

FY2022 - FY2023 Economic Outlook

The future of global inflation and the world economy

July 26, 2022

Mizuho Research & Technologies, Ltd.

MIZUHO

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

Key points of our outlook

- We expect global economic growth to fall short of 3% in 2022 and 2023. Given the rise of inflation, especially in Europe and the US, central banks are raising interest rates to curb inflation. Europe and the US will fall into a recession through 2023 due to inflation and interest rate hikes. While the Asian economies will start to recover from the Covid-19 pandemic, this will not be strong enough to offset the weakness of the European and US economies. The global economy will slow down through 2023.
- In the US, where inflation is having a ripple effect on wages, the Federal Reserve Board (the Fed) is expected to raise the federal funds rate to around 4% by the end of 2022, from the perspective of curbing inflation. Reflecting inflation and interest rate hikes, the US economy will fall into a recession in 2023. However, solid household and corporate balance sheets will serve to ease the economic decline. The recession in the US is thus expected to be short and moderate.
- Amid the prolonged conflict in Ukraine, Russia is expected to reduce its supply of gas to Europe by approximately one-third on a year-on-year basis. Given the tight supply & demand of gas and the resulting surge of prices, Europe will enter a recession from the end of 2022. Even though the spread of inflation to wages is not discernible at the moment, the ECB is expected to raise its policy rate to near 1% reflecting the rise of inflation stemming from import prices.
- The Asian economies, which have lagged behind Europe and the US in the recovery from the Covid-19 pandemic, should pick up mainly in consumer spending due to the easing of pandemic-related regulations. The zero-Covid policy in China is expected to be lifted in the Apr-Jun quarter of 2023. However, high commodity prices and the sluggish economies of Europe and the US will serve as downward pressure on exports. Although Asia as a whole will avoid a recession, the region still lacks the strength to drive the global economy.
- In Japan, consumption will pick up from around the end of 2022, when the impact of the Covid-19 pandemic subsides, and demand for inbound tourism will also recover. On the other hand, the deterioration of Japan's terms of trade and the slowdown of the overseas economy will serve as a drag on corporate earnings, keeping the pace of wage recovery moderate. The output gap will remain in negative territory, and Japan's inflation rate is expected to return to the 0% range in the second half of 2023, when the surge in commodity prices comes to a pause.
- Turning to the financial markets, we expect US long-term interest rates to rise through the end of 2022, reflecting the Fed's interest rate hikes. On the other hand, the Bank of Japan (BOJ) will maintain its easy monetary policy stance amid the sluggish rise of wages. The yen is expected to weaken against the dollar, reaching the lower half of the JPY140/USD level at the end of 2022 reflecting the widening gap between US and Japanese interest rates. US stock prices are expected to fall through the end of 2022 due to the rise of US interest rates and subsequently trend at rock-bottom levels.

Global economic growth will slow down through 2023. While the US and European economies will fall into a recession, Japan and China will avoid doing so

	(Y-o-y % change)			(% pt)	
	2021 CY	2022 (Outlook)	2023	2022 (Comparison with the forecast in April)	2023
Global real GDP growth	6.1	2.4	2.0	-0.3	-1.3
Japan, US, Europe	5.2	2.3	0.1	-0.3	-2.3
US	5.7	2.2	0.3	-0.8	-2.1
Eurozone	5.3	2.5	-0.7	0.2	-3.2
UK	7.4	3.4	0.5	-0.3	-1.2
Japan	1.7	1.3	1.8	-0.2	-0.3
Asia	7.1	4.7	4.7	-0.4	-0.3
China	8.1	4.0	5.0	-0.7	-0.2
NIEs	5.5	2.6	1.9	-	-0.8
ASEAN5	3.3	5.2	4.5	-	-0.4
India	8.3	7.2	5.5	-0.2	-0.4
Australia	4.8	2.8	2.0	-	-0.6
Brazil	4.6	1.5	0.7	1.3	-1.5
Mexico	4.8	1.6	0.3	-	-2.0
Russia	4.7	-7.5	-4.9	5.8	-3.2
Japan (FY)	2.2	1.8	1.2	-0.4	-0.4

Downward revisions across the board; level of revision varying depending on the country/region

Inflation and monetary tightening policy serving as a drag on the European and US economies (recession through 2023)

Revised downward due to the rise of commodity prices and global economic slowdown; recovery from the Covid-19 pandemic to ease the decline through 2023

Conservative infection prevention measures to put downward pressure in 2022 (zero-Covid policy to be lifted in Q2 2023, serving to avoid a recession)

Recovery expected from the Covid-19 pandemic through 2023, receiving relatively large benefit from China's recovery

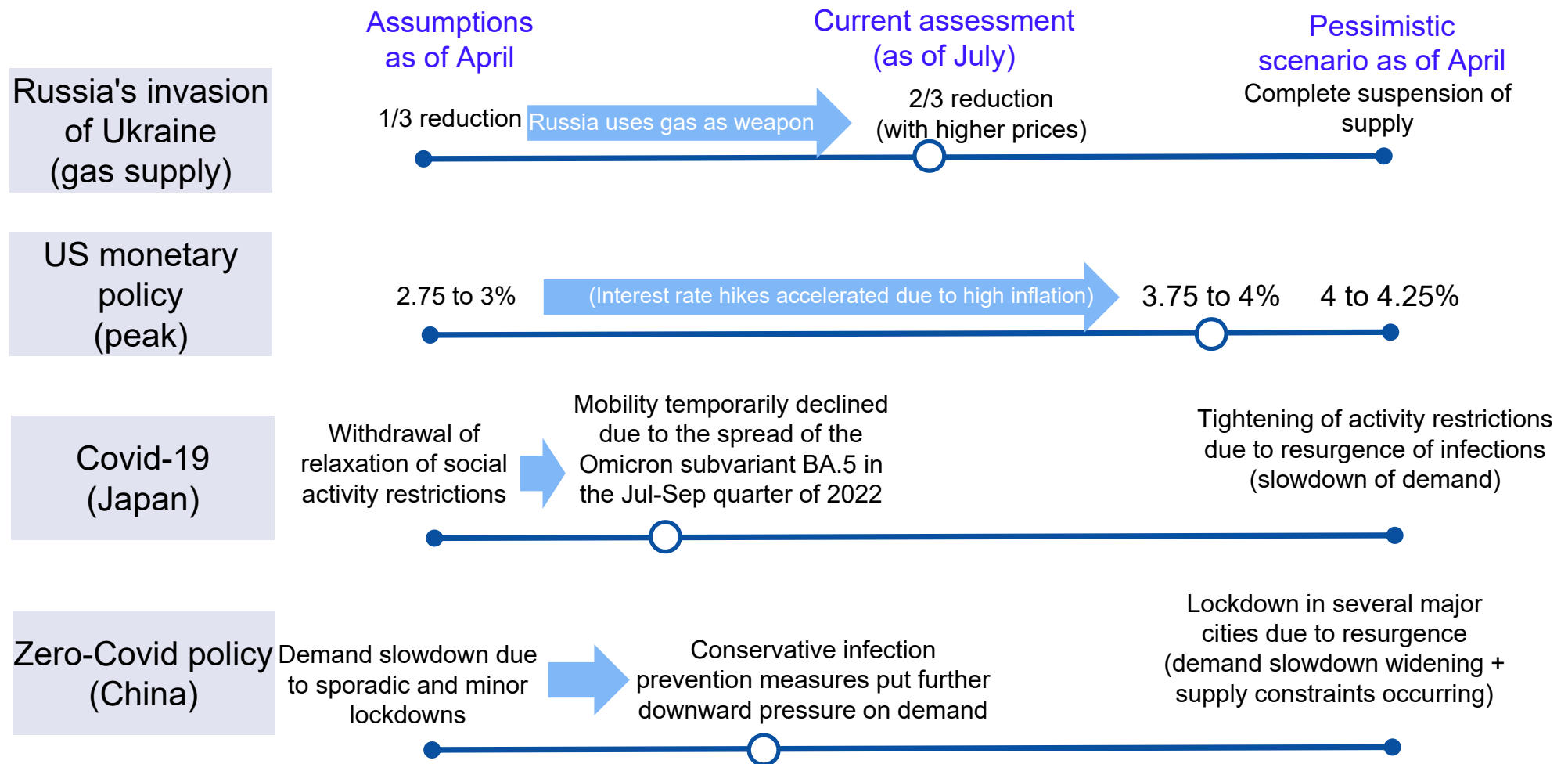
Latin America to be affected by monetary tightening and downward pressure on the US economy; growth rate in the 0% range

Low growth in the 2% range from 2022 to 2023 (sluggish growth in China in 2022, and in Europe and the US in 2023)

Note: Figures in the shaded areas are forecasts. 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

Assumptions are no longer valid: the real world is moving closer to the pessimistic scenario as of April

Assumptions as of April and the current assessment (as of July)



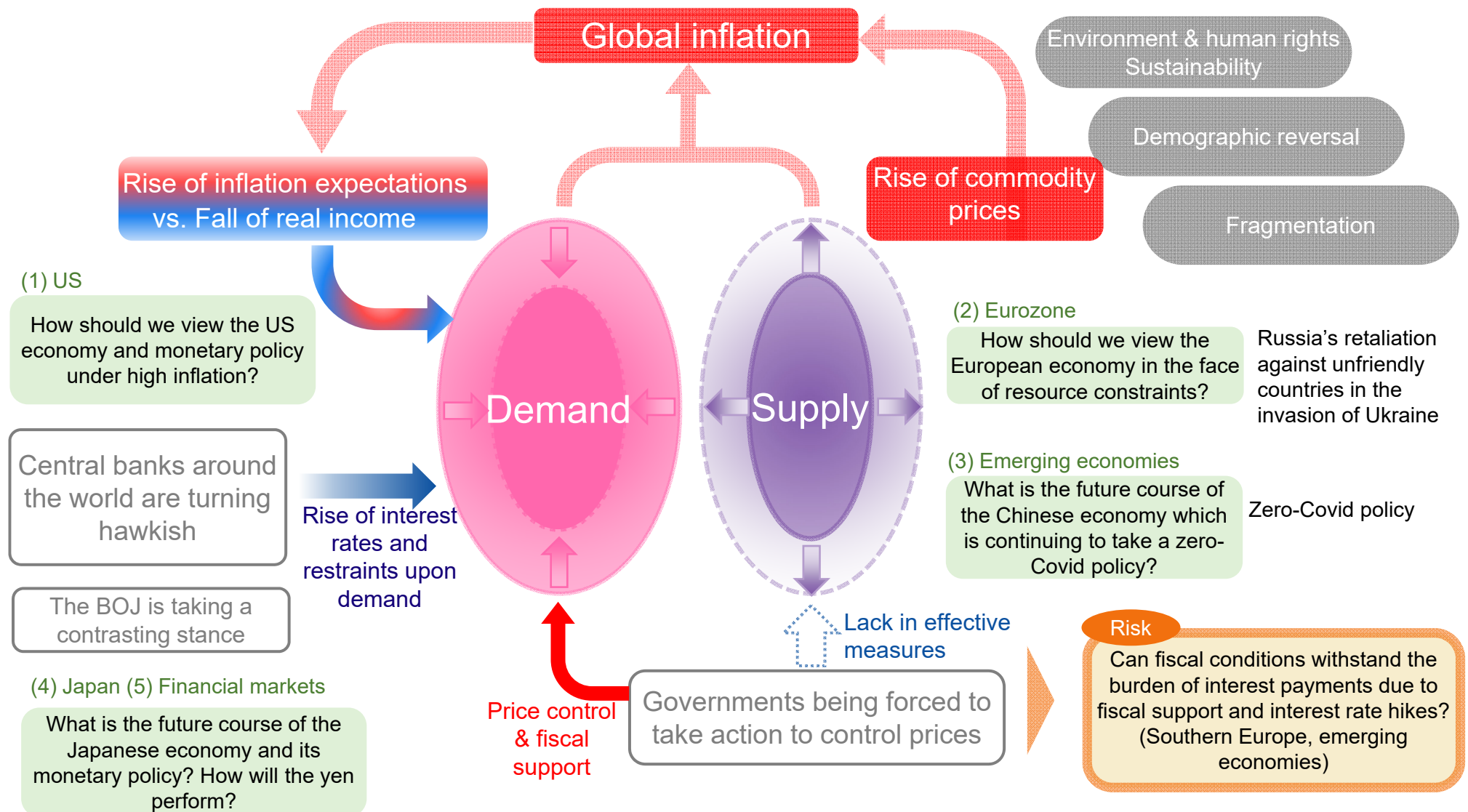
Source: Made by MHRT

Current assessment and future scenarios for global inflation and the world economy

Current assessment		Occurrence of global inflation		
		Situation varying depending on region		
		Surge of inflation (significant decline in real interest rates)	Relatively benign inflationary pressures	
		US	Europe	China and Japan
The scenario going forward	Prices and monetary policy for the time being	Amid the spillover effect on wages, the FRB will raise policy rates above the neutral interest rate (2.5 to 3.0%) to 3.75 to 4.0% by the end of 2022.	Despite the absence of spillovers to wages given strong concerns regarding recession, the rise of inflation due to imports is expected to hasten the exit from negative interest rates and a return to a neutral interest rate (around 1%).	Given domestic issues (Japan: low wages, China: zero-Covid policy and real estate), easy monetary policy maintained due to relatively benign inflationary pressures
	Future course of the economy and monetary policy going forward	The US economy will enter a short and moderate recession in 2023. Although the inflation rate will gradually decline, the pace will be slow due to supply-side constraints. The Fed will maintain policy rates through 2023 around 4%.	Europe will enter a recession this winter due to the surge of gas prices. Inflation remains high in the process to end energy dependence on Russia. Despite the recession, the European Central Bank (ECB) will raise and maintain its policy rate to the neutral level (1.0%).	Although the decline in purchasing power due to the global economic slowdown and the rise of commodity prices will put downward pressure on these economies, the recovery from the Covid-19 pandemic will support the economy (avoiding a recession). Japan's price rise will fall again to the 0% range by the end of 2023.
	Market outlook	US long-term interest rates will rise to 3.7% at the end of 2022 reflecting the acceleration of interest rate hikes. US stock prices are expected to fall by 22% compared to the end of 2021.	European long-term interest rates have more or less factored in a rate hike to the neutral interest rate (a rise is expected, but should be small). The euro/dollar exchange rate will remain out of parity for the time being due to the widening interest rate gap between the US and European countries.	Yen interest rates will hover at low levels as the BOJ maintains its easy monetary policy. The yen is expected to weaken against the dollar and to reach the lower half of the JPY140/USD level at the end of 2022 when the US long-term interest rate rises.

Source: Made by MHRT

View of the global economy and issues through 2023



Source: Made by MHRT

(1) US: the economy will slow down in 2022 due to high inflation and monetary tightening, and fall into a recession in 2023

- US real GDP growth is projected to slow sharply in 2022 (+2.2% y-o-y) and 2023, (+0.3% y-o-y), and fall into a recession through the mid-2023.
 - In 2022, the economy will slow sharply due to high inflation and monetary tightening, and the housing market will enter an adjustment phase. However, strong employment and income environment, solid balance sheets, and abundant cash at hand will support personal consumption.
 - In 2023, the impact of monetary tightening will spread throughout the economy, causing growth in the Apr-Jun and Jul-Sep quarters to fall into negative territory and a rise of the unemployment rate. However, as the US economy is not faced with financial imbalances, the recession will turn out to be short and moderate.

