

Global and European setting

Global economic developments

Further slow-down in global economy

Global economic activity continued to deteriorate in the third quarter. Sustained, strong price pressures weighed on private consumption, in particular. The tightening of monetary policy being pursued in many places also left its first marks. In Europe, exceptionally high energy prices and uncertainty about the future supply of energy were additional drags on economic activity. Growth in gross domestic product (GDP) therefore weakened markedly in the euro area. In Japan and the United Kingdom, economic output even declined somewhat. The steep growth in China was primarily due to the easing of pandemic-related restrictions. GDP in the United States also increased significantly, following a decline in the first half of the year. In both economies, though, the underlying cyclical forces remained subdued.

Industrial activity still solid in Q3, but outlook significantly gloomier

Global industry held up surprisingly well in the third quarter. It, too, benefited from the easing of restrictions in China and the abatement of supply chain disruptions. Having suffered heavily from the bottlenecks, the automotive sector in particular upped production considerably. Overall, global industrial output rose markedly in the third quarter, recouping some of the previous quarter's decline. There was also distinct growth in international trade in goods. Sentiment indicators suggest, however, that the effects of weakening demand could soon gain the upper hand. According to surveys among purchasing managers, the business outlook in the services sector deteriorated further recently as well. The surge in activity following the roll-back of pandemic-related restrictions in extensive parts of the world is likely to have largely run its course.

Recent months saw many commodity prices continue to fall in the light of the slowing economy. This was especially true of industrial com-

modities. European gas and electricity prices even dropped rather significantly from the end of August, receding from their record levels. Key factors behind this were reduced consumption (partly on account of the weather), persistently high imports of liquefied natural gas and almost completely full gas storage facilities. Forward quotations indicate that distinctly higher prices are set to return in the upcoming winter months, however.

European gas prices and industrial commodity prices down

Oil prices did not fall any further of late, instead picking up again somewhat at the beginning of the fourth quarter. One reason for this was the decision made by OPEC and its partners to substantially reduce crude oil production from November onwards. So far in November, Brent crude has cost only a little less than in August, selling for an average of US\$95 per barrel. Prices for some refined petroleum products,

Oil price buttressed by OPEC's production cut

Global economic indicators*

Seasonally adjusted

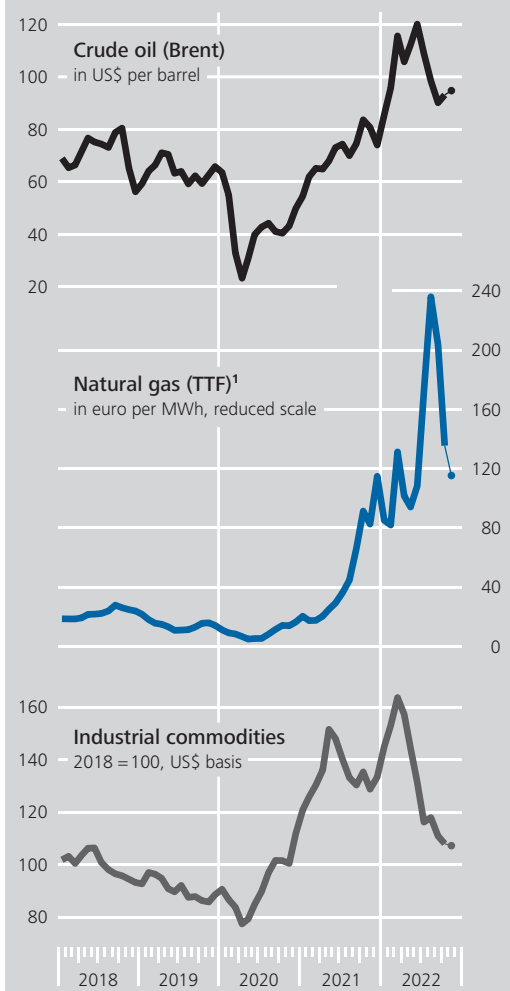


Sources: CPB, national data, Haver Analytics, S&P Global and Bundesbank calculations. * Groups of countries vary due to differences in data availability. **1** Bundesbank aggregate of national data, based on the number of units. **2** Output component for the whole economy.

