

Monthly Economic Report

October 21, 2021

Mizuho Research & Technologies, Ltd.

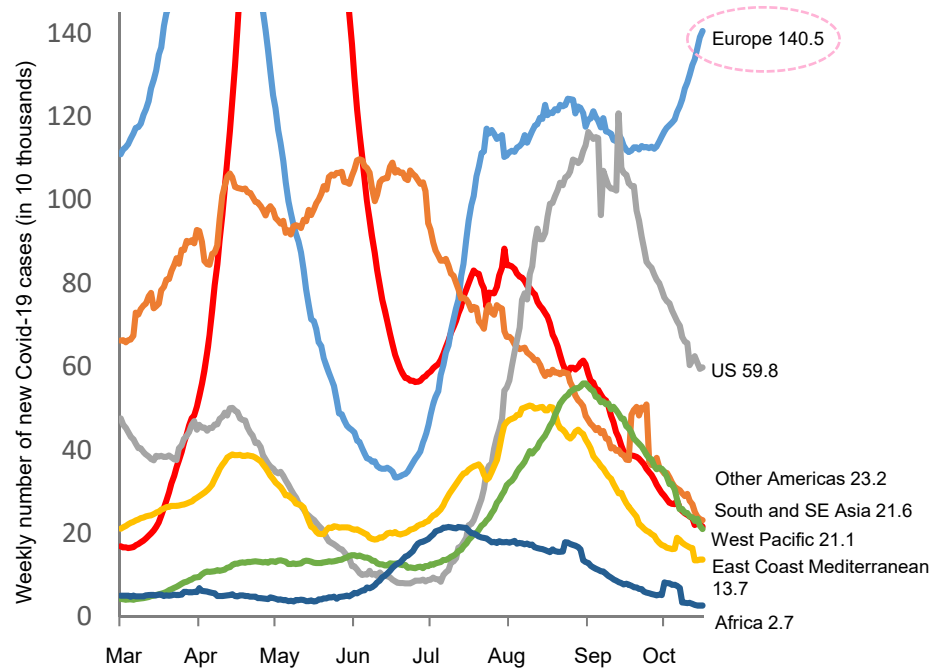
MIZUHO

The Mizuho logo consists of the word "MIZUHO" in a bold, white, sans-serif font, positioned above a thin, white, curved line that resembles a stylized wave or a bridge.

Global Covid-19 infection trends: the number of new cases is following a downtrend

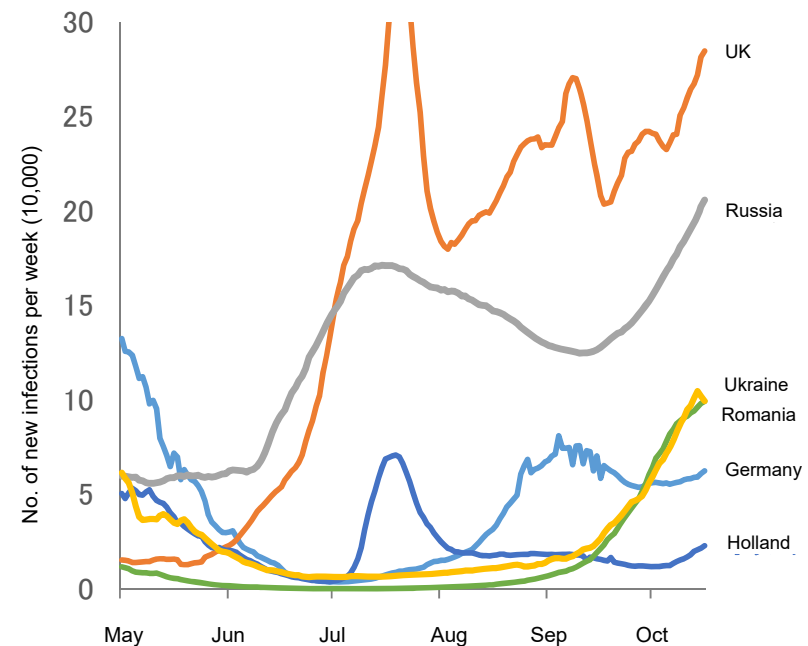
- The number of Covid-19 cases worldwide (cumulative) reached 240.64 million as of the morning of October 18.
- The weekly number of new Covid-19 cases around the world stood at 2.83 million (previous week: 2.92 million), continuing its downward trend, but the pace of decline is slowing.
 - The main cause of the slowdown is the resurgence of infections in Europe. The spread of infections remains unabated in the UK, Russia, Romania, and Ukraine, and there are signs of a resurgence in Germany and the Netherlands.
 - On the other hand, Singapore, where infections had been spreading rapidly, is showing signs of peaking out.

Weekly number of new Covid-19 cases reported worldwide



Note: Figures represent number of cases tallied as of October 18 (latest data as of October 16).
Regional classification based upon WHO.
Source: Made by MHRT based upon Johns Hopkins University and WHO.

Weekly number of new Covid-19 cases in countries currently showing large increases

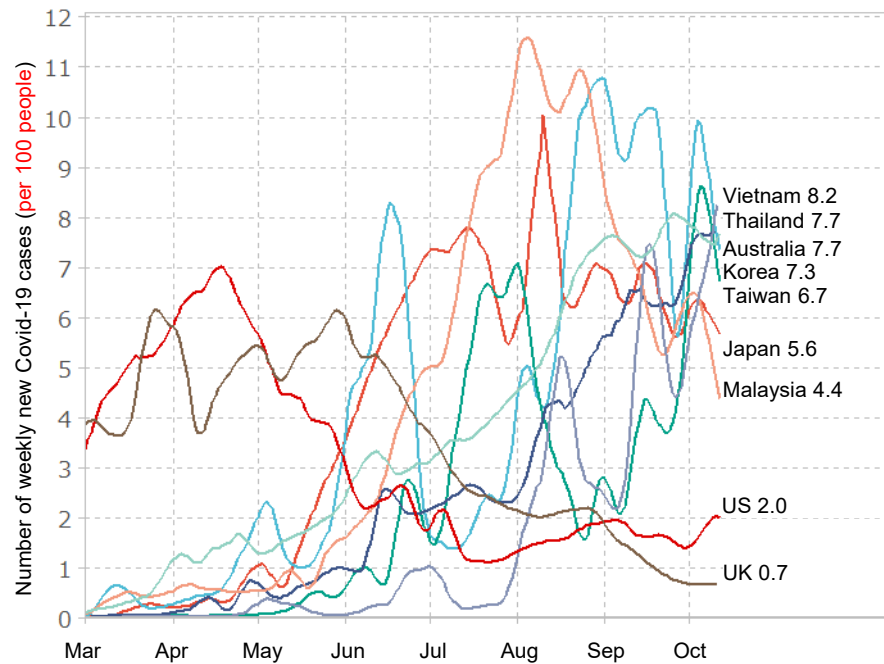


Note: Figures represent number of cases tallied as of October 18 (latest data as of October 16).
Source: Made by MHRT based upon Johns Hopkins University.

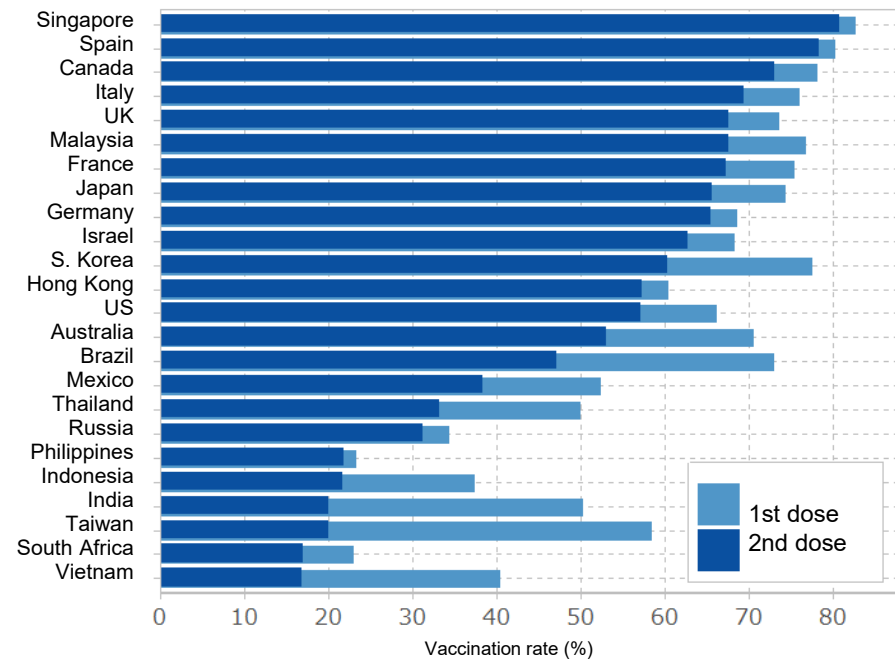
Global vaccination trends: steady pace of vaccinations, mainly in Asia and Oceania

- The pace of vaccination remains steady in Southeast Asia, Oceania, and East Asia including Japan.
 - In terms of weekly vaccinations per 100 people, Vietnam (8.2 doses), Thailand (7.7 doses), Australia (7.7 doses), South Korea (7.3 doses), Taiwan (6.7 doses), and Japan (5.6 doses) ranked highly. Malaysia (4.4 times), which had already shown a vaccination rate equal to developed countries in Europe and the US, slowed down slightly.
 - While the first-dose vaccination rate is rising in Taiwan and Vietnam given their priority on first-dose vaccinations, their second-dose vaccination rate remains low.
 - The vaccination pace in Russia, the Philippines, and South Africa is relatively slow, with no increase in both first and second dose vaccination rates.

Number of weekly vaccinations per 100 people (by country)



Vaccination rates of 1st and 2nd doses in major countries (percentage of the total population)



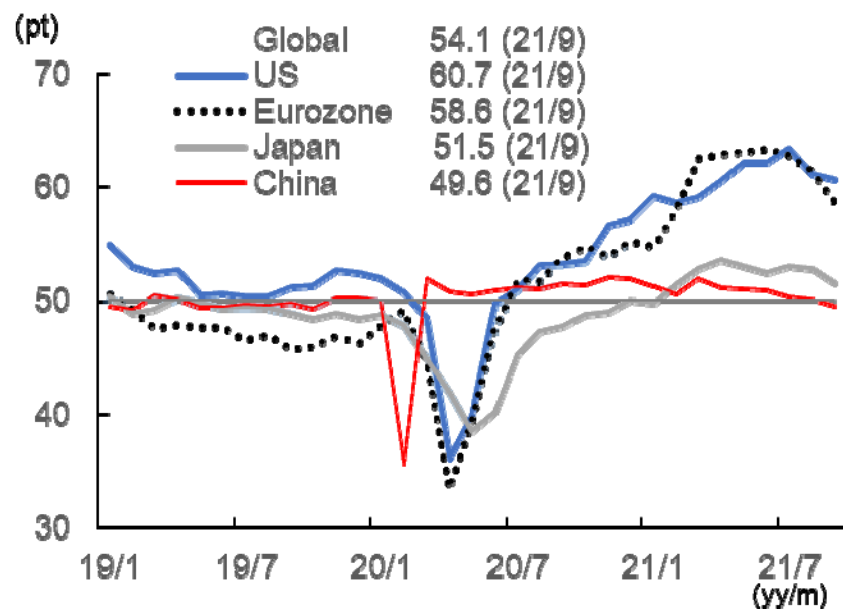
Note: Figures represent data tallied as of October 14 (latest data is from October 12)
Source: Made by MHRT based upon *Our World in Data*

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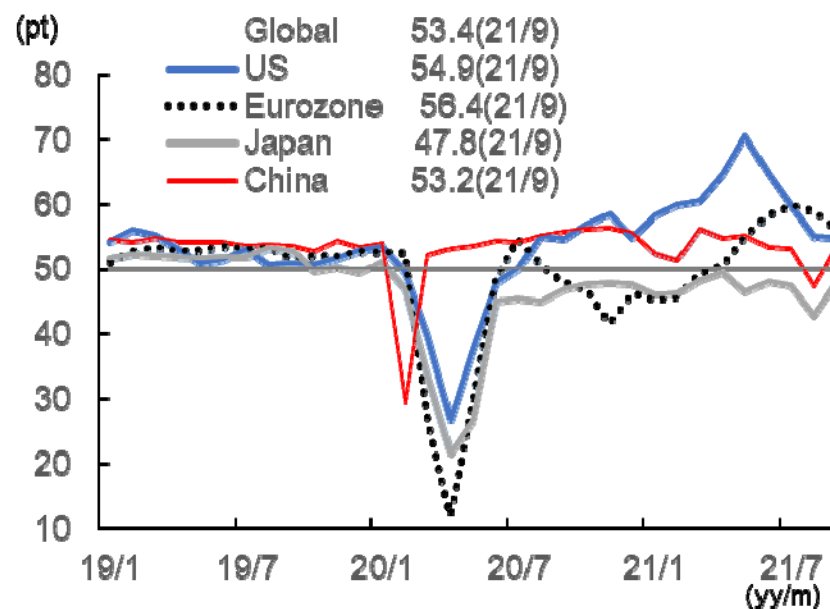
Current state of the global economy: prolonged supply constraints, slowdown in economic expansion

- In the US and Europe, both manufacturing and nonmanufacturing PMIs fell, indicating a slowdown in economic expansion.
 - In the manufacturing sector, supply constraints, such as motor vehicle production adjustments due to semiconductor shortages served as a drag. In the US, materials and manpower shortages, as well as tightening logistics networks, are also coming to the fore, affecting the nonmanufacturing sector as well.
- In China, the nonmanufacturing PMI recovered and edged above 50 due to the abatement of the Covid-19 pandemic. Even so, the manufacturing PMI continued to decline and fell below 50 due to the impact of electric power shortages.
- Likewise in Japan, the manufacturing PMI fell to 51.5 due to continuing motor vehicle production cutbacks. On the other hand, business sentiment in the nonmanufacturing sector improved. A further improvement is expected following the lifting of the declaration of a state of emergency in October.

Manufacturing PMI



Nonmanufacturing PMI



Note: The Purchasing Managers' Index (PMI) is an index calculated by weighting indexes such as new orders, output, order backlogs, prices, employment, and quantity of purchases. The reading of 50 in the PMI is the "expansion-contraction" threshold.

Source: Made by MHRT based upon IHS Markit, the National Bureau of Statistics of China.

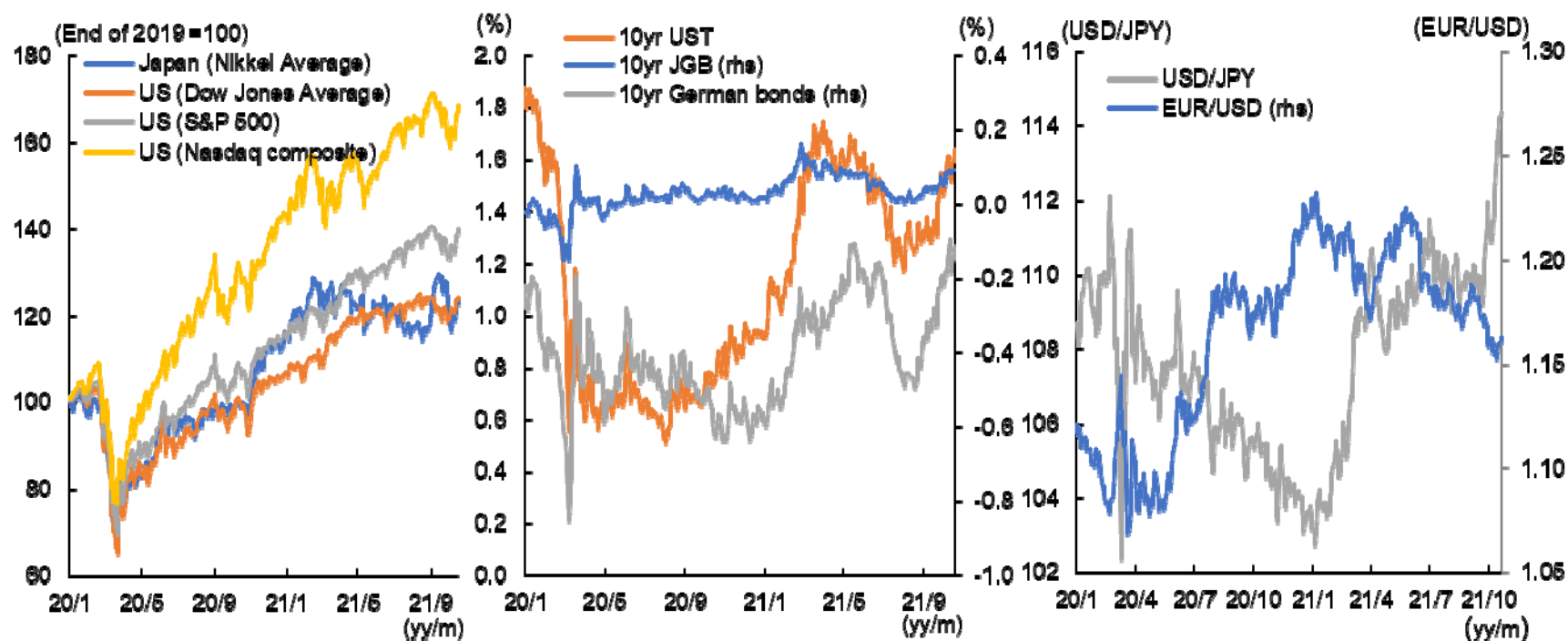
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Source: Made by MHRT based upon IHS Markit, the National Bureau of Statistics of China.