Outlook for the US economy

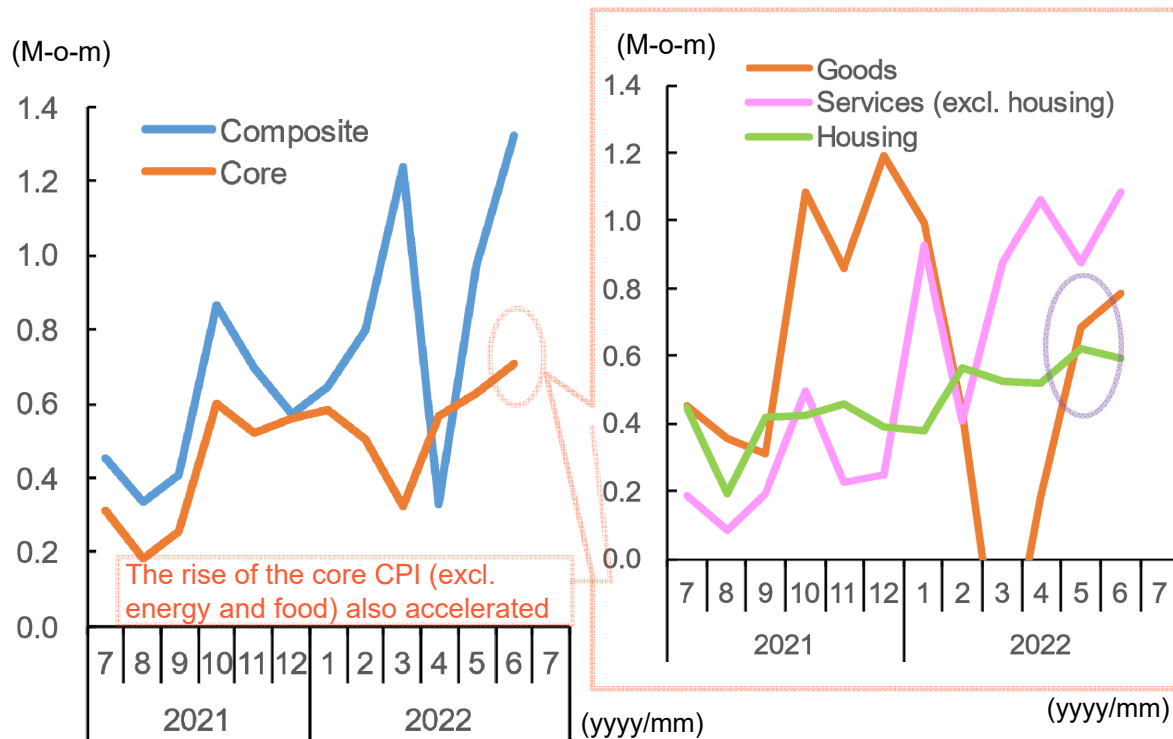
		2021	2022	2023	2021				2022				2023			
		(CY)	(Outlook)		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real)	Q-o-q % ch. p.a.	5.7	2.2	0.3	6.3	6.7	2.3	6.9	-1.6	2.2	1.3	1.2	0.4	-2.0	-0.4	1.7
Personal consumption	Q-o-q % ch. p.a.	7.9	2.6	1.3	11.4	12.0	2.0	2.5	1.8	1.3	2.9	1.7	1.2	-0.7	1.4	2.7
Housing investment	Q-o-q % ch. p.a.	9.2	-2.7	-7.3	13.3	-11.7	-7.7	2.2	0.4	-1.2	-9.1	-0.7	-10.8	-13.7	-4.7	-0.2
Capital investment	Q-o-q % ch. p.a.	7.4	5.5	0.8	12.9	9.2	1.7	2.9	10.0	5.3	4.0	3.9	1.4	-4.1	-5.8	7.3
Inventory investment	Q-o-q contribution p.a. % pt	0.4	-0.2	-0.5	-2.6	-1.3	2.2	5.3	-0.4	-0.5	0.0	0.0	-0.3	-1.0	-0.5	-0.2
Government consumption	Q-o-q % ch. p.a.	0.5	-1.7	-0.1	4.2	-2.0	0.9	-2.6	-2.9	-1.2	-1.2	-1.2	0.6	0.6	0.6	0.6
Net exports	Q-o-q contribution p.a. % pt	-1.4	-0.6	-0.0	-1.6	-0.2	-1.3	-0.2	-3.2	1.4	-0.5	-0.2	0.1	0.6	0.1	-0.9
Exports	Q-o-q % ch. p.a.	4.5	5.5	2.5	-2.9	7.6	-5.3	22.4	-4.8	15.5	1.4	2.9	2.9	0.0	1.2	1.2
Imports	Q-o-q % ch. p.a.	14.0	9.8	1.2	9.3	7.1	4.7	17.9	18.9	1.4	4.2	3.3	1.3	-3.7	0.0	6.7
Unemployment rate	%	5.4	3.6	4.2	6.2	5.9	5.1	4.2	3.8	3.6	3.6	3.4	3.5	4.2	4.5	4.7
PCE deflator	Y-o-y % ch.	3.9	6.0	3.6	1.8	3.9	4.3	5.5	6.3	6.3	6.0	5.4	4.5	3.6	3.2	2.9
Core, excl. food and energy	Y-o-y % ch.	3.3	4.8	3.6	1.7	3.4	3.6	4.6	5.2	4.7	4.7	4.4	4.1	3.8	3.4	3.0

Note: Figures in the shaded areas are forecasts by MHRT. (As of July 15, 2022)
 Source: Made by MHRT based upon releases by the US Department of Commerce and the US Department of Labor

There are still no signs that inflation is cooling down

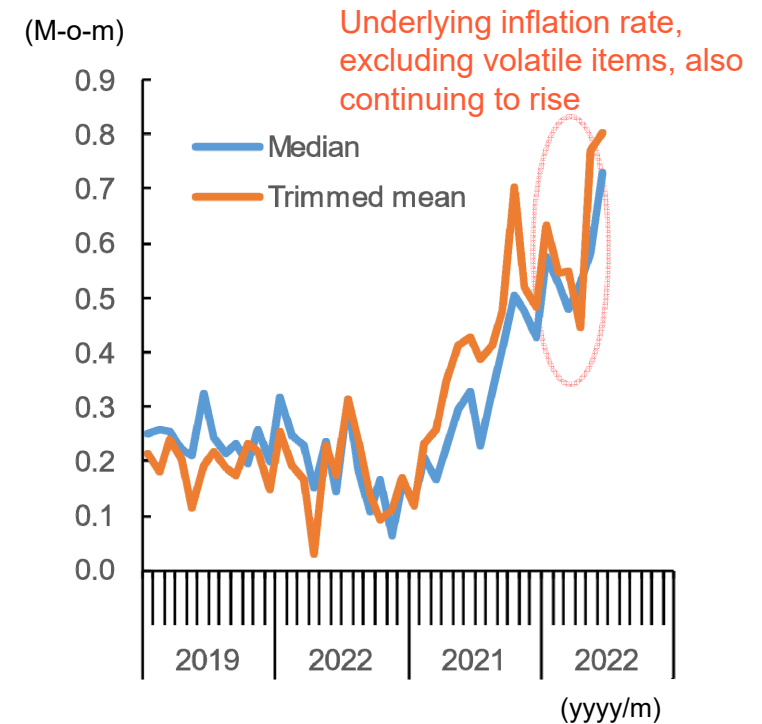
- In June, the Consumer Price Index (CPI) accelerated at a pace of **+1.3% m-o-m (cf. May +1.0% m-o-m)**. On a year-on-year basis, this marked the is highest pace of rise since November 1981.
 - **Core CPI growth** (excluding energy and food) **also accelerated to +0.7% m-om (cf. May +0.6% m-o-m)**.
 - A breakdown of the core CPI shows that, with respect to goods, prices of automobiles continued to rise, as with prices of a broad range of goods including apparel, furniture and appliances, and recreational goods. As for services, in addition to housing costs (which are said to be subject to the force of inertia), **price of services** which tend to reflect the rise of wages **also continued to rise**.
 - **The underlying inflation rate is also rising**, indicating the strength of inflationary pressures.

US consumer prices



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

US underlying inflation rate



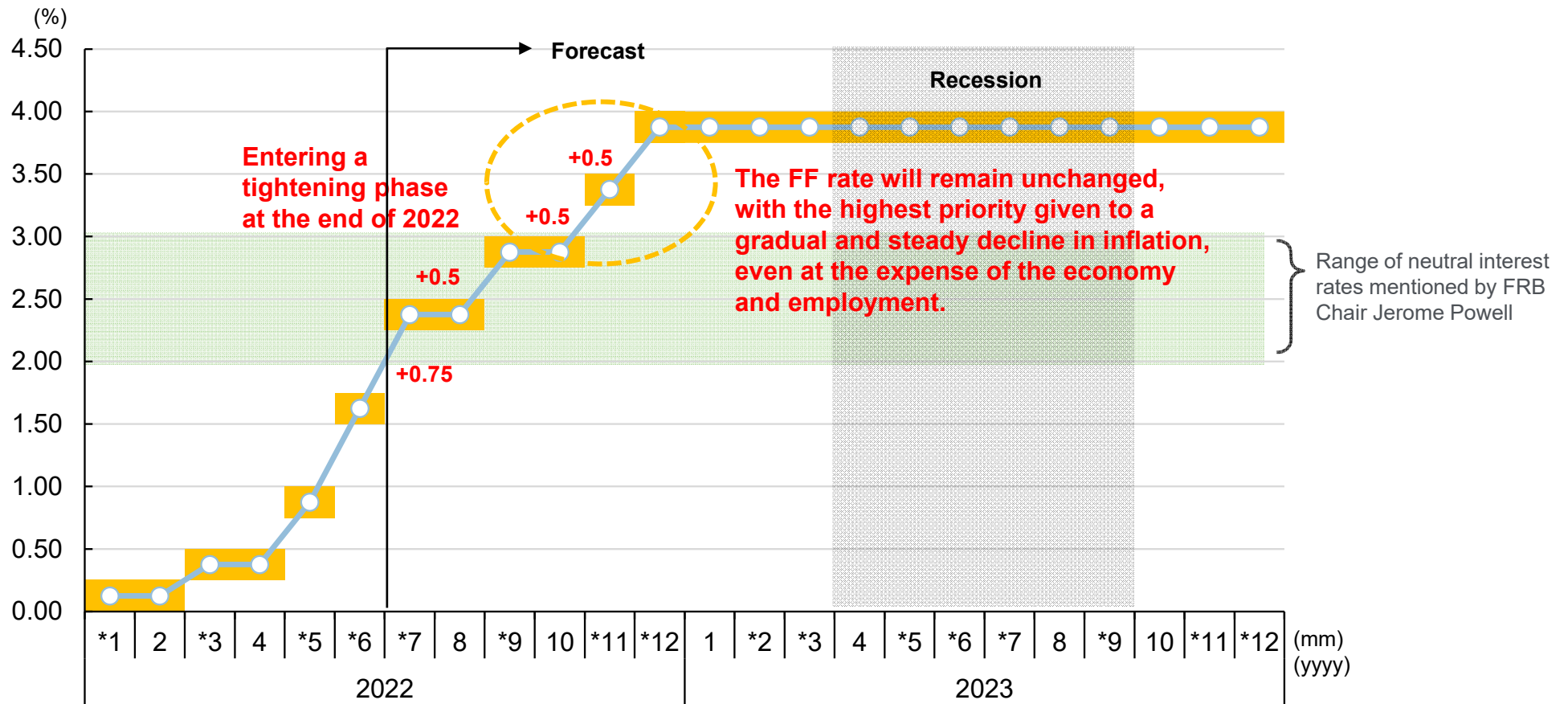
Note: The trimmed mean is the rate of increase excluding the 8% above or below the rate of change.

Source: Made by MHRT based upon releases by the Federal Reserve Bank of Cleveland

The Fed indicated a clear stance to curb inflation. It will keep the federal funds (FF) rate unchanged even under a recession

- The Fed indicated a clear stance to curb inflation and will not cut interest rates even under a recession.
 - The Fed will raise the FF rate to 3.75 to 4% through the end of 2022 and will keep it unchanged during 2023.

Target range of the federal funds (FF) rate



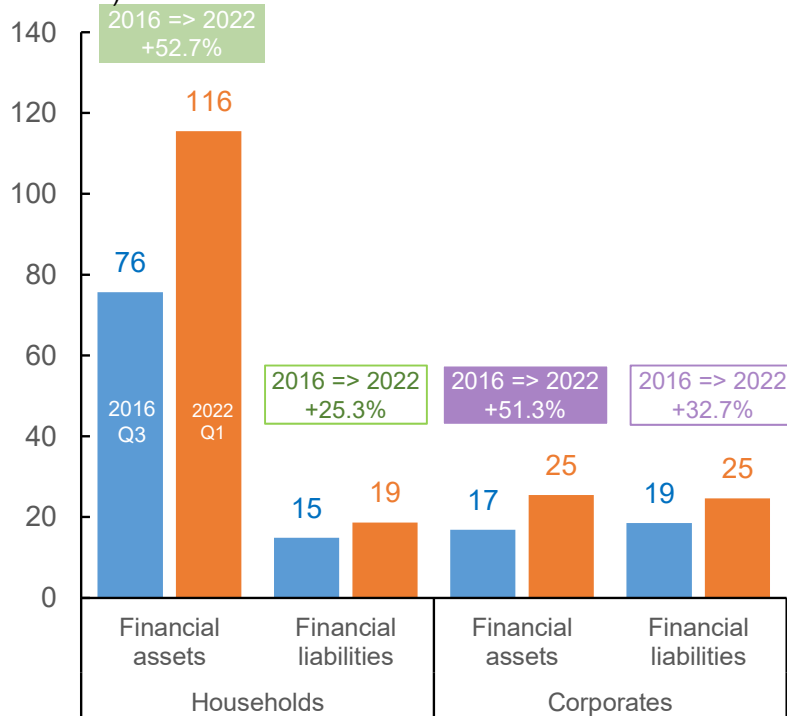
Note: An asterisk denotes a month with a Federal Open Market Committee (FOMC) meeting.
 Source: Made by MHRT based upon releases by the FRB and Bloomberg

The solid balance sheet and strong employment environment will mitigate the decline of economic growth

- Corporate and household balance sheets are extremely strong.
 - The financial assets of households increased by USD 40 trillion over 2016, even with the stock market adjustment since the beginning of the year. In contrast, debt increased only by USD 4 trillion. Rising housing prices also contribute to the financial durability of households. In addition, despite the significant increase of mortgage loans, borrowers' creditworthiness is extremely high (i.e., no evidence of undisciplined lending).
- The US labor market is experiencing a historic super-sellers' market. Consumption is supported by a strong employment environment.
 - Proactive efforts to address structural environmental changes such as digitalization, decarbonization, and geopolitical risks are serving as factors to prevent the collapse of excess demand.

