FY2023 - FY2024 Economic Outlook

Persistent inflationary pressures are lingering. Financial and monetary policy tightening serve as a drag on the global economy.

February 21, 2023

Mizuho Research & Technologies, Ltd.

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Key points of our outlook

- We expect global economic growth to remain slow, at +2.4% in 2023. The US will fall into a recession through 2023 due to inflation and interest rate hikes. While Asian economies will start to recover driven by services consumption led by China after its lifting of the zero-Covid policy, the rise of prices will put downward pressure on domestic demand, and slow external demand will hamper growth. The global economy in 2024 will recover at a slower pace of +2.9% as inflationary pressures remain.
- In the US, where inflationary pressures are strong due to tight labor supply & demand, the Federal Reserve Board (the Fed) is expected to raise the federal funds (FF) rate to 5.00–5.25% through early 2023 in a bid to curb inflation, and subsequently lower the FF rate from the end of 2023. The rise of interest rates will serve as downward pressure on housing investment, capital investment, etc., pushing the US economy into a recession from the Apr-Jun quarter of 2023 to the Oct-Dec quarter of 2023.
- In Europe, the economy followed firm footing at the end of 2022 due to lower gas prices following a warm winter. Meanwhile, the ECB continues to tighten monetary policy due to concerns about wage inflation. The European economy is expected to fall slightly into negative territory (-0.1%) in 2023 due to the rise of interest rates and core inflation. Subsequently, a moderate recovery is expected in 2024.
- The Chinese economy is expected to pick up, driven by services consumption in 2023, given its lifting of the zero-Covid policy. Although the property market will remain sluggish, it will bottom out in late 2023 and is expected to grow close to 4% in 2024. While ASEAN will benefit from inbound recovery from China, the stagnation of the US and European economies will put downward pressure on the NIEs exports. By 2024, each of these factors will fade, and growth will return to the mid-4% range.
- Turning to the Japanese economy, despite downward pressures stemming from the rise of prices and overseas economic slowdown, positive growth will be maintained due to recovery mainly in services consumption and in demand for inbound tourism. The Japanese economy is forecast to follow firm footing in 2023 in relative terms compared to the negative growth of major developed countries. While overseas economic recovery will boost Japan's exports in 2024, real wages will continue to fall, and growth will slow down.
- Turning to the financial markets, we expect US long-term interest rates and US stock prices to fall through the second half of 2023. The Bank of Japan (BOJ) is expected to abolish its long-term interest rate target in the Apr-Jun quarter of 2023 and will abandon negative interest rates in the Oct-Dec quarter of 2024. Japan's long-term interest rate will rise to close to 1%. The yen is expected to strengthen against the dollar, reaching JPY120/USD level reflecting the narrowing gap between US and Japanese interest rates.

A view of the world: testing times for the capacity to address the "after effects of the Covid-19 pandemic and the destabilization of the global order"

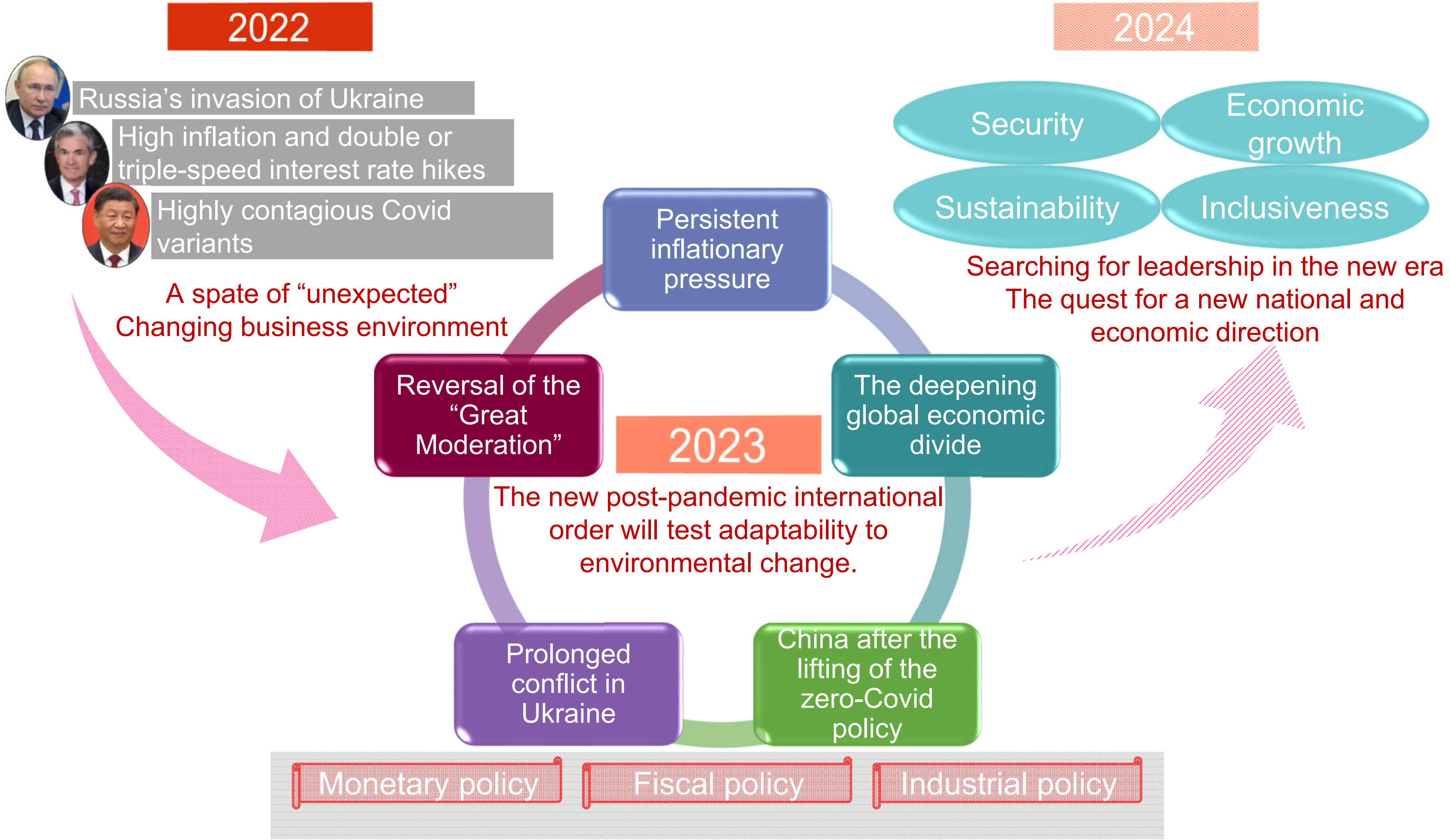


Image: Presidential Executive Office of Russia, FRB, and China News Service
Source: Made by MHRT

Outlook on the global economy: stagnant 2023 and slow recovery in 2024

Outlook on the global economy (revised as of February)

(Y-o-y % change) (% pt)

	2021	2022 (Estimate)	2023 (Outlook)	2024 (Outlook)	2023 (Comparison with the forecast as of Dec. 2022)	2024 (Comparison with the forecast as of Dec. 2022)
Global real GDP growth	6.2	3.4	2.4	2.9	0.6	−0.1
Japan, US, Europe	5.3	2.6	−0.1	0.6	0.5	−0.5
US	5.9	2.1	−0.3	0.5	0.5	−0.6
Eurozone	5.3	3.3	−0.1	0.6	0.7	−0.4
UK	7.4	4.1	−0.7	0.9	0.2	−0.3
Japan	2.1	1.1	1.1	1.2	-	-
Asia	7.3	4.2	5.0	4.8	0.5	-
China	8.4	3.0	5.3	4.9	0.5	-
NIEs	5.6	2.1	1.9	2.0	0.2	-
ASEAN5	3.3	5.9	4.7	4.5	0.5	-
India	8.3	7.0	5.7	6.3	0.2	-
Australia	5.2	3.6	1.9	2.0	0.1	-
Japan (FY)	2.6	1.3	1.2	0.9	0.2	-

Despite upward revisions to the global economic outlook, the strong sense of stagnation in 2023 remains unchanged, with slow recovery in 2024.

Labor market remains tight, and the recession is pushed back to the 2Q to 4Q 2023. Given the slow cool-down of inflation, the recovery will be limited in 2024.

Despite an upward revision to 2023 due to lower gas prices from a warm winter, we still maintain a negative growth outlook due to the continuation of interest rate hikes and rise of inflation.

Given the ebb of Covid-19 infections by spring 2023, we expect a services consumption-led recovery

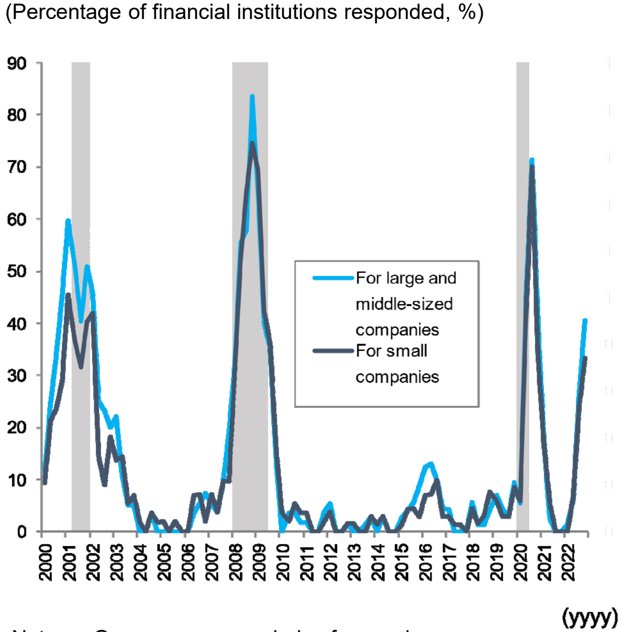
Driven by demand for inbound tourism, the European and US economies will remain relatively firm, albeit in negative territory

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

Trends in economic growth: the depth and length of the US recession on par with the historical average; the strength of the labor market is serving to ease the pain

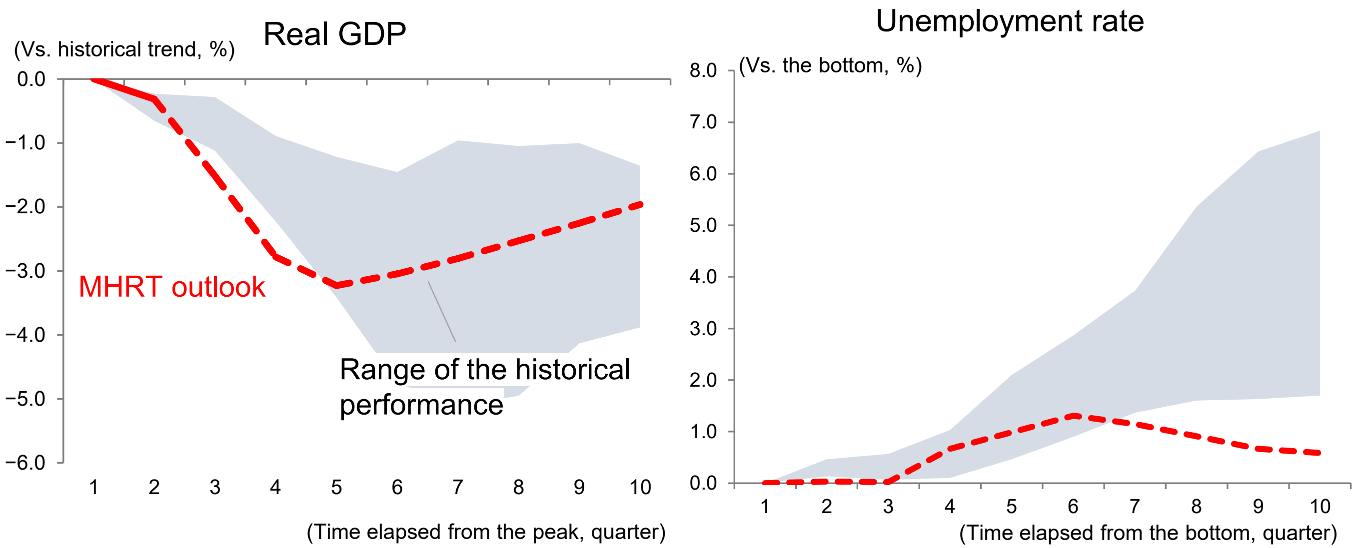
- The US recession in 2023 is expected to be on par with the historical average.
  - Uncertainty about the economic outlook and reduced risk tolerance have prompted financial institutions to tighten their credit approval criteria. Many financial institutions reported tightening loan covenants and collateral requirements. Tighter lending requirements will curb future cash flows for households and businesses.
  - The effects of rapid monetary tightening are expected to spread throughout the economy. However, structural labor shortages will limit deterioration in the unemployment rate compared with past recessions, and the favorable labor market will support the economy.

Financial institutions that responded that they have adopted "stricter" credit approval criteria



Note: Gray areas are periods of recession.
Source: Made by MHRT based upon releases by the FRB

GDP and unemployment rate in past US recessions

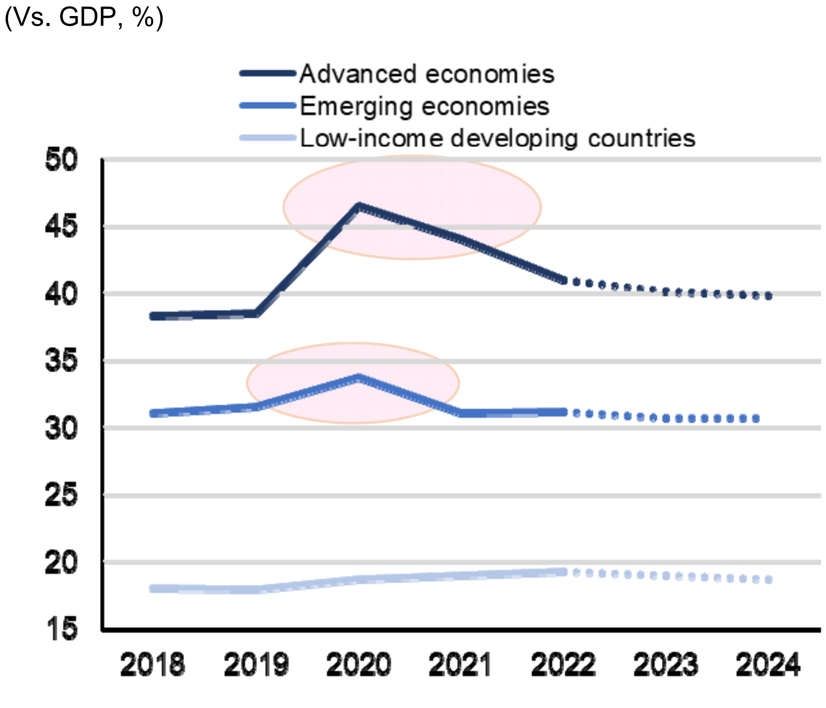


Note: Gray areas are the range of maximum and minimum values for the past interest rate hike phases. Dotted lines are MHRT estimates.
Source: Made by MHRT based upon releases by the US Department of Commerce and the US Department of Labor

Fiscal policy: fiscal spending, which grew from 2020 due to measures to address Covid-19 and inflation, has returned to normal

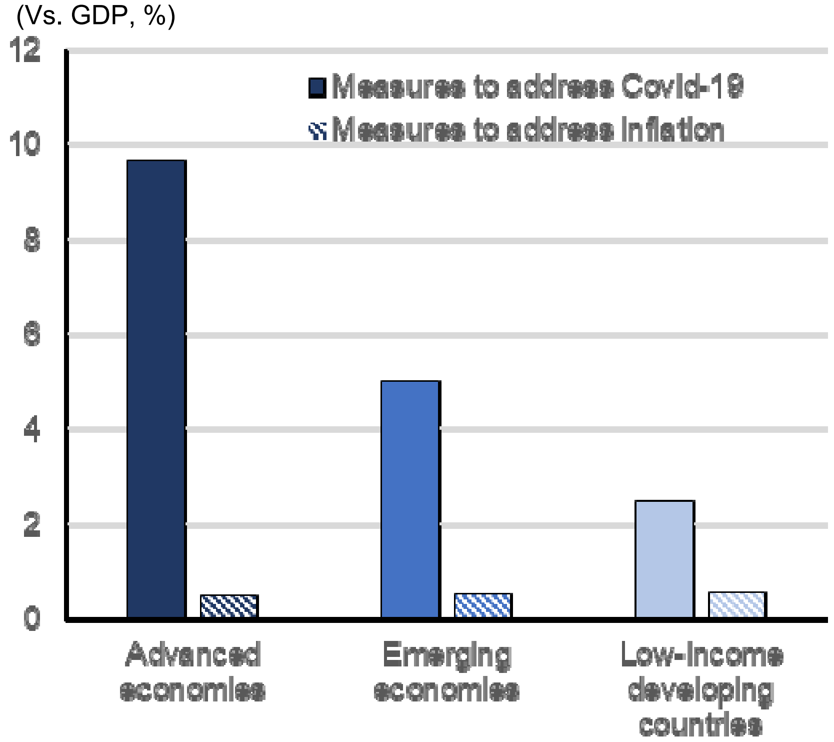
- From 2020 onward, fiscal spending grew due to measures to address Covid-19 and the surge of commodity and food prices. In particular, the developed economies invested heavily on measures to address Covid-19, helping to stimulate the economy.
  - Fiscal spending is expected to slow (to normal) through 2024 as Covid-19 ebbs and inflation slows. The boost from fiscal expansion is expected to diminish overall.

