Monthly Economic Report

November 30, 2020

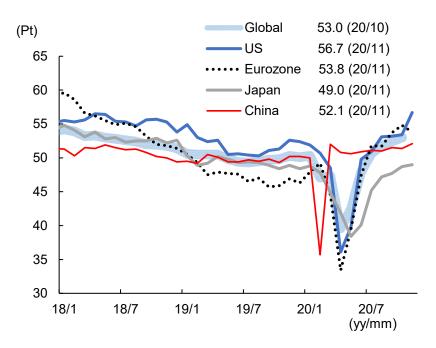
Mizuho Research Institute



1. Current state of the global economy: despite a recovery centering mainly in the US and China, the impact of Covid-19 infections are spreading in Europe

- The global economy is following a recovery trend.
 - The manufacturing and non-manufacturing PMI remains above 50 in the US and China. The global economy is continuing to recover, led mainly by the US and Chinese economies.
- However, the non-manufacturing PMI worsened in Europe, where soft lockdowns were implemented.
 - The Eurozone economy will not be able to avoid a relapse into negative growth again in the Oct-Dec quarter.
 - Even in the US, where the PMI remains firm, there is a possibility that the recovery will come to a pause due to the resurgence of Covid-19 infections.

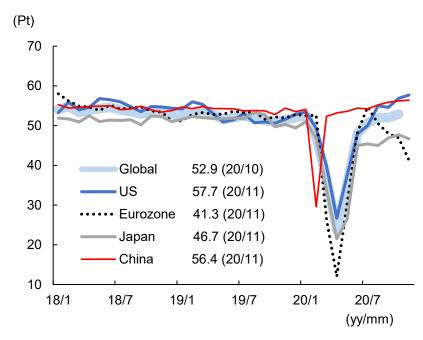
Manufacturing PMI



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 MHRI based upon the National Bureau of Statistics of China, Markit Economics

Non-manufacturing PMI



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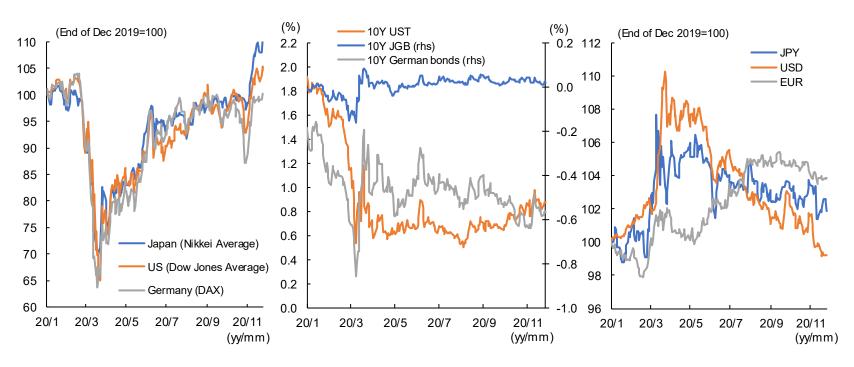
Source: Made by MHRI based upon the National Bureau of Statistics of China, Markit Economics



Overview of financial markets: expectations toward vaccine development leads to global shift of financial markets into risk-on mode

- In addition to the ebb of concerns regarding corporate tax hikes and regulation of major IT companies due to the increased likelihood of a
 divided Congress, the progress in development of Covid-19 vaccines lead to a global shift of markets into risk-on mode.
 - Fund inflows centered on stocks sensitive to economic conditions, which had been noticeably sluggish after the recovery in expectations for economic conditions and corporate earnings, leading to a significant increase in stocks globally. The Nikkei Stock Average recovered to the JPY26,000-level for the first time in 29.5 years.
 - Yields briefly approached 1% on long-term US Treasuries, but subsequently fell to the 0.8%-level along with the decline of volatility.
 - Turning to currencies, the Japanese yen, the dollar, and the euro all fell amid a global shift into risk-on mode. The Japanese yen traded around the JPY103 to 105 level to the US dollar.

Major market trends



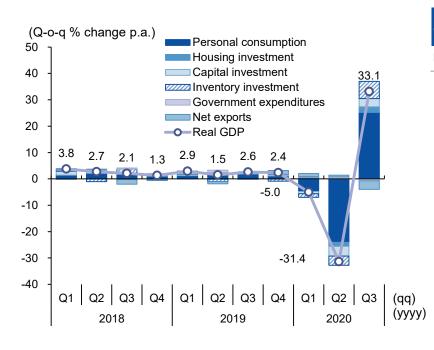
Note: Currency exchange rates are based upon the nominal effective exchange rates as released by the authorities of each country. Source: Made by MHRI based upon Bloomberg



2. (1) US economy: despite the rapid recovery in the Jul-Sep quarter, the spread of Covid-19 infections will serve as a drag upon growth in the Oct-Dec quarter

- In the Jul-Sep quarter, US real GDP grew at a rate of +33.1% p.a., recording a historical high. The level of growth has recovered to 96.5% (*) of pre-Covid-19 pandemic level. (* Oct-Dec quarter of 2019)
 - The goods-producing sector, centered around motor vehicles, is driving the recovery. The service-providing sector remains shackled by restrictions on mobility and businesses.
- Looking closer at the components of demand, personal consumption, housing investment, and capital investment are driving the recovery.
 - The contribution by external demand fell deep into negative territory, mainly due to a recovery of imports accompanying the improvement of US domestic demand.
 - The resumption in production activities will also stem inventory cuts.
- The pace of recovery in monthly indicators from July onward has been gradual. Recovery is expected to stagnate in the Oct-Dec quarter due to low carry-over of growth and resurgence of Covid-19 infections.

