FY2021 - FY2022 Economic Outlook

Despite the recovery of the global economy, it will be necessary to keep a close eye upon Covid-19, the Chinese economy, and inflation risks

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Mizuho Research & Technologies, Ltd.



Key points of our outlook

- We expect that the growth rate of the global economy will continue to follow a recovery track, growing +4.1% y-o-y in 2022 amid the easing of restrictions on economic activities. However, it will be necessary to keep a close eye upon risks of a greater-than-expected resurgence of Covid-19 infections, Chinese economic slowdown, or US inflation.
- Regarding the impact of Covid-19, although service consumption will be suppressed temporarily with the resurgence
 of infections, the global economy should continue to recover due to the progress of vaccine rollouts. As existing
 vaccines are considered to be effective in preventing severe cases of the Omicron variant, we expect that major
 mobility restrictions by governments will be avoided. However, as there is still a high degree of uncertainty regarding
 vaccine effectiveness and the infectivity of the variant, it will be necessary to keep a close eye upon future trends.
- As for the Chinese economy, the sporadic resurgence of Covid-19 infections and localized lockdowns (zero-tolerance policies) are expected to restrain personal consumption. Real estate investment is not expected to bottom out until mid-2022 or later, although there are signs of improvement in the trend of slowdown due to a clarification of financing restrictions. Although manufacturing investment and infrastructure investment expect a robust trend, they will not be strong enough to drive the Chinese economy. GDP growth is forecast to register +5.2% y-o-y in 2022.
- In the US, inflationary pressures are already spreading to a wide range of items. Indicators suggest that inflation is strong and persistent, such as the easing of future uncertainties judging from the decline in the personal savings rate, prolonged labor supply constraints, and rising expectations for wage increases. We expect that the Fed will start raising interest rates in March after the end of tapering, amid prospects of prolonged inflationary pressures. The US dollar is expected to strengthen over the first half of 2022 along with the hike of US long-term interest rates.
- The Japanese economy is expected to keep recovering, recording growth of +2.7% y-o-y in FY2022. We forecast that Covid-19 infections will spread again in the summer and that measures similar to the declaration of a state of emergency will be implemented. However, the target group will be limited to the unvaccinated, and the decline in consumption will be smaller than those in previous declarations, suggesting that the recovery trend will continue, on average.



1. Overview



The global economy should continue to recover in 2022, amid an easing of restrictions on economic activities

• Despite downward pressures on the economy such as supply constraints in the US and interest rate hikes in Latin America, the global economy should continue to recover in 2022 due to vaccine rollouts and the easing of restrictions on economic activities.

Outlook for the global economy (revised in December)

(Y-o-y % change) (Y-o-y % change) (%pt)	
2019 2020 2021 2022 2021 2022 2021 2022	
CY (Outlook) (Forecast as of October) (Comparison with previous forecast) With value of the comparison with previous forecast)	vaccine rollouts, the global
	my is expected to recover
Japan, US, Europe 1.7 −5.0 5.0 4.1 5.0 4.2 - −0.1	ously as mobility restrictions are eased.
US 2.3 -3.4 5.6 4.1 5.8 4.4 -0.2 -0.3	
Eurozone 1.6 -6.4 5.0 4.3 4.8 4.5 0.2 -0.2 In the US	JS, supply constraints such
UK 1.7 −9.7 6.7 4.4 6.7 4.4 as labo	or shortages and logistics
	otions are expected to put tive pressures on growth.
Asia 5.1 -1.0 7.0 5.4 7.1 5.3 -0.1 0.1	are presented on grewan.
China 6.0 2.3 7.9 5.2 7.9 5.2	
NIEs 1.9 -0.9 5.0 3.2 4.9 3.0 0.1 0.2	
	tin America, higher-than- cted interest rate hikes in
India 4.8 -7.0 8.5 7.1 9.0 6.3 -0.5 0.8 respo	onse to rising prices are
AUSUAUA 19 = 7:1 41 50 41 51 = = 701/ 1 1	ed to have negative impact on domestic demand.
Brazil 1.2 -3.9 4.6 1.1 4.8 1.6 -0.2 -0.5	on domestic demand.
Mexico -0.2 -8.2 5.4 2.4 5.8 2.6 -0.4 -0.2	
Russia 2.0 -3.0 4.0 2.4 4.0 2.60.2	
Japan (FY) -0.7 -4.5 3.0 2.7 3.0 2.6 - 0.1	

Note: The total for forecasted regions is calculated based on GDP share (PPP) by the IMF. Source: Made by MHRT based upon releases by the IMF and the statistics of relevant countries and regions



Perspective on the three risks that require the most attention (Covid-19 resurgence, the Chinese economy, and US inflation)

- In 2022, we need to keep a close eye on three major risk areas: Covid-19 resurgence, the Chinese economy, and US inflation.
 - Despite prospects that the global economy will continue to follow a recovery track, close attention should be paid to future developments, including the high uncertainty regarding the Omicron variant.

Assessment of the current situation of the three risks that require the most attention (Covid-19 resurgence, the Chinese economy, and US inflation) and their impact on the revision for our outlook

		Current assessment		Impact on revised outlook
(1) Covid-19 resurgence	A A A	The spread of infection in Europe is peaking out at the moment due to stronger infection control measures. In the US, the further spread of infection is a concern due to an increase in mobility for Christmas. Omicron variants were discovered in more than 80 countries/regions around the world. A British research institute reported that, although the current vaccines are much less effective for preventing infection with the Omicron variant, it is still effective in preventing hospitalization and serious cases.	A A	Although some European countries are imposing restrictions on social activities due to the resurgence of infections, the policy to avoid large-scale lockdown will remain unchanged. Although the Omicron variant is highly infectious, the burden upon the healthcare system is expected to be limited, given the effectiveness of vaccines and drugs for treatment.
(2) Chinese economy	A A	The sporadic resurgence of Covid-19 infections is controlled by localized lockdowns. However, it is serving as negative pressure on personal consumption. The stagnant real estate market will serve as a drag on economic recovery. Policymakers are increasingly involved for a soft landing. Power shortage issues are almost resolved.	> > >	Maintains the scenario that weak real estate investment will be offset by manufacturing and infrastructure investment and exports The minimum potential growth rate of 5% will be maintained. The target growth rate for 2022 is likely to be adjusted at around 5–5.5%.
(3) US inflation	A	Inflation is higher than expected due to strong demand for goods. While companies are eager to hire people, the labor supply is constrained due to concerns regarding infection, etc. The unemployment rate has fallen to the level of full employment in the labor market. Tight labor supply & demand is serving as upward pressure on wages.	A	Amid strong demand, the risk of labor shortages leading to higher wages and prices should be watched closely. The Fed will accelerate tapering due to inflation concerns and will start interest rate hikes in March. Amid prolonged inflationary pressures, three rate hikes are expected in 2022.

Source: Made by MHRT



(1) Covid-19 resurgence: a resurgence of infections due to an increase in mobility will temporarily curb consumption

• Although there will be a time lag, a resurgence of infections will temporarily curb recovery in consumption, while large-scale restrictions on social activities are expected to be avoided (no change from the October outlook).

Current state of infections and estimates on future infections by country/region

	Current state of infections	Estimate on future infections	Impact on economy (factored into the December outlook)
Japan	Although the number of new infections are <u>stable at low levels nationwide</u> , infection clusters occurred in some prefectures.	 Infections will spread again, especially in urban areas, due to increase in mobility over the end of 2021. The 6th wave of infections will come at a full scale by mid-2022. The hospital bed occupancy rate for serious cases is likely to exceed 50%, which is expected to trigger "strict measures" similar to the declaration of a state of emergency. The vaccination/testing packages will continue. 	 With the resurgence of infections, restrictions on social activities of people with higher infection risk (those who are not vaccinated) will be restrained. Even among vaccinated persons, some elderly households and households with children are becoming more cautious about their activities. Although not as sharp as that we experienced when a state of emergency was declared previously, consumption of services toward individuals will temporarily decline in mid-2022.
us	Infections resurged since late November.	Infections will further spread from the end of 2021 to 2022 due to increased demand for travel during Thanksgiving and Christmas vacations.	Although the resurgence of infections is expected to temporarily reduce the consumption of services toward individuals, there will be no change in the status of business operation restrictions, and the recovery trend will be maintained.
Europe	Infections are resurging across a wide area of Europe. Some countries are under partial lockdown.	Infections will gradually peak out in countries with stricter infection control measures.	Consumption will decline slightly at the beginning of 2022 due to the implementation of stricter measures against infections and worsening consumer confidence due to the resurgence of infections.
China	Sporadic resurgence of Covid-19 infections are observed in Shanghai and Guangdong, causing the government to implement localized lockdowns.	Sporadic resurgence of infections will continue in 2022, triggered by the events involving mobility of people (such as the Beijing Winter Olympics and Chinese New Year), leading to localized lockdowns.	 Zero-tolerance policies, which contain infections through compulsory mobility control, will continue whenever a new infection case is confirmed. This will serve as a drag on the economy. A resurgence of infections in the areas where production and export is based is a concern.
Asia	A resurgence of infections has been confirmed in South Korea, Vietnam, etc. Restrictions have been eased in Thailand and Malaysia, where manufacturing operations at plants were restricted due to the resurgence of infections.	A resurgence of infections is likely to occur as the mobility of people increases mainly in countries where vaccine rollout is slow.	 Singapore and Malaysia are promoting a "co-existing with Covid-19" policies and are expected to avoid much tighter restrictions even as infections resurge, keeping the economy on track for recovery. On the other hand, in some parts of Southeast Asia, mobility recovery may be delayed due to the resurgence of infections, putting negative pressure on consumption.
Other	Infections peaked out in Russia, in part due to a nationwide shutdown in the first half of November.	The number of infections in Russia is expected to keep declining for the time being.	There will be a gradual recovery in mobility as infection declines. The negative impact of economic downturn will be temporary.

Source: Made by MHRT



Vaccines are effective in preventing severe cases also for the Omicron variant

- Omicron cases were confirmed in 89 countries and territories worldwide (as of December 16), rapidly replacing the Delta variant in the UK and Denmark.
- A report by a British research institute indicates that, although the current vaccines are much less effective for preventing infection with Omicron, they are still effective in reducing hospitalizations and serious cases.
 - According to the early studies, the effectiveness of infection prevention is lowered to 35% compared to previous variants, while the Omicron variant is approximately three times more infectious than the Delta variant. On the other hand, the vaccines are still effective in preventing hospitalization and serious cases, and booster shots are expected to increase the infection prevention rate to 71%.
 - The effectiveness of neutralizing antibodies and oral therapeutic medicines will be maintained with some exceptions. The possibility of a significant change in the scenario is expected to be small.

