Outlook for the Japanese and Overseas Economies

ECONOMIC RESEARCH OFFICE
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MUFG Bank, Ltd.
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Contents

1-1. Overview of Economic Outlook

- In 2023, we will see inflation slowly subside and central banks around the world will start to phase out their rate hikes. Meanwhile, the cumulative effects of monetary tightening up until now are likely to weigh on economic activity. In 2024, inflation will slow and central banks will lower their interest rates, which will have a positive effect on economies. We forecast the global real GDP growth rate will slow to 2.7% in 2023 from the previous year before accelerating slightly to 3.0% YoY in 2024.
- Since our previous Outlook published in March, the credit situations of some US and European banks have caused concerns. Meanwhile, China's economic recovery has been mostly smooth since it ended its "zero COVID-19" policy and the US and European economies have remained firm. In light of this, we have revised our forecast for the global economy in 2023 upwards slightly.

✓ **Pandemic**: Restrictions on the movement of people are being eased globally. We do not foresee a reintroduction of stringent measures, even if cases rise.

✓ **Ukraine conflict**: The conflict looks set to be prolonged. Although the risk of a dramatic escalation is low, the prospect of a swift resolution through diplomatic channels is also bleak.

✓ **Energy issues**: The risk of serious energy shortages in Europe is low, but there will be many uncertainties during the upcoming winter.

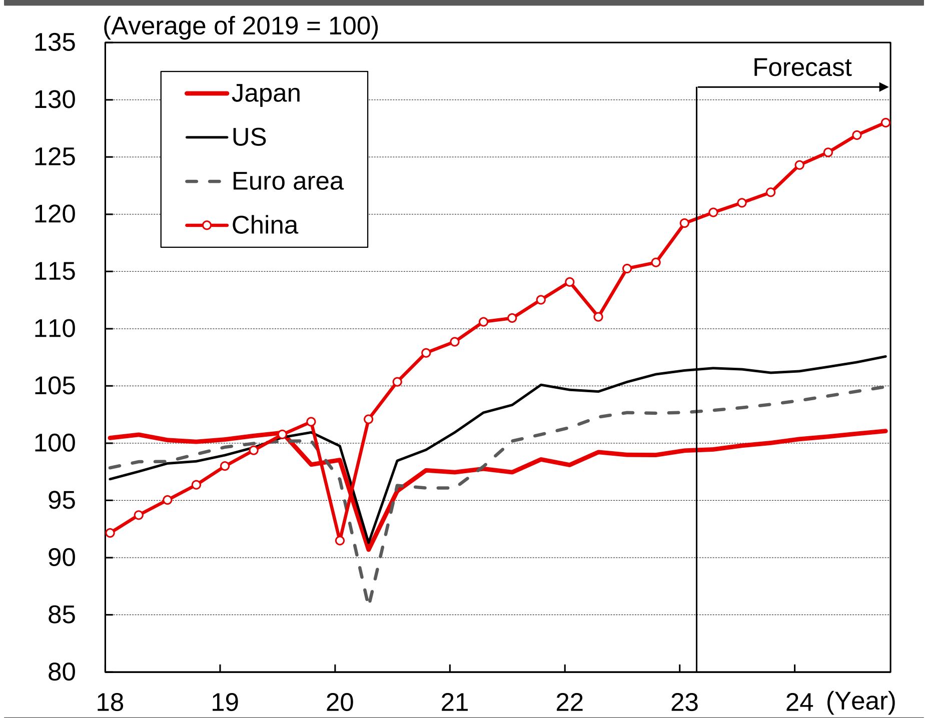
✓ **Economic security**: The US is stepping up its export restrictions. Nevertheless, restrictions will be limited to certain advanced technologies and the risk that they will be expanded is low.

Real GDP Outlook for Major Economies

(%)	2022	MUFG Forecast (May) 2023	MUFG Forecast (May) 2024	MUFG Forecast (March) 2023	MUFG Forecast (March) 2024
World	3.4	2.7	3.0	2.6	-
US	2.1	1.2 (0.3)	0.5 (0.7)	0.6	-
Euro area	3.5	0.8 (0.4)	1.2 (0.9)	0.4	-
UK	4.1	0.3 (0.3)	0.6 (0.4)	-0.1	-
Japan (FY)	1.2	0.8 (0.6)	1.0 (0.6)	1.1	-
Japan (CY)	1.0	0.8 (0.6)	1.1 (0.7)	1.2	-
Asia (total 11 economies)	4.2	5.1	4.9	4.8	-
China	3.0	5.7 (3.9)	4.7 (3.3)	5.2	-
ASEAN 5	6.0	4.7	5.1	4.7	-
Indonesia	5.3	4.8 (2.9)	5.0 (3.0)	4.7	-
Thailand	2.6	3.5 (3.6)	3.7 (2.8)	3.5	-
Malaysia	8.7	4.2 (3.5)	4.4 (2.8)	4.0	-
Philippines	7.6	5.6 (2.2)	5.8 (2.9)	5.2	-
Vietnam	8.0	5.5	6.7	6.2	-

Note: Number in parentheses is growth rate when the carry-over effect is removed.
Source: Statistics from each country, MUFG Bank Economic Research Office

Real GDP Outlook for Select Major Economies



Source: Statistics from each country,
MUFG Bank Economic Research Office

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1-2. Inflation and Monetary Policy

- Although inflation has already peaked in many countries and regions, inflation is expected to slow further owing to the deceleration of the US and European economies in the future.
- In advanced economies (excluding Japan), we will see inflation rates approaching 2% in late 2024 or after. However, the US Fed and European central banks are forecast to stop raising rates this year for the most part and will start lowering rates from between the end of the year and mid-2024.
- Japan's economy continues to recover gradually and the output gap is expected to turn positive in the autumn of this year. However, the US economy is expected to enter a recession and the Bank of Japan (BoJ) is likely to end its yield curve control in the latter half of this year as the upward pressure on interest rates fades. After that, will see the output gap tighten further as the Japanese economy continues to recover, and we expect the BoJ will end its negative interest rate policy during the latter half of 2024 when overseas economies start to pick up.

Outlook of Consumer Prices for Major Economies

		MUFG Forecast (May)	
(YoY, %)	2022	2023	2024
World	8.7	6.8	4.8
US	8.0	4.3	2.6
Euro area	8.4	5.6	2.5
UK	9.1	6.9	3.0
Japan (FY)	3.0	2.6	1.2
Asia (total 11 economies)	3.6	2.9	2.9
China	1.9	1.5	2.3
ASEAN 5	4.5	3.8	2.8
Indonesia	4.2	4.0	3.2
Thailand	6.1	2.6	1.7
Malaysia	3.4	2.9	2.3
Philippines	5.8	5.8	3.4
Vietnam	3.2	3.2	3.0

Note: *Japan* number excludes fresh food. *Euro area* number is HICP (EU standard).
Source: Statistics from each country, MUFG Bank Economic Research Office

Outlook of Policy Rates for Major Economies

			MUFG Forecast (May)			
		2021	2023		2024	
(%)		End Dec	End Jun	End Dec	End Jun	End Dec
US		4.25-4.50	5.00-5.25	4.75-5.00	4.25-4.50	3.50-3.75
Euro area		2.00	3.50	3.75	3.50	3.00
UK		3.50	4.75	5.00	4.75	4.25
Japan		- 0.10	- 0.10	- 0.10	- 0.10	0.00
China		3.65	3.65	3.65	3.65	3.65
ASEAN 5	Indonesia	5.50	5.75	5.75	5.00	5.00
	Thailand	1.25	2.00	2.00	1.75	1.50
	Malaysia	2.75	3.00	3.00	2.75	2.50
	Philippines	5.50	6.25	6.25	5.50	4.75
	Vietnam	6.00	5.00	5.00	5.00	5.00

Note: Policy rates are FF target rate for the US, Deposit Facility Rate for the euro area, Bank Rate for the UK, Policy Balance Rate for Japan, and 1-year LPR for China.
Source: Statistics from each country, MUFG Bank Economic Research Office

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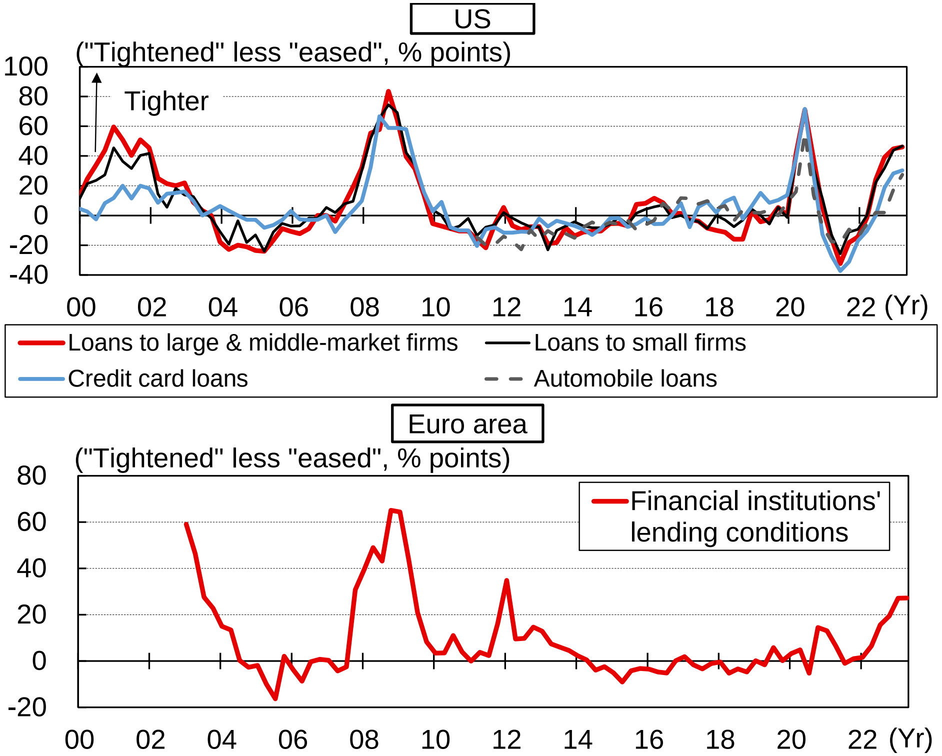
1-3. US and European Bank's Credit Uncertainty: Private Sector's Reaction and Economic Impact