Real GDP Growth Rate



(Q-o-q change p.a.)	2020		Deinte fanthe tul Communitary				
refers to the degree of contribution	Apr-Jun	Jul-Sep	Points for the Jul-Sep quarter				
Real GDP	-31.4	33.1					
Personal consumption	-33.2	40.6	Consumption of goods (mainly motor vehicles) recovered above pre- Covid-19 pandemic levels				
Housing investment	-35.6	62.3	In addition to historically low interest rates, demand recovered rapidly due to pent-up demand and relocation to suburbs due to the increase of time spend at home				
Capital investment	-27.2	21.8	Machinery investment picked up due to demand related to Covid-19 measures Construction subject to w eak demand deteriorated futher. Intellectual property also bottomed out				
Inventory investment*	-3.5	6.6	Rebound, reflecting the resumption of production activities				
Government expenditures	2.5	-4.9	To some extent, there has been a fading impact of economic stimulus measures				
Net exports	0.6	-3.2	Degree of improvement in imports exceeds degree of improvement in exports, pushing the contribution by external demand deep into negative territory				
Exports	-64.4	60.5	Exports of goods recovered along with the resumption of overseas economies				
Imports	-54.1	93.1	Imports of goods have recovered to near pre-Covid-19 pandemic levels due to a recovery of domestic demand				

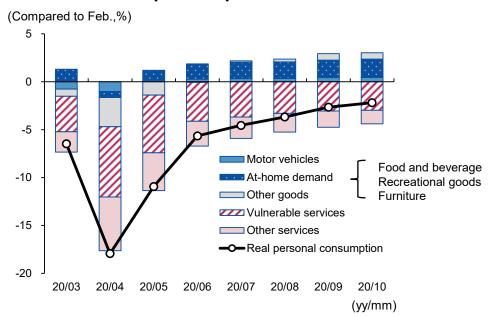
Source: Made by MHRI based upon the US Department of Commerce



Consumption remains polarized. Changes in preference such as the expansion of electronic commerce (EC) due to the Covid-19 pandemic, is serving to underpin the sustainable recovery

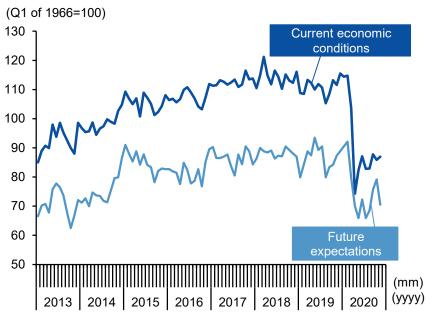
- October retail sales was firm at +0.5% m-o-m. Consumer spending was polarized, reflecting changes in consumer preferences and channels of consumption due to the Covid-19 pandemic.
 - Consumption of goods continued to increase at a gradual pace. The shift to electronic commerce (EC) and expansion of at-home demand contributed to the ongoing recovery.
 - On the other hand, consumption of vulnerable services such as eating-out and accommodations decreased slightly from the previous month due to stricter curbs on businesses in some cities.
- The NRF (National Retail Federation) forecasts year-end sales (*) for 2020 to increase +3.6%-5.2% y-o-y (+4.0% from 2019).
 - As of October, retail sales (*) exceeded 2019 levels by 10%. Although the expansion of Covid-19 infections is serving as a drag on consumption incentive, it is supported by changes in consumer preferences caused by the Covid-19 pandemic.
 - (*) Retail sales excluding motor vehicles, gasoline, and food services.
- Although the future expectations index in consumer sentiment indicators fell below expectations, the index on current economic conditions is gradually improving. Despite the spread of Covid-19 infections, consumption incentive remains firm.

Personal consumption expenditure



Source: Made by MHRI based upon the US Department of Commerce

Index of consumer expectations



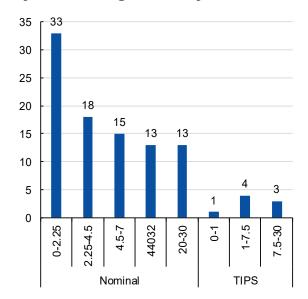
Source: Made by MHRI based upon University of Michigan



(2) US monetary policy: the odds are high that the December FOMC will offer new guidance on asset purchases

- At its meeting in November, "many participants judged that the FOMC might want to enhance its guidance for asset purchases fairly soon" (FOMC minutes, November 25)
 - Qualitative outcome-based guidance: Increases in the FOMC's securities holdings would taper and cease sometime before (raising) the target range for the federal funds rate (2024 according to market forecasts).
 - The FOMC discussed four avenues to buy assets. This is expected to remain unchanged at the December FOMC as the economic outlook has not significantly deteriorated.
 - (1) Raise the pace of purchases, (2) maintain the same pace of purchases and shifting the composition of asset purchases over a longer horizon, (3) continue the current framework over a longer time period, and (4) maintain the current degree of accommodation by lengthening the maturity of purchases while reducing the pace of purchases (maintain (not providing more) accommodation, as decided by the Bank of Canada on Oct 28)
 - A few participants noted that climate change poses important challenges to financial stability and welcomed analysis of climate change as both a source of shocks and an underlying vulnerability.

Percentage of US Treasury purchases __Key points of FOMC minutes by remaining maturity



Monthly averages are calculated from balances on March 11 and November 18

Source: Made by MHRI based upon the Federal Reserve Bank of

Asset purchases	 Enhance its guidance for asset purchases fairly soon Increases in the FOMC's securities holdings would taper and cease sometime before (raising) the target range for the federal funds rate
Households	 Strength in household spending to continue, especially for durable goods and residential investment. Several expressed concern that, in the absence of additional fiscal support, lower- and moderate-income households might need to reduce their spending sharply
Businesses	 The recovery was viewed as unevenly distributed. (While) the momentum in investment to extend into next year, (others) noted that many were deferring longer-term commitments because of heighted uncertainty Businesses are currently in a weaker position to weather economic shocks than they had been at the beginning of the pandemic Small businesses' liquidity needs were high (with) majority of small businesses having no more than two months of cash on hand
Employment	 Manufacturing, health-care, and technology sectors reported having trouble hiring workers for reasons likely related to virus cases or workers' need to provide childcare The decline in the unemployment rate in recent months had been accompanied by a fall in the labor force participation rate among those with a high school education or lower and among women Although temporary layoff had fallen sharply, the number of permanent job losers had continued to rise The pace of labor market improvement was likely to moderate (as) businesses severely affected by the pandemic were downsizing or were focused on cutting costs through automation Job losses had been prevalent in the services sector, and among women, African Americans, and Hispanics. These trends could exacerbate racial, gender, and other social-economic disparities.