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Commodity prices

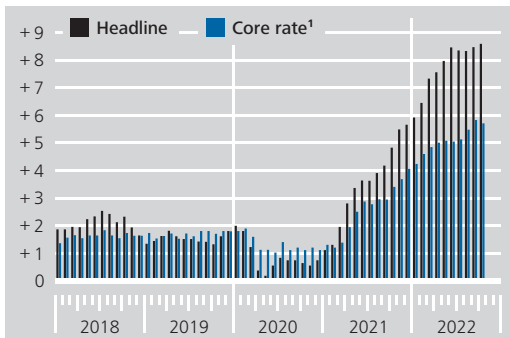
Monthly averages



Sources: Bloomberg Finance L.P., Haver Analytics, ICE and HWWI. • Latest figures: Average of 1 to 11 November 2022 (industrial commodities) and 1 to 18 November (crude oil and natural gas). 1 Price for the front-month futures contract.
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Consumer prices in industrial countries*

Year-on-year percentage change



Sources: Bundesbank calculations based on national data.
 * EU, Canada, Japan, Norway, Switzerland, the United Kingdom and the United States. 1 Consumer prices excluding energy and food; additionally excluding alcoholic beverages and tobacco products for the EU, Norway, Switzerland and the United Kingdom.
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such as diesel and heating oil, even rose distinctly, mainly as a result of declining imports from Russia and low inventories. They have only recently come back down. Overall, the strain being placed on the economy by high energy prices is currently likely to be on a par with the oil crisis of 1973 (see the box on pp. 15f.).

Consumer price inflation became even more broad-based globally owing to the protracted high level of cost pressure. In October, the year-on-year rate of the consumer price index (CPI) excluding energy and food amounted to 5.7% in the advanced economies. Food price inflation climbed further. Only the increase in consumer energy prices eased off somewhat. Overall, consumer prices were up by 8.6% on the year in October.

Increased, broad-based consumer price inflation

Looking ahead, the declining commodity prices are set to dampen consumer price inflation. In many places, producer prices for intermediate goods barely increased further, or even decreased. However, wage growth continued to mount in a number of advanced economies, which could prolong the inflation process. In addition, Europe – in particular – could see renewed surges in energy prices.

Uncertain outlook for inflation

In view of persistent and broad-based consumer price inflation, the staff of the International Monetary Fund (IMF) were pessimistic in their October outlook for the world economy.¹ Global GDP growth is likely to decline significantly to 3.2% this year and slow further to 2.7% in 2023. In many countries, economic output could contract in at least two consecutive quarters. Projections were downgraded significantly, especially for a number of European countries, including Germany and Italy. The IMF deems those countries likely to suffer particularly heavily from the energy crisis. Despite the global economic slowdown, IMF staff assessed consumer price inflation as more persistent than before. Inflation in the advanced

IMF warns of persistent inflation, despite global economic slowdown

¹ See International Monetary Fund (2022).

The recent energy price shock in a historical comparison

Russia's war of aggression against Ukraine has driven fossil fuel prices up sharply. To many observers, this harks back to the most severe worldwide energy crisis to date, the 1973 oil crisis, when global economic growth ground to a virtual halt for two years. By comparison, some international institutions are currently expecting the surging energy prices to have only a moderate impact.¹ They point out that the energy intensity of macroeconomic activity has dropped markedly in the meantime and that oil prices have risen less sharply than in 1973.

However, the macroeconomic impact of an energy price shock depends not only on the quantity of energy used but, rather, on the macroeconomic expenses of energy consumption.² Since the early 1970s, the ratio of expenditures on energy commodities to GDP, though, has trended upwards rather than downwards as a result of a distinct rise in prices. This is especially true for many emerging market economies; yet in the EU and the United States, too, expenditures on fossil fuels over GDP were, in recent years, somewhat higher than prior to the outbreak of the oil crisis in 1973. The composition of energy expenditure has also changed

since then. Whereas, especially in Europe, expenditure on natural gas has gained considerably in relevance, the importance of coal has diminished.

Also, the entire range of energy commodities has to be looked at in order to compare the current energy price crisis with the previous one. A global energy price index which takes into account the prices of oil, natural gas and coal, weighted by their time-varying expenditure shares, rose only slightly less in recent months than during the 1973 crisis.³ In the EU, energy prices overall have even risen significantly more strongly than back in 1973. This is attributable primarily to the high importance of natural gas for Europe's energy supply and the heavy dependence on Russian energy exports. Gas prices in Europe have consequently risen considerably more strongly than elsewhere in the world.

Moreover, the current energy price shock is probably due overwhelmingly to supply-side causes. In contrast, the rise in oil prices in the early 1970s was likely, to a greater extent, also demand-driven.⁴ Whereas the

¹ See Bank for International Settlements (2022) and Valckx (2022).