Overview of financial markets: the dollar surged against the yen, amid the widening US-Japan interest rate differential

- The dollar surged against the yen, amid the widening US-Japan interest rate differential.
 - Even though US stocks have remained weak due to concerns regarding inflation and supply constraints, they have staged a rebound given a series of favorable corporate earnings announcements. Japanese stocks remained weak due to the fact that the new Prime Minister, Fumio Kishida, referred to a capital gains tax hike.
 - The 10yr UST yield rose to the 1.6% level against the backdrop of concerns regarding inflation and rising expectations for a rate hike following the September FOMC meeting. The German 10yr government bond yield also rose above -0.2% due to the rise of concerns regarding inflation in the Eurozone.
 - Against the backdrop of widening US-Japan interest rate differentials, the US dollar strengthened to the JPY114/USD level, for the first time since November 2018.

Major market trends

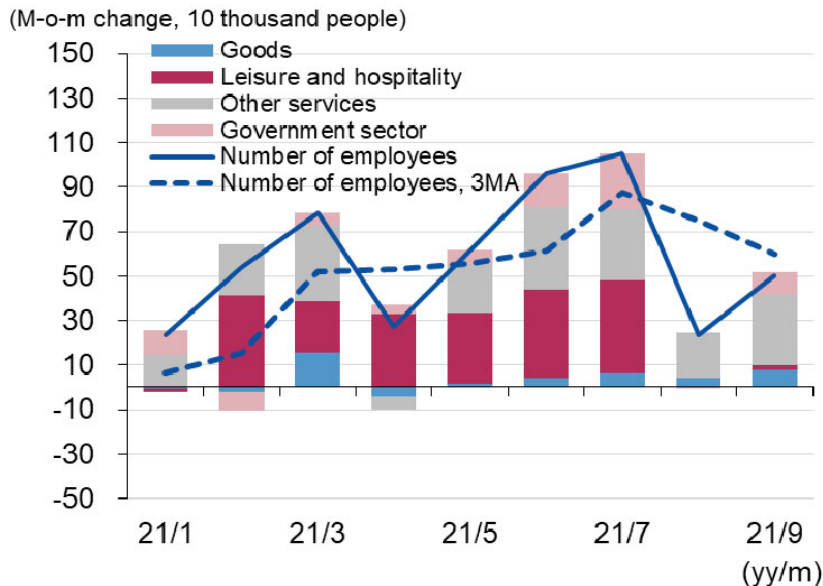


Note: All indexes show actual results up to October 19.
Source: Made by MHRT based upon Refinitiv.

US Economy: the number of employees increased. The pace of recovery in labor supply is expected to be moderate going forward

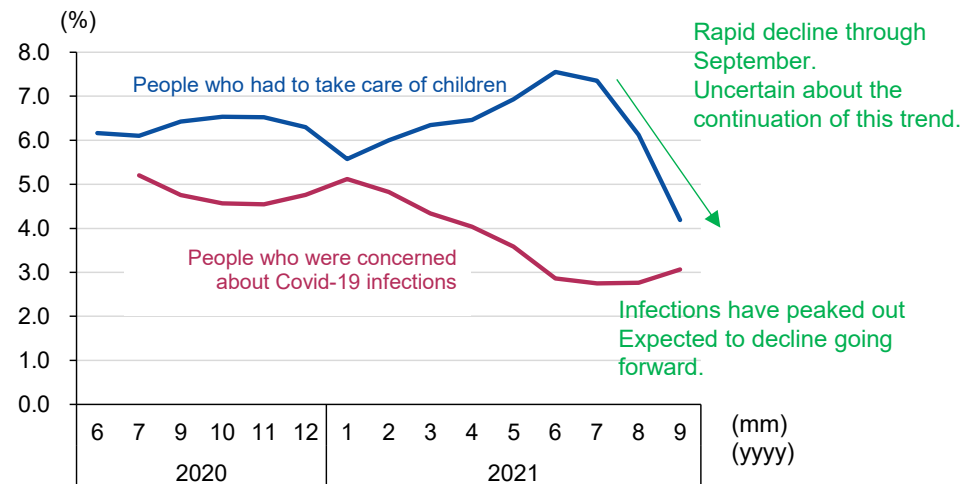
- Even though the rise in number of employees slowed down, the number continued to increase in September by +194 thousand m-o-m (August: +366 thousand m-o-m). The cumulative results for July and August were revised upward to +169 thousand people.
 - The decrease of employees in the government sector contributed to the slowdown. On the other hand, the increase of employees in leisure/hospitality industry improved slightly, and was firm in goods and other services.
 - Wages continued to rise (+0.6% m-o-m, +4.6% y-o-y). Strong wage growth was seen in some industries such as education, medical care and retail sales.
- Looking forward, the number of people not working due to concerns regarding Covid-19 infections is expected to take a downturn. On the other hand, the pace of decline in the number of people unable to work due to childcare is expected to be gradual.
 - Of the non-labor force population with children under the age of 13, half have preschool-aged children. Due to the closure of nurseries, shortage of childcare workers, and reduction in the number of children accepted by facilities due to infection control measures, it appears that a considerable number of parents are unable to return to work because their children are not accepted at nurseries.

Number of employees by industry



Source: Made by MHRT based upon US Department of Labor.

Trend of people not working voluntarily due to circumstances peculiar to the Covid-19 pandemic



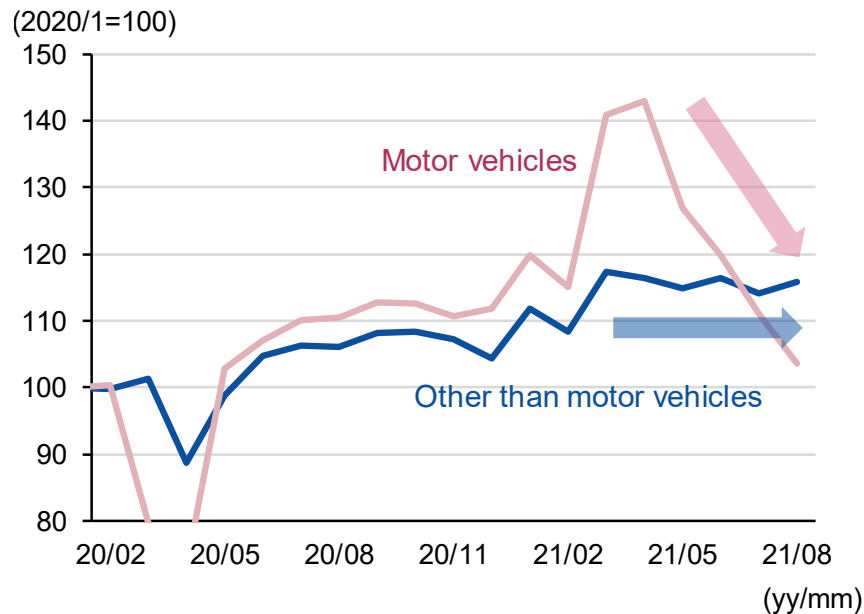
Note: Percentage of those who cited "had to take care of children" and "concerned about Covid-19 infections" as reasons for not working (voluntary and involuntary). September figures are as of the second week of September.

Source: Made by MHRT based upon US Department of Commerce.

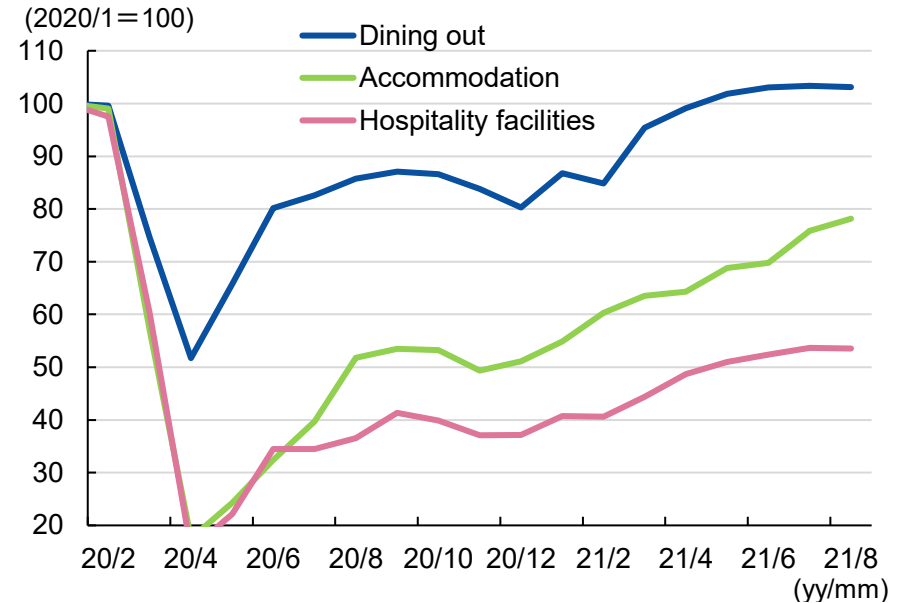
Goods consumption is firm, with the exception of motor vehicles. On the other hand, service consumption slowed down

- In August, consumption in real terms increased +0.4% m-o-m. In goods consumption (+0.6% m-o-m), motor vehicles dropped sharply due to inventory shortages, but other categories increased. Service consumption (+0.3% m-o-m) slowed mainly in services requiring face-to-face interactions due to increasing concerns about Covid-19 infections.
 - Longer time spent at home and the increase of disposable income in real terms (excluding policy factors) (+0.1% m-o-m) served as tailwinds for goods consumption.
- Goods consumption, excluding motor vehicles, is expected to remain firm in September. On the other hand, service consumption is expected to lack strength amid lingering concerns regarding Covid-19 infections.
 - Credit card spending at retailers remained at a high level and did not deteriorate through mid-September.
 - The number of restaurant reservations in September failed to rebound from the decline in August. The CB Consumer Confidence Index (109.3) declined for the third consecutive month in September.

PCE (goods)



PCE (services)



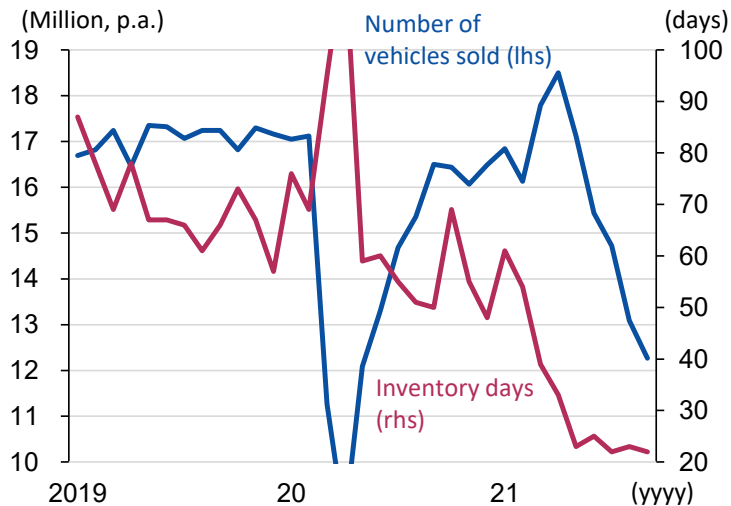
Source: Made by MHRT based upon US Department of Commerce.

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New car inventories continue to be tight. Persisting production adjustments due to semiconductor shortages serve as upward pressures on prices

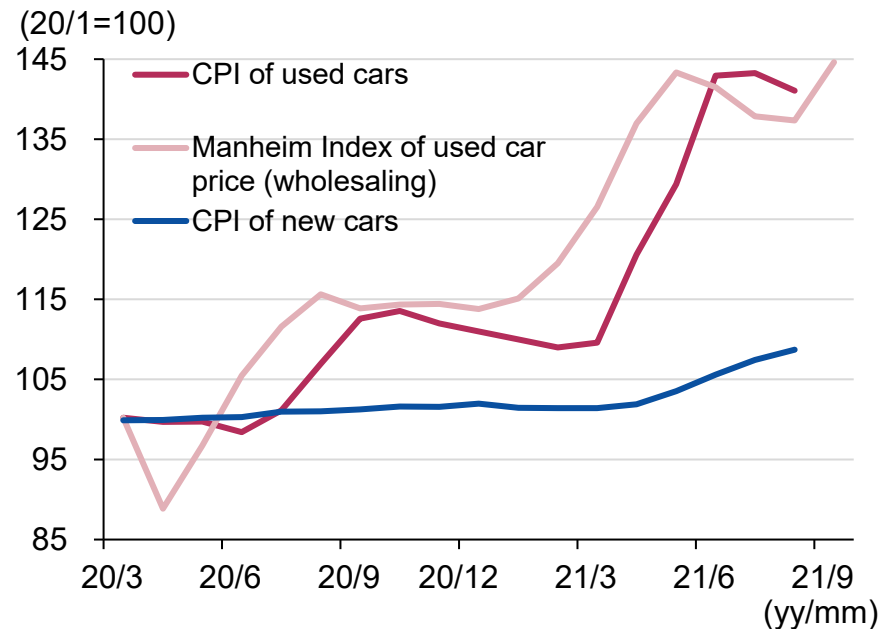
- New car sales in September (-6.3% m-o-m) fell for the fifth consecutive month. The number of inventory days of new car dealers (22 days) flattened out at a low level.
- Production adjustment due to semiconductor shortages have continued since October. Full-scale inventory build-up recovery is delayed and there are lingering upward pressure on new and used car prices.
 - August new car CPI rose for the fifth consecutive month, while the August used car CPI took a downturn. However, the Manheim index (wholesale prices), which is a leading indicator, turned upward in September, reconfirming that upward pressure on prices is persistent amid tight inventories.

New car sales and inventory days



Source: Made by MHRT based upon US Department of Commerce.

New car prices and used car prices

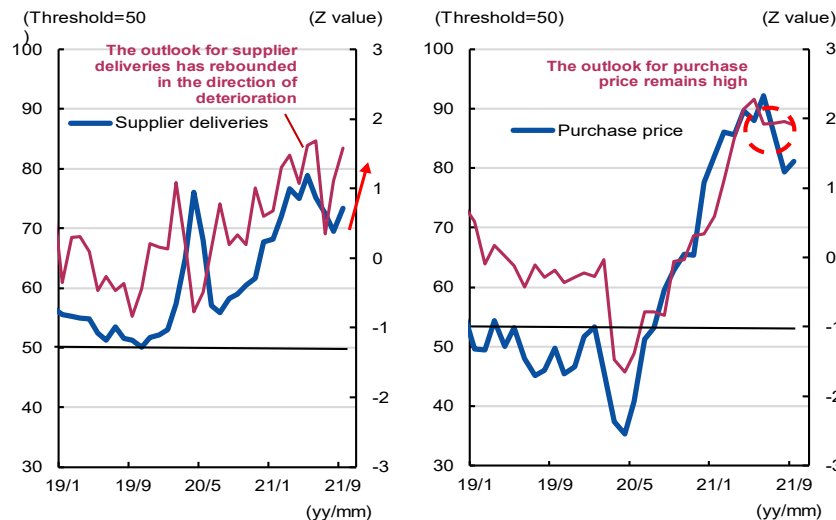


Source: Made by MHRT based upon US Department of Labor and Manheim.

Supply constraints continue to drag down the manufacturing industry. Corporations expect it will take time to resolve constraints

- The September ISM manufacturing index rose to 61.1. The new orders index remained above 60, indicating that demand is firm. On the other hand, the supplier deliveries and purchase price indices, which had been on a downward trend recently, deteriorated further. Corporations are also cautious about the outlook on supply constraints.
 - In addition to the continuing materials and manpower shortages, the degree of tightness in logistics is intensifying for both sea and land transportation.
 - ◆ Ocean freight rates from China to the US have soared, indicating a shortage of containers. Major shipping companies have indicated that freight rates may continue to rise during the year.
 - ◆ There are also significant delays in unloading freights at ports. The number of containers waiting to be unloaded at Los Angeles (LA) and Long Beach (LB) ports is increasing.
 - ◆ Due to the lack of drivers, truck transportation is also experiencing delays. Mandatory testing for unvaccinated drivers is serving as a drag on drivers' overall on-duty driving time.