Cumulative number of Omicron variant cases by country (total as of Dec. 16)

Country	Cumulative number of cases	Increase from the previous day	Omicron variant suspected
UK	10,017	+4,671	-
Denmark	6,047	+1,512	-
Norway	1,498	+322	-
South Africa	914	+14	77,844
US	319	+84	985
Canada	276	+59	-
France	240	+70	-
Australia	149	+12	-
South Korea	148	+20	-
Netherlands	123	-	-
Belgium	121	+35	-
Germany	102	-	-
Israel	90	+1	150

Note: Total as of December 16, 2021

Source: Made by MHRT based upon BNO News and Newsnodes.com

Impact of Omicron variant on vaccines and therapeutic medicines

Prod	uct/company	Effect	Media releases/company announcement
		Anti- infection ✓	Existing vaccines will be less effective (no statement on preventing infection or serious cases (CEO of Moderna, Dec. 5).
	Vaccine	Prevention of serious cases	 Existing vaccines are likely to prevent serious cases (WHO, Dec. 7). Less effective for anti-infection with two doses of vaccination; but effectiveness rises to the same level as that for conventional variants with booster vaccination (Pfizer, Dec. 8).
Neutralizing antibodies	Ronapreve Regeneron, Roche, Chugai	√	Might be less effective for the Omicron variant (Regeneron CEO, Nov. 30)
Neur	Xevudy GSK	√ √	Experimental data shows that the vaccines are also effective for the Omicron variant (GSK, Dec. 2).
al seutic cine	Molnupiravir Merck	√ √	• Likely to be effective against any Covid-19 variants (Merck, Nov. 30)
Oral therapeutic medicine	Paxlovid Pfizer	√ √	Confident about effectiveness against all existing variants, including Omicron (Pfizer CEO, Nov. 29)

Source: Made by MHRT based upon media reports



The medical treatment burden will be within our initial expectations

- According to our analysis of the impact of the Omicron variant by level of severity of the variant, the assumption (2) "Limited impact on outlook" is currently highly probable.
 - Although the hospital bed occupancy rate is expected to increase due to a resurgence of infections, it is assumed that the collapse of the healthcare system will be avoided. In Japan, the declaration of a state of emergency will be issued again, making consumption temporarily cautious.
 - Overseas, ordinary economic activities are expected to be maintained mainly in the US. Attention should be paid to China, where there may be an impact of the closure of output and logistics bases due to the zero-tolerance policies.

Scenarios of impacts on the global economy according to the severity assumption of the Omicron variant

Severity of Omicron variant			Impact scenarios		
	Infection/healthcare systems	Japanese economy	US economy	Other economies	Financial markets
Less severe	Covid-19 becomes closer to "ordinary flu." The weakening of the virus reduces the	The economic recovery under "coexisting with Covid-19" becomes even clearer as pent-up demand expands. Even with a resurgence of infections, the medical treatment burden does not increase, and "strict measures" similar to the declaration of a state of emergency are avoided.	 Consumer confidence is maintained, and demand, for goods in particular, remains strong. Still, labor supply constraints persist, and inflationary pressures will be higher than in the main scenario. 	Asia: The economic recovery continues under the "coexisting with Covid- 19" policy. The alleviation of the medical treatment burden accelerates the recovery of mobility in comparison to the main scenario. China: The localized lockdown measures are continued. Europe: With the easing of restrictions on social activities, consumption behavior becomes less cautious. Service consumption increases.	US long-term interest rates rise Stock markets in major countries are robust, especially for economy-sensitive stocks. However, there will ta slight adjustment of high-tech stock JPY weakens against USD.
Highly probable	(2) Limited impact on the author	Although conomic recovery proceeds	The recurrence of infections		LIC long torm interest rates vise
Effectiveness of vaccines and therapeutic medicine in preventing serious cases to be maintained	(2) Limited impact on the outlook If vaccines and therapeutic medicine continue to be effective in preventing serious cases, the hospital bed occupancy rate peaks at a manageable level and the collapse of the healthcare system is avoided. No significant change in the medical treatment burden from our current outlook	 Although economic recovery proceeds under the "co-existing with Covid-19" conditions, "strict measures" similar to the declaration of a state of emergency are implemented due to a resurgence of infections. Vaccine and testing packages and the "GoTo" campaign will continue. Consumption becomes a little more cautious, and the emergence of pentup demand is limited. 	The resurgence of infections temporarily suppresses the consumption of services toward individuals, but there are no changes in the status of restrictions on business operations, and the economic recovery trend is maintained.	 Asia: Export industries continue to operate. Although delays in logistics and shutdowns of some plants will serve as a drag on the supply of raw materials, serious impact on overseas markets is avoided. China: The frequency and locations of the sporadic resurgence of infections increase. The impact of stopping outputs and the closure of distribution sites spreads to the rest of the world. Eurozone: Localized lockdowns 	 US long-term interest rates rise gradually. Stock markets in major countries will remain robust supported by growth in corporate earnings, despite a temporary market adjustment during infection resurgence. Market adjustment avoided in high-tech stock As for the USD/JPY exchange rate, th gradual depreciation of JPY (appreciation of USD) continues.
Severer or vaccines and therapeutic medicine less effective in preventing serious cases	(3) Pessimistic scenario Higher medical treatment burden compared to the main scenario, leading to a state of healthcare collapse Economic recovery is delayed until vaccines and therapeutic medicine for the Omicron variant become widely available. It could take six months to a year to develop, manufacture, and roll out a new vaccine.	The whole country, including Tokyo, falls into a state of healthcare collapse. A state of emergency is declared, the vaccine and testing packages are suspended, and "GoTo" campaign is suspended. A significant decline in personal consumption, mainly for services toward individuals, coupled with voluntary mobility restraints.	Inflation subsides as the economy worsens, especially in commodity prices and durable goods (mainly luxury items). Prices of some items, such as sanitary products, rise again.	Asia and China: Lockdowns in each country (extensive lockdowns in China) stop plant operations and disrupt logistics, including those of export industries. Raw materials supply constraints serve as strong negative pressures on manufacturing industries in Japan, the US, etc. Eurozone: A soft lockdown occurs across the region similar to spring 2021. Services consumption becomes stagnant.	US long-term interest rates drop sharply. Investor sentiment significantly diminishes. Major stock markets fall sharply. USD weakens sharply against JPY.

Note: As for assumptions of severity, comparisons are made based on the Delta variant (currently mainstream).

Source: Made by MHRT



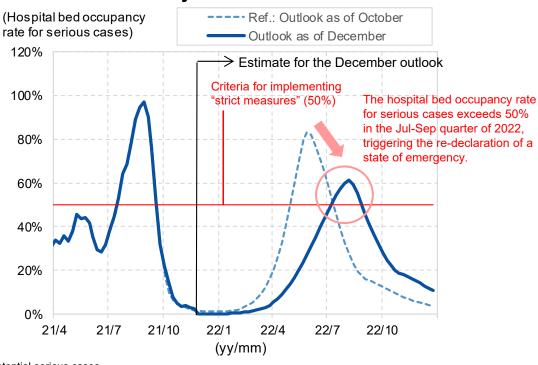
In Japan, the 6th wave of infections is expected to occur over the summer in 2022

- The 6th wave of infection is expected to occur also in Japan over the summer of 2022 due to the upcoming increase in mobility.
- The peak of the 6th wave in Tokyo is expected to be less severe and will come later than the October outlook, due to the prolonged low level of the number of new infections.
 - If mobility increases in the future, infections are expected to spread in the spring of 2022 and thereafter, increasing the hospital bed occupancy rate for serious cases. In the Jul-Sep quarter, the occupancy rate is expected to exceed 50%, which is the criteria for "strict measures." In response to this, measures similar to the declaration of a state of emergency will be implemented (and the vaccine and testing packages will continue).
 - This simulation is based on the Delta variant. If the <u>Omicron</u>, which is considered to be more infectious than the Delta, <u>replaces the Delta variant</u>, the resurgence of infections will be moved up to <u>February or March 2022</u>.

Simulation of the number of new infections per week in Tokyo

(No. of new infections per week, ---- Ref.: Outlook as of October thousands, people) Outlook as of December 80 → Estimate for the December outlook In the December 70 outlook, we shifted the peak period of 60 the 6th wave to the Jul-Sep guarter of 2022. 50 40 30 20 10 21/7 21/10 22/1 22/4 22/7 22/10 21/4 (yy/mm)

Simulation of the hospital bed occupancy rate for serious cases in Tokyo



Note: The actual records for the hospital bed occupancy rate do not include the number of potential serious cases.

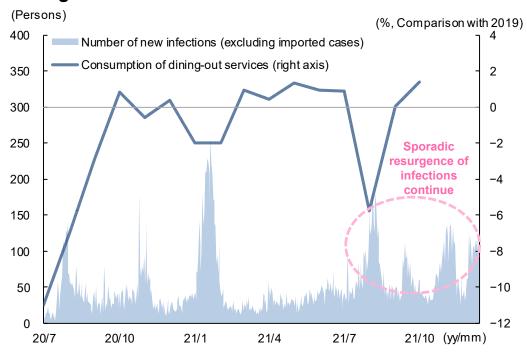
Source: Made by MHRT based upon the COVID-19 BULLETIN BOARD and releases by Japan's Ministry of Health, Labour and Welfare and by Google LLC



(2) Chinese economy: the side effects of zero-tolerance policies are expected to curb consumption recovery

- The sporadic resurgence of Covid-19 infections is expected to continue. Zero-tolerance policies will serve as a drag on personal consumption.
 - Rollout to the public of mRNA vaccines and therapeutic medicines, which are both said to be highly effective against Covid-19 variants, is expected to take time. Zero-tolerance policies are likely to continue at least until the National Congress of the Chinese Communist Party, next autumn.
 - The risk of the nationwide spread of infections continues to remain, due to the emergence of highly infectious variants. In addition to impact on consumption, there are concerns regarding impact on the supply side, including output activities and logistics.

Number of new infections and the consumption of dining-out services



Note: New infections are for mainland China only. For dining-out services, growth vs. 2019 (annualized) is indicated.

Source: Made by MHRT based upon releases by the National Bureau of Statistics of China and the National Health Commission of the People's Republic of China

Trend concerning vaccines and therapeutic medicines

Measure/effect achievement period	2021 4Q	2022 1Q	2Q	3Q	4Q
Zero-tolerance policy					
mRNA vaccines					
Therapeutic medicines					

Measure	Recent trend
Zero-tolerance policy	 No change in government policies even after the Omicron variant was confirmed outside the country (zero-tolerance policies likely to continue at least until the National Congress of the Chinese Communist Party, next autumn)
mRNA vaccines	 Several vaccines already in the final stages of development (in the clinical trials) Some vaccines undergoing capital investment in preparation for mass production
Therapeutic medicines	 Two types of therapeutic medicines urgently approved (Dec. 8) Some neutralizing antibodies started to be used as emergency measures before approval

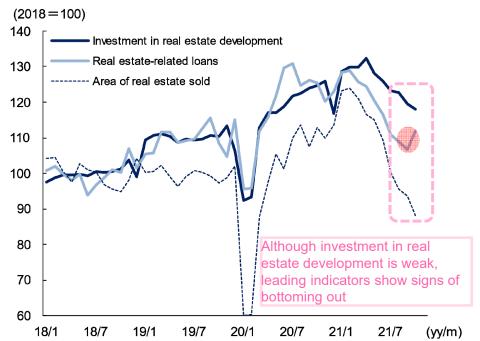
Source: Made by MHRT based upon media reports



Although real estate investment remains sluggish, it is supported by investment in the manufacturing sector, especially in high-tech sectors

- <u>Investment in real estate development will continue to decline over the first half of 2022</u>, as restrictions on loans to real estate developers continue.
 - Although real estate sold in terms of area continue to fall, related loans are showing signs of improvement. Investment is expected to bottom out in mid-2022.
 - No change in the stance on real estate investment (promoting real demand appropriately while restraining speculation) at the Central Economic Work Conference (mentioned below)
- <u>Stable investment is expected to continue in the manufacturing industry</u>, driven by the high-tech sector, <u>supported by strong corporate earnings</u>.
 - The capacity utilization rates are above the pre-pandemic average even with the current electric power constraints, suggesting robust and stable capital investment.