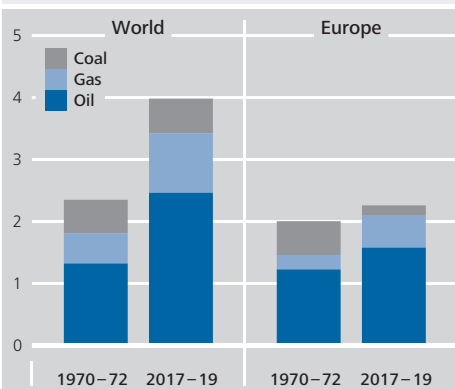
² See Deutsche Bundesbank (2012). Another key factor is the substitutability of energy. The greater it is, the smaller the impact of energy price shocks. However, there is no clear and compelling evidence that the substitutability of fossil fuels has increased substantially in recent decades.

³ This is attributable first and foremost to the surge in gas prices in the past one-and-a-half years or so. As a result of the sharp reduction in Russian gas exports, these prices have risen much more steeply than during the oil crisis, in which they merely tripled. Conversely, though, in 1973 oil prices were up much more sharply than in recent months due to, amongst other things, the oil embargo imposed against the United States by some Arab countries at that time.

⁴ For more on the role of aggregate demand as a precondition for the oil price surge in the early 1970s, see also Barsky and Kilian (2002) and Kilian (2008).

Fossil energy commodity expenditures

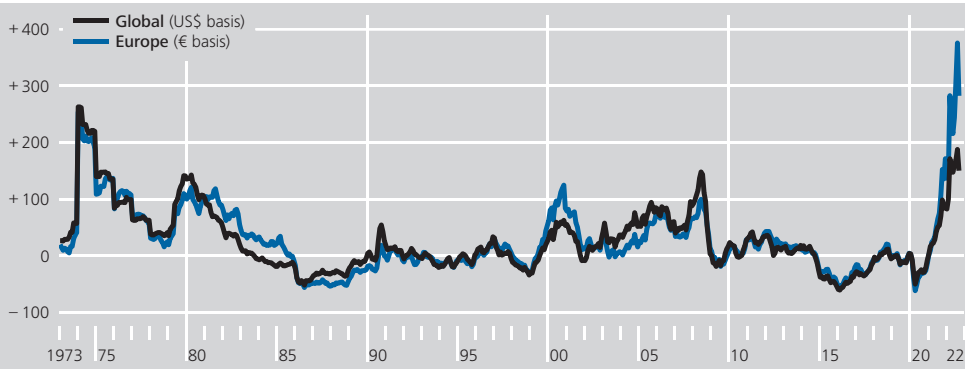
As a percentage of GDP, US\$ basis



Sources: World Bank, BP Statistical Review of World Energy and Bundesbank calculations.
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Energy price increases by historical standards*

Percentage change from the mean of the preceding five years, monthly



Sources: World Bank, EIA, ECB, BP Statistical Review of World Energy, Haver Analytics and Bundesbank calculations. * Based on an energy commodity price index in which global and European wholesale prices for crude oil, natural gas and coal are weighted with the corresponding time-varying expenditure shares.

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macroeconomic consequences of demand-driven oil price shocks are less clear-cut, supply-side oil price shocks are generally credited with having a dampening impact.⁵ That is another reason why the current energy price shock, at least in Europe, might

have a more adverse effect on the aggregate economy than the 1973 oil crisis.

⁵ See, for example, Kim and Vera (2022).

economies is projected to still be at 4.4% next year and not to drop below 2% until 2025. For the already upgraded inflation outlook, the report continued to emphasise the existence of upside risks.

China

In China, measures to contain COVID-19 affected a significantly smaller portion of the country in the third quarter of 2022 than had been the case in the second quarter. This prompted a marked pick-up in economic activity. According to official data, real GDP rose by a seasonally adjusted 3.9% on the quarter, more than offsetting the previous decline. Real GDP also exceeded the previous year's figure by 3.9%. On the demand side, the recent recovery was driven, in particular, by private consumption, which had taken an especially hard hit amid the spring lockdowns.

Swift recovery thanks to eased containment measures, ...

