.2	1.7	1.6	1.6	- 5.9	3.4	3.5
Housing Investment	-14.1	2.3	-21.0	0.1	3.8	8.6	0.4	0.8	0.2	-0.4	-0.4	-0.6	-0.6	- 7.2	1.6	- 0.1
Private Business Fixed Investment	4.5	-21.9	-8.0	18.3	-4.9	7.0	2.4	3.6	4.5	2.8	2.2	2.0	1.6	- 6.8	3.6	2.9
Business Inventory (Contribution)	0.7	0.3	-0.8	-2.0	1.7	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	- 0.2	- 0.2	0.0
Government Expenditures	-0.9	4.4	9.6	6.7	-6.0	0.3	1.4	1.5	1.2	0.9	0.9	0.8	0.8	3.5	0.8	1.1
Public Investment	0.3	12.3	2.6	4.0	-4.0	-5.7	1.5	1.3	1.3	1.0	1.0	0.8	0.8	4.2	- 1.1	1.1
Net Exports (Contribution)	-1.2	-10.2	11.2	4.2	-0.9	-1.3	-0.1	0.1	0.1	-0.0	0.1	0.1	0.1	- 0.6	0.6	0.1
Exports	-17.6	-53.8	32.6	55.8	9.8	12.3	4.9	4.1	3.6	3.2	2.8	2.4	2.0	- 10.4	14.1	3.3
Imports	-11.5	-2.6	-29.0	20.8	16.8	21.9	5.3	3.6	3.2	3.2	2.2	1.8	1.6	- 6.8	10.2	2.9
Nominal GDP	-2.1	-27.1	23.6	9.7	-4.0	0.2	3.2	3.5	3.2	3.9	2.7	2.5	-0.9	-3.9	3.0	3.0
GDP Deflator (YoY)	1.0	1.4	1.2	0.2	-0.1	-0.7	-0.3	0.4	-0.2	0.4	0.2	0.2	0.4	0.6	-0.2	0.3
Industrial Production Index (QoQ)	0.0	-16.8	9.0	5.7	2.9	1.1	0.6	1.8	1.1	0.9	0.7	0.6	0.6	- 9.5	10.0	3.8
Domestic Corporate Goods Price Index (YoY)	0.6	-2.3	-0.8	-2.1	-0.3	4.7	0.5	1.0	0.3	0.3	0.4	0.6	0.8	- 1.4	1.7	0.5
Consumer Price Index (excl. fresh food, YoY)	0.7	-0.1	-0.3	-0.9	-0.5	-0.6	-0.2	0.4	-0.1	0.6	0.6	0.5	0.6	- 0.5	- 0.1	0.6
2. Balance of Payments																
Trade Balance (billion yen)	583	-1,472	1,229	2,436	1,437	977	3,080	3,377	2,527	1,480	2,757	3,069	2,161	3,902	9,961	9,467
Current Balance (billion yen)	4,603	2,184	4,111	6,410	5,114	5,198	7,043	6,988	5,789	4,384	5,469	5,702	4,557	18,253	25,019	20,112
3. Financial																
Uncollateralized overnight call rate	-0.1	-0.1	0.0	-0.1	-0.1	-0.0	-0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Euro-Yen TIBOR (3-month rate)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Newly Issued 10-Year Government Bonds Yield	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.5	0.3	0.0
Exchange Rate (USD/JPY)	109	108	106	104	106	109	110	110	109	108	108	108	108	106	110	108

Note: Uncollateralized overnight call rate is the average rate during the last month of the period. Euro-Yen TIBOR (3-month rate), Newly Issued 10-Year Government Bonds Yield and Exchange Rate (USD/JPY) are averages during the period.
Source: Various statistics, Bloomberg, MUFG Bank Economic Research Office

Appendix: Outlook for the US Economy and Financial Markets

Outlook for the US Economy

Forecast (from 2021 7～9)

