KIEL INSTITUTE ECONOMIC OUTLOOK

World Economy
Spring 2023

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Research Center
Business Cycles and Growth

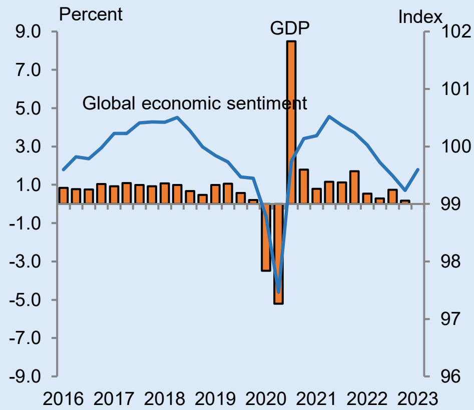
WORLD ECONOMY IN SPRING 2023: STUBBORN INFLATION, MODERATE GROWTH

Klaus-Jürgen Gern, Stefan Kooths, Jan Reents, Nils Sonnenberg and Ulrich Stolzenburg

The recovery of the global economy from the Covid crisis came to an end in 2022 amid high energy prices and great uncertainty. While the energy crisis is easing, the effects of monetary policy tightening, which came rather late but then very quickly, are now increasingly weighing on growth. World output slowed to a crawl at the end of 2022 and is expected to grow only moderately this year despite a post-Covid revival in China. Measured on a purchasing power parity basis, we expect global GDP growth of 2.5 percent in 2023, following 3.2 percent last year. We have raised our forecast for 2023 by 0.4 percentage points from December, partly because of the improved situation on energy markets and partly because the economy in the United States has proved more robust than expected. Our forecast for 2024 remains unchanged at 3.2 percent. Although headline inflation is going to fall significantly in the coming months thanks to lower commodity prices, underlying inflation is likely to remain high for the time being and will not return to levels close to the target before the end of the forecast horizon.

The increase in world output slowed down towards the end of last year. Over the course of 2022, the global economy lost its momentum, albeit at an unsteady pace. In the final quarter, global economic output increased only slightly. Major factors for the slowdown were higher energy prices, monetary tightening in response to high inflation, and further measures in China to contain Covid infections. Overall, growth of the global economy was 3.2 percent in 2022, roughly in line with the medium-term trend, but in the final quarter global output was only 1.8 percent higher than a year earlier. Although global economic sentiment has recently improved somewhat, the indicator for world economic activity calculated by the Kiel Institute on the basis of sentiment indicators from 42 countries continues to signal a merely moderate expansion for the current quarter (Figure 1). All in all, the recovery phase of the global economy following the pandemic downturn has for now come to an end.

Figure 1:
World Economic Activity



Quarterly data, seasonally adjusted. Global economic sentiment is based on business expectations in 42 economies. GDP: price adjusted, change over previous quarter, 46 countries, weighted by purchasing power parities.

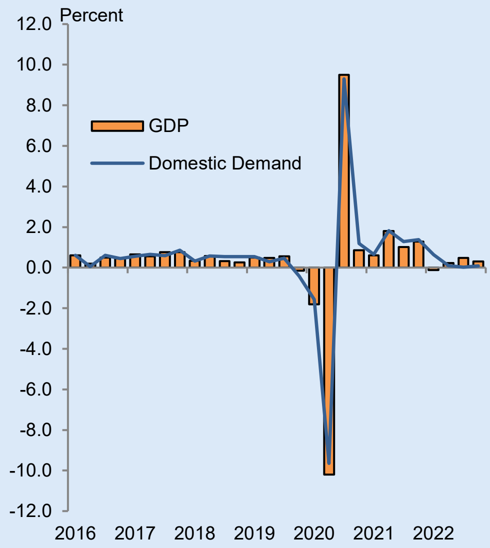
Source: OECD, Main Economic Indicators; national sources; Kiel Institute calculations.

Industrial production slipped across the board at the end of the year. The rise in global industrial production, which had been buoyant in summer 2022, did not continue in autumn. Instead, industrial production fell slightly in the fourth quarter in both advanced economies and emerging economies. The cyclical weakening of demand was again compounded in China by the effects of lockdowns, which are also likely to have adversely affected industrial activity. Especially in the electronics sector, there was a considerable loss of momentum given the decline of semiconductor prices in the face of significantly expanded production capacities. Meanwhile, global tensions in logistics networks continued to ease. Container freight rates have now fallen almost to the level that was common in the years before the Corona crisis. The number of ships jammed outside ports has also returned to normal levels.

World trade declined noticeably, but has recently picked up. Global trade in goods declined sharply toward the end of the year; in December 2022, the volume of world trade was almost 4 percent lower than in September, according to CPB figures. As per our calculations, which are based on ship movement data, the decline in the volume of goods traded in containers started already in early summer and has been somewhat more pronounced. Meanwhile, current developments suggest that the downward momentum in world trade has not continued after the turn of the year. According to the results of the Kiel Trade Indicator, world trade picked up again in the first two months of 2023.

In the advanced economies, economic activity has weakened significantly. In the fourth quarter, overall economic output in the advanced economies increased at a rate of just 0.3 percent, and domestic expenditure by as little as 0.1 percent (Figure 2). Private consumption continued to lose momentum under the impact of high inflation and fixed capital investment declined. In Europe in particular, private households tightened their belts amid lower real incomes, whereas in the United States the increase in consumer spending merely slowed. In Japan, too, where consumption levels are still lower than before the outbreak of the Covid pandemic, private consumption increased moderately. In terms of investment, the decline is particularly pronounced in the residential construction sector in the United States, where activity has fallen by almost 20 percent within a year. The still fairly strong 0.7 percent increase in US GDP was to a large extent due to inventories rising again. In the other advanced economies, hardly any growth in output was recorded. While the economy in Japan grew slightly by 0.2 percent, it stagnated in both the euro zone and the United Kingdom; in South Korea, it even contracted significantly.

Figure 2:
GDP and domestic demand in the G-7



Price adjusted; seasonally adjusted; yoy change. G7 consists of USA, Japan, Canada, Germany, France, Italy and UK.

Source: OECD *Main Economic Indicators*, Kiel Institute

In the emerging economies, the already restrained expansion was again slowed by pandemic-related burdens in China. Production growth in the major emerging economies slowed significantly in the fourth quarter and, at just under 0.5 percent, was less than half the longer-term average. In China, economic output stagnated as a result of renewed lockdowns to curb Covid infections. After the zero Covid policy was ended in early December, a massive wave of infections dampened activity. In the meantime, however, the pandemic seems to have lost its impact on the economy in China as well. In India, quarterly GDP growth increased moderately but was only 4.4 percent higher than in the previous year, thus falling short of expectations. In particular, the rise in private consumption slowed due to higher financing costs. Higher interest rates and higher living costs also weighed on economic activity in the other emerging countries of Asia, where production even contracted sharply in some cases. In Latin America, the picture has been mixed recently. While GDP contracted slightly in Brazil and significantly in Chile, production elsewhere continued to rise, albeit mostly at a moderate pace. Finally, in Russia, output apparently increased noticeably toward the end of the year, but the sharp declines recorded in the spring 2022 have not yet been fully recovered.

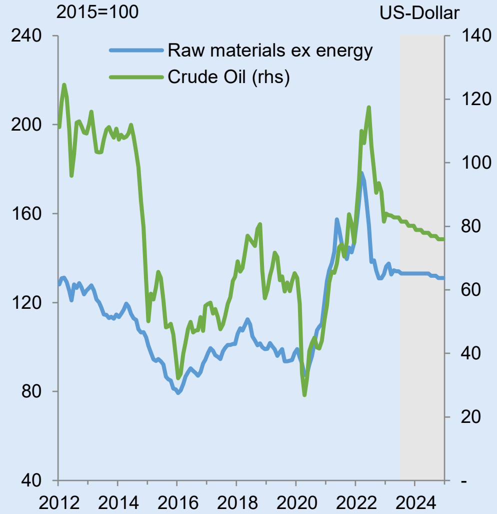
Raw material prices have moderated and are expected to ease somewhat in the forecast period. The situation on the commodity markets eased significantly in the second half of 2022. Initially, prices for industrial raw materials began to fall under the impact of subdued demand from China and generally gloomier economic expectations. The price of copper, for example, was at times barely higher than in the years before the outbreak of the Corona crisis. Although the prices of many food commodities are still elevated, they are also mostly well below the levels recorded in spring 2022. Oil prices have been trending down since June; neither a cut in production quotas by OPEC in October nor the enactment of the EU embargo and a price cap on Russian crude oil in early December and on oil products from Russia in February have broken this trend. However, the measures have led to a continued widening of the price differential between Brent and the Russian reference crude Urals. At times, barely $50 was paid for Russian crude on the spot market. Since early 2023, the price of Brent crude has been slightly above $80, barely above the average for 2021. The market still appears well supplied. In line with financial markets, we expect crude oil prices to continue to gradually decline over the forecast period (Figure 3). Finally, in recent months, price levels on the European gas market have also continued to decline significantly, most recently to levels last seen in the fall of 2021. For this year and beyond, only moderate further declines can be expected in view of the continued tight availability of liquefied gas. With demand rising in the medium term, further developments will largely depend on the extent to which global LNG production capacity is expanded.