This robust economic growth is unlikely to continue in the current quarter. Over the past few weeks, new coronavirus cases have led to a renewed tightening of containment measures in many areas. The strict zero-COVID policy is likely to be maintained over at least the next few months. Furthermore, the situation on the real estate market remains extremely fraught. Selling prices fell again in most major cities, and construction starts have now almost halved from their peak. The slowdown in export business is casting an additional pall over the short-term economic outlook. One bright spot remained the fact that the rise in consumer prices has still been relatively subdued. Inflation stood at 2.1% in October. The rate excluding energy and food was just 0.6%.

... but outlook remains gloomy

Other selected emerging market economies

India's economy likely to have continued to grow in summer half

In India, the economy appears to have carried on expanding in the summer half of 2022. Real GDP was 13.5% up on the year in the second quarter. That said, framing developments in those terms is likely to significantly overstate the underlying pace of economic growth, given that the second quarter of 2021 saw public life still encumbered by tight restrictions in response to the Delta wave of coronavirus.² Based on the available indicators, aggregate growth continued in the third quarter (for which GDP data are not yet available). Consumer price inflation declined slightly to 6.8% in October, but remained above the upper boundary of the monetary policy target range. The Indian central bank raised its policy rate to 5.9% in September.

Continued upswing in Brazil

In Brazil, the economy has been on the upswing for some time, partly on the back of high commodity prices. In the second quarter of 2022, real GDP rose by 3.2% on the year. Overall, the economy appears to have kept on expanding in the third quarter, albeit probably with weakened momentum. This may have had something to do with heightened uncertainty in the run-up to the presidential elections, amongst other factors. There was a further perceptible slowdown in consumer price inflation. The inflation rate fell to 6.5% in October. The Brazilian central bank left its policy rate unchanged at 13.75%.

Russia in recession

Russia's economic recession persisted. According to the flash estimate prepared by Rosstat, the national statistical office, real GDP in the third quarter was 4.0% below the previous year's level, falling short by a similar amount as in the second quarter. Production in the manufacturing sector remained depressed in the third quarter due to the limited availability of intermediate products from abroad. By contrast, revenue from energy exports remained substantial, despite a decrease in export volumes. Over the coming months, the crisis could

Real GDP in selected major emerging market economies

Q4 2019 = 100, seasonally and calendar adjusted, log scale



Sources: National Bureau of Statistics of China, Central Statistics Office of India, Brazilian Institute of Geography and Statistics, Rosstat – Federal State Statistics Service, and Bundesbank calculations.

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be deepened by the impact of a heightened shortage of labour caused by the recently ordered partial mobilisation. Tens of thousands of skilled workers have been called up to the military or left the country. Consumer price inflation weakened further. The year-on-year rate fell from 17.8% in April to 12.6% in October. With inflationary pressures easing, Russia's central bank has cut the policy rate from 20% to 7.5% in six steps since April.

United States

Following two quarters of slight contraction, the US economy grew again in the third quarter

Economic output rising again

² According to our calculations, GDP declined by just under 2% in the second quarter compared with the previous quarter, in seasonally adjusted terms (see the chart above). However, this result appears to be somewhat implausible in the light of a number of other indicators. For example, the Purchasing Managers' Index for the economy as a whole stood at a high level of 58 points in the second quarter.

Real GDP in selected industrial countries

Q4 2019 = 100, seasonally and calendar adjusted, log scale



Sources: Bureau of Economic Analysis, Cabinet Office of Japan, Office for National Statistics, Statistics Poland and Bundesbank calculations.
 Deutsche Bundesbank

ter. According to the initial estimate, seasonally and price-adjusted GDP rose by just over 0.6% on the quarter. Export business was the key driver behind this growth, with exporters benefiting from the improved situation in China and high demand for fossil fuels. On the domestic front, the picture was more mixed. The progressive tightening of monetary policy left clear traces. Investment in residential housing and commercial construction, which is particularly sensitive to interest rates, slumped even further. By contrast, investment in machinery and equipment recorded a substantial rise, probably partly because of the elimination of supply constraints, particularly in the case of transport equipment. Households upped their consumption expenditure moderately, buoyed by real income growth for the first time in one-and-a-half years.

Labour market beginning to normalise

The labour market remained the backbone of the solid US consumption activity. Employment growth continued in the third quarter and the

unemployment rate stayed exceptionally low until October. Excess demand declined somewhat from a record high. The number of vacancies fell and wage growth – which was already robust – did not increase any further. However, the strong consumer price inflation eased by only a small degree up to October, coming to 7.7%. The core inflation rate excluding energy and food actually climbed further, to 6.3%. Against this backdrop, the US central bank continued tightening its monetary policy stance and, in September and November, increased the target range for the federal funds rate by a total of 150 basis points, making it 3.75% to 4%.