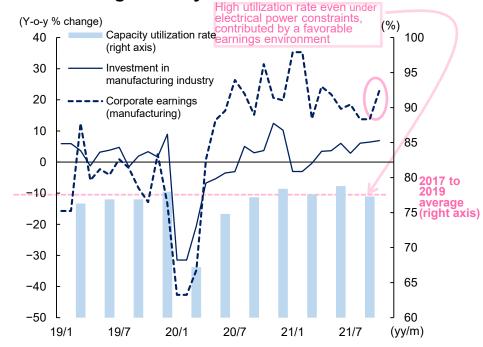
Real estate investment-related indicators



Note: Seasonally adjusted by MHRT; "Real estate-related loans" are the total of domestic loans for real estate developers and mortgage loans.

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

Manufacturing industry-related indicators



Note: The figures for 2021 are the growth rate compared with 2019 (annualized)
Source: Made by MHRT based upon releases by the National Bureau of Statistics of China, CEIC data, and wind



The first priority for economic administration in 2022 is to ensure stability; the growth rate target is expected to be slightly above 5%

- The Central Economic Work Conference was held to decide on economic administration policies for 2022 (on Dec. 8–10). No change is expected in the direction of the economic policies of the country.
 - <u>The government is advocating stability-oriented economic administration</u>, being aware of the slowdown in the economy and the upcoming National Congress of the Chinese Communist Party, scheduled for next autumn.
 - Government-affiliated think tanks suggest 5–5.5% for the growth rate target for 2022, and this will be announced at the National People's Congress next spring.

Key points and evaluation of the Central Economic Work Conference and its impact on outlook

Item	Description
Key points of the conference	 The first priority for economic administration in 2022 is to ensure stability, continuing aggressive fiscal policy and moderate monetary policy. Stimulate the vitality of market players by taking stricter measures to prohibit monopolies and prevent unfair competition, thereby ensuring fair competition. Promote a virtuous circle and the healthy growth of the real estate industry by satisfying the reasonable needs of homebuyers. In order to achieve "Common Prosperity," increase the size of the "pie" first and then distribute it based on rational design of the policy system.
Interpretation and evaluation	 Make efforts to stabilize food prices and supplies by maintaining infection containment and ensuring supplies of electricity/energy. With the Beijing Winter Olympics and Paralympics and the upcoming National Congress of the Chinese Communist Party, scheduled for next autumn 2022, the government is poised to promote economic administration with greater emphasis on stability than in previous years. As for the real estate market, the government intends to avoid unnecessary restraints (while confirming its existing position that "(housing) is not for speculation," the government also clarified that it will "promote a virtuous cycle and sound development"). The government has expressed a certain level of consideration about the market's concerns regarding tightening restrictions and "common prosperity" (by clarifying that while "effective supervision and control of capital and prevention of reckless growth of capital" is implemented, efforts will be made to "promote normative and sound development of capital").
Impact on outlook	 Regarding the growth target, the Chinese Academy of Social Sciences and the Development Research Center of the State Council (DRC) seems to have proposed "5% or more" and "around 5.5%," respectively. The policy of "putting stability first" has also been promoted, and the perspective that the pace of growth will be slightly below the mid-5% level (considered to be the "cruising pace") remains unchanged. Zero-tolerance policies will be continued. In 2022, the sporadic resurgence of infections and localized lockdowns are expected to continue. Compulsory quarantine measures at entry into the country will also be maintained. No major change is expected in the stance on real estate investment. Speculative investment will be regulated, and appropriate support will be given for real demand. An "aggressive" fiscal policy was mentioned in the 2021 National People's Congress. We expect the size of the budget deficit to be at a level similar to 2021, as the government is conscious of deleveraging.

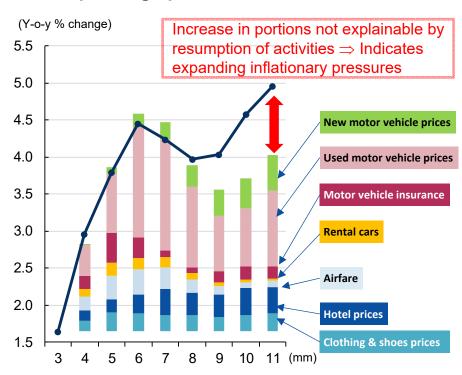
Source: Made by MHRT based upon releases by the News of the Communist Party of China and media reports



(3) US inflation: inflationary pressures are spreading to a wide range of products

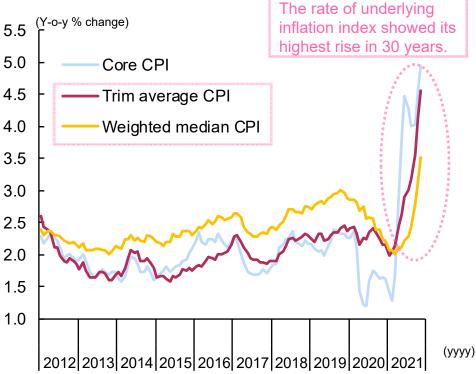
- The November CPI was +6.8% y-o-y, the <u>highest since June 1982</u> (the core CPI was +4.9% y-o-y, the highest since June 1991).
 - Food was up 6.1% y-o-y, while energy showed significant increase by 33.3% y-o-y.
- The acceleration of underlying inflation indicators in terms of trim average and weighted medians has not stopped. There is serious concern regarding the spread of inflation.
 - Between April and August, prices of a limited number of selected items (new and used motor vehicles, motor vehicle insurance, rental cars, airfare, hotel prices, and clothing/shoes) rose in response to the resumption of economic activities, mostly explaining the acceleration in core inflation.
 - However, the "residual gap" has widened significantly since September, suggesting the spread of inflationary pressures.

Factors pushing up the core CPI increase rate



Source: Made by MHRT based upon releases by the US Department of Labor

Rate of underlying inflation



Source: Made by MHRT based upon releases by the US Department of Labor and Federal Reserve Bank of Cleveland



Monitoring indicators suggest persisting inflationary pressures

- Indicators and information released since the October outlook suggest that the <u>strength</u>, <u>extent</u>, <u>and persistency of inflationary pressures</u> in the US are to exceed the forecast.
 - On the demand side, we confirmed the strength of personal consumption, decline in the personal savings rate, stronger labor demand, and growing consumer optimism, etc.
 - On the supply side, although the congestion at container terminals on the West Coast is easing, there is no improvement in labor supply constraints.
 - On the expectations side, actual and expected inflation have deteriorated further, and wage growth has accelerated sharply. Wage expectations have entered the alert zone.
- The Omicron variant needs to be viewed as an <u>inflation risk factor through labor supply constraints rather than an economic slowdown risk</u>.

Monitoring of US inflationary pressures

	Key item	Current-status evaluation	Implication for the inflation outlook
	Personal consumption (current)	Higher than the previous outlook since summer	1
	Excess savings	Personal savings rate falling to below the February 2020 level	1
Demand (p. 14)	Demand for labor	Employment rate going up at a higher pace, NFP steady	1
	Consumer sentiment regarding the employment situation	More optimistic	1
	Consumer expectations of future wages	Optimistic	1
	Consumer consumption plans	Suggests a decline in reaction to the year-end shopping season	\downarrow
	Port congestion	Container ship backlog peaking out	\downarrow
Supply (p. 15)	Output lead time	Prolonged	1
(ρ. 10)	Labor supply	Labor participant rate staying flat	1
	Price situation	Higher than expected, inflationary pressure spreading	1
Expectations	Inflation expectations	Increasing	1
(p. 16)	Wage situation	Higher than expected	1
	Wage expectations	Exceeding the pre-pandemic ceiling (thresholds)	1

Source: Made by MHRT based upon media reports



Demand: the personal savings rate dropped sharply, with risks of withdrawing excess savings increasing due to easing uncertainty

- The October personal savings rate fell to 7.3%, below the pre-pandemic (February 2020) result of 8.3%.
 - The "normalization" of the personal savings rate suggests the easing of US consumers' uncertainty about the future (i.e., a strong motivation for precautionary saving).
- Amid prospects that the employment situation and income environment will continue to improve, there is a greater possibility that consumers will be running down their excess savings (leading to a further decline in the personal savings rate).
 - According to the Conference Board, consumer confidence in the US employment situation has become more optimistic.

Personal savings rate

(Percentage of disposable income)

The rapid increase in the personal savings rate was considered to be partly due to growing anxiety about the future amid the pandemic (precautionary saving motive). 20.0 15.0 10.0 Below the pre-pandemic level

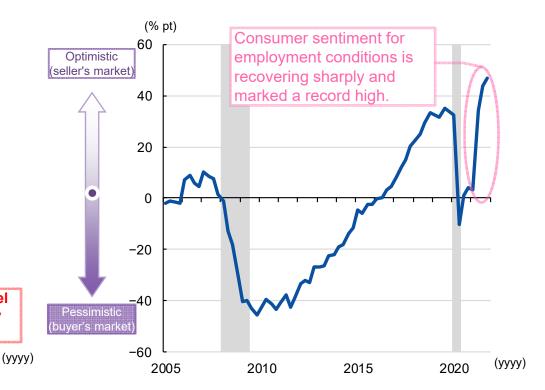
⇒ Future uncertainty rapidly

20

disappearing

15

DI for US consumers' sentiment on employment situation



Note: Quarterly average: October results are used for the Oct-Dec guarter of 2021. Source: Made by MHRT based upon releases by the US Department of Commerce

10

05

Note: Quarterly average: October results are used for the Oct-Dec guarter of 2021. Source: Made by MHRT based upon releases by the Conference Board



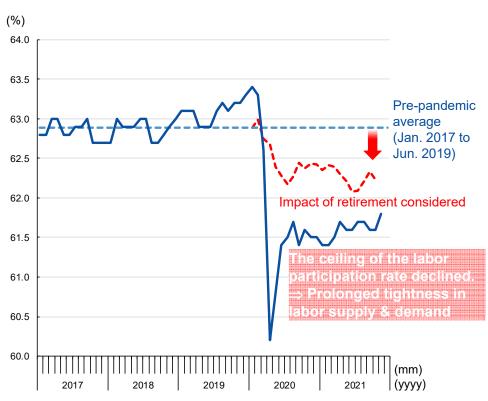
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2000

Supply: labor supply constraints are expected to continue, with slow recovery predicted due to an increase in retirement

- The labor participation rate has hardly recovered, even with the reopening of schools and the expiration of some unemployment benefits, etc. Retirements are also lowering the ceiling of the labor participation rate.
 - Due to worker retirement, the labor participation rate has structurally declined by about 1% pt. As the number of workers that are out of the labor force due to Covid-19 remain at only less than 0.5% pt, tight labor supply & demand can easily occur.
 - Growing fears of infection due to the spread of the Omicron variant could further delay the recovery of labor supplies.

Labor participation rate



Note: The impact of retirement is calculated based on the deviation between the trend and actual retirement rates of 2017–2019.