Fiscal spending as a percentage of GDP



Note 1: Figures in and after 2023 are IMF estimates.
2: Categories classification is based on the IMF for both the left and right charts.
Source: Made by MHRT based upon releases by the IMF

Fiscal spending on measures to address Covid-19 and inflation

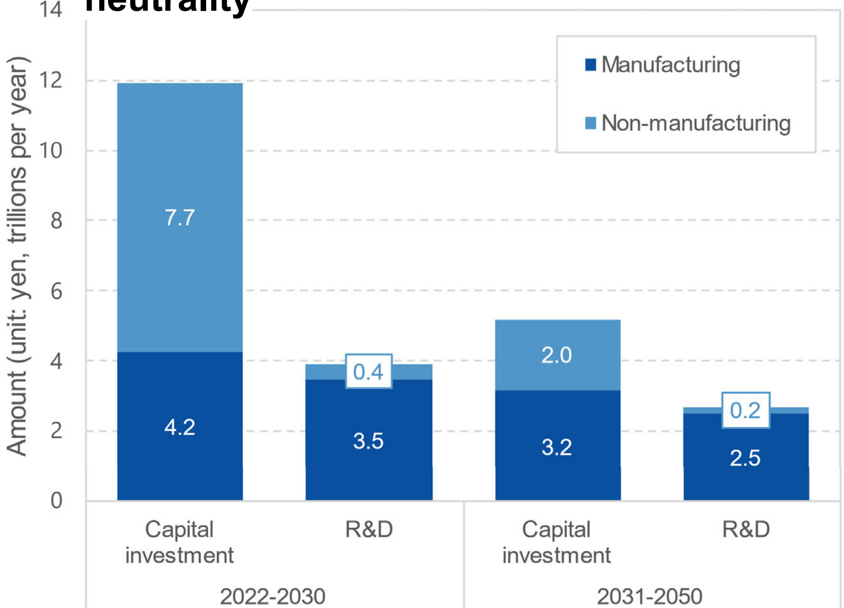


Note 1: Measures to address Covid-19 are the total of those implemented/planned as of September 2021.
2: Measures to address inflation are the total of those implemented/planned as of October 2022.
Source: Made by MHRT based upon releases by the IMF

Industrial policy: the focus of fiscal policy will shift to industrial policy under normal mode, contributing in part to investment expansion in 2024

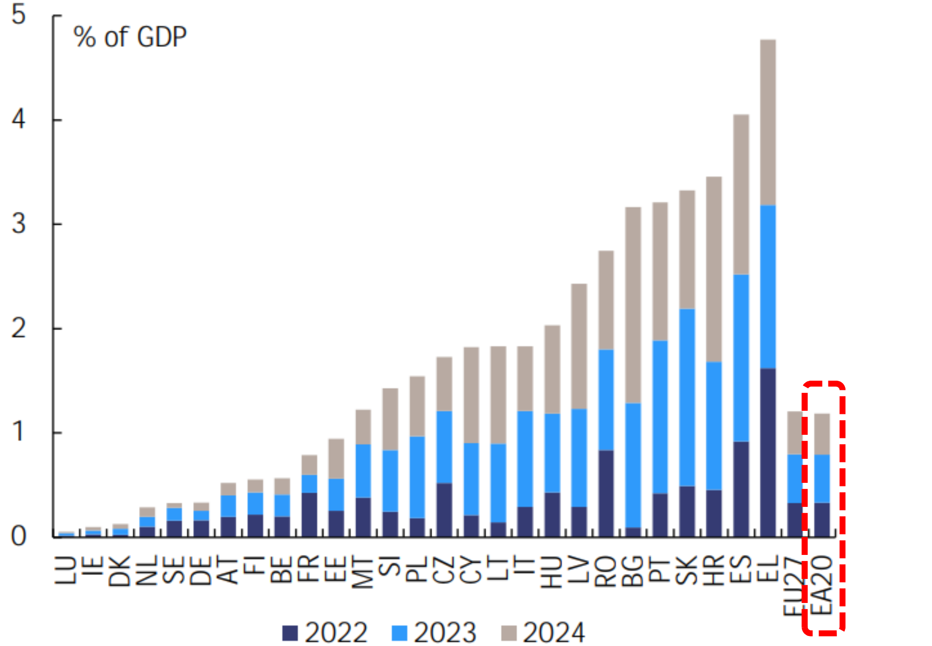
- Along with the normalization of fiscal policy, the focus will shift to industrial policy such as green policy (mainly in the medium term, but some spillover is expected in 2024).
- Japan's issuance of GX Economic Transition Bonds (20 trillion yen) from FY2023 will facilitate capital investment (+0.1% pt boost to GDP in FY2024).
  - Based on the survey, the amount of investment needed to achieve carbon neutrality is estimated to be about 16 trillion yen/year. Investment is also expected to expand in the medium term.
- The European Recovery Fund has become fully operational. Public investment in green and digital sectors will contribute in part (+0.2% pt GDP boost expected in 2024).
  - Full disbursement of funds to individual countries is expected to start, with grants equivalent to 1% of the eurozone GDP to be disbursed by 2024.

Japan: investment (value) required to achieve carbon neutrality



Note: The total amount is estimated by multiplying the average value per company by the number of companies in Japan, for large companies and for medium-size companies as well as for manufacturing and for non-manufacturing companies. Investment will decrease after 2031, mainly in the non-manufacturing industry, but because many technologies have not yet been commercialized, the figures may be underreported, and it is not possible to calculate specific values at this time.
Source: Made by MHRT based upon the Development Bank of Japan, *Survey on Planned Capital Spending (June 2022),* and Japan's Ministry of Internal Affairs and Communications, *2021 Economic Census for Business Activity*

Europe: planned disbursement by the Recovery Fund



Note: Grants only, loans excluded
Source: Made by MHRT based upon the European Commission, *European Economic Forecast Autumn 2022*

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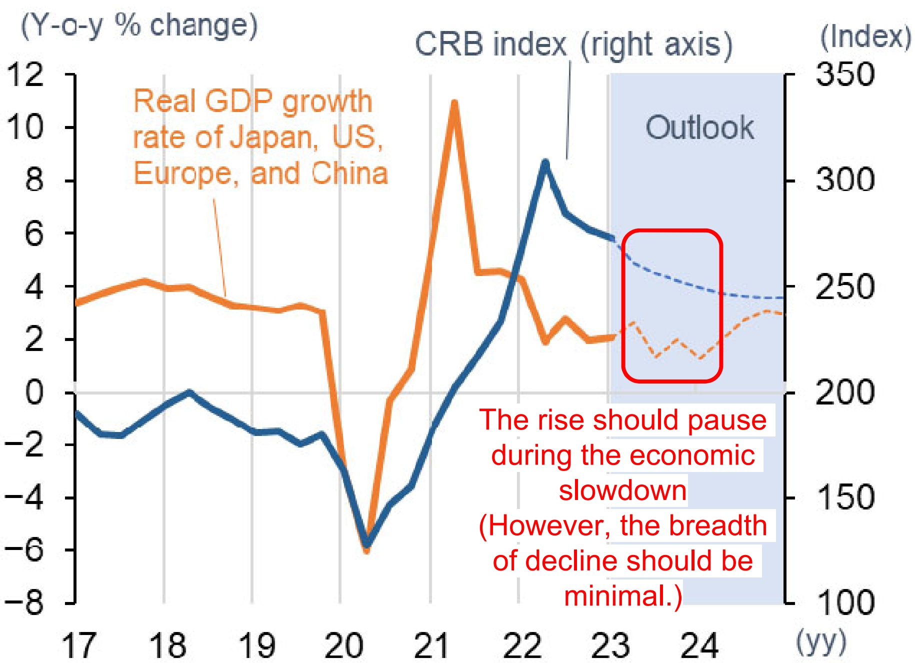
Commodity-driven inflation: although commodity-driven inflation should slow in 2023 due to the recession in the US, the breadth of decline will be limited

- Commodity-driven inflation will take a breather in 2023 against the backdrop of the global economic slowdown. Even so, the breadth of the decline will be limited.
  - Concerns are fading regarding excessive supply-demand constraints, as seen in the immediate aftermath of Russia's invasion of Ukraine and during a period of heightened awareness of gas shortage risks in Europe.
  - Demand growth is expected to pause in 2023, given the services-driven nature of China's economic recovery and prospects of further economic slowdown in the US.
  - However, given the persistence of partial supply-side constraints, the breadth of price decline should be limited (still high compared to pre-pandemic levels).

Global economic growth and commodity prices



Source: Made by MHRT based upon releases by Refinitiv and the statistics of relevant countries and regions

Commodity supply environment and price outlook

	Supply environment and price outlook
Oil	• There are supply-side uncertainties subsequent to Russia's announcement of a 500 thousand barrel/day output cut. • On the other hand, crude oil prices softened slightly amid the global economic slowdown, as the US considers a production increase and the additional release of national oil reserves.
Gas	• European gas prices will fall as concerns about gas shortages recede. • However, prices are expected to remain around three times higher than in the late 2010s, even in the second half of 2023, due to lingering effects of reduced gas supply from Russia.
Wheat	• Wheat prices are expected to decline moderately due to increased production in countries other than Ukraine. • However, stocks are expected to remain low, and prices are expected to remain high by historical standards.

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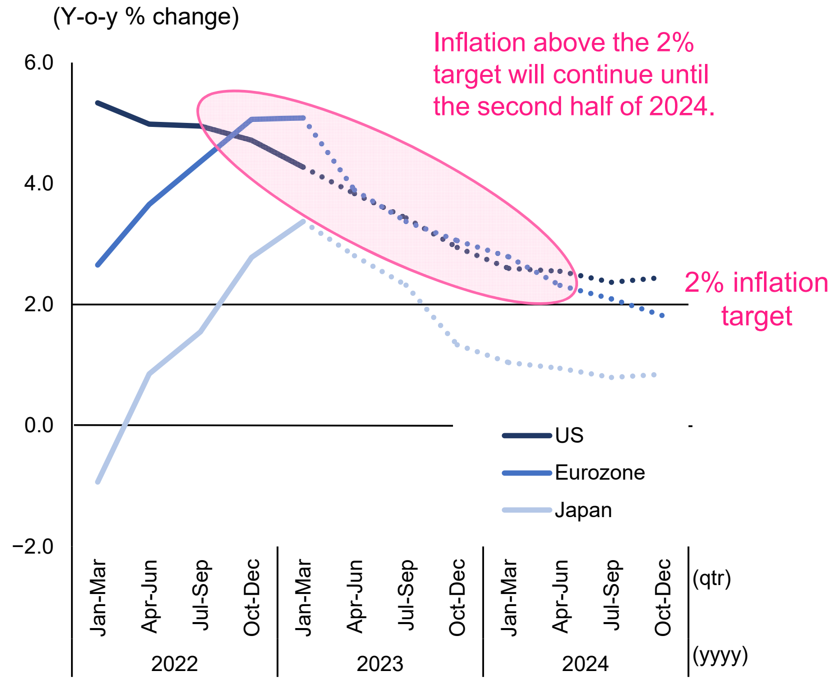
Inflation in the countries of the world: sluggish pace of inflation slowdown; policy rate tightening continues

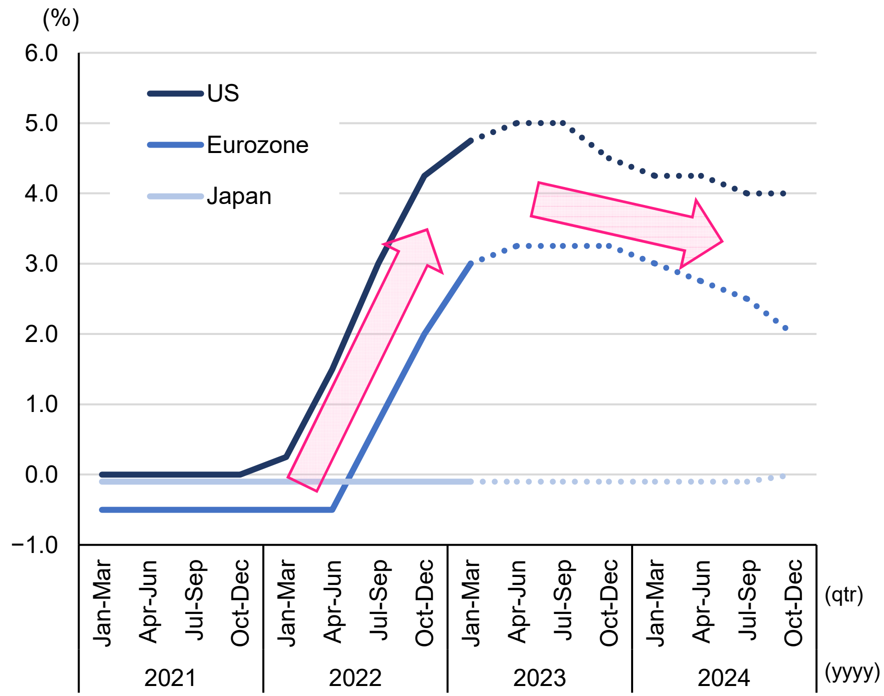
- Despite signs of slowing, core inflation in the US and Europe will remain above the 2% inflation target until the second half of 2024.
  - Structural labor supply constraints that emerged after the pandemic, such as the decline of work hours, served as upward pressure on wages.
  - Interest rate cuts are expected in Europe and the US at a cautious pace from the end of 2023 onward, while keeping an eye on persistent inflation.
- Japan will also shift from a deflationary to an inflationary environment. Although the easing monetary environment will continue, the "ultra-loose monetary easing" will be phased out.