Inflation has arguably passed its peak, but remains strongly elevated. Inflation has recently come down somewhat from the historic highs it reached in 2022. Since October 2022, inflation in the G7 countries has fallen from 8.4 percent to 7.4 percent (January) (Figure 4). A key factor in the decline was the easing of price pressures on energy markets. By contrast, core inflation continued to remain at the high levels reached in the fall. Despite lower prices in the commodity markets in recent months, the rise in food prices has intensified even more.

Central bank interest rates will continue to be raised for the time being. Central banks in the major advanced economies reacted to the sharp rise in inflation rather late, but then with a historically very steep increase of key interest rates. In the United States, the target for the federal funds rate is now 4.75 to 5 percent. The ECB, which had only begun to tighten the reins last summer, has since raised its key rate to 3 percent and announced a further move of 0.5 percent in mid-March. We expect interest rates to peak at 4 percent in the summer (Figure 5). The Bank of England is also likely to raise its key rate even further, to a peak of 4.75 percent. Gradual interest rate cuts are then likely over the course of 2024 as inflation eases and the economy expands moderately.

Interest rate policy is being joined by quantitative tightening, which is contributing to tighter financial conditions. The Fed is currently reducing its bond holdings by $95 billion per month. The ECB is planning to reduce holdings by 15 billion euros a month from March to June, after which the pace could be increased to 30 billion euros. While the Fed and the ECB are reducing the bond stock by not reinvesting inflows from maturing bonds, the Bank of England is going beyond this and actively selling paper to achieve the targeted £80 billion annual reduction in bond holdings. By reducing bond holdings, the dampening effect on term premiums, which had been

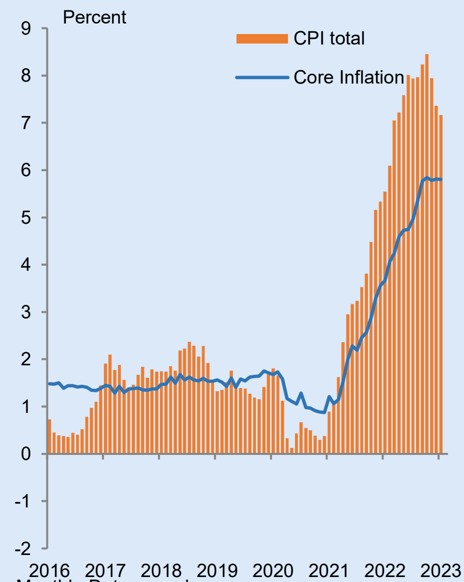
Figure 3:
Raw material prices



Monathly data, data edge: shaded: forecast.
Raw meterials ex energy: HWWI-Index, USD-based; Crude Oil: Spot market, Brent.

Source: International Petroleum Exchange; HWWI, Rohstoffpreisindex, Kiel Institute forecast.

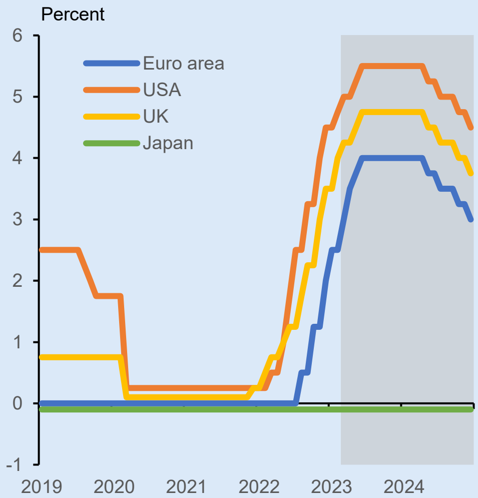
Figure 4:
CPI Inflation in industrial countries



Monthly Data; yoy change.

Source: OECD, *Main Economic Indicators*; Kiel Institute calculations.

Figure 5:
Policy rates in major advanced economies



Monthly data, end-of-period. Euro area: Main refinancing operations rate, USA: Federal Funds Rate, UK: BoE base rate, Japan: BoJ overnight rate:

Source: Refinitiv. shaded area: forecast of IfW Kiel.

created by the purchase programs and provided an expansionary stimulus, is gradually being reduced. As a result, financial tightening is more pronounced than would have been the case if the key interest rate had been raised alone. In addition, there are fiscal consequences of the turnaround in monetary policy, as the central banks are unlikely to transfer any profits to the ministries of finance in the coming years (Sonnenberg, 2023). This is because the high excess reserves of banks created in the context of the purchase programmes now bear interest at the key interest rates and cause interest expenses for central banks, while the interest income generated from the bond holdings is low as they have been accumulated during a period of low interest rates. This constellation results in high losses for central banks, which are likely to deplete the equity of some central banks.

Monetary policy in the emerging economies remains mostly stability-oriented. Some emerging economies - similar to some Eastern European economies - started their rate hike cycle early and have already left their key interest rates unchanged since the middle of last year. However, interest rate cuts have hardly been made so far in the environment of prevailing high inflation and further interest rates increase in the major advanced economies. On the contrary, unfavorable news on inflation in India or Mexico, for example, have led authorities to further hike interest rates. One exception in this picture of central banks focusing on price stability is Turkey, where interest rates have been cut several times since last summer despite very high inflation, most recently after the devastating earthquake at the end of February.

The supportive effects of fiscal policy are fading out. Although the high level of spending to mitigate the economic consequences of the pandemic has weighed heavily on government finances in the advanced economies as well as in many emerging economies, pronounced consolidation efforts are currently absent. In Europe in particular, policymakers have made efforts to limit the impact of the energy crisis on households and companies, in some cases with considerable fiscal effort. On the other hand, defense spending is likely to increase significantly given the changed geopolitical situation. Longer-term programs to promote infrastructure and an expansion of renewable energies are increasingly being implemented but are unlikely to imply a significant fiscal boost. For 2024, we expect fiscal policy to have a restraining effect overall.

Outlook: Global economy remains weak for the time being

The global economy is in a crosscurrent of dampening and supporting factors. Some of the unfavorable conditions, which were largely responsible for the weakening of the world economy in 2022, have recently improved. For example, raw material prices and, in particular, energy prices have fallen significantly. As a result, inflation has decreased somewhat. Abolishing the zero-Covid policy in China has improved the prospects that economic growth there can be sustained, and supply bottlenecks are no longer a material strain on economic activity. As a result, sentiment among companies and households has brightened worldwide and the risk of sliding into a full-blown recession has declined significantly. However, the level of survey-based leading indicators such as the purchasing managers' indices in both manufacturing and services are generally still quite low and do not point to a rapid revival of economic activity. The key factor behind the still subdued economic outlook is the sharp tightening of monetary policy, which has led to higher financing costs and is curbing the propensity to spend. In the United States, the yield curve had been inverted to an extent that past experiences would suggest that this is a strong signal of an impending recession. The fact that we nevertheless do not expect a sharp economic downturn is mainly due to the unusually large financial cushion that private households have built thanks to the massive government income transfers during the Corona crisis. The extra savings accumulated during the pandemic helped to maintain consumption levels last year despite shrinking real incomes and have so far not been fully utilized.

Global growth is subdued in 2023. Following an estimated growth rate of 3.2 percent in 2022, a rate which is roughly in line with the medium-term trend rate, global output is expected to increase by only 2.5 percent in the current year (Table 1). In 2024, we expect the economy to accelerate to 3.2 percent. Based on market exchange rates, this translates into rates of 2.1 percent this year and 2.7 percent next year, after 3.0 percent in 2022. We have raised our forecast for the global economy for 2023 by 0.4 percentage points compared with our December forecast (Gern et al, 2022); it remains unchanged for 2024. Global trade is expected to increase by only 1.2 percent in 2023 and by 2.7 percent next year, following growth of 3.2 percent last year.