Financial assets and financial liabilities of US households and corporate enterprises

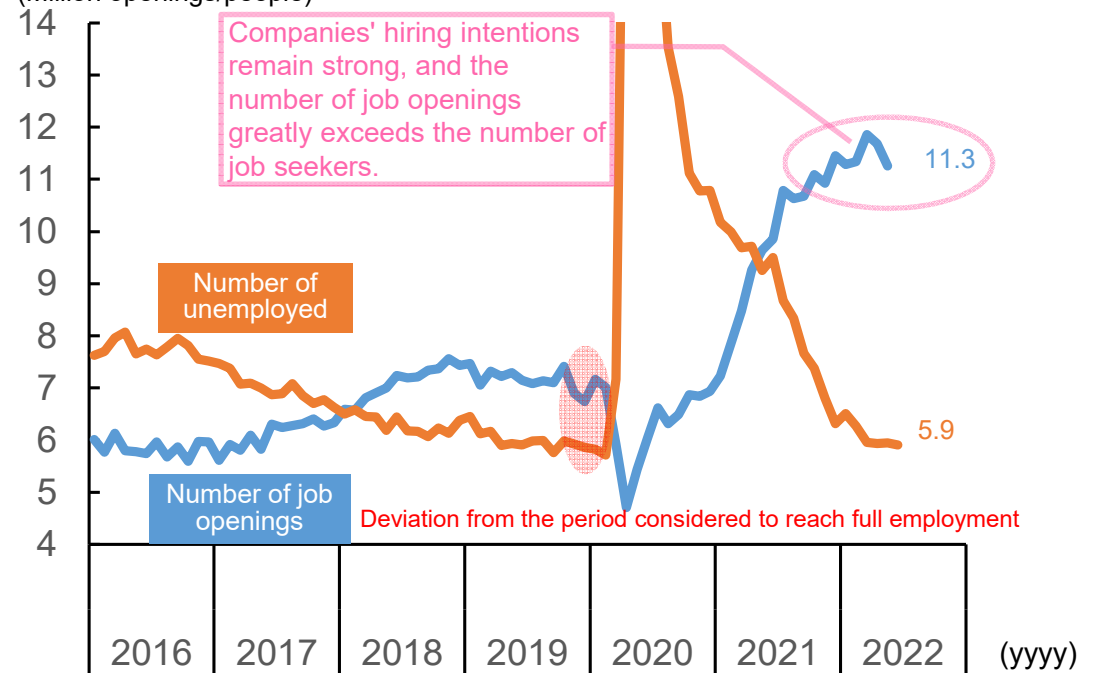
(USD trillion)



Source: Made by MHRT based upon releases by the FRB

Number of job openings and the number of unemployed in the US

(Million openings/people)

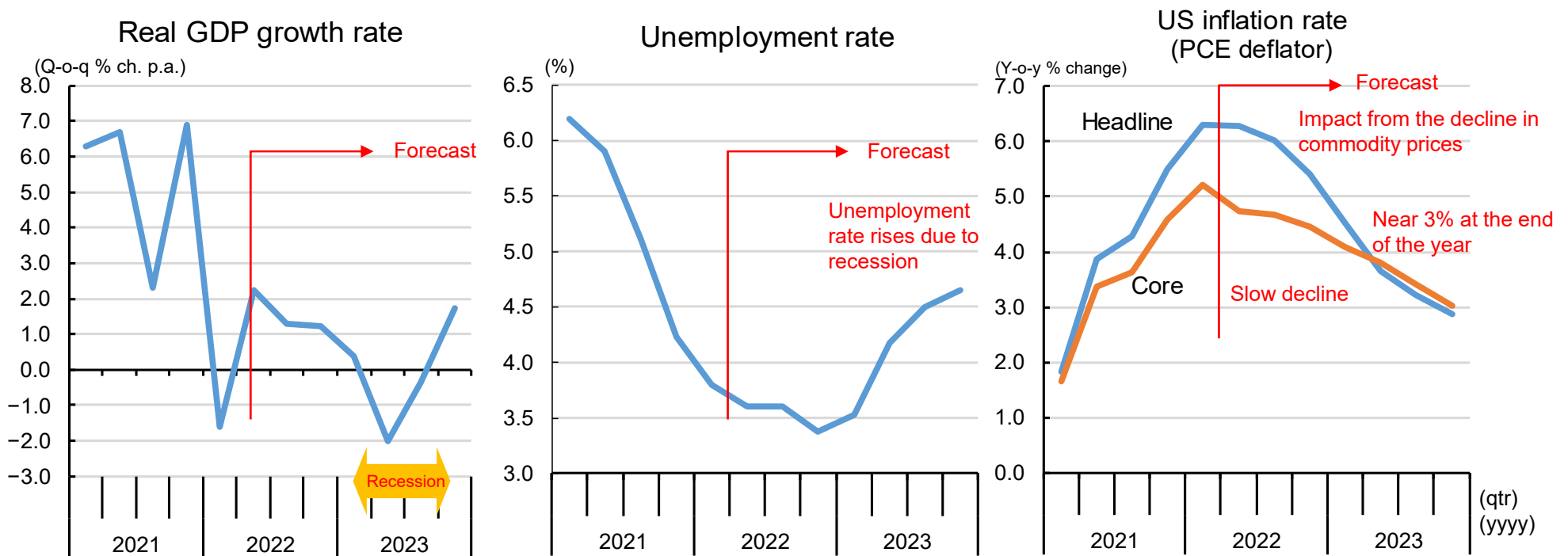


Source: Made by MHRT based upon releases by the US Department of Labor

Fall into a short recession in 2023; inflation will finally fall to around 3% at the end of 2023

- Strong inflationary pressures will persist through 2022. The FOMC will implement sharp interest rate hikes, bringing the FF rate to 3.75 to 4.00%.
 - Although the headline inflation rate will decline reflecting the fall of commodity prices, the core inflation rate will remain high.
- As the decline in inflation will be slow in 2023, the Fed will continue to take a tightening stance.
 - The US economy will enter a recession due to monetary tightening. Even so, given the absence of imbalances in the economy and financial conditions, the recession will end in two quarters and the economy will recover by the end of 2023.
 - The FF rate will be kept unchanged through 2023 in a bid to verify a steady decline of the core inflation rate.

Outlook for the US economy



Note: The Inflation rates are based on the personal consumption expenditures deflator.
Source: Made by MHRT based upon releases by the US Department of Commerce and the US Department of Labor

(2) Eurozone: the rise of prices puts downward pressure on the economy, especially regarding consumption

- Eurozone real GDP growth is forecast to reach +2.5% in 2022 and -0.7% in 2023.
 - Although positive growth is expected in 2022, a further rise in energy prices due to an increase in winter heating demand and the accompanying decline in real disposable income will put downward pressure on the economy, particularly in consumption.
 - In 2023, capital investment will decline against the backdrop of higher financing costs due to the interest rate hikes implemented in the previous year. The recession in the US against a backdrop of rapid interest rate hikes will also serve as downward pressure on eurozone exports.

Outlook for the eurozone economy

		2021	2022	2023	2021				2022				2023			
		CY	(Outlook)		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.	5.3	2.5	-0.7	-0.1	2.1	2.3	0.4	0.5	0.2	0.0	-0.4	-0.7	0.1	0.1	0.6
Domestic demand	Q-o-q % ch.	4.2	2.5	-0.8	-0.6	2.2	2.1	1.2	0.1	-0.0	0.2	-0.8	-1.0	0.5	0.6	0.1
Personal consumption	Q-o-q % ch.	3.6	2.5	-1.2	-2.3	3.8	4.6	-0.2	-0.4	0.4	0.1	-1.0	-1.0	0.2	0.4	0.2
Gross fixed capital formation	Q-o-q % ch.	3.9	2.4	-1.1	-1.8	1.5	-0.7	3.6	-0.5	0.4	0.3	-0.1	-0.9	-0.3	-0.3	0.2
Government consumption	Q-o-q % ch.	3.9	0.9	1.0	0.0	1.8	0.2	0.3	-0.2	0.3	0.2	0.3	0.3	0.3	0.1	0.1
Inventory investment	Q-o-q contribution, % pt	0.4	0.3	-0.1	1.0	-0.5	-0.3	0.5	0.4	-0.4	0.0	-0.3	-0.3	0.4	0.4	-0.1
External demand	Q-o-q contribution, % pt	1.3	0.2	0.1	0.5	-0.1	0.4	-0.8	0.4	0.3	-0.1	0.3	0.3	-0.5	-0.4	0.5
Exports	Q-o-q % ch.	10.5	4.8	0.5	0.3	3.0	2.1	2.7	0.4	0.7	0.4	0.4	0.4	-0.7	-0.7	1.5
Imports	Q-o-q % ch.	8.2	4.8	0.4	-0.8	3.4	1.5	4.8	-0.5	0.2	0.7	-0.3	-0.2	0.2	0.2	0.5
CPI	Y-o-y % ch.	2.6	8.6	6.3	1.1	1.8	2.8	4.6	7.0	8.0	9.2	9.9	9.8	6.9	4.7	4.0
Core, excl. food and energy	Y-o-y % ch.	1.5	3.6	2.8	1.2	0.9	1.4	2.4	2.7	3.7	3.8	4.2	4.2	2.7	2.3	2.0

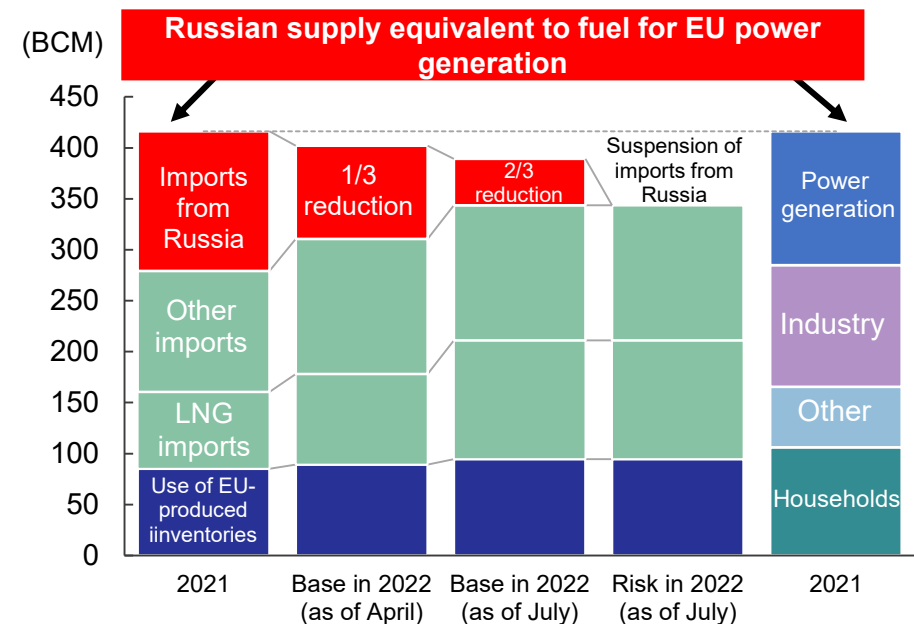
Note: Figures in the shaded areas denote forecasts by MHRT.
Source: Made by MHRT based upon releases by Eurostat

Uncertainties linger, although the capacity of coal-fired power is sufficient to mitigate the risk of gas supply disruptions

- EU's gas imports from Russia have declined more than expected in our assumption in April (by one-third). We now assume a two-thirds decline in imports from Russia in the second half of 2022.
- According to Gazprom, gas supply to Europe “cannot be guaranteed due to force majeure” (July 14), indicating supply disruption risk.
 - In the risk case of a complete suspension of imports from Russia, about half of the demand for natural gas for power generation needs to be substituted by coal-fired power generation.
- Although coal-fired power generation capacity is sufficient for the risk, there are uncertainties regarding the procurement of coal.
 - As such, the EU is also stressing the use of nuclear power, and Germany is considering a shift in its policy direction and reviewing its plan to abolish nuclear power plants by the end of the year (July 18).
 - There will be an energy shortage in the winter if substitution for coal power generation and restraints on gas demand do not proceed smoothly.

Assumptions regarding natural gas supply and demand in the EU

Supply	Previous assumption (as of April)	Base scenario (as of July)	Risk scenario (as of July)
Supply from Russia	Reduction by one-third y-o-y in 2022	<u>Reduction by two-third y-o-y in 2H 2022</u>	<u>Complete suspension</u>
Substitution by supply from other areas	Increase equivalent to 20% of supply from Russia	Increase equivalent to 30% of supply from Russia in view of the current situation	Same as at left
Energy saving and use of renewable energy	Reduction equivalent to 10% of supply from Russia	Reduction equivalent to 15% of supply from Russia in view of the current situation	Same as at left
Substitution by coal-fired power generation	None	<u>Expand coal-fired power generation to increase gas inventories, etc.</u>	<u>About half of the gas-fired power generation to be substituted by coal-fired power</u>
Energy shortage?	No	<u>No</u>	<u>No (if substitution by coal progresses)</u>

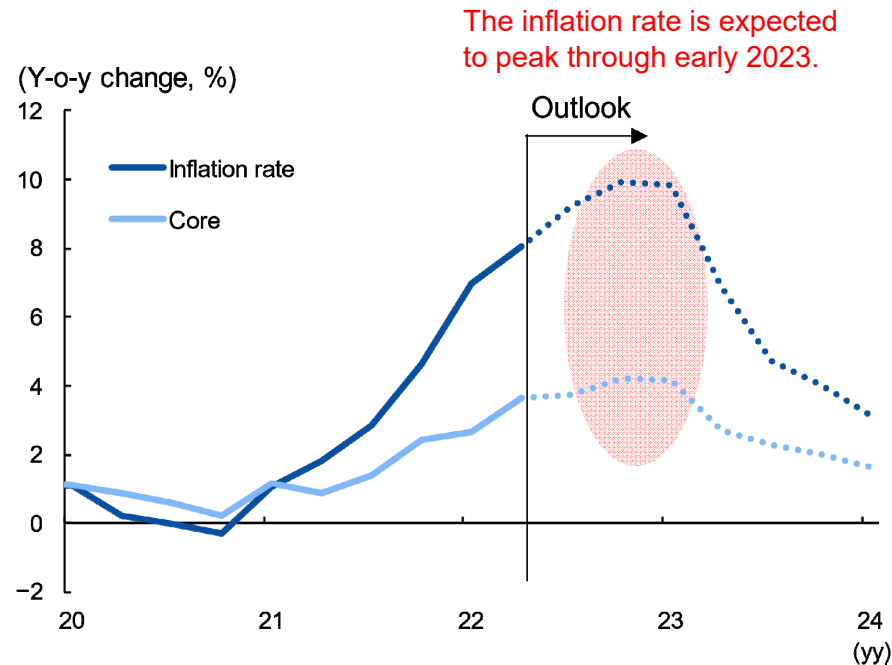


Source: Made by MHRT

A sharp decline of personal consumption is inevitable this winter due to the deterioration of real income

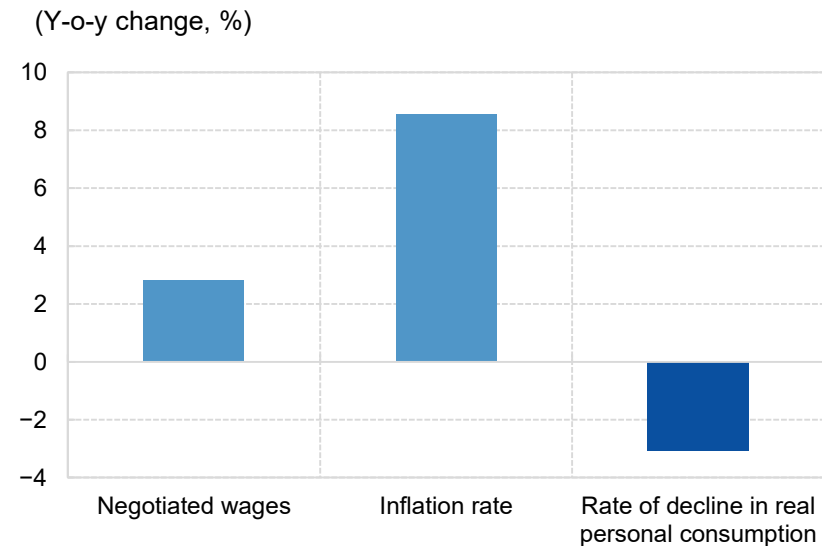
- Inflation is expected to rise to near 10% y-o-y through this winter, mainly due to the surge in natural gas prices (which will peak out after spring 2023, which coincides with a low-demand season for energy).
- A sharp decline of personal consumption is inevitable this winter (2022/4Q to 2023/1Q).
 - Based on MHRI's 2022 inflation forecast (+8.6% y-o-y on average) and negotiated wages in the eurozone (2.8%), real income is expected to decline approximately 6% and serve as downward pressure (around 3%) on personal consumption. In particular, personal consumption this winter will decline sharply due to higher heating demand and the impact of the rise of energy prices.