Japan

Japan's economic recovery was interrupted in the third quarter. According to the initial official estimate, real GDP in the third quarter fell by a seasonally adjusted 0.3% on the previous quarter. While there was a moderate expansion in domestic demand, imports registered a steep increase. Private consumption went up only slightly, as the sharp rise in COVID-19 cases dampened propensity to spend. Industrial output rose substantially once supply bottlenecks eased. Amid this setting, the seasonally adjusted unemployment rate held steady at 2.6%. The year-on-year increase in the CPI climbed to 3.7% in October, with the weakness of the yen playing a role there. The Japanese central bank maintained its expansionary stance, since it continued to regard the increase in consumer price inflation as temporary.

Slight decline in GDP

United Kingdom

In the United Kingdom, aggregate activity declined somewhat in the third quarter. Real GDP contracted by 0.2% on the quarter, in seasonally adjusted terms. Manufacturing output, in particular, fell significantly. Many consumer-related service sectors felt the effects of depressed consumer sentiment. Retail activity de-

Receding economic activity

creased by almost 2% on the quarter. Gross value added in the hotel and restaurant sector, which had experienced a spirited revival in the second quarter, moved sideways. The labour market situation remained exceptionally favourable, meanwhile. The unemployment rate fell to a new low of 3.6% in the third quarter, while wage growth increased to 6.0% on the year. The year-on-year rate of the Harmonised Index of Consumer Prices (HICP) rose to just over 11% by October, but would probably have been far higher had the government not recently introduced the energy price guarantee. In addition, comprehensive tax relief measures had been announced in September but, following heavy turmoil in the financial markets, were mostly scrapped. In order to preserve financial stability, the Bank of England temporarily intervened in the market for long-term government bonds. It abided by its monetary policy tightening, however, and raised its policy rate by 75 basis points to 3% at the beginning of November.

Poland

Economic situation stabilised in Q3; consumer price increase accelerates

In Poland, the economic situation stabilised in the third quarter. Real GDP saw a return to growth following the slump in the second quarter, increasing by 0.9% after seasonal adjustment. One reason for this was a distinct recovery in industrial production in the wake of diminishing supply chain problems. Another was the continued stability of the labour market and strong wage growth supporting private consumption. Despite the sharp rise in prices, retail sales increased by 1.4% in real terms. The unemployment rate fell to a new low of 2.6%. In the corporate sector, the gross wage per employee rose by 14.5% on the year in September. By October, consumer price inflation had accelerated to 17.9%, driven mainly by the sharp rise in energy and food prices, although even the core rate rose to 11%. In response, the central bank raised its policy rate by 25 basis points to 6.75% in September. The rate remained unchanged in October and Novem-

ber owing to the renewed deterioration in the economic outlook.

Macroeconomic trends in the euro area

The euro area economy grew slightly again in the third quarter of 2022. According to Eurostat's flash estimate, GDP rose by 0.2% after price and seasonal adjustment compared with the preceding quarter, which recorded growth of 0.8%. The pre-pandemic GDP level was thus exceeded by 2.1%. In particular, the hotel and restaurant sector and the related sectors of the economy are likely to have benefited once more from the normalisation following the roll-back of the majority of pandemic measures. Elsewhere, the strain caused by sharp price increases and the European energy crisis has been increasingly making itself felt. According to surveys, business conditions continued to deteriorate across the economy.

Economic output grew slightly again in Q3

The European energy crisis intensified in the third quarter. The stoppage in Russian gas deliveries via Nord Stream 1 initially pushed gas prices further upwards and intensified concerns about a possible gas shortage in the winter. The gas crisis spilled over to the electricity market, where prices also rose sharply. Gas has recently taken on renewed importance for electricity generation, partly because a considerable proportion of French nuclear power plants were offline due to maintenance and repair work. The massive increases in electricity and gas prices increased pressure on producer and consumer prices.

The energy crisis intensified

Although real disposable income is likely to have declined further as a result of sharp price increases, private consumption probably increased slightly in the summer, due primarily to normalisation effects following the elimination of restrictions. This was particularly true of demand for services provided by the hotel and restaurant sector, but also of purchases of motor vehicles, which increased significantly as

Private consumption increased again despite sharp rise in prices



mation and communication technologies and intellectual property is also likely to have expanded again. By contrast, construction investment is likely to have declined. In any case, construction output fell quite significantly.