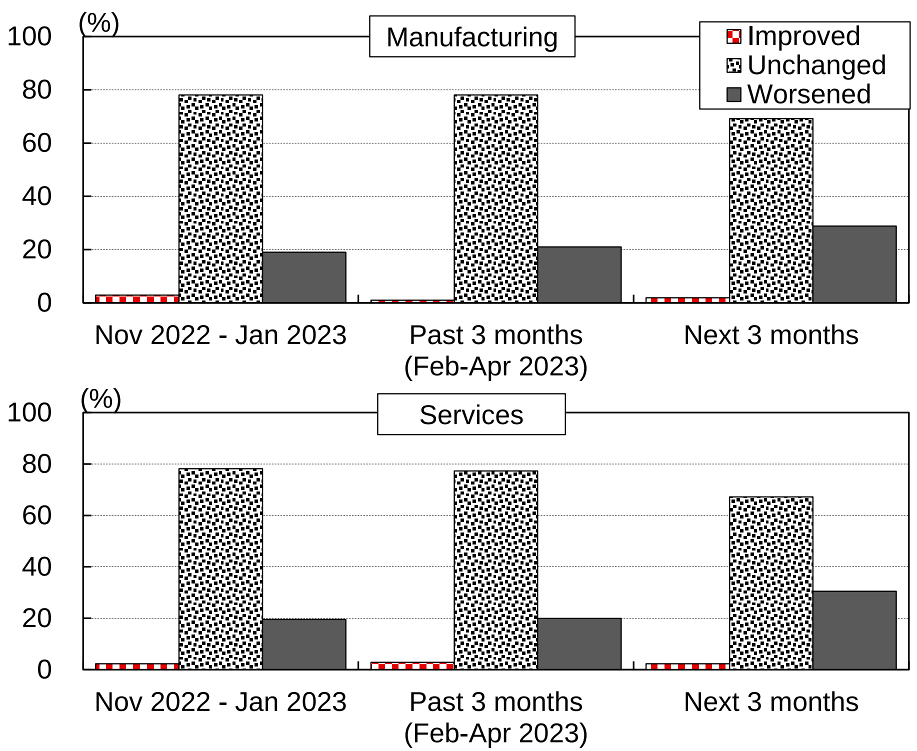
- The lending standards of financial institutions in the US and euro zone do not appear to have deteriorated significantly since the financial instability that occurred in March, even though credit conditions remain tight due to rate hikes.
- When asked about the financing environment, the percentage of US businesses that said it has grown worse over the past three months was roughly unchanged from the previous three months. Nevertheless, there has been a small increase in the number of businesses that expect the financing environment to deteriorate over the next 3 months, and it appears businesses are becoming increasingly cautious about the future.
- Looking ahead, the stricter lending conditions in the US are likely to continue due to a deterioration in financial institutions' balance of funds brought about by stress on balance sheets from valuation losses on bonds and loans caused by high interest rates, coupled with inverted yields. There is also a risk that borrowers will become more cautious about borrowing due to inflation and high interest rates, and a decline in the supply and demand for funding is expected to put a certain amount of downward pressure on private consumption and capital expenditure.

Bank Lending Conditions in the US and Euro Area



Source: Federal Reserve Bank, European Central Bank, MUFG Bank Economic Research Office

Survey on Credit Conditions in the US



Source: Federal Reserve Bank of New York, MUFG Bank Economic Research Office

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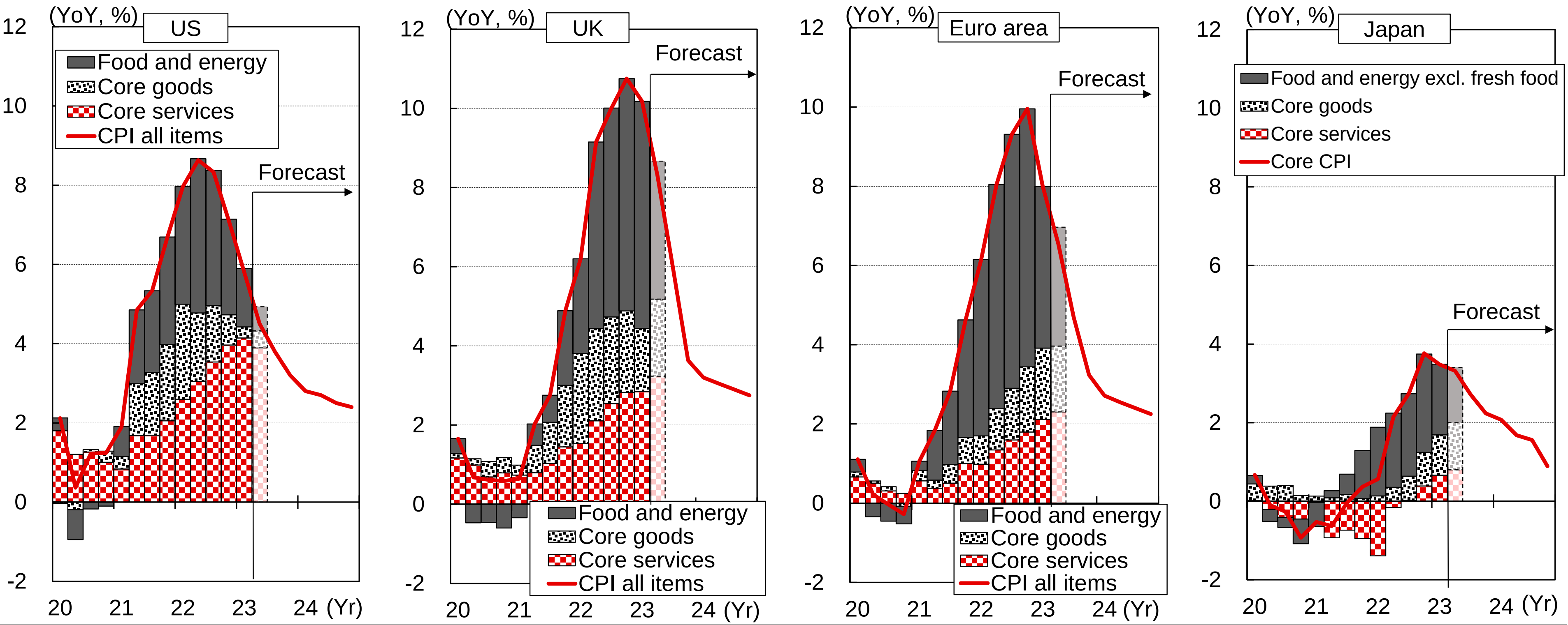
1-4. Monetary Policy: Prices in Advanced Countries and Forecast

- On the whole, inflation in advanced economies continues to decrease when calculated as a total of all items, but there are some differences in the trends on a core basis. While the core CPI in the US has been falling since mid-2022, it continues to accelerate in the euro area and, although it fell during the first quarter of 2023, inflation accelerated again in April in the UK.
- Looking ahead, growth of prices is forecast to decelerate on an all-items and a core basis. However, it will be at least mid-2024 before the rate of inflation falls to the target level of 2% in advanced economies (excluding Japan).
- In Japan, although wage increases following the spring negotiations will put upward pressure on inflation, the downward pressure from a fall in international commodity prices will be significant, and inflation is expected to slow little by little.

Forecast for CPI in the US, UK and Euro Area and Core CPI in Japan



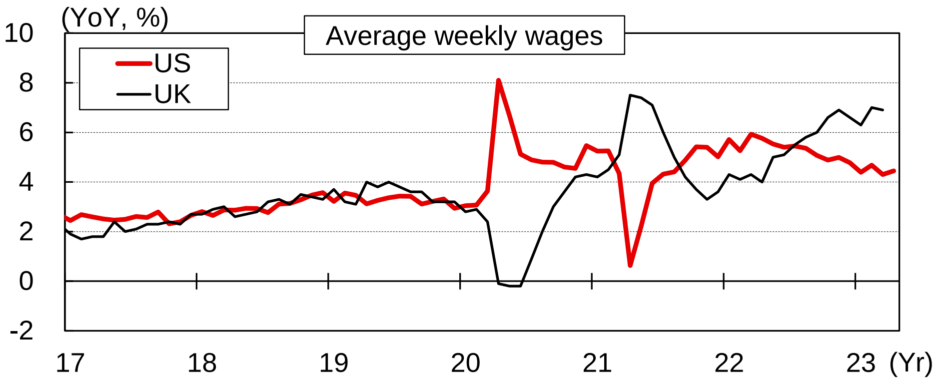
Note: Data for the April-June 2023 period uses April 2023 only

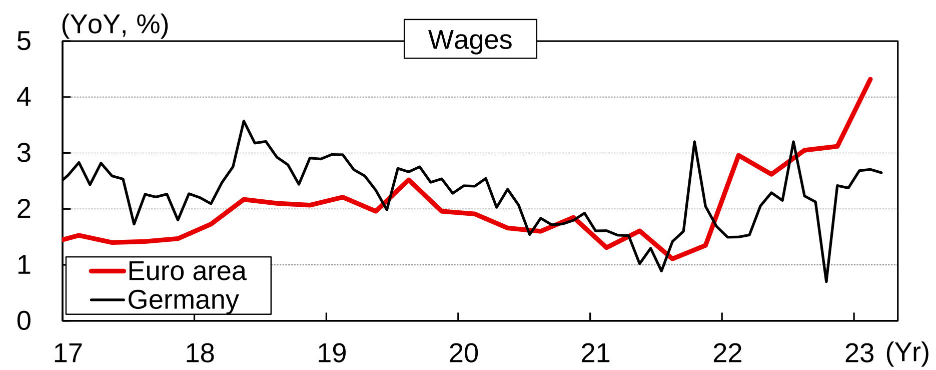
Source: National statistics from each country, MUFG Bank Economic Research Office