Eurozone: consumer prices



Source: Made by MHRT based upon releases by Eurostat

Rate of decline in real personal consumption based on wages and the inflation rate



Note: Negotiated wages are for the Jan-Mar quarter of 2022. The inflation rate is based on the forecasts by MHRT for 2022. The rate of decline in real personal consumption is estimated using simple consumption functions.

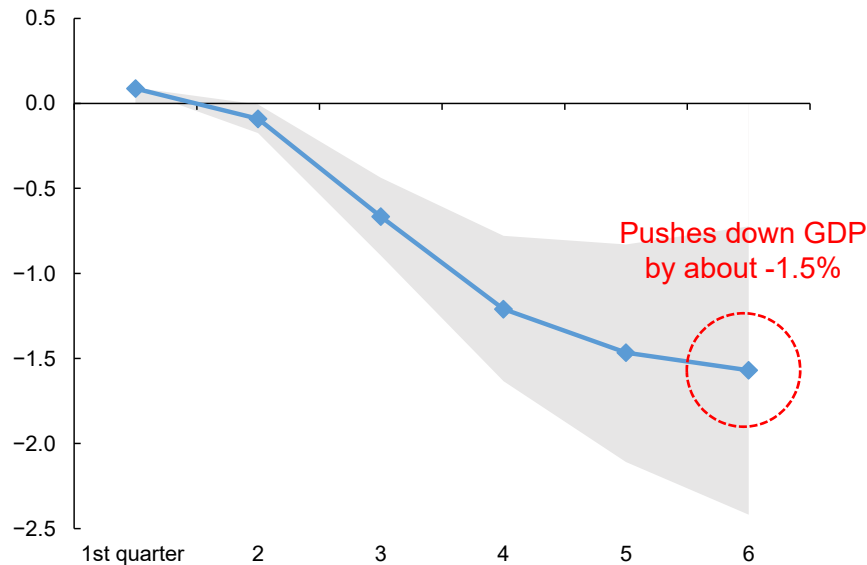
Source: Made by MHRT based upon releases by Eurostat

The ECB will continue to raise interest rates until the end of 2022. Growth in 2023 will be dragged down primarily by investment.

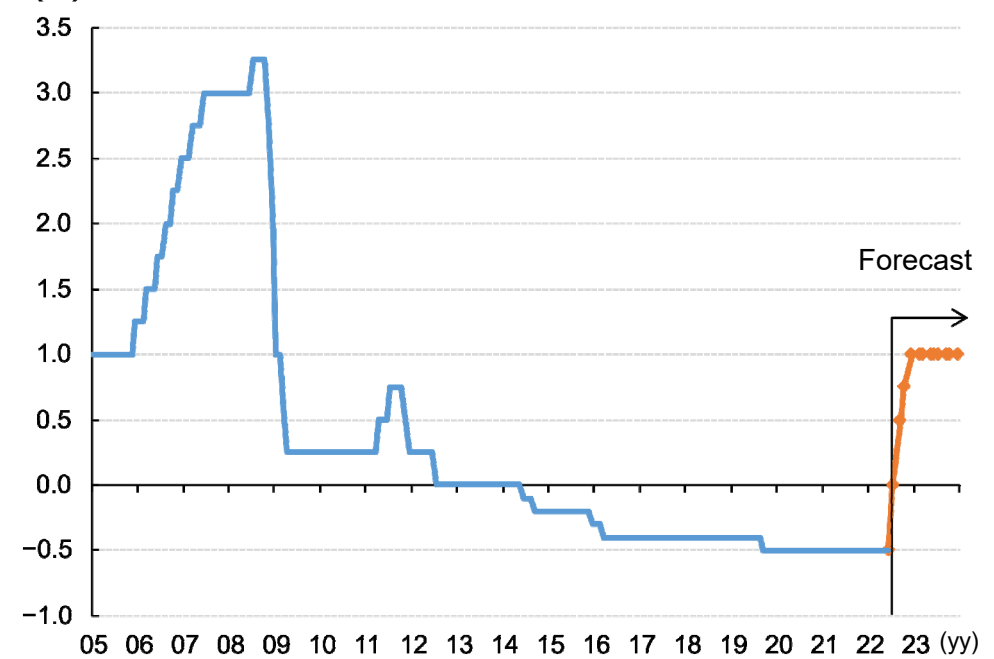
- Capital investment will also weaken, given the impact of interest rate hikes in addition to the deterioration of corporate earnings and rise of future uncertainties.
 - The impact of interest rate hikes on the real economy will become evident around the third quarter (2023/1Q), pushing down GDP by a maximum of approximately 1.5%.
- The ECB is expected to raise interest rates by a cumulative 150 basis points through December.
 - Despite the recession, the ECB will continue to raise interest rates due to concerns regarding inflation (the ECB only targets prices).
 - Starting with the July rate hike (+0.5%), the ECB will raise interest rates by an additional +0.5% in September, followed by two +0.25% rate hikes until December. The policy rate (deposit facility rate) will be set at 1%.

Impact of interest rate hikes on GDP (trial calculation) Trend of the deposit facility rate

(Deviation from the baseline level, %)



(%)



Note: Estimated using a time-series model with about 80 macro & financial variables (FAVAR). Responding to impulses on real GDP in the eurozone by giving a shock of +1% in period 1 and +0.5% in period 2 to the deposit facility rate on the model; shadows are one standard deviation band. When the first period is 3Q 2022, the sixth period is 4Q 2023.

Source: Made by MHRT based upon releases by the ECB and Eurostat, etc.

Source: Made by MHRT based upon releases by the ECB

(3) Emerging economies: EM growth will slow down due to inflation, interest rate hikes, and sluggish external demand; low growth also in China due to zero-Covid policy

- In the emerging economies, the easing of Covid-19-related regulations will support the economy mainly in domestic demand.
- However, the pace of growth will slow down through 2023 reflecting the impact of inflation and interest rate hikes, and the slowdown in external demand mainly in Europe and the US.
 - Despite variations from country to country, the overall slowdown should intensify.
- In China, the side effects of the strict zero-Covid policy will be supported by fiscal measures in 2022. China's growth rate in 2023 is expected to remain at 5.0%—near the lower end of the cruise speed. The zero-Covid policy is expected to be lifted in the Apr-Jun quarter of 2023.

Outlook for Asian and emerging economies

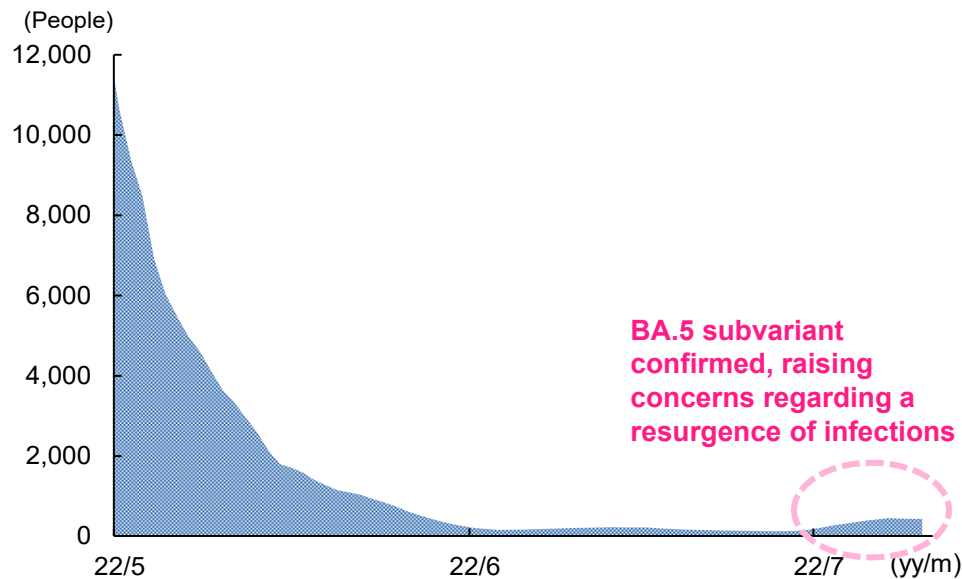
	2020	2021	2022	2023								
			(Outlook)		2020		2021		2022			
					Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
Asia	-0.9	7.1	4.7	4.7	-	-	-	-	-	-	-	-
China	2.2	8.1	4.0	5.0	4.8	6.4	18.3	7.9	4.9	4.0	4.8	0.4
NIEs	-0.6	5.5	2.6	1.9	-	-	-	-	-	-	-	-
South Korea	-0.7	4.1	2.4	1.9	-0.9	-0.9	2.2	6.2	4.0	4.2	3.0	-
Taiwan	3.4	6.6	3.2	1.7	4.3	5.3	9.2	7.8	4.4	5.3	3.1	-
Hong Kong	-6.5	6.3	0.7	3.0	-4.1	-3.6	8.0	7.6	5.4	4.7	-4.0	-
Singapore	-4.1	7.6	3.1	1.9	-4.6	-0.9	2.0	15.8	7.5	6.1	4.0	4.8
ASEAN 5	-3.5	3.3	5.2	4.5	-	-	-	-	-	-	-	-
Indonesia	-2.1	3.7	4.7	4.2	-3.5	-2.2	-0.7	7.1	3.5	5.0	5.0	-
Thailand	-6.2	1.5	3.2	3.5	-6.4	-4.2	-2.4	7.7	-0.2	1.8	2.2	-
Malaysia	-5.5	3.1	6.9	4.1	-2.5	-3.3	-0.5	15.9	-4.5	3.6	5.0	-
Philippines	-9.5	5.7	6.2	5.2	-11.6	-8.2	-3.8	12.1	7.0	7.8	8.3	-
Vietnam	2.9	2.6	6.9	6.1	2.7	4.6	4.7	6.7	-6.0	5.2	5.1	7.7
India	-6.6	8.3	7.2	5.5	-6.6	0.7	2.5	20.1	8.4	5.4	4.1	-
Australia	-2.2	4.8	2.8	2.0	-3.8	-0.5	1.4	9.8	3.9	4.4	3.1	-
Brazil	-3.9	4.6	1.5	0.7	-3.7	-0.9	1.3	12.3	4.0	1.6	1.7	-
Mexico	-8.1	4.8	1.6	0.3	-8.4	-4.3	-3.9	19.9	4.5	1.1	1.8	-

Note: Real GDP growth rate (y-o-y, %); figures in 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

China: the Omicron subvariant BA.5 confirmed in various regions; the zero-Covid policy expected to be lifted in the Apr-Jun quarter of 2023

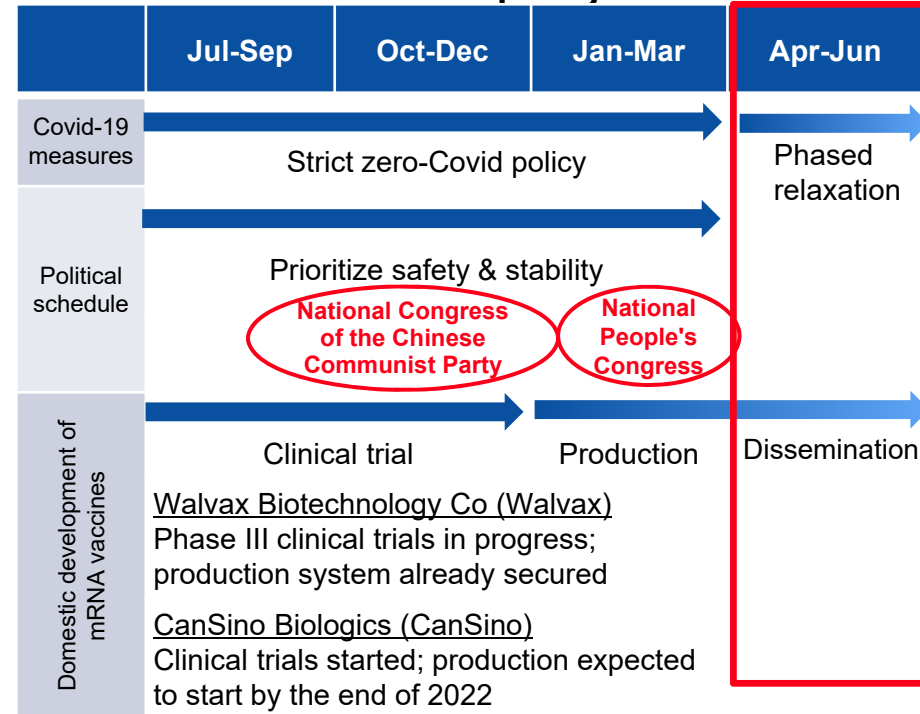
- Sporadic Covid-19 infections continue to be detected. Community-acquired infections of the Omicron subvariant BA.5 have been confirmed in Beijing, Tianjin, Shanghai, Xi'an, and Dalian, etc.
 - Shanghai continues PCR testing for all citizens from July 12 onward. In Lanzhou, strict quarantine measures, including a short-term lockdown, have been implemented since July 11.
 - Although long-term city blockades were avoided, short-term lockdowns and the inspection of entire populations along with restrictions on service industry operations cost consumption opportunities.
- The zero-Covid policy is expected to be lifted in the Apr-Jun quarter of 2023, in view of the development status of domestic mRNA vaccines and forthcoming political events.
 - In addition to domestically produced vaccines under development, foreign vaccines are also in the process of being approved.

Number of new infections in mainland China



Note: The number of infected persons includes those with asymptomatic infections.
 Source: Made by MHRT based upon releases by the National Health Commission of the People's Republic of China, CEIC, and media reports

Outlook for the zero-Covid policy

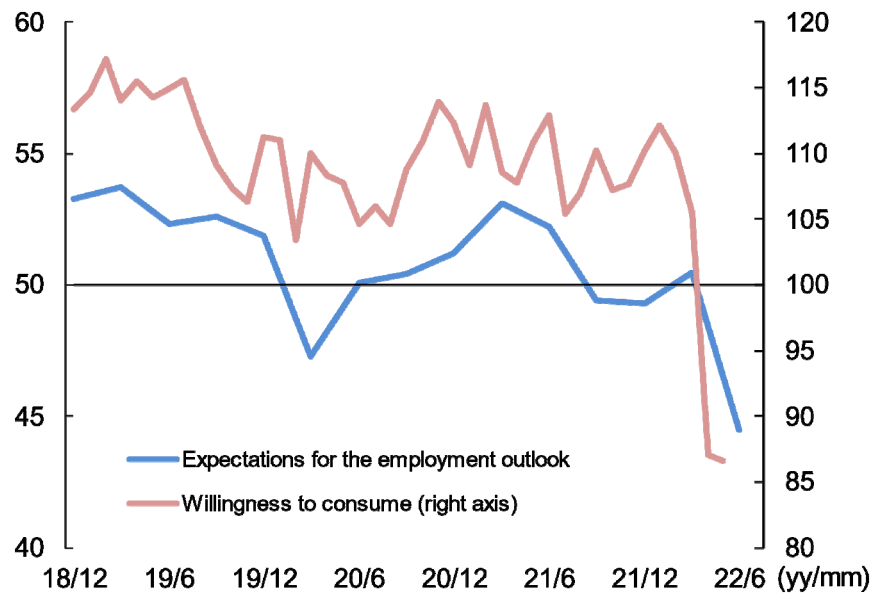


Note: Only major vaccine developers are mentioned. The schedules are based upon media reports, etc.
 Source: Made by MHRT based upon media reports

Even though consumption will pick up, recovery will be slow due to uncertainty about the future

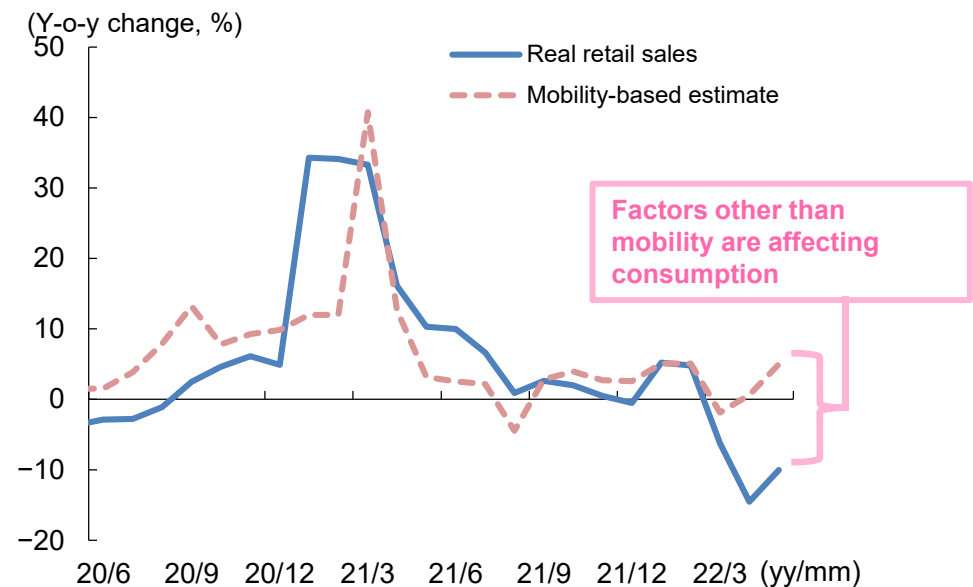
- Restrictions on activities due to the zero-Covid policy and uncertainties regarding future employment are serving as downward pressures on consumption.
 - Companies are taking a more cautious hiring stance in view of the risk of resurgence of Covid-19 infections.
 - Since March, when the unemployment rate exceeded the government target of 5.5%, retail sales slumped more than the rate of mobility decline. Job insecurity served as downward pressure on consumer spending.
- Although a pickup in personal consumption is expected after the zero-Covid policy is lifted, it will be necessary to keep in mind that the pace of recovery will be slow.
 - Although restrictions on activities, etc., will be phased out, the weakness of employment and income due to the Covid-19 pandemic will hamper the recovery of consumption.