	2020				2021				2022				2020 (Actual)	2021 (Forecast)	2022 (Forecast)
	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12			
1. Main Economic Indicators															
Real GDP (QoQ annualized, %)	-5.1	-31.2	33.8	4.5	6.3	6.6	5.7	6.2	4.6	2.3	1.5	1.3	-3.4	6.0	4.1
Personal Consumption Expenditures	-6.9	-33.4	41.4	3.4	11.4	11.9	2.6	4.2	2.4	1.6	0.9	1.0	-3.8	8.0	2.9
Fixed Investment (Residential)	20.3	-30.8	60.0	34.4	13.3	-11.5	-2.9	-1.1	-0.7	-0.6	0.4	0.0	6.8	9.7	-1.6
Fixed Investment (Nonresidential)	-8.1	-30.3	18.7	12.5	12.9	9.3	7.9	11.9	6.7	3.0	1.5	0.7	-5.3	8.8	6.2
Changes in Business Inventories (Contribution)	-0.5	-4.0	6.8	1.1	-2.6	-1.3	0.8	0.4	0.0	0.0	0.0	0.0	-0.6	0.1	0.1
Government Expenditures	3.7	3.9	-2.1	-0.5	4.2	-1.9	9.3	6.5	11.7	2.3	1.4	1.3	2.5	2.1	5.8
Net Exports (Contribution)	-0.1	1.5	-3.3	-1.7	-1.6	-0.2	0.3	0.0	0.0	0.4	0.4	0.3	-0.1	-1.6	0.1
Exports	-16.3	-59.9	54.5	22.5	-2.9	6.6	6.6	7.1	6.2	4.9	3.9	3.1	-13.6	5.0	5.7
Imports	-13.1	-53.1	89.2	31.3	9.3	6.7	2.5	4.6	4.3	1.2	0.6	0.5	-8.9	12.8	3.0
Domestic Private End User Demand	-6.2	-32.8	38.0	6.0	11.8	10.3	3.3	5.2	3.0	1.7	1.0	0.9	-3.7	8.2	3.2
Nominal GDP (QoQ annualized, %)	-3.9	-32.4	38.7	6.6	10.9	13.2	9.4	8.1	8.3	3.9	3.7	3.5	-2.2	9.8	6.9
Industrial Production (QoQ annualized, %)	-2.6	-6.7	-42.4	44.5	8.2	3.9	1.2	2.5	1.6	0.8	0.5	0.3	-6.7	2.4	1.5
Unemployment Rate (%)	3.8	13.0	8.8	6.7	6.2	5.8	5.2	5.2	4.9	4.8	4.8	4.8	8.1	5.6	4.8
Producer Price Index (YoY, %)	1.1	-1.1	-0.1	0.8	2.9	6.7	6.4	6.0	4.7	2.3	2.0	2.2	0.2	5.5	2.8
Consumer Price Index (YoY, %)	2.1	0.4	1.2	1.2	1.9	4.8	3.5	3.4	3.1	1.7	1.6	1.6	1.2	3.4	2.0
2. Balance of Payments															
Trade Balance (hundred million dollars)	-2,003	-2,233	-2,454	-2,531	-2,685	-2,692	-2,790	-2,784	-2,781	-2,746	-2,713	-2,684	-9,220	-10,950	-10,924
Current Account (hundred million dollars)	-1,148	-1,539	-1,724	-1,751	-1,957	-2,229	-2,126	-2,070	-2,018	-1,985	-1,953	-1,925	-6,161	-8,383	-7,881
3. Financial Indicators															
FF Rate Target (%)	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25
Euro Dollar (3M) (%)	1.5	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.2
10-year Treasury Note's Yield (%)	1.4	0.7	0.6	0.9	1.6	1.6	1.3	1.3	1.4	1.4	1.5	1.5	0.9	1.4	1.5

Note: FF Rate Targets is end-of-period figures, Euro Dollar (3M) and 10-year Note's Yield are averages for periods
Source: Various reports, Bloomberg, MUFG Bank Economic Research Office

Appendix: Outlook for the European Economies and Financial Markets

Outlook for European Economies

1. Overview

	Real GDP growth rate (YoY, %)			CPI (YoY, %)			Current Account (USD billions)		
	2020 (Actual)	2021 (Forecast)	2022 (Forecast)	2020 (Actual)	2021 (Forecast)	2022 (Forecast)	2020 (Actual)	2021 (Forecast)	2022 (Forecast)
Eurozone	- 6.5	4.6	4.3	0.3	2.0	1.5	2546	2952	2464
Germany	- 4.8	3.4	4.5	0.4	2.8	1.6	2670	2919	2675
France	- 8.0	6.0	4.0	0.5	1.6	1.2	- 499	- 314	- 802
Italy	- 8.9	5.6	4.2	- 0.1	1.4	1.2	669	647	892
UK	- 9.8	6.7	5.2	0.9	1.9	2.0	- 949	- 953	- 1014
Russia	- 3.0	2.8	2.5	3.4	5.3	4.2	339	594	558

2. Forecast by Demand Component (YoY, %)

	Eurozone			UK		
	2020 (Actual)	2021 (Forecast)	2022 (Forecast)	2020 (Actual)	2021 (Forecast)	2022 (Forecast)
Nominal GDP	- 5.0	6.7	5.9	- 4.8	8.1	6.6
Real GDP	- 6.5	4.6	4.3	- 9.8	6.7	5.2
Contribution by domestic demand	- 6.1	3.4	3.9	- 10.7	7.3	6.2
Contribution by foreign demand	- 0.4	1.2	0.4	0.8	- 0.6	- 1.0
Private consumption	- 8.0	3.3	5.7	- 10.9	4.3	6.8
Government consumption	1.4	2.7	0.8	- 6.5	15.0	4.0
Gross fixed capital formation	- 7.6	4.0	3.0	- 8.8	5.3	5.8
Inventory investment (contribution)	- 0.4	0.3	0.1	- 0.5	0.4	0.1
Exports	- 9.4	9.9	5.3	- 15.8	- 0.8	4.2
Imports	- 9.2	8.0	4.9	- 17.8	1.3	7.7

Note: 1. "Eurozone" is total of 19 countries - Germany, France, Italy, Ireland, Estonia, Austria, The Netherlands, Cyprus, Greece, Spain, Slovakia, Slovenia, Finland, Belgium, Portugal, Malta, Luxembourg, Lithuania
2. "CPI" is the standardised inflation rate for the EU (HICP)

Source: Eurostat, UK Office for National Statistics, MUFG Bank Economic Research Office

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