1-5. Monetary Policy: Policies and Labour Markets in Advanced Countries

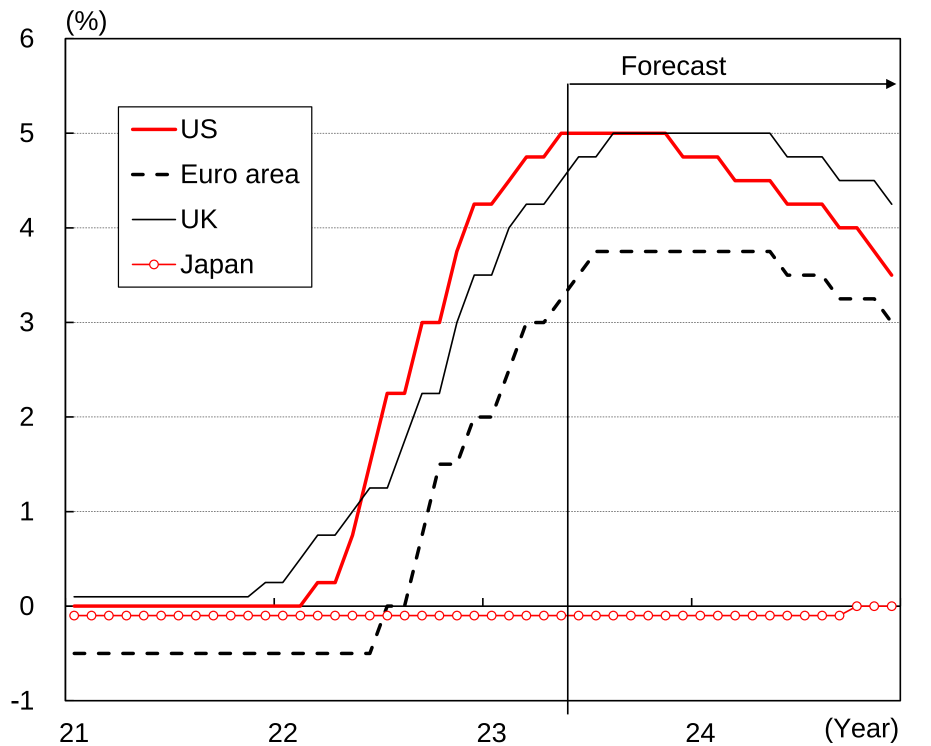
- Wage trends are affecting the pace at which core inflation slows and causing differences across countries and regions. In the US, wage growth has slowed since first half of last year as the labour market cooled, whereas wage growth still remains high in the UK and euro area.
- This difference in prices and wage trends also affects the pace of rate hikes in each economy. The Fed is expected to stop raising its federal funds rate in May, whereas the Bank of England and European Central Bank are both forecast to carry out two more rate hikes. Inflation will then slow further across the US and Europe this year and we expect central banks will start to cut rates at some point between the end of this year and the middle of next year.
- Japan's economy continues to recover gradually and the output gap is expected to turn positive in the autumn of this year. However, the US economy is expected to enter a recession and the Bank of Japan (BoJ) is likely to end its yield curve control in the latter half of this year as the upward pressure on interest rates fades. After that, will see the output gap tighten further as the Japanese economy continues to recover, and we expect the BoJ will end its negative interest rate policy during the latter half of 2024 when overseas economies start to pick up.

Wages in Advanced Economies





Policy Rates in Advanced Economics



Source: US Bureau of Labor Statistics, UK Office of National Statistics, Eurostat, German Federal Bank, MUFG Bank Economic Research Office

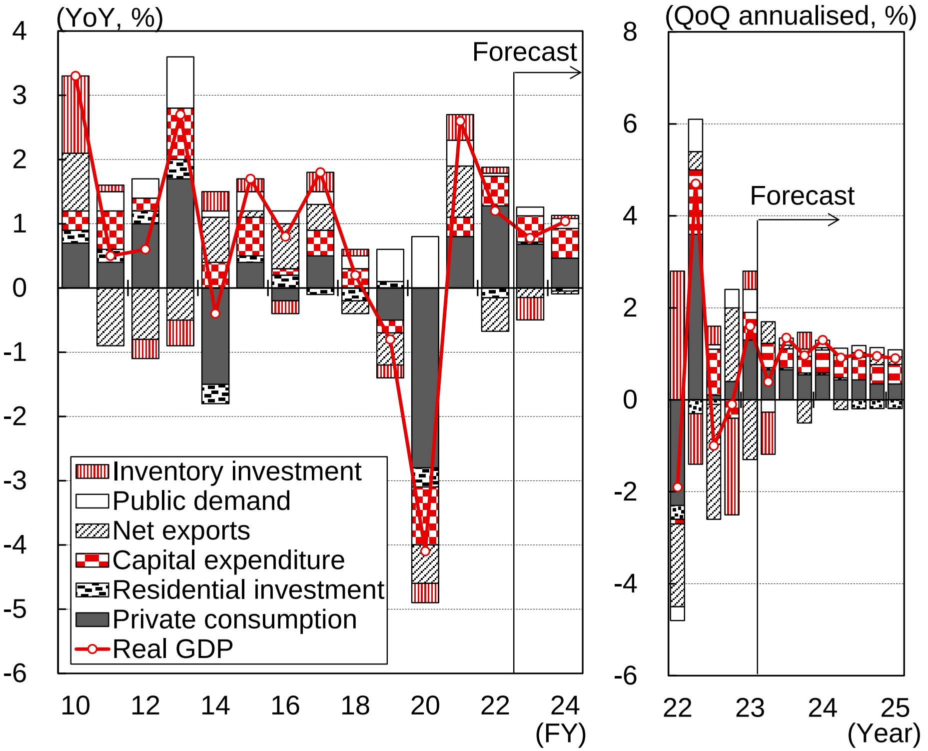
Note: Interest rates shown are: Japan – interest rate applied to policy-rate balances; US – lower limit of the target for the federal funds rate; euro area – the deposit facility rate; UK – the bank rate

Source: National statistics from each country, MUFG Bank Economic Research Office

2-1. The Japanese Economy – Overview

- The real GDP growth rate for the January-March quarter was 1.6% QoQ annualised (preliminary estimate) – the first expansion in three quarters. The supply constraints that had been affecting automobiles eased and restrictions related to COVID-19 were relaxed, which led to a rise in private consumption. Capital expenditure also started to rise on the back of strong results in the corporate sector.
- Thanks to the reclassification of COVID-19 as a Class 5 Infectious Disease and the high wage increases at this year's labour negotiations, the Japanese economy looks set to continue to recover, supported by private consumption. Nevertheless, the rate of inflation will remain high for the time being which, along with a recession in the US, means the pace of economic recovery in Japan is expected to remain gradual.
- We forecast the real GDP growth rate to be 0.8% YoY in FY2023 and 1.0% YoY in FY2024. Real GDP is forecast to return to its pre-pandemic level in the October-December quarter this year.

Japan Real GDP and Outlook (Fiscal Year, Quarterly)



Source: Cabinet Office, MUFG Bank Economic Research Office

Japan Real GDP and Outlook (Fiscal Year)

(YoY, %)

	FY2021 (Actual)	FY2022 (Outlook)	FY2023 (Outlook)	FY2024 (Outlook)
Real GDP	2.6	1.2	0.8	1.0
Private consumption	1.5	2.4	1.3	0.9
Residential investment	-1.1	-4.4	0.9	-1.4
Capital expenditure	2.1	3.0	2.5	2.8
Inventory investment (contribution)	0.4	0.1	-0.3	0.0
Public demand	1.3	0.3	0.5	0.6
Net exports (contribution)	0.8	-0.6	-0.1	-0.0
Exports	12.3	4.4	-0.3	2.1
Imports	7.0	7.1	0.4	2.3
Nominal GDP	2.4	1.9	3.0	1.6
GDP Deflator	-1.0	0.7	2.2	0.6

Source: Cabinet Office, MUFG Bank Economic Research Office

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2-1. The Japanese Economy – Monetary Policy, Interest Rates and Currency