Inflation rate outlook for Japan, US, and EU



Note 1: The inflation rates excludes food and energy for the US and the eurozone. For Japan, the inflation rate excludes that of fresh food and energy.
Note 2: PCE deflator for the US; CPI for the eurozone and Japan
Source: Made by MHRT based upon the statistics by the relevant countries and regions

Outlook for policy interest rates in Japan, US, and EU



Note: The US policy rate is the minimum interest rate.
Source: Made by MHRT based upon the statistics by the relevant countries and regions

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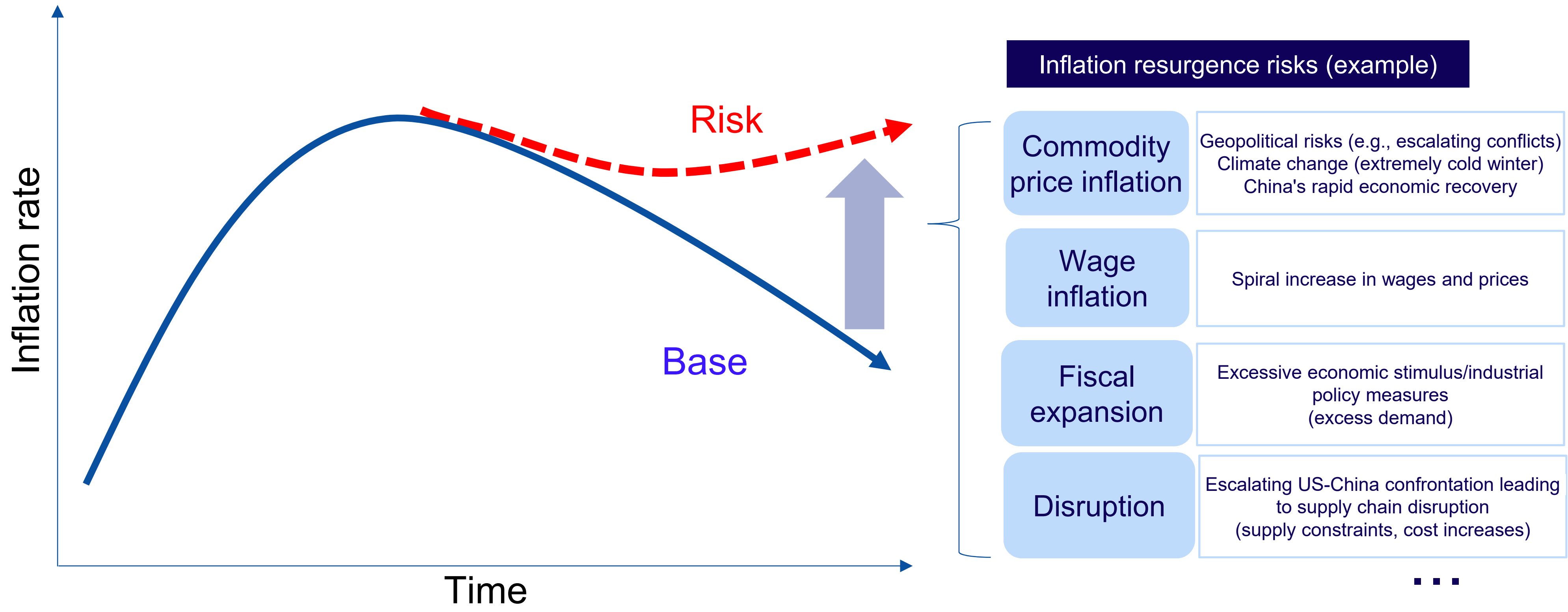
Risk: the persistence and resurgence of inflation is the biggest risk to the global economy for now

- The biggest risk to the world economy is the persistence and resurgence of inflation.
  - If the risk materializes, additional monetary tightening, together with the direct impact of inflation, will cause further financial market turmoil and will exacerbate the ensuing recession.
  - Constant vigilance is needed to monitor the sources of inflation (geopolitical risks, spiraling wage and price increases, excessive fiscal expansion, escalation of US-China tensions, etc.)

Global inflation rate (diagrammatic representation) and factors that cause inflation to persist or resurge



Source: Made by MHRT

Key issues of regions/countries and financial markets

Region / key issue	Outlook
US Timing of the recession and the future of employment, prices and monetary policy	◆ Although current employment is strong, consumption and output will decline, and the economy will enter a recession from spring 2023. ◆ Although employment and wages will deteriorate with the recession, the pace will be moderate due to the persistently tight labor supply. The pace of decline in the inflation rate will also be moderate. ◆ The FRB will lower interest rates cautiously from the end of 2023, taking into account the deterioration of the employment situation and the resurgence of inflation.
Europe Future of inflation and the labor market, and the monetary policy in the near term	◆ Although the ebb of concerns regarding gas shortages is a positive factor for the economy, high inflation will continue for the time being, serving as negative pressures on consumption. ◆ Labor supply & demand is currently tightening as seen by the decline of work hours. There are concerns that wage inflation will pick up. ◆ The ECB will raise interest rates to 3.25% this spring and will not cut rates in 2023 due to concerns of continued wage-induced inflation.
Emerging economies and China Chinese economy after the lifting of the zero-Covid policy and its impact on Asia	◆ The surge of infections subsequent to China's lifting of its zero-Covid policy will peak out and ebb by spring 2023 ◆ Although the Chinese economy will recover in 2023, mainly in services, it will lack momentum due to sluggish real estate investment and exports. ◆ In contrast to the firmness of the ASEAN economy, which is likely to benefit from a recovery in tourism demand from China, the NIEs will be weighed down by sluggish external demand.
Japan Recovery in demand for inbound tourism, labor shortages, and the direction of monetary policy	◆ A significant recovery in demand for inbound tourism is expected through mid-2023, partly due to the ebb of Covid infections in China. ◆ Price increases will tend to occur in services requiring face-to-face interactions, where labor shortages are serious. Looking forward, the pace of slowdown of the CPI should be moderate. ◆ Given the limited room for additional labor supply, shortages are expected to worsen, putting upward pressure on wages. ◆ The BOJ is expected to remove the long-term interest rate target in the Apr-Jun quarter of 2023 and remove negative interest rates in the Oct-Dec quarter of 2024.
Financial market The future course of the financial market reflecting the recession and sustained high interest rates	◆ US long-term interest rates and stock prices will fall due to the impact of the recession starting in 2Q 2023. ◆ Japan's long-term interest rates are expected to rise to around 1% through the end of 2024 due to the removal of the long-term interest rate target and the abolition of negative interest rates. ◆ The yen is expected to strengthen against the US dollar to around 120 yen due to the contraction of the US-Japan interest rate gap.

Source: Made by MHRT

(1) US: the US economy will fall into a recession from mid-2023 due to the impact of monetary tightening

- In our outlook, US economic growth will fall into negative territory (-0.3% y-o-y) in 2023, and only recover slightly (+0.5% y-o-y) in 2024.
  - In 2023, the effects of monetary tightening will spread throughout the economy, dragging growth into negative territory from the Apr-Jun quarter. Personal consumption is expected to lose momentum gradually due to the reverse wealth effect resulting from the deterioration in employment and the decline in the value of financial assets.
  - In 2024, although the economy is expected to post positive growth, the pace of recovery will remain moderate, as interest rates will be pinned at a high level in a bid to curb upward pressure on inflation.

Outlook on the US economy

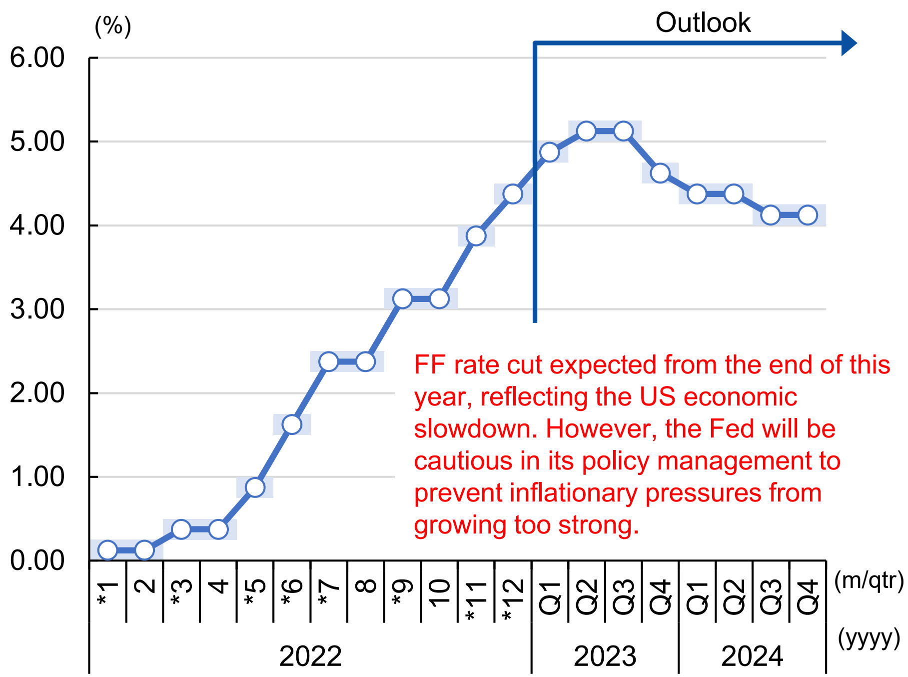
		2022	2023	2024	2022				2023				2024			
			(Outlook)		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real)	Q-o-q % ch p.a.	2.1	−0.3	0.5	−1.6	−0.6	3.2	2.9	0.1	−3.5	−3.8	−0.6	1.9	2.2	2.3	2.3
Personal consumption	Q-o-q % ch p.a.	2.8	0.5	0.9	1.3	2.0	2.3	2.1	0.3	−1.1	−1.4	−0.5	1.5	2.0	2.7	3.0
Housing investment	Q-o-q % ch p.a.	−10.7	−23	8.6	−3.1	−17.8	−27.1	−26.7	−26.7	−26.9	−9.2	8.5	20.3	18.8	13.0	7.9
Capital investment	Q-o-q % ch p.a.	3.6	−1.4	1.9	7.9	0.1	6.2	0.7	−1.3	−4.8	−8.8	2.1	4.5	5.1	5.1	5.3
Inventory investment	Q-o-q contribution p.a. % pt	0.0	−0.8	0.2	0.2	−1.9	−1.2	1.5	1.1	−1.5	−2.0	−0.8	0.2	0.2	0.2	0.2
Government consumption	Q-o-q % ch p.a.	−0.6	1.1	0.3	−2.3	−1.6	3.7	3.7	0.4	0.0	0.0	0.0	0.5	0.5	0.5	0.5
Net exports	Q-o-q contribution p.a. % pt	0.0	0.5	−0.9	−3.1	1.2	2.9	0.6	0.4	0.9	0.8	−0.1	−0.8	−0.9	−1.0	−1.0
Exports	Q-o-q % ch p.a.	7.2	1.9	0.5	−4.6	13.8	14.6	−1.3	−0.8	−0.4	−0.5	0.1	0.9	1.1	1.1	1.1
Imports	Q-o-q % ch p.a.	8.1	−4.1	3.2	18.4	2.2	−7.3	−4.6	−3.1	−5.8	−5.1	0.8	6.0	6.9	7.4	7.4
Unemployment rate	%	3.6	4.3	4.4	3.8	3.6	3.6	3.6	3.6	4.2	4.6	4.9	4.7	4.5	4.2	4.2
PCE deflator	Y-o-y % ch	6.2	3.6	2.5	6.4	6.6	6.3	5.5	4.6	3.6	3.2	2.9	2.6	2.5	2.4	2.5
Core, excl. food and energy	Y-o-y % ch	5.0	3.6	2.5	5.3	5.0	4.9	4.7	4.3	3.8	3.4	2.9	2.6	2.6	2.4	2.4

Note: Figures in 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

Although US monetary policy will shift to rate-cut mode from the end of 2023, the pace of rate cuts will likely be moderate

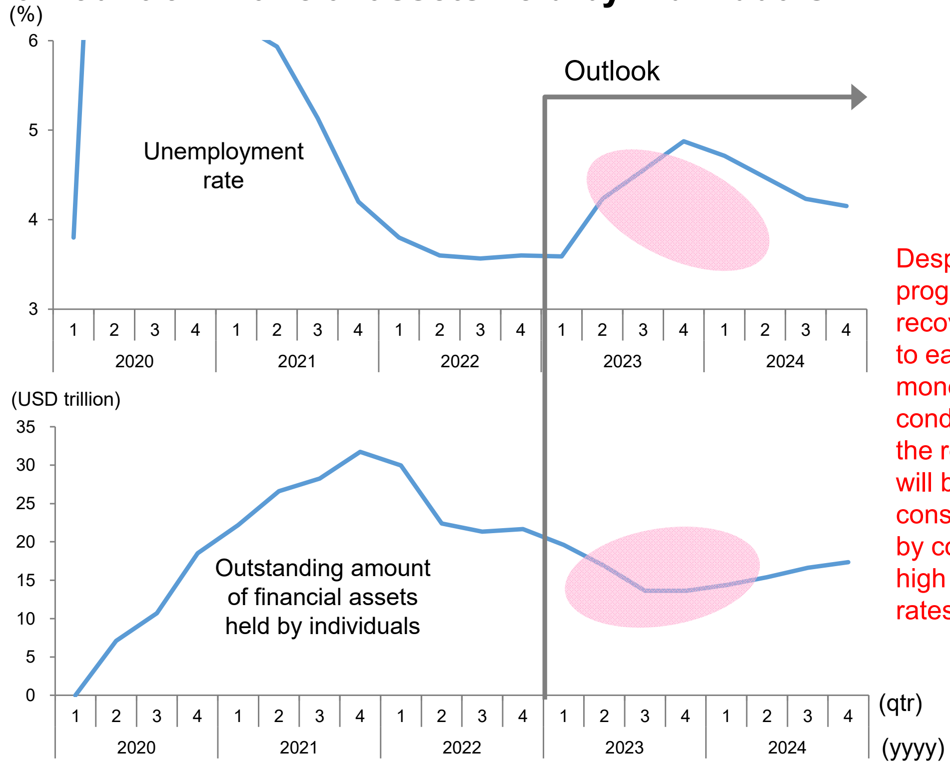
- Subsequent to a FF rate hike to 5.00–5.25% in 2023, the Fed will likely keep the FF rate unchanged in the near term. In view of the deterioration of employment conditions , we expect a policy rate cut toward the end of 2023.
- In 2024, the economy is projected to shift into recovery mode, given the easing of monetary conditions resulting from the rate cuts.
  - We expect interest rates to continue to be lowered cautiously to avoid a resurgence of price inflation and to prevent the economy and employment from overheating.
  - With inflation remaining and interest rates at a relatively high level, the economic recovery is expected to remain moderate in 2024.

Outlook on the Federal Funds (FF) rate



Note: An asterisk indicates the month in which an FOMC meeting is held.
Source: Made by MHRT based upon releases by the FRB

Outlook on the unemployment rate and outstanding amount of financial assets held by individuals



Despite progress to recovery due to easing of monetary conditions, the recovery will be constrained by continued high interest rates.

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

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(2) Eurozone: decline of domestic demand due to acceleration of interest rate hikes and US recession is sending downward pressures on the Eurozone economy

- Eurozone real GDP growth is projected to stand at -0.1% and +0.6% in 2023 and 2024 respectively.
  - 2023: in addition to the weakness of consumer spending reflecting the ongoing high level of inflation, the fall of capital and housing investment stemming from interest rate hikes and softening of exports due to the recession in the US will contribute negatively to GDP growth.
  - 2024: despite prospects of positive growth, the recovery is expected to be gradual, mainly due to the impact of interest hikes in the previous year, which will hamper the recovery of investment.