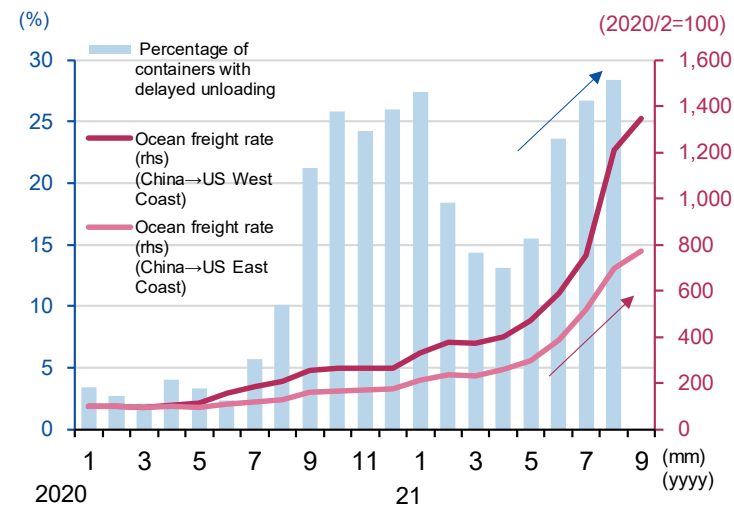
ISM manufacturing index



Note: The six-month outlook is a standardized average of the results of a series of surveys conducted by the Federal Reserve Banks of New York, Philadelphia, Richmond, Kansas City, and Dallas.

Source: Made by MHRT based upon Institute for Supply Management, and noted regional Federal Reserve Banks.

Percentage of containers waiting to be unloaded for more than 5 days at LA/LB ports



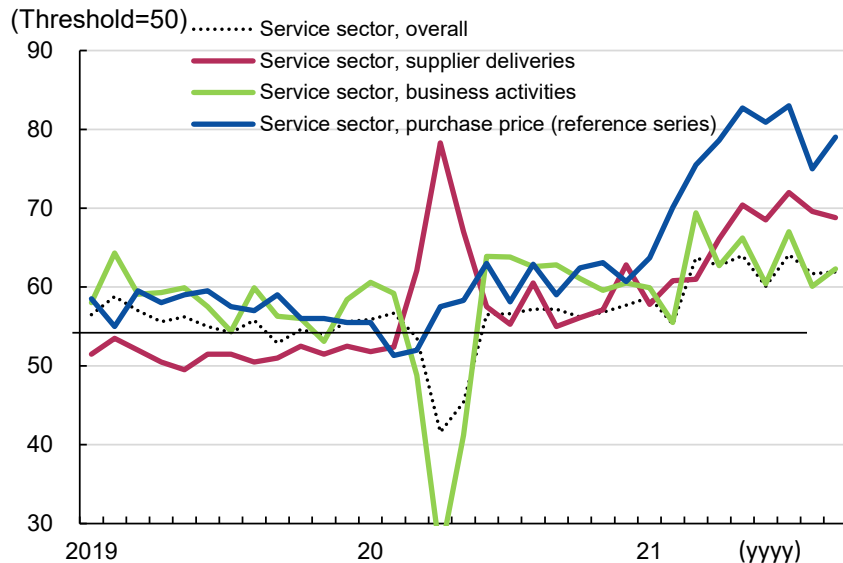
Note: Percentage of import containers waiting to be unloaded for more than five days at the US West Coast ports of Los Angeles and Long Beach. Empty containers are excluded.

Source: Made by MHRT based upon Port of Los Angeles.

Note signs that the tightness of logistics networks are also intensifying in the service sector

- The September ISM services index (61.9) rose slightly from the previous month (61.7). The business activity index took an upturn, indicating that the negative impact from the spread of infections has abated. On the other hand, supply constraints are still serious, with materials and manpower shortages persisting, and logistics networks becoming even more tightly constrained.
 - By industry, the majority of industries, including accommodation, food and beverage services, and hospitality, reported an increase in activity from the previous month.
 - The supplier deliveries index and purchase price index fell from the previous month but remained at high levels. Comments from corporations regarding disruptions in the logistics network increased compared to August, with such issues as congestion at ports, delays in port operations, and a shortage of truck drivers, causing serious logistics-related bottlenecks.
 - ◆ The number of vessels waiting off the West Coast and the percentage of delays in unloading reached a record high. The downturn in the number of drivers are persisting, and freight rates are soaring.

ISM services index



Source: Made by MHRT based upon Institute for Supply Management.

Comments on service industry and logistics network

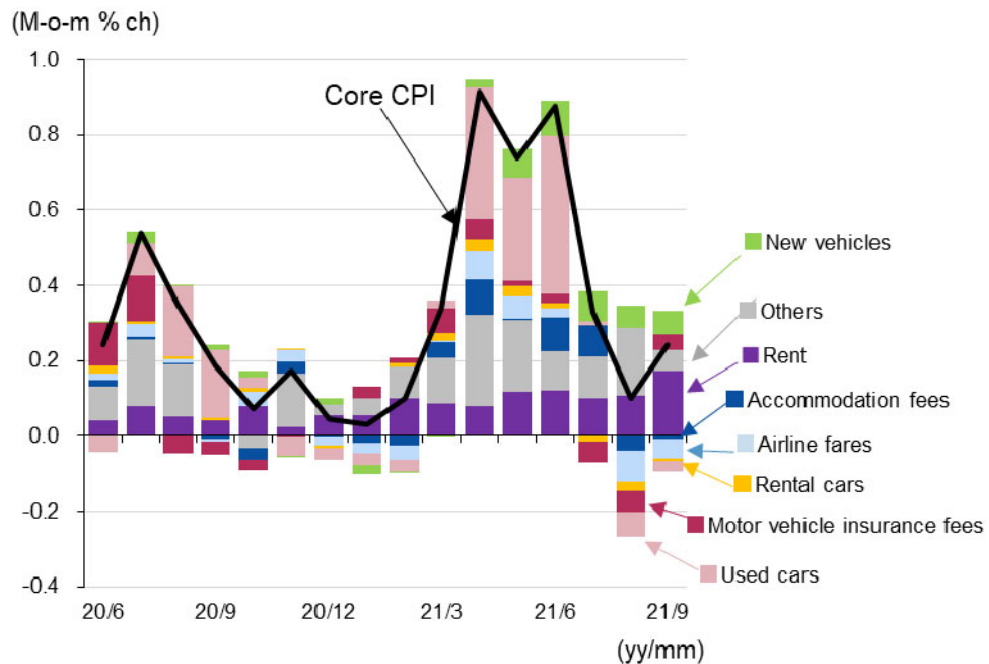
Time period	Comments
Recent situation	Demand far outweighs supply for goods and services. (ISM) [Transportation & Warehousing]
	We just hired additional recruiters to try to find employees to drive our trucks. We are still 20% short of filling our trucks with drivers. (Kansas City)
	Transportation bottlenecks are increasing, resulting in longer lead times and missed appointments. (ISM) [Accommodation & Food Services]
Outlook	Lead times are increasing by about six weeks for ocean freight and two weeks for domestic freight. (ISM) [Management of Companies & Support Services]
	Container deliveries are slower; we do not expect this to improve for another 12 to 18 months. (ISM)
	Transportation is the main limiting factor we face. Product is available to ship but both road and rail transport are in difficult situations. This is the worst transportation shortage we have ever experienced. We do not expect there to be any immediate solution. (Dallas, Durable Goods Wholesalers)

Source: Made by MHRT based upon Institute for Supply Management, Federal Reserve Bank of Kansas City and Federal Reserve Bank of Dallas.

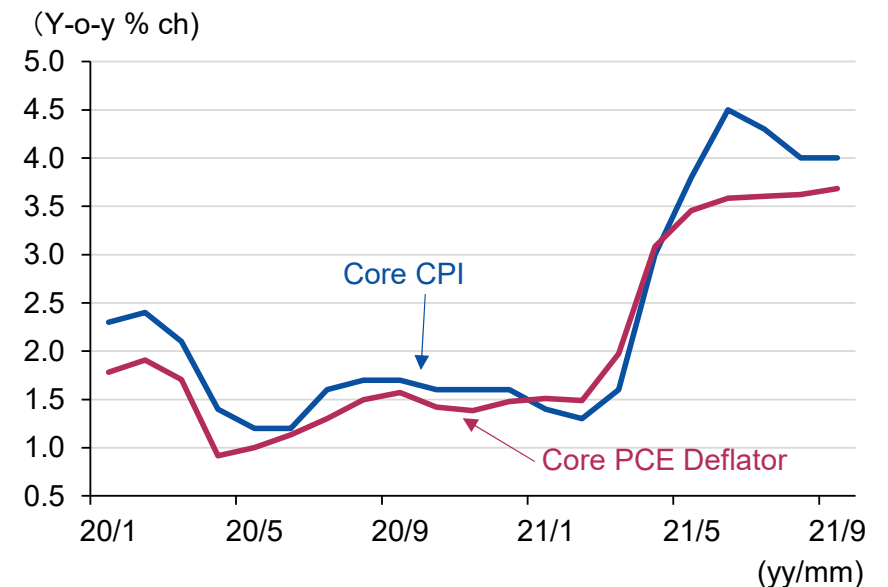
A lull in the spread of Covid-19 and tighter supply-demand balance among goods will serve as upward pressure on inflation going forward

- In September, the rise of the core CPI reaccelerated, albeit slightly, by +0.2% m-o-m (August: +0.1% m-o-m). Going forward, upward pressure on inflation is expected to increase.
 - Airline fares and accommodation fees continue to fall due to lingering concerns regarding Covid-19 infections. However, they are expected to turn upward in October due to a pause in the spread of Covid-19 infections.
 - The increase in new car prices is accelerating. Used car prices fell, but wholesale prices rose again in September (sooner or later, CPI-based prices are expected to rise again).
 - The rise in rents is accelerating rapidly. Keep a close eye upon upside risks in the rental market due to improved incomes and tightness in the owner-occupied housing market.
- In view of the latest results, the September core PCE deflator is expected to accelerate to +3.7% y-o-y (August: +3.6% y-o-y).

Core CPI (m-o-m % ch)



Core CPI and core PCE deflator



Note: The September 2021 core PCE deflator is the forecast value based on CPI, etc., of the same month.

Source: Made by MHRT based upon US Department of Labor and US Department of Commerce.

Source: Made by MHRT based upon US Department of Labor.

September FOMC indicates tapering expected to “begin [in November], and end by mid-2022”

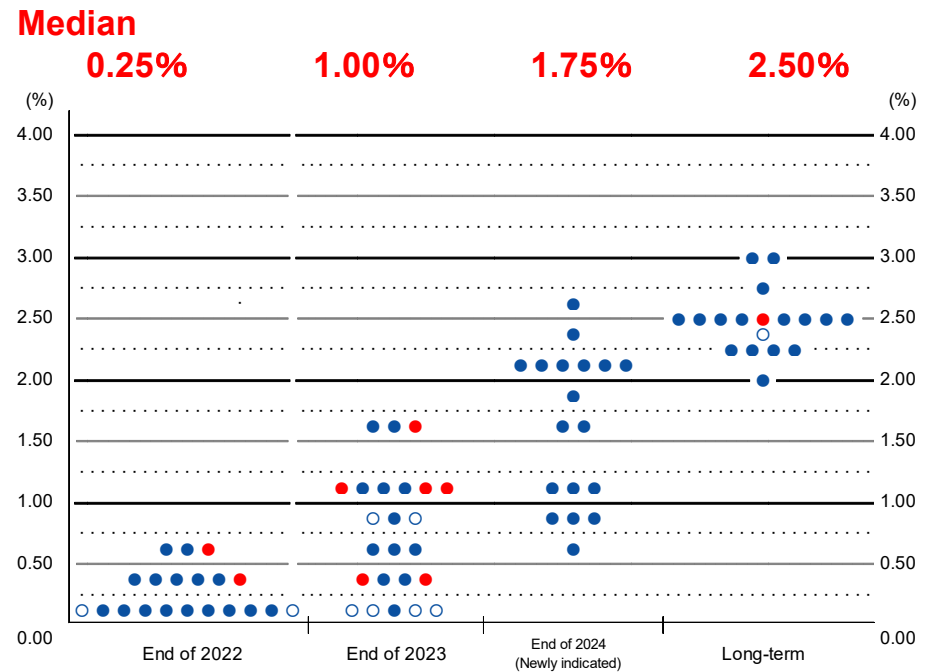
- FRB Chair Jerome Powell remarked, "I guess my own view would be that the...test for employment is all but met."
 - "Between the unemployment rate in December of 2020 and typical estimates of the natural rate—50 or 60 percent of that road has been traveled. So that could be substantial further progress" "I don't personally need to see a very strong [additional] employment report" in order to begin tapering.
- After the end of tapering, the FRB could start rate hikes in 2022. The pace of rate hikes is expected to be gradual after they start, at about three times a year.

Key points of the September FOMC

Issues	Statement / press conference
Timing to commence tapering	"If progress continues broadly as expected...asset purchases may soon be warranted." (Statement) "I guess my own view would be that...the test for employment is all but met" "[the decision] could come as soon as the next meeting." (Press conference)
Allocated pace of tapering	"Participants generally view that, so long as the recovery remains on track, a gradual tapering process that concludes around the middle of next year is likely to be appropriate." (Press conference)
About rate hikes	"Half of FOMC participants forecast that these favorable economic conditions [for rate hikes] will be fulfilled by the end of next year" "Participants generally expect a gradual pace of [rate hikes] that would leave the level of the federal funds rate below estimates of its longer-run level through 2024." (Press conference)

Source: Made by MHRT based upon FRB.

September FOMC participants' policy rate outlook



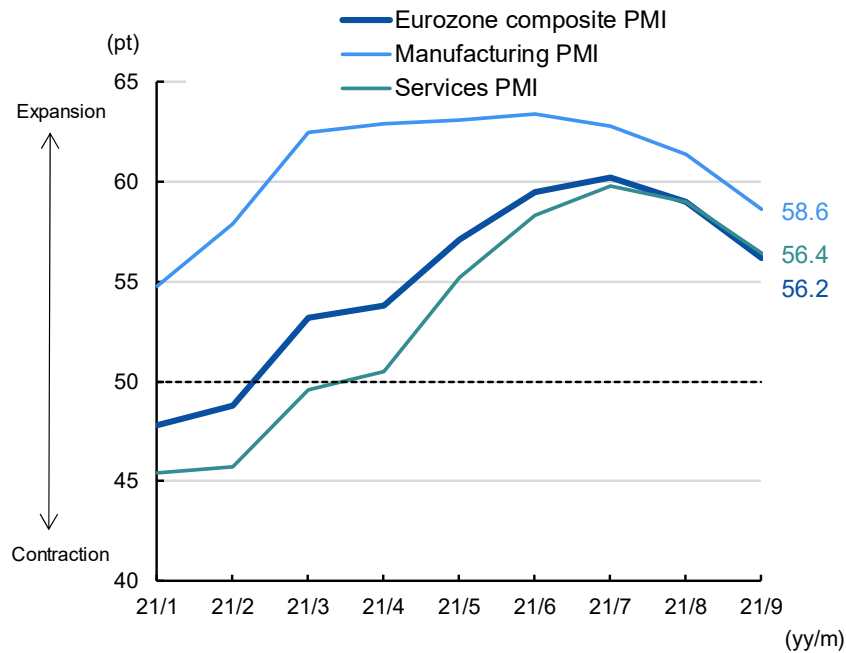
Note: For each policy rate level, dots that have increased are shown in red (●) and dots that have declined are shown in white (○).

Source: Made by MHRT based upon FRB.

The Eurozone economy: business sentiment indicates a slowdown in pace of recovery. Prolonged supply constraints should keep economic activity flat during the year

- The Eurozone composite PMI in September fell -2.8 pt from the previous month to 56.2. In addition to the decline in the manufacturing PMI, where supply constraints persist, the recovery in demand for services due to the resumption of economic activity has largely paused, serving as a drag upon the services PMI.
 - According to the DI for current conditions by industry, motor vehicle production continues to deteriorate due to supply constraints. In addition, there was a pause in the rapid recovery of services requiring face-to-face interactions along with the easing of Covid-19 infection control measures.
- Economic activity is expected to remain sluggish during the year due to downward pressure on consumer sentiment caused by such factors as concerns about the spread of Covid-19 infections in the winter season and prolonged supply constraints.

Eurozone: PMI



Note : The reading of 50 is the “expansion-contraction” threshold.
Source: Made by MHRT based upon IHS Markit.