According to external trade statistics, euro area countries' exports of goods to non-euro area countries shrank in the third quarter after price adjustment. The decline was widespread across all product classes and was strongest in consumer goods. The value of goods exports, however, continued to rise sharply in response to the very steep increase in prices. This was particularly true of exports to China and Turkey. By contrast, exports to the United States and the United Kingdom declined somewhat following considerable growth in the preceding quarters. The value of exports of services to non-euro area countries likely increased markedly once again. However, in addition to the recovery in international tourism, price increases may have made a significant contribution here. Despite the depreciation of the euro, imports of goods also rose very sharply in price-adjusted terms. The largest increases were recorded in intermediate goods. Security of supply arrangements in the winter may have played a role here.

Exports weak

Manufacturing output rose again moderately in the third quarter. The high and still rising energy costs weighed on production activity in energy-intensive sectors such as the chemicals industry, where production volumes fell perceptibly. At the same time, however, the easing of supply chains allowed a significant increase in motor vehicle production. There was also marked growth in both the pharmaceutical industry and the manufacture of electronic and optical devices. Capacity utilisation declined between July and October, but still slightly exceeded the long-term average. The rise in in-

Industrial output up again

a result of an easing of supply bottlenecks. By contrast, retail sales declined in price-adjusted terms. The saving ratio, which had already fallen almost back to its pre-pandemic level in the spring, is likely to have fallen further.

Investment up once again

Investment probably increased once again.³ According to currently available country information, investment in machinery and equipment, including expenditure on transportation, is likely to have once again expanded markedly. At the very least, registrations of commercial vehicles rose significantly in the third quarter, which is likely to have been helped by the easing of supply bottlenecks. Investment in infor-

³ Excluding Ireland. For several years now, the statistical recording of investment as a whole, and of investment in intellectual property in particular, has been strongly influenced by the strategic planning of multinational enterprises in that country. See Deutsche Bundesbank (2018).

dustrial producer prices became only marginally stronger, but nevertheless reached a new peak since the start of monetary union, at around 30% on the year. The rate excluding energy declined slightly over the course of the quarter, mainly due to a recent fall in commodity prices.

Moderate growth in services

The services sector was still providing a perceptible boost to growth in the summer. In the hotel and restaurant sector, in particular, value added rose again after price adjustment. Transport services, various business-related services and the information and communication sector also probably grew. Producer prices for services increased, especially for energy-intensive transport services.

Slowdown in almost all Member States

In almost all Member States, economic growth weakened in the third quarter under pressure from high inflation rates. However, some countries still benefited from the recovery in tourism.

Growth in the French economy lost considerable momentum

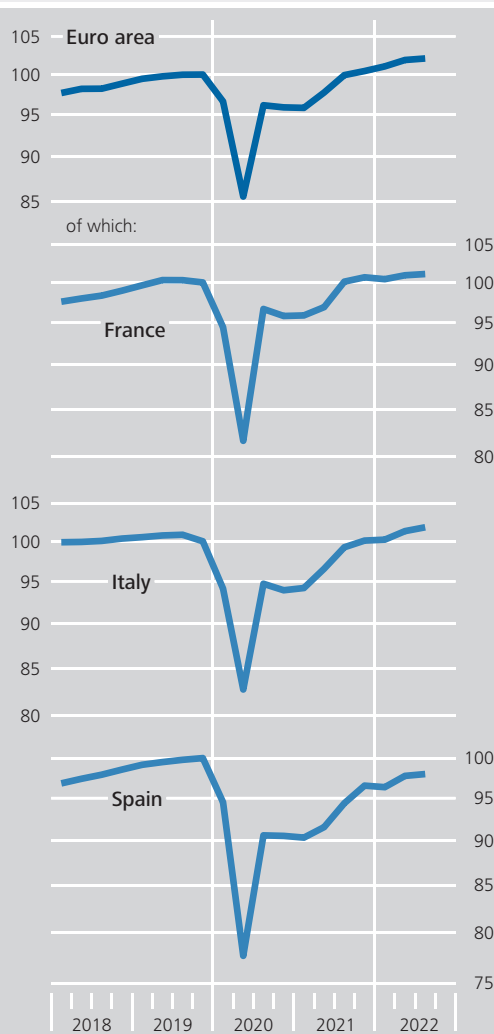
According to preliminary estimates, economic growth in France slowed from 0.5% in the second quarter to 0.2% in the third quarter. Private consumption did not rise further in the face of real income losses, and exports lost momentum. By contrast, investment, particularly in transport, increased very sharply. Expenditure on construction stagnated. Imports increased again significantly, partly due to a rise in electricity imports.