Source: Made by MHRT based upon releases by the US Department of Labor

Non-labor participation rate (by reason)



Note: Non-labor participation rate = 100 – Labor participation rate. The trend is for the period of 2017–2019. "Other" in the non-labor participation rate refers to the non-labor force other than that due to "retirement" and "disability."

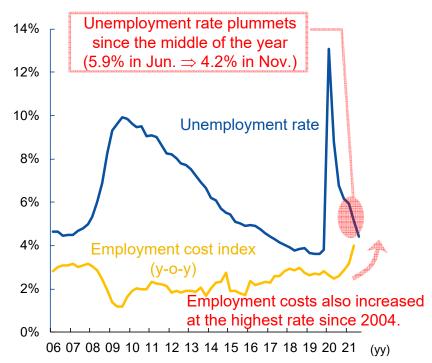
Source: Made by MHRT based upon releases by the US Department of Labor and US Bureau of the Census



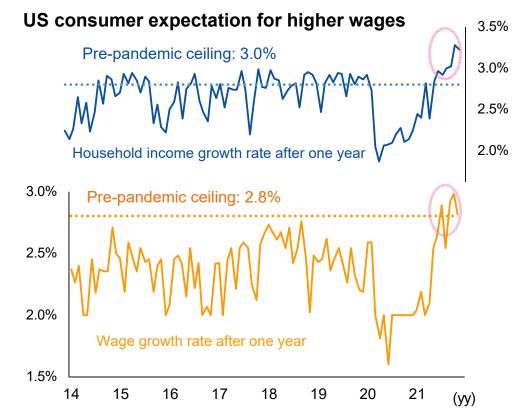
Expectations: wages rising sharply under a labor shortage, expectations of higher wages reaching an alert level

- As labor supply & demand tightens and the labor shortage worsens, employers are raising wages and expanding benefits to secure human resources.
 - The employment cost index (Jul-Sep quarter) soared to +4.0% y-o-y. In addition to the rapid increase in wages and salaries, fringe benefits are also gradually increasing.
 - Wage increases for job changers are accelerating, and companies are under pressure to offer better treatment to existing employees such as by providing bonuses to retain them and by raising wages.
- In addition to a sharp rise in wages at the moment, <u>US consumer expectations for higher wages have entered an alert zone, which did not exist in the pre-pandemic period.</u>
 - According to a corporate survey, wage costs in 2022 are expected to mark +3.9% y-o-y, the highest increase since 2008.

Unemployment rate and employment cost index



Note: Indices show the cost of employment, including the costs of benefits for employees. The most-recent unemployment rate is the Oct-Nov average. Source: Made by MHRT based upon releases by the US Department of Labor



Source: Made by MHRT based upon releases by the US Department of Labor



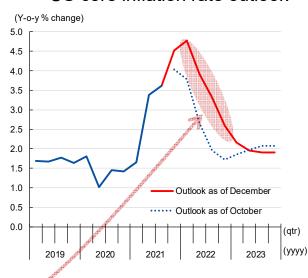
An interest rate hike is expected to start when tapering ends in March 2022

- The Federal Reserve Board (FRB) is shifting toward alert mode.
 - In December 2021, the Federal Open Market Committee (FOMC) decided to accelerate tapering and <u>acknowledged in forward guidance that requirements for rate hikes are being satisfied.</u>
 - We expect that an interest rate hikes will start in March, after the end of tapering, due to concerns regarding current inflationary pressures.
 - We expect three rate hikes in 2022, given the prolonged inflationary pressure.

US price trends and implications for US monetary policy

Key point	Trend	Reason	Implications for US monetary policy
Logistics disruption	Improving	Significant improvement in port congestion rates Actions by the government and private sectors to address the issue	Although the trend is considered to be an inflation-suppressing factor, an optimistic view should not be allowed after the new year.
Demand structure with too much focus on goods	Prolonged	Employment situation being a super-seller's market Abundant liquidity of household budgets (excess savings)	Return to the pre-pandemic goods deflation trend to be delayed ⇒ Benefits from falling goods prices for curbing inflation unlikely
·	Prolonged	Refusal of working due to fears of infection, continued non-working of the parent generation due to school closures and children learning at home	employment
Labor shortage	Structural	Serious mismatching shown by the trend of unemployment and job openings Covid-19 fatigue and high stock prices leading to massive retirements	 ⇒ Acceleration of wage hikes + Prolonged high inflation + Higher inflation and expectations for wage hikes ⇒ Upward spiral risk in wages and prices

US core inflation rate outlook



Prolonged inflationary pressure, higher than 2.5% even at the end of 2022

Source: Made by MHRT

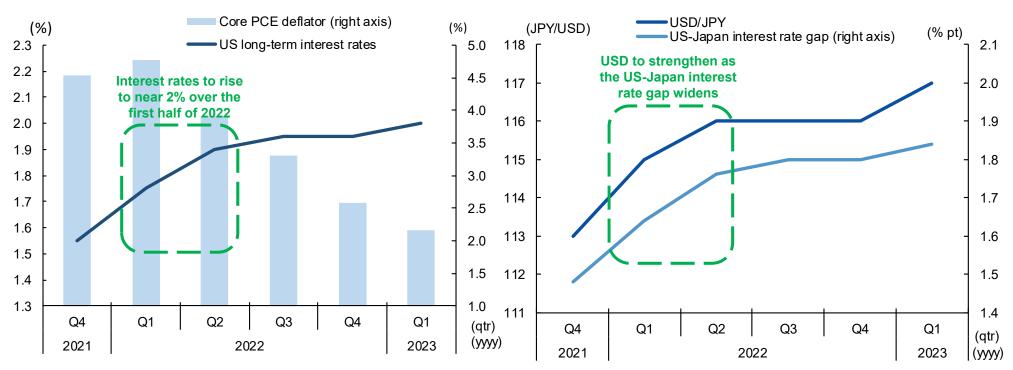


Financial markets: US long-term interest rates will rise to near 2% over the first half of 2022

- US long-term interest rates will rise to near 2% in the first half of 2022. The markets are forecast to reflect the expectations for future rate hikes due to inflation.
 - In the second half of 2022, the hike in long-term interest rates will slow down as alert mode eases with lower inflation.
- As for the USD/JPY exchange rate, the dollar will be stronger in the first half of 2022 due to the widening of the gap between US and Japan interest rates.

Forecast for US long-term interest rates

Forecast for the USD/JPY exchange rate



Note: The forecast value of the US long-term interest rate is the median of the range. Source: Made by MHRT

Note: The forecast value is the median of the range.

Gap between US and Japan interest rates = US 10-year treasury yield - Japanese 10-year

treasury yield. Source: Made by MHRT



2. Economic conditions of various countries/regions, financial markets



US: strong expansion continues, +5.6% y-o-y in 2021 and forecast to be +4.1% y-o-y in 2022

- In the Oct-Dec quarter of 2021, while goods consumption remained high, supply constraints due to reasons such as labor shortages and logistics disruptions negatively impacted growth.
- In 2022, although the real GDP growth rate will decline, the <u>downward pressure from supply constraints will ease and strong expansion is expected to continue mainly in personal consumption</u>.
 - We expect a gradual shift in demand from goods to services after early spring, when concerns regarding infections recede.
 - Supply constraints are expected to resolve gradually as the supply-demand balance of goods eases and as logistics functions normalize, leading to a recovery of inventory.
 - Given the tight supply & demand for goods and labor, we expect core inflation to remain high peaking at the +4% level after the turn of the year in 2022. From then onward, the rate of increase will slow down as supply constraints ease. The Omicron variant may become a risk factor for inflation by causing labor-supply constraints.

Outlook for the US economy

		2019	2020	2021	2022		20:	20		2021				2022			
		CY		(Outle	ook)	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real)	Q-o-q % ch. p.a.	2.3	-3.4	5.6	4.1	-5.1	-31.2	33.8	4.5	6.3	6.7	2.1	5.4	3.1	5.0	4.4	3.0
Personal consumption	Q-o-q % ch. p.a.	2.2	-3.8	8.0	3.2	-6.9	-33.4	41.4	3.4	11.4	12.0	1.7	4.8	0.8	3.2	2.9	2.7
Housing investment	Q-o-q % ch. p.a.	-0.9	6.8	9.1	1.9	20.4	-30.7	59.9	34.4	13.3	-11.7	-8.3	1.8	4.5	6.1	7.6	4.9
Capital investment	Q-o-q % ch. p.a.	4.3	-5.3	7.6	4.3	-8.1	-30	18.7	12.5	12.9	9.2	1.5	5.6	4.1	3.9	3.9	4.0
Inventory investment	Q-o-q contribution p.a. % pt	0.1	-0.5	0.0	1.3	-0.5	-4.0	6.8	1.1	-2.6	-1.3	2.1	1.3	1.5	1.9	1.3	0.2
Government consumption	Q-o-q % ch. p.a.	2.2	2.5	0.7	0.7	3.7	3.9	-2.1	-0.5	4.2	-2.0	0.9	1.4	0.2	0.4	1.5	2.0
Net exports	Q-o-q contribution p.a. % pt	-0.2	-0.3	-1.4	-0.1	-0.1	1.5	-3.3	-1.7	-1.6	-0.2	-1.2	-0.3	0.2	0.0	-0.0	-0.1
Exports	Q-o-q % ch. p.a.	-0.1	-14	4.0	7.2	-16.3	-60	54.5	22.5	-2.9	7.6	-3.0	8.0	9.0	9.3	9.3	8.4
Imports	Q-o-q % ch. p.a.	1.2	-8.9	13.5	6.4	-13	-53	89.2	31.3	9.3	7.1	5.8	7.9	4.8	6.6	6.9	7.1
Unemployment rate	%	3.7	8.1	5.4	3.7	3.8	13.1	8.8	6.8	6.2	5.9	5.1	4.3	4.0	3.8	3.6	3.5
PCE deflator	Y-o-y % ch.	1.5	1.2	3.8	3.3	1.7	0.6	1.2	1.2	1.8	3.9	4.3	5.4	5.1	3.9	3.0	2.3
Core excluding food and energy	Y-o-y % ch.	1.7	1.4	3.3	3.6	1.8	1.0	1.5	1.4	1.7	3.4	3.6	4.5	4.8	3.9	3.3	2.6

Note: The shaded areas are forecasts by MHRT.

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



US: the shift in demand from goods to services is slow; inventories will recover as supply constraints ease

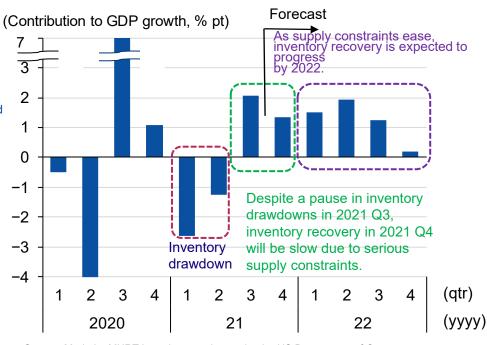
- Overall consumption is expected to remain strong, given favorable employment and income environments. Demand will gradually shift from goods to services as concerns regarding infection recede.
 - Year-end sales were strong in 2021; goods consumption maintained a high level, while services excluding accommodations and dining-out services are also recovering gradually.
 - Although the recovery of service consumption is expected to slow down temporarily at the beginning of 2022 due to a resurgence of infections, a gradual recovery will continue from early spring.
- Supply constraints are expected to ease gradually as demand shifts from goods to services and as logistics disruptions improve. The inventory recovery will progress after the turn of the year in 2022.
 - Although it will take time to resolve logistics network disruptions mainly in land transportation, the impact of port congestion has already peaked.
 - The impact of output cuts in motor vehicles is expected to fade due to easing of shortages in components such as semiconductors, and inventories are expected to increase as output recovers.