Outlook on the eurozone economy

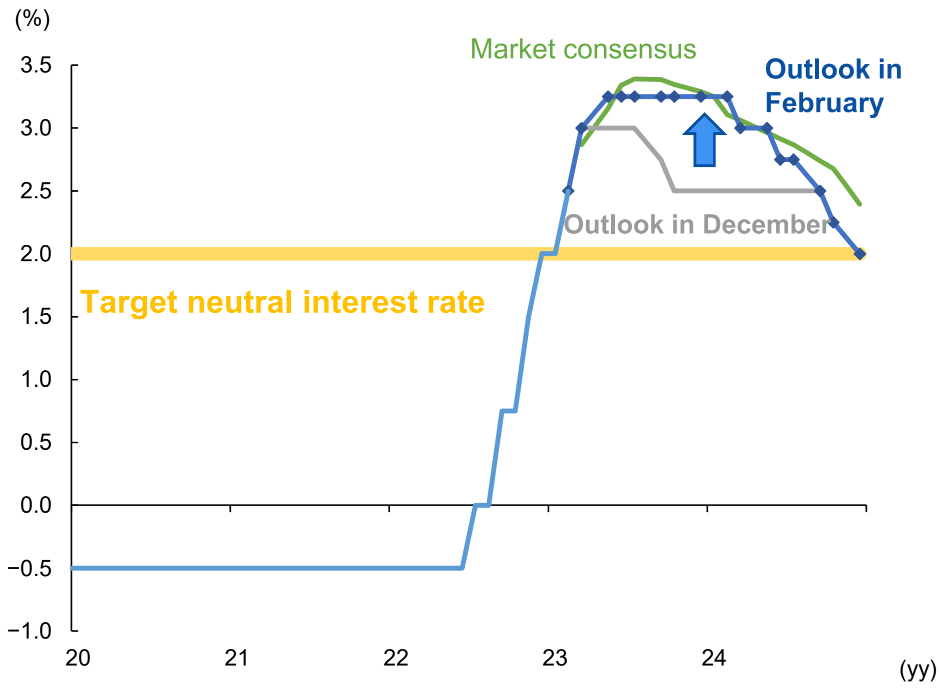
		2022	2023	2024	2022				2023				2024			
		(Outlook)			Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real)	Q-o-q % ch	3.3	−0.1	0.6	0.6	0.9	0.3	0.1	−0.5	0.0	0.1	−0.2	0.1	0.3	0.4	0.5
Domestic demand	Q-o-q % ch	3.5	0.3	0.7	−0.4	1.0	1.5	−0.6	−0.7	0.4	0.4	0.1	0.0	0.1	0.3	0.5
Personal consumption	Q-o-q % ch	4.0	0.4	1.3	0.0	1.1	0.8	−0.5	−0.4	0.4	0.3	0.2	0.3	0.3	0.4	0.4
Gross fixed capital formation	Q-o-q % ch	3.6	−3.0	−1.9	−0.7	1.0	3.6	−1.7	−2.2	−1.1	−1.0	−1.0	−0.7	0.1	0.3	0.4
Government consumption	Q-o-q % ch	1.2	1.0	0.6	0.1	−0.1	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1
Inventory investment	Q-o-q contribution, % pt	0.3	0.5	0.3	−0.3	0.2	0.2	−0.0	−0.1	0.3	0.3	0.1	0.0	−0.1	−0.0	0.2
External demand	Q-o-q contribution, % pt	−0.0	−0.4	−0.1	1.1	−0.1	−1.1	0.7	0.1	−0.4	−0.3	−0.2	0.0	0.2	0.2	0.0
Exports	Q-o-q % ch	7.4	0.6	0.4	1.5	1.8	1.7	0.3	0.1	−0.6	−0.8	−0.5	0.3	0.6	0.8	0.8
Imports	Q-o-q % ch	8.2	1.5	0.7	−0.7	2.2	4.2	−1.1	−0.1	0.1	−0.2	−0.0	0.2	0.2	0.5	0.8
CPI	Y-o-y % ch	8.4	5.4	2.0	6.1	8.0	9.3	10.0	8.3	6.0	4.3	3.2	2.6	2.0	1.8	1.7
Core, excl. food and energy	Y-o-y % ch	3.9	3.8	2.2	2.7	3.7	4.4	5.1	5.1	3.9	3.4	3.1	2.8	2.3	2.1	1.8

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

Outlook on the ECB's rate hike revised upward. Rise of loan costs putting downward pressure on domestic demand

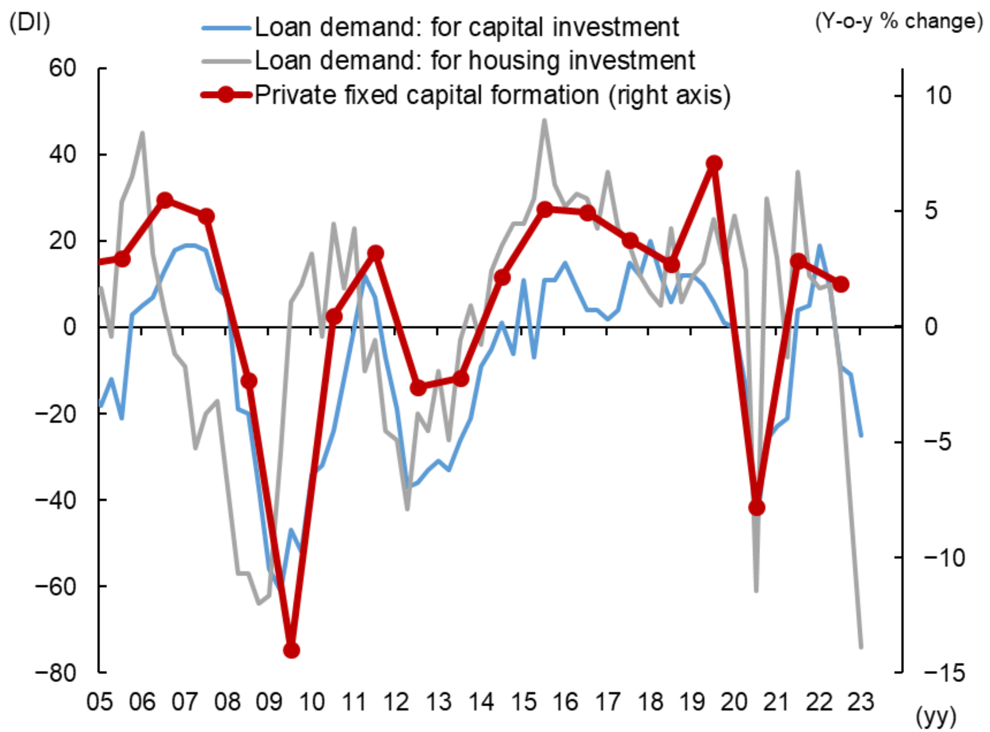
- The ECB raised its policy rate by +50bp at its meeting in February. The deposit facility rate is now at 2.5%, above the neutral interest rate (2%).
  - Despite the current economic slowdown, the ECB is likely to continue to raise its policy rate given concerns regarding wage inflation reflecting the persistence of labor demand.
  - We expect the ECB to raise the deposit facility rate to 3.25% by implementing further rate hikes in March (+50bp) and May (+25bp), and to keep it at said level during 2023 ("higher and longer" than the December outlook).
- Demand for loans from households and businesses is currently declining, reflecting the rise of costs for loans along with the rise of interest rates. This will dampen housing and private sector investment etc.

Deposit facility rate



Note: Market consensus is based on the OIS rate as of February 6.
Source: Made by MHRT based upon releases by the ECB

Loan demand and private investment



Note: Loan demand is quarterly data, and the private fixed capital formation is calendar year data.
Source: Made by MHRT based upon releases by the ECB and the European Commission

(3) Emerging economies: China serves as the driver after lifting its zero-Covid policy; emerging economies are expected to grow near 5% in 2024

- China's economy is expected to follow a services-driven recovery in 2023, given the lifting of its zero-Covid policy. Real estate investment will also bottom out in 2024.
- The ASEAN economy will be supported by special demand for inbound tourism from China. Despite a slowdown in 2024 due to the fading of special demand from China, the ASEAN economy should grow around the mid-4% range reflecting the recovery of the overseas economy.
- The NIEs, which are highly dependent on exports, will slow down in 2023, reflecting the global economic slowdown and the semiconductor cycle. However, it will recover moderately in 2024.
- Turning to India, the impact of interest rate hikes and high prices will linger, and will push down the growth rate in 2023. In 2024, the Indian economy is expected to recover, achieving growth over 6% in 2024 as inflation takes a breather.

Outlook on the Asian and emerging economies

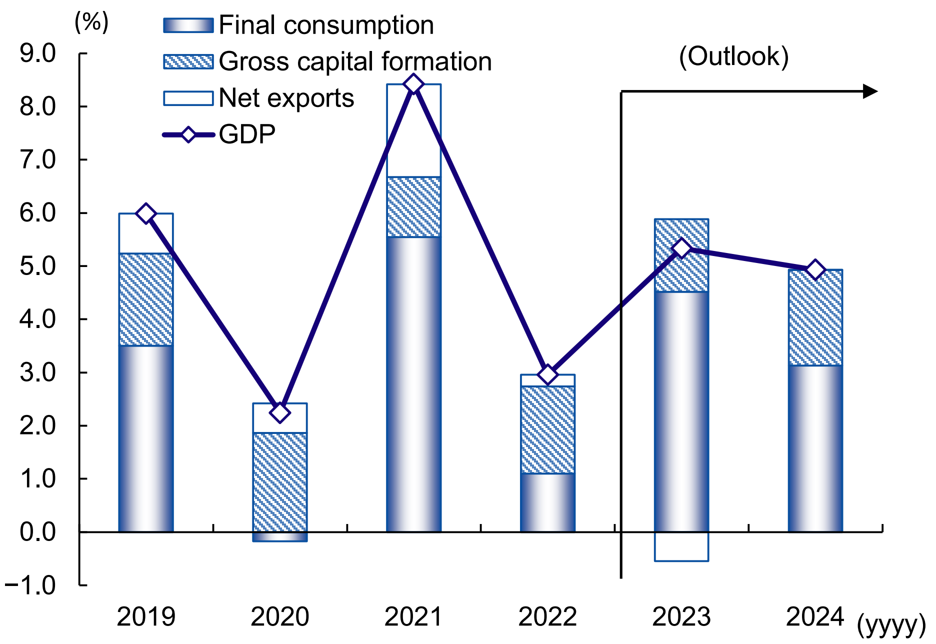
	2020	2021	2022	2023 (Outlook)	2024	2021 Jan-Mar	2021 Apr-Jun	2021 Jul-Sep	2021 Oct-Dec	2022 Jan-Mar	2022 Apr-Jun	2022 Jul-Sep	2022 Oct-Dec
Asia	−0.9	7.3	4.2	5.0	4.8	-	-	-	-	-	-	-	-
China	2.2	8.4	3.0	5.3	4.9	18.7	8.3	5.2	4.3	4.8	0.4	3.9	3.0
NIEs	−0.6	5.6	2.1	1.9	2.0	-	-	-	-	-	-	-	-
South Korea	−0.7	4.1	2.6	1.7	1.9	2.2	6.2	4.0	4.2	3.0	2.9	3.1	1.4
Taiwan	3.4	6.5	2.4	1.9	2.1	9.3	7.8	4.1	5.2	3.9	3.0	4.0	−0.9
Hong Kong	−6.5	6.3	−3.5	2.6	2.3	8.0	7.6	5.4	4.7	−3.9	−1.3	−4.5	−4.2
Singapore	−3.9	8.9	3.6	2.3	1.9	3.9	17.3	8.7	6.6	4.0	4.5	4.0	2.1
ASEAN5	−3.5	3.3	5.9	4.7	4.5	-	-	-	-	-	-	-	-
Indonesia	−2.1	3.7	5.3	4.4	4.4	−0.7	7.1	3.5	5.0	5.0	5.4	5.7	5.0
Thailand	−6.2	1.6	2.6	4.1	2.8	−2.4	7.8	−0.2	2.0	2.2	2.5	4.6	1.4
Malaysia	−5.5	3.1	8.7	4.2	3.6	−0.5	15.9	−4.5	3.6	5.0	8.9	14.2	7.0
Philippines	−9.5	5.7	7.6	5.6	5.4	−3.8	12.1	7.0	7.8	8.2	7.5	7.6	7.2
Vietnam	2.9	2.6	8.0	6.3	6.5	4.9	6.6	−6.0	5.2	5.1	7.8	13.7	5.9
India	−6.6	8.3	7.0	5.7	6.3	2.5	20.1	8.4	5.4	4.1	13.5	6.3	-
Australia	−1.8	5.2	3.6	1.9	2.0	2.1	10.4	4.0	4.6	2.7	3.4	5.8	-
Ref. NIEs+ASEAN5	−2.4	4.2	4.4	3.7	3.6	-	-	-	-	-	-	-	-
Ref. Asia, excl. China	−4.3	5.9	5.5	4.6	4.8	-	-	-	-	-	-	-	-

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: subsequent to a services-led recovery in 2023, the economy will return to cruise-speed growth in 2024

- In 2023, China's economy is projected to grow +5.3%, driven by services consumption, which had been restrained by the zero-Covid policy.
  - The explosion of infections due to the lifting of the zero-Covid policy in December has already peaked and will subside during the period from March to April.
  - On the other hand, real estate investment and exports are weak, and fiscal stimulus is limited due to the financial difficulties of local governments. A V-shaped recovery is unlikely.
- Growth in 2024 is expected to settle down to cruise mode at +4.9%.
  - While the rebound in services consumption will run its course, real estate investment will gradually bottom out, and external demand will also cease to fall.

Real GDP growth rate (contribution by demand items)



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

Evaluation of factors related to future outlook

Factor	Evaluation
Covid-19	Infections have already peaked out and are expected to subside during the period from March to April. Excessive caution seems to have eased given the adjustment of Chinese society to a with-Covid policy. Even if infections spread again in the future, the economic impact will be benign.
Real estate	Sales will recover in the second half of 2023, and investment is expected to bottom out at the end of the year due to enhanced financial support for developers and additional demand stimulus measures. However, the recovery will likely turn out to be L-shaped due to persistent pressures to adjust supply & demand as a result of demographic decline and the suppression of speculative activities.
Fiscal policy	The issuance of local government special-purpose bonds in 2023 is expected to remain at the same level as the previous year's initial budget. Local governments are facing challenging fiscal conditions due to declining revenues from the real estate slump, limiting fiscal stimulus for economic growth.

Source: Made by MHRT

Although China's real estate investment is expected to bottom out at the end of 2023, the recovery will be weak through 2024

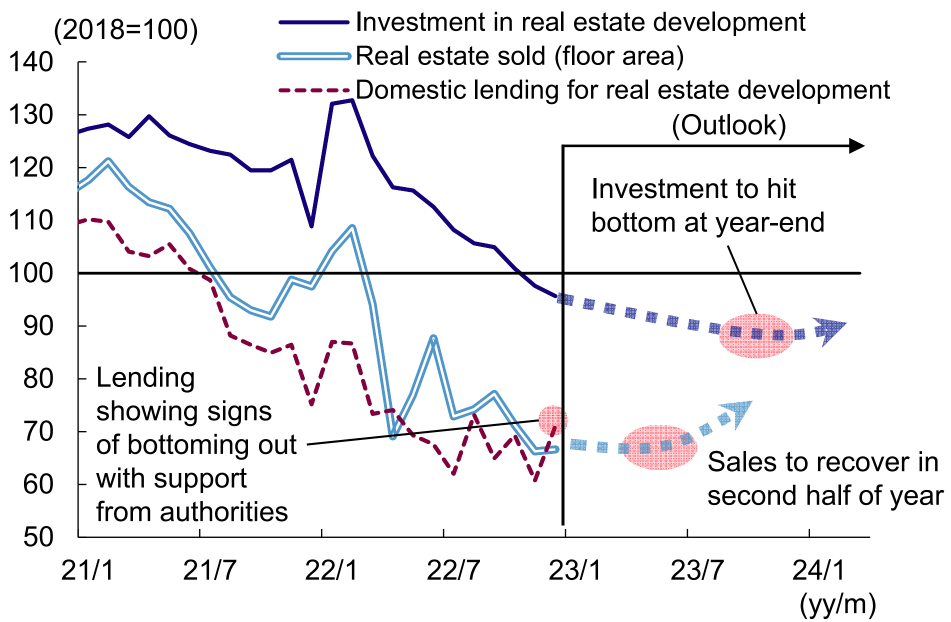
- We expect the government to shift from supply-side measures (promotion of construction through financial support to developers) to more demand-side measures.
  - Certain demand-side measures (mortgage rate cuts) have already been partially implemented. Given the stability of prices, there is room for further interest rate cuts.
- Real estate sales are expected to recover in the second half of 2023, due to the alleviation of uncertainties through the promotion of construction and demand-stimulating measures.
  - With a time lag, housing investment will also bottom out by the end of 2023.
- Even so, the recovery will likely be limited to a pause in the sharp drop due to the uncertainties in 2022, thus resulting in a mere L-shaped recovery of the real estate market in 2023–2024.
  - In addition to the excessive investment in the past, there are persistent adjustment pressures on supply & demand stemming from demographic decline and government crackdown on speculation.