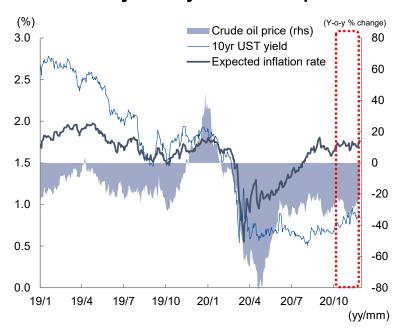
Source: Made by MHRI based upon FRB



(3) US bond market: 10yr UST yields are forecast to move around 0.7% to 1.0%

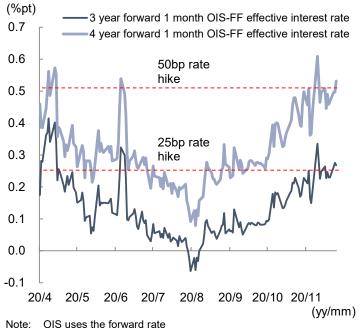
- Yields on 10yr US treasury bonds (UST) have remained at around 0.8% due to growing concerns about a divided Congress and fading expectations toward the future expansion of fiscal measures. As the market subsequently shifted to risk-on mode due to the progress of vaccine development, yields shifted to the 0.9% range due to the rise of selling pressure on US treasury bonds.
 - Inflation expectations declined due to a focus upon a divided Congress. The risk of a deterioration of the UST demand-supply balance has receded somewhat due to the increase of UST issues.
 - Expectations factoring in a federal funds rate hike, which receded reflecting the election results, have started to rise again due to the rise of expectations toward vaccine development.
- Given the difficulty of a swift passage of additional fiscal measures under a divided Congress on one hand, and the rise of upward
 pressures on interest rates due to the recovery of economic conditions and progress of vaccine development on the other, we forecast
 that the 10yr UST yield will move around 0.7% to 1.0%.

Trends in 10yr UST yields and expected inflation



Note: Expected inflation rate is the breakeven inflation rate (10yr) Source: Made by MHRI based upon Bloomberg

Trends in factoring in federal funds rate hikes



Source: Made by MHRI based upon Bloomberg



(4) US stock market: risks of market adjustment linger despite favorable market response toward the progress of vaccine development

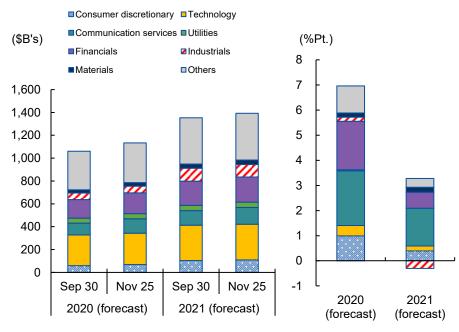
- The US stock market is risk-on, given the elimination of uncertainties regarding the US presidential and congressional elections and progress in development of a Covid-19 vaccine.
 - Even though the market was led by growth stocks, reflecting the fall of interest rates immediately after the presidential election, the market is taking a better view of value stocks because of expectations toward the recovery of the economy and corporate business results due to the widespread uptake of vaccines, reflecting media coverage on vaccine development.
- The most recent financial results have been favorable. The forward EPS was revised upward for both 2020 and 2021.
 - There is a strong sense of overvaluation, with a forward P/E ratio at 22, even when considering the low interest rate environment.
- There are lingering market adjustment risks, given high uncertainties regarding the resurgence of Covid-19 infections and the development and widespread uptake of vaccines.

S&P 500 Index, Growth/Value Index

S&P 500 (2020/1/1=100)(Multiple) 140 2.3 Growth Value 2.2 130 Growth/value ratio (rhs 120 2.1 110 2.0 100 1.9 90 1.8 80 1.7 70 1.6 60 1.5 50 20/2 20/3 20/4 20/5 20/6 20/7 20/8 20/9 20/10 20/11 (w/mm)

Source: Made by MHRI based upon Refinitiv

Profit forecast for S&P 500 Index stocks



Note: Figure on the right shows the degree of contribution to forecast revisions at

the end of September

Source: Made by MHRI based upon Refinitiv

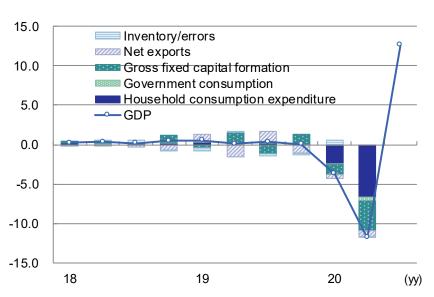


3. (1) The Eurozone economy: despite a strong rebound in the Jul-Sep quarter, GDP growth is forecast to fall into negative territory due to the resurgence of Covid-19 infections

- Eurozone real GDP growth stood at +12.6% q-o-q in the Jul-Sep quarter, rebounding from the Apr-Jul quarter (-11.8% q-o-q), when the economy contracted sharply due to lockdowns. However, the rate of growth is still -4.4% in terms of a year-on-year (y-o-y) basis, remaining below the level before the Covid-19 pandemic.
 - In France, Italy, and Spain, which all carried out relatively severe lockdowns, growth rebounded strongly by around +17% q-o-q.
- The Eurozone Purchasing Managers' Index (composite PMI), having a high correlation with GDP, stood at 45.1 in November, falling to the 40-range for the first time in five months. The odds are high that growth will fall into negative territory in the Oct-Dec quarter.
 - Among the background factors is the decline of services consumption along with the resurgence of Covid-19 cases and infection prevention measures such as lockdowns.

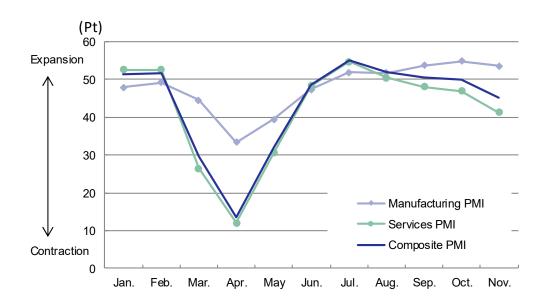
Eurozone: real GDP

(Q-o-q % change)



Note: Y-o-y growth rate of real GDP and contribution ratio by demand item Source: Made by MHRI based upon Eurostat

Eurozone: PMI



Note: PMI at 50 is the expansion/contraction threshold Source: Made by MHRI based upon IHS Markit



(2) Eurozone monetary policy: an extension of the PEPP is likely at the ECB Governing Council meeting in December