Survey of consumers and depositors



Note: Benchmarked by 50 for employment and 100 for consumption; the higher the figure is, the higher the expectation and willingness.
 Source: Made by MHRT based upon releases by the National Bureau of Statistics of China, the People's Bank of China, and CEIC

Retail sales volume (real)

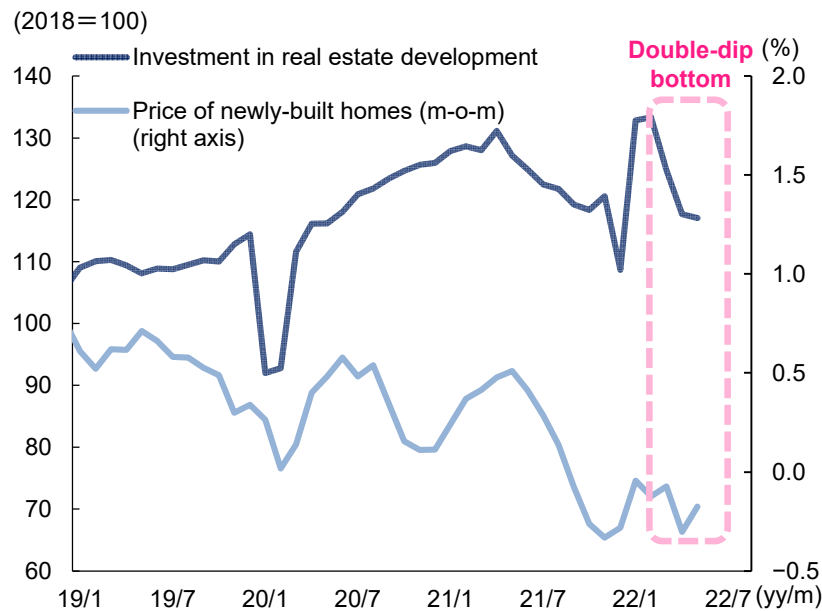


Note: Real retail sales in 2022 are projected from the road congestion index (average of 100 cities) and y-o-y real retail sales from 2020 to 2021. Retail sales are converted into real terms by the retail price index.
 Source: Made by MHRT based upon releases by the National Bureau of Statistics of China, Autonavi, the CIEC, and Wind

The real estate market is experiencing a double-dip bottom; despite policy support, a market bottom is not expected until the turn of the year in 2023 at the earliest

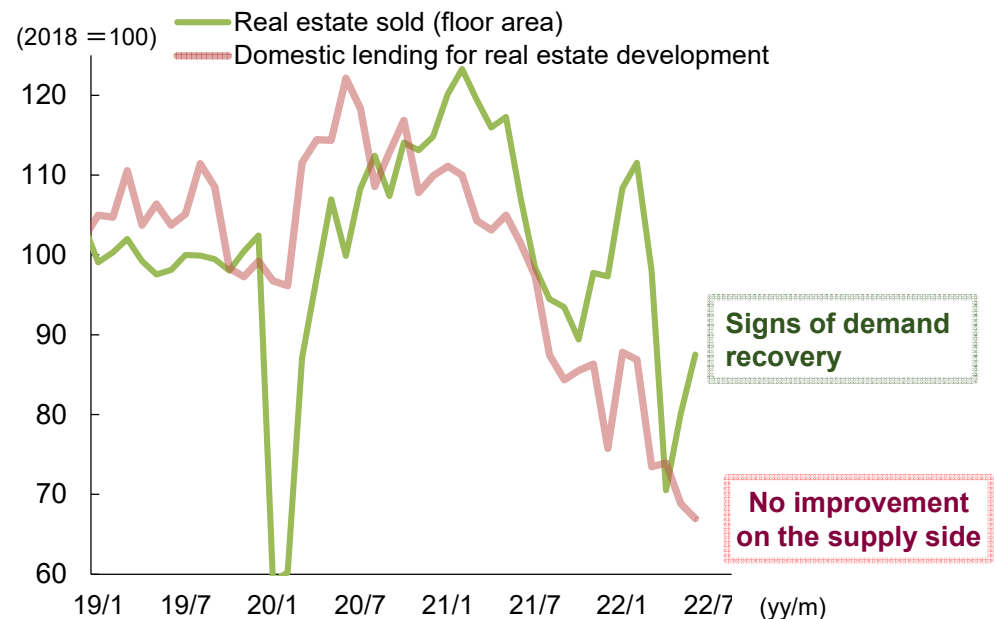
- Despite signs of improvement at the beginning of the year, the spread of Covid-19 infections in cities such as Shanghai in early spring served to dampen demand, thus sending the real estate market into a double-dip bottom.
 - New investment by developers fell sharply, causing real estate development investment to decline again.
- Although there are signs of recovery in demand due to policy support to stimulate real demand, there are no signs of improvement on the supply side, such as loans to developers and inventories.
 - In past recovery phases, lending to developers bottomed out first, followed by real estate development investment about six months later.
 - Given that loans are still following a downtrend at this stage, investments are expected to bottom out after the beginning of 2023.

Investment in real estate development and price of newly-built homes



Note: The price of newly-built homes refer to the average of 70 cities; investment is seasonally adjusted by MHRT.
 Source: Made by MHRT based upon releases by the National Bureau of Statistics of China and CEIC Data

Real estate-related indicators

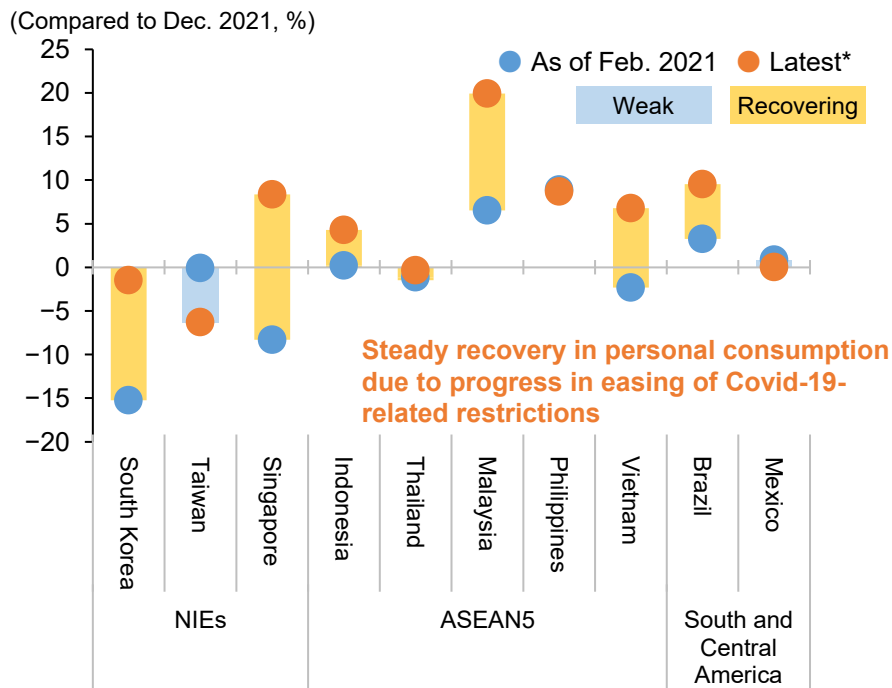


Note: Seasonally adjusted by MHRT
 Source: Made by MHRT based upon releases by the National Bureau of Statistics of China, Ministry of Finance of China, and CEIC Data

Emerging economies: the relaxation of Covid-19-related restrictions will support the economy

- Personal consumption is recovering in many countries amid the progress in easing of Covid-19-related restrictions.
 - Real personal consumption expenditures are continuing to recover in many of the major emerging economies since the beginning of the year.
- The number of passengers, which had been slow to recover in emerging economies, has been recovering due to the easing or lifting of border control measures.
 - This should have a positive impact in supporting the economy, especially in Asia, which is heavily dependent on tourism industry.

Real personal consumption expenditures



Note: The latest figures are as of the Apr-Jun quarter of 2022.
Source: Made by MHRT based upon CEIC Data

Number of travelers to each country

		2021												2022						
		(2019=100)																		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	
US	US	16	11	16	21	27	26	30	33	28	32	43	52	38	34	49	65	-	-	
	Europe	Germany	5	6	7	7	9	20	56	62	54	57	41	29	21	31	39	60	-	-
		France	7	7	9	8	11	-	93	100	72	49	34	37	28	33	45	-	-	-
	Italy	16	16	16	15	24	37	59	89	88	68	45	38	40	44	50	-	-	-	
Asia	South Korea	4	4	5	5	5	5	6	7	6	6	6	6	6	7	7	9	12	-	
	Taiwan	2	2	3	3	1	0	1	1	1	2	2	1	1	1	3	4	5	-	
	Singapore	1	1	2	2	1	1	1	1	1	2	3	6	4	4	8	19	26	-	
	Thailand	0	0	0	0	0	0	1	0	0	1	3	7	4	5	6	9	16	-	
	Vietnam	1	1	1	1	1	0	0	1	1	1	1	1	1	2	3	7	12	16	
	India	9	11	14	9	1	3	7	9	12	20	28	33	22	26	38	43	-	-	
Other	Australia	1	1	1	3	5	5	2	1	1	1	3	9	8	11	22	30	29	-	
	Mexico	43	40	57	60	68	73	78	68	59	77	93	98	81	84	101	95	94	-	

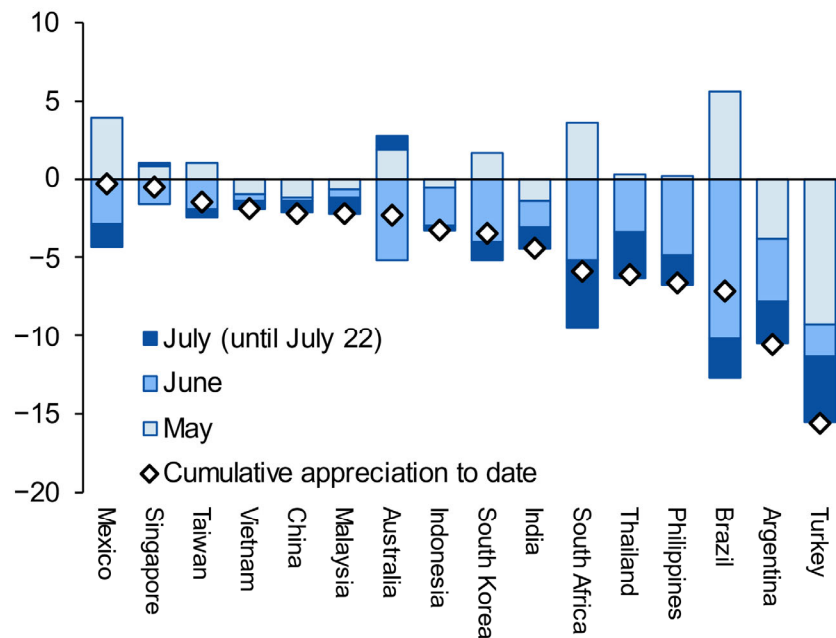
Source: Made by MHRT based upon releases by the FRB

Despite ongoing currency depreciation, default risks are limited in major emerging economies

- Amid the intensification of a risk-off mode, **capital outflow pressures are rising in major emerging economies.**
 - In economies such as Taiwan and South Korea, concerns regarding a slowdown in global semiconductor demand served as downward pressures on the economy.
 - In addition, capital outflows are progressing among countries with current account deficits which have no natural resources and are highly dependent on imports.
- Even so, **as many of the major emerging economies have sufficient capacity for foreign currency payments on their external debt, the possibility of default is remote.**
 - It is necessary to keep a close eye on countries with persistent foreign currency shortages such as Turkey and Argentina.

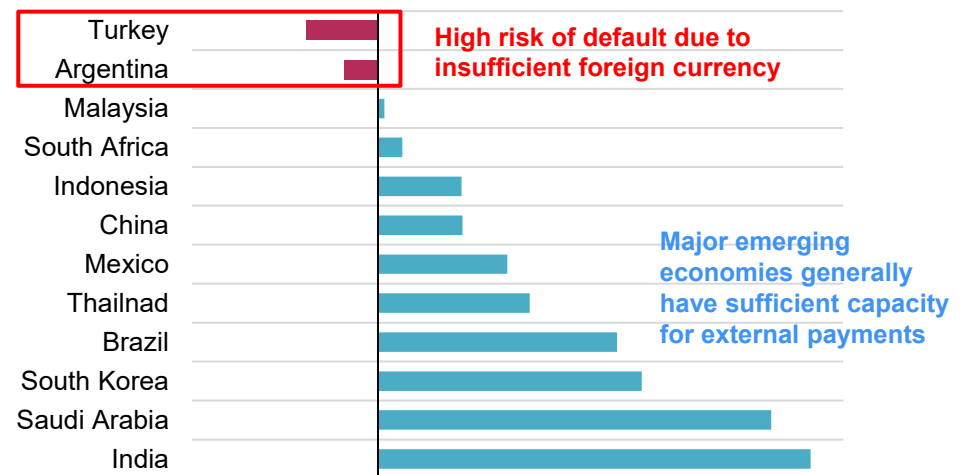
Currency appreciation rate (against the US dollar)

(Compared to early May, %)



Capacity for external payments (Jan-Mar quarter of 2022)

(USD billions)



Capacity for external payments = Reserves for external payments (foreign exchange reserves + current account surplus) – Amount required for external payments (short-term external debt + current account deficit)

Note: The latest data is as of July 22, 2022.
Source: Made by MHRT based upon Refinitiv

Note: Short-term external debt is based on IIF estimates (2022). Foreign exchange reserves and current account balance are actual figures.