Table 1:
Real GDP and consumer prices in the global economy

	Weight	Gross domestic product				Consumer prices			
		2021	2022	2023	2024	2021	2022	2023	2024
World economy total	100	6.2	3.2	2.5	3.2	7.1	9.4	7.6	5.9
including									
Advanced economies	58.8	5.4	2.6	0.9	1.5	3.3	7.5	4.8	2.7
China	18.6	8.4	3.0	5.2	5.2	0.9	2.0	2.8	2.7
Latin America	4.7	7.0	3.6	1.0	1.6	28.1	17.2	17.2	16.6
India	7.0	8.9	6.7	5.9	6.9	5.5	6.7	5.9	5.5
East Asian emerging economies	5.0	3.6	4.2	3.4	4.2	3.1	5.1	3.3	2.8
Russia	3.1	4.6	-2.1	-0.4	1.2	5.9	13.8	12.5	14.0
Africa	2.4	4.9	3.3	3.6	3.7	15.1	15.0	13.8	12.2
Memorandum item:									
World trade volume (goods)		10.3	1.2	1.2	2.7				
World economy (GDP weights using current US-dollar exchange rates)		6.0	2.9	2.1	2.7	5.1	8.1	6.2	4.6

Percent. Weights according to GDP in 2021 based on purchasing power parities. GDP, consumer prices: change over previous year. East Asian emergin economies: Thailand, Malysia Indonesia and Philippines. Africa: Egypt, Nigeria, South Africa, Algeria, Ethiopia.

Source: IMF, *International Financial Statistics*; OECD, *Main Economic Indicators*; Kiel Institute calculations; shaded area: Kiel Institute forecast.

In the advanced economies, the expansion will remain slow for the time being. The withdrawal of purchasing power due to high inflation continues to act as a brake. However, while burdens are gradually easing in this regard, the impact of deteriorating monetary conditions will be felt more and more. In Europe, however, overall economic output is likely to pick up slightly as a result of easing energy markets. In the United States, on the other hand, there is still a noticeable weakening of the economy ahead, which seems necessary to achieve a sustained reduction of inflation to an acceptable level. However, given the still substantial financial cushions that private households hold, we do not expect a pronounced recession. All in all, GDP growth in the advanced economies is likely to fall to 0.9 percent in the current year and remain moderate at 1.6 percent in 2024, following growth of 2.9 percent last year (Table 2). Consumer price inflation will decline during the course of this year, but is still expected to remain at 5.3 percent in 2023 and, with an expected rate of 3 percent, it will remain above central bank targets in the following year. Against this backdrop, unemployment will rise somewhat from its current very low level, but the increase will be rather moderate.

In the emerging economies, growth is gradually picking up again, mainly due to a revival of the Chinese economy. Now that the zero-Covid policy has ended and the subsequent wave of infections appears to have subsided, negative impacts of the pandemic are quickly dissipating. However, the crisis in the real estate sector remains a restraining factor, so that output growth, at 5.2 percent, will remain modest by Chinese standards despite a clearly expansive economic policy. The lifting of pandemic-related restrictions in China will also benefit tourism in regions where Chinese tourists had provided a large proportion of revenue before the crisis. However, economic momentum in the emerging Asian economies will only be moderate due to subdued export prospects for manufacturing and subdued domestic demand as a result of higher interest rates and depressed real income growth. The above factors are also weighing on economic activity in other emerging markets, where output growth in the current year will be significantly lower than in 2022.

The risks to the forecast increasingly lie in the financial environment. Energy supply and energy prices continue to pose a risk to the forecast. At present, upside and downside risks to commodity prices appear balanced. In the short term, the economy in the United States could prove more robust than expected. This would spill over to the rest of the world via higher imports. In the meantime, however, it seems clear that the current inflation momentum cannot be broken without a period of economic weakness. Thus, U.S. interest rates would then likely be raised more sharply and remain high for longer. In that case, the downward momentum of the financial cycle could also intensify and resulting risks to financial stability could become even more relevant. In the United States, several banks have already run into difficulties, with customers losing confidence in the face of high losses in bond portfolios and attempting to withdraw their deposits on a large scale. In many countries, real estate prices are now falling after a long period of strong growth. This, too, can lead to financial imbalances and slow economic activity further.

Table 2:
Real gross domestic product, consumer prices and unemployment rate in advanced economies

	Weights	Real GDP				Consumer prices				Unemployment rate			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
European Union	40.3	5.4	3.6	1.0	1.8	2.9	8.9	6.2	2.9	7.1	6.1	6.5	6.9
Euro area	34.4	5.3	3.5	1.1	1.6	2.6	8.3	5.7	2.6	7.8	6.7	7.1	7.4
Sweden	1.0	5.2	2.7	-0.1	1.5	2.7	7.8	5.8	3.6	8.8	7.5	8.0	8.3
Poland	2.2	6.7	5.2	-0.2	3.7	5.3	12.7	9.4	4.4	3.4	2.9	3.3	3.6
United Kingdom	5.2	7.6	4.0	-0.1	1.4	2.6	9.2	7.9	3.8	4.5	3.7	4.4	4.5
Switzerland	1.0	4.2	2.1	0.5	1.3	0.6	2.7	2.5	1.2	5.1	4.4	4.6	4.6
Norway	0.6	4.0	3.2	2.1	2.4	3.5	6.3	4.8	3.0	4.4	3.3	3.4	3.5
United States	35.2	5.9	2.1	0.8	1.0	4.7	8.0	4.4	2.8	5.4	3.6	4.3	4.7
Canada	3.1	5.0	3.4	0.7	1.1	3.4	6.8	4.2	2.5	7.4	5.3	5.5	5.7
Japan	8.6	2.3	1.0	0.7	1.6	-0.2	2.5	2.7	1.9	2.8	2.7	2.5	2.4
South Korea	3.8	4.1	2.6	1.2	2.7	2.5	5.3	3.6	2.8	3.6	2.8	3.2	3.0
Australia	2.2	5.2	3.7	2.3	2.7	2.8	6.6	4.5	3.0	5.1	3.8	4.1	4.3
Total	100.0	5.5	2.9	0.9	1.6	3.3	8.0	5.3	2.9	6.0	4.8	5.2	5.5

Based on GDP at prices and exchange rates of 2020 in percent. Change over previous year in percent. European Union and Norway: Harmonized Index of Consumer Prices (HICP). Standardized unemployment rate in percent (ILO); country groups weighted according to the size of the labor force in 2021.

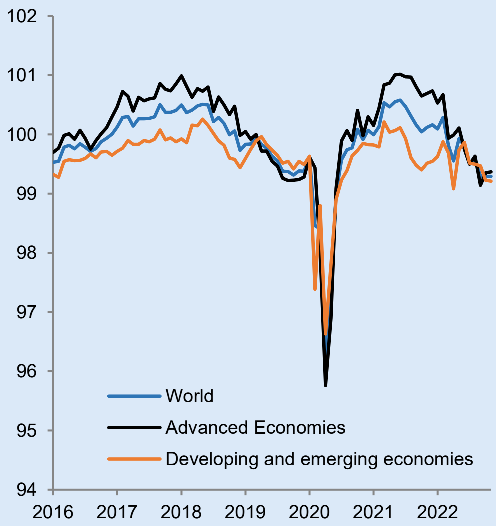
Source: Eurostat, *VGR*; OECD, *Main Economic Indicators*; IMF *World Economic Outlook Database*; Statistics Canada, *Canadian Economic Account*; shaded: Kiel Institute forecast.

Data annex

CONTENTS

1. World Economy

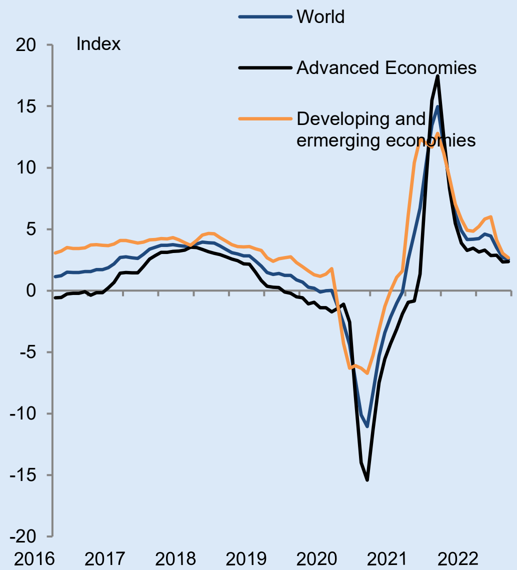
Figure 1.1:
Business expectations by groups of countries



Monthly data, seasonally adjusted. Indicators are based on buisness expectations in 42 countries (34 advanced economies and 8 emerging economies).