Eurozone: DI for current conditions by industry

Industry	Apr	May	Jun	Jul	Aug	Sep
Manufacturing sector	20	20	20	21	12	9
Chemical products	23	17	21	22	13	13
PC, electronics & optical	27	27	26	34	26	16
Electrical equipment	37	33	30	39	27	22
Machinery & Equipment	26	31	29	31	21	24
Motor vehicle, etc.	43	12	1	-4	-12	-35
Services sector	-6	5	14	17	15	13
Accommodation	-46	-37	-12	16	31	25
Food and Beverage	-48	-28	-4	5	12	13
Tourism	-50	-30	10	27	11	22

Deterioration of motor vehicle production remains unabated

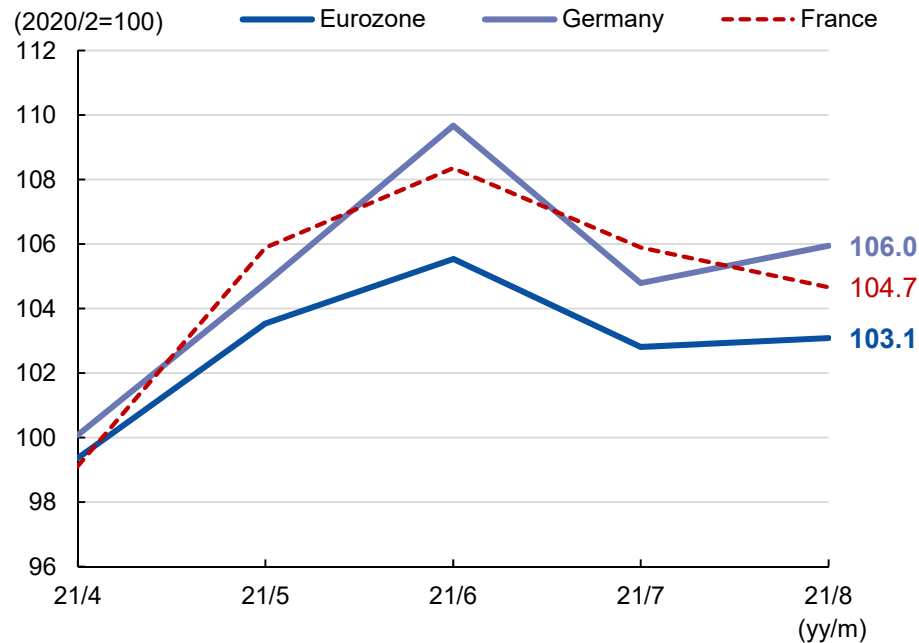
In the Jul-Sep qtr, services requiring face-to-face interactions flatten out at a high level

Note: The reading of zero is the DI threshold
Source: Made by MHRT based upon European Commission

Retail sales remained flat in August. Strict vaccine passport enforcements also serve as a drag on consumption recovery

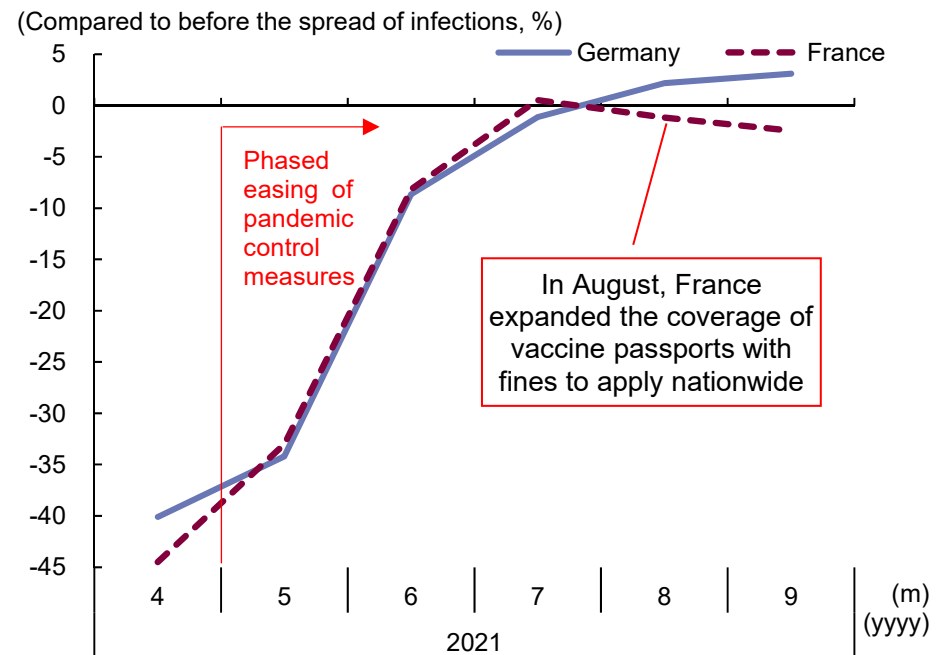
- Eurozone real retail sales (excluding motor vehicles) in August levelled off at +0.3% m-o-m. The rise of demand for goods along with the recommencement of economic activities came to a pause.
 - Given the drag on consumer confidence due to factors such as concerns regarding the resurgence of Covid-19 infections during the winter months, consumer spending will most likely flatten out going forward.
- By country, retail sales rose slightly (+1.1% m-o-m) in Germany, in contrast to a decline (-1.2% m-o-m) for two months in a row in France.
 - In France, strict enforcement of vaccine passports (nationwide, with fines, coverage expanded in August) is serving as a drag on consumption.

Eurozone: real retail sales



Note: Excludes motor vehicles.
Source: Made by MHRT based upon Eurostat.

Eurozone: retail and recreation mobility



Note: Monthly average.
Source: Made by MHRT based upon Google LLC.

Industrial production fell in August due to supply constraints. Looking forward, IP is expected to remain flat

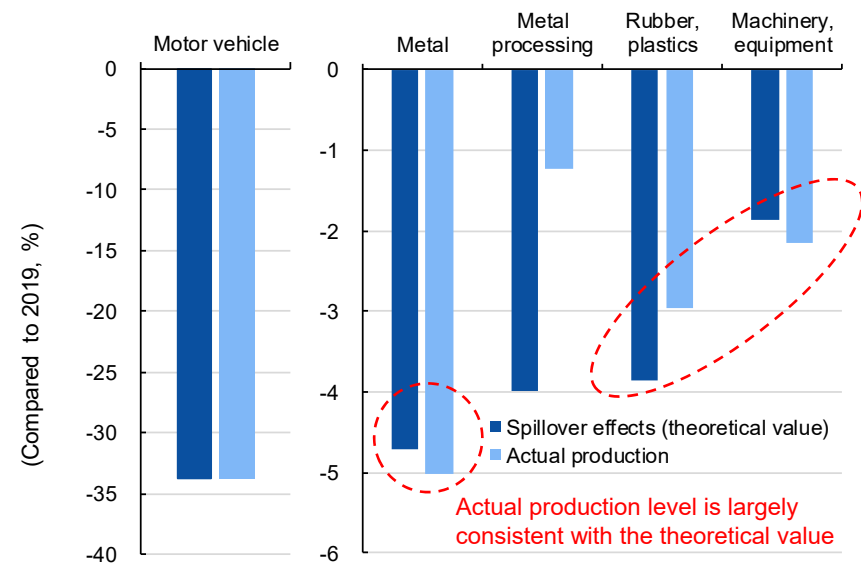
- Eurozone industrial production fell in August (-1.6% m-o-m) for the first time in three months, against the backdrop of motor vehicle production cuts (-10.5% m-o-m) due to supply constraints.
 - The negative impact of motor vehicle production cuts spread to suppliers (metal and metal processing, rubber and plastic manufacturing, etc.). Suppliers' production level in August is largely consistent with the theoretical level reflecting the impact of motor vehicle production cuts estimated from the input-output table.
- Until mid-2022, the odds are high that motor vehicle production will fall short of a full-scale recovery due to prolonged supply constraints. and that industrial production, including that of suppliers of motor vehicle components, will remain flat.

Eurozone: industrial production

(2019=100)

	20		21							(YY) (MM)
	12	1	2	3	4	5	6	7	8	
Industrial production	98	99	98	98	99	98	98	100	98	Significant impact from motor vehicle production cuts Maintaining robustness
Motor vehicle	93	88	81	81	79	73	72	74	66	
Metal	98	97	97	97	98	100	100	98	95	
Metal processing	97	98	97	98	100	99	100	99	99	
Rubber, plastics	102	101	99	101	101	100	99	100	97	
Machine repair, installation	92	96	95	95	99	98	97	101	98	
PC, electronics & optical	122	121	127	120	124	122	117	120	114	
Electrical equipment	99	103	103	103	106	105	107	105	104	

Eurozone: spillover effects of motor vehicle production cuts and production results



- Note: 1. Actual production is the rate of change in industrial production (August 2021) compared to the 2019 average.
 2. Spillover effects (theoretical value) are indicated by backward linkage effects (including direct effects) for about a 27% decrease in motor vehicle demand, based on the 2019 input-output table.

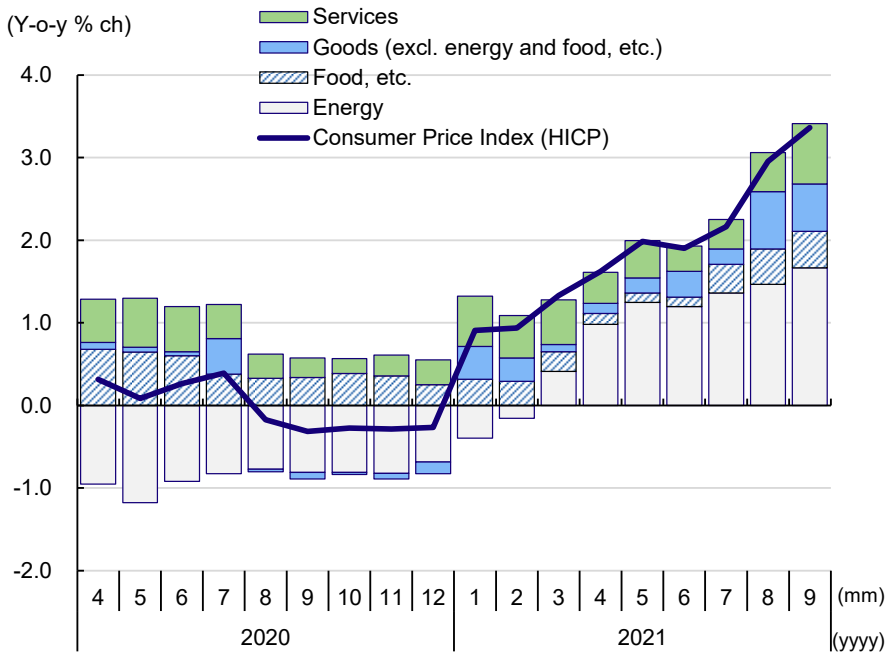
Source: Made by MHRT based upon Eurostat.

Source: Made by MHRT based upon Eurostat.

Consumer prices rose in September due to higher energy prices, and should trend around the upper 3%-range for the time being

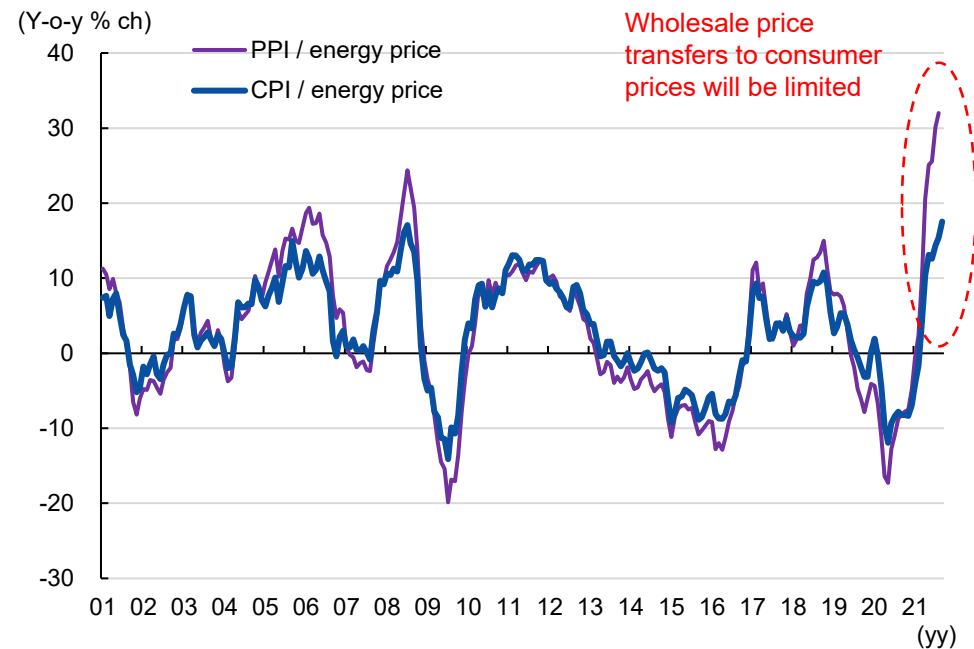
- In September, Eurozone consumer prices rose +0.4% pt from the previous month to +3.4% y-o-y. The rise of energy prices contributed to this rise.
 - Since the governments of France and other countries have announced policies to curb rises in electricity and gas prices, price transfers to consumers are expected to be limited. For the time being, the consumer prices are expected to remain in the upper range of +3% y-o-y.
- Core prices rose +1.9% y-o-y, the highest level since the end of 2008, boosted by the reaction to the termination of the previous year's VAT tax cut and other factors (by approximately +0.8% pt).
 - Core inflation is expected to remain at around +2% y-o-y for the rest of the year, reflecting a reactionary rebound from the previous year.

Eurozone: consumer price index (CPI)



Source: Made by MHRT based upon Eurostat.

Eurozone: energy prices in PPI and CPI



Note: The latest figures are August 2021 for PPI and September 2021 for CPI.
Source: Made by MHRT based upon Eurostat.

At the ECB Governing Council meeting in September, members were more aware of upside risks to inflation

- According to the minutes, at the Governing Council meeting on September 9, the ECB discussed upside risks to inflation and the pace of purchases of assets under the Pandemic Emergency Purchase Program (PEPP).
 - Although there are a number of upside risk factors to the inflation outlook, there is no evidence of a spillover to wage increases, and the current rise in inflation is evaluated as temporary.
 - At the Governing Council meeting, while members agreed upon a slight reduction of the pace of PEPP asset purchases, some participants proposed that a more substantial reduction (to a pace similar to the level prevailing at the beginning of the year) would be appropriate.

Key points of discussion at the ECB Governing Council (September 9)

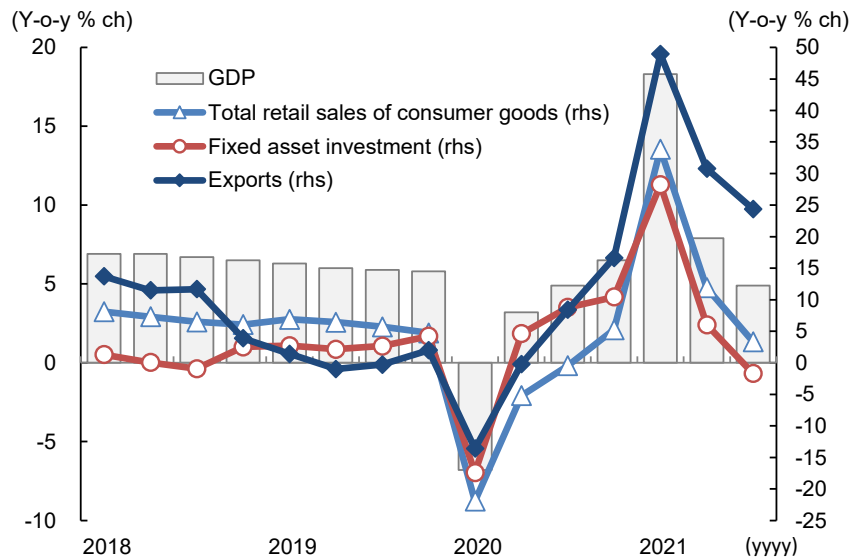
	Announcement after the ECB Governing Council (September 9)	Discussions held at the Governing Council meeting (from the minutes released on October 7)
Inflation outlook	<ul style="list-style-type: none"> • Inflation projections are +2.2% in 2021, +1.7% in 2022 and +1.5% in 2023. (March projections were +1.9%, +1.5%, +1.4% respectively) • The current rise in inflation is expected to be largely temporary. • If supply bottlenecks last longer and feed through into wage rises, price pressures could be more persistent. 	<ul style="list-style-type: none"> • Actual inflation has moved upwards compared to the outlook, requiring attention. • Future upswing factors include oil price trends, persistent supply constraints, rising owner-occupied housing costs, as well as climate change policies and increases in carbon prices. • However, there was little evidence so far of second-round effects on wage negotiations. Wage negotiations will be continuously monitored.
Financing conditions • Pandemic Emergency Purchase Program (PEPP)	<ul style="list-style-type: none"> • The slight improvement in the medium-term inflation outlook and the current level of financing conditions allow favourable financing conditions to be maintained with a moderately lower pace of net asset purchases under the PEPP. • Lower pace of purchase isn't tapering (it will not continue to slow down), and will be recalibrated each quarter. • Concerning the operation of the PEPP, the Council will address this at its December meeting. 	<ul style="list-style-type: none"> • Given the favourable financing conditions and potential side effects, a further reduction in the pace of PEPP purchases to the level prevailing at the beginning of the year would be appropriate. • On the other hand, given the current trend in long-term interest rates, there is a call for a prudent reduction in the pace of purchases. There is also a risk that a reduction in PEPP purchases would be interpreted as tapering.