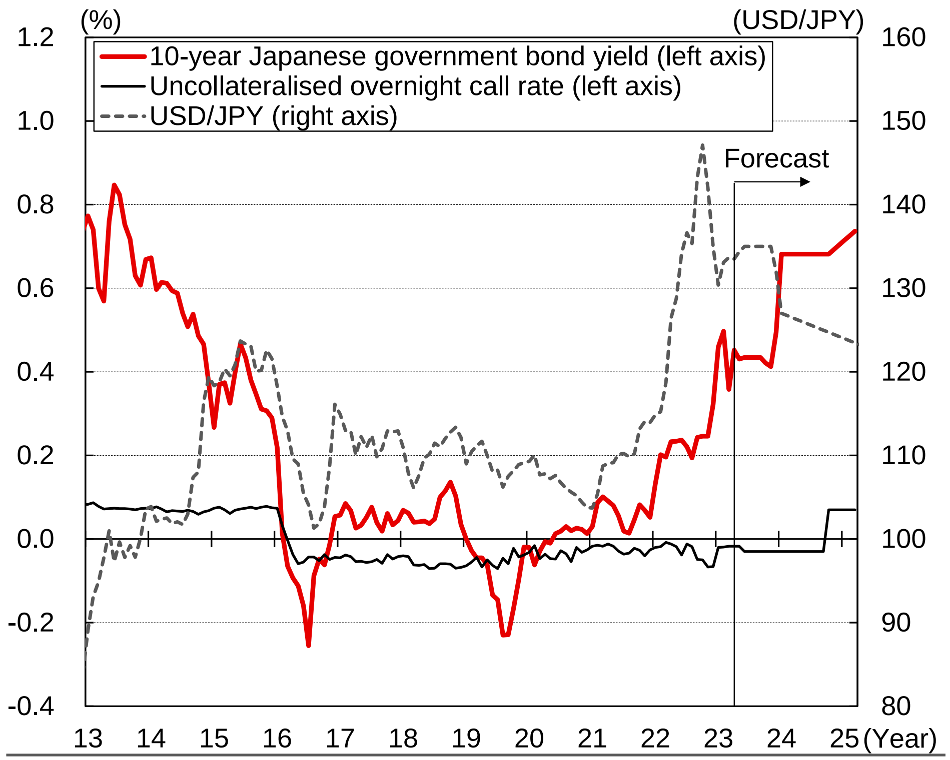
- The Bank of Japan decided to maintain its current monetary policy at its meeting in April. In addition, it said it will conduct a broad-perspective review of monetary policy, with a planned time frame of around one to one-and-a-half years.
- In the past, Governor Ueda has pointed out the side effects of the BoJ's monetary policy, such as the low functioning of bond markets and negative impact on financial intermediaries, and has highlighted the difficulties of fine tuning policy during the process of normalisation. He has suggested a review of the framework would be necessary in the case the BoJ's easy monetary policy continues,
- If the rate of wage growth slows at next year's wage negotiations, the BoJ will be forced to maintain its easy monetary policy . On the other hand, if there is a growing sense that Japan's economic recovery will continue and that positive inflation is here to stay, it is likely the BoJ will normalise its monetary policy to a certain extent. If the US economy enters a recession and the scope for raising interest rates becomes more limited towards the end of the year, the BoJ is expected to end its control of long-term interest rates as it will be less effective, and will end its negative interest rate policy next year. Long-term interest rates are forecast to rise when long-term interest rates control ends, after which they will rise more gradually as markets factor in a step-by-step normalisation of monetary policy. The yen will appreciate against the US dollar somewhat as the gap in US and Japanese interest rates narrows.

April Monetary Policy Statement and Comments by Governor Ueda

	Content
Statement	▪ **The Bank will patiently continue with monetary easing while nimbly responding to developments in economic activity and prices as well as financial conditions. By doing so, it will aim to achieve the price stability target of 2 percent in a sustainable and stable manner, accompanied by wage increases.** The Bank will continue with Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control, aiming to achieve the price stability target, as long as it is necessary for maintaining that target in a stable manner.
Comments by Governor Ueda	▪ The risk of not achieving 2% price growth due to hasty tightening is greater than the risk of sustained inflation above 2% due to delayed tightening, and the cost of waiting for an underlying rise in inflation is not high. ▪ **For inflation to reverse and rise again, various conditions would need to be met. There is a great deal of uncertainty about whether they will be met in the future. Although inflation figures are 2% or close to 2%, I want to continue with monetary easing with a little more patience and persistence.** ▪ Looking at the inflation outlook in the short term… confidence is still a little low, so I would like to take it with a pinch of salt. ▪ Next year's labour negotiations are an extremely important factor (in assessing wage increases). However, I do not believe we necessarily have to wait for that long to make a decision.

Note: Does not include the impact of consumption rate hikes
Source: Ministry of Internal Affairs and Communications, MUFG Bank Economic Research Office

Forecast of Interest Rates in Japan and the USD/JPY Exchange Rate

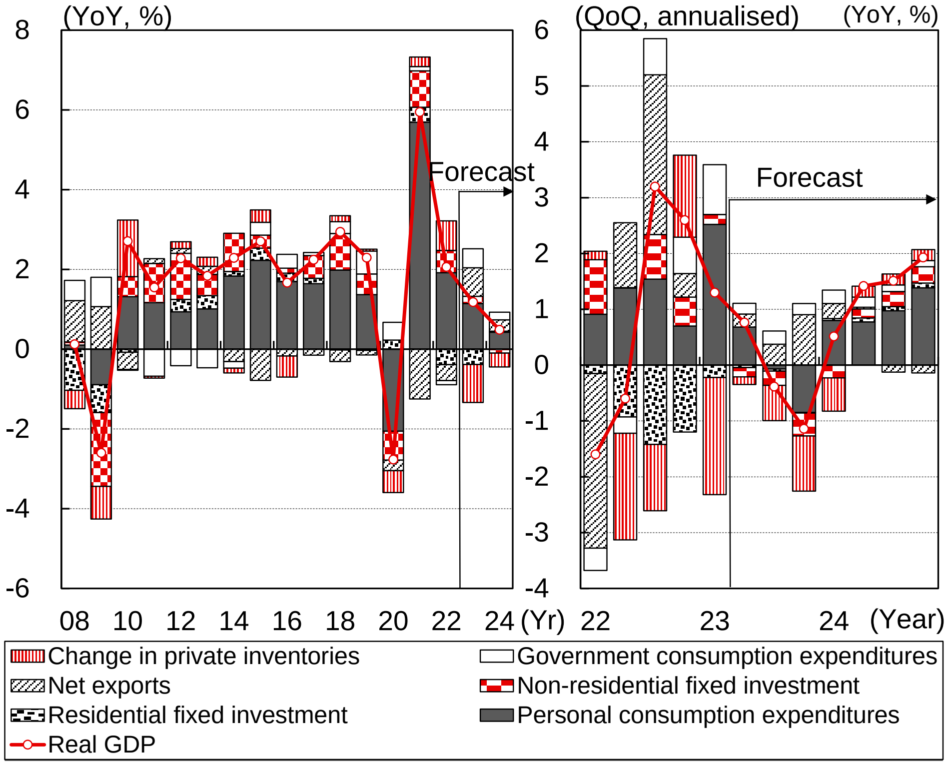


Source: Bloomberg, MUFG Bank Economic Research Office

2-2. The US Economy

- The real GDP growth rate decelerated to 1.3% QoQ annualised in the January-March quarter (second estimate) from 2.6% QoQ annualised the previous quarter. The contribution to GDP from inventory investment declined to -2.1% points, which dragged on growth. The data for private final domestic demand reveals residential investment (-5.4% QoQ annualised) fell for the eighth quarter in a row and non-residential fixed investment decelerated to 1.4% QoQ annualised (from 4.0% QoQ annualised the previous quarter). However, personal consumption expenditure accelerated to 3.8% QoQ annualised (from 1.0% QoQ annualised) which suggests domestic demand remained firm.
- We expect the US economy to decelerate further due to the cumulative effects of monetary tightening and stricter lending standards. It appears core inflation will remain high and the Fed will maintain its economically-restrictive monetary policy for a while. As a result, we forecast the economy will enter a shallow recession during the latter half of 2023.
- It is highly likely the Fed will start to lower its federal funds rate around the end of the year. The economy will gradually pick up in 2024 1H, core inflation will fall further and the economy will expand at an improved pace in 2024 2H as the Fed continues to cut rates. The US government's debt ceiling issue is expected to be resolved within the deadline following an agreement in principle between the Democrats and Republicans and, although there will still be instability within the financial system, it is unlikely to spread and affect the whole system. The real GDP growth rate is forecast at 1.2% YoY in 2023 and 0.5% YoY in 2024.

US Real GDP and Outlook



Source: Department of Commerce, MUFG Bank Economic Research Office

Outlook for US Real GDP

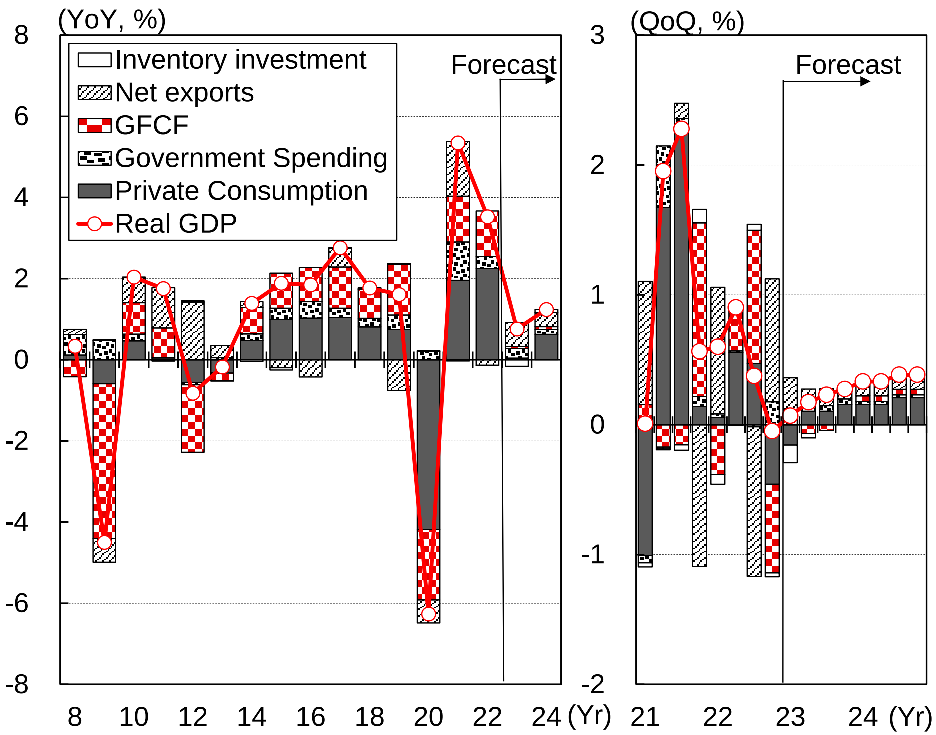
	2022 (Actual)	2023 (Forecast)	2024 (Forecast)
Real GDP	2.1	1.2	0.5
Personal consumption expenditures	2.7	1.6	0.6
Residential investment	-10.6	-12.0	0.9
Non-residential fixed investment	3.9	1.2	-0.7
Change in private inventories (contribution)	0.7	-1.0	-0.3
Government consumption expenditures	-0.6	2.8	1.1
Net exports (contribution)	-0.4	0.7	0.3
Exports	7.1	2.7	0.4
Imports	8.1	-1.9	-1.2
Nominal GDP	9.2	5.2	3.1

Source: Department of Commerce, MUFG Bank Economic Research Office

2-3. European Economies: Euro Area

- The real GDP growth rate for the euro area plateaued at 0.1% QoQ for the second quarter in a row. Countries' economic policies had a positive effect on overall growth along with business and consumer sentiment which improved when it became clear that Europe had avoided a natural gas shortage, which had been a concern. It appears this contributed to overall growth. However, high inflation meant real income decreased, which put downward pressure on private consumption. Some countries have entered a recession; Germany's economy contracted for two consecutive quarters.
- In Europe, the decline in commodity prices and the easing of supply-side constraints will reduce upstream price pressures and businesses will become more relaxed about passing on prices. As a result, inflation will decrease and real incomes to start to rise, and we expect this will lead to a rise in private consumption. Nevertheless, we expect the real GDP growth rate will remain moderate at 0.8% YoY in 2023 due to the downward pressure on economic recovery from the cumulative effects of the ECB's rate hikes. In 2024, we forecast growth to accelerate slightly to 1.2% YoY as real income increases and the ECB starts to cut rates from next year.
- Nevertheless, there are downside risks to the economy such as continued high inflation caused by tightening supply and demand of natural gas and increased prices as winter draws closer, as well as increased instability in the financial system.