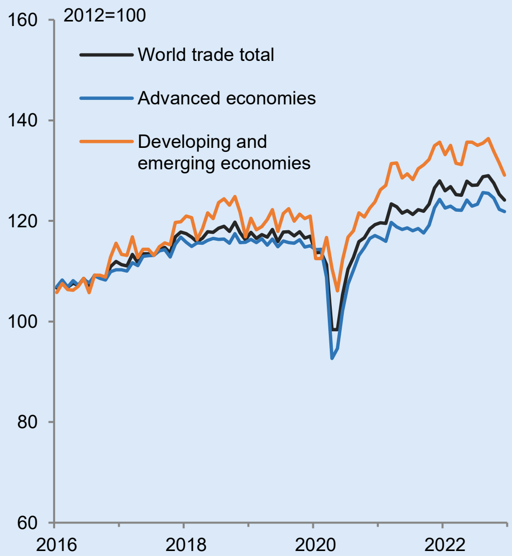
Source: OECD, *Main Economic Indicators*; national sources; Kiel Institute calculations.

Figure 1.2:
Industrial production by groups of countries and regions



Monthy data, seasonally adjusted, previous year's rate, quarterly average.
Source: CPB, Kiel Institute calculations.

Figure 1.3:
World Trade

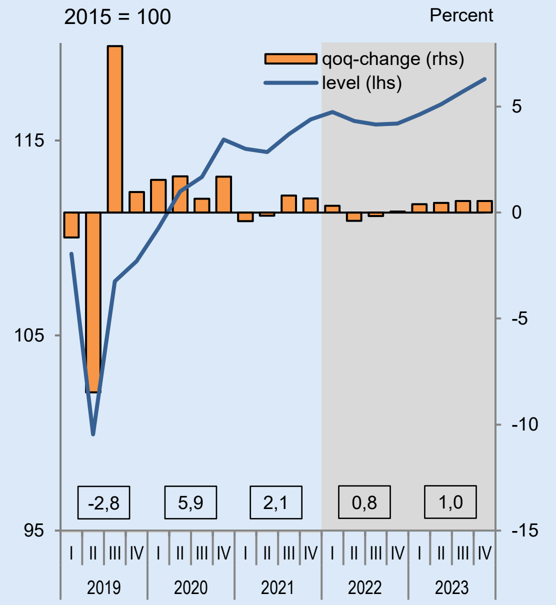


Monthly Data.

Source: CPB, *World Trade Monitor*; Kiel Institute calculations.

2. United States

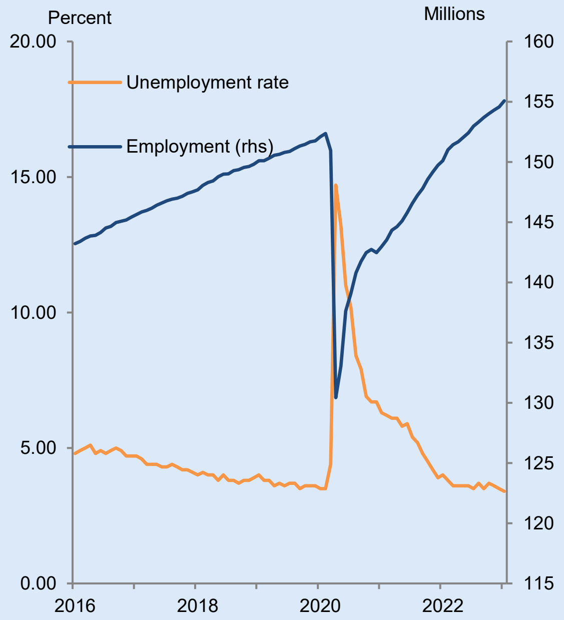
Figure 2.1:
GDP



Quarterly data, price, seasonally and calendar adjusted, qoq-change; annual rate of change (boxes).

Source: Bureau of Economic Analysis; shaded: Kiel Institute forecast.

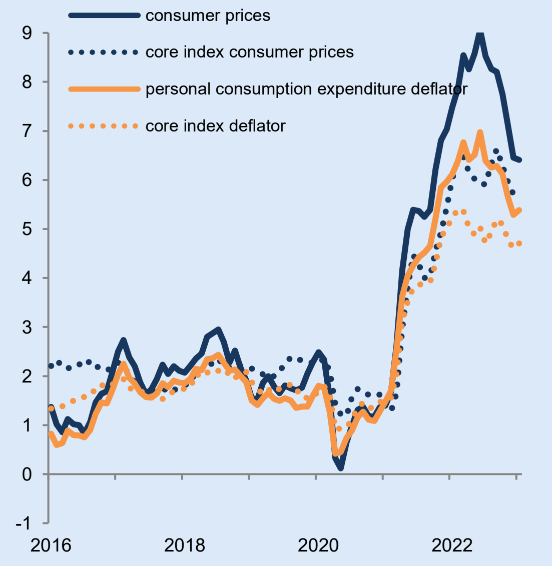
Figure 2.2:
Labor market



Monthly data; seasonally adjusted. .

Source: US Department of Labor, *Employment Situation*.

Figure 2.3:
Consumer prices



Monthly data; change over previous year. Core index: consumer prices excluding energy and food.

Source: US Department of Labor, *Consumer Price Index*.

Table 2.1:
Key indicators for the United States

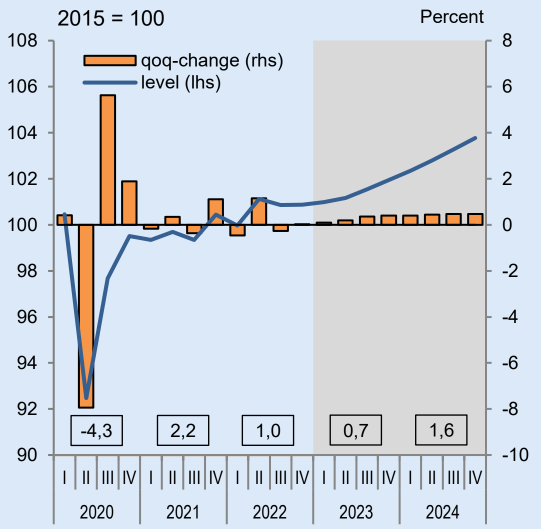
	2021	2022	2023	2024
Gross Domestic Product	5,9	2,1	0,8	1,0
Domestic expenditure	7,0	2,4	0,3	1,0
Private consumption	8,3	2,8	0,8	0,7
Government expenditure	0,6	-0,6	1,3	1,0
Gross fixed capital formation	7,4	-0,2	-2,6	1,1
Machinery and equipment	10,3	4,3	-0,9	0,9
Intellectual property rights	9,7	8,9	4,3	2,0
Structures	-6,4	-6,9	-1,3	0,5
Residential Investment	10,7	-10,7	-13,5	0,5
Change in inventories	0,3	0,7	0,0	0,1
Net exports	-1,1	-0,3	0,5	0,1
Exports	6,1	7,2	1,0	0,8
Imports	14,1	8,2	-2,4	0,5
Consumer prices	4,7	8,0	4,4	2,8
Unemployment rate	5,4	3,6	4,3	4,7
Current account balance	-3,7	-3,7	-3,2	-3,0
Government budget balance	-11,9	-5,3	-4,4	-4,6

Percent. GDP: volumes, change over previous year, percent. — Net exports, inventories: contribution to growth, percentage points. — Unemployment rate: unemployed in relation to labor force. — Current account balance, government budget balance: percent of nominal GDP.— Budget balance: fiscal year.

Source: US Department of Commerce, *National Economic Accounts*; US Department of Labor, *Employment Situation and Consumer Price Index*; US Department of the Treasury, *Monthly Treasury Statement*; Kiel Institute calculations; shaded: Kiel Institute forecast.

3. Japan

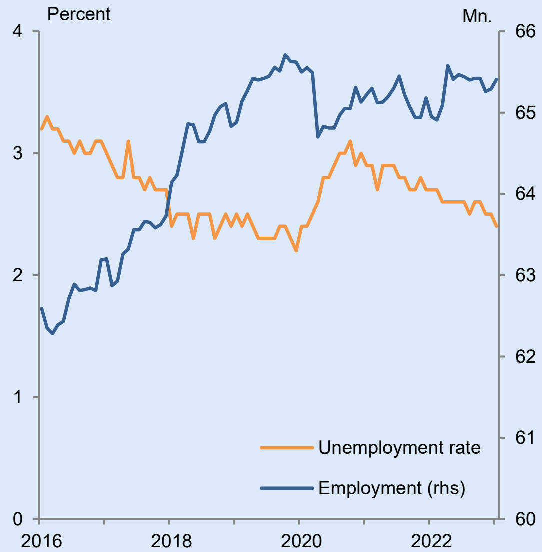
Figure 3.1:
GDP



Quarterly data, price, seasonally and calendar adjusted, qoq-change; annual rate of change (boxes).

Source: Cabinet office, *National Accounts*; shaded: Kiel Institute forecast.

