1. The international economy

1.1 Fewer disruptions in supply chains but higher and more volatile energy and commodity prices

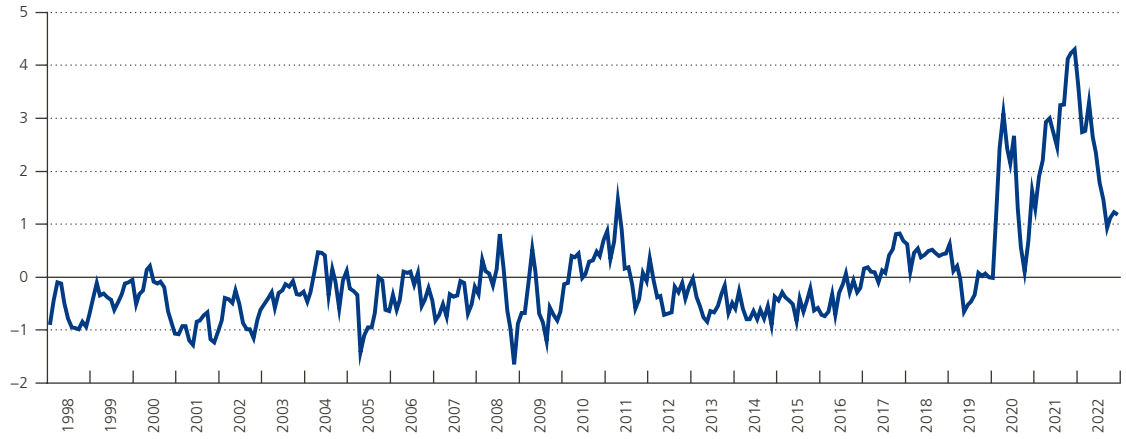
After a resurgence at the beginning of the year, the COVID-19 pandemic gradually faded into the background, with China being the main exception in this respect. In the winter of 2021-2022, the Omicron variant caused a sharp, albeit short-lived, spike in infections. A high vaccination rate in Europe and the United States helped limit the impact of the resurgence on the overall public health situation – and by extension on the economy – although absenteeism due to illness increased sharply. Almost everywhere, the remaining mobility restrictions were gradually eased and eventually lifted after the Omicron wave. China, however, initially maintained its zero-COVID policy: local outbreaks were systematically tackled through testing on a vast scale and strict lockdowns. Major Chinese cities were largely cut off from the outside world, sometimes for weeks at a time. The repeated lockdowns impaired economic activity in China and led to rising social tensions and protests across the country. This prompted the Chinese authorities to abandon their zero-tolerance policy in early December, despite infections having reached record levels.

International supply chain pressures eased but remained high for most of the year, due in part to further supply shocks. Supply chain disruptions, including longer delivery times and higher

Chart 1.1

International supply chain pressures eased but remained high throughout the year

(composite index,[1] standard deviations from the mean over 1998 to 2022)



Source: Federal Reserve Bank of New York.

1 The Global Supply Chain Pressure Index (GSCPI) integrates transportation costs (for maritime transport and airfreight) and components of the PMI indices (delivery times, backlogs and purchased stocks) for the euro area, the United Kingdom, the United States, Japan, China, South Korea and Taiwan. The PMI components have been adjusted for demand effects.

shipping rates, reached all-time highs at the end of 2021. In addition to the faster-than-expected recovery in demand for (durable) consumer goods, these problems were caused by various supply bottlenecks, such as shortages of raw materials, intermediate inputs (e.g. semiconductors) and adequate personnel, as well as a lack of recent investment in the expansion of port infrastructure. These mismatches between supply and demand played a significant role in the acceleration of inflation in 2021. In the early months of 2022, the acute disruptions in supply chains gradually subsided, but the lockdown of several Chinese cities and Russia's invasion of Ukraine caused tensions to flare again. The periodic imposition of mobility restrictions at Chinese ports and other economic hubs seriously disrupted production and created logistical barriers whose impact extended far beyond China. Russia's invasion of Ukraine and the sanctions imposed in response in turn profoundly disrupted certain value chains, such as in the automotive industry, as it became impossible to import certain raw materials and components from Ukraine (e.g. electrical wiring harnesses) or Russia (e.g. nickel and palladium, used in vehicle batteries and catalysts). Over the year as a whole, pressures in most supply chains eased significantly, but remained much higher than before the pandemic. This easing was only partially attributable to changes in logistics infrastructure and the relaxing of restrictions in China. The slowdown in global growth certainly also played a role (see below).