Real estate stimulus measures (black: for supply, red: for demand)

	Major supporting initiatives
Implemented	• **Construction promotion**: Special loan (RMB 200 billion) from a policy bank • **Construction promotion**: Establishment of a fund managed by the local government • Extending the tenure of real estate development loans • Establishment of credit lines for developers by major commercial banks (over RMB 3 trillion) • Interest-free refinancing by the People's Bank of China to major commercial banks (RMB 200 billion) • Easing of financing restrictions (three red lines) for prime developers • Mortgage index rate reduction (5-year LPR) • Downpayment reduction (by city) • Permission to lower the lower limit of the mortgage rate (by city)
Projected	○ Additional mortgage index rate reductions ○ Reduction of taxes on the purchase and resale of real estate e.g., reduction of real estate contract tax ○ Further easing of home purchase regulations (by city)

Source: Made by MHRT based upon releases by the People's Bank of China and media reports

Outlook for real estate investment and sales

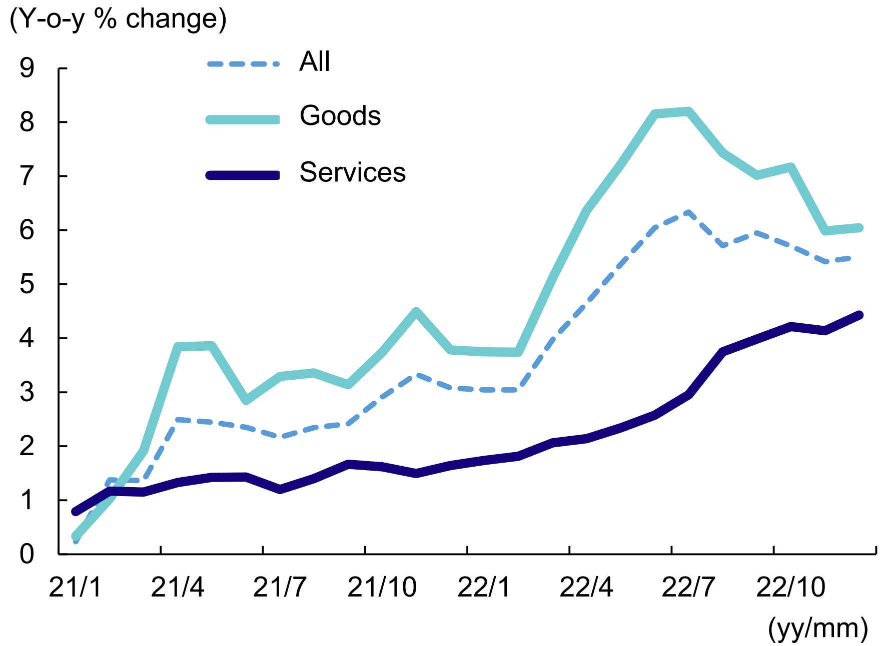


Note: Seasonally adjusted by MHRT
Source: Made by MHRT based upon releases by the National Bureau of Statistics of China and CEIC Data

Asia: inflation peaked but remains high; scope for rate cuts in 2023 is limited

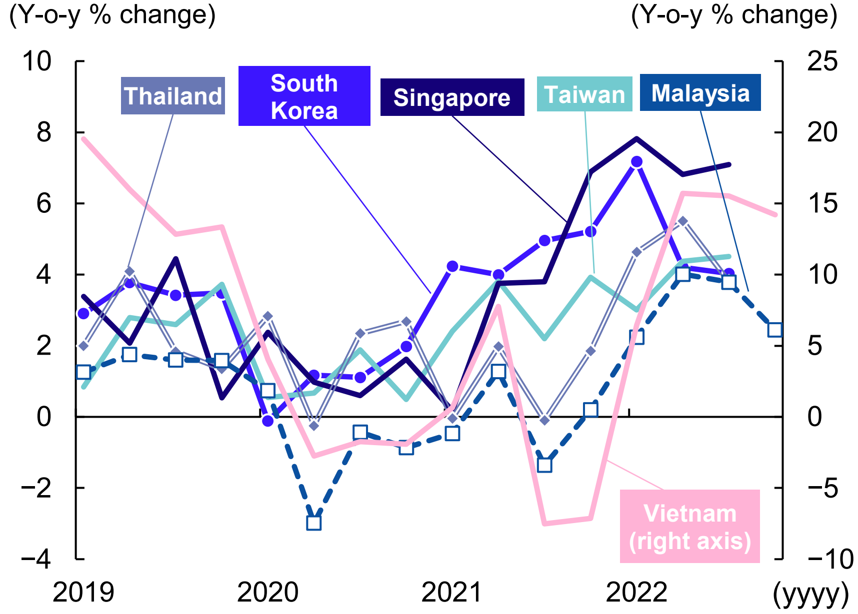
- Inflation in Asia has already peaked. However, while goods prices are decelerating, service prices are continuing to accelerate.
  - The reasons for the rise of service prices are (1) price pass-through to consumers in response to high costs, (2) recovery in demand, and (3) rise of wages due to labor shortages.
  - Given that wages are unlikely to fall, it is expected that it will take some time for the rise of service prices to return to normal.
- Persistently high service prices suggest a delay in cool-down of inflation.
  - Interest rates will continue to rise in the first half of 2023, with limited room for rate cuts in the second half.

Inflation rates by goods and services



Note: Median value is calculated for indicators of South Korea, Taiwan, Indonesia, Thailand, Malaysia, the Philippines, and Singapore.
Source: Made by MHRT based upon releases by the statistics of relevant countries and regions

Wage growth rates by country

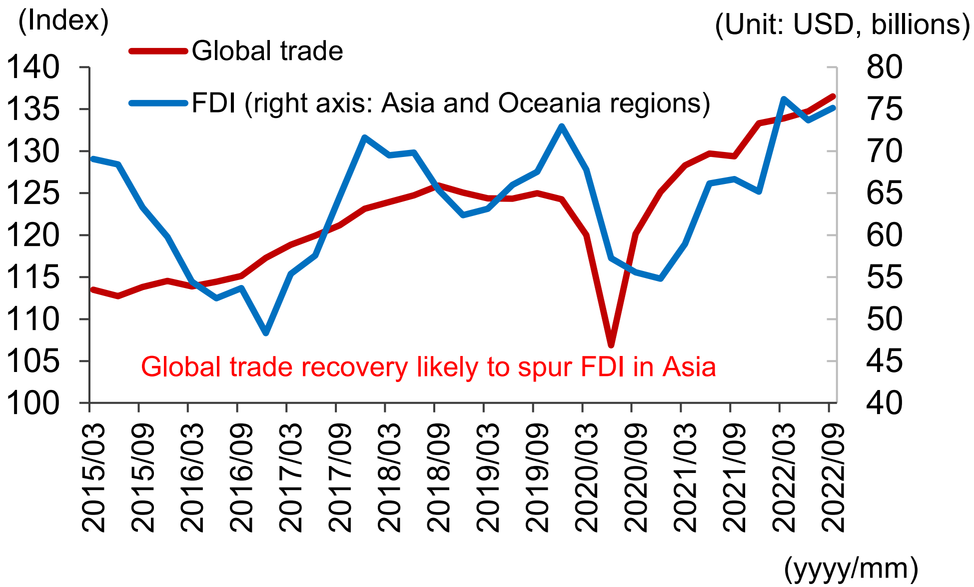


Note: Figures for Malaysia are weighted average of manufacturing, services, and rubber industries. Figures for Vietnam are calculated as compared to 2019 for 2022 due to large fluctuations caused by the lockdown in 2021.
Source: Made by MHRT based upon releases by the statistics of relevant countries and regions

Effects of inflation and interest rate hikes to run its course in 2024, with investment bottoming out due to the recovery of the global economy

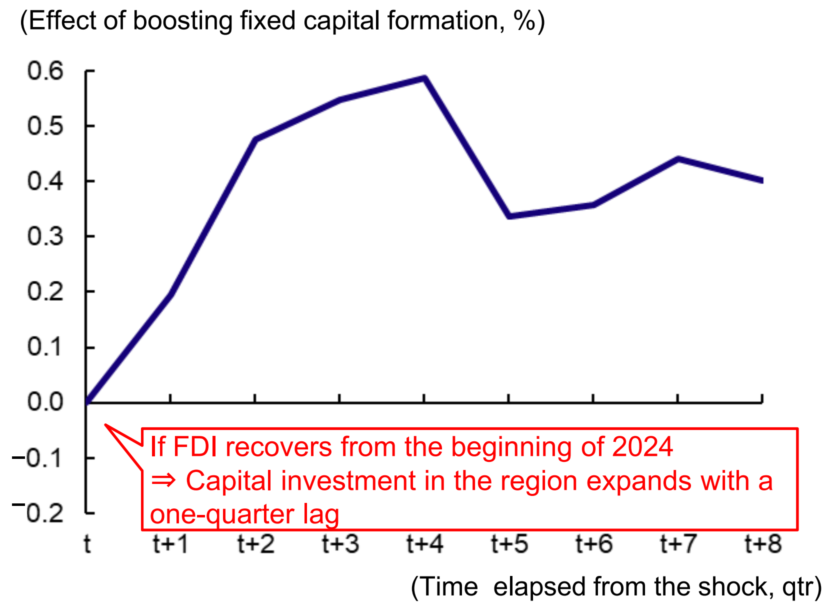
- The impact of inflation and interest rate hikes on investment will continue through the end of 2023 and take a pause from then onward.
  - Inflation and interest rate hikes are estimated to put downward pressure on investment over the course of a year or so. The downward pressure will subsequently fade.
  - Interest rate increases will peak at the end of 2022. The impact on investment is expected to pause at the end of 2023.
- In 2024, we expect that the gradual recovery of the global economy and trade will stimulate foreign direct investment (FDI) in Asia.
  - While the effects of inflation anFDI in Asia tends to move in tandem with global trade. Furthermore, the odds are high that the recovery of FDI will serve as a trigger for capital investment in the region.
  - d interest rate hikes will run their course by 2024, Asian investment will bottom out as FDI recovers.

World trade and FDI in Asia



Note: FDI is in US dollars, based on balance of payments (average of the last 12 months)
Total of ASEAN5, Australia, and India
Source: Made by MHRT based upon releases by the CEIC and Statistics Netherlands

Analysis of the cumulative impact of a 1% increase in FDI on investment



Note: Estimated panel VARs explaining fixed capital formation in South Korea, Taiwan, Indonesia, Thailand, Malaysia, the Philippines, Vietnam, and India using inflation, policy rates, FDI, and the GDP of the US, Europe, Japan, and China (exogenous variables); presenting the cumulative impact of shocks to each explanatory variable. Fixed-capital formation for Vietnam are estimates by MHRT..
Source: Made by MHRT based upon releases by the CEIC

(4) Japan: despite the negative impact of the overseas economic slowdown, positive growth to be maintained due to the recovery in services

- FY2022 growth forecast: +1.3% y-o-y. While services consumption and demand for inbound tourism is expected to recover in the second half of FY2022, overseas economic slowdown will put downward pressure on the economy. Growth is expected to be a modest +1% p.a. in the Jan-Mar quarter of 2023.
- FY2023 growth forecast: +1.2% y-o-y. Despite the economic slowdown overseas, particularly in Europe and the US, positive growth will be maintained due to the fading impact of the rise of prices along with the decline in commodity prices and appreciation of the yen, as well as the recovery in demand for inbound tourism from China and other countries.
- FY2024 growth forecast: +0.9% y-o-y. While the recovery of overseas economies will drive exports, and demand for green and digital-related investment will boost capital investment, growth in personal consumption will be sluggish due to the continued decline in real wages. The growth rate will slow to a cruise pace.

Outlook on the Japanese economy

		2021	2022	2023	2024	2022				2023				2024				2025
		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	2.6	1.3	1.2	0.9	−0.4	1.1	−0.3	0.2	0.3	0.3	0.5	0.5	0.3	0.1	0.2	0.2	0.2
	Q-o-q % ch p.a.	—	—	—	—	−1.7	4.6	−1.0	0.6	1.3	1.1	1.9	2.2	1.1	0.3	0.9	0.7	0.7
Domestic demand	Q-o-q % ch	1.8	1.8	1.2	0.8	0.1	1.0	0.4	−0.2	0.4	0.3	0.5	0.5	0.2	0.1	0.2	0.2	0.2
Private-sector demand	Q-o-q % ch	1.9	2.3	1.2	0.8	0.2	1.1	0.5	−0.4	0.5	0.2	0.4	0.5	0.2	0.1	0.2	0.1	0.2
Personal consumption	Q-o-q % ch	1.5	2.5	0.9	1.0	−0.9	1.6	0.0	0.5	0.3	−0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.1
Housing investment	Q-o-q % ch	−1.1	−4.5	0.9	−0.6	−1.7	−1.9	−0.4	−0.1	0.2	0.5	0.6	0.2	−0.4	−0.3	−0.2	−0.2	−0.2
Capital investment	Q-o-q % ch	2.1	2.7	0.7	2.6	−0.3	2.1	1.5	−0.5	0.0	−0.2	−0.2	1.1	1.2	0.5	0.5	0.5	0.5
Inventory investment	Q-o-q contribution, % pt	(0.3)	(0.1)	(0.2)	(−0.3)	(0.8)	(−0.3)	(0.1)	(−0.5)	(0.1)	(0.2)	(0.2)	(0.0)	(−0.2)	(−0.2)	(−0.1)	(−0.0)	(0.0)
Public-sector demand	Q-o-q % ch	1.3	0.2	1.2	0.9	−0.3	0.7	0.1	0.3	0.1	0.3	0.5	0.4	0.3	0.1	0.2	0.2	0.1
Government consumption	Q-o-q % ch	3.4	1.3	1.1	1.1	0.5	0.8	0.1	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2
Public investment	Q-o-q % ch	−6.4	−3.9	1.3	0.1	−3.2	0.5	0.7	−0.5	−0.8	0.5	1.1	0.8	0.3	−1.0	0.2	0.2	0.1
External demand	Q-o-q contribution, % pt	(0.8)	(−0.5)	(−0.0)	(0.1)	(−0.5)	(0.1)	(−0.6)	(0.3)	(−0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(−0.0)
Exports	Q-o-q % ch	12.3	5.2	1.1	3.2	1.2	1.5	2.5	1.4	−0.2	−0.4	−0.2	0.2	1.2	1.0	1.0	0.6	0.6
Imports	Q-o-q % ch	7.0	7.6	1.0	2.5	3.8	0.9	5.5	−0.4	0.0	−0.3	−0.1	0.1	0.9	0.8	0.8	0.5	0.6
GDP (nominal)	Q-o-q % ch	2.4	1.8	3.8	1.8	0.2	1.0	−0.8	1.3	1.2	0.8	1.6	0.8	0.2	0.4	0.4	0.4	0.0
GDP deflator	Q-o-q % ch	−0.1	0.5	2.5	1.0	0.3	−0.3	−0.4	1.1	1.6	2.1	3.9	2.7	1.8	1.5	0.6	0.7	0.6
Domestic demand deflator	Q-o-q % ch	1.8	2.8	0.8	0.6	2.6	2.7	3.2	3.2	2.3	1.2	0.9	0.6	0.6	0.7	0.8	0.6	0.5

Note: Figures in the shaded areas are forecasts.
Source: Made by MHRT based upon the Cabinet Office, *Quarterly Estimates of GDP*

Core CPI (y-o-y) to go down to the +1% level in the second half of FY2023

- Although labor compensation will follow a recovery path mainly in the services sector due to the resumption of economic activities along with the ebb of Covid-19 infections and labor shortages, the overseas economic slowdown will put downward pressure on corporate earnings, especially in the manufacturing sector, and serve as restraints on the pace of recovery. It will be difficult to achieve wage increases that exceed the pace of price increases.