Real GDP Forecast of Major European Countries



Note: Breakdown of the January-March quarter is MUFG's forecast
Source: Eurostat, MUFG Bank Economic Research Office

Real GDP Forecast of Major European Countries

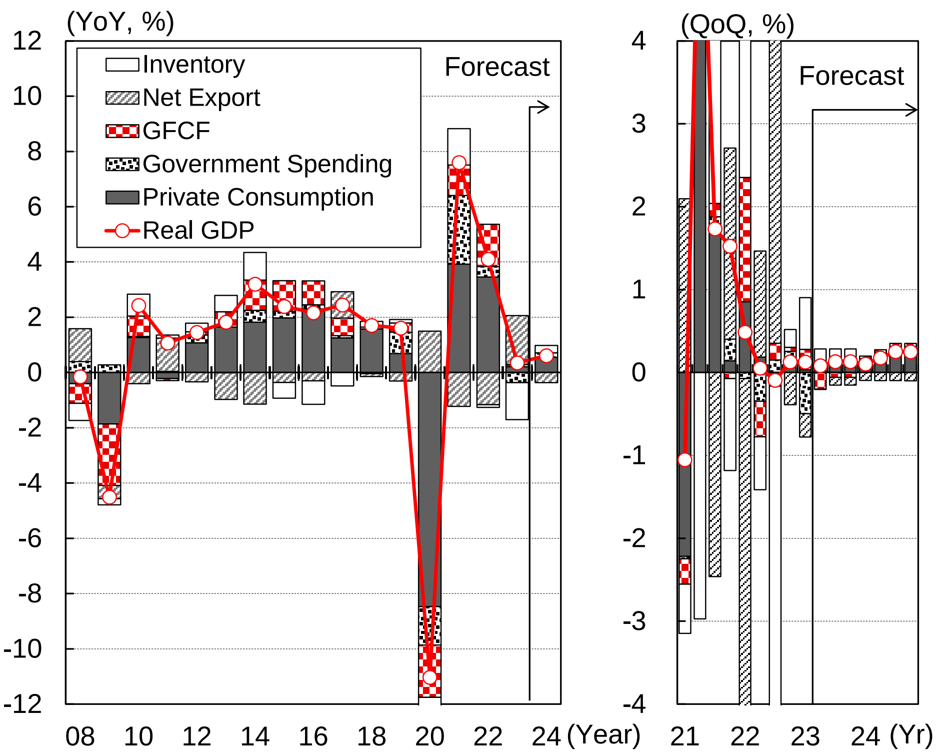
	2022 Q1 (QoQ, %)	2022 Q2 (QoQ, %)	2022 Q3 (QoQ, %)	2022 Q4 (QoQ, %)	2023 Q1 (QoQ, %)	2022 Actual (YoY, %)	2023 Forecast (YoY, %)	2024 Forecast (YoY, %)
Euro area	0.6	0.9	0.4	-0.0	0.1	3.5	0.8	1.2
Germany	1.0	-0.1	0.5	-0.5	-0.3	1.8	0.2	1.3
France	-0.2	0.5	0.1	0.0	0.2	2.6	0.9	1.1
Italy	0.1	1.1	0.4	-0.1	0.5	3.7	0.7	1.0
UK	0.5	0.1	-0.1	0.1	0.1	4.1	0.3	0.6

Source: Eurostat, UK Office of National Statistics, MUFG Bank Economic Research Office

2-3. European Economies: UK

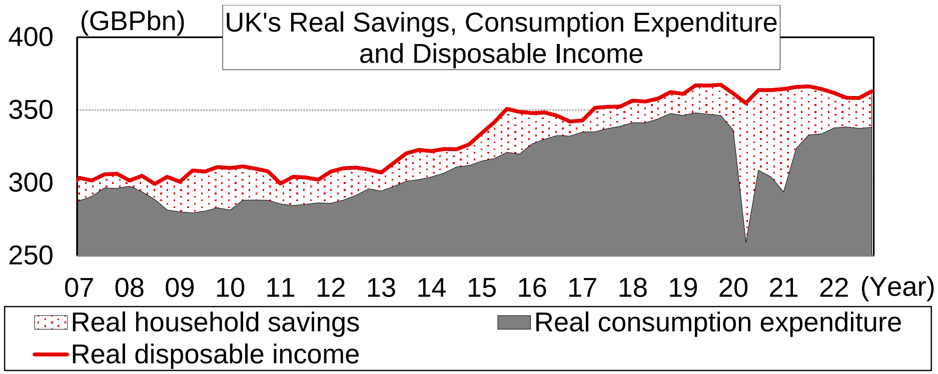
- The UK's real GDP growth rate for the January-March quarter was 0.1% QoQ, expanding for the second quarter. Exports fell as the global economy slowed and government consumption also put downward pressure on growth due to the impact of strikes in schools and hospitals. Meanwhile, the contribution from inventory investment was positive, the previously stagnant gross fixed capital formation expanded 1.1% YoY and private consumption increased slightly.
- In the UK, inflation has peaked, growth of nominal disposable income has accelerated and real disposable income is starting to rise gradually. Looking ahead, we expect real disposable income will continue to rise as inflation slows, and consumer confidence has improved. As a result, we forecast private consumption will continue to rise, albeit gradually.
- The UK economy is expected to continue to expand, led by the recovery in private consumption. However, the impact of Brexit will continue to weigh on the economy. For example, capital expenditure has been stagnant since the EU referendum in 2016. Businesses' investment intentions have declined as financial conditions tighten, which will put downward pressure on the economy. We forecast the real GDP growth rate will be 0.3% YoY in 2023 and will also expand slightly in 2024 by 0.6% YoY.