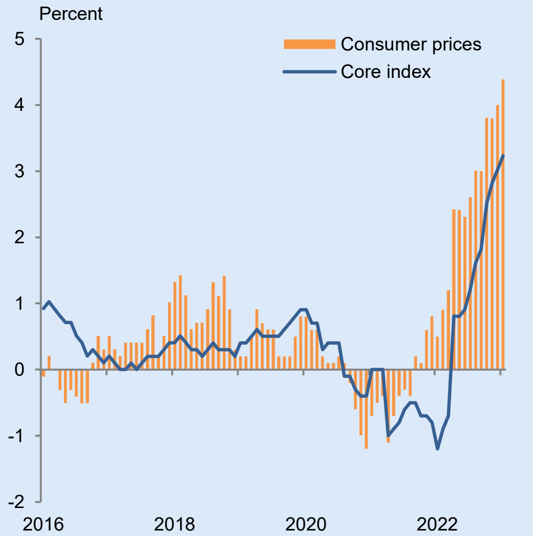
Figure 3.2:
Labor market



Monthly data; seasonally adjusted.

Source: Department of Labor.

Figure 3.3:
Consumer prices



Monthly data; change over previous year. Core index: consumer prices excluding enery and fresh food.

Source: Statistics Bureau of Japan.

Table 3.1:
Key indicators Japan

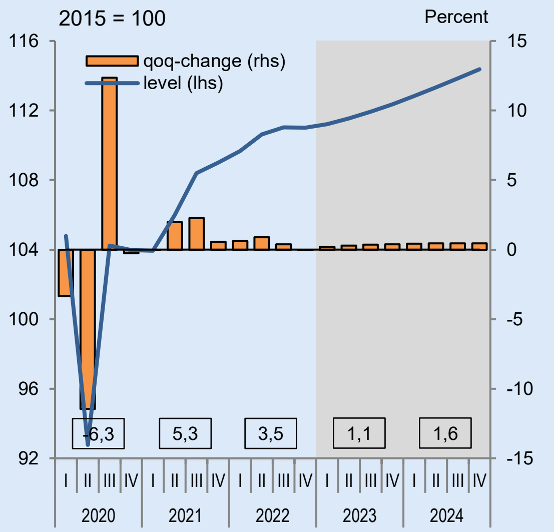
	2021	2022	2023	2024
Gross Domestic Product	2,3	1,0	0,8	1,6
Domestic expenditure	1,1	1,6	0,9	1,5
Private consumption	1,5	2,1	1,4	1,2
Government consumption	3,2	1,5	1,2	1,2
Gross fixed capital formation	-3,3	-1,0	1,0	2,6
Enterprises	1,0	1,9	1,4	3,1
Residential Investment	-7,9	-7,9	-7,9	-7,9
Public investment	-1,4	-7,1	1,4	2,0
Change in inventories	0,2	0,5	-0,3	0,0
Net exports	0,8	-0,3	-0,1	0,0
Exports	12,1	4,9	3,1	2,3
Imports	5,7	7,9	3,8	1,9
Consumer prices	-0,2	2,5	2,7	1,9
Unemployment rate	2,8	2,7	2,5	2,4
Current account balance	2,9	2,9	2,9	2,9
Government budget balance	-5,7	-6,5	-5,5	-4,0

Percent. GDP: volumes, change over previous year, percent. Net exports, inventories: contribution to growth, percentage points. Unemployment rate: unemployed in relation to labor force. Current account balance, government budget balance: percent of nominal GDP.

Source: Cabinet Office, *National Accounts*; OECD, *Main Economic Indicators*; Kiel Institute calculations; shaded: Kiel Institute forecast.

4. Euro Area

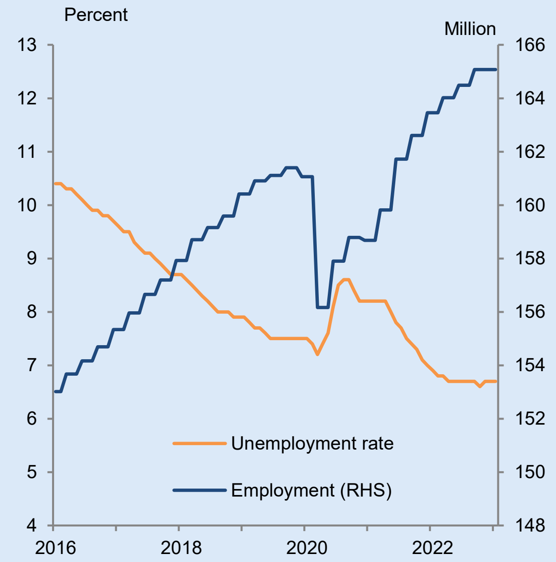
Figure 4.1:
GDP



Quarterly data, price, seasonally and calendar adjusted, qoq-change. Annual data: price adjusted, annual rate of change (boxes).

Source: Federal Statistical Office, Fachserie 18, Series 1.3; shaded: IfW forecast.

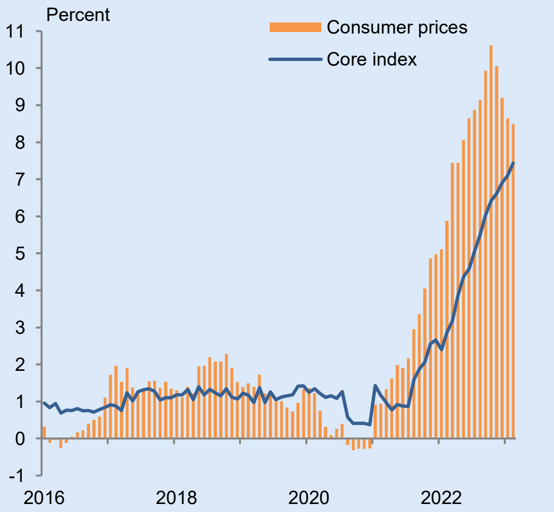
Figure 4.2:
Labor market



Monthly data; seasonally adjusted.

Source: Eurostat, *Labor Statistics*; ECB, *Monthly Bulletin*.

Figure 4.3:
Consumer prices



Monthly data; y-o-y change. Core index: HICP without energy and unprocessed food.

Source: Eurostat, *Price Statistics*.

Table 4.1:
Key indicators Euro Area

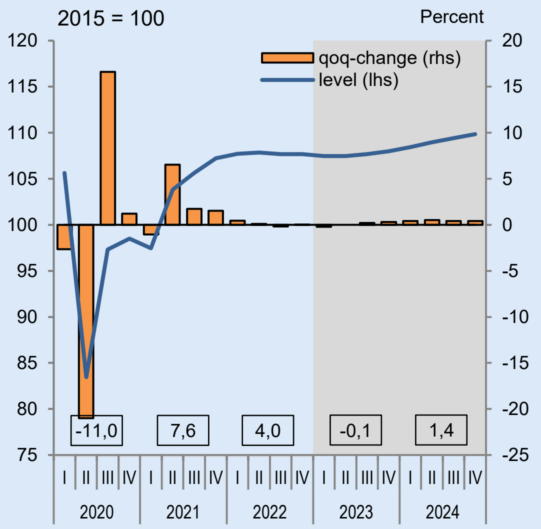
	2021	2022	2023	2024
Gross Domestic Product	5,3	3,5	1,1	1,6
Domestic expenditure	4,1	3,8	0,9	1,7
Private consumption	3,7	4,3	1,0	2,5
Government consumption	4,3	1,1	0,8	0,9
Gross fixed capital formation	3,9	3,8	-0,2	1,0
Inventories	0,2	0,3	0,2	0,0
Net exports	1,2	-0,1	0,3	-0,1
Exports	10,5	7,2	2,5	3,7
Imports	8,3	8,0	2,1	4,1
Consumer prices	2,6	8,5	5,5	2,6
Unemployment rate	7,8	6,7	6,8	6,8
Current account balance	2,4	-0,9	0,7	1,3
Government budget balance	-5,4	-4,1	-3,3	-2,9

GDP: volumes, change over previous year, percent. Net exports, inventories: contribution to growth, percentage points. Unemployment rate: unemployed in relation to labor force, percent. Current account balance, government budget balance: percent of nominal GDP.

Source: Eurostat, *National Accounts*; Kiel Institute calculations; shaded: Kiel Institute forecast.