Real personal consumption expenditures

Consumption seems strong in the year-end sales (Oct. 2019 to Dec. 2019 = 100) season (starting in October), which is higher than our 120 outlook. The consumption of motor vehicles will bottom out due to the easing of the semiconductor shortage. Projected period 115 Real As with the recovery of Goods services, goods consumption is expected Overall consumption remains strong with a favorable 110 Services to decline gradually. employment and income environment. 105 100 95 Although service consumption will stagnate temporarily due to concerns regarding infection 90 resurgence, it is expected to recover gradually. 85 19/12 20/6 20/12 21/6 21/12 22/6 22/12 (yy/qtr)

Source: Made by MHRT based upon releases by the US Department of Commerce

Outlook for inventory investment



Source: Made by MHRT based upon releases by the US Department of Commerce



US: although the Biden Plan is expected to be scaled back significantly, the near-term impact on economic growth will be limited

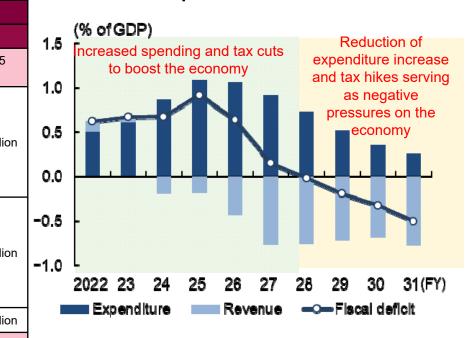
- The sizes of the Biden Plan's spending and tax cuts are expected to be significantly smaller than the original plan, due to opposition from moderate Democrats.
 - BBB (Build Back Better) is expected to be reduced from the original proposal of USD 3.5 trillion to about USD 2 trillion, especially for the support for households.
 - As for revenue sources, the planned hike of the corporate tax rate and the maximum individual income tax rate was shelved, and the scale of tax increases has been reduced.
 - Even though the scale of spending and tax cuts will be reduced, the near-term impact on growth is expected to be limited, as the scale of tax hikes will also be reduced and postponed to subsequent years (economic effect in 2022: about +0.3% pt of GDP).
 - The BIF (*Infrastructure Investment and Jobs Act*) has been enacted. The passage of the BBB might be delayed to 2022 due to difficult congressional deliberations.

Overview of the Biden Plan (next 10 years)

Investment (fiscal spo	_	Financial sourc	е		
reductio	n)	Item	Scale		
Item	Scale	BBB	USD 1.995		
BBB (climate change, childcare support)	USD 1.75 trillion	Corporate tax increase ✓ Taxation on large	trillion		
Climate change	USD 555 billion	corporations ✓ Taxation on multinational	USD 800 billion		
Early childhood education and childcare support	USD 400 billion	corporations ✓ Taxation on treasury stock buybacks			
Child Tax Credit and Earned Income Tax Credit	USD 200 billion Increase in taxes on the wealthy		USD 650 billion		
Home and community healthcare	USD 150 billion	wealthy ✓ Close tax loophole for wealthy			
Affordable housing	USD 150 billion	Stricter tax collection	USD 545 billion		
BIF (Infrastructure)	USD 550 billion	BIF (transfer of other fiscal spending, etc.)	USD 173 billion		

Note: BBB: Build Back Better (White House proposal); BIF: Bipartisan Infrastructure Framework Source: Made by MHRT based upon releases by the White House and media reports

Biden Plan's impact on fiscal administration



Note: Total of BBB and BIF. Positive revenue refers to lower taxes, and negative revenue refers to higher taxes.

Positive budget deficits refers to increase in deficits, and negative deficits refers to decline in deficits

Source: Made by MHRT based upon releases by the Congressional Budget Office (CBO)



Eurozone: 4%-level growth expected in 2022; resurgence of infections to serve as a drag on recovery until early spring of 2022

- Real GDP growth for 2021 and 2022 are forecast to be +5.0% and +4.3% y-o-y, respectively.
 - In 2021, although strong recovery in consumption continued since summer, especially in services, the pace of economic recovery in the Oct-Dec quarter slowed down <u>as prolonged supply constraints and resurgence of infections in winter served as a drag on growth</u>.
 - Until early spring of 2022, consumption is expected to decline temporarily due to worsening consumer sentiment caused by a resurgence of infections and the implementation of stricter localized infection control measures. After early spring, the expansion of the economy will be grow clearer on the back of the emergence of pent-up demand and the resolution of supply constraints.

Outlook for the eurozone economy

		2019	2020	2021	2022		202	20			20	21		2022			
		CY		(Outlo	ook)	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar .	Apr-Jun	Jul-Sep C	ot-Dec
GDP (real)	Q-o-q % ch.	1.6	-6.4	5.0	4.3	-3.5	-11.7	12.6	-0.4	-0.2	2.2	2.2	0.1	-0.2	1.9	1.9	1.2
Domestic demand	Q-o-q % ch.	2.5	-6.2	3.8	3.5	-3.1	-12.3	10.4	-0.4	-0.3	2.4	2.0	0.3	-0.1	1.3	1.2	0.8
Personal consumption	Q-o-q % ch.	1.3	-7.9	3.4	4.5	-4.3	-12.7	14.1	-3.0	-2.3	3.9	4.1	0.1	-0.9	2.1	1.3	0.5
Gross fixed capital formati	ion Q-o-q % ch.	6.7	-7.0	3.2	3.7	-4.4	-19.7	14.0	2.7	-0.0	1.3	-0.9	0.6	0.5	1.4	2.3	2.1
Government consumption	Q-o-q % ch.	1.8	1.3	3.7	1.3	-0.2	-2.7	5.5	0.8	-0.6	2.1	0.3	0.1	0.4	0.1	0.3	0.1
Inventory investment	Q-o-q contribution, % pt	-0.1	-0.5	0.4	-0.1	0.4	-0.3	-1.6	0.5	1.0	-0.4	-0.1	0.0	0.2	-0.2	-0.0	0.0
External demand	Q-o-q contribution, % pt	-0.8	-0.3	1.3	0.9	-0.4	0.5	2.4	-0.0	0.1	-0.2	0.3	-0.1	-0.1	0.7	0.7	0.5
Exports	Q-o-q % ch.	2.7	-9.1	9.4	6.7	-3.6	-18.7	16.5	4.3	1.2	2.4	1.2	0.6	0.2	2.3	4.0	4.0
Imports	Q-o-q % ch.	4.7	-9.1	7.0	5.4	-2.8	-20.2	11.6	4.8	1.0	2.9	0.7	1.0	0.4	1.0	2.9	3.5
СРІ	Y-o-y % ch.	1.2	0.3	2.6	2.5	1.1	0.2	-0.0	-0.3	1.1	1.8	2.8	4.9	3.9	3.2	2.1	1.1
Core, excluding food and energy	Y-o-y % ch.	1.0	0.7	1.5	1.6	1.1	0.9	0.6	0.2	1.2	0.9	1.4	2.4	2.0	1.9	1.5	0.8

Note: The shaded areas are forecasts by MHRT. Source: Made by MHRT based upon releases by Eurostat



Eurozone: deteriorating consumer confidence due to a resurgence of infections and tightened infection control measures will put negative pressures on consumption

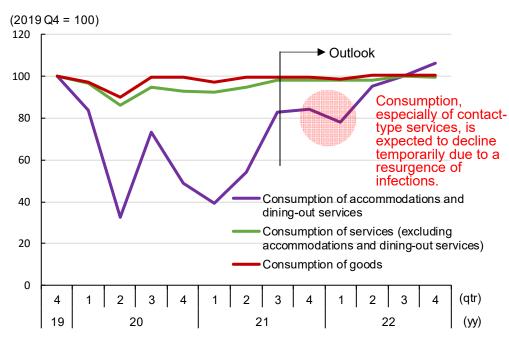
- In the Oct-Dec quarter of 2021, the <u>improvement in consumer confidence will slow down due to the resurgence of infections</u>, serving as a drag on consumption.
- In addition, consumption is expected to decline temporarily in the Jan-Mar quarter of 2022, particularly for contact-type services, due to stricter localized infection control measures.
 - However, the negative impact on the economy (decline in consumption) is expected to be limited compared to the previous lockdowns, as the measures taken by governments are expected to only target unvaccinated citizens.

Eurozone: consumer confidence index

(DI, pt) Consumer confidence index Improving 0 -2 Outlook -4 -6 -8 Despite the rapid -10deterioration of consumer confidence, it is -12Worsening expected to follow a V--14shaped recovery from around -16 early spring. 21/3 21/6 21/9 21/12 22/3 22/9 22/12 22/6 (yy/mm)

Note: Quarterly average Source: Made by MHRT based upon releases by the European Commission

Eurozone: outlook for goods & services consumption



Note: Estimates and forecasts by MHRT

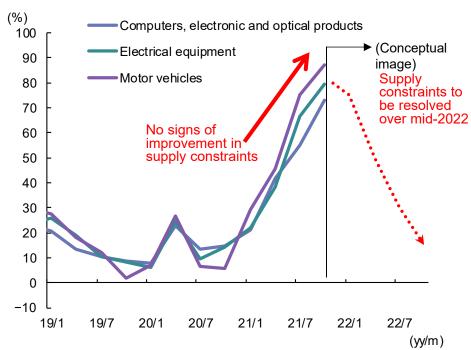
Source: Made by MHRT based upon releases by Eurostat



Eurozone: goods exports to be on a recovery track from mid-2022 as supply constraints resolve

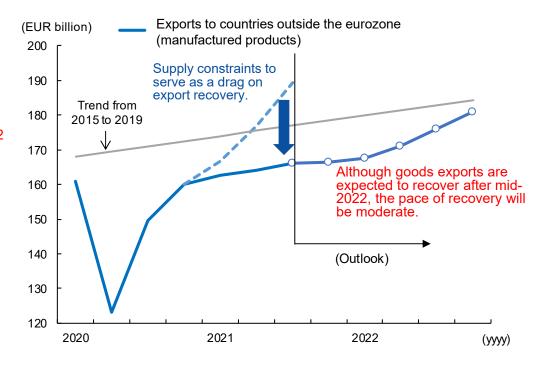
- Growth in goods exports to other regions has been hampered by sluggish output due to supply constraints.
 - In addition to automobiles, there is a serious shortage of raw materials in the processing and manufacturing industries, such as computers, electronic and optical products, and electrical equipment.
 - We estimate that these supply constraints have pushed down non-eurozone goods exports by about 12%.
- Goods exports are expected to recover gradually from mid-2022 with the easing of supply constraints.
 - German companies, which have suffered severe supply constraints, expect supply constraints to be resolved in mid-2022 (IFO October survey).