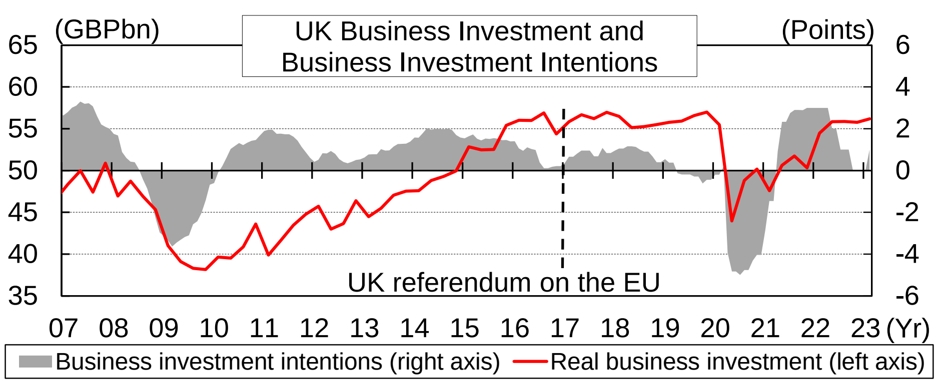
UK Real GDP and Outlook



Source: Office for National Statistics, MUFG Bank Economic Research Office

Statistics Related to Private Consumption and Capital Expenditure



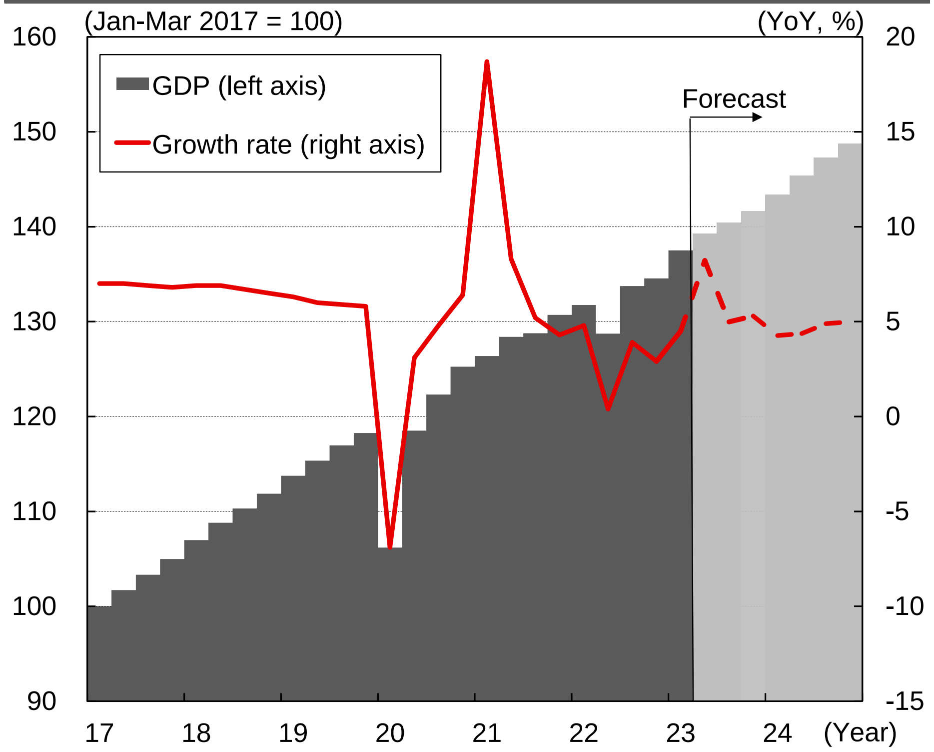


Source: Office for National Statistics, MUFG Bank Economic Research Office

2-4. Asian Economies: China

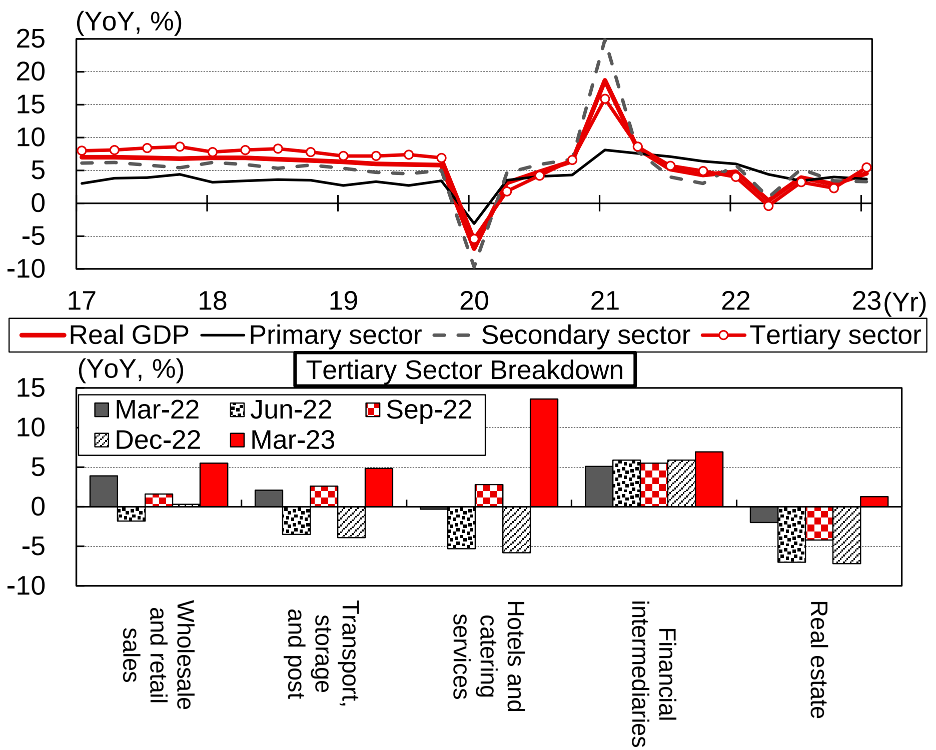
- The real GDP growth rate for the January-March quarter accelerated to 4.5% YoY from 2.9% YoY the previous quarter. Since China's "zero COVID-19" policy was lifted at the end of 2022, economic activities have been quick to normalise, leading to a robust recovery of the economy. The tertiary sector in particular expanded significantly (5.4% YoY) and there was a marked recovery in face-to-face services. However, pent-up demand is starting to decline and the recovery is slowing.
- Despite signs that the number of COVID-19 cases is rising again, we do not expect large-scale restrictions will be imposed again and it is likely that private consumption will continue to pick up, especially services, as restrictions on movement are relaxed. Government spending is also forecast to underpin growth. On the other hand, the labour market is slow to recover and the slump in the real estate market will weigh on domestic demand as it recovers. For the time being, the economic recovery is predicted to remain moderate due to downward pressure from reduced foreign demand caused by the deceleration of the US and European economies.
- We expect the real GDP growth rate for 2023 to be high at 5.7% YoY owing to a rebound from the low growth rate the previous year, which was affected by the "zero-COVID-19" policy. Although foreign demand is forecast to pick up in 2024, the real GDP growth rate will slow to 4.7% YoY as the additional boost received this year from the normalisation of economic activities wears off.

China's Real GDP and Outlook



Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

China's Real GDP Growth Rate (By Industry)

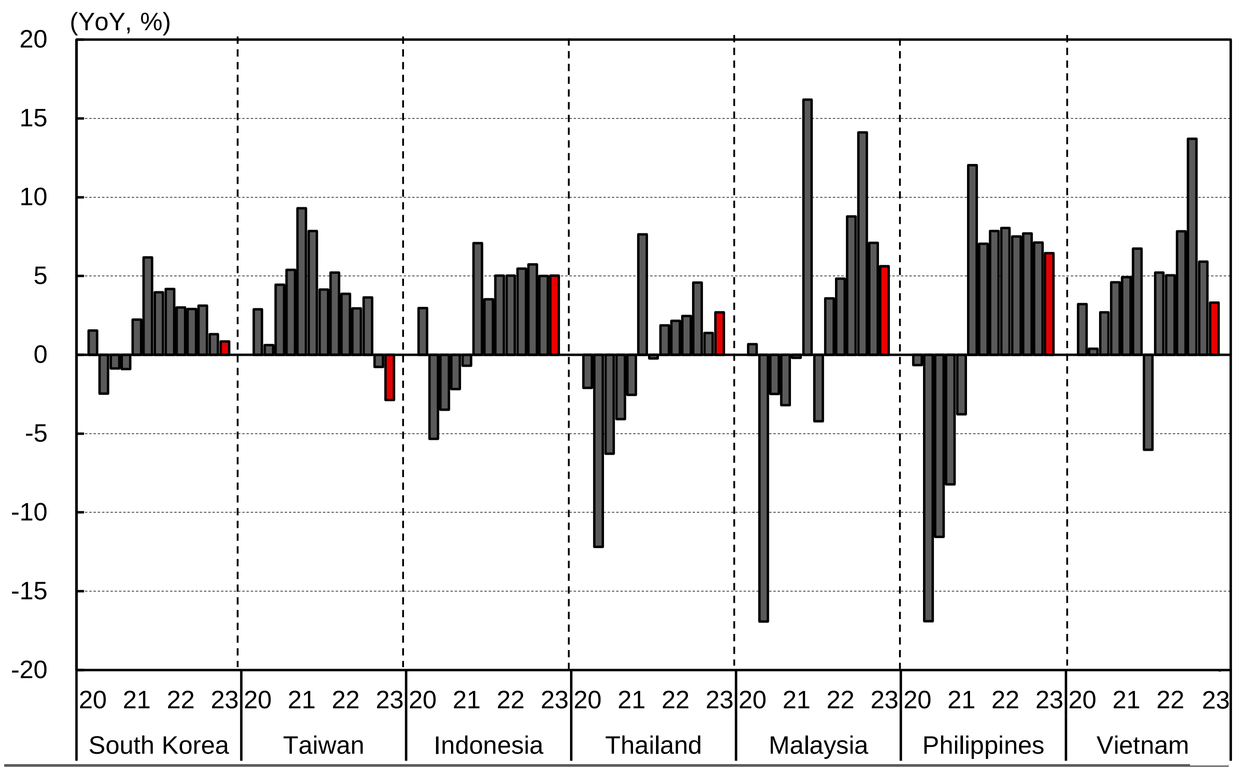


Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

2-4. Asian Economies: NIEs and ASEAN

- NIEs and ASEAN (five major countries) recorded real GDP growth rates of -0.2% YoY and 4.7% YoY, respectively, in the January-March quarter. Exports fell due to the slowdown of the global economy, which put considerable downward pressure on NIEs such as South Korea and Taiwan. Like NIEs, the fall in exports also weighed on ASEAN economies, yet economic growth was robust due to a significant improvement in private consumption, particularly in the service sector.
- NIEs: Although there is additional scope for private consumption to recover further, such as face-to-face services, exports of semiconductors and investment have declined due to the economic slowdown in the US and Europe. We expect this will continue to put a lot of downward pressure on NIEs for a while. The real GDP growth rate will lose momentum in 2023, expanding 1.6% YoY. However, foreign demand will start to slowly pick up in 2024, and the real GDP growth rate will accelerate to 2.7% YoY%.
- ASEAN: Private consumption and investment will continue to recover as COVID-19 restrictions are eased. There will also be a tailwind from a faster recovery of international tourism due to a rise in Chinese tourists. As a result of these factors, economies are forecast to remain firm. Real GDP growth is forecast to decelerate slightly to 4.7% YoY in 2023 (from 6.0% YoY) due to sluggish economic growth overseas and high inflation, but it will accelerate a little to 5.1% YoY in 2024.

Real GDP of Major Asian Economies



Note: The most recent quarter (Jan-Mar 2023) is shaded red.
Source: National statistics of each country, MUFG Bank Economic Research Office

Forecast for ASEAN

Forecast for ASEAN
Indonesia
The economy has a low dependency on foreign demand and the impact from foreign economies is small. Indonesia will attract foreign investment due to its natural resources.
Thailand
The economy is highly reliant on tourism and greatly benefited from it restarting. Opposition parties will gain seats in the election, and it will be important to keep an eye on the political situation after the election.
Malaysia
Many of its exports are electronic machinery and the economy is highly reliant on foreign demand. There will be significant downward pressure from sluggish overseas economies.
The Philippines
Inflation is the highest among ASEAN. The economy is highly reliant on imports like fuel. It is important to keep an eye on inflation.
Vietnam
The economy is highly dependent on foreign demand and the impact of foreign economies is large. Last year's turmoil in the real estate market will weigh on the economy.