5. United Kingdom

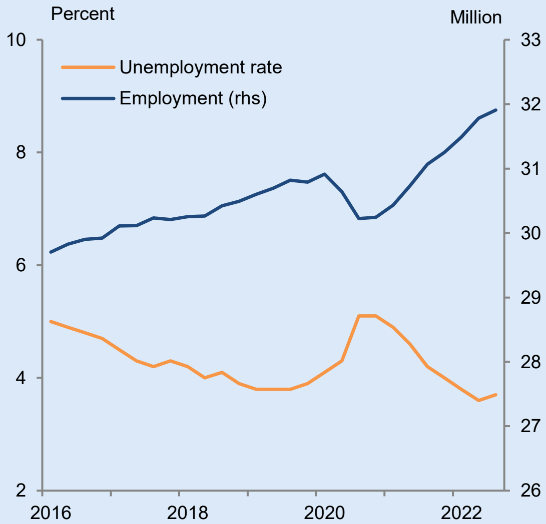
Figure 5.1:
GDP



Quarterly data, price, seasonally and calendar adjusted, qoq-change; annual rate of change (boxes).

Source: Cabinet office, *National Accounts*; shaded: IfW forecast.

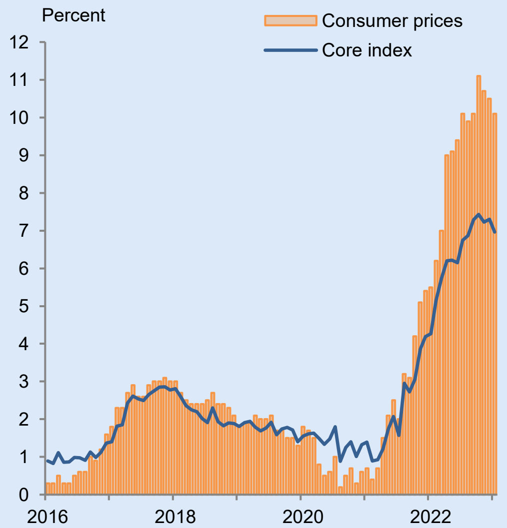
Figure 5.2:
Labor market



Quarterly data, seasonally adjusted.

Source: Office for National Statistics, *Economy*.

Figure 5.3:
Consumer prices



Monthly data, change over previous year. Core rate: consumer prices excluding energy and fresh food.

Source: Office for National Statistics, *Economy.*

Table 5.1:
Key indicators United Kingdom

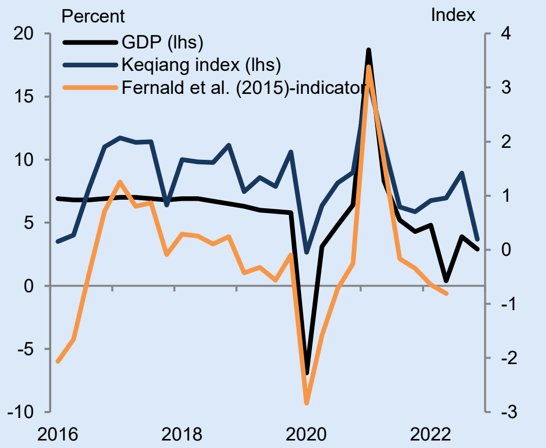
	2021	2022	2023	2024
Gross Domestic Product	7,6	4,0	-0,1	1,4
Domestic expenditure	8,6	5,8	-0,3	1,5
Private consumption	6,2	4,2	0,5	1,0
Government consumption	12,6	-1,8	-4,0	1,4
Gross fixed investment	5,6	5,8	1,4	1,5
Inventories	1,3	0,1	-0,2	0,3
Net exports	-1,2	-1,5	0,2	0,0
Exports	-1,3	4,7	-2,0	3,0
Imports	3,8	9,3	-2,5	2,7
Consumer prices	2,3	9,2	7,9	3,8
Unemployment rate	4,5	3,7	4,4	4,5
Current account balance	-2,0	-7,3	-8,0	-5,5
Government budget balance	-8,2	-4,8	-4,8	-3,6

Percent. GDP: volumes, change over previous year, percent. Net exports, inventories: contribution to growth, percentage points. Unemployment rate: unemployed in relation to labor force. Current account balance, government budget balance: percent of nominal GDP.

Source: Office for National Statistics, *Economy;* shaded: Kiel Institute forecast.

6. China

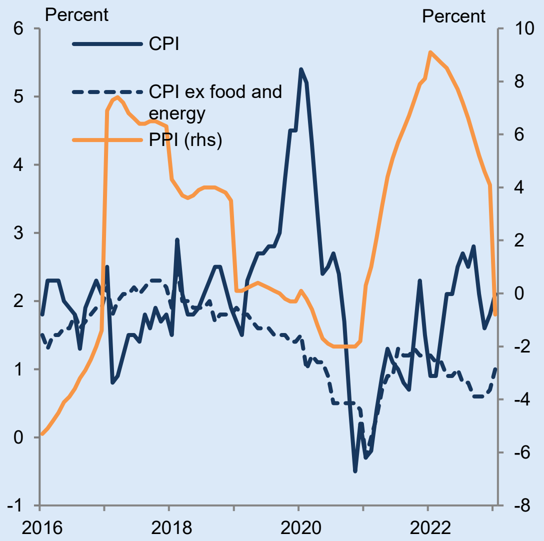
Figure 6.1:
GDP and alternative activity indicators



Quarterly data. GDP: year-on-year percentage change; Keqiang-index: arithmetic mean of the year-on-year growth rates of bank lending, electricity consumption and freight cargo; Fernald et al. (2015)-indicator: first principal component of the year-on-year growth rates of electricity production, railway cargo, retail sales and raw material prices (see Fernald et al. (2015). *Is China Fudging its Figures? Evidence from Trading Partner Data.* Federal Reserve Bank of San Francisco, Working Paper 2015-12).

Source: National Bureau of Statistics; People's Bank of China; Kiel Institute calculations.

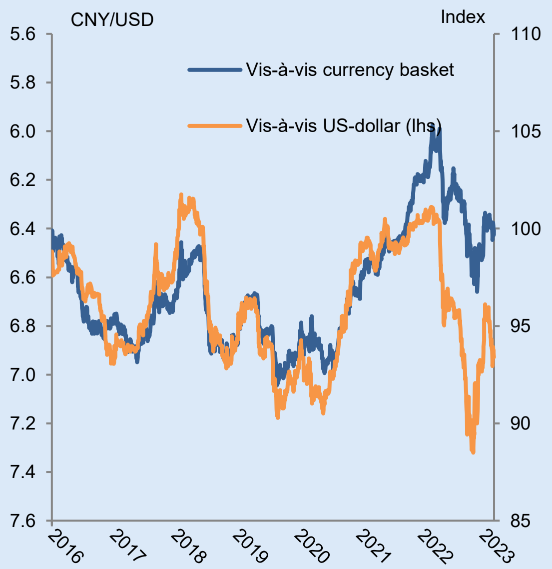
Figure 6.2:
Inflation



Monthly data; y-o-y growth rate. Core index: CPI excluding food and energy.

Source: National Bureau of Statistics.

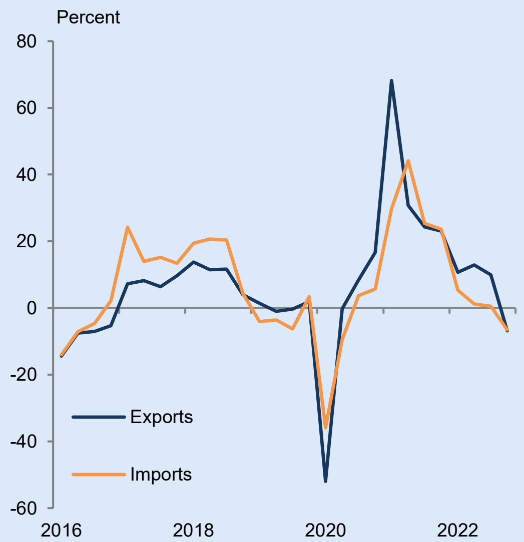
Figure 6.3:
Exchange rates



Daily data.

Source: Thomson Reuters; China Foreign Exchange Trade System; Kiel Institute calculations.