Source: Made by MHRT based upon ECB.

Chinese economy: 2021 Jul-Sep quarter growth rate slowed down, revealing sluggish results except for exports

- China's real GDP growth in the Jul-Sep quarter slowed to +4.9% y-o-y (previous quarter: +7.9% y-o-y). In addition to the previous year's factors fading, the resurgence of Covid-19 infections, a slowdown in real estate investment, and natural disasters served as a drag. Even compared to the previous quarter, the growth rate was weaker at +0.2% q-o-q (previous quarter: +1.2%).
 - The nationwide resurgence of Covid-19 infections (from late July to August) served as a significant drag on personal consumption, which had been on a recovery trend.
 - Manufacturing investment remained firm, but real estate investment slowed significantly due to measures imposed to curb real estate developers' activities, which led to a y-o-y decline in investment overall.
 - Exports maintained high growth due to temporary factors such as substitute production for ASEAN countries where the spread of Covid-19 infections was occurring, and advance shipments for the year-end bargain sales season.
- Although the electric power supply problem is expected to serve as a drag on the economy in the Oct-Dec quarter, the overall economy is expected to pick up slightly due to a recovery in personal consumption.

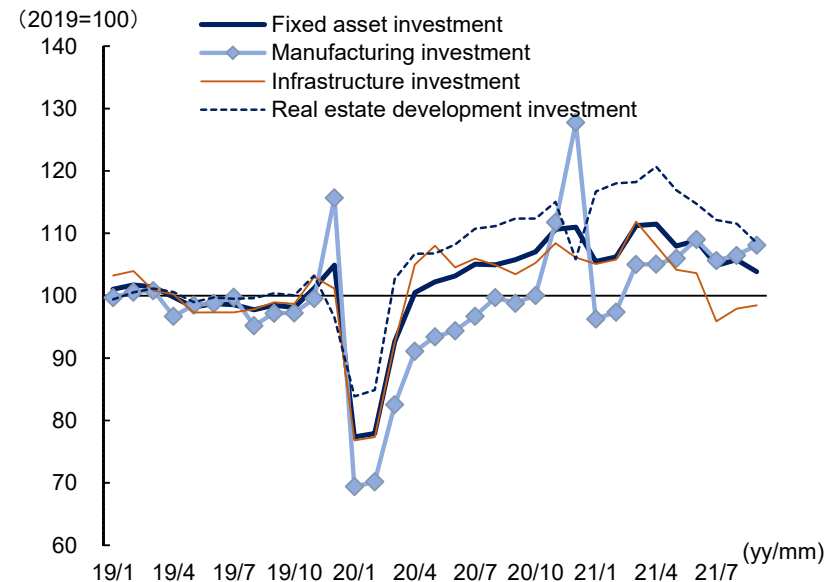
Real GDP and key indicators



Note: Fixed asset investment is converted into real terms by PPI (construction materials), and total retail sales of consumer goods are converted into real terms by the retail price index (As the price index for the 2021 Jul-Sep quarter has not been released, it was estimated by MHRT). Exports are denominated in USD.

Source: Made by MHRT based upon the National Bureau of Statistics of China, the General Administration of Customs of China, and CEIC data.

Fixed asset investment (breakdown by industry)



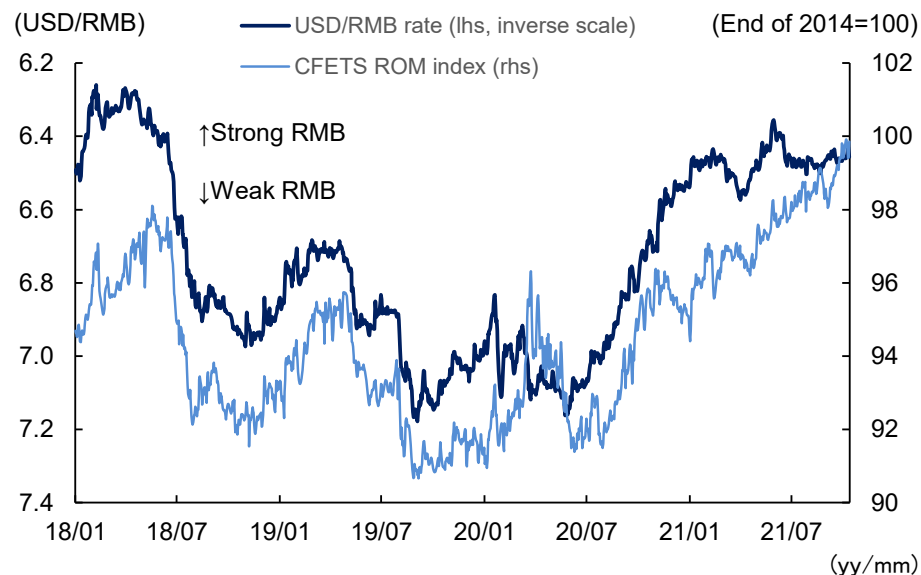
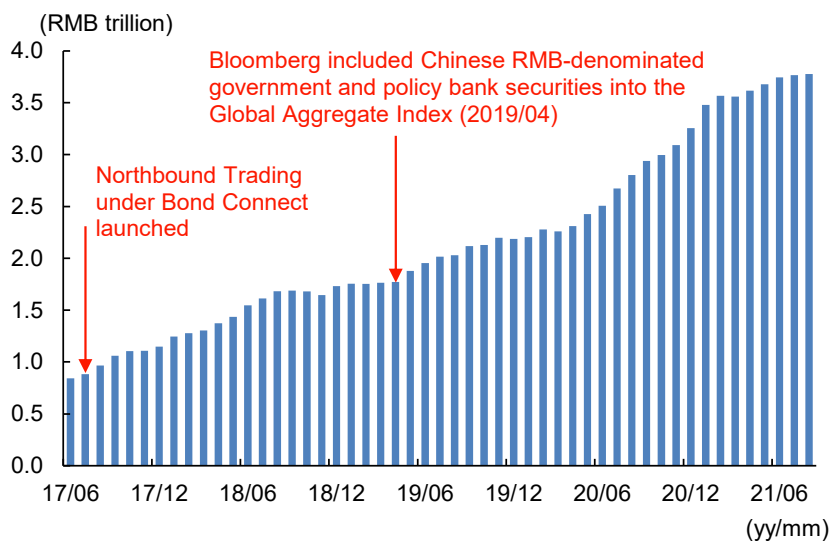
Note: Adjusted for seasonal factors by MHRT

Source: Made by MHRT based upon the National Bureau of Statistics of China and CEIC data.

Southbound Trading launched under Bond Connect. CFETS RMB Index hits the highest level in 5.5-years

- On September 24, Chinese investors began trading in Hong Kong's bond market through Southbound Trading, a mutual bond trading system under Bond Connect that allows trading between mainland China and Hong Kong. To curb capital outflows, the annual limit is set at RMB 500 billion (approximately JPY 8.5 trillion).
 - Northbound Trading, which allows overseas investors to invest in mainland China bonds through the Hong Kong market, was launched in July 2017. As of the end of August, overseas investors' holdings of Chinese bonds had risen to RMB 3.7754 trillion (approximately JPY 67 trillion), partly due to the ongoing efforts to open up the market through the Northbound Trading.
- The CFETS RMB index, which measures the value of the RMB against a basket of currencies (24 currencies in total), is at its highest level since January 2016.
 - The yuan remained stable around the 1 USD=6.4 RMB range. Despite concerns over economic slowdown and developments regarding the Evergrande Group, yuan-strengthening pressures are persisting.

Trends in Chinese bond holdings by overseas investors USD/RMB rate and CFETS RMB index



Source: Made by MHRT base upon Bond Connect Company Limited, CEIC, and various media reports.

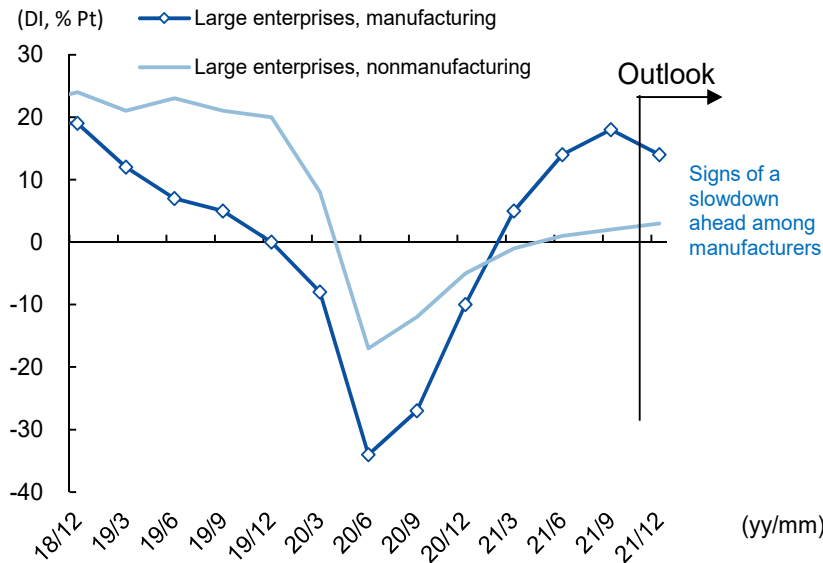
Note: The CFETS RMB Index are estimates by MHRT. Daily data. Latest readings are as of October 12, 2021.

Source: Made by MHRT based upon CFETS, CEIC data.

The Japanese economy: business conditions DI indicate a slowdown ahead among manufacturers

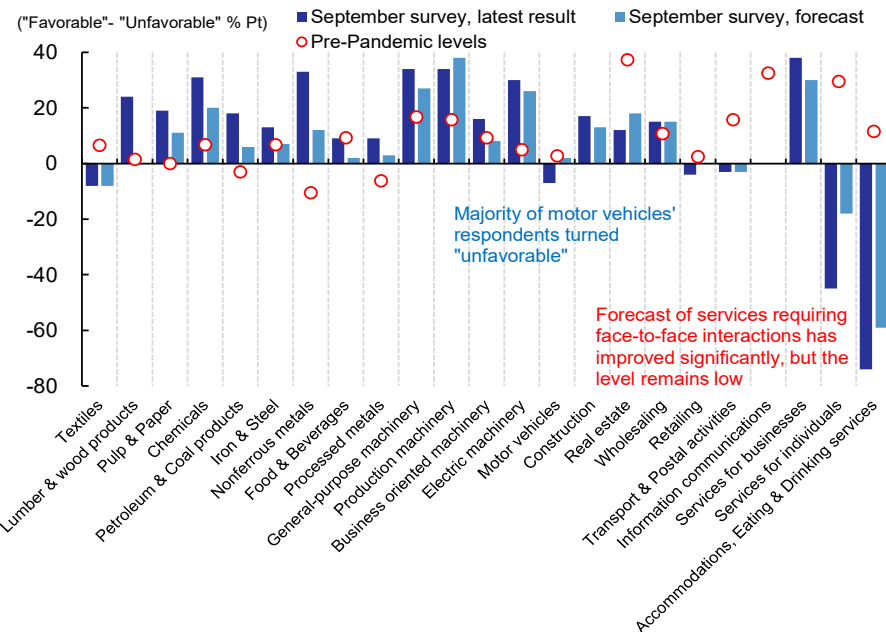
- The business conditions DI of the Bank of Japan's *Short-Term Economic Survey of Enterprises in Japan (Tankan)* improved for both the manufacturing and nonmanufacturing sectors.
 - In the manufacturing sector, in addition to electrical machinery and production machinery, where exports and production are firm, the material industry has improved, benefitting from soaring market conditions. On the other hand, the motor vehicle industry deteriorated sharply due to output cuts caused by difficulties in procuring parts.
 - In the nonmanufacturing sector, the recovery turned out to be tepid since the number of Covid-19 infections had not declined as much as the current decline at the time of the survey (September 10).
- The manufacturing sector outlook deteriorated against the backdrop of a lull in improvement in sectors such as electric machinery and chemicals. The nonmanufacturing sector outlook improved slightly.
 - Given the lifting of the declaration of a state of emergency in October, the odds are high that the nonmanufacturing sector DI will turn out to be higher from the lastest survey, driven by sectors including services requiring face-to-face interactions.

Trends in business conditions DI (large enterprises, manufacturing and nonmanufacturing sector)



Source: Made by MHRT based upon Bank of Japan, *Short-Term Economic Survey of Enterprises in Japan (Tankan)*.

Comparison of business conditions DI (large corporations, by industry)

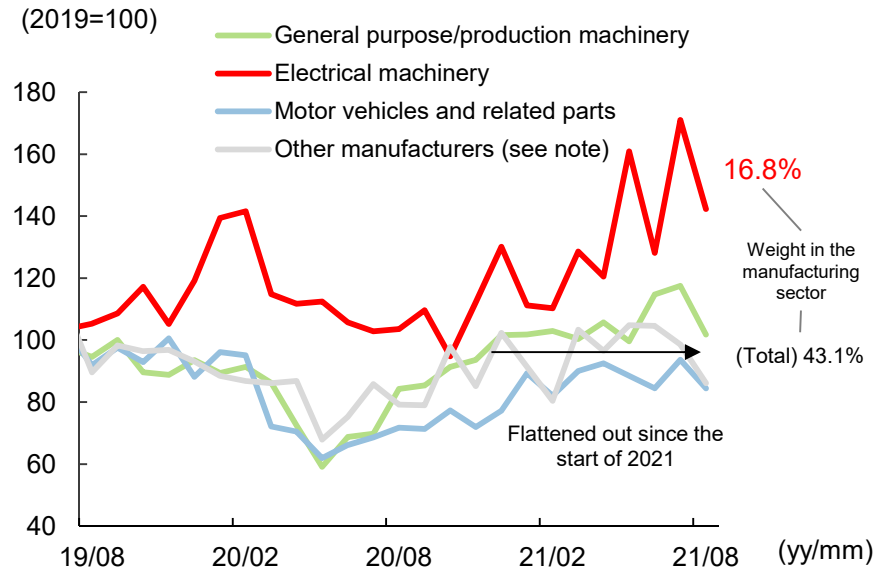


Source: Made by MHRT based upon Bank of Japan, *Short-Term Economic Survey of Enterprises in Japan (Tankan)*.

The pace of capital investment growth in the second half of the year is moderate. Sense of a slowdown in the manufacturing industry

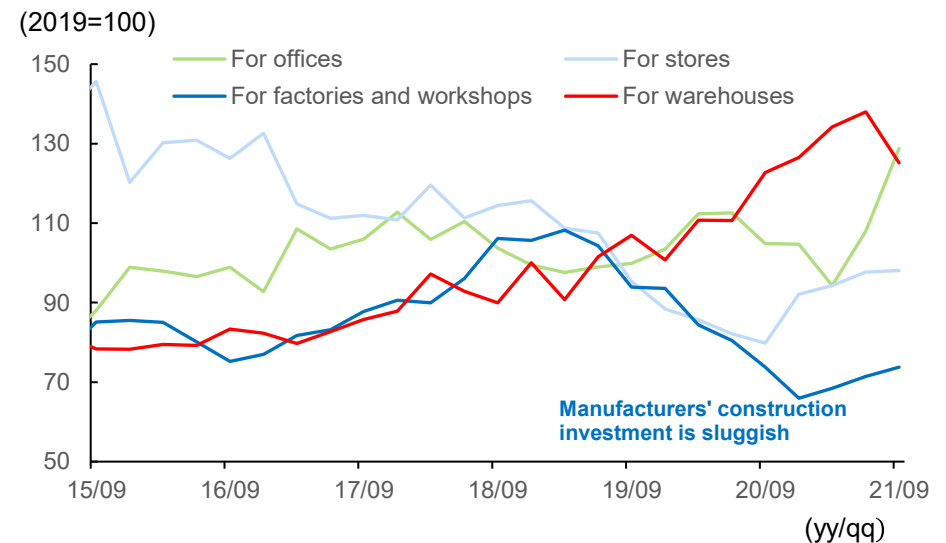
- Capital investment in the Oct-Dec quarter is expected to increase only moderately due to a slower recovery in the nonmanufacturing sector and a smaller support from the manufacturing sector.
 - August private-sector machinery orders (excluding orders for ships and orders by electrical power companies) fell from the previous month. Looking closer, the average of July and August in the manufacturing sector was +2.8% compared to the Apr-Jun quarter (Apr-Jun: +12.1% q-o-q), showing a contraction of the pace of increase. The nonmanufacturing sector continued to follow a downward trend at -0.9% compared to the Apr-Jun quarter (-1.8% q-o-q in the Apr-Jun quarter).
 - Looking at the breakdown for the manufacturing sector, note that electrical machinery is following an upward trend against a backdrop of strong semiconductor-related investment, in contrast to general purpose/production machinery and motor vehicles which have flattened out since the beginning of 2021.
 - Furthermore, looking at the estimate of construction investment of building starts, "for factories and workshops" has been sluggish. The results indicate the weakness of construction investment in the manufacturing sector.