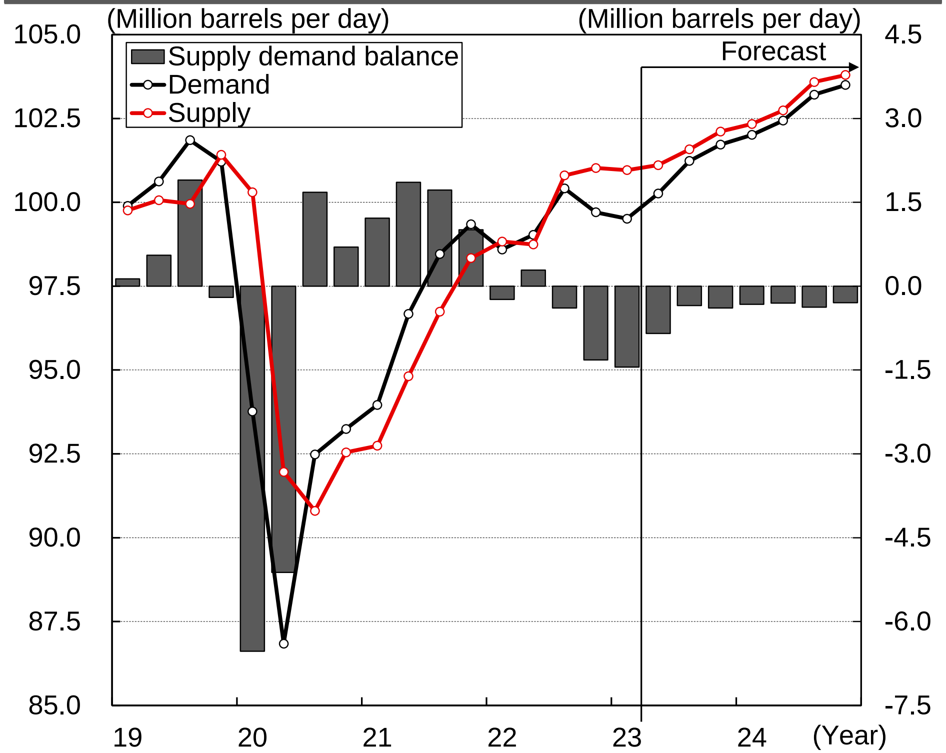
2-5. Oil Prices

- Demand will continue to gradually increase while supply is also expected to increase at a moderate pace in response to demand. As a result, the global balance of oil supply and demand is forecast to remain tilted towards excess supply.
- That being said, the amount of excess supply will be small and, if oil prices fall in the future, it is assumed IEA members will move to restore the strategic reserves* they released in response to the sharp rise in oil prices last year. For these reasons, oil prices are forecast to remain around USD 5 either side of USD 75 per barrel.

*IEA members are obliged to stockpile about 90 days' worth of crude oil imports to respond to crises. They released oil from the reserves to stabilise oil prices when they rose sharply immediately after the war in Ukraine.

- Upside and downside risks to oil prices include a larger-than-expected surge in demand caused by China lifting its "zero COVID-19" policy; a slower rise in US shale oil production and further reduction of OPEC+ oil output on the back of lower prices at present; a sudden decline in Russian oil production (a reaction to economic sanctions by G7 and others); the result of discussions to restore the Iran nuclear agreement (currently, Iran is scheduled to restore its diplomatic ties to Saudi Arabia with China as mediator. Iranian crude oil supply will increase when the deal is restored).

Forecast of Global Supply and Demand



Note: Forecast for 2023 and 2024 by MUFG Economic Research Office
Source: EIA, BP, MUFG Bank Economic Research Office

Forecast of Oil Prices

	WTI price (USD/barrel)	YoY (%)	Brent Price (USD/barrel)	YoY (%)
2022 Q1	95.0	63.4%	97.9	59.7%
Q2	108.5	64.2%	112.0	62.1%
Q3	91.4	29.7%	97.7	33.4%
Q4	82.6	7.2%	88.6	11.3%
2023 Q1	76.0	-20.0%	82.2	-16.1%
Q2	75.0	-30.9%	78.0	-30.3%
Q3	75.0	-18.0%	78.0	-20.2%
Q4	75.0	-9.2%	78.0	-12.0%
2024 Q1	75.0	-1.3%	78.0	-5.1%
Q2	75.0	0.0%	78.0	0.0%
Q3	75.0	0.0%	78.0	0.0%
Q4	75.0	0.0%	78.0	0.0%
2022	94.3	38.8%	99.0	39.8%
2023	75.2	-20.2%	79.0	-20.2%
2024	75.0	-0.3%	78.0	-1.3%

Forecast

Note: Prices shown are average for period
Source: Bloomberg, MUFG Bank Economic Research Office

Appendix: Global Economic Outlook

Forecast for the Global Economy

			World (weighted average of nominal GDP)				Japan (FY)	Americas					Europe					
				Developed countries	Emerging countries	Other		US	Central and South America (6 countries)	Brazil	Mexico	Argentina	Eurozone (20 countries)	Germany	France	Italy	UK	Russia
Nominal GDP	USD trillions		163.5	62.1	66.1	35.4	6.1	25.5	10.1	3.8	3.0	1.2	19.5	5.3	3.7	3.1	3.7	4.8
(2022)	Japan = 100		2,664	1,011	1,076	576	100	415	164	63	48	20	318	87	60	50	61	78
Real GDP	2022	Actual	3.4	2.6	3.8	4.3	1.2	2.1	3.5	2.9	3.1	5.2	3.5	1.8	2.6	3.7	4.1	-2.1
YoY, %	2023	Forecast	2.7	1.0	4.4	2.5	0.8	1.2	1.1	1.2	1.5	0.2	0.8	0.2	0.9	0.7	0.3	-1.0
	2024	Forecast	3.0	1.0	4.2	4.0	1.0	0.5	1.1	0.8	0.5	2.0	1.2	1.3	1.1	1.0	0.6	1.5
CPI	2022	Actual	8.7	7.3	6.1	15.9	3.0	8.0	15.7	9.3	7.9	72.4	8.4	8.6	5.9	8.7	9.1	13.8
(YoY, %)	2023	Forecast	6.8	4.6	5.2	13.7	2.6	4.3	16.3	6.0	6.3	98.6	5.6	6.0	5.0	6.2	6.9	7.0
	2024	Forecast	4.8	2.4	4.2	10.1	1.2	2.6	9.9	4.0	3.9	60.1	2.5	2.7	2.6	2.3	3.0	5.0

			Asia and Oceania														
			Asia (11 countries and regions)														Australia
				China	India (FY)	NIEs (4 countries and regions)	S. Korea	Taiwan	Hong Kong	Singapore	ASEAN (5 countries)	Indonesia	Thailand	Malaysia	Philippines	Vietnam	
Nominal GDP	USD trillions		56.8	30.2	11.9	5.6	2.8	1.6	0.5	0.7	9.1	4.0	1.5	1.1	1.2	1.3	1.6
(2022)	Japan = 100		926	492	193	91	45	26	8	12	149	66	24	18	19	22	27
Real GDP	2022	Actual	4.2	3.0	6.8	2.1	2.6	2.5	-3.5	3.6	6.0	5.3	2.6	8.7	7.6	8.0	3.7
(YoY, %)	2023	Forecast	5.1	5.7	6.0	1.6	1.2	1.5	3.9	1.4	4.7	4.8	3.5	4.2	5.6	5.5	1.7
	2024	Forecast	4.9	4.7	6.4	2.7	2.3	3.2	3.5	2.4	5.1	5.0	3.7	4.4	5.8	6.7	1.6
CPI	2022	Actual	3.6	1.9	6.7	4.3	5.1	2.9	1.9	6.1	4.5	4.2	6.1	3.4	5.8	3.2	6.6
(YoY, %)	2023	Forecast	2.9	1.5	5.3	3.0	3.4	2.0	2.1	4.7	3.8	4.0	2.6	2.9	5.8	3.2	5.4
	2024	Forecast	2.9	2.3	4.9	1.8	1.8	1.4	2.2	2.8	2.8	3.2	1.7	2.3	3.4	3.0	3.1

Note: 1. Real GDP values for Brazil, Argentina and India for 2022 are all forecasts
2. "Nominal GDP" is based on purchasing power parity
3. For "CPI", Japan is composite figure excluding fresh food. CPI refers to the HCIP for the euro area and member countries (HICP)
4. Figures for Japan and India based on their financial years (April to following March) except Japan's nominal GDP
5. "World", "developed countries", "emerging countries" calculated using Japan data based on the calendar year, India data based on the fiscal year for nominal GDP only and other countries' data based on the calendar year
6. "Advanced economies" is a total of Japan, NIEs (4 countries and regions), Australia, US, Euro area (19 countries) and the UK. "Emerging economies" is a total of China, India, ASEAN (5 countries), Central and South America (6 countries) and Russia
7. "Central and South America (6 countries)" is a total of Brazil, Mexico, Argentina, Colombia, Chile and Peru
8. "Other" uses the IMF forecast for January as a reference.