Figure 6.4:
Foreign trade

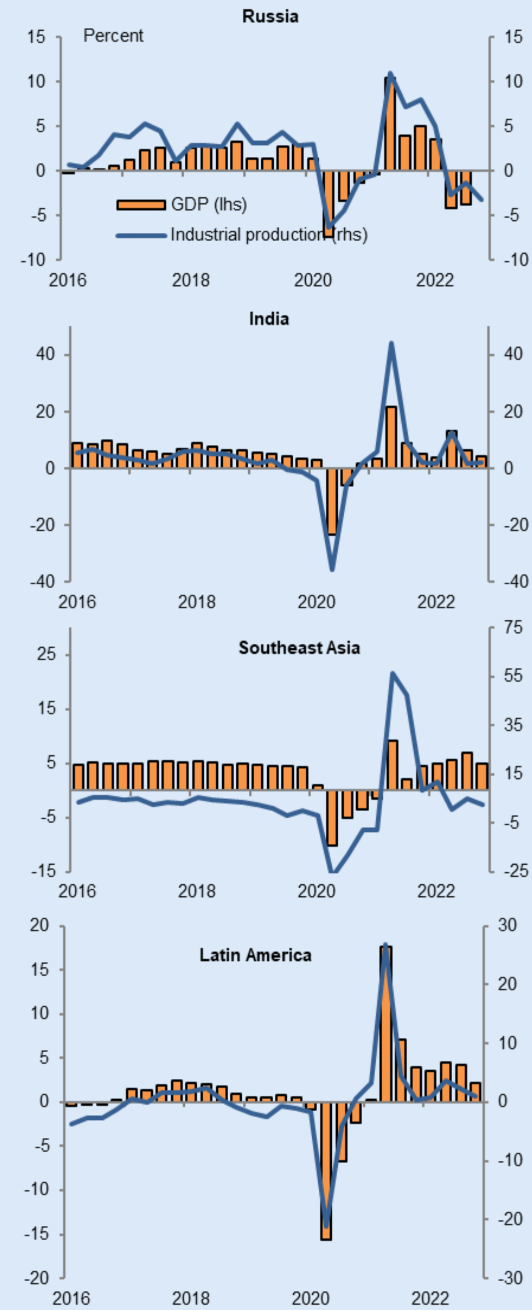


Change on a year ealier based on quarterly averages.

Source: General Administration of Customs China

7. Emerging Economies

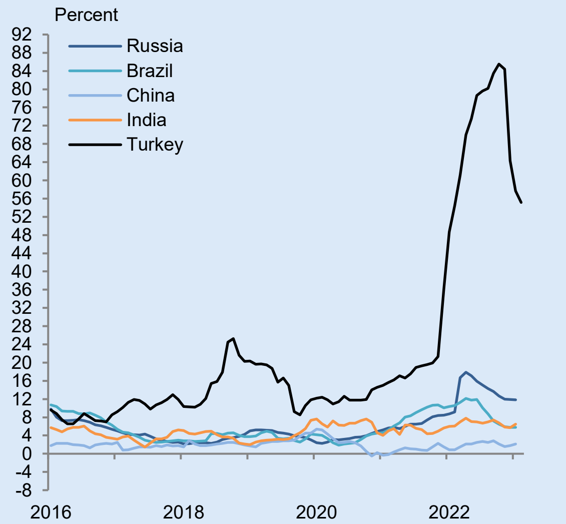
Figure 7.1:
GDP and industrial production in emerging economies



Quarterly data; volumes; seasonally adjusted; change over previous year; Southeast Asia: GDP-weighted average of Indonesia, Thailand, Malaysia and the Philippines; Latin America: GDP-weighted average of Argentinia, Brasil, Chile, Colombia, Mexico and Peru.

Source: IMF, *International Financial Statistics*; national statistical offices; Kiel Institute calculations.

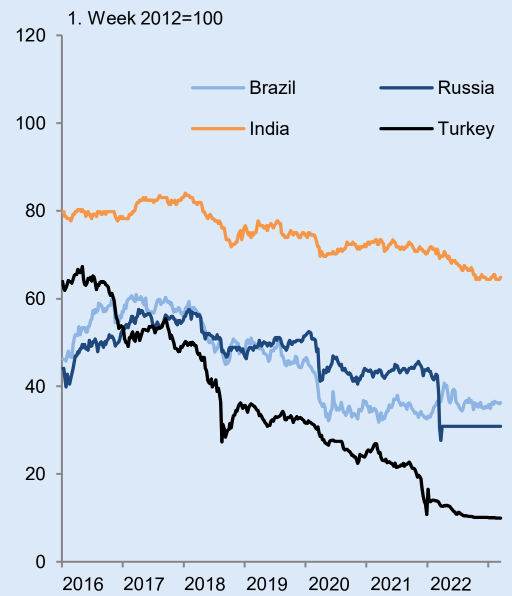
Figure 7.2:
Consumer price inflation in large emerging economies



Monthly data; change over previous year.

Source: Federal State Statistics Service, *Russia*; IBGE, *Brazil*; National Bureau of Statistics, *China*; Labour Bureau, *India*.

Figure 7.3:
US-dollar exchange rates



Weekly data.
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Source: Thomson Reuters Datastream

8. Forecast summary

Tabelle 8.1:
Real gross domestic product, consumer prices and unemployment rates in the European Union

	Weights	Real GDP				Consumer prices				Unemployment rate			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Germany	25.3	2.6	1.9	0.7	1.5	3.2	8.6	5.4	2.1	3.6	3.1	2.9	2.7
France	17.2	6.8	2.6	0.9	1.6	2.1	5.9	4.4	2.6	7.9	7.3	7.2	7.2
Italy	12.3	7.0	3.8	0.6	0.8	2.0	8.7	6.7	2.8	9.6	8.1	8.3	8.6
Spain	8.3	5.5	5.5	1.6	2.1	3.0	8.3	5.0	2.8	14.8	12.9	13.0	13.0
Netherlands	5.9	4.9	4.5	1.9	1.7	2.8	11.6	5.4	2.9	4.2	3.5	3.6	3.6
Belgium	3.4	6.1	3.1	1.0	1.5	3.2	10.3	4.7	2.3	6.3	5.6	5.8	5.8
Austria	2.8	4.7	5.0	0.9	1.4	2.8	8.6	6.4	3.4	6.2	4.8	5.0	5.0
Ireland	2.8	13.4	12.2	4.6	4.0	2.4	8.1	4.7	2.5	6.3	4.5	4.4	4.4
Finland	1.8	3.0	2.0	0.1	1.3	2.1	7.2	5.1	2.7	7.7	6.8	7.4	7.7
Portugal	1.5	5.5	6.7	1.4	1.6	0.9	8.1	5.3	3.1	6.6	6.0	6.8	6.8
Greece	1.2	8.1	6.1	2.9	2.4	0.6	9.3	5.6	3.1	14.8	12.5	11.5	11.5
Slovak Republic	0.7	3.0	1.7	1.7	3.1	2.8	12.1	10.6	5.3	6.8	6.1	6.1	5.8
Luxembourg	0.5	5.1	2.3	2.1	2.4	3.5	8.2	3.5	2.3	5.4	4.5	4.8	4.6
Kroatien	0.4	12.7	6.4	2.3	3.4	2.7	10.7	8.9	3.3	7.6	6.5	6.8	6.5
Slovenia	0.3	8.3	5.7	1.5	2.8	2.1	9.3	6.4	3.7	4.8	4.0	3.6	3.4
Lithuania	0.4	5.9	1.9	1.1	2.5	4.6	18.9	11.5	5.2	7.1	5.9	6.4	6.5
Latvia	0.2	3.8	2.0	0.4	2.9	3.2	17.2	9.6	4.4	7.6	6.9	7.4	7.6
Estonia	0.2	8.0	-1.1	-1.8	2.9	4.5	19.5	10.5	5.0	6.2	5.6	5.8	6.5
Cyprus	0.2	6.6	5.6	3.4	2.5	2.3	8.1	3.5	2.2	7.5	6.8	7.4	7.4
Malta	0.1	11.7	6.9	3.9	3.1	0.7	6.1	6.4	3.5	3.4	2.9	3.0	3.0
Sweden	3.6	5.2	2.7	-0.1	1.5	2.7	8.1	5.9	2.9	8.8	7.5	7.6	8.0
Poland	3.9	6.7	5.2	-0.2	3.7	5.3	13.2	10.5	5.3	3.4	2.9	3.1	3.5
Denmark	2.3	4.9	3.6	1.4	1.6	1.9	8.5	4.9	3.1	5.1	4.5	4.7	4.7
Czech Republic	1.6	3.5	2.4	0.0	2.6	3.3	14.8	10.4	4.2	2.8	2.4	2.5	2.5
Romania	1.6	5.9	4.5	3.4	3.9	4.1	12.0	8.7	4.3	5.6	5.6	5.6	5.4
Hungary	1.0	7.1	4.6	0.1	2.9	5.2	15.3	13.9	4.2	4.0	3.6	4.1	4.4
Bulgaria	0.5	7.1	3.8	2.6	3.7	2.8	13.0	10.0	5.3	5.3	4.3	4.0	4.0
European Union	100.0	5.4	3.6	1.0	1.8	2.9	9.1	6.2	3.0	7.1	6.2	6.2	6.2
Addendum:													
European Union 11	88.9	5.3	3.5	1.1	1.6	2.5	8.2	5.4	2.6	7.8	6.8	6.8	6.8
Accession countries	11.1	6.2	4.1	0.9	3.3	4.3	13.2	10.2	4.7	4.6	4.1	4.2	4.3
Euro Area	85.5	5.3	3.5	1.1	1.6	2.6	8.4	5.5	2.6	7.8	6.7	6.8	6.8
Euro Area without Germany	60.2	6.5	4.2	1.3	1.7	2.3	8.3	5.5	2.8	9.2	8.0	8.1	8.2

Based on GDP at prices and exchange rates of 2020 in percent. Change over previous year in percent. Harmonized Index of Consumer Prices (HICP). Standardized unemployment rate in percent (ILO); country groups weighted according to the size of the labor force in 2019. Accession countries since 2004.