Source: Made by MHRT based upon releases by IIF (Institute of International Finance) and the statistics of relevant countries and regions

(4) Japan: the economy should continue to recover in FY2022 (+1.8%) and FY2023 (+1.2%)

- The Japanese economy in FY2022 is forecast to grow +1.8% y-o-y. Although the seventh wave of Covid-19 infection, the deterioration of terms of trade, and the slowdown of the overseas economy are expected to serve as negative pressures, the economy should continue to follow a recovery, mainly in personal consumption, due to the receding concerns regarding infections and government measures to support tourism on the ebb of the seventh wave.
- In FY2023, Japan's economy is forecast to grow +1.2% y-o-y. While the slowdown in overseas economies, such as the recession in the US, will serve as downward pressures, Japan will maintain positive growth due to the easing of the impact of rising prices accompanying the pause in the surge of the commodity market and depreciation of the yen, and the expansion of inbound tourism.

Outlook for the Japanese economy

		2021	2022	2023	2021				2022				2023				2024
		FY	(Outlook)		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
GDP (real)	Q-o-q % ch.	2.2	1.8	1.2	-0.4	0.6	-0.8	1.0	-0.1	0.6	0.6	0.8	0.6	-0.1	0.2	0.3	0.3
	Q-o-q % ch. p.a.	—	—	—	-1.6	2.6	-3.2	4.0	-0.5	2.5	2.3	3.3	2.5	-0.5	0.8	1.2	1.1
Domestic demand		Q-o-q % ch.	1.4	2.2	1.2	-0.5	0.9	-0.9	0.9	0.3	0.9	0.4	0.8	0.6	-0.1	0.3	0.2
Private-sector demand		Q-o-q % ch.	2.1	2.7	1.2	-0.5	1.3	-1.2	1.6	0.5	0.9	0.3	0.8	0.7	-0.1	0.2	0.2
Personal consumption		Q-o-q % ch.	2.6	2.1	1.3	-0.8	0.7	-1.0	2.4	0.1	0.7	-0.1	0.7	0.5	-0.2	0.6	0.4
Housing investment		Q-o-q % ch.	-1.6	-1.0	-0.3	1.0	1.0	-1.7	-1.1	-1.2	0.8	-0.0	0.2	0.0	-0.1	-0.2	-0.2
Capital investment		Q-o-q % ch.	0.8	3.9	1.2	0.5	2.0	-2.4	0.1	-0.7	1.9	2.1	1.8	1.2	-0.7	-0.6	0.1
Inventory investment		Q-o-q contribution, % pt	(0.1)	(0.3)	(0.0)	(-0.1)	(0.2)	(0.1)	(-0.1)	(0.5)	(-0.0)	(-0.1)	(-0.1)	(0.1)	(0.2)	(-0.1)	(-0.1)
Public-sector demand		Q-o-q % ch.	-0.4	0.8	1.1	-0.5	-0.1	0.0	-1.1	-0.4	0.8	0.5	0.6	0.2	-0.0	0.5	0.4
Government consumption		Q-o-q % ch.	2.0	1.4	1.0	-0.7	0.8	1.1	-0.3	0.5	0.4	0.2	0.4	0.3	-0.1	0.3	0.3
Public investment		Q-o-q % ch.	-9.4	-1.1	2.1	-0.0	-3.7	-3.9	-4.7	-3.9	2.5	2.1	1.3	-0.3	0.0	0.9	0.6
External demand		Q-o-q contribution, % pt	(0.8)	(-0.4)	(0.0)	(0.1)	(-0.2)	(0.1)	(0.1)	(-0.4)	(-0.3)	(0.2)	(0.0)	(0.0)	(-0.0)	(-0.1)	(0.0)
Exports		Q-o-q % ch.	12.5	1.1	0.3	2.6	2.8	-0.3	0.9	1.1	-1.4	1.3	0.4	0.2	-0.9	-0.3	0.7
Imports		Q-o-q % ch.	7.2	2.9	0.2	1.8	4.3	-0.8	0.3	3.3	0.2	0.2	0.2	0.2	-0.5	0.1	0.4
GDP (nominal)		Q-o-q % ch.	1.2	1.6	2.5	-0.7	0.4	-1.1	0.3	0.2	0.1	0.2	1.5	2.1	-0.3	-0.1	0.4
GDP deflator		Y-o-y % ch.	-1.1	-0.2	1.3	-0.2	-1.1	-1.2	-1.4	-0.5	-1.2	-1.2	0.1	1.4	1.8	1.8	1.2
Domestic demand deflator		Y-o-y % ch.	1.0	1.5	0.3	-0.4	0.3	0.5	1.2	1.7	1.5	1.9	1.5	1.2	0.7	0.2	0.2

Note: Figures in the shaded areas are forecasts.

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

Recovery in employment and wages is slow. Even though the y-o-y core CPI will remain in the 2% range during 2022, it will slow down in 2023

- Although labor compensation will start to recover mainly in the service sector due to the resumption of economic activities reflecting the ebb of Covid-19 infections, the pace of recovery will be slow, as the deterioration of terms of trade and the slowdown in overseas economies will serve as a drag on corporate earnings primarily in the manufacturing sector.
- Our forecast on FY2022 core CPI (y-o-y) is +2.2%. Even though measures to mitigate the drastic change in fuel oil prices will serve as a drag on prices, the core CPI will remain in the 2% range in 2022, given the rise in prices of food items and the fading impact of lower telecommunication fees. We expect the core CPI to slow to the 0% range in the second half of 2023 along with the pause in surge of the commodity market.

Outlook for the Japanese economy (key economic indicators)

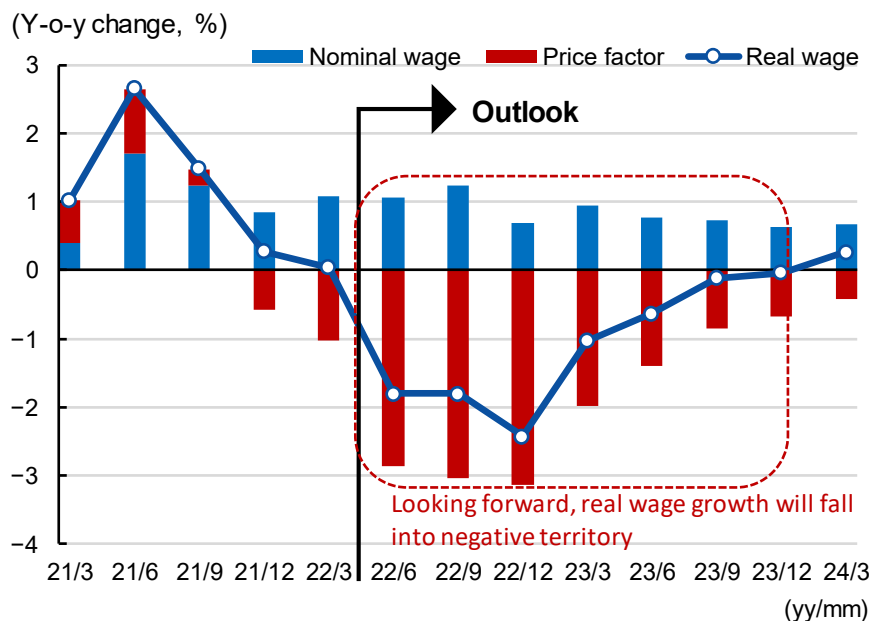
		2021	2022	2023	2021				2022				2023				2024
		FY	(Outlook)		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Industrial production	Q-o-q % ch.	5.8	1.2	3.4	2.6	0.2	-1.9	0.2	0.8	-3.0	3.3	2.2	1.5	-1.2	0.2	2.2	1.1
Ordinary profits	Y-o-y % ch.	36.8	6.5	6.9	26.0	93.9	35.1	24.7	13.7	7.8	7.3	5.5	5.5	8.9	7.1	6.0	5.5
Nominal compensation of employees	Y-o-y % ch.	1.8	1.1	1.1	0.5	2.9	2.3	1.0	1.0	1.1	1.1	1.2	1.1	0.9	1.0	1.2	1.2
Unemployment rate	%	2.8	2.6	2.5	2.9	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.5	2.6	2.6	2.4	2.3
New housing starts	P.a., 10,000 units	86.6	85.7	85.1	83.5	86.5	86.7	85.5	87.3	85.4	85.5	85.7	85.5	85.4	85.1	85.0	84.3
Current account balance	P.a., JPY tril	12.6	7.7	13.5	20.5	17.9	11.9	11.4	9.0	4.5	4.6	9.4	11.3	11.8	12.2	13.3	14.0
Domestic corporate goods price	Y-o-y % ch.	7.0	5.8	-1.9	-0.6	4.4	5.8	8.4	9.2	9.5	7.3	4.6	2.0	-1.8	-2.6	-2.3	-0.9
Consumer prices, excl. fresh food	Y-o-y % ch.	0.1	2.2	0.7	-0.5	-0.6	-0.0	0.4	0.6	2.1	2.4	2.5	1.7	1.2	0.6	0.6	0.4
" (Excl. institutional factors)	Y-o-y % ch.	-0.1	2.8	0.7	-0.4	-0.6	-0.2	-0.0	0.7	2.7	3.0	3.2	2.2	1.4	0.7	0.4	0.2
Consumer prices, excl. fresh food and energy	Y-o-y % ch.	-0.8	1.2	0.8	0.0	-0.9	-0.5	-0.7	-0.9	0.9	1.1	1.4	1.2	1.0	0.8	0.8	0.6
" (Excl. institutional factors)	Y-o-y % ch.	-0.9	1.3	0.7	0.1	-0.9	-0.7	-1.1	-0.9	0.9	1.1	1.6	1.4	1.0	0.8	0.6	0.4

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) (excluding finance & insurance).
3. Consumer prices are assumed to reflect the government's nationwide travel support program for the Oct-Dec quarter of 2022 to Jan-Mar quarter of 2023. The measures to ease the drastic change in fuel oil prices are assumed to be extended after October 2022 (base price will be increased by 1 yen every two weeks) and to remain in effect until the Oct-Dec quarter of 2023. "Excl. institutional factors" in consumer prices excludes the impacts of the GoTo Travel program, the nationwide travel support program, and measures to mitigate drastic changes in fuel oil prices.
Source: Made by MHRT based upon relevant statistics

Real wages will fall into negative territory; higher prices of familiar items will serve as a drag on consumption

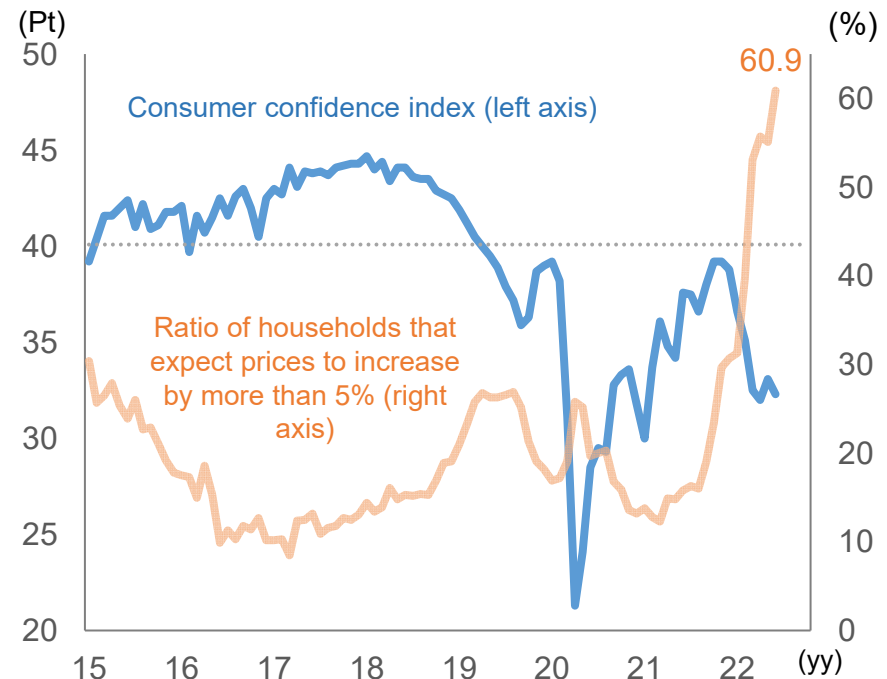
- Real wages will remain in negative territory through 2023.
 - Amid weak nominal wage growth, the growth of real wages will turn negative due to downward pressure from high prices. This will worsen the income environment for consumers.
- Prices of familiar items of households are rising—a factor that is making households more thrift conscious.
 - The number of households expecting prices to rise by more than 5% increased sharply. The consumer confidence index is worsening in tandem, suggesting that it will have an impact on consumption.

Real wages and contribution by components



Note: Continuity corrected values. Converted into real terms using the composite consumer price index excluding imputed rents of owner-occupied houses
 Source: Made by MHRT based upon the Ministry of Health, Labour and Welfare, *Monthly Labour Survey*

Consumer confidence index and the ratio of households that expect prices to increase by more than 5%



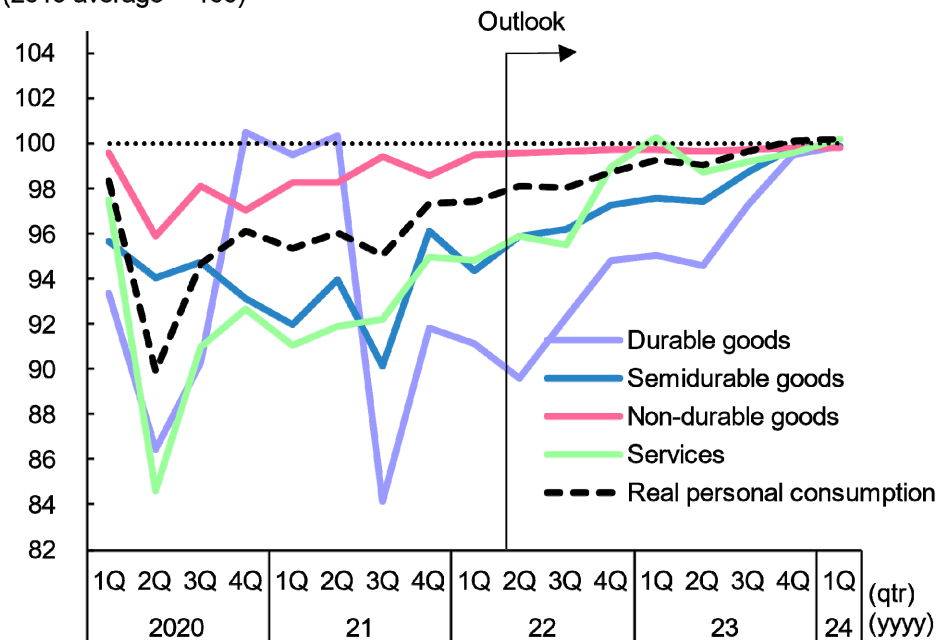
Note: The dotted line shows the historical average of the consumer confidence index (left scale).
 Source: Made by MHRT based upon releases by the Cabinet Office

Consumption of services will recover from the Oct-Dec quarter against the background of excess savings and the ebb of the Covid-19 pandemic

- Although the seventh wave of Covid-19 infections and rise of prices will serve as downward pressures on prices in the Jul-Sep quarter, a recovery should continue from the Oct-Dec quarter onward, mainly in services consumption.
 - Although the resurgence of infections will cause a stall in the Jul-Sep quarter given the intensification of a cautious stance in consumption behavior, the government's measures to support tourism will be a boost from the Oct-Dec quarter onward. The recovery in the consumption of services toward individuals will boost GDP by more than 2% in FY2022.
 - The increase in savings (+50 trillion yen compared to the pre-pandemic level), mainly among middle- and high-income brackets, will be the source of recovery in services consumption. On the other hand, the savings of low-income brackets are not increasing, and the buffer to mitigate price hikes is small, leading to restraints on selective spending.