Machinery orders: actual results by industry (manufacturing)



Note : Other manufacturers include manufacturers of lumber and wood products, printing, plastics, and rubber products, etc.
 Source: Made by MHRT based upon Cabinet Office, *Machinery Orders*.

Estimated construction cost of building starts (by usage type)

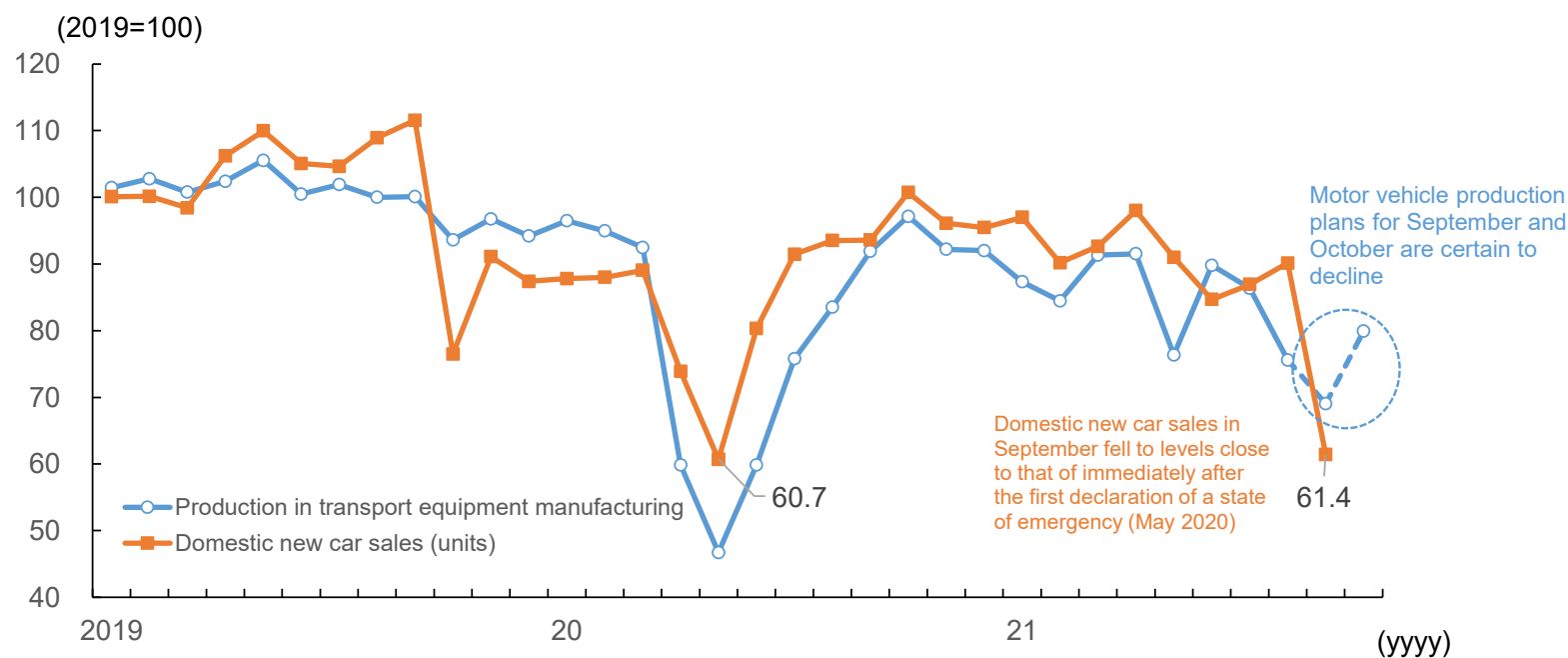


Note: 1. Seasonally adjusted by MHRT, backward four-quarter moving average
 2. Average value for July and August in the Jul-Sep quarter of 2021
 Source: Made by MHRT based upon the Ministry of Land, Infrastructure, Transport and Tourism, *Building Starts*.

September new car sales fell sharply. October motor vehicle production and sales are expected to remain flat

- New car sales fell sharply in September due to supply constraints. It now looks certain that motor vehicle production and sales will remain sluggish in October.
 - New car sales in September fell -31.9% m-o-m. Sales have reached a level close to that immediately after the first declaration of a state of emergency (May 2020).
 - Motor vehicle sales in the Jul-Sep quarter fell -12.9% q-o-q. This factor served as a drag on consumer spending by -0.4% pt.
 - Among the background factors are the large output cuts due to a decrease in parts supply from Southeast Asia. Subsequent to the fall of output in transport equipment manufacturing in August (-12.5% m-o-m), the forecast index-based readings fell in September (-8.7% m-o-m), Despite an uptick in October (+15.8% m-o-m), it looks certain that actual production will fall further in September and that output and sales will remain flat in October, if view of ongoing constraints upon supply from Southeast Asia.

Domestic new car sales and transportation machinery production

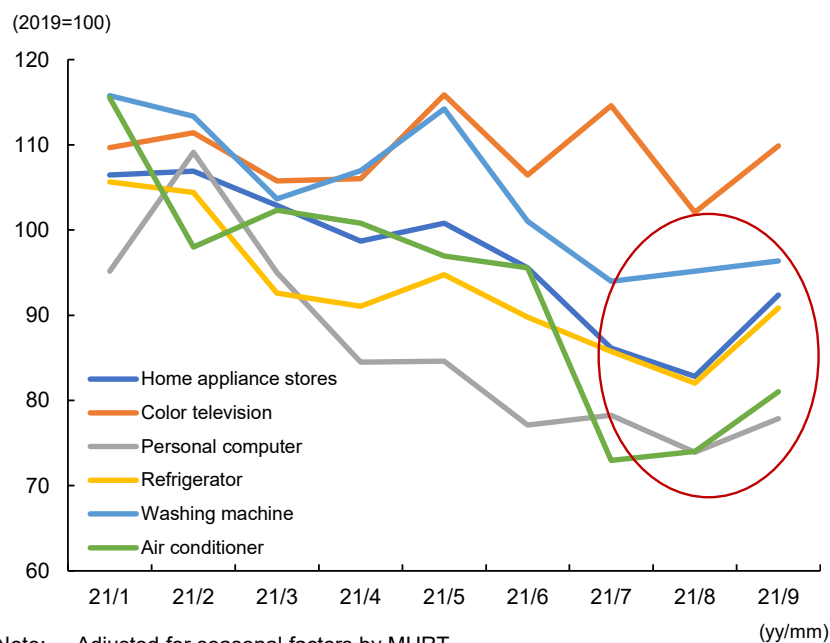


Note: Domestic new car sales are based on passenger cars (including light vehicles). Seasonally adjusted by MHRT. Production of transport equipment in September and October is forecast index-based.
 Source: Made by MHRT based upon Japan Automobile Dealers Association, Japan Light Motor Vehicle and Motorcycle Association, and the Ministry of Economy, Trade and Industry.

In goods consumption, work-from-home demand appears to have run its course

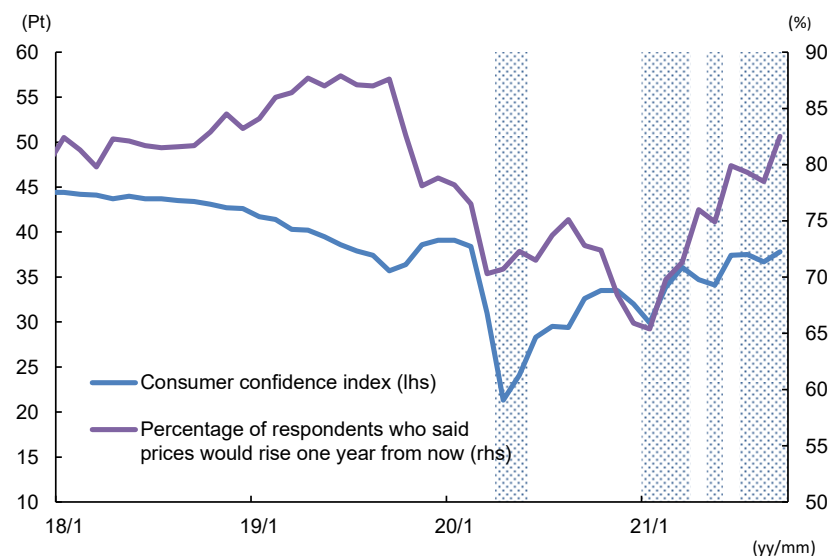
- Home appliance sales, which had been declining, bottomed out in September. Even so, there are lingering weaknesses in some items.
 - By item, televisions, refrigerators, and air conditioners contributed to the recovery. On the other hand, personal computer sales remained at rock-bottom levels, indicating that work-from-home demand has run its course. Considering the replacement cycle, the odds are high that the weakness will persist.
- Amid higher expectations toward the rise of prices among consumers, there are no signs of a decline of consumer sentiment thus far.
 - Even though consumer sentiment should continue to recover along with the resumption of economic activity accompanying the rollout of vaccines, the further rise of prices such as in energy may serve to hamper the recovery. There are concerns of the “repeat of 2019,” when the consumer confidence index fell due to the rise of expectations on the rise of prices in the run-up to the implementation of the consumption tax hike.

Home appliance sales amount index as seen from POS data



Note: Adjusted for seasonal factors by MHRT
 Source: Made by MHRT based upon Ministry of Economy, Trade and Industry, METI POS retail sale index

Trends in consumer confidence index and views on the rise of prices



Note: Shaded areas indicate periods under the declaration of a state of emergency. Consumer sentiment index is adjusted for seasonal factors.
 Source: Made by MHRT based upon Cabinet Office, Consumer Confidence Survey.

Bank of Japan: the current monetary easing framework expected to be continued over the long term

- At the September Monetary Policy meeting, the Bank of Japan (BOJ) decided to maintain its current monetary policy. At the same time, the BOJ also released details of the system structure of the *Funds-Supplying Operations to Support Financing for Climate Change Responses*.
 - The Bank will continue to support financing mainly of firms and maintain stability in financial markets through (1) the *Special Program to Support Financing in Response to the Novel Coronavirus (Covid-19)*, (2) an ample provision of yen and foreign currency funds without setting upper limits mainly by purchasing JGBs and conducting the US dollar funds-supplying operations, and (3) purchases of ETFs and J-REITs with the upper limit of about 12 trillion yen and about 180 billion yen, respectively.
- The BOJ is expected to continue its current monetary easing framework for the time being.
 - The scheduled purchase of JGBs for the Oct-Dec quarter will remain unchanged from the Jul-Sep quarter in terms of both the amount and the number of purchases for all maturities.

Summary of remarks by Governor Haruhiko Kuroda on Monetary Policy (Oct. 7, excerpts)

- The Bank will continue with "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control," aiming to achieve the price stability target of 2%, as long as it is necessary for maintaining that target in a stable manner.
- The Bank will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds 2% and stays above the target in a stable manner.
- The Bank will continue to support financing through (1) the Special Program to Support Financing in Response to the Novel Coronavirus (Covid-19), (2) an ample provision of yen and foreign currency funds without setting upper limits mainly by purchasing JGBs and conducting the US dollar funds-supplying operations, and (3) purchases of ETFs and J-REITs.
- The Bank will closely monitor the impact of Covid-19 and will not hesitate to take additional easing measures if necessary.
- The Bank expects short- and long-term policy interest rates to remain at their present or lower levels.

Scheduled purchase of JGBs (2021 Oct-Dec quarter)

	Purchase amount during Jul-Sep	Purchase amount scheduled during Oct-Dec	Change from Jul-Sep
	(JPY 100 million)	(JPY 100 million)	(JPY 100 million)
Up to 1 year	1,500	1,500	0
More than 1 year and up to 3 years	18,000	18,000	0
More than 3 years and up to 5 years	18,000	18,000	0
More than 5 years and up to 10 years	17,000	17,000	0
More than 10 years and up to 25 years	1,500	1,500	0
More than 25 years	500	500	0
Inflation-indexed bonds	600	600	0

Note: Amount of purchases per month.
Source: Made by MHRT based upon the Bank of Japan.

Source: Made by MHRT based upon the Bank of Japan.

Sustainability: COP26 climate summit to discuss important issues, but negotiations likely to be difficult

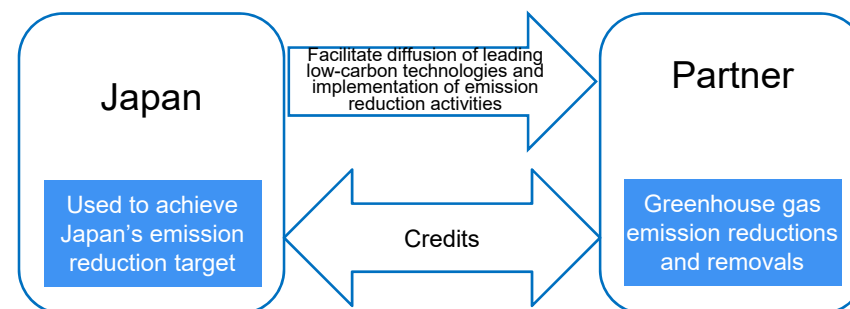
- The COP26 summit (Oct 31 to Nov 12) will focus on whether an agreement can be reached on such matters as establishing rules for market mechanisms, setting more ambitious emission reduction goals, and providing financial assistance to developing countries. However, negotiations are likely to be difficult due to conflicting interests among countries amid soaring natural resource prices.
 - Japan expects to make use of the Joint Crediting Mechanism (JCM), which it has already signed with 17 countries, for its 2030 emission reduction targets. If Japan can actively contribute to the establishment of international rules regarding market mechanisms, it will be a tailwind for JCM.
- Japan plans to have the Cabinet approval of the Sixth Strategic Energy Plan, with an increased portion of renewable energy, by the COP26 summit.
 - However, there is a possibility of criticism for the fact that coal-fired electric power generation will account for about 20% of electricity generation in 2030.

Main discussion points at COP26

<p><u>Establishing rules for a market mechanism (emissions trading)</u></p> <p>Focus will be on establishing rules for calculating emission reductions and whether to acknowledge the emission quotas generated by emissions trading, which was implemented after the Kyoto Protocol, even after the Paris Agreement.</p>
<p><u>Achieving more ambitious Nationally Determined Contributions (NDC)</u></p> <p>Focus will be on whether the goals currently proposed by each country toward 2030 can be made more ambitious.</p>
<p><u>Providing financial support for developing countries</u></p> <p>Under the Paris Agreement, developed countries have pledged to provide \$100 billion per year in financial assistance to developing countries until 2025. However, according to the OECD, the amount of aid in 2019 was less than \$100 billion, and the focus will be on the support system after 2025.</p>

Source: Made by MHRT based upon various reports.

Outline of the Joint Crediting Mechanism (JCM)



Year signed	Partner countries
2013	Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Vietnam, Laos, Indonesia, Costa Rica
2014	Palau, Cambodia, Mexico
2015	Saudi Arabia, Chile, Myanmar, Thailand
2017	Philippines

Source: Made by MHRT based upon the Ministry of Environment.