- The core CPI (y-o-y) is expected to be +3.1% in FY2022 and +1.9% in FY2023. Following the turn of the year in 2023, the pace of growth (y-o-y) is expected to slow to the +1% level in the second half of FY2023 due to downward pressures from the decline in commodity prices accompanying the overseas economic slowdown, the appreciation of the yen, and the government's inflation measures. In FY2024, the y-o-y growth rate is forecast to be +1.4%, driven by the reaction to the measures addressing inflation.

Outlook on the Japanese economy (key economic indicators)

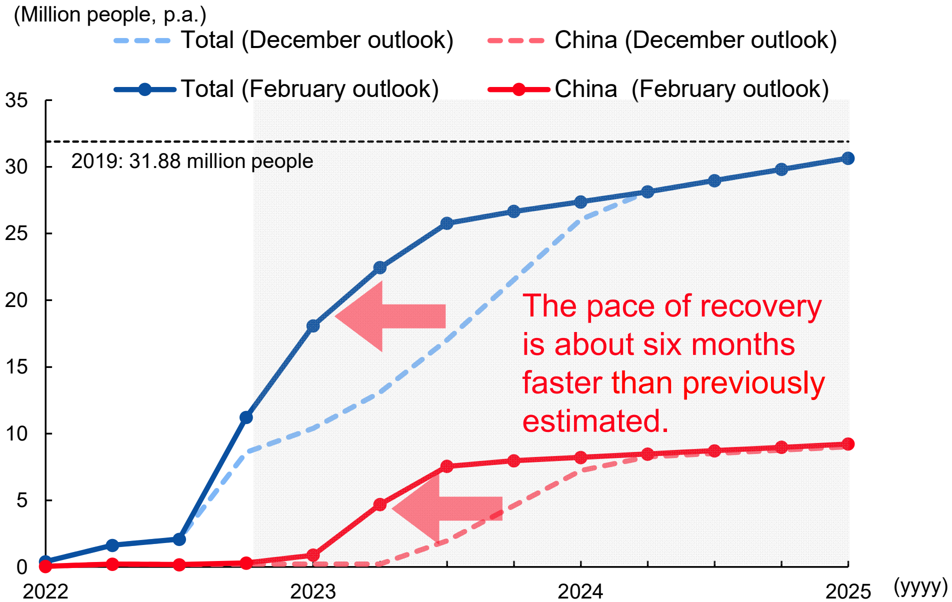
		2021	2022	2023	2024	2022				2023				2024				2025
		FY	(Outlook)			Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Industrial production	Q-o-q % ch	5.8	−0.1	0.2	4.9	0.8	−2.7	5.8	−3.0	−0.6	−0.8	−0.1	2.3	2.0	1.2	0.9	0.6	0.6
Ordinary profits	Y-o-y % ch	36.8	10.1	0.7	8.0	13.7	17.6	18.3	5.4	0.9	−0.1	−3.1	0.3	5.3	8.3	12.3	7.8	4.5
Nominal labor compensation	Y-o-y % ch	2.1	2.3	2.2	2.4	1.2	2.1	1.9	2.9	2.3	1.9	2.1	2.7	2.0	2.3	2.5	2.5	2.5
Unemployment rate	%	2.8	2.5	2.4	2.2	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2
New housing starts	P.a., 10,000 units	86.6	85.8	85.8	84.3	87.1	85.3	86.3	85.1	86.3	86.2	85.9	85.6	85.2	84.8	84.4	84.2	83.6
Current account balance	P.a., JPY tril	20.3	8.5	9.9	6.9	16.7	12.9	2.7	10.0	8.3	11.0	11.9	9.8	7.0	7.6	8.3	7.1	4.8
Domestic corporate goods price	Y-o-y % ch	7.1	9.2	−0.8	−0.9	9.3	9.6	9.7	10.0	7.7	2.7	−0.2	−3.0	−2.7	−1.7	−0.6	−0.6	−0.6
Consumer prices, excl. fresh food	Y-o-y % ch	0.1	3.1	1.9	1.4	0.6	2.1	2.7	3.7	3.6	2.6	2.2	1.3	1.4	1.7	1.6	1.4	1.2
" (Excl. institutional factors)	Y-o-y % ch	−0.1	3.8	2.1	0.7	0.7	2.7	3.4	4.5	4.6	3.4	2.7	1.3	0.8	0.7	0.7	0.7	0.7
Consumer prices, excl. fresh food and energy	Y-o-y % ch	−0.8	2.1	1.9	0.9	−0.9	0.9	1.5	2.8	3.4	2.8	2.3	1.3	1.0	0.9	0.8	0.8	0.8
" (Excl. institutional factors)	Y-o-y % ch	−0.9	2.2	1.8	0.9	−0.9	0.9	1.5	3.0	3.5	2.8	2.3	1.1	0.9	0.9	0.8	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 on the *Financial Statements Statistics of Corporations by Industry* (all industries basis) (excluding finance & insurance).
3. For consumer prices, it is assumed that the measures to mitigate the drastic change in fuel oil prices and to control electricity and gas prices will be extended beyond October 2023 to September 2024, with a gradual reduction in the subsidy amount.
Note that from FY2023 onward, the rebound from the reduction and termination of the inflation measures will be a factor pushing up the year-on-year rate. "Excl. institutional factors" excludes the impact of the measures to address the rise of prices and the Japanese government's nationwide travel support program.
Source: Made by MHRT based upon relevant statistics

Number of foreign visitors to Japan to recover significantly. Demand for inbound tourism will serve to boost GDP

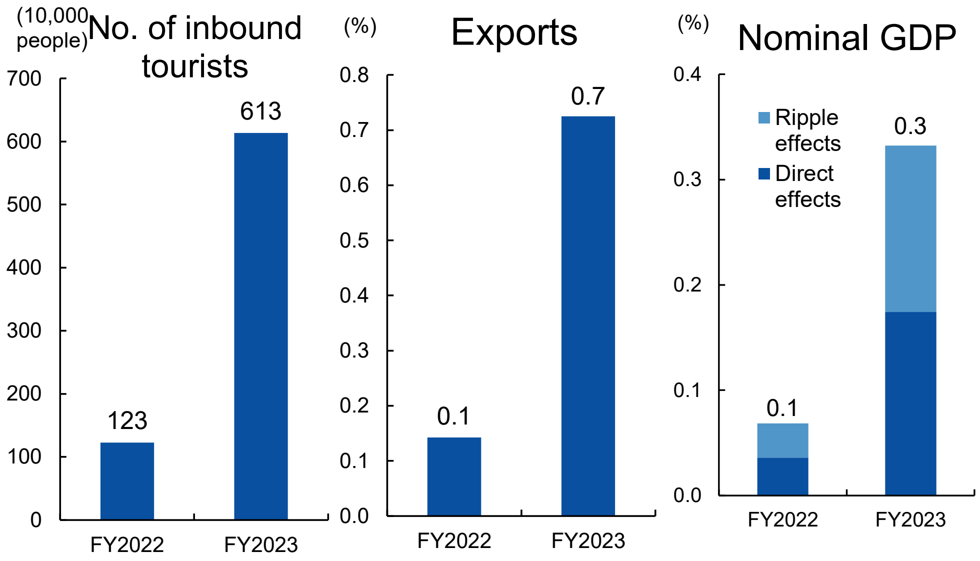
- The pace of recovery in inbound travel is about six months faster than previously estimated. This reflects the rapid pace of recovery at the end of last year and the lifting of China's zero-Covid policy.
  - The number of foreign visitors to Japan in December 2022 was 1.37 million (annualized rate of 16.44 million), recovering to 52% of the average for 2019.
  - A full-scale recovery in thThe odds are high that the e number of Chinese tourists is expected from the Apr-Jun quarter, when infections in China will subside. number of foreign visitors to Japan will increase significantly through the middle of the year.
  - We have revised up our forecast on the number of foreign visitors to Japan in FY2023 from approximately 19.4 million to approximately 25.6 million. Including spillover effects, this is estimated to boost nominal GDP by 0.3% and real GDP by 0.2% in FY2023.

Foreign visitors to Japan (actual and projections)



Note: The shaded area is the forecast period.
Source: Made by MHRT based upon the Japan National Tourism Organization (JNTO), *Statistics on Foreign Travelers Visiting Japan*

Impact on GDP and exports (versus December outlook)

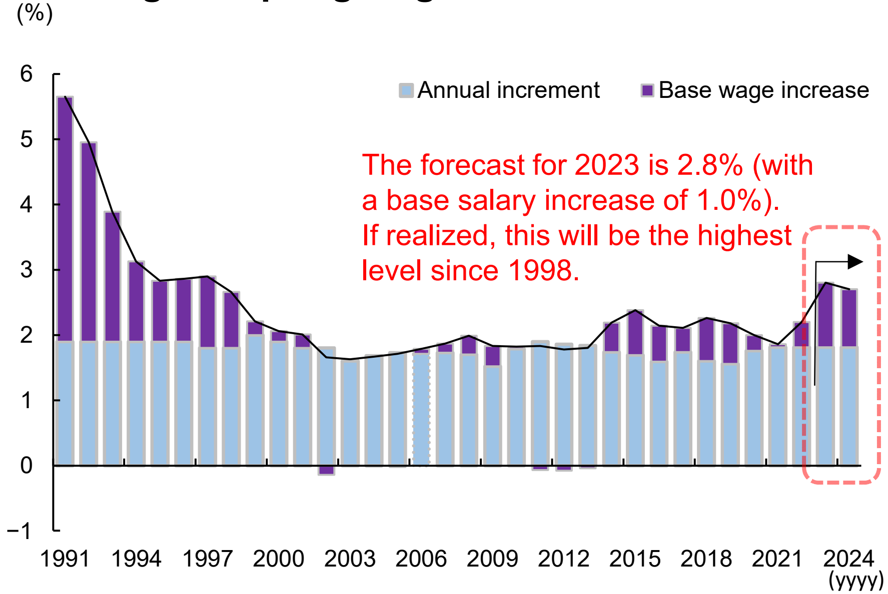


Note: Ripple effects are estimated by calculating inbound spending by item based on the *Consumption Trend Survey for Foreigners Visiting Japan* by the Japan Tourism Agency and by using the Input Output Tables. Exports are service exports.
Source: Made by MHRT based upon the Japan National Tourism Organization (JNTO), *Statistics on Foreign Travelers Visiting Japan*, and the Cabinet Office, *National Accounts*

Higher-than-usual wage growth in 2023 and 2024 due to worsening labor shortages

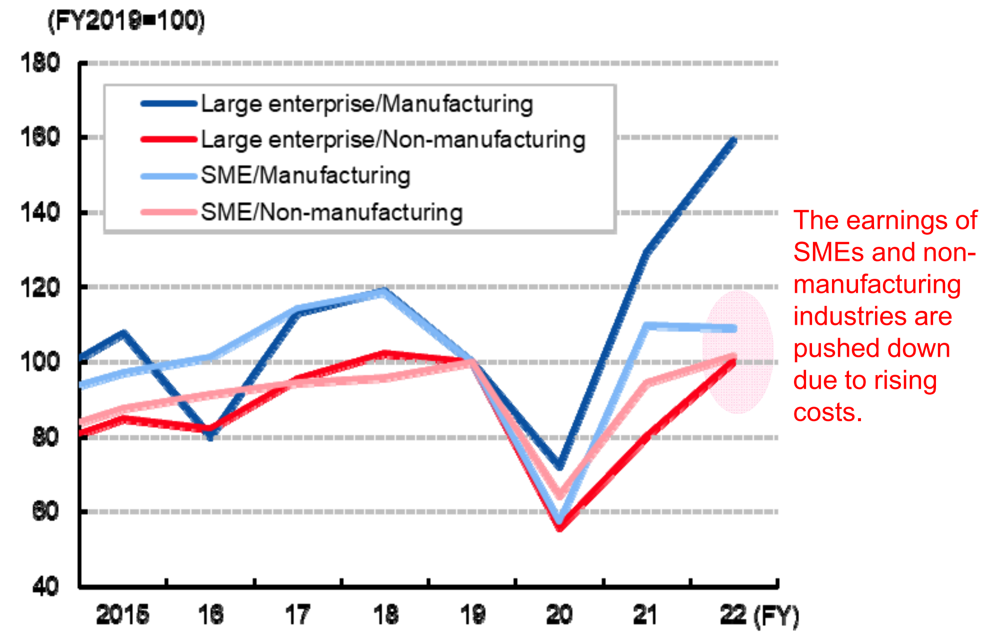
- We have revised upward our outlook on the wage hike rate from 2.6% to 2.8% and wage growth rate from 1.3% to 1.5% in FY2023
  - This is based upon our view that large companies are looking for ways to secure human resources by raising wages in response to inflation and the growing sense of labor shortage.
  - It will be difficult for small and medium-sized enterprises to raise wages significantly due to weak earnings recovery (according to a survey by the Johnan Shinkin Bank and Tokyo Shimbun, only 26.8% of SMEs surveyed plan to raise wages).
- Our forecast on the wage hike rate and wage growth rate in FY2024 are 2.7% and 1.4% respectively.
  - Despite the slowdown in corporate profits, especially in the manufacturing sector, and a pause in import inflation, will serve as downward pressures, labor shortages will worsen, especially in the services sector. Wage growth is expected to remain high compared to previous years.

Percentage of spring wage hikes



Note: Spring wage hike rates for 2023 and 2024 are forecasts by MHRT.
Source: Made by MHRT based upon Japan's Ministry of Health, Labour and Welfare, *Summary of Comprehensive Survey on Wage Conditions, Etc.*

Ordinary profit by corporate size



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

Upward revision of price outlook due to spread of price pass-through

- In FY2023, the core CPI (y-o-y) is projected to rise to +1.9% (revised up by +0.2 pt from +1.7% in the December outlook), reflecting the price pass-through in food and other items and a larger-than-expected rise in service prices due to labor shortages.
- In FY2024, labor shortages and upward pressure on wages, especially in the service sector, will continue to serve as factors pushing up prices, and the retroaction to the measures to address inflation will push up the core CPI (+1.4% y-o-y).