Outlook on personal consumption

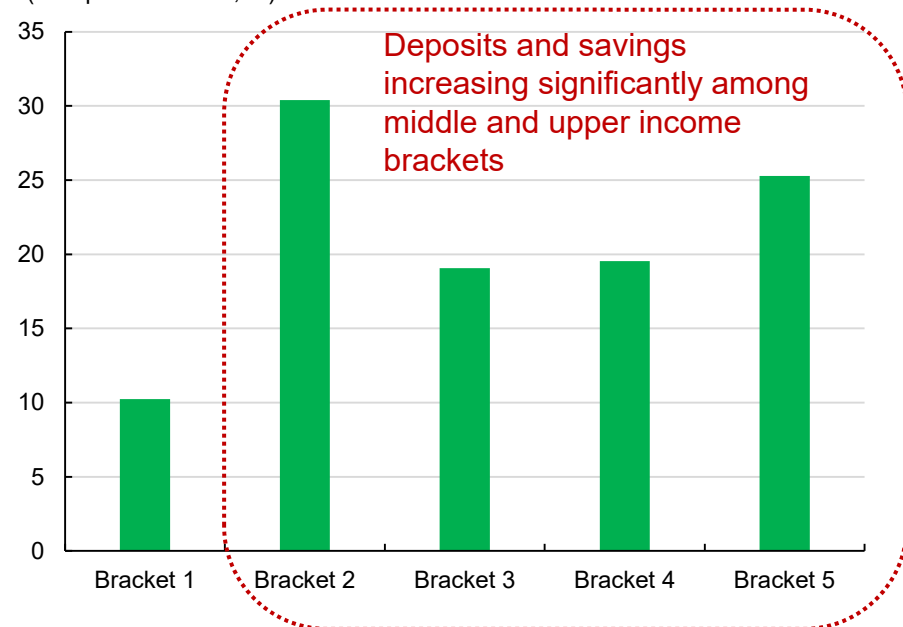
(2019 average = 100)



Source: Made by MHRT based upon the Cabinet Office, *National Accounts* and JCB & Nowcast, *JCB Consumption NOW*

Percentage increase in deposits and savings (by annual income bracket) (2019–2021)

(Compared to 2019, %)

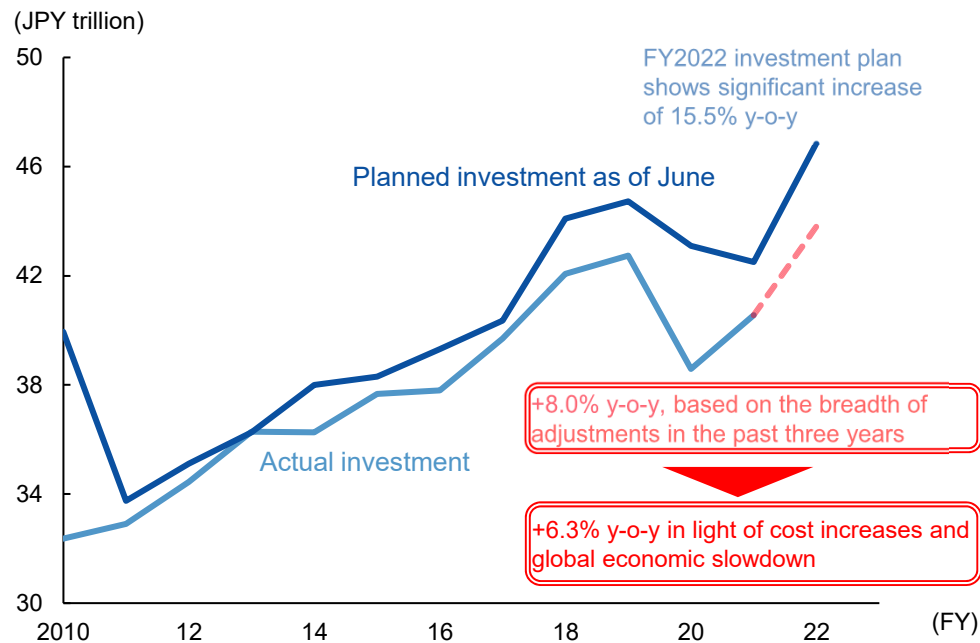


Note: Workers' two-or-more person households,
Source: Made by MHRT based upon the Ministry of Internal Affairs and Communications, *Family Income and Expenditure Survey*

Despite a sharp increase of capital investment plans, business sentiment lacks momentum, providing reasons to believe that it will be subject to a downward revision

- The *BOJ Tankan Survey* (in June) shows a significant increase of 15.5% y-o-y in capital investment plans (fixed investment including software investment excluding land purchasing expense) for FY2022.
 - According to a simple estimation based on the past average pattern of revising the plan to actual investment, an increase of 8.0% is expected on an actual basis (nominal value).
 - The DI for capital investment-related comments, compiled from comments made by companies in the *Economy Watchers Survey*, remains in negative territory with “Negative” surpassing “Positive.” Investment plans are expected to be revised downward reflecting the rise of costs and slowdown in overseas economies (FY2022 forecast: +6.3% in nominal terms).

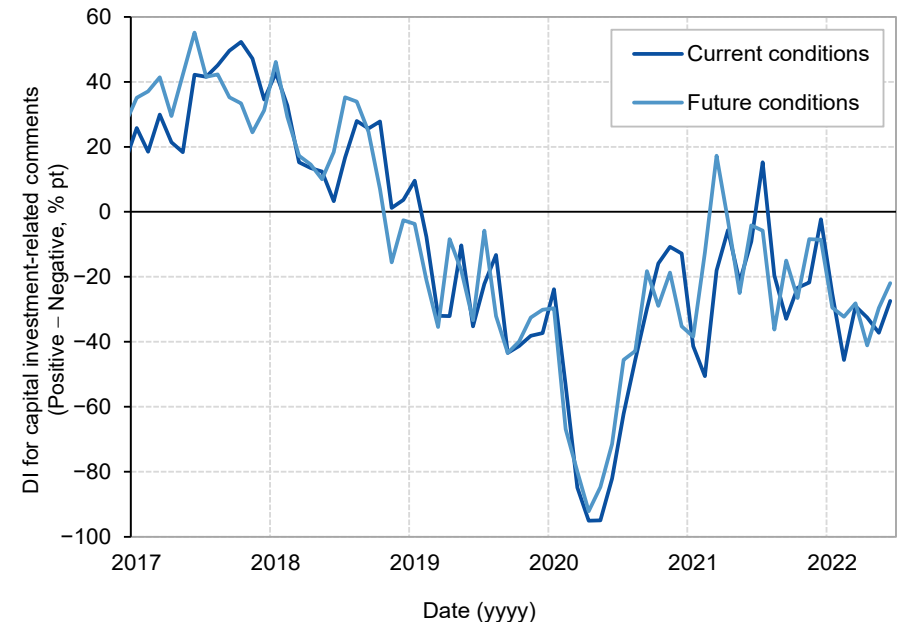
BOJ Tankan Survey: Capital investment (based on planned investment as of June) and actual investment



Note: Capital investment includes software investment and excludes land purchasing expense; based on all sizes and all industries

Source: Made by MHRT based upon the Bank of Japan, *Tankan Survey*

DI for capital investment-related comments by companies



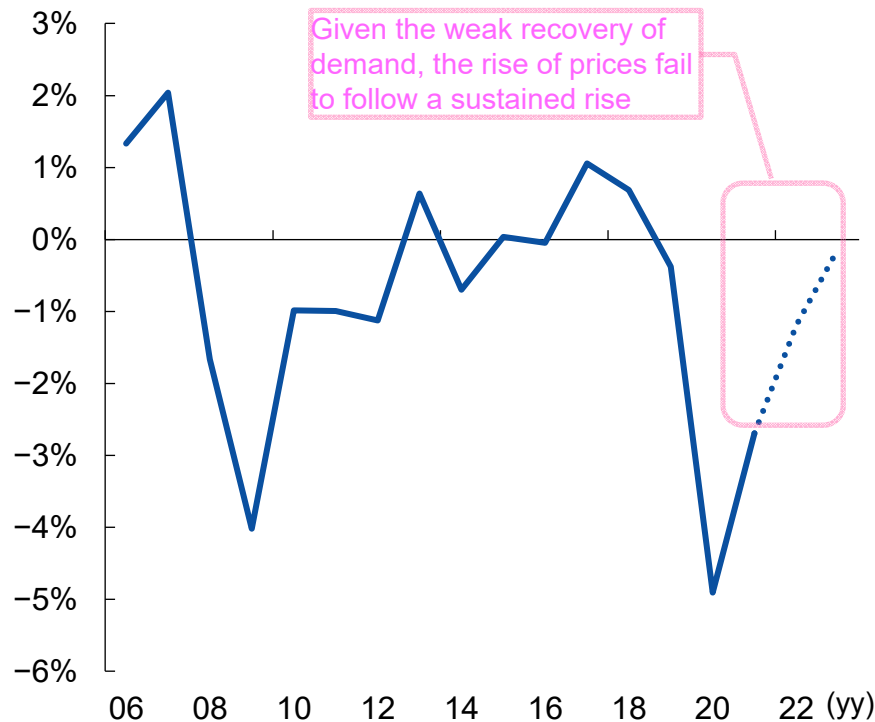
Note: Backward 3-month moving average; the DI for capital investment-related comments is calculated by subtracting the number of negative (bad or somewhat bad) responses from the number of positive (good or somewhat good) responses to the question about corporate trends for the comments including capital investment-related terms (investment, construction, profit, operation), and then by dividing the resulting figure by the sum of the number of positive and negative responses.

Source: Made by MHRT based upon the Cabinet Office, *Economy Watchers Survey*

The output gap remains in negative territory; the core CPI will return to the 0% range as the impact of the rise of commodity prices fades

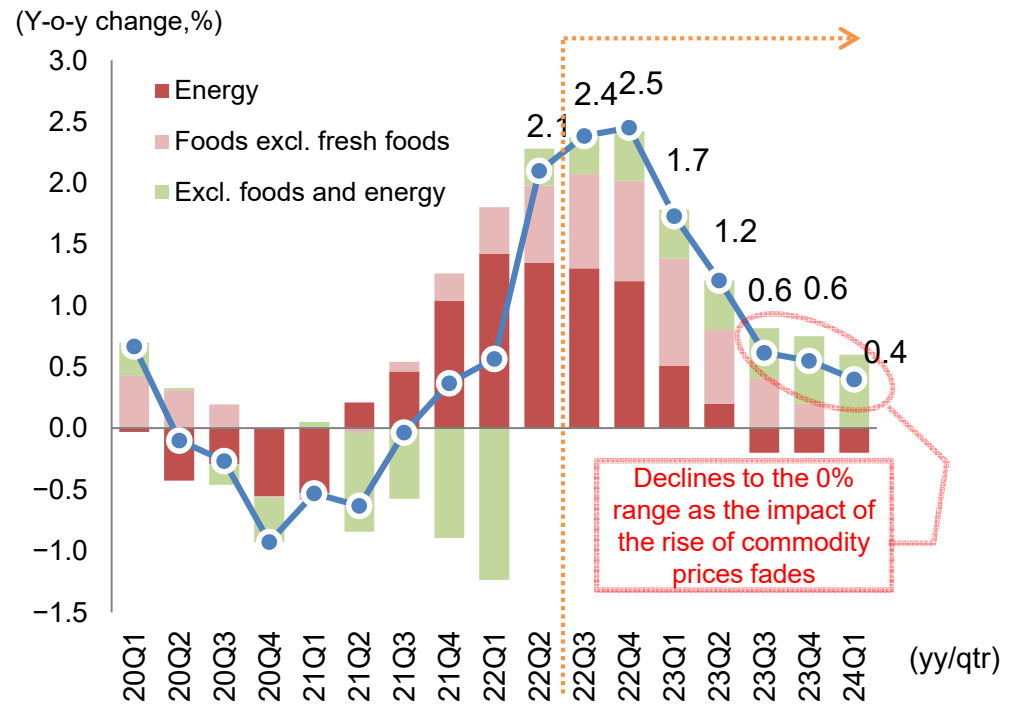
- The output gap remained in negative territory due to the sluggish rise of wages and slowdown in overseas economies.
 - The underlying tone of prices is likely to lack momentum amid insufficient tightening of supply & demand in economic activities.
 - Given that cost-push inflation is unsustainable, the year-on-year change of the core CPI will slow to the 0% range in FY2023 due to a pause in the surge of the commodity market and depreciation of the yen.

Japan's output gap



Note: dotted lines indicate projected values.
Source: Made by MHRT based upon releases by the Cabinet Office, etc.

Outlook on core CPI excluding fresh food



Note: The project to mitigate the drastic change in fuel oil prices is assumed to be extended beyond October. The nationwide travel support program is assumed to be implemented from the Oct-Dec quarter of 2022 to the Jan-Mar quarter of 2023.
Source: Made by MHRT based upon the Ministry of Internal Affairs and Communications, *Consumer Price Index*

(5) Financial markets: the long-term US interest rate will rise through the end of 2022, and the yen will continue to weaken against the US dollar

- The US long-term interest rate is projected to rise to 3.7% through the end of 2022 and subsequently hover around 3.5% from the Jan-Mar quarter of 2024. Although the long-term interest rate is expected to recover in the summer of 2023 due to expectations for a bottoming out of the economy, monetary policy on the tightening side is expected to keep the rise of the long-term interest rate subdued.
- We expect that the US stock market will fall through the end of 2022, as the market factors in the rise of US interest rates and future recession, and will remain at rock-bottom levels through the Jul-Sep quarter of 2023. Although Japanese stocks are expected to soften in tandem with US stocks, they should follow firm footing from FY2023 onward.
- According to our forecasts, the yen will continue to weaken against the dollar through the end of 2022. The widening of the Japan-US long-term interest rate differential, the narrowing of the current account surplus, and yen-selling by speculators focusing on the difference in monetary policy between the US and Japan will serve as yen-weakening pressures. From 2023, the yen will gradually strengthen against the US dollar as the yen-weakening factors fade.