Italian economy sees further marked GDP increase

According to the preliminary estimate by the statistical office, economic output in Italy rose by a fairly significant 0.5% in the third quarter, following an increase of 1.1% in the previous period. One of the major drivers seems to have been the very lively tourism business. In addition, investment is likely to have expanded markedly again, partly in response to the extension of tax incentives and the allocation of funds from the European Union's Recovery and Resilience Facility. By contrast, industrial output did not exceed the level of the previous quarter and, according to trade statistics, exports also

Aggregate output in the euro area

Real GDP, Q4 2019 = 100, seasonally and calendar adjusted, log scale



Sources: Eurostat and Bundesbank calculations.
 Deutsche Bundesbank

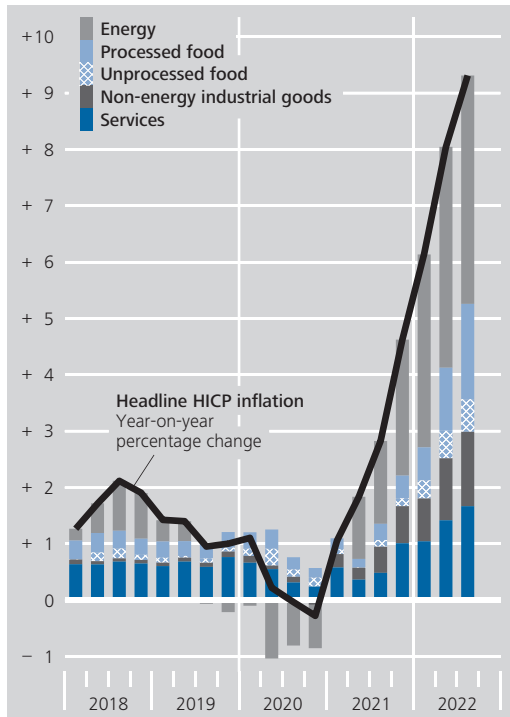
increased only marginally after price adjustment.

In Spain, preliminary estimates show GDP growth in the third quarter slowing to 0.2% on the quarter. This followed an increase of 1.5% in the previous quarter, which had seen extraordinary growth, especially in the tourism sector, following the withdrawal of pandemic containment measures. Growth in exports has lost pace. Investment growth has also slowed considerably, being largely hampered by weak construction investment. Private consumption, by contrast, rose quite sharply, probably partly owing to the favourable labour market situ-

GDP growth in Spain slowed down significantly

Contributions to the euro area inflation rate (HICP)

Percentage points, quarterly averages



Sources: Eurostat and the ECB.
 Deutsche Bundesbank

appear to no longer be as severe as before. In light of labour market tightness and losses in purchasing power, wage growth picked up markedly, but remained distinctly below inflation. Given the weak productivity growth overall, this is likely to increase cost pressures for enterprises.

Euro area consumer prices rose very steeply once again in the third quarter of 2022, reaching 2.2% on the quarter after seasonal adjustment. Prices of industrial goods excluding energy and processed food increased more sharply than ever before. Service prices rose at a similar pace as in the second quarter. The cost increases of the last few quarters were still the main driver of prices. In the services sector, there was also high demand for transport, travel and other recreational services. In the case of unprocessed food, the dry weather and rising price of fertilisers are likely to have made an impact. High international commodity prices for food also pushed consumer prices for processed food further upwards. These included, in particular, dairy, fat and cereal products. As a result, the year-on-year increase in the HICP in the third quarter recorded another jump, from 8.0% to 9.3%. The inflation rate excluding energy and food rose from 3.7% to 4.4%.

Unabated sharp rise in consumer prices

ation and the slight easing of inflationary pressures.⁴ Overall, fairly buoyant growth in final domestic demand went hand in hand with a considerable increase in imports.

Marked differences in the smaller Member States

Economic output fell slightly in the Netherlands, Belgium, Austria and Finland in the third quarter. In Portugal, there was a further slight increase owing to a good tourism season. Economic activity in Latvia declined markedly as a result of the considerable strain caused by the war on Ukraine.