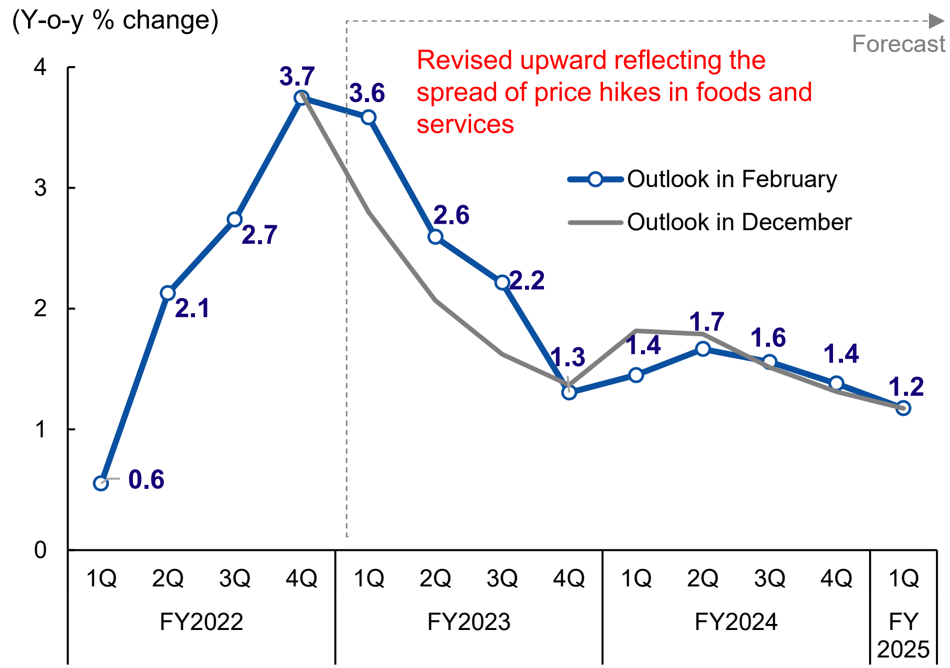
Outlook on factors affecting prices

Factor	Trend	Outlook
Government policy	The government's inflation measures will push the CPI (y-o-y) down by -0.6% in 2023. In 2024, there will be a reaction along with the reduction and termination of the measures.	↓
Import inflation	Import prices are expected to decline due to the decline of commodity prices and appreciation of the yen.	↓
Labor shortages	Sluggish occupancy rates due to labor shortages in the accommodation and other relevant industries are expected to spur movements to raise unit prices. Over the medium term, we expect an exacerbation of the labor crunch in the overall labor market.	↑
Price pass-through	We expect synchronized price hikes and re-hikes among business operators. Electric utilities are expected to apply to raise electricity rate caps from spring 2023 onward.	↑
Wage	The rate of base wage hike is expected to be +1.0% in 2023 as a result of spring wage negotiations. We have revised up our outlook for nominal wages to +1.5%. In 2024, we expect nominal wages to keep growing around the mid-1% range.	↑

Factors for the upward revision from the previous outlook

Note: The upward arrow shown in the outlook column indicates a factor for pushing up prices, and the downward arrow indicates a factor for pushing down prices.
Source: Made by MHRT

Outlook on the core CPI

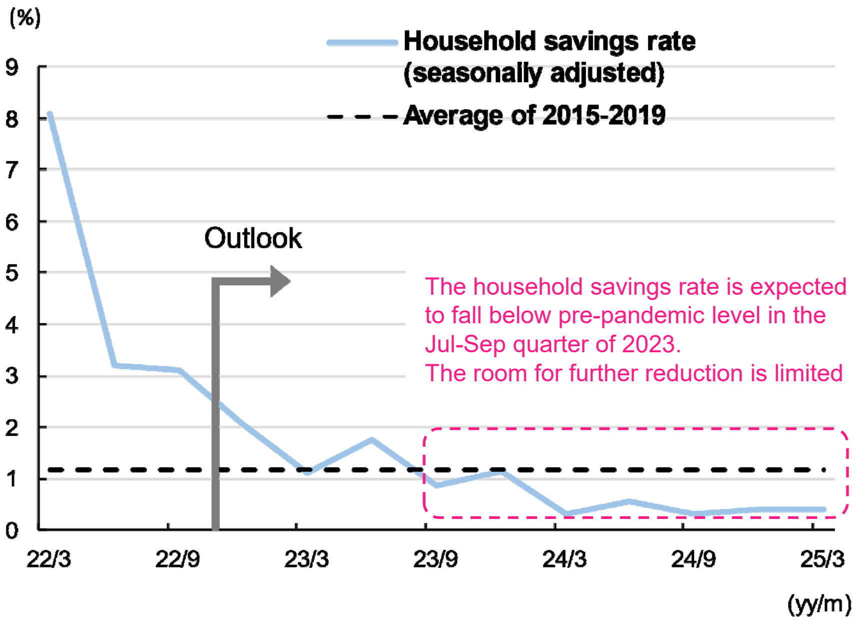


Note: Based upon the assumption that the amount of subsidies in the comprehensive economic stimulus measures will be gradually reduced from September 2023 onward and will implemented until the end of September 2024.
Source: Made by MHRT based upon Japan's Ministry of Internal Affairs and Communications, *Consumer Price Index*

The room to reduce the savings rate is narrowing; recovery in private consumption to be slowed as real wages continue to fall

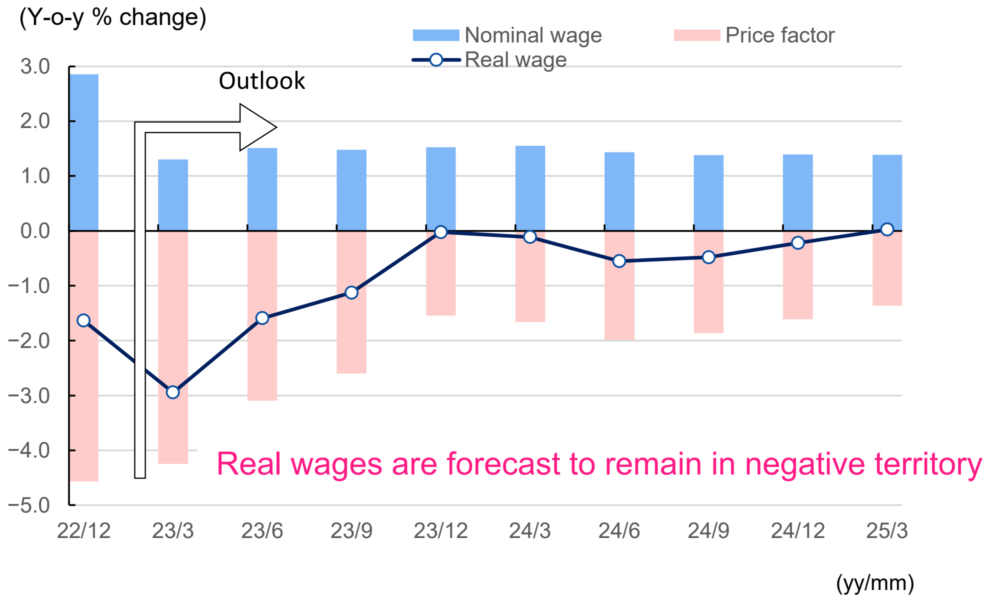
- We maintain our view that the household savings rate will gradually decline, while real wages will continue to fall and the pace of recovery in personal consumption will remain slow.
  - Although personal consumption will remain on a recovery path due to the supportive effect of the decline in the savings rate even in the face of inflation, we expect that the household savings rate will fall below the pre-pandemic level in the Jul-Sep quarter of 2023. The room for a further reduction of the savings rate is limited.
  - Although we have revised upward the nominal wage growth rate for FY2023 (from +1.3% to +1.5%), the price outlook has also been revised upward (core CPI growth rate for FY2023 from +1.7% to +1.9%). Accordingly, the situation remains unchanged that real wage growth will remain in negative territory. As households are expected to turn cautious about withdrawing assets (the savings rate will turn negative) due to uncertainties about the future, we expect that the pace of recovery in personal consumption will be moderate.

Outlook on the household savings rate



Note: Actual figures are seasonally adjusted by the Cabinet Office. The Outlook is seasonally adjusted by MHRT.
Source: Made by MHRT based upon the Cabinet Office, *National Accounts*

Outlook on nominal wages



Note: Nominal wages are continuity adjusted by MHRT and converted into real terms by the aggregate consumer price index excluding the imputed rent of owner-occupied housing.
Source: Made by MHRT based upon Japan's Ministry of Health, Labour and Welfare, *Monthly Labour Survey*

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Gradual revision of BOJ's ultra-loose monetary easing. Long-term interest rate target expected to be removed soon

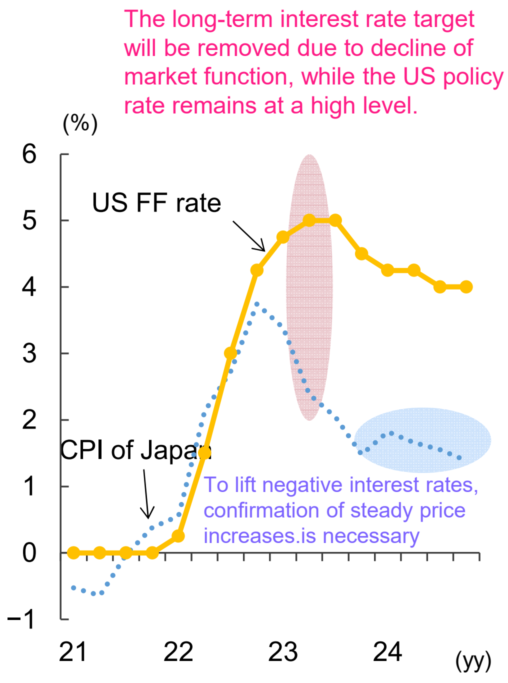
- While the BOJ's ultra-loose monetary easing is to be revised in stages under the new governor, the monetary environment will remain accommodative.
  - We expect the long-term interest rate target to be removed in the Apr-Jun quarter of 2023. With price inflation in Japan not declining as expected and with policy rates in the US and Europe remaining at high levels, a change in policy is now predicted. The decline in market functioning has not been resolved. The early removal of the long-term interest rate target is expected.
  - Negative interest rates are expected to be lifted in the Oct-Dec quarter of 2024. The BOJ will need to make a careful assessment of when to lift negative rates to avoid a domestic recession, as it will take time to confirm a sustained increase in wages and prices (conditions should include the domestic and global economies being in a recovery phase).
  - However, while a stable price increase of 2% may not be possible, an accommodative monetary environment will be maintained (zero interest rates and quantitative easing will continue).

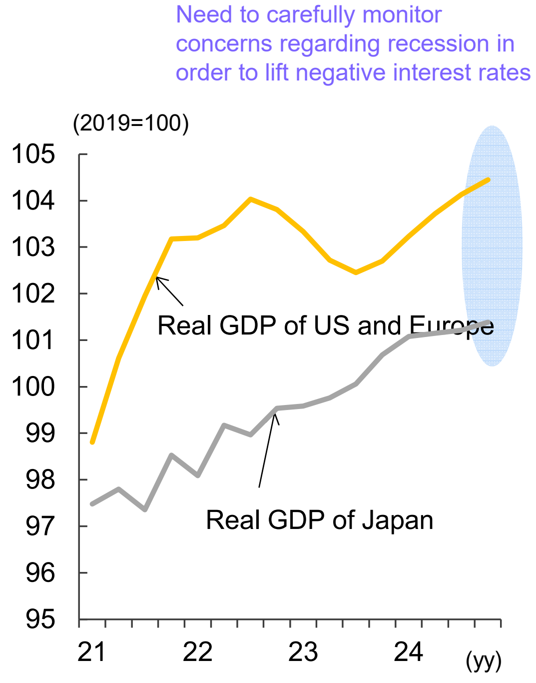
Expected paths of the monetary policies

Jan-Mar Qtr 2023	● Monetary policy unchanged under Governor Kuroda • Adopted "funds-supplying operations against pooled collateral" to respond to the distortion of yield curves
Apr-Jun Qtr 2023	● Removal of the long-term interest target • Price inflation will not decline as expected, raising the prospect of a change in government policies. No progress in improving market functions. • Easing (negative interest rates, asset purchases) will continue in consideration of the real economy.
Oct-Dec Qtr 2024	● Lifting of negative interest rates • Revision of ultra-loose monetary easing policy. Zero interest rates and quantitative easing will continue. • Confirmation of sustained increase in wages and prices; careful assessment of timing is needed to choose when the removal of easing will not lead to domestic recession.

Source: Made by MHRT

External environment surrounding BOJ monetary policy





Source: Made by MHRT based upon releases by the Cabinet Office, Japan's Ministry of Internal Affairs and Communications, the FRB, the US Department of Commerce, and Eurostat

(5) Financial markets: yen projected to strengthen further due to contraction of the US-Japan long-term interest gap; stock prices expected to be softened through 2023

- Japan’s long-term interest rate is expected to rise to near 1% around the autumn of 2024 after the BOJ's gradual termination of its yield curve control (YCC). Although the US long-term interest rate will decline due to the recession, it will remain at around the 3% range throughout the forecast horizon.
- US stocks softened due to the impact of the US recession and fading sense of overvaluation. Japanese stocks will soften through the summer of 2023 due to rising yen interest rates and weak US stocks, and subsequently follow a gradual recovery.
- The yen will continue to appreciate to around JPY120 per dollar due to the shift in the BOJ‘s monetary policy stance and the decline in long-term interest rates in the US accompanying the economic slowdown in the US.

Outlook on financial markets

		2021	2022	2023	2024	2022				2023				2024				2025
		FY	FY	FY	FY	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
Japan																		
Interest rate on the policy rate balance	(End-of period value, %)	−0.10	−0.10	−0.10	0.00	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	−0.10	0.00	0.00
Newly issued JGBs	(10-year, %)	0.09	0.15 to 0.53	0.30 to 0.80	0.50 to 1.20	0.18	0.24	0.22	0.27	0.15 to 0.53	0.50 to 1.00	0.30 to 0.80	0.30 to 0.80	0.40 to 0.80	0.50 to 0.90	0.60 to 1.00	0.70 to 1.20	0.80 to 1.10
Nikkei Stock Average	(JPY)	28,387	23,900 to 30,100	21,900 to 31,500	23,600 to 32,900	27,156	26,891	27,611	27,362	23,900 to 30,100	23,200 to 29,400	21,900 to 29,900	22,900 to 30,900	23,500 to 31,500	23,600 to 31,600	24,200 to 32,200	24,600 to 32,600	24,900 to 32,900
US																		
Federal Funds Rate (lower end)	(End-of period value, %)	0.25	4.75	4.25	3.75	0.25	1.50	3.00	4.25	4.75	5.00	5.00	4.50	4.25	4.25	4.00	4.00	3.75
Newly issued government bonds	(10-year, %)	1.59	2.38 to 4.24	2.90 to 3.85	3.05 to 3.95	1.95	2.92	3.10	3.82	3.30 to 4.10	3.05 to 3.85	2.90 to 3.60	2.90 to 3.60	2.95 to 3.65	3.05 to 3.75	3.15 to 3.85	3.25 to 3.95	3.25 to 3.95
Dow Jones Average	(USD)	34,812	27,700 to 35,700	25,000 to 34,300	25,800 to 34,800	34,679	32,688	31,774	32,490	27,700 to 35,700	26,300 to 34,300	25,000 to 33,000	25,100 to 33,100	25,400 to 33,400	25,800 to 33,800	26,200 to 34,200	26,400 to 34,400	26,800 to 34,800
Eurozone																		
ECB deposit facility rate	(End-of period value, %)	−0.50	3.00	3.00	2.00	−0.50	−0.50	0.75	2.00	3.00	3.25	3.25	3.25	3.00	2.75	2.50	2.00	2.00
German government bonds	(10-year, %)	−0.17	0.51 to 2.80	2.00 to 2.80	2.15 to 2.90	0.17	1.10	1.36	2.14	2.00 to 2.80	2.10 to 2.80	2.10 to 2.80	2.00 to 2.70	2.10 to 2.80	2.15 to 2.85	2.20 to 2.90	2.20 to 2.90	2.20 to 2.90
Exchange rates																		
USD/JPY	(USD/JPY)	112	121 to 151	114 to 134	110 to 130	116	130	138	141	126 to 138	117 to 134	115 to 129	114 to 128	114 to 128	115 to 129	116 to 130	110 to 125	110 to 125
EUR/USD	(EUR/USD)	1.16	0.95 to 1.13	1.05 to 1.18	1.04 to 1.16	1.12	1.06	1.01	1.02	1.03 to 1.13	1.05 to 1.16	1.08 to 1.18	1.07 to 1.17	1.07 to 1.17	1.06 to 1.16	1.06 to 1.16	1.04 to 1.14	1.04 to 1.14