Eurozone: output constraints (due to "equipment and raw materials" shortage)



Source: Made by MHRT based upon releases by the European Commission

Eurozone: goods exports to other regions



Note: Estimates and forecasts by MHRT

Source: Made by MHRT based upon releases by Eurostat and the European Commission



Emerging economies: growth accelerates among ASEAN countries, in contrast to a slowdown among the NIEs and commodity-exporting countries

- At the moment, in ASEAN countries, consumption is recovering due to the easing of restrictions on social activities, and exports are
 picking up due to the easing of restrictions on manufacturing operations.
- In 2022, the pace of growth in ASEAN countries is expected to accelerate as economic activities resume at full scale.
 - <u>Slowdown in goods exports</u> caused by the demand shift to services <u>and the impact of interest rate hikes are expected to reduce the pace of growth in NIEs and other commodity-exporting countries (Brazil, Russia).</u>

Outlook for Asian and emerging economies

	2018	2018 2019 2		2021	2022		20:	20		20:	21	
				(Outlo	ok)	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
Asia	6.2	5.1	-1.0	7.0	5.4	-	-	-	-	-	-	-
China	6.7	6.0	2.3	7.9	5.2	-6.8	3.2	4.9	6.5	18.3	7.9	4.9
NIEs	2.9	1.9	-0.9	5.0	3.2	-	-	-	-	-	-	-
South Korea	2.9	2.2	-0.9	3.9	3.1	1.5	-2.6	-1.0	-1.1	1.9	6.0	4.0
Taiwan	2.8	3.0	3.1	5.9	3.6	3.0	0.6	4.3	5.3	9.2	7.8	3.7
Hong Kong	2.8	-1.7	-6.1	6.2	3.0	-9.1	-9.0	-3.6	-2.8	8.0	7.6	5.4
Singapore	3.5	1.3	-5.4	6.3	2.8	0.0	-13.3	-5.8	-2.4	1.5	15.2	7.1
ASEAN5	5.3	4.9	-3.5	3.4	5.5	-	-	-	-	-	-	-
Indonesia	5.2	5.0	-2.1	3.6	4.9	3.0	-5.3	-3.5	-2.2	-0.7	7.1	3.5
Thailand	4.2	2.3	-6.1	1.5	4.1	-2.1	-12.1	-6.4	-4.2	-2.6	7.6	-0.3
Malaysia	4.8	4.4	-5.6	4.4	6.8	0.7	-17.2	-2.7	-3.4	-0.5	16.1	-4.5
Philippines	6.3	6.1	-9.6	4.9	6.5	-0.7	-17.0	-11.6	-8.3	-3.9	12.0	7.1
Vietnam	7.1	7.0	2.9	2.8	7.0	3.7	0.4	2.7	4.5	4.7	6.6	-6.2
India	7.3	4.8	-7.0	8.5	7.1	3.0	-24.4	-7.4	0.5	1.6	20.1	8.4
Australia	2.9	1.9	-2.5	4.1	3.0	1.6	-6.0	-3.8	-0.5	1.3	9.5	3.9
Brazil	1.8	1.2	-3.9	4.6	1.1	-0.1	-10.7	-3.7	-0.9	1.3	12.3	4.0
Mexico	2.2	-0.2	-8.2	5.4	2.4	-1.0	-18.7	-8.5	-4.4	-3.8	19.9	4.5
Russia	2.8	2.0	-3.0	4.0	2.4	1.4	-7.8	-3.5	-1.8	-0.7	10.5	4.3

Note: Real GDP growth rate (y-o-y, %); the shaded areas are forecasts. Average figures are calculated based on the GDP share (PPP) by the IMF. Source: Made by MHRT based upon releases by the IMF and the statistics of relevant countries and regions



Emerging economies: inflation is expected to slow down in the second half of 2022, requiring careful attention for upside risks

- Inflation is progressing in some areas. In addition to the rise of commodity prices, factors such as bad weather, supply constraints, and the recovery of demand after the easing of mobility restrictions are contributors.
- The high rate of inflation at the moment is expected to subside in the second half of 2022. Trends in commodity prices and currency depreciation will be key factors.
 - The odds are high that commodity prices—a large contributor to high inflation—will peak out in early 2022.
 - With the US interest rate hike, the stronger USD and weaker currencies are expected to put pressure on inflation over mid-2022. However, this is expected to ease in the second half of the year.
 - In ASEAN and other regions, although inflationary pressures are expected to increase due to recovery in demand, the effects of high commodity prices and supply constraints will fade. We do not expect the rise of inflation.
- Even so, the risks of higher-than-expected inflation will linger. It will be necessary to keep a close eye upon stronger-than-expected global demand for goods, continued inflation in the US, and acceleration of interest rate hikes.

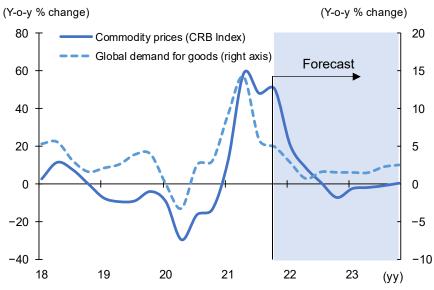
Inflation rates in major emerging economies

(Y-o-y % change) Brazil Russia India Mexico Philippines Indonesia 12 8 0 Malaysia Vietnam South Korea Thailand Taiw an Singapore Hong Kong 8 -4

Note: Shaded areas indicate the price target range. When the price target is not indicated in a range, the lower limit is 0%. As price targets have not been announced in Malaysia, Taiwan, Singapore, and Hong Kong, the average inflation rate for the period of 2010–2019 is indicated as the target range, for convenience.

Source: Made by MHRT based upon releases by CEIC data

Outlook for commodity markets and demand for goods



Note: Global demand for goods is the total of real goods consumption in the US, eurozone, Japan, and China (PPP, 2010 USD basis).

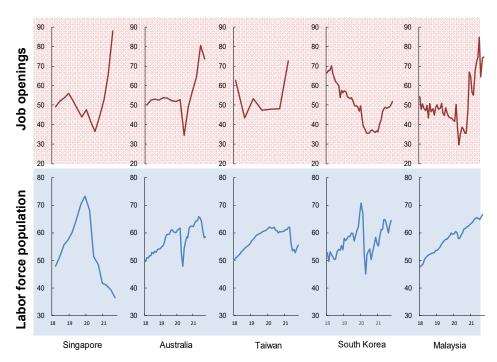
Source: Made by MHRT based upon releases by Refinitiv, the US Department of Commerce, Eurostat, the Cabinet Office, and the National Bureau of Statistics of China



Emerging economies: labor shortages becoming apparent in some areas, limiting recovery from the Covid-19 pandemic

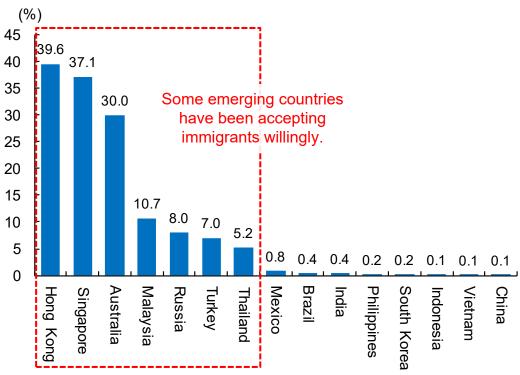
- While companies normalize their employment levels as the economy resumes, some areas of the Asia-Oceania region are experiencing labor shortages due to a decline in the number of foreign workers.
 - In Singapore, Australia, and Taiwan, although the number of job openings is increasing, labor supply is declining due to a decrease in the number of foreign workers as a result of restrictions on immigration, resulting in tight labor supply & demand.
- <u>The labor shortage issues will not be resolved in the short term</u> and are expected to <u>hamper corporate activities in Singapore and Australia for the time being.</u>

Trends in the number of job openings and the labor population by country/region



Note: Deviation values using 2015 and subsequent years as the population Source: Made by MHRT based upon the statistics of relevant countries and regions

Immigrants as a percentage of population



Source: Made by MHRT based upon releases by the United Nations



Japan: Japan's GDP growth should continue to recover, reaching +3.0% in FY2021 and +2.7% in FY2022

- FY2021 growth forecast: 3.0% y-o-y. In the Jul-Sep quarter, the economy recorded significantly negative growth due to downward pressure from stay-at-home demand running its course, the spread of Delta variant infections, and reduced motor vehicle output caused by supply constraints in semiconductors, etc. In the second half of the fiscal year, although the prolonged shortage of semiconductors and worsening terms of trade are expected to add downward pressure, total consumption due to the recovery of mobility following the easing of restrictions.
- FY2022 growth forecast: +2.7% y-o-y. Herd immunity will not be achieved, and the number of new infections and serious cases is expected to rise sharply along with the increase in mobility in the first half of FY2022, leading to the implementation of restrictions similar to a state of emergency. This will serve as negative pressure on consumption behavior, especially among unvaccinated persons.

Outlook for the Japanese economy

		2020 FY	2021 (Outlo	2022 ook)	2021 Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	2022 Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	2023 Jan-Mar
GDP (real)	Q-o-q % ch.	-4.5	3.0	2.7	-0.7	0.5	-0.9	1.8	1.7	0.7	-0.7	1.0	0.5
	Q-o-q % ch. p.a.	_	_	_	-2.9	2.0	-3.6	7.4	7.1	2.9	-2.9	4.0	2.2
Domestic demand	Q-o-q % ch.	-3.9	2.1	2.6	-0.6	0.7	-0.9	1.7	1.7	0.6	-0.8	1.0	0.6
Private-sector demand	Q-o-q % ch.	-6.2	2.6	3.1	-0.5	1.0	-1.4	2.3	2.0	0.8	-1.0	1.2	0.7
Personal consumption	Q-o-q % ch.	-5.5	3.0	3.0	-1.1	0.6	-1.3	2.4	2.5	0.3	-1.5	1.6	0.8
Housing investment	Q-o-q % ch.	-7.8	-0.8	1.0	0.9	1.0	-1.6	-0.6	0.7	0.7	0.4	0.2	0.2
Capital investment	Q-o-q % ch.	-7.5	2.8	3.6	0.4	2.0	-2.3	2.4	1.6	1.3	0.1	0.4	1.0
Inventory investment	Q-o-q contribution, % pt	(-0.2)	(-0.1)	(0.0)	(0.1)	(0.0)	(0.1)	(-0.0)	(-0.2)	(0.2)	(0.1)	(-0.1)	(-0.1)
Public-sector demand	Q-o-q % ch.	3.0	0.9	1.2	-0.8	0.0	0.4	0.3	1.0	0.2	-0.3	0.5	0.3
Government consumption	Q-o-q % ch.	2.5	2.3	1.1	-0.6	0.7	1.0	0.3	1.0	0.3	-0.6	0.4	0.3
Public investment	Q-o-q % ch.	5.1	-4.1	1.8	-1.5	-2.6	-2.0	0.5	1.1	-0.1	1.0	0.7	0.5
External demand	Q-o-q contribution, % pt	(-0.6)	(0.8)	(0.2)	(-0.1)	(-0.2)	(0.0)	(0.1)	(0.0)	(0.1)	(0.1)	(-0.0)	(-0.1)
Exports	Q-o-q % ch.	-10.5	12.1	5.3	2.3	2.5	-0.9	1.0	2.0	1.9	1.6	0.7	0.2
Imports	Q-o-q % ch.	-6.6	7.2	4.2	3.2	3.9	-1.0	0.6	1.8	1.3	1.1	0.8	0.5
GDP (nominal)	Q-o-q % ch.	-3.9	1.9	4.0	-0.7	0.1	-1.0	0.7	3.1	1.5	-0.1	-0.0	0.6
GDP deflator	Q-o-q % ch.	0.7	-1.1	1.3	-0.1	-1.1	-1.2	-1.6	-0.3	1.0	1.7	1.8	0.5
Domestic demand deflator	Q-o-q % ch.	-0.3	0.9	0.9	-0.4	0.2	0.5	1.4	1.2	1.4	1.3	0.7	0.4

Note: Figures in the shaded areas are forecasts.