Russia's invasion of Ukraine on 24 February 2022 marked the beginning of a major new crisis with serious humanitarian, geopolitical and economic consequences. Firstly, the war unleashed a humanitarian disaster. There have been thousands of civilian casualties, millions of Ukrainian refugees have fled abroad or to other parts of the country, and damage to homes, hospitals, schools, roads, public institutions and other types of civilian infrastructure has disrupted society. In addition, the invasion exacerbated pre-existing geopolitical tensions. In response, the EU and its allies adopted several packages of sanctions, building on measures in place since Russia's annexation of Crimea in 2014. Access by Russian banks to Western financial markets and services was restricted, the foreign exchange reserves of the Russian central bank were frozen, and restrictions on exports to Russia of military, high-tech and critical goods and services were systematically expanded. European imports of raw materials from Russia, including timber, iron, steel, cement, coal and seaborne crude, were progressively restricted, with the G7 introducing a price cap on shipments of the latter to the rest of the world. Russia responded to these sanctions with retaliatory measures, in particular restrictions on pipeline gas exports to Europe, implemented in successive waves.

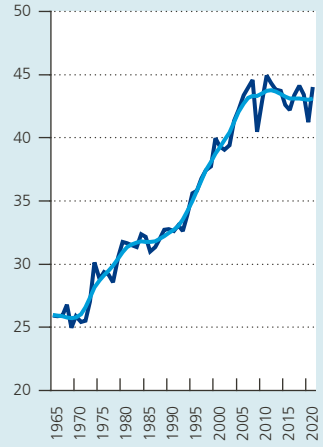
BOX 1

Do geopolitical tensions herald an era of deglobalisation?*

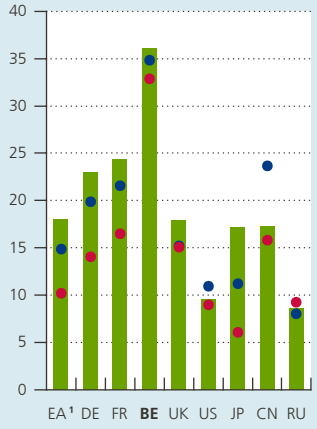
The pace of globalisation had started to slow even before the pandemic and Russia's invasion of Ukraine. From around 1990 until the global financial crisis of 2008, global value chains (GVCs) – which refer to international production sharing – grew very rapidly. After this period of hyperglobalisation, the share of global trade involving GVCs stalled. Factors conducive to the international fragmentation of production, such as the ICT and transport revolutions, the opening up of large labour pools in Eastern Europe, China and India, and multilateral trade liberalisation, started to wane. Some major trading nations, particularly the US and China, have turned inwards and consequently the share of domestic value added in their exports has increased. However, GVCs remain essential to economic activity and employment, especially for smaller, highly internationally integrated economies such as Belgium, whose exports largely depend on value added produced elsewhere. Commodity-producing countries, such as Russia, mainly play a key role in the upstream segment of value chains. Any disruption or obstacle affecting their exports can create serious problems further downstream, in various related chains.

GVCs remain an essential part of the world economy, although they are no longer growing in importance

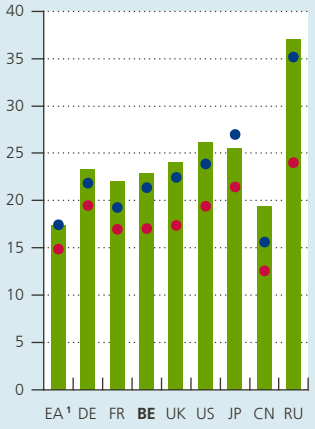
Trade involving global value chains
(percentage of total trade)



Backward participation in global value chains
(percentage, share of foreign value added in gross exports)



Forward participation in global value chains
(percentage, domestic value added in foreign exports as a share of gross exports)



Sources: ECB, OECD and WIOD.
1 For the euro area aggregates, value added traded between Member States is considered domestic.

GVCs have proved relatively resilient to recent shocks, but rising geopolitical tensions could lead to reconfigurations. When the coronavirus pandemic broke out, goods trade initially fell more sharply in sectors that relied heavily on GVCs, but subsequently picked up more vigorously in these sectors. Apart from longer-lasting disruptions in certain industries, such as the automotive industry, global production and supply chains appeared to adapt fairly well overall to the asynchronous nature of the lockdowns. Nonetheless, value chains remained under intense pressure in 2022, following further shocks caused by China's zero-COVID policy and Russia's invasion of Ukraine. Recent surveys show that multinationals are trying to make their supply chains more resilient to such shocks. However, firms have so far preferred to revise their inventory management strategies and diversify