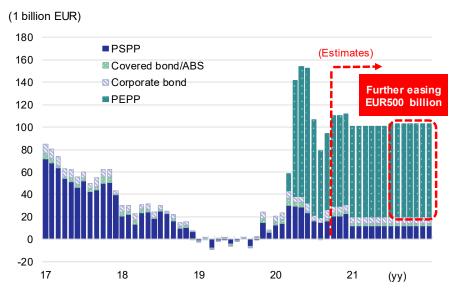
- We expect that monetary policy will remain unchanged at the ECB Governing Council meeting on October 29.
 - Given the re-imposition of partial lockdowns among the countries of Europe, there are rising uncertainties regarding the future course of the Eurozone economy. Even so, since the re-imposition of lockdowns have just started, its impact upon mobility etc. is yet to be detected.
- We expect that the ECB will indicate the possibility of further monetary easing (re-extension of the PEPP) at the next Governing Council
 meeting in December.
 - The ECB will most likely wait for the ECB staff macroeconomic projections to make a final decision on monetary easing. However, we expect that the ECB will make an indication of further monetary easing in December through its statement or the ECB president's comments, in view of the need for some sort of message to address the current spread of Covid-19 cases.
 - We forecast a six-month extension of asset purchases (Pandemic Emergency Purchase Programme (PEPP)) until the end of 2021 and an increase of EUR500 billion. The ECB will most likely forego measures to push interest rates deeper into negative territory.

Recent remarks by ECB President Christine Lagarde and Executive Board member Philip R. Lane

[But] inflation is still very distant from levels in line with our Oct. 7, 2020 inflation aim. So we need to maintain an ample monetary policy (Interview with Harvard Christine stimulus to reach our objective. International Review) Lagarde, President of Ms. Lagarde warned that Europe's economic recovery looks "a the ECB Oct. 6, 2020 little bit more shaky" amid a second wave of infections [...] We (Comments made ahead of are prepared to use all the tools that will produce the most the WSJ CEO Council) effective, efficient, and proportionate outcome. [Meanwhile] the resurgence in infection rates (and the Oct. 6, 2020 associated public health measures) is posing renewed Philip R. Lane, (Speech at the NABE challenges, especially for those sectors most affected by social Member of the Annual Meeting) distancing. Reflecting this, the momentum in the services sector has been slowing down since August. Executive Board of the (Answering the question regarding his assessment on the ECB (Chief economic outlook evolved over the last few weeks given by the Sep. 24, 2020 **Economist**) sharp increase in new COVID cases) Our baseline allows for (Twitter Q&A) some periodic resurgence of the virus until a full-scale medical solution is found.

Source: Made by MHRI based upon ECB

ECB's purchase of assets thus far and outlook



Note: Figures up to September 2020 show actual results, while those after October are estimates and forecasts based on past performance.

Source: Made by MHRI based upon ECB



(3) Eurozone bond market: 10yr German government bond yield expected to trend around -0.6% to -0.4%

- ECB President Christine Lagarde strongly indicated additional easing in December because of the resurgence in Covid-19 infections and the expansion of partial lockdowns in Europe.
 - The yield on 10yr German bonds temporarily dropped to the mid -0.6% range, and the market factored in the ECB Governing Council's interest rate cut at its next meeting in December.
 - However, expectations toward a rate cut has receded with the dissipation of uncertainties regarding the US presidential election and the risk-on mood from progress in vaccine development.
 - The additional easing in December is expected to be an extension of the PEPP and TLTRO III and not an interest rate cut.
- Interest rates are unlikely to rise due to expectations toward the ECB's additional easing, keeping spreads between Germany and other countries stable. The 10yr German government bond yield is expected to trend around -0.6% to -0.4%.

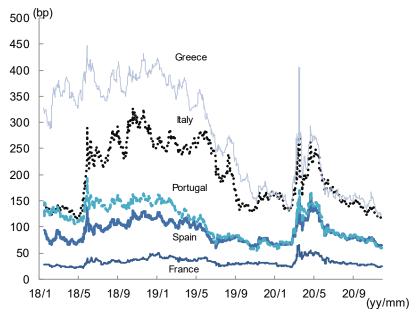
Interest rate differential between OIS and EONIA interest rates



Note: OIS uses the forward rate

Source: Made by MHRI based upon Bloomberg and ECB

Eurozone country spreads with Germany



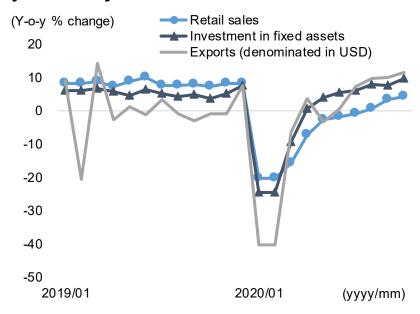
Source: Made by MHRI based upon Bloomberg



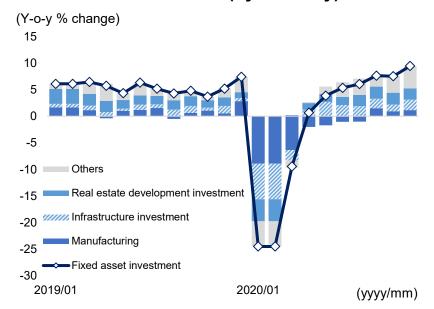
4. (1) The Chinese economy: major indicators in October indicated the ongoing recovery of economic conditions

- Looking at the major economic indicators for October, investment, retail sales and exports all improved, indicating the ongoing recovery of the economy.
 - Investment accelerated to +9.5% y-o-y (September: +7.5% y-o-y), driven by real estate development and infrastructure investment.
 - Retail sales also accelerated to +4.3% y-o-y (September: +3.3% y-o-y). The growth in eating and drinking services edged up into positive territory for the first time this year. Motor vehicle sales is also continuing to record solid growth.
- Looking forward, while the ebb of the temporary one-off demand and policy effects will serve as restraints upon growth, we expect the
 continuation of a gradual recovery, supported by ongoing infrastructure investment and self-sustained recovery of consumption. However,
 exports may fall, depending on the resurgence of Covid-19 infections in Europe and the US, which account for almost 40% of the
 destination of exports.

Major monthly indicators



Fixed asset Investment (by industry)



Note: All are nominal. Retail trade and investment for January/February are cumulative totals for January to February.