Source: National statistics of each country, MUFG Bank Economic Research Office

Appendix: Outlook for the Japanese Economy and Financial Markets

Outlook for the Japanese Economy (First Preliminary Estimate of GDP Statistics for January-March 2023)

	2022				2023	Forecast →			2024				2025	FY2022	Forecast →	
	Q1	2Q	3Q	4Q	Q1	2Q	3Q	4Q	Q1	Q2	Q3	Q4	Q1		FY2023	FY2024
1. The Real Economy (QoQ annualized change)																
Real GDP	-1.9	4.7	-1.0	-0.1	1.6	0.4	1.3	1.0	1.3	0.9	1.0	0.9	0.9	1.2	0.8	1.0
Private Consumption	-4.2	6.9	0.2	0.8	2.4	1.2	1.2	1.0	1.0	0.8	0.8	0.6	0.6	2.4	1.3	0.9
Housing Investment	-7.1	-7.0	-1.8	0.6	0.7	1.3	1.3	1.3	1.3	1.3	-5.8	-5.8	-5.8	- 4.4	0.9	- 1.4
Private Business Fixed Investment	-0.6	8.7	6.2	-2.6	3.8	3.3	2.5	2.2	3.0	3.0	3.0	2.5	2.5	3.0	2.5	2.8
Business Inventory (Contribution)	0.7	-0.3	0.1	-0.5	0.1	-0.9	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	- 0.3	0.0
Government Expenditures	-1.1	2.5	0.4	1.5	1.8	-1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.5	0.6
Public Investment	-15.0	2.5	4.6	0.9	10.1	-1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	- 2.6	2.3	1.0
Net Exports (Contribution)	-0.5	0.1	-0.6	0.4	-0.3	0.5	0.1	-0.5	0.1	-0.2	0.1	0.2	0.2	- 0.6	- 0.1	- 0.0
Exports	5.0	6.1	10.2	8.4	-15.6	5.5	0.8	-2.2	0.7	1.9	4.4	4.9	4.5	4.4	- 0.3	2.1
Imports	15.5	3.9	24.4	-0.2	-9.0	2.9	0.4	0.4	0.4	2.9	3.8	3.7	3.5	7.1	0.4	2.3
Nominal GDP	1.1	4.3	-3.1	4.3	7.1	1.9	2.6	2.2	1.8	1.4	1.4	1.3	1.3	1.9	3.0	1.6
GDP Deflator (YoY)	0.4	-0.3	-0.4	1.2	2.0	2.2	3.1	2.3	1.1	0.8	0.6	0.4	0.4	0.7	2.2	0.6
Industrial Production Index (QoQ)	0.8	-2.7	5.8	-3.0	-1.8	0.5	0.1	-0.0	0.2	0.3	0.4	0.4	0.4	- 0.2	- 0.8	1.1
Domestic Corporate Goods Price Index (YoY)	9.3	9.6	9.7	10.0	8.4	6.6	5.8	5.0	5.2	4.1	3.7	2.3	1.8	9.4	5.6	2.9
Consumer Price Index (excl. fresh food, YoY)	0.6	2.2	2.7	3.8	3.5	3.3	2.7	2.2	2.1	1.7	1.6	0.9	0.7	3.0	2.6	1.2
2. Balance of Payments																
Trade Balance (JPY billions)	-1,751	-3,692	-5,573	-5,162	-3,755	-3,077	-3,052	-3,311	-3,283	-3,240	-3,094	-2,927	-2,988	-18,182	-12,724	-12,249
Current Balance (JPY billions)	4,131	3,206	1,033	2,469	2,542	3,306	3,379	3,161	3,231	3,315	3,503	3,711	3,691	9,250	13,077	14,219
3. Financial																
Uncollateralized overnight call rate	- 0.0	- 0.0	- 0.0	- 0.1	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	0.1	0.1	- 0.0	- 0.0	0.1
Euro-Yen TIBOR (3-month rate)	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	0.0	0.1	0.1	- 0.0	- 0.0	0.0
Newly Issued 10-Year Government Bonds Yield	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.3	0.5	0.7
Exchange Rate (USD/JPY)	116	130	138	141	132	134	135	134	127	126	125	124	124	135	133	125

Note: Uncollateralized overnight call rate is the average rate during the last month of the period. Euro-Yen TIBOR (3-month rate), Newly Issued 10-Year Government Bonds Yield and Exchange Rate (USD/JPY) are averages during the period.
Source: Various statistics, Bloomberg, MUFG Bank Economic Research Office

MUFG

Appendix: Outlook for the US Economy and Financial Markets

Outlook for the US Economy

						Forecast →								Forecast →	
	2022				2023				2024				2022	2023	2024
	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12			
1. Main Economic Indicators															
Real GDP (QoQ annualized, %)	-1.6	-0.6	3.2	2.6	1.3	0.8	-0.4	-1.1	0.5	1.4	1.5	1.9	2.1	1.2	0.5
Personal Consumption Expenditures	1.3	2.0	2.3	1.0	3.8	1.0	-0.1	-1.2	1.1	1.1	1.4	1.9	2.7	1.6	0.6
Fixed Investment (Residential)	-3.1	-17.8	-27.1	-25.1	-5.4	-1.6	-1.3	-0.3	1.1	2.5	2.6	3.1	-10.6	-12.0	0.9
Fixed Investment (Nonresidential)	7.9	0.1	6.2	4.0	1.4	-1.1	-1.7	-2.8	-1.6	1.1	1.9	2.0	3.9	1.2	-0.7
Changes in Business Inventories (Contribution)	0.2	-1.9	-1.2	1.5	-2.1	-0.1	-0.6	-1.0	-0.6	0.2	0.2	0.2	0.7	-1.0	-0.3
Government Expenditures	-2.3	-1.6	3.7	3.8	5.2	1.1	1.4	1.1	1.4	1.0	0.7	0.6	-0.6	2.8	1.1
Net Exports (Contribution)	-3.1	1.2	2.9	0.4	0.0	0.2	0.4	0.9	0.3	0.0	-0.1	-0.1	-0.4	0.7	0.3
Exports	-4.6	13.8	14.6	-3.7	5.2	-1.1	-0.9	-0.4	0.5	1.3	1.7	2.1	7.1	2.7	0.4
Imports	18.4	2.2	-7.3	-5.5	4.0	-2.0	-2.6	-5.1	-1.1	0.7	1.8	2.2	8.1	-1.9	-1.2
Domestic Private End User Demand	2.1	0.5	1.1	0.0	2.9	3.7	-1.1	-2.5	0.0	1.4	1.7	2.2	2.1	1.3	0.2
Nominal GDP (QoQ annualized, %)	6.6	8.5	7.7	6.6	5.4	3.8	2.5	1.5	3.1	4.0	4.0	4.3	9.2	5.2	3.1
Industrial Production (QoQ annualized, %)	3.7	4.1	2.1	-2.5	-0.5	0.4	-1.2	-1.9	-1.0	0.6	1.7	1.8	3.4	-0.3	-0.3
Unemployment Rate (%)	3.8	3.6	3.5	3.6	3.5	3.6	4.0	4.4	4.8	4.8	4.7	4.6	3.6	3.9	4.7
Producer Price Index (YoY, %)	10.7	11.2	9.0	7.3	4.4	2.2	2.1	2.0	1.9	1.9	1.9	1.9	9.5	2.7	1.9
Consumer Price Index (YoY, %)	8.0	8.6	8.3	7.1	5.8	4.5	3.8	3.2	2.8	2.7	2.5	2.4	8.0	4.3	2.6
2. Balance of Payments															
Trade Balance (hundred million dollars)	-3,401	-3,093	-2,693	-2,723	-2,699	-3,116	-2,976	-2,837	-2,765	-2,763	-2,770	-2,778	-11,910	-11,628	-11,076
Current Account (hundred million dollars)	-2,808	-2,372	-2,190	-2,068	-2,251	-2,348	-2,169	-2,011	-1,926	-1,926	-1,934	-1,943	-9,438	-8,779	-7,730
3. Financial Indicators															
FF Rate Target (%)	0.25-0.50	1.50-1.75	3.00-3.25	4.25-4.50	4.75-5.00	5.00-5.25	5.00-5.25	4.75-5.00	4.50-4.75	4.25-4.50	4.00-4.25	3.50-3.75	4.25-4.50	4.75-5.00	3.50-3.75
Euro Dollar (3M) (%)	0.5	1.5	3.0	4.5	4.9	5.3	5.3	5.2	5.0	4.7	4.5	4.1	2.4	5.2	4.6
10-year Treasury Note's Yield (%)	1.9	2.9	3.1	3.8	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.8	2.9	3.5	3.0

Note: FF Rate Target is for end of the period, and Euro Dollar (3M) and 10-year Note's Yields are period averages. Current account balance for Q3 2022 is a forecast.

Source: Compiled by MUFG Bank Economic Research Office from various reports and Bloomberg

Appendix: Outlook for the European Economies and Financial Markets

Outlook for European Economies

1. Overview

	Real GDP Growth Rate (YoY, %)			CPI (YoY, %)			Current Account (USD billions)		
	2021 (Actual)	2022 (Actual)	2023 (Forecast)	2021 (Actual)	2022 (Actual)	2023 (Forecast)	2021 (Actual)	2022 (Actual)	2023 (Forecast)
Euro Area	3.5	0.8	1.2	8.4	5.6	2.5	- 1064	1584	1981
Germany	1.8	0.2	1.3	8.6	6.0	2.7	1751	1840	2020
France	2.6	0.9	1.1	5.9	5.0	2.6	- 599	- 538	- 421
Italy	3.7	0.7	1.0	8.7	6.2	2.3	- 245	33	106
UK	4.1	0.3	0.6	9.1	6.9	3.0	- 1210	- 777	- 678
Russia	- 2.1	- 1.0	1.5	13.8	7.0	5.0	2330	1090	940

2. Forecast by Demand Component (YoY, %)

	Euro Area			UK		
	2021 (Actual)	2022 (Actual)	2023 (Forecast)	2021 (Actual)	2022 (Actual)	2023 (Forecast)
Nominal GDP	8.3	5.5	2.2	9.7	3.9	1.1
Real GDP	3.5	0.8	1.2	4.1	0.3	0.6
Contribution by domestic demand	3.7	0.2	0.9	5.3	- 1.4	1.0
Contribution by foreign demand	- 0.1	0.6	0.3	- 1.2	1.8	- 0.4
Private consumption	4.3	0.1	1.2	5.6	0.3	0.9
Government consumption	1.4	1.1	0.6	1.8	- 1.8	0.8
Gross fixed capital formation	5.1	0.2	0.3	8.6	0.4	- 0.0
Inventory investment (contribution)	0.8	0.2	0.1	0.3	- 1.6	0.0
Exports	7.2	3.1	2.5	9.9	- 2.7	2.0
Imports	8.1	2.1	2.0	13.3	- 7.8	3.2

Note: 1. “Euro area" is total of 20 countries - Germany, France, Italy, Ireland, Estonia, Austria, The Netherlands, Croatia, Cyprus, Greece, Spain, Slovakia, Slovenia, Finland, Belgium, Portugal, Malta, Luxembourg, Lithuania

2. "CPI" is the standardised inflation rate for the euro area, Germany, France and Italy (HICP)

Source: Eurostat, UK Office for National Statistics, MUFG Bank Economic Research Office

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