Source: Made by MHRT based upon the Cabinet Office, Quarterly Estimates of GDP



Japan: recovery of employment and wages expected to be slow; core CPI for FY2022 to grow to the lower 1% range

- Even though labor compensation will follow a recovery path in FY2021, the increase is likely to be small compared to the slump in FY2020, amid lingering cautiousness in corporate behavior. Despite the prolonged impact of the Covid-19 pandemic, a sharp rise of the unemployment rate should be avoided, given the re-extension of subsidy programs for employment adjustment.
- Although the decline of telecommunication fees and fall of accommodation fees due to the restart of the GoTo Travel program (domestic travel promotion by the central government) will add negative pressure, the core CPI (y-o-y) will rise to the lower 1% range in FY2022, pushed up by energy and food prices reflecting the surge of commodity prices. This will serve as negative pressure on personal consumption through the fall of real disposable income.

Outlook for the Japanese economy (key economic indicators)

		2020 FY	2021 (Outlo	2022 ook)	2021 Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	2022 Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	2023 Jan-Mar
Industrial production	Q-o-q % ch.	-9.5	5.5	6.1	2.9	1.1	-3.7	-0.4	2.3	2.6	2.3	1.5	1.1
Ordinary profits	Y-o-y % ch.	-15.6	38.4	14.2	26.0	93.9	35.1	19.8	23.2	20.6	14.2	13.4	8.8
Nominal compensation of employees	Y-o-y % ch.	-1.5	1.1	1.0	0.5	2.9	2.3	-0.0	-0.6	0.5	0.7	1.3	1.5
Unemployment rate	%	2.9	2.8	2.8	2.8	2.9	2.8	2.7	2.7	2.7	2.8	2.8	2.7
New housing starts	P.a., 10,000 units	81.2	86.9	87.2	83.0	87.5	92.0	87.0	86.7	87.0	88.2	87.5	87.3
Current account balance	P.a., JPY tril	16.3	14.3	18.7	18.5	18.9	11.6	9.0	14.2	16.0	17.9	17.5	17.1
Domestic corporate goods price	Y-o-y % ch.	-1.4	6.0	-0.9	-0.3	4.6	6.1	8.5	4.6	1.1	-1.5	-2.4	-0.8
" (ex consumption tax)	Y-o-y % ch.	-2.1	-	-	_	-	-	-	-	-	-	-	-
Consumer prices, ex fresh food	Y-o-y % ch.	-0.4	0.2	1.1	-0.5	-0.6	-0.0	0.5	1.0	1.3	1.2	1.0	1.1
" (ex institutional factors)	Y-o-y % ch.	-0.4	0.1	1.2	-0.4	-0.6	-0.2	0.1	1.3	1.5	1.3	1.0	0.8
Consumer prices, ex fresh food and energy	Y-o-y % ch.	0.1	-0.5	0.8	0.0	-0.9	-0.5	-0.2	-0.2	0.5	0.6	0.8	1.1
" (ex institutional factors)	Y-o-y % ch.	-	-0.5	0.7	0.1	-0.9	-0.7	-0.6	0.1	0.7	0.7	0.8	0.8

Note: 1. Figures in the shaded areas are forecasts. The readings above may differ from public releases because the rates of change are calculated on the basis of real-terms data.

2. Ordinary profits are based upon the Financial Statements Statistics of Corporations by Industry (all industries basis) (ex finance & insurance).

^{3.} The Consumer Price Index reflects the 2020 base-revision. "Institutional factors" in consumer prices refer to the impacts of the consumption fax, free education, and the GoTo Travel program. Source: Made by MHRT based upon relevant statistics



Japan: although personal consumption is on the way to recovery, the sixth wave of infections and rising prices could have a negative impact

- Personal consumption has been recovering from the Oct-Dec quarter mainly in consumption of services toward individuals (dining out, travel, entertainment, etc.) on the back of easing restrictions.
 - However, there are lingering concerns among the unvaccinated, the elderly, and households raising small children. Revenge spending above pre-pandemic levels is expected to be limited.
 - A weakening of the economy is expected in mid-2022 due to the sixth wave of Covid-19 infections. (Restrictions similar to the declaration of a state of emergency are expected to be implemented. However, since restrictions will not be imposed on vaccinated citizens, the economic decline is expected to be smaller than in previous situations with a state of emergency.)
 - Sales of clothing will pick up as outings increase. As for motor vehicles, recovery production is expected in some areas. Durable goods consumption will also recover. However, the growth of goods consumption is expected to slow down, as soaring food prices will serve as negative pressure on the incentive for consumer spending, especially for non-durable goods.

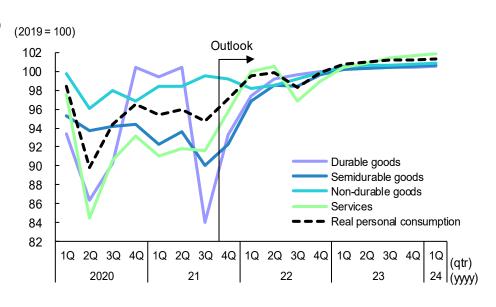
Outlook for the consumption of services toward individuals

(%)Hospital bed occupancy rate for serious cases (Tokyo) $(2019 \, average = 100)$ Personal services consumption (right axis) 150 110 130 100 **Although** consumption is 90 110 recovering as restrictions ease, Consumption behavior is compensating for 80 expected to turn cautious consumption is in the sixth wave. expected to be 70 70 limited The hospital bed 50 60 occupancy rate for serious cáses is 50 30 expected to rise above 50%. 10 40 21/06 21/09 23/03 30 21/12 22/03 22/06 22/09 22/12 Forecast (yy/qtr)

Note: The dotted line shows the pre-pandemic level of consumption of services toward individuals (2019 average).

Source: Made by MHRT based upon JCB & Nowcast, "JCB Consumption NOW"

Outlook for goods & services consumption



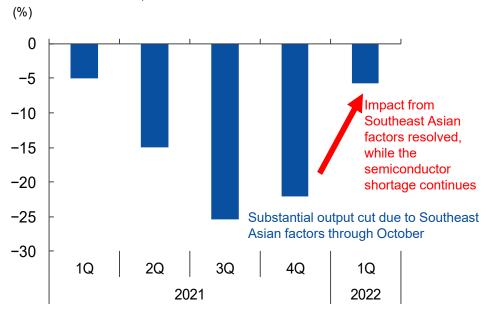
Source: Made by MHRT based upon the Cabinet Office, Quarterly Estimates of GDP



Japan: semiconductor shortage persists in 2022, limiting the recovery of motor vehicle production

- As the impact of the parts supply shortage due to the spread of Covid-19 infections in Southeast Asian countries started to ease from November, motor vehicle output is expected to recover.
 - The forecast index of transportation equipment production indicates a recovery to 95% of the 2019 average in December. The breadth of output cuts due to semiconductor shortages and Southeast Asian factors have narrowed, pushing up personal consumption and exports in the second half of 2021.
- On the other hand, the tight supply & demand for semiconductors for motor vehicles is expected to continue in 2022, and the boost from recovery output is expected to be limited.
 - Although the semiconductor shortage has weathered its worst phase, semiconductor factories are now operating at full capacity and have little additional supply capacity (most of the large-scale projects to increase output will start operating from 2023 onward). Recovery output is expected to be limited to a handful of manufacturers/models.

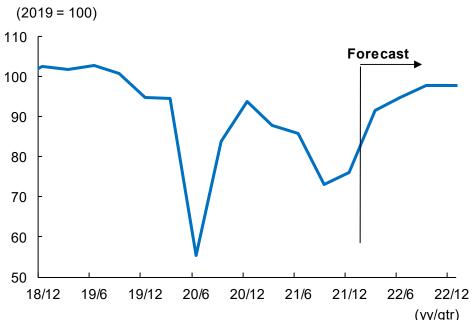
Motor vehicle output cut rate due to the shortage of semiconductors, etc.



Note: The output cut rate is the deviation rate from the baseline (before the occurrence of supply constraints).

Source: Made by MHRT based upon media reports, financial information, etc. of motor vehicle manufacturers

Outlook for transportation equipment output



Source: Made by MHRT based upon the Ministry of Economy, Trade and Industry, Indices of Industrial output



Japan: the deterioration of terms of trade increased the burden on companies and households by JPY 10 trillion, putting negative pressure on capital investment and personal consumption

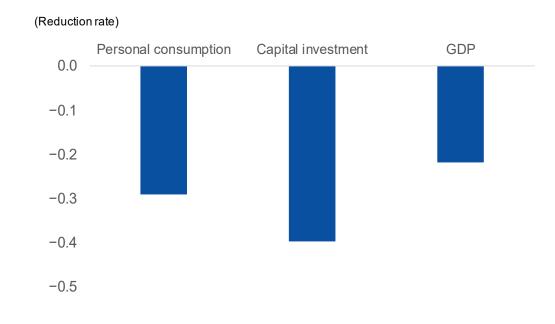
- Given the surge of commodity prices, imports of raw materials, including crude oil, natural gas, and coal, increased by about JPY 10 trillion in FY2021.
 - In addition to pressures upon corporate earnings, mainly in the materials/energy businesses and transportation equipment due to the rise of raw materials costs, the rise of consumer prices (rising by around 1.0% pt due to the surge of commodity prices) pushed down the real disposable income of households.
 - The corporate burden (decline in corporate earnings) is estimated to be JPY 7 trillion, and the household burden (decline in real disposable income) is estimated to be about JPY 3 trillion.
 - This is estimated to reduce capital investment by around 0.4% and personal consumption by around 0.3%, pushing down the GDP by around 0.2%.

Imports of raw materials (y-o-y ch)

(JPY trillion) Increase of the burden on 10.3 companies and households due to the surge of 10 commodity prices 5 0 -5-1012 16 20 2010 18

Note: FY2021 figures are estimates by MHRT. Source: Made by MHRT based upon Ministry of Finance, Trade Statistics

Impact on capital investment, personal consumption, and GDP



Note: The impact on capital investment is estimated using the estimated value of cashflow elasticity of capital investment, while the impact on personal consumption is estimated using the marginal consumption

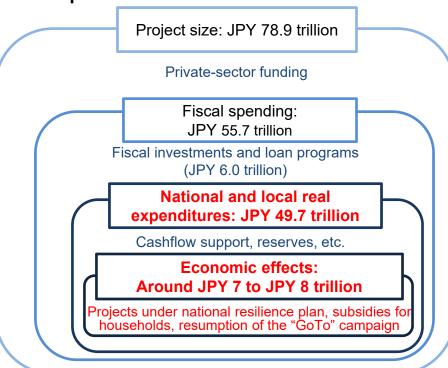
propensity (0.25). Source: Made by MHRT



Japan: economic stimulus measures are estimated to boost GDP by +0.3% in FY2021 and by +1.0% in FY2022

- Economic stimulus measures are estimated to push up Japan's GDP by +0.3% in FY2021 and by +1.0% in FY2022.
 - In FY2021, cash benefits to households and the "GoTo" campaign boosted personal consumption.
 - In FY2022, personal consumption is expected to be boosted by the provision of coupons and My Number Points to households as well as the "GoTo" campaign, and public investment will also be pushed up by the progress of projects under the plan to build national resilience.
 - Cashflow support for corporations, in such form as government subsidies, are used to pay for fixed costs and other expenses, and will have limited impact to boost capital investment. Reserve funds are not included in economic effects, as it is unclear whether they will actually be spent.