Source: Made by MHRI based upon the CEIC data from the National Bureau of Statistics of China

Note: Infrastructure investment = Total of utilities, water usage/environmental/public facilities, and transport haulage/warehousing/postal services.

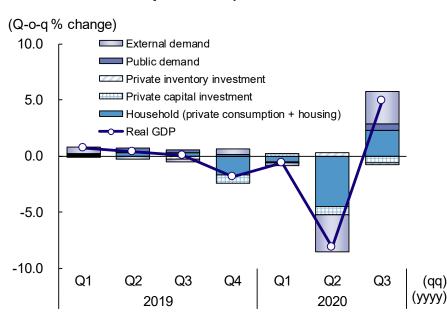
Source: Made by MHRI based upon the CEIC data from the National Bureau of Statistics of China



5. (1) The Japanese economy: despite rapid growth in the Jul-Sep quarter, the level of GDP is still low and is expected to slow in the Oct-Dec quarter

- Even though Jul-Sep quarter real GDP grew a high +5.0% q-o-q (+21.4% p.a.) ,this only clawed back 56% of the fall in the Apr-Jun quarter.
 - Personal consumption surged due to purchases of motor vehicles and consumption of services stemming from the Go To Campaign in addition to a carry-over of the recovery in June. Exports also rose sharply into positive territory, driven by motor vehicles to Europe and the US. Capital investment remained in negative territory due to ongoing adjustments reflecting the deterioration of corporate earnings.
 - Consumption and exports should continue to record positive growth in the Oct-Dec quarter, as they both continued to increase in October, in addition to the carry-over of growth up to September. However, we expect growth to slow down due to the prolonged adjustment of capital investment, in addition to the moderation of consumption and exports due to the resurgence of domestic and overseas Covid-19 infections.

Real GDP growth rate (first preliminary quarterly estimate for Jul-Sep of 2020)



	2019		2020		
	Jun-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
Real GDP	0.0	-1.8	-0.6	-8.2	5.0
(Q-o-q %ch, p.a.)	0.2	-7.1	-2.3	-28.8	21.4
(Y-o-y % ch)	1.7	-0.7	-1.8	-10.2	-5.8
Domestic demand	0.3	-2.3	-0.3	- 4.9	2.0
	(0.3)	(-2.3)	(-0.3)	(-4.9)	(2.1)
Private demand	0.1	-3.2	-0.5	-6.6	2.1
	(0.1)	(-2.4)	(-0.3)	(-4.8)	(1.5)
Personal consumption	0.4	-2.9	-0.7	-8.1	4.7
Housing investment	1.3	-2.3	-4.0	-0.5	-7.9
Capital investment	0.2	-4.8	1.7	-4.5	-3.4
Inventory investment	(-0.2)	(0.0)	(-0.1)	(0.3)	(-0.2)
Public demand	0.9	0.4	-0.0	-0.1	1.9
	(0.2)	(0.1)	(-0.0)	(-0.0)_	(0.5)
Government consumption	0.9	0.3	0.0	-0.4	2.2
Public investment	0.8	0.7	-0.3	1.2	0.4
External demand	(-0.2)	(0.5)	(-0.2)	(-3.3)	(2.9)
Exports	-0.6	0.4	-5.3	-17.4	7.0
Imports	0.7	-2.4	-4.1	2.2	-9.8
Nominal GDP	0.4	-1.5	-0.4	-7.8	5.2
GDP deflator (y-o-y)	0.6	1.2	0.9	1.4	1.1

Note: The table on the right is on a q-o-q basis in real terms unless otherwise noted, and figures in parenthesis are contributions to GDP growth Source: Made by MHRI based upon the Cabinet Office, *Preliminary Quarterly Estimates of GDP*



Exports continued to increase in October. The contribution by external demand is likely to remain positive in the Oct-Dec quarter

- According to the October *Trade Statistics*, exports turned out to be stronger than imports. External demand started out on a brisk note for the Oct-Dec quarter.
 - The export volume index rose +6.3% m-o-m, remaining positive for five consecutive months. Motor vehicle exports to the US and IT-related exports to China are strong.
 - The import volume index rose +2.8% m-o-m, rising for two consecutive months. Excluding the impact of the new iPhone launch, imports only rose slightly.
- Even though the contribution by external demand in Oct-Dec quarter growth is expected to remain positive, despite a slowdown from the previous quarter (Jul-Sep quarter: +2.9% Pt).
 - Despite a slowdown of motor vehicle exports, exports will retain its momentum, given underpinnings such as IT-related exports. On the other hand, imports are expected to slow down in the Nov-Dec period, given the ebb of the impact of the new iPhone model and the sluggish pace of recovery of domestic demand.
 - The odds are high that exports will maintain momentum, because of (1) the large carry-over from September and the ongoing increase in October, and (2) despite the spread of Covid-19 infections in Europe being a downside factor, factories are continuing to operate during the current lockdown and the fact that the share of EU-bound exports are smaller than exports to the US and China.

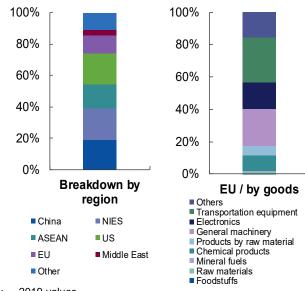
Export volume index by region

(2015=100)Despite slowdown of motor -Global **US** 140 vehicles, IT-related exports are strong 130 EU (ex UK) -China 120 110 Motor vehicle exports are 100 strong 90 EU (ex. UK) 80 Despite slowdown of motor 70 vehicles, chemical products, etc. 60 increased 18/1 18/7 19/1 19/7 20/1 20/7 (yy/m)

Note: Seasonally adjusted by MHRI

Source: Made by MHRI based upon Ministry of Finance, Trade Statistics

Composition of exports to the EU



Note: 2019 values.

Source: Made by MHRI based upon Ministry of Finance, Trade Statistics



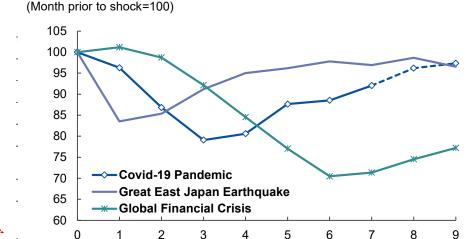
Industrial production is recovering at a rapid pace

- As of September, industrial production recovered to approximately 90% of the pre-Covid-19 pandemic level.
 - In September, industrial production rose +4.0% m-o-m (August: +1.0% m-o-m), rising for four consecutive months.
 - Industrial production rose +8.8% q-o-q in the Jul-Sep quarter (Apr-Jun quarter: -16.9% q-o-q). This was driven by transport equipment which recorded a dramatic +51.3% q-o-q surge.
- The pace of production hikes is expected to slow in the Oct-Dec quarter, and fall below the projection of +8.5% q-o-q based upon the index of industrial production forecast.
 - The pace of production hikes in transport equipment (motor vehicles), which returned to about 90% of the pre-Covid-19 pandemic level as of September, slowed in the Oct-Dec quarter. Turning to capital goods, for which significant increases in production are planned, the odds are high that they will fall against a backdrop of stagnant domestic and overseas demand for capital investment.
- Note that the period of output cuts this time (after the Covid-19 Pandemic) is shorter than after the Global Financial Crisis, and the
 movement is close to what was observed after the Great East Japan Earthquake.

Production results/forecasts by major industry/goods

			Plans		
		20/Q1	20/Q2	20/Q3	20/Q4
	Industrial production	0.4	-16.9	8.8	8.5
By sector	Iron & steel	1.7	-28.3	10.2	14.5
	Electronic parts & devices	6.2	-8.0	6.2	8.3
	Electrical machinery	0.0	-13.0	4.8	6.1
	Info. & comm. electronics equipment	-7.2	-4.7	-2.5	18.7
	Transport equipment	0.6	-42.4	51.3	12.8
By goods	Capital goods (excl. transport equipment)	-0.4	-9.2	-4.8	10.9

Industrial production following past shocks



(Months, month prior to shock = 0)

1. Actual results are based upon the industrial production index, and plans are based upon the index of industrial production forecast.

2. 2020 Q4 is calculated upon the assumption of production plans for October and November and that production is flat in December.

3. The figures do not necessarily match public releases due to rounding.

Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, Industrial Production, Survey of Production Forecast

ote: 1. Covid-19 Pandemic: February 2020 = 100, Great East Japan Earthquake: February 2011 = 100, Global Financial Crisis: August 2008 = 100.

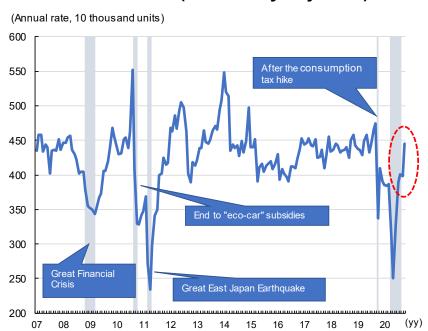
Production in October and November 2020 are extrapolated on the basis of production plans.

Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, Industrial Production, Survey of Production Forecast

Consumption of goods such as motor vehicles recover. Despite the "Go To" campaign has had some impact, the resurgence of Covid-19 infections dims future outlook

- In October, new motor vehicle sales recovered close to pre-Covid-19 pandemic levels (2019 average).
 - In addition to a counter reaction to the decline in spring, the impact of the launch of new motor vehicle models is a driving factor.
- Even though consumption of services has been stagnant since the second half of June, spending on travel recovered during the period from September to October.
 - Outings increased in the latter half of September during the 4-day weekend. Spending on travel recovered dramatically, given the addition of Tokyo to the "Go To Travel" campaign from October onward. On the other hand, limitations on economic activity are expected to increase from the second half of November due to the recent resurgence in Covid-19 infections.

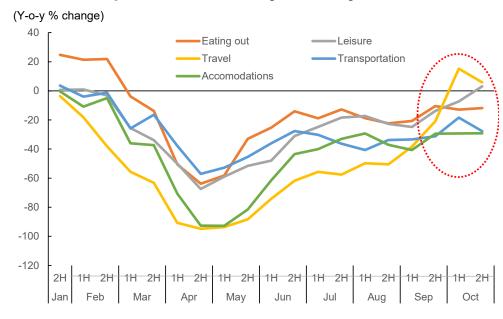
Motor vehicle sales (seasonally-adjusted)



Note: Passenger vehicle based (including light motor vehicles), seasonallyadjusted by MHRI

Source: Made by MHRI based upon Japan Automobile Dealers Association, Japan Light Motor Vehicle and Motorcycle Association

Consumption indicators by industry



Note: Reference data

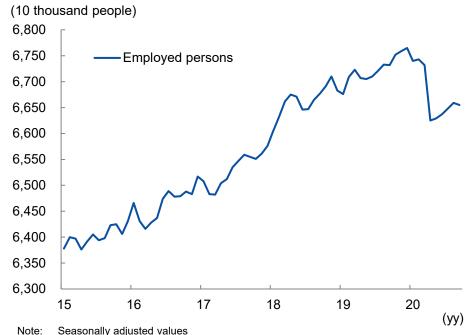
Source: Made by MHRI based upon JCB and Nowcast, JCB Consumption NOW



Even though employment has stopped declining, the unemployment rate remains high

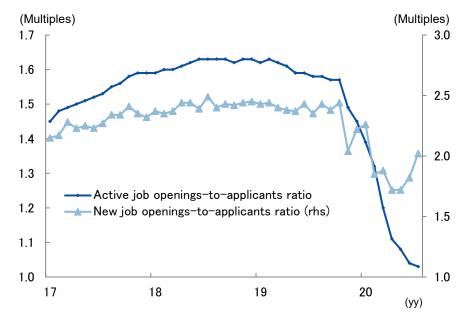
- The unemployment rate stood at 3.0% in September, flattening out from the previous month. The job openings-to-applicants ratio fell to 1.03x in September from the previous month (August: 1.04x).
 - Subsequent to a decline in number of employees by approximately 1 million persons in April, the pace of recovery is slow, with only about 300,000 employees returning.
 - Even though the new job openings-to-applicants ratio rose for the second month in a row, the number of new job openings decreased by -17.3% y-o-y in September, marking a significant decline in comparison to the pre-Covid-19 pandemic level.
- Although the number of employed persons bottomed out in April, the unemployment rate has not improved as companies remain cautious about hiring new workers.
 - For the time being, labor force participation by those who left the labor market in April is expected to progress. However, the unemployment rate is expected to remain high as those looking for jobs will continue to find it difficult to be hired.

Trends of the unemployment rate



Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, *Labour Force Survey*

Trends in job openings-to-applicants ratio



Note: Seasonally adjusted values Source: Made by MHRI based upon Ministry of Health, Labour and Welfare, Employment Referrals for General Workers



(2) BOJ monetary policy: maintenance of monetary easing measures through "three measures"

- The Bank of Japan (BOJ) is continuing to conduct monetary easing through "three measures". In a meeting with business leaders, BOJ
 Governor Haruhiko Kuroda emphasized the BOJ's stance of maintaining its current monetary policy framework.
 - At a press conference following a meeting with business leaders in Nagoya (November 4), Governor Kuroda indicated the BOJ's stance of achieving the "price stability target" of 2% even after the containment of Covid-19 and signaled his stance to maintain the current framework of "Quantitative and Qualitative Monetary Easing with Yield Curve Control."
- The BOJ introduced the Special Deposit Facility to Enhance the Resilience of the Regional Financial System (November 10). The facility provides a special interest rate of +0.1% on excess reserve balances toward eligible financial institutions that meet certain requirements.
 - Even though this will have a large impact on regional financial institutions as they possess sizeable current accounts at the BOJ, it will not have an immediate impact because of the conditions which must be satisfied.
 - The conditions are to strengthen business foundations by improving earnings or making institutional decisions on mergers etc. It is assumed that this will function as a substantial incentive for dealing with the management issues of regional financial institutions.

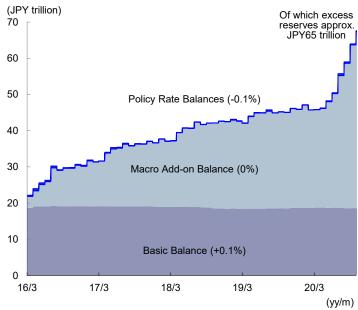
BOJ Governor Haruhiko Kuroda's comments (November 4)

- Monetary policy framework
 The BOJ will continue to conduct the current monetary easing measures.in order to achieve as soon as possible the 2% "price stability target" included in the "joint statement" with the government.

 I don't believe there is any need at all to change the monetary policy framework now.
- Policy after containment of Covid-19
 - The BOJ has conducted monetary policy with a view to supporting corporate financing and maintaining stability in financial markets through "three measures", and will continue to so for the time being until the containment of Covid-19.
 - [Even after the containment of Covid-19], there is no change that the BOJ will continue to take its best measures while maintaining the current monetary policy framework

Source: Made by MHRI based upon the Bank of Japan

Structure of BOJ current account balance for regional financial institutions



Note: Total of regional banks and the Second Association of Regional Banks Source: Made by MHRI based upon Bloomberg



(3) Japanese bond market: the yield on 10yr JGBs forecast to trend around 0%

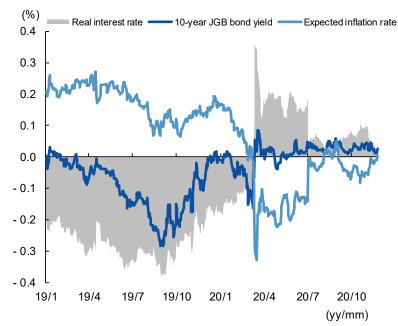
- The 10yr JGB yield remained steady at around 0% even amid uncertainties regarding the outcome of the US presidential election. Even though third supplementary budget may expand, the yield is expected to remain at around 0% for the time being due to concerns regarding the resurgence in Covid-19 infections and the US election.
- Despite indications of the possibility that the effect of monetary easing would weaken if real interest rates remained in positive territory from March onward, we do not expect a persistence of the current trend since the downward pressures on prices stemming from the impact of Covid-19 and the "Go To Travel" campaign should gradually diminish.

JGB yields



Source: Made by MHRI based upon Bloomberg

Changes in real interest rates



Note: Expected inflation rate is the breakeven inflation rate (10yr)

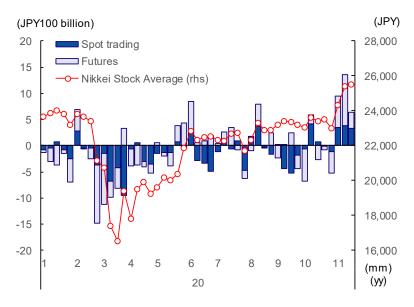
Source: Made by MHRI based upon Bloomberg



(4) Japanese stock market: the Nikkei Stock Average reaches a record high in 29.5 years. Going forward, the market should follow firm footing

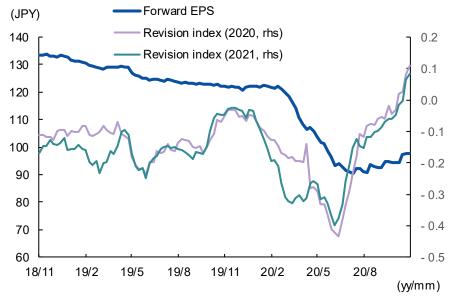
- The Nikkei Stock Average rose above JPY26,000, its highest level in 29.5 years. There was renewed interest in Japanese stocks in general, reflecting confirmation that corporate earnings have bottomed out and media reports on the progress in development of Covid-19 vaccines.
 - In October, overseas investors turned to net buyers for the first time in two months and are currently net buyers in both spot trading and futures.
- Corporate earnings results, as currently announced, are generally favorable. The revision index has also turned positive, indicating a
 future recovery in corporate earnings.
- Although the forward P/E ratio at 18 shows a slight over-valuation of stocks, stock prices are expected to remain firm, reflecting the recovery of corporate earnings.
 - However, given that stock prices are buoyed by the rise of expectations toward the development of Covid-19 vaccines, it is necessary to keep a close eye upon the risk of market adjustment in the event of delays in the development and spread of vaccines.

Overseas investor trading



Note: Futures are "Nikkei 225 Futures + TOPIX Futures"
Source: Made by MHRI based upon Refinitiv and Japan Exchange Group

TOPIX forward EPS/Revision Index



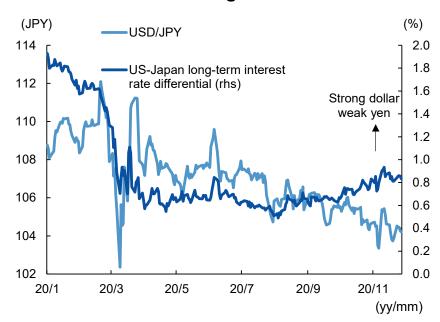
Note: Forward EPS is based on 12-month forecasts Source: Made by MHRI based upon Refinitiv



6. Forex market: the USD/JPY currency pair moved in a narrow range between JPY103 to JPY106 amid a global risk-on market

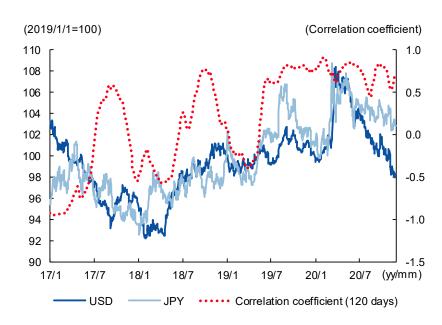
- The depreciation of the dollar surpassed the depreciation of the yen, amid a risk-on market due to the ebb of uncertainties regarding the US presidential election. The USD/JPY currency pair fell to the JPY103 range.
 - Even though the USD/JPY currency pair temporarily reversed course, moving to the mid-JPY105 range, reflecting the sharp rise of US interest rates due to expectations toward the progress of vaccine development, it faced heavy resistance and fell back to the initial range.
- Japan's long-term interest rates are expected to remain stagnant in contrast to upward pressures upon US long-term rates.
 - The US-Japan interest rate differential will continue to expand at a moderate pace, leading to an environment sending upward pressures on the dollar and downward pressures on the yen.
 - However, a movement in a unilateral direction is unlikely given an ongoing high correlation between the dollar and the yen. The USD/JPY currency pair is expected to fluctuate in a range between JPY103 to JPY106.

US-Japan long-term interest rate differential and the USD/JPY exchange rate



Note: Long-term interest rate is for 10-yr government bond yield Source: Made by MHRI based upon Bloomberg

Correlation coefficient of the nominal effective exchange rate of the USD and JPY



Note: Nominal effective exchange rate is based on the BIS Broad.

Source: Made by MHRI based upon Bloomberg



7. Crude oil market: crude oil price surges due to expectations toward Covid-19 vaccines

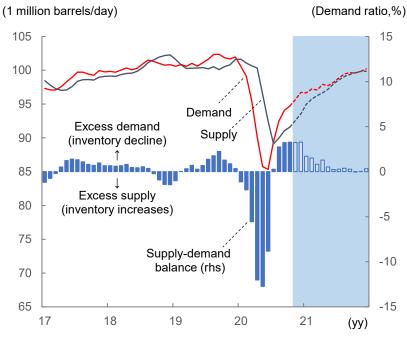
- Crude oil prices are rising along with the stock market. In the background are expectations toward the resolution of the Covid-19 pandemic.
 - Even though market sentiment was pessimistic due to French and German behavior restrictions, sentiment has improved along with the daily media coverage on vaccine development.
- Speculation on the extension of production cuts by OPEC Plus is also serving to pushing up crude oil prices.
 - OPEC Plus is continuing to take a cautious stance and the odds are high that they will continue to keep a tight control of supply and demand in 2021.
- However, since it appears that it will take time to run down the crude oil inventory overhang, crude oil prices (WTI) are expected to move around the USD40 level from the end of the year through the first half of 2021.

Crude oil prices and the stock market

(USD/barrel) Down Jones Average aligned 48 at the starting point with crude oil prices US stocks 29,910 (Nov. 27) 46 44 Crude oil 45.5 (Nov. 27) 42 38 36 20/7 20/8 20/9 20/10 20/11 (yy/mm)

Source: Made by MHRI based upon Refinitiv

Crude oil supply-demand balance



Note: The broken line represents forecasts by the EIA

Source: Made by MHRI based upon EIA



8. Outlook on the financial markets

		∘Main Scenario				∘Sub-scenario 1				○Sub-scenario 2				
		2020/ Jul-Sep	Oct-Dec	2021/ Jan-Mar	Apr-Jun	Jul-Sep	2020/ Oct-Dec	2021/ Jan-Mar	Apr-Jun	Jul-Sep	2020/ Oct-Dec	2021/ Jan-Mar	Apr-Jun	Jul-Sep
	Federal funds rate (End-of-quarter, %)	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
SU	10-yr UST bond yield (%)	0.63	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95	0.75	0.45	0.65	0.70
	Dow-Jones Average (USD)	27,314	28,800	29,000	29,200	29,600	29,000	30,800	31,400	31,400	28,800	20,700	21,300	22,000
	Euroyen TIBOR (3-mo., %)	-0.06	-0.06	-0.07	-0.07	-0.07	-0.06	-0.05	-0.05	-0.05	-0.07	-0.07	-0.07	-0.07
Japan	10-yr JGB yield (%)	0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.00	-0.10	-0.05	-0.05
	Nikkei Stock Average (JPY)	22,913	24,600	25,000	25,000	25,300	25,100	26,500	26,800	26,800	24,600	16,500	17,200	18,100
Europe	ECB deposit facility rate (End-of-quarter, %)	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
ope	10-yr government bond yield (German government bonds, %)	-0.49	-0.55	-0.50	-0.50	-0.45	-0.50	-0.40	-0.35	-0.30	-0.60	-0.70	-0.60	-0.50
Forex	USD/JPY rate (USD/JPY)	106	105	106	107	108	106	108	108	109	105	102	104	106
ex	EUR/USD rate (EUR/USD)	1.17	1.17	1.16	1.15	1.14	1.16	1.15	1.14	1.14	1.17	1.10	1.10	1.11

- Sub-scenario 1 (upside scenario)
 - Early containment of the Covid-19 pandemic. The absence of a resurgence of infections leads to an upturn of the global economy. Long-term interest rates and stock prices rise. The dollar strengthens and the yen weakens.
- Sub-scenario 2 (downside scenario)
 - Despite a temporary global economic recovery due to the reopening of economic activities around the world, a second wave of Covid-19 infections arises in the Jan-Mar quarter of 2021. Measures to prevent the spread of Covid-19 infections lead to a global economic slowdown. Both long-term interest rates and stock prices fall. The dollar weakens and the yen strengthens.



Mizuho Research Institute Ltd.

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