Source: Made by MHRT based upon releases by Bloomberg

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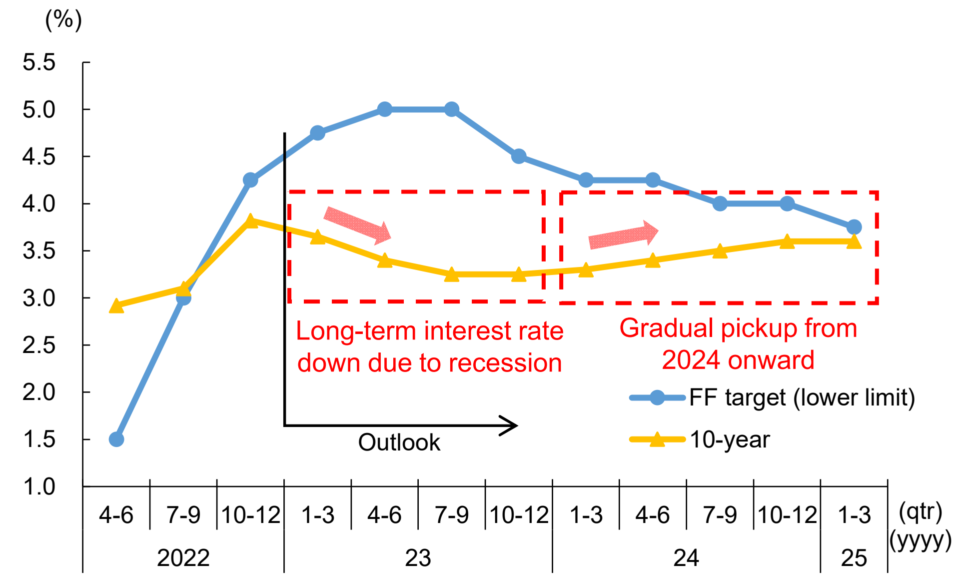
US interest rates: despite a downshift of the long-term interest rate in 2023, it should remain in the 3% range throughout the forecast horizon

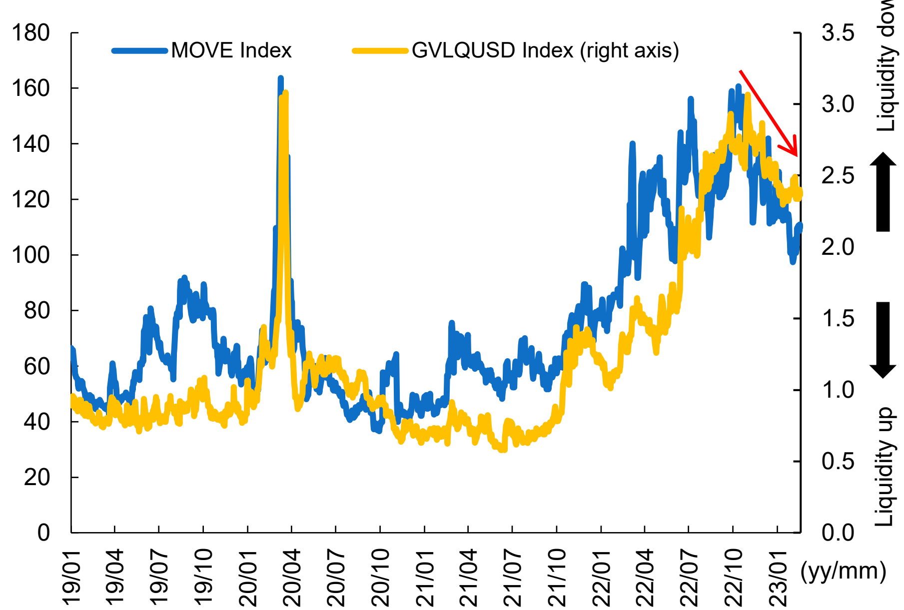
- Although the US long-term interest rates will decline due to the impact the US recession, they will remain in the 3% range throughout the forecast horizon.
  - In 2023, although the US long-term interest rate will follow a downtrend reflecting the economic slowdown, the Fed's monetary tightening stance will push up the overall interest rate level and keep it in the 3% range. In 2024 and beyond, the rate should gradually pick up as the economy recovers and reach the mid-3% range.
- Expected volatility of US Treasury bonds is currently falling. This was revised down from the December outlook due to the fall of liquidity premiums.
  - The gradual tapering of interest rate hikes is easing concerns regarding sharp swings in US Treasury prices. However, attention should be paid to the rise of speculation that monetary tightening will be prolonged.

Outlook on US interest rates



Note: 10-year refers to the US Treasury yield (quarterly average). The outlook refers to the median of the forecast range. The FF target refers to the value at the end of the quarter.
Source: Made by MHRT

MOVE Index and US Government Securities Liquidity Index (GVLQUSD Index)

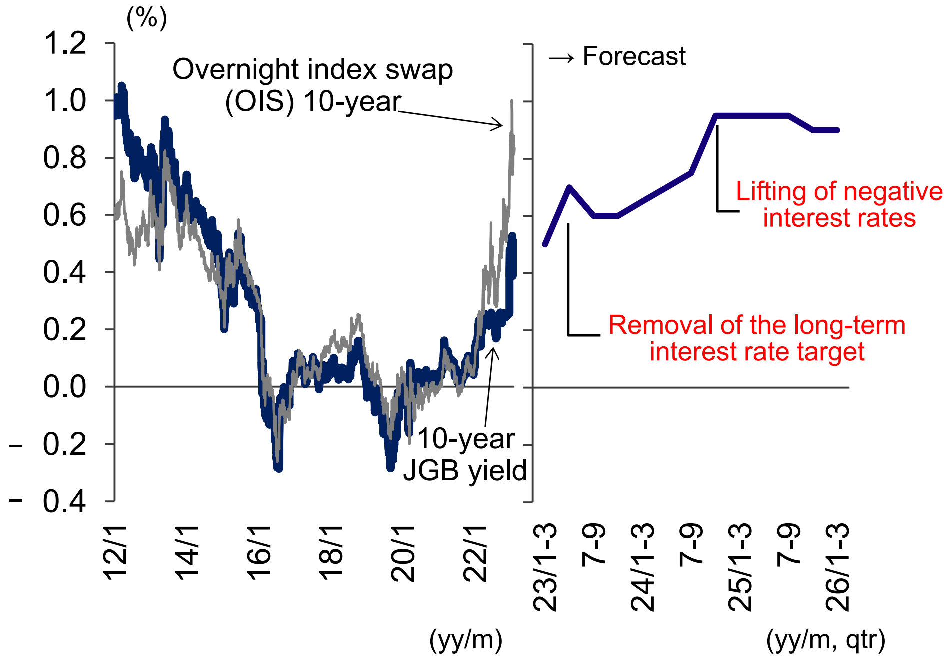


Note: A rise in the MOVE Index indicates an increase in US Treasury volatility, while a rise in the GVLQUSD Index indicates a decline in US Treasury liquidity. Premiums decline as US Treasury liquidity rises; as of Feb 17 .
Source: Made by MHRT based upon releases by Bloomberg

Yen interest rates and exchange rates: long-term interest rate to rise to 0.7% after the removal of the long-term interest rate target; the yen to gain ground to the US dollar

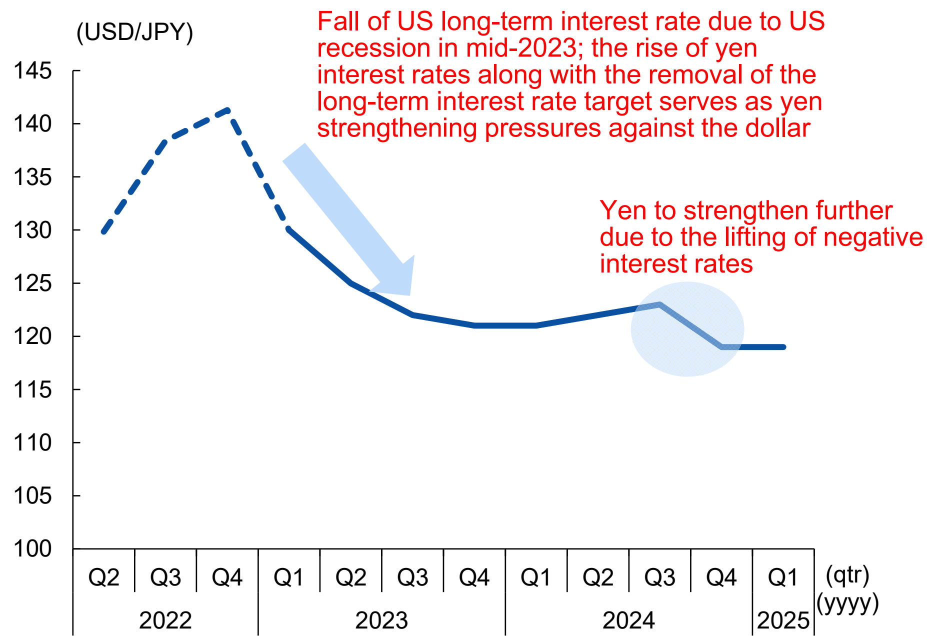
- The 10-year JGB yield is expected to rise to 0.7% in the Apr-Jun quarter of 2023 after the BOJ removes its long-term interest rate target and to 0.95% in the Oct-Dec quarter of 2024 with the lifting of negative interest rates.
- Looking at the JPY/USD exchange rate, the BOJ's policy change will serve as a yen-strengthening and dollar-weakening factor. The yen is expected to strengthen to around 120 yen/dollar due to the decline of long-term US interest rates along with the US recession.

Long-term interest rate in Japan (10-year JGB yield)



Source: Made by MHRT based upon releases by Bloomberg

USD/JPY exchange rate outlook



Note: The dotted line shows the actual, and the solid line is the forecast value.
Source: Made by MHRT based upon releases by Refinitiv

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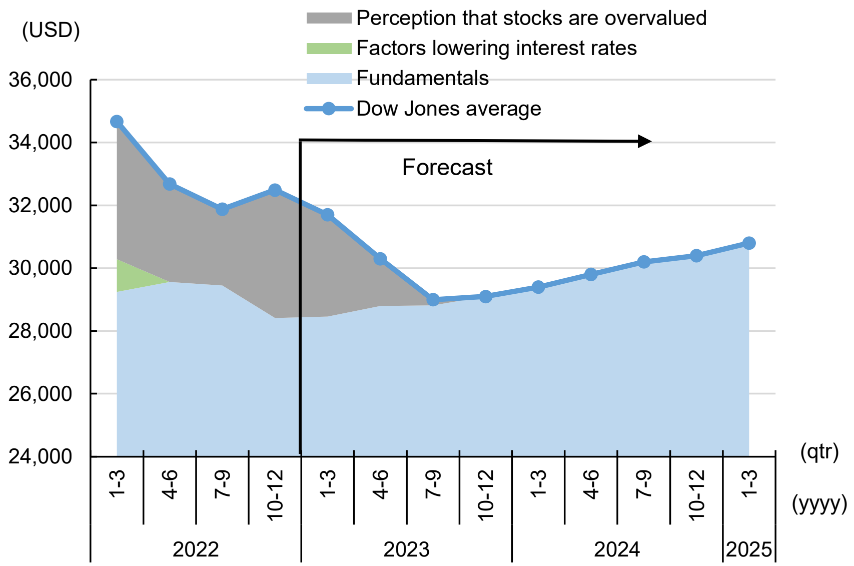
Stock markets: both Japanese and US equities to remain soft in 2023; a recovery is expected only from 2024 onward

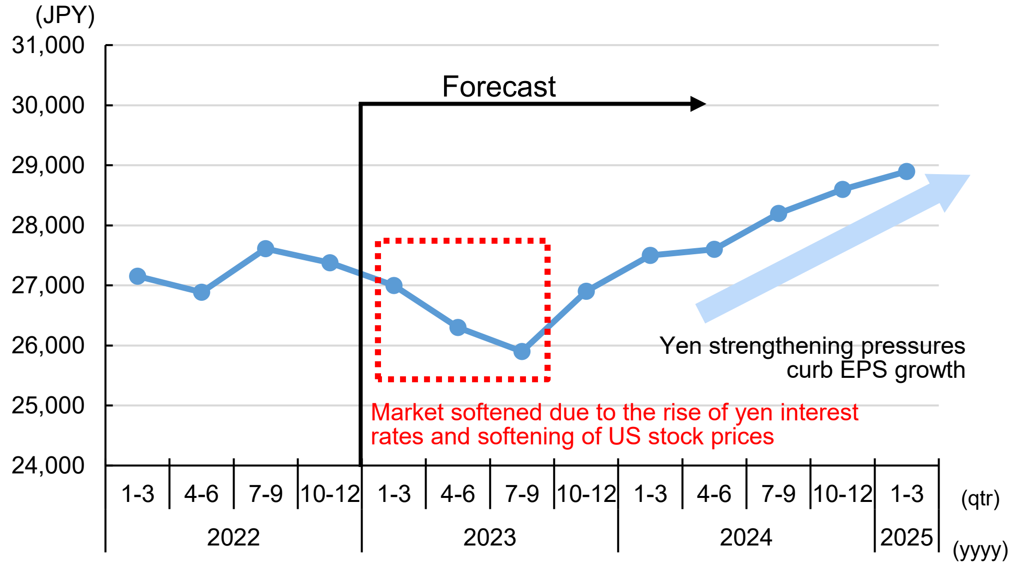
- US stocks will soften due to the impact of the US economic slowdown and the fading sense of overvaluation. A recovery is expected only from 2024 onward.
  - In 2023, the EPS is expected to decline due to the impact of the US economic slowdown and the fading sense of overvaluation, resulting in a softening of the market.
  - On the other hand, the decline in PER will be limited against the backdrop of the fall of US long-term interest rate, thus avoiding a significant decline.
- Japanese stocks will soften through the Jul-Sep quarter of 2023 due to rising yen interest rates and weak US stocks. A moderate recovery is expected thereafter.
  - PER will decline due to the rise of yen interest rates in the Apr-Jun quarter of 2023 and weak US stock prices, leading to a softening of the market.
  - Thereafter, yen-strengthening pressures against the dollar is expected to restrain EPS growth, leading to a moderate recovery of stock prices.

US stock market outlook and sense of overvaluation



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 forecast value is the median of the range.
Source: Made by MHRT based upon releases by Refinitiv

Outlook on Nikkei Stock Average



Source: Made by MHRT

Reference: key political events

	2023		2024		2025	
US	Mar	20 years since the Iraq War	Nov	Presidential election		
Europe	By year-end	Spain: legislative election	May	Russia: end of term of President Vladimir Putin	By Jan	British parliamentary election
	By Jul	Greece: legislative election	May	European Parliamentary elections	By Oct	German federal parliament election
			Jul-Sep	Paris Olympic and Paralympic Games		
			Oct	End of term of European Commission President Ursula von der Leyen		
Japan	Apr	End of term of Bank of Japan Governor Haruhiko Kuroda	Jul	End of term of the governor of Tokyo	Apr-Oct	EXPO 2025 Osaka Kansai
	Apr	Nationwide local elections	Sep	End of term of the president of the Liberal Democratic Party	Jul	End of term of office of members of the House of Councilors
	May	G7 Summit (Hiroshima)			Oct	End of term of office of members of the House of Representatives
Asia	Spring	China: National People's Congress	Jan	Taiwan: presidential election		
	By May	Thailand: election of the House of Representatives (lower house)	Feb	Indonesia: presidential and parliamentary elections		
	By Jul	Cambodia: general election	1H	South Korea: legislative election		
	By Aug	Myanmar: general election	By mid-year	India: general election		
Other	Oct	Argentina: presidential and legislative elections	Jun	Mexico: presidential election and legislative elections		
	Nov	COP28 (UAE)	By year-end	G20 Summit (Brazil)		
	By year-end	G20 Summit (India)	By year-end	COP29		
	By year-end	Turkey: presidential and legislative elections				

Source: Made by MHRT based upon media reports, etc.