Source: Eurostat, National Accounts; shaded: IfW forecast.

Tabelle 8.2:
Real gross domestic product and consumer prices in selected emerging market economies, 2021-2ß24

	Weights	Real GDP				Consumer prices			
		2021	2022	2023	2024	2021	2022	2023	2024
Indonesia	5.5	3.7	5.3	5.0	5.4	4.6	5.5	3.2	3.0
Thailand	2.1	1.5	2.8	3.1	3.3	1.2	6.3	2.8	2.0
Malaysia	1.5	3.1	5.4	4.3	4.9	2.5	3.2	2.8	2.4
Philippines	1.6	5.7	6.5	5.0	6.0	5.3	4.3	3.1	3.0
Total	10.6	3.5	5.0	4.5	5.0	3.8	5.2	3.0	2.7
China	41.8	8.4	3.0	5.2	5.2	0.9	2.0	2.8	2.7
India	15.7	8.9	6.7	5.9	6.9	5.5	6.7	5.9	5.5
Asia total	68.0	7.8	4.2	5.3	5.6	2.4	3.5	3.6	3.3
Brazil	5.3	5.3	3.0	0.7	1.4	8.3	9.3	4.8	4.1
Mexico	4.1	4.9	3.1	1.2	1.4	5.7	7.9	6.3	3.8
Argentina	1.7	10.4	5.6	-0.1	0.0	48.4	72.4	100.0	120.0
Colombia	1.3	10.7	7.5	1.4	2.2	3.5	10.2	10.8	5.1
Chile	0.8	11.9	2.5	-0.7	1.4	4.5	11.6	7.9	3.8
Peru	0.7	13.6	2.7	2.0	2.4	4.0	7.9	6.0	3.6
Latin America total	13.9	7.1	3.7	0.8	1.4	11.4	16.6	17.5	18.0
Egypt	2.2	3.2	6.6	4.2	4.5	4.5	10.1	20.0	25.0
Nigeria	1.8	3.6	3.3	3.0	3.2	17.0	18.5	16.0	12.5
South Africa	1.3	4.9	2.3	1.4	1.6	4.6	7.0	5.4	4.7
Algeria	0.8	3.5	4.5	3.0	2.2	7.2	9.7	9.2	8.5
Ethiopia	0.5	6.3	3.8	5.0	5.5	26.8	34.0	30.0	22.0
Africa total	6.6	3.9	4.4	3.2	3.4	9.8	13.4	15.4	15.3
Russia	6.9	4.6	-2.1	-0.4	1.2	5.9	13.8	12.5	14.0
Turkey	4.5	11.4	5.6	2.5	5.1	19.6	72.0	45.0	30.0
Total	100.0	7.4	3.8	4.0	4.5	5.2	9.8	8.8	8.1

In percent. Weights: According to 2020 GDP at purchasing power parities. — GDP: price adjusted; changes compared to the previous year. — Consumer prices: changes compared to the previous year. — Asia total, Latin America total: based on listed countries.

Source: IMF, International Financial Statistics; OECD, Main Economic Indicators; national statistics; Kiel Institute calculations; shaded: Kiel Institute forecast.

Tabelle 8.3:
Real gross domestic product, consumer prices and unemployment rates in the European Union

	Weights	Real GDP				Consumer prices				Unemployment rate			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Germany	25,3	2,6	1,9	0,7	1,5	3,2	8,6	5,4	2,1	3,6	3,1	2,9	2,7
France	17,2	6,8	2,6	0,9	1,6	2,1	5,9	4,4	2,6	7,9	7,3	7,2	7,2
Italy	12,3	7,0	3,8	0,6	0,8	2,0	8,7	6,7	2,8	9,6	8,1	8,3	8,6
Spain	8,3	5,5	5,5	1,6	2,1	3,0	8,3	5,0	2,8	14,8	12,9	13,0	13,0
Netherlands	5,9	4,9	4,5	1,9	1,7	2,8	11,6	5,4	2,9	4,2	3,5	3,6	3,6
Belgium	3,4	6,1	3,1	1,0	1,5	3,2	10,3	4,7	2,3	6,3	5,6	5,8	5,8
Austria	2,8	4,7	5,0	0,9	1,4	2,8	8,6	6,4	3,4	6,2	4,8	5,0	5,0
Ireland	2,8	13,4	12,2	4,6	4,0	2,4	8,1	4,7	2,5	6,3	4,5	4,4	4,4
Finland	1,8	3,0	2,0	0,1	1,3	2,1	7,2	5,1	2,7	7,7	6,8	7,4	7,7
Portugal	1,5	5,5	6,7	1,4	1,6	0,9	8,1	5,3	3,1	6,6	6,0	6,8	6,8
Greece	1,2	8,1	6,1	2,9	2,4	0,6	9,3	5,6	3,1	14,8	12,5	11,5	11,5
Slovak Republic	0,7	3,0	1,7	1,7	3,1	2,8	12,1	10,6	5,3	6,8	6,1	6,1	5,8
Luxembourg	0,5	5,1	2,3	2,1	2,4	3,5	8,2	3,5	2,3	5,4	4,5	4,8	4,6
Kroatien	0,4	12,7	6,4	2,3	3,4	2,7	10,7	8,9	3,3	7,6	6,5	6,8	6,5
Slovenia	0,3	8,3	5,7	1,5	2,8	2,1	9,3	6,4	3,7	4,8	4,0	3,6	3,4
Lithuania	0,4	5,9	1,9	1,1	2,5	4,6	18,9	11,5	5,2	7,1	5,9	6,4	6,5
Latvia	0,2	3,8	2,0	0,4	2,9	3,2	17,2	9,6	4,4	7,6	6,9	7,4	7,6
Estonia	0,2	8,0	-1,1	-1,8	2,9	4,5	19,5	10,5	5,0	6,2	5,6	5,8	6,5
Cyprus	0,2	6,6	5,6	3,4	2,5	2,3	8,1	3,5	2,2	7,5	6,8	7,4	7,4
Malta	0,1	11,7	6,9	3,9	3,1	0,7	6,1	6,4	3,5	3,4	2,9	3,0	3,0
Sweden	3,6	5,2	2,7	-0,1	1,5	2,7	8,1	5,9	2,9	8,8	7,5	7,6	8,0
Poland	3,9	6,7	5,2	-0,2	3,7	5,3	13,2	10,5	5,3	3,4	2,9	3,1	3,5
Denmark	2,3	4,9	3,6	1,4	1,6	1,9	8,5	4,9	3,1	5,1	4,5	4,7	4,7
Czech Republic	1,6	3,5	2,4	0,0	2,6	3,3	14,8	10,4	4,2	2,8	2,4	2,5	2,5
Romania	1,6	5,9	4,5	3,4	3,9	4,1	12,0	8,7	4,3	5,6	5,6	5,6	5,4
Hungary	1,0	7,1	4,6	0,1	2,9	5,2	15,3	13,9	4,2	4,0	3,6	4,1	4,4
Bulgaria	0,5	7,1	3,8	2,6	3,7	2,8	13,0	10,0	5,3	5,3	4,3	4,0	4,0
European Union	100,0	5,4	3,6	1,0	1,8	2,9	9,1	6,2	3,0	7,1	6,2	6,2	6,2
Addendum:													
European Union 11	88,9	5,3	3,5	1,1	1,6	2,5	8,2	5,4	2,6	7,8	6,8	6,8	6,8
Accession countries	11,1	6,2	4,1	0,9	3,3	4,3	13,2	10,2	4,7	4,6	4,1	4,2	4,3
Euro Area	85,5	5,3	3,5	1,1	1,6	2,6	8,4	5,5	2,6	7,8	6,7	6,8	6,8
Euro Area without Germany	60,2	6,5	4,2	1,3	1,7	2,3	8,3	5,5	2,8	9,2	8,0	8,1	8,2

Based on GDP at prices and exchange rates of 2020 in percent. Change over previous year in percent. Harmonized Index of Consumer Prices (HICP). Standardized unemployment rate in percent (ILO); country groups weighted according to the size of the labor force in 2019. Accession countries since 2004.

Source: Eurostat, National Accounts; shaded: IfW forecast.