Outlook for financial markets

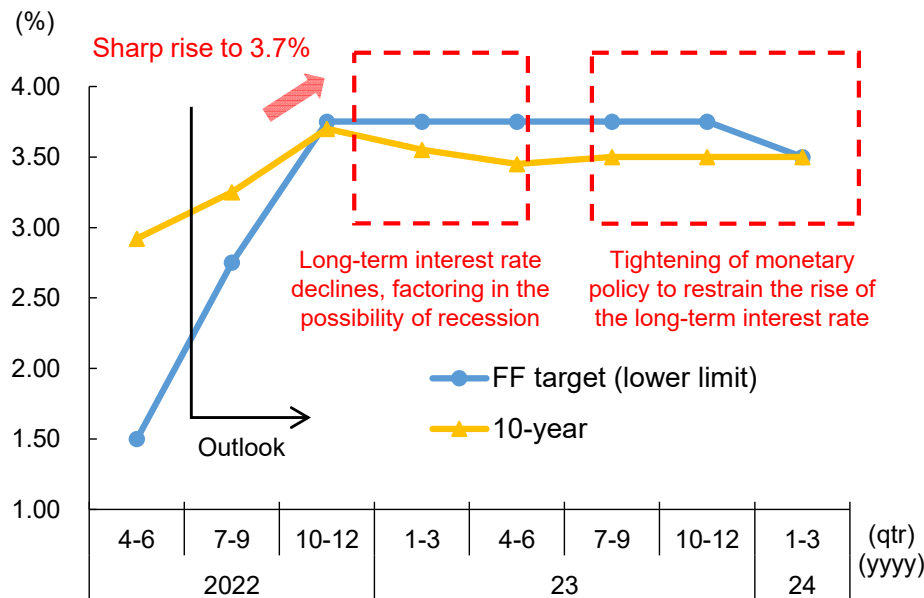
	2021 FY	2022 FY	2023 FY	2021				2022				2023				2024 Jan-Mar
				Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	
Japan																
Interest rate on the policy rate balance (End-of period value, %)	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
Newly issued JGBs (10-year, %)	0.09	0.15 to 0.26	0.15 to 0.25	0.07	0.07	0.03	0.07	0.18	0.23	0.15 to 0.25	0.15 to 0.25	0.15 to 0.25	0.15 to 0.25	0.20 to 0.25	0.20 to 0.25	0.20 to 0.25
Nikkei Stock Average (JPY)	28,385	22,400 to 29,000	22,300 to 31,600	28,988	28,962	28,568	28,824	27,185	26,885	22,800 to 29,000	22,400 to 28,600	22,800 to 29,000	22,300 to 30,300	22,600 to 30,600	23,200 to 31,200	23,600 to 31,600
US																
Federal Funds Rate (lower end) (End-of period value, %)	0.25	3.75	3.50	0.00	0.00	0.00	0.00	0.25	1.25	2.75	3.75	3.75	3.75	3.75	3.75	3.50
Newly issued government bonds (10-year, %)	1.59	2.38 to 4.05	3.10 to 3.85	1.30	1.58	1.32	1.53	1.94	2.92	2.70 to 3.60	3.35 to 4.05	3.20 to 3.90	3.10 to 3.80	3.15 to 3.85	3.15 to 3.85	3.15 to 3.85
Dow Jones Average (USD)	34,815	24,600 to 35,161	23,900 to 33,100	31,493	34,121	34,910	35,515	34,711	32,714	26,000 to 33,000	24,700 to 31,700	24,600 to 31,600	23,900 to 31,900	24,200 to 32,200	24,500 to 32,500	25,100 to 33,100
Eurozone																
ECB deposit facility rate (End-of period value, %)	-0.50	1.00	1.00	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
German government bonds (10-year, %)	-0.17	0.51 to 1.77	1.00 to 1.85	-0.41	-0.22	-0.37	-0.24	0.16	1.10	0.95 to 1.75	1.05 to 1.75	0.95 to 1.65	1.00 to 1.70	1.05 to 1.75	1.10 to 1.80	1.15 to 1.85
Exchange rates																
USD/JPY (USD/JPY)	112	122 to 149	126 to 143	106	109	110	114	116	130	133 to 147	136 to 149	130 to 146	127 to 143	127 to 143	127 to 143	126 to 142
EUR/USD (EUR/USD)	1.16	0.90 to 1.10	0.95 to 1.09	1.21	1.21	1.18	1.14	1.12	1.06	0.91 to 1.05	0.90 to 1.00	0.92 to 1.00	0.95 to 1.03	0.96 to 1.04	0.99 to 1.06	1.01 to 1.09

Source: Made by MHRT based upon releases by Bloomberg

The US long-term interest rate will rise to the upper 3% range through the end of 2022

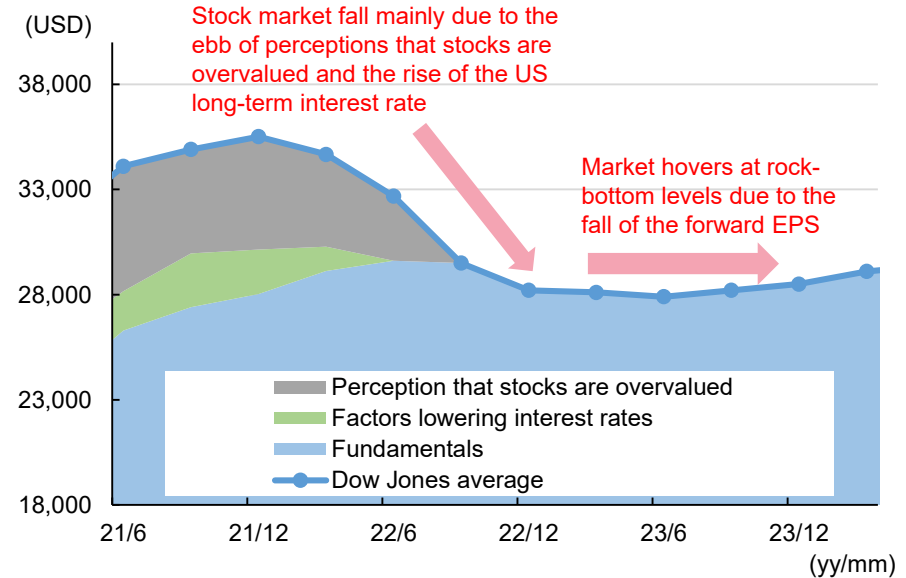
- The US long-term interest rate will rise to 3.7% through the end of 2022 and subsequently hover around 3.5% from the Jan-Mar quarter of 2024.
 - Through the end of 2022, the long-term interest rate is forecast to rise sharply, factoring in rate hikes that are higher than market expectations.
 - In 2023, we expect the US long-term interest rate to take a downturn due to the intensification of concerns regarding recession.
 - Despite a recovery of the US long-term interest rate in the summer of 2023 due to expectations toward a bottoming of the economy, the tight monetary policy is expected to suppress the rise of the long-term interest rate.
- We expect the US stock market to fall through the end of 2022, factoring in the rise of US interest rates and future recession. The market will remain at rock-bottom levels until the Jul-Sep quarter of 2023.

Outlook on US interest rates



Note: 10 years refers to the US Treasury yield (quarterly average). The FF target is the value at the end of the quarter
 Source: Made by MHRT based upon releases by Bloomberg

The Dow Jones average and sense of overvaluation, fading of factors lowering interest rates

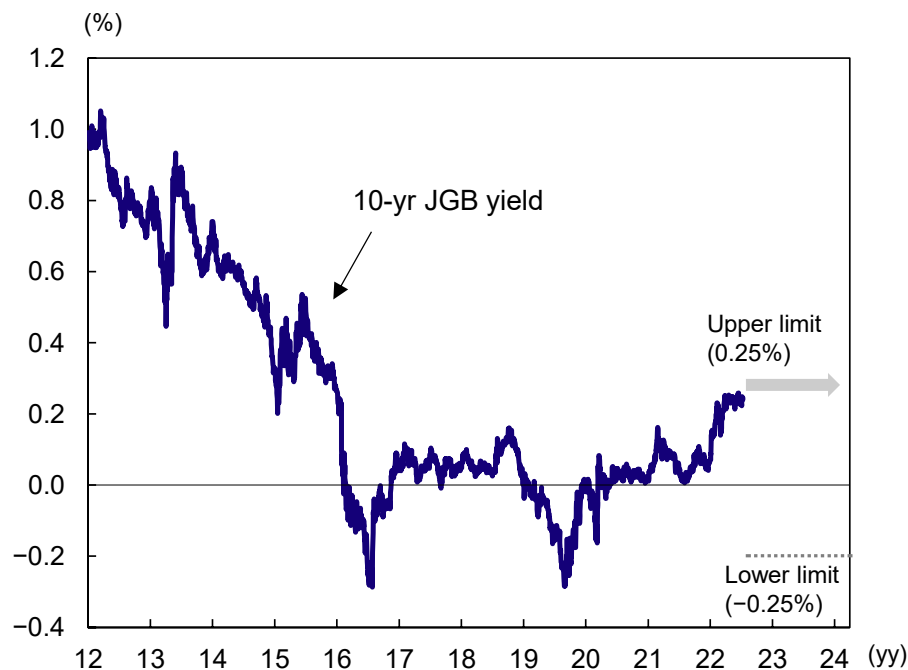


Note: The "perception that stocks are overvalued" refers to the amount that the actual stock price exceeds the stock price calculated by theoretical P/E ratio taking into account the level of interest rates at each point of time. The factors lowering interest rates are calculated from the theoretical P/E ratio based on the assumption that long-term interest rates are at the same level as the average of the past 10 years. The predicted value is the median of the range.
 Source: Made by MHRT based upon releases by Refinitiv

It will be difficult to achieve the 2% price stability target The BOJ's monetary policy will remain unchanged

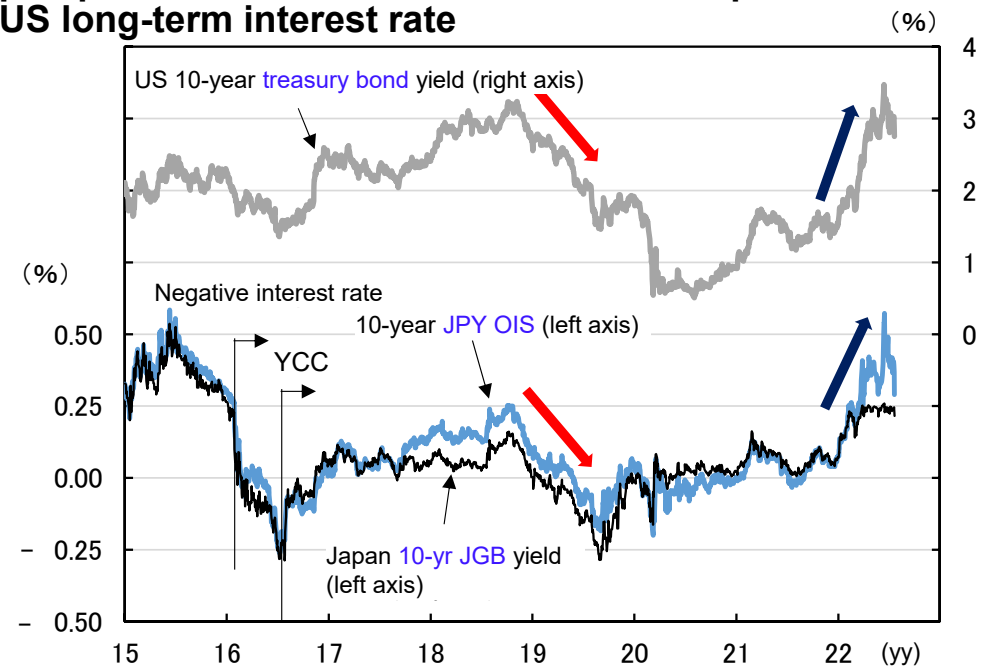
- Given the difficulty to achieve the 2% price stability target, a revision of yield curve control (YCC) is unlikely.
 - The BOJ is not expected to change its current monetary easing policy. Inflationary pressures in Japan are weak, and the 2% price stability target is not expected to be achieved stably. If the price stability target cannot be achieved, the BOJ will have no choice but to continue negative interest rates and YCC.
 - Even if YCC is lifted as a countermeasure against side effects, it is still necessary to wait until Japan's long-term interest rate falls "naturally" below 0.25%.
 - ◆ In 2018, the 10-yr JPY OIS (more or less equal to the natural 10-yr JGB yield) fell below 0.25% as US long-term interest rates dropped below 3%. On the other hand, since the US long-term interest rate is not expected to fall below 3% during the forecast period, it will be difficult to lift YCC.

Actual and outlook on long-term interest rate



Source: Made by MHRT based upon Bloomberg

Exploring the conditions for lifting YCC from the perspective of the correlation between Japanese and the US long-term interest rate

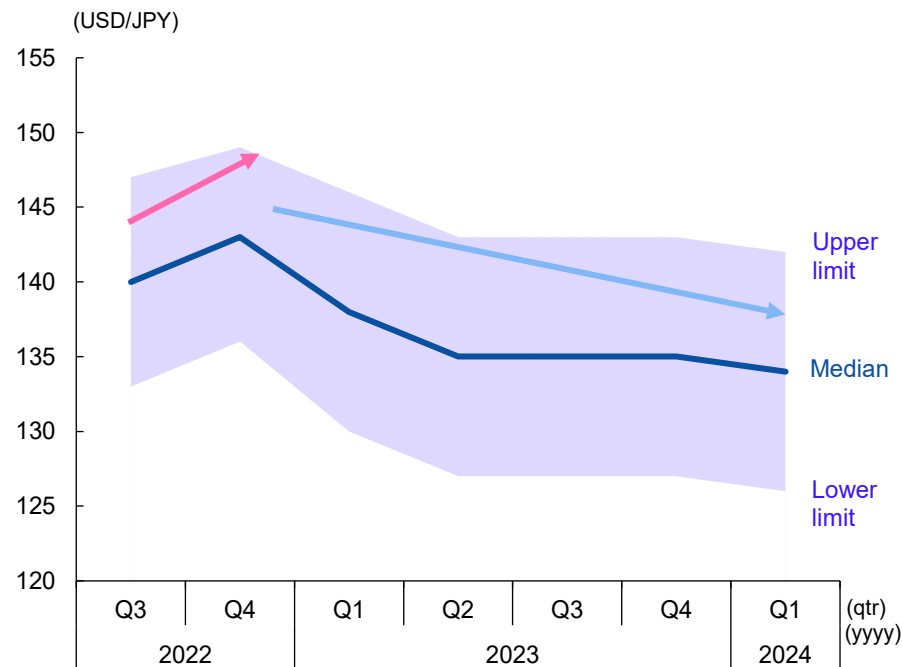


Source: Made by MHRT based upon Bloomberg

We expect a further weakening of the yen against the US dollar through the end of 2022. From then onward, the yen should gradually strengthen against the US dollar

- We expect a further weakening of the yen against the US dollar through the end of 2022.
 - Through the end of 2022, the widening of the Japan-US long-term interest rate differential, the narrowing of the current account surplus, and yen-selling by speculators in view of the difference in monetary policies of Japan and US will serve as yen-weakening pressures. The yen is expected to weaken further against the dollar and reach the lower-140 yen level through the end of 2022.
 - From 2023 onward, we forecast that the yen will gradually strengthen against the dollar and reach the mid-JPY130 /USD level, as the foregoing yen-weakening factors fade.

USD/JPY exchange rate outlook



Present – End of 2022

- (1) Interest rate factors: widening Japan-US interest rate differential due to US interest rate hikes
 - (2) Real demand factors: narrowing current account surplus
 - (3) Speculative factors: excessive yen selling due to differences in monetary policy between Japan and the US
- All factors (1) through (3) will serve as yen-weakening factors, and **the yen is expected to weaken against the US dollar and to reach the lower half of the JPY140/USD level** through the end of 2022.

From 2023 onward

- (1) The US economy will enter a recession, and the accompanying decline of US interest rates will lead to the narrowing of the Japan-US interest rate differential.
 - (2) The current account surplus will expand (decline in oil prices and recovery of inbound tourism).
 - (3) Excessive yen selling will gradually fade away.
- All factors (1) through (3) will serve as yen-strengthening factors, and **the yen will gradually strengthen to the mid-JPY130/USD level.**

Note: The solid blue line is the median for the quarter. Purple shadows indicate ranges.
Source: Made by MHRT based upon Bloomberg

Reference: key political events

	2022		2023		2024	
US	Nov	Mid-term elections	Mar	20 years since the Iraq War	Nov	Presidential election
Europe	Sep	UK: announcement of new prime minister	By year-end	Spain: legislative election	May	Russia: end of term of President Vladimir Putin
	Sep	Italy: legislative election			May	UK: parliamentary elections European Parliamentary elections
Japan			Apr	End of term of Bank of Japan Governor Haruhiko Kuroda	Jul	End of term of the governor of Tokyo
			Apr May	Nationwide local elections G7 Summit (Hiroshima)		
Asia	Autumn	China: 20th National Congress of the Communist Party	Spring	China: National People's Congress	Jan	Taiwan: presidential election
			By Mar	Thailand: election of the House of Representatives (lower house)	Feb	Indonesia: presidential and parliamentary elections
Other	Oct	Brazil: presidential and legislative elections	By Jul	Cambodia: general election	1H	South Korea: legislative election
	Oct	G20 Summit (Indonesia)	By Aug	Myanmar: general election	By mid-year	India: general election
Other	Nov	COP27 (Egypt)	By Sep	Malaysia: general election	Jun	Mexico: presidential election
			Oct	Argentina: presidential and legislative elections		
			Nov	COP28 (UAE)		
			By year-end	G20 Summit (India)	By year-end	G20 Summit (Brazil)
			By year-end	Turkey: presidential and legislative elections	By year-end	COP29

Source: Made by MHRT based upon media reports

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