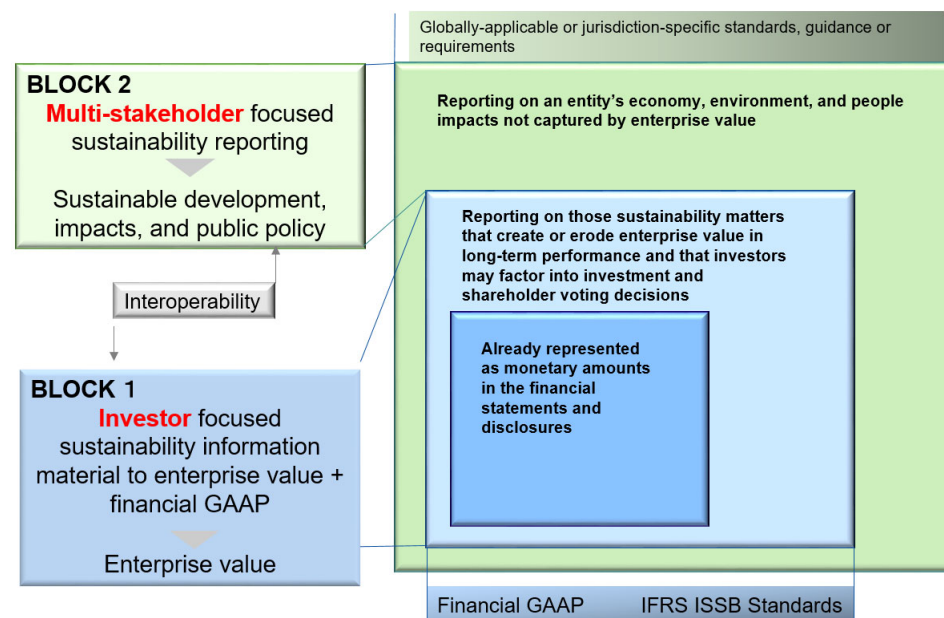
The IFRS Foundation will establish the International Sustainability Standards Board (ISSB) during the COP26 summit

- The IFRS Foundation will establish the International Sustainability Standards Board (ISSB) during the COP26 summit.
 - Amid the proliferation rush to establish reporting standards, IFRS, which sets international accounting standards, is working to develop international sustainability reporting standards.
- The ISSB will build on existing efforts, such as the Task Force on Climate related Financial Disclosures (TCFD), to develop international standards in cooperation with the authorities in various nations/regions.
 - The ISSB will establish the "IFRS Sustainability Reporting Standards," which will become a base, and is then expected to aim for the adoption of said standards (which are scheduled to be finalized in June 2022) in each country through a "building block approach" in which each country will add broader requirements based on their policy priorities.

ISSB (International Sustainability Standards Board)

Schedule	➤ The IFRS Foundation will decide on the establishment of the ISSB during COP26.
Relationship with existing sustainability standards	➤ Based on existing standards, such as TCFD ➤ Cooperate also with standard-establishing authorities in major regions such as the EU.
Scope of ESG	➤ Prioritize the establishment of E (environment, climate-related) standard of ESG. ➤ At the same time, also work on establishing S and G (social and governance) standards.
Contents to disclose	➤ Disclose "Impact of Climate Change on Businesses"

Comprehensive corporate reporting system (building block approach)



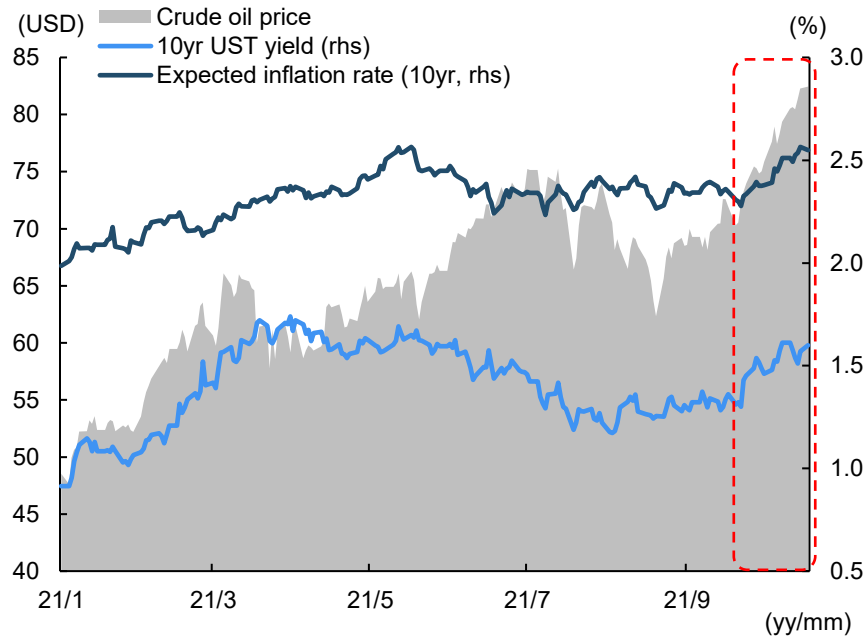
Source: Made by the Industry Research Division of Mizuho Bank based on IFRS data and other sources.

Source: Made by MHRT based upon the International Federation of Accountants (IFAC).

US bond market: the 10yr UST yield is expected to move around 1.6% to 1.8%

- The 10yr UST yield rose to the 1.6%-range against the backdrop of inflation concerns and rising expectations of a rate hike following the September FOMC meeting.
 - The expected inflation rate rose sharply on the back of higher energy prices and the acceleration of the month-on-month rise of the consumer price index.
 - The market has factored in about two rate hikes during the one-year period ahead (by October 2022) and about four rate hikes by the end of the next two years (by October 2023).
- The 10yr UST yield is expected to rise to around 1.6% to 1.8%, as rate hikes are factored in.
 - Given expectations that the solid demand for goods and energy and constraints upon supply will continue for the time being, rate hikes due to inflation concerns being factored in are expected to rise.

Trends of interest rates, expected inflation rates and crude oil prices



Note: The expected inflation rates are break-even inflation rates.
 Source: Made by MHRT based upon Bloomberg.

Trends of rate hikes factored in by OIS forward rates

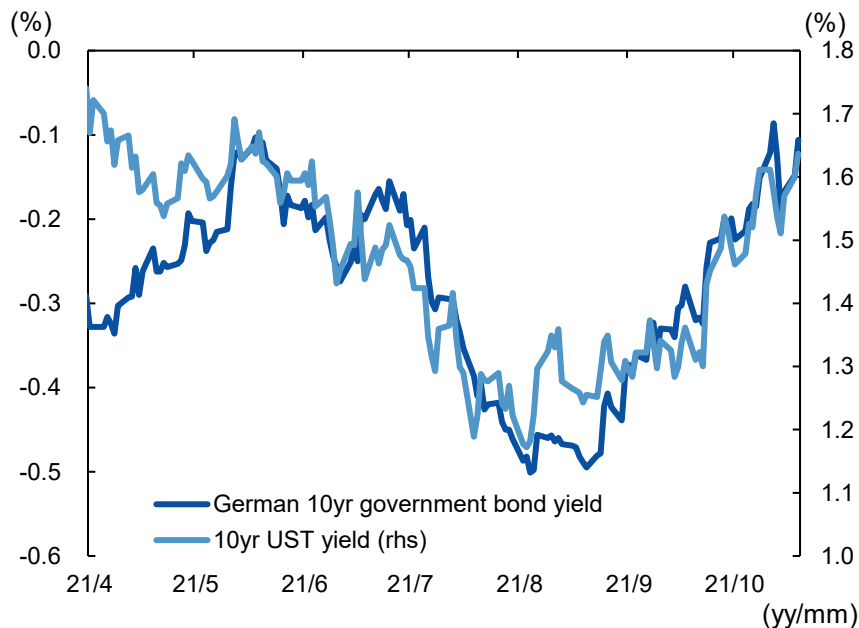


Note: The graph indicates figures obtained by subtracting the federal funds rates from the one-month OIS forward rates for a particular number of years ahead. The rise in rates per one rate hike is assumed to be 0.25%.
 Source: Made by MHRT based upon Bloomberg.

Eurozone bond market: German 10yr government bond yield expected to move around -0.25% to -0.05%

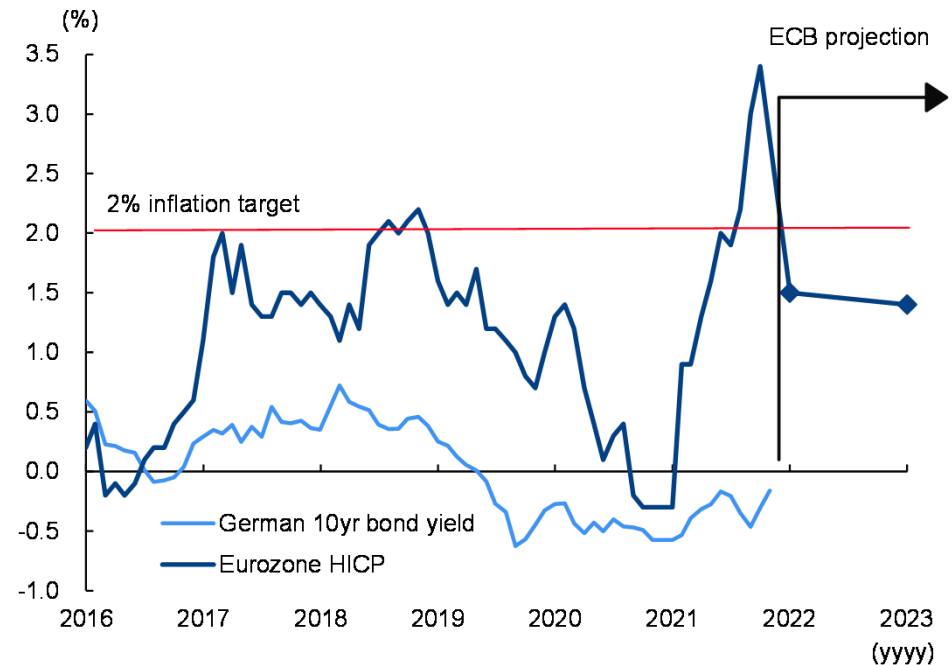
- The German 10yr government bond yield exceeded -0.2%, given the focus of attention upon monetary policy normalization in the US and in the UK, and the rise of concerns regarding inflation also in the Eurozone.
 - The Eurozone Harmonized Indices of Consumer Prices (HICP) in September rose (+3.4% y-o-y) for the first time in 13 years.
- Despite upward pressure on interest rates due to inflation concerns and rising US interest rates, the yield on German 10-year government bonds is expected to trend around -0.25% to -0.05% as the ECB is expected to maintain its accommodative stance.
 - ECB President Christine Lagarde reiterated the view of “inflation will be temporary” and remains cautious about early monetary tightening.

Trend of 10yr UST and German 10yr government bond yield



Source: Made by MHRT based upon Bloomberg.

Prices in the Eurozone and German 10yr government bond yield

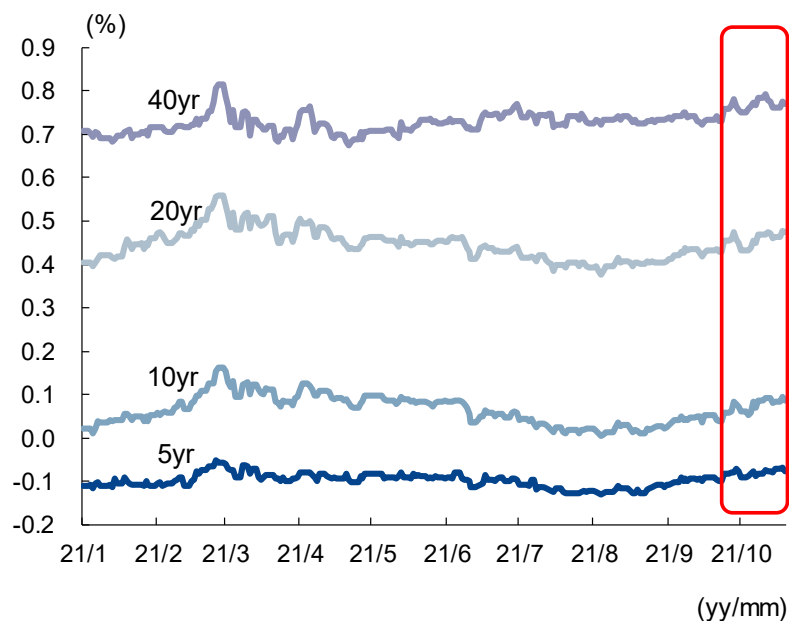


Source: Made by MHRT based upon the ECB and Bloomberg.

Japanese bond market: the 10yr JGB yield is projected to move in the high 0.0% range to around 0.1%

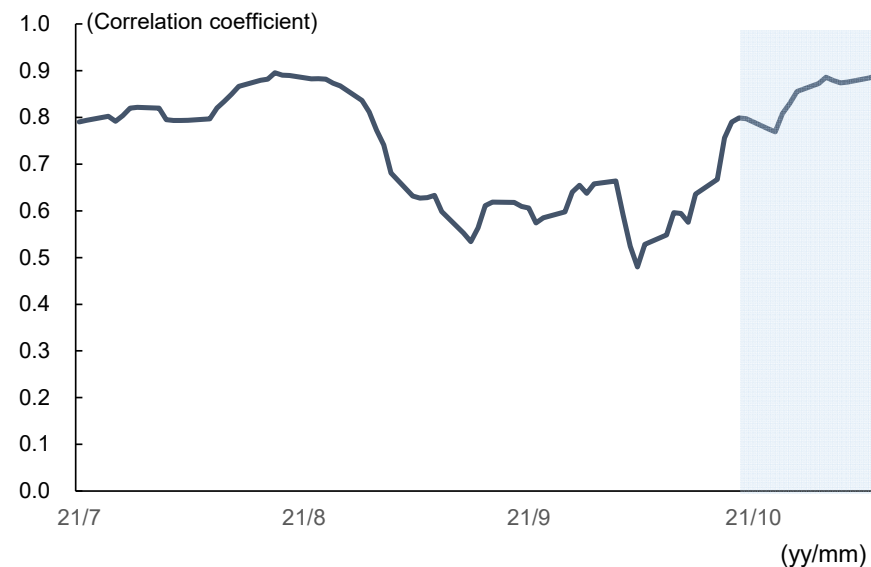
- The 10yr JGB yield rose to its highest level in approximately five months, mainly reflecting the rise of US long-term interest rates on the back of growing inflation concerns.
 - Although the correlation with the US long-term interest rate waned due to domestic variable factors such as trends in Japanese stocks during the period from mid-August to mid-September, the correlation has intensified since the latter half of September.
- Amid the rise of US long-term interest rates, the 10yr JGB yield is expected to trend around the upper half of the 0.0% range to around 0.1%.
 - We expect that the JGB yield will continue to follow a gradual upward path in tandem with the rise of US long-term interest rates. Concerns regarding the issuance of JGBs accompanying the economic stimulus measures after Japan's House of Representatives election (October 31) also serves as a factor pushing up the yield.

Trends in JGB yields



Source: Made by MHRT based upon Bloomberg.

The correlation between 10-year US and Japanese bond yields

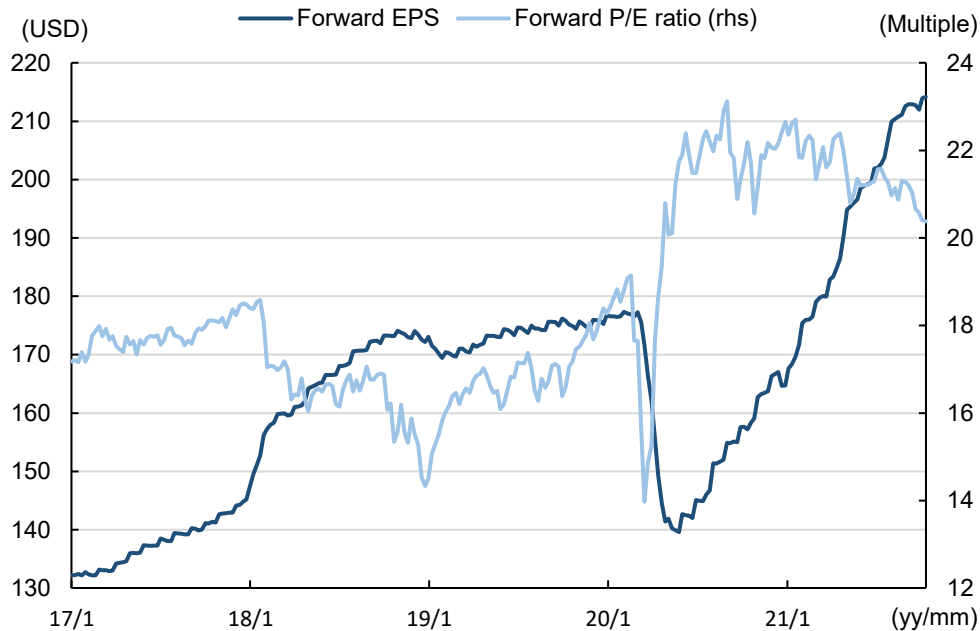


Note: The observation period of the correlation coefficient is 30 business days
Source: Made by MHRT based upon Bloomberg.

US stock market: expansion of corporate earnings is expected to support the market

- The US stock market has been weak due to concerns regarding the impact of natural resource prices and supply constraints on corporate earnings. However, the market has rebounded given a series of favorable quarterly corporate earnings announcements.
- The forward EPS remains on an expansionary trend, despite concerns regarding corporate earnings.
 - Although the stock market has softened slightly, the P/E ratio remains slightly overvalued at 20.4x.
- In the US stock market, concerns regarding such factors as natural resource prices and supply constraints has been rising intermittently. Although Q3 earnings announcements have just started, there has been a string of favorable earnings results, and market participants are paying attention to whether this favorable trend can be maintained.