Labour market situation still favourable; wage growth noticeably stronger

The downturn in economic activity has not yet had any significant impact on the labour market. The number of unemployed persons continued to decline markedly until September, and the unemployment rate fell to a new low of 6.6%. There was another slight rise in employment in the third quarter. According to the surveys, the pronounced bottlenecks in the labour market did not intensify any further. Staff shortages in the services sector, in particular,

Inflation was broadly based across the components of the basket of goods. Accordingly, common measures of underlying inflation, such as trimmed means or differently defined core rates, also increased to 5% on average. Price pressures were also exceptionally strong in all Member States. Inflation rates ranged from 6.5% in France, where government measures had considerably dampened inflation, to more than 24% in Estonia. The inflation rate was in double digits in just under half of Member States.

Price surge broadly based

⁴ Following the massive increases in energy prices since September 2021, base effects and the gas price cap introduced in June 2022 are beginning to take effect.

Strong price pressures continue in October

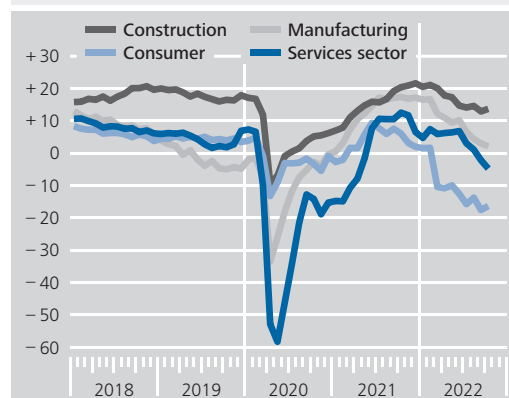
Consumer prices rose sharply again in October, by 1.4% on the month after seasonal adjustment. Food and industrial goods prices increased yet again. The price of services saw further substantial growth. Energy prices also picked up somewhat again. This resulted in year-on-year HICP growth accelerating to 10.6%, with the rate excluding energy and food rising markedly to 5.0%. The continued sharp rise in producer prices does not show signs of slowing down in the coming months. However, many Member States are discussing government relief measures that could depress inflation rates.

Further slow-down in the current quarter

The euro area economy is likely to have lost even more momentum over the course of the third quarter already, and economic output may even contract in the 2022-23 winter half as a result of various factors. The previously very high gas and electricity prices have fallen to a degree, and the oft-feared gas and electricity supply situation could potentially be avoided. However, prices are expected to rise again over the course of the winter. The high cost burdens for enterprises and the loss of purchasing power for households will only be partially offset by the various fiscal support measures. Together with the tightening of finan-

Sentiment indicators for the euro area*

Balance of positive and negative responses as a percentage of all responses, seasonally adjusted



Sources: European Commission and Bundesbank calculations.
 * Deviations from the respective average since 2000.

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cing conditions, this is likely to have a negative impact on the situation at many enterprises. According to surveys, the business climate in all economic sectors has continued to cool. The increased uncertainty surrounding the risks to energy supply and the further development of costs will also have played a role in this. In addition, the sales prospects for not only the euro area but also the global markets have deteriorated. All of this suggests that the 2022-23 winter half is likely to be difficult.

List of references

Bank for International settlements (2022), Rising commodity prices: are we set for a repeat of the 1970s?, Annual Economic Report, June 2022, pp. 6 ff.

Barsky, R. B. and L. Kilian (2002), Do We Really Know that Oil Caused the Great Stagflation? A Monetary Alternative, NBER Macroeconomics Annual 2001, Vol. 16, pp. 137-183.

Deutsche Bundesbank (2018), Activities of multinational enterprise groups and national economic statistics, Monthly Report, October 2018, pp. 65-78.

Deutsche Bundesbank (2012), The price of crude oil and its impact on economic activity in the industrial countries, Monthly Report, June 2012, pp. 27-49.

International Monetary Fund (2022), World Economic Outlook: Countering the Cost-of-Living Crisis, October 2022.

Kilian, L. (2008), Exogenous Oil Supply Shocks: How Big Are They and How Much Do They Matter for the U. S. Economy?, *The Review of Economics and Statistics*, Vol. 90(2), pp. 216-240.

Kim, G. and D. Vera (2022), The effect of oil price fluctuation on the economy: what can we learn from alternative models?, *Journal of Applied Economics*, Vol. 25(1), pp. 856-877.

Valckx, N. (2022), Lower Oil Reliance Insulates World From 1970s-Style Crude Shock, IMF blog, <https://www.imf.org/en/Blogs/Articles/2022/05/05/lower-oil-reliance-insulates-world-from-1970s-style-crude-shock>