Scale of projects for economic measures: real expenditures



Source: Made by MHRT based upon releases by the Cabinet Office

Economic effects (FY2021 and FY2022)

Economic effe	ects (% of GDP)
FY2021	FY2022
0.3	1.0
0.2	0.2
0.0	0.2
0.0	0.5
0.0	0.1
	0.3 0.2 0.0 0.0

Note: As the above figures are a. rough estimate based on the factors such as the budget amount, they should be viewed with a margin Source: Made by MHRT based upon releases by the Cabinet Office



Financial markets: US long-term interest rates are forecast to rise to near 2% in 1 H 2022

- US long-term interest rates are forecast to rise to near 2% in the first half of 2022 against a background of continued high inflation.
 Regarding the USD/JPY exchange rate, the dollar is expected to strengthen on the back of rising US interest rates.
- US stocks are expected to remain flat amid the decline of the P/E ratio. Japanese stocks are expected to rise moderately in tandem with EPS growth.

Outlook on financial markets

		2020	2021	2022		2	021			20	22		2023
		FY	FY	FY	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Japan													
Interest rate on the policy rate balance	(End-of period value, %)	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
Newly issued JGBs	(10-year, %)	0.03	0.00 to 0.10	0.05 to 0.20	0.07	0.07	0.03	0.00 to 0.10	0.00 to 0.10	0.05 to 0.15	0.05 to 0.15	0.05 to 0.15	0.10 to 0.20
Nikkei Stock Average (JPY)			28,500 to 29,900	29,400 to 31,400	28,988	28,962	28,568	28,500 to 29,500	28,900 to 29,900	29,400 to 30,400	29,800 to 30,800	30,100 to 31,100	30,400 to 31,400
US													
Federal Funds rate	(End-of period value, %)	0.00 to 0.25	0.25 to 0.50	1.00 to 1.25	0.00 to 0.25	0.00 to 0.25	0.00 to 0.25	0.00 to 0.25	0.25 to 0.50	0.50 to 0.75	0.75 to 1.00	0.75 to 1.00	1.00 to 1.25
Newly issued government bonds	(10-year, %)	0.87	1.32 to 1.85	1.80 to 2.10	1.30	1.58	1.32	1.45 to 1.65	1.65 to 1.85	1.80 to 2.00	1.85 to 2.05	1.85 to 2.05	1.90 to 2.10
Dow Jones Average	(USD)	28,110	34,100 to 36,200	34,000 to 36,100	31,493	34,121	34,910	34,400 to 36,200	34,300 to 36,100	34,000 to 35,800	34,100 to 35,900	34,300 to 36,100	34,300 to 36,100
Eurozone													
ECB deposit facility rate	(End-of-period value, %)	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
German government bonds	(10-year, %)	-0.48	-0.37 to -0.15	-0.25 to 0.10	-0.41	-0.22	-0.37	-0.35 to -0.15	-0.35 to -0.15	-0.25 to -0.05	-0.15 to 0.05	-0.15 to 0.05	-0.10 to 0.10
Exchange rate													
USD/JPY	(USD/JPY)	106	109 to 116	115 to 118	106	109	110	112 to 114	114 to 116	115 to 117	115 to 117	115 to 117	116 to 118
EUR/USD	(EUR/USD)	1.17	1.11 to 1.21	1.09 to 1.12	1.21	1.21	1.18	1.12 to 1.14	1.11 to 1.13	1.10 to 1.12	1.09 to 1.11	1.09 to 1.11	1.09 to 1.11

Note: Forecast values (expressed in ranges) indicate that the average value for the period is expected to fall within the relevant range. Source: Made by MHRT based upon releases by Bloomberg



Stocks: US stocks expected to move generally flat as the EPS rises while the P/E ratio declines

- US stocks are expected to move generally flat given the fall of the P/E ratio despite the rise of the EPS.
 - US corporations will continue to record solid earnings, with the 12-month forward EPS forecast to rise at an annualized level of around 6% to 7%.
 - The current P/E ratio of US stocks is in the 21x range, which seems to be slightly overvalued. Looking forward, the sense of overvaluation is expected to be resolved.
- Turning to Japanese stocks, the current P/E ratio of 14.4x is viewed as an appropriate level. Amid the ongoing recovery of the Japanese economy, Japanese companies are expected to maintain solid performance, limiting the fall of the P/E ratio going forward. Japanese stocks are expected to remain strong, along with the rise of the EPS.

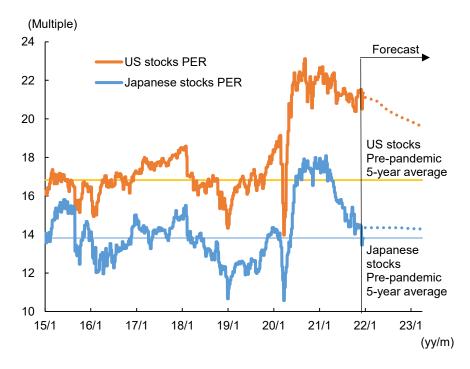
Overvaluation in the Dow Jones Industrial Average

Fundamentals factor Low-interest-rate factor (USD) High-tech factor Overvaluation Dow Jones Industrial Average Forecast 38,000 35,000 32,000 29,000 26,000 23,000 20.000 20/6 20/12 21/6 21/12 22/6 22/12 (vv/mm)

Note: Fundamentals factors are calculated based on the pre-pandemic 5-year average forecast P/E ratio of the S&P 500 (excluding information technology and GFA). The factors of low interest rates are calculated based on the appropriate P/E ratio of the S&P 500 (excluding information technology and GFA). The forecast value is the median of the range.

Source: Made by MHRT based upon releases by Refinitiv

P/E ratio of US and Japanese stocks

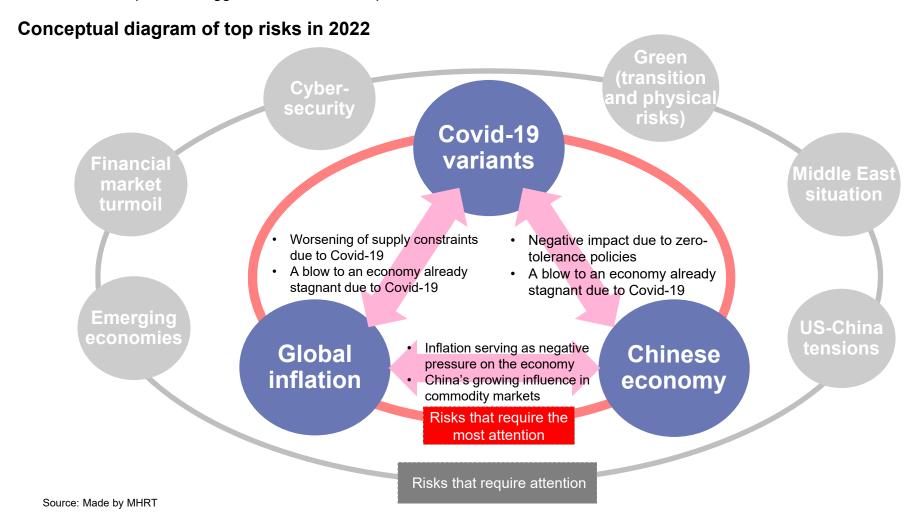


Source: Made by MHRT based upon releases by Refinitiv



Reference: top risks for 2022 being Covid-19 resurgence, the Chinese economy, and inflation

- The top three risks that require the most attention (Covid-19 resurgence, the Chinese economy, and inflation) are linked to each other and could amplify the negative impact.
 - Other than the above, the top-10 risks include geopolitics, the "green" economy, and cybersecurity-related factors. See the next page for descriptions of trigger events and the impacts of each risk.





Reference: 2022 Top Risks

Category	Risk	(1) Trigger for materialization of the risk and (2) its impact	Probability	Impact
Covid-19	Variants	(1) Resurgence of infections due to the emergence of new variants, unprecedented severity of disease and reduced vaccine effectiveness; lockdown measures taken worldwide; (2) economic slowdown	Middle	Large
	US economy	(1) Prolonged high inflation; (2) sharp interest rate hikes by the central bank leading to a sharp slowdown in durable goods consumption and housing investment, worsening the US economy	Middle	Large
Inflation	Financial markets	Middle	Large	
	Emerging economies	Middle	Middle	
China	Sharp economic slowdown	(1) Materialization of excessive debt problems, causing problems such as the sharp fall of real estate prices; (2) concerns regarding corporate credit standing and ebb of private investment serving as negative pressures on the real economy	Middle	Large
Digital	Cybersecurity	(1) Increase in cyber-attacks due to rising tensions among nations;(2) leakage of the information assets of governments/corporation, failure of social infrastructure functions;(3) increasing impact due to digitalization	Small	Middle
Green economy	Transition risk	(1) Announcement of severer-than-expected environmental restrictions; (2) rapid increase in stranded assets due to increased transition risk, deterioration of corporate earnings due to higher-than-expected investment burden, and widespread employment insecurity	Small	Middle
	Physical risk	(1) Abrupt and massive weather disasters; (2) disruption of global supply chains	Middle	Middle
Geopolitics	US-China tensions	(1) Rising tensions between the US and China over the core interests of China, including the Uyghur human rights issue; (2) substantial expansion of the scope of US-China partial decoupling	Middle	Middle
Осоронноѕ	Middle-East situation	(1) Iran sealing the Strait of Hormuz to protest against prolonged US sanctions, after discussions for the deal to revive the Iran nuclear pact breaks down; (2) surge of oil prices due to the blockage of chokepoints	Middle	Middle

Note: "Probability" indicates the relative likelihood or level, as a risk. Source: Made by MHRT



Reference: key political events

		2022	2023						
US	Jan	Expiration of the term of FRB Vice Chair Richard H. Clarida	Mar	20 years since the Iraq War					
	Nov	Mid-term elections							
	Apr	France: Presidential election	1H	Italy: Legislative election					
Europe	Jun	France: Legislative election							
	Jul	End of term of office of members of House of Councilors	Apr	End of term of Bank of Japan Governor Haruhiko Kuroda					
Japan			Apr	Nationwide local elections					
			Apr	End of term of office of the governor of Osaka prefecture and mayor of Osaka city					
	Feb-Mar	Beijing Olympic and Paralympic Games	By Mar	Thailand: election of the House of Representatives (lower house)					
	Mar	South Korea: Presidential election	By Jul	Cambodia: general election					
Asia	Mar	Hong Kong: Chief Executive election	By Jul	Malaysia: general election					
	Around May	The Philippines: Presidential and legislative elections	By Aug	Myanmar: general election					
	Autumn	China: 20 th National Congress of the Communist Party							
Other	1H	Australia: Senate and House of Representatives elections	By year-end	Turkey: presidential and legislative elections					
	Oct	Brazil: Presidential election							

Source: Made by MHRT based upon media reports



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