S&P 500 forward EPS and forward P/E ratio



Note: Forward EPS and forward P/E ratio are based on a 12-month forward forecast.
Source: Made by MHRT based upon Refinitiv.

Q3 corporate earnings of US corporations

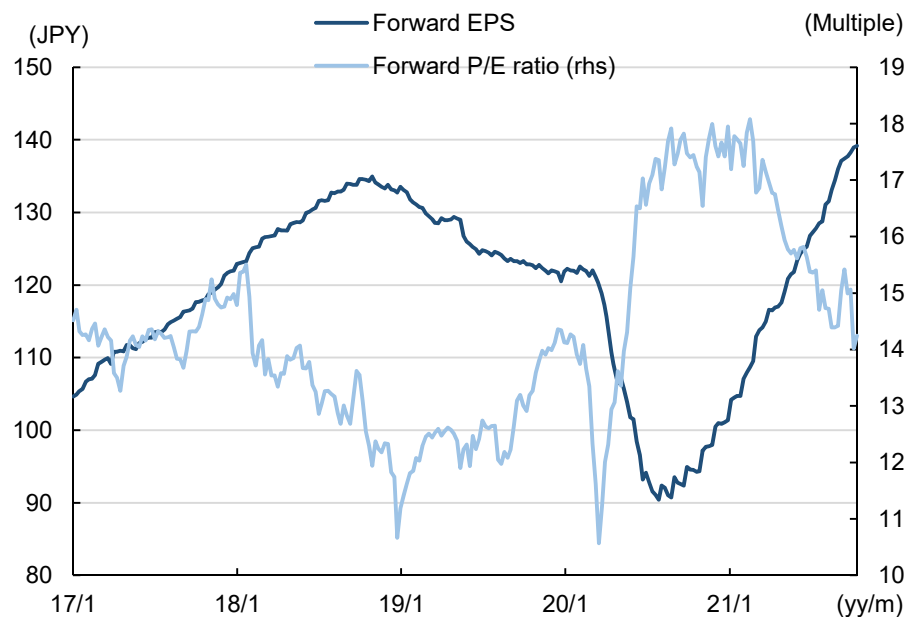
	Higher than expected	No surprise	Lower than expected	Progress rate (%)	No. of companies which have reported earnings
Energy	0%	100%	0%	4.8	1 / 21
Materials	0%	0%	0%	0.0	0 / 28
Capital goods	67%	11%	22%	12.3	9 / 73
General consumer goods	71%	0%	29%	11.3	7 / 62
Consumer staples	80%	0%	20%	31.3	10 / 32
Healthcare	100%	0%	0%	4.7	3 / 64
Finance	95%	0%	5%	29.7	19 / 64
Information technologies	100%	0%	0%	6.7	5 / 75
Communication services	100%	0%	0%	7.4	2 / 27
Public services	0%	0%	0%	0.0	0 / 28
Real estate	100%	0%	0%	3.4	1 / 29
S&P500	84%	4%	12%	11.3	57

Note: Based on data as of October 19.
Source: Made by MHRT based upon Refinitiv.

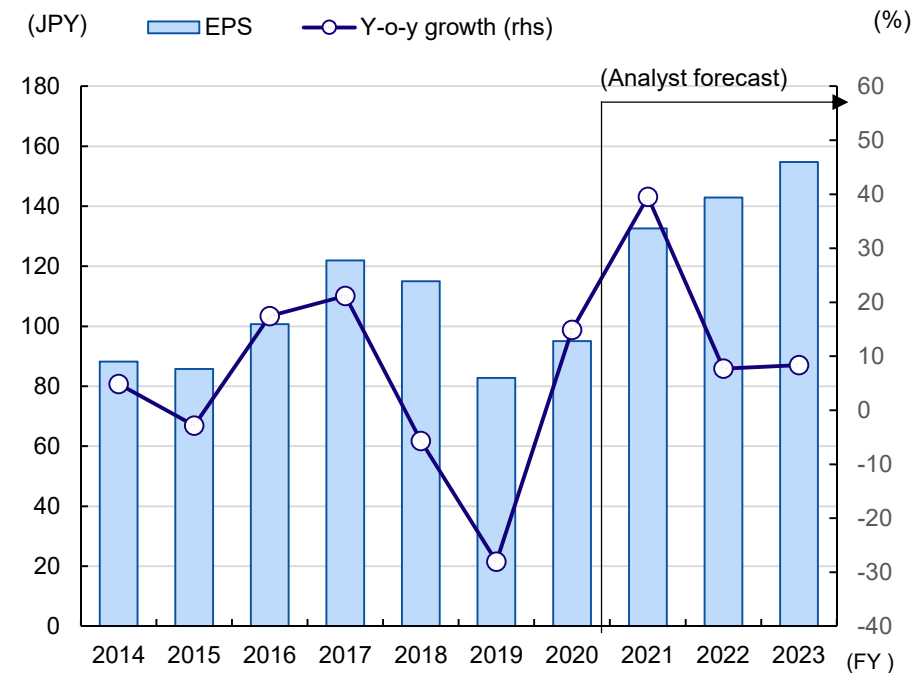
Japanese stock market: moderate rise expected going forward, on the back of steady corporate earnings growth

- The Nikkei Stock Average softened, due to factors including comments by Prime Minister Fumio Kishida's on a capital gains tax hike. Subsequently, given the postponement of discussions on the capital gains tax hike and the rebound of the US stock market, the Nikkei Stock Average also staged a minor rebound.
- The 12-month forward EPS surpassed the pre-Pandemic level (end of 2019) and reached the highest level in the last five years.
 - On the other hand, the forward P/E ratio fell to 14.2x, reflecting the weakness of the stock market.
- Since a further decline in the forward P/E ratio is limited, solid corporate earnings should serve as a support even in the event of temporary adjustments. A moderate rise is expected going forward.

TOPIX forward EPS and forward P/E ratio



TOPIX fiscal year EPS (results and forecast)



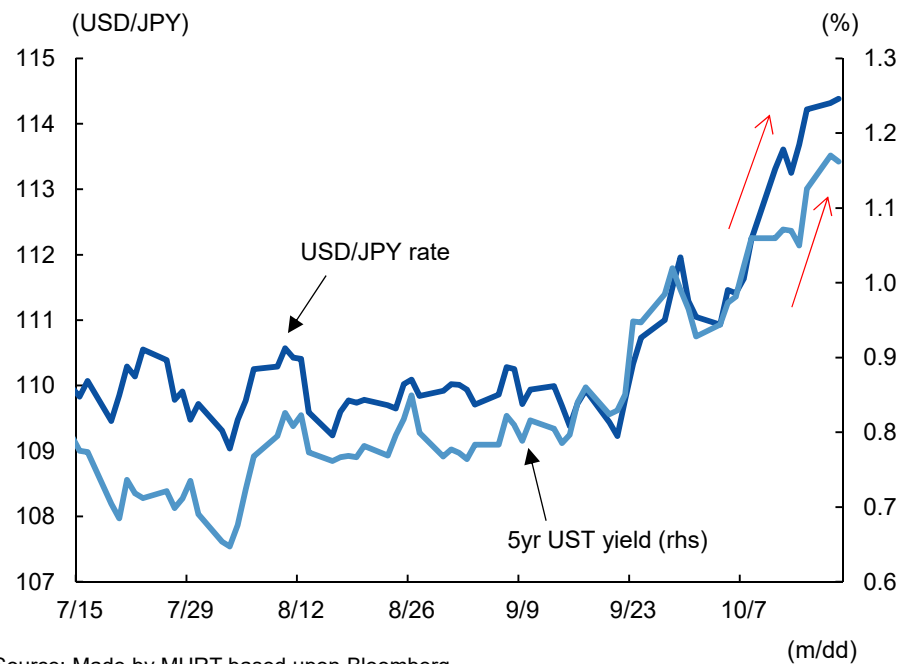
Note: Forward EPS and forward P/E ratio are based on a 12-month forward forecast.
Source: Made by MHRT based upon Refinitiv.

Source: Made by MHRT based upon Refinitiv.

Forex market: the USD/JPY rate will likely be susceptible to dollar-strengthening pressures due to the rise of demand for the US dollar

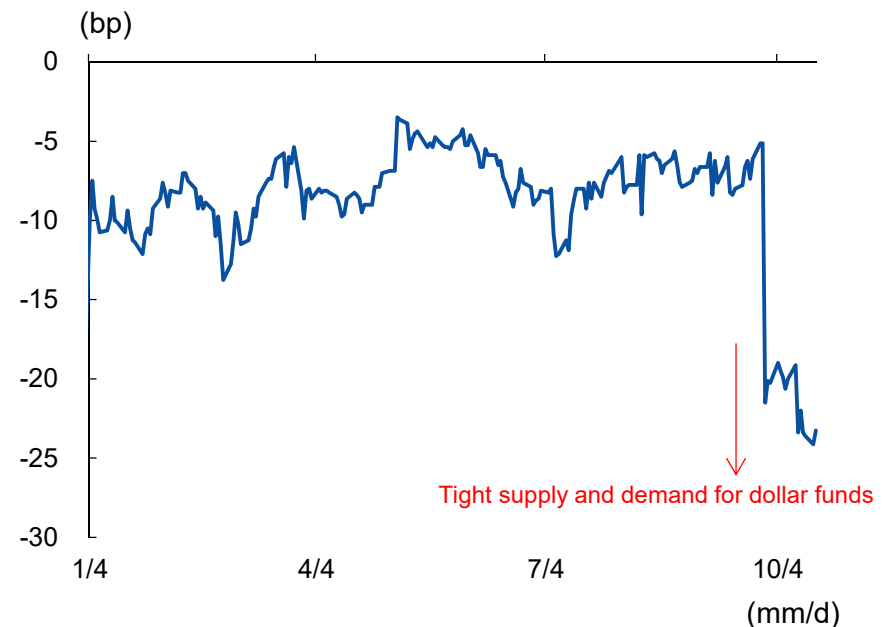
- The dollar strengthened against the yen and the euro due to the FOMC's hawkish tilt at the meeting in September and the rise of US interest rates on the back of inflation concerns.
 - As for the USD/JPY rate, the dollar strengthened against the yen to the 1 USD=114 JPY level, in response to the rise of US short-term and medium-term interest rates. In terms of the closing rate, this was a level not seen since November 2018.
- The dollar will likely be susceptible to dollar-strengthening pressures.
 - The basis swap spread of the USD-JPY currency pair fell sharply into negative territory since the end of September 2021, indicating the rise of demand for the US dollar. Dollar funding is expected to rise towards the end of the year, putting pressure on the dollar.

Trends of the USD/JPY rate and UST yield



Source: Made by MHRT based upon Bloomberg.

Basis swap spread of the USD-JPY currency pair

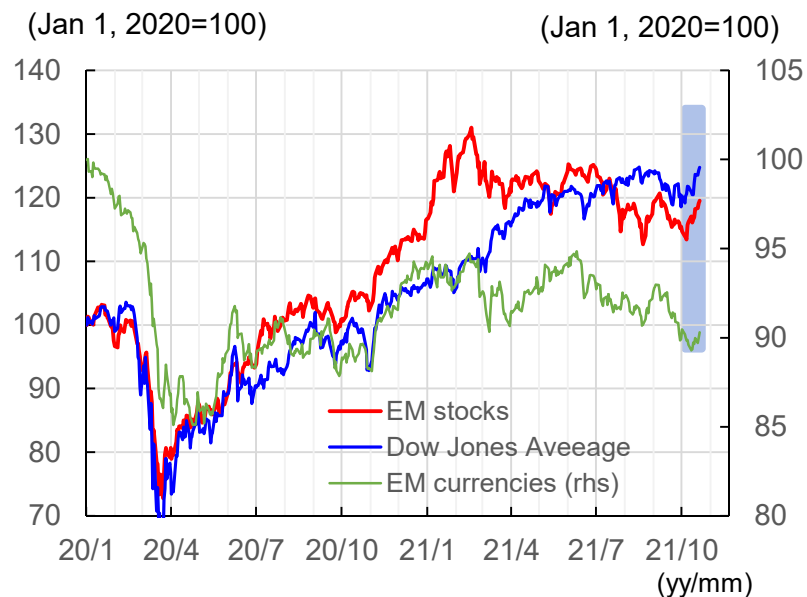


Note: Basis swap spread is the interest rate that is added when different currencies are exchanged. In this case, the more negative it is, the stronger the demand for the dollar.
 Source: Made by MHRT based upon Bloomberg.

EM financial markets: currencies are generally weak against the backdrop of rising US interest rates and concerns regarding stagflation

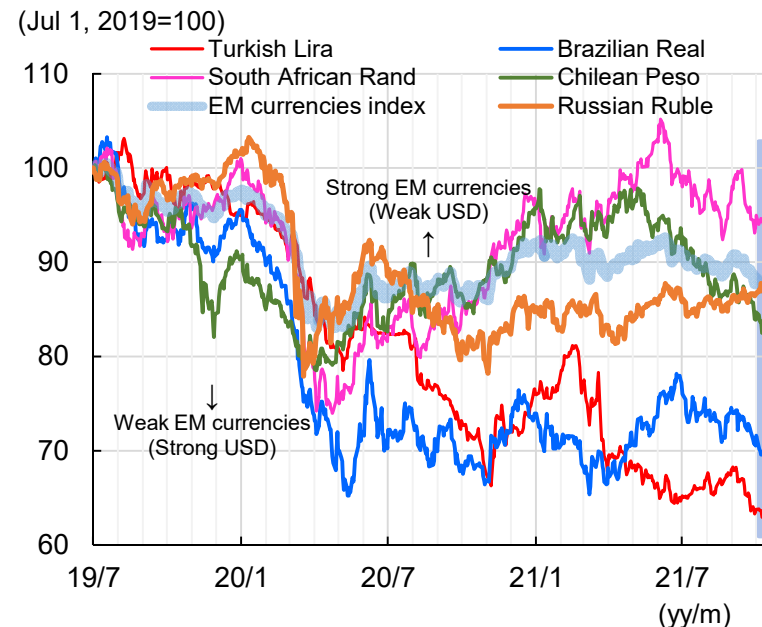
- EM stocks rebounded following a recovery of US stocks. However, the topside for EM stocks remains heavy and currencies are generally weak.
 - Future uncertainties due to delays in vaccinations and rising inflationary pressures are serving as a drag on stocks and currencies.
- In EM countries, the topside of both stocks and currencies are expected to remain heavy.
 - As for Russia, the ruble is recovering on the back of high crude oil prices. However, in EM countries in general, currencies are susceptible to weakening pressures against the backdrop of the rise of US interest rates and concerns regarding stagflation due to high inflation. In particular, Turkey, which implemented an interest rate cut in September, the odds are high that the lira will weaken further, in view of events such as the ousting of a central bank official who opposed the rate cut.

EM stocks and Dow Jones Average



Note: EM stocks and EM currencies are indicated by MSCI Emerging Markets and JP Morgan Emerging Markets FX Index respectively
 Source: Made by MHRT based upon Refinitiv.

Trend of EM currencies



Note: EM currencies index is indicated by JP Morgan Emerging Markets FX Index
 Source: Made by MHRT based upon Refinitiv.

Outlook on the financial markets

		Oct 20, 2021	Oct-Dec	Jan-Mar	Apr-Jun
Japan	Interest rate on Policy-Rate balances (End-of-quarter, %)	-0.10	-0.10	-0.10	-0.10
	Newly-issued JGBs (10yr, %)	0.09	0.05 to 0.15	0.05 to 0.15	0.05 to 0.15
	Nikkei Stock Average (JPY)	29,256	28,400 to 29,400	28,900 to 29,900	29,000 to 30,000
US	Federal Funds Rate (End-of-quarter, %)	0.00 to 0.25	0.00 to 0.25	0.00 to 0.25	0.00 to 0.25
	Long-term UST (10yr, %)	1.66	1.60 to 1.80	1.60 to 1.80	1.65 to 1.85
	Dow Jones Average (USD)	35,609	33,700 to 35,500	33,900 to 35,700	33,900 to 35,700
Eurozone	ECB deposit facility rate (End-of-quarter, %)	-0.50	-0.50	-0.50	-0.50
	Long-term government bond (Germany, 10yr, %)	-0.13	-0.25 to -0.05	-0.25 to -0.05	-0.25 to -0.05
Forex	USD/JPY rate (USD/JPY)	114.31	112 to 115	112 to 115	112 to 115
	EUR/USD rate (EUR/USD)	1.165	1.14 to 1.17	1.14 to 1.17	1.14 to 1.17

Note: 1. The foreign exchange rates (actual) are NY closing rates.

2. The projected policy interest rate indicated for the Jul-Sep, Oct-Dec, and Jan-Mar quarter is the end of quarter closing rate, while others indicate that the average value in the quarter will fall within the range indicated.

Source: Made by MHRT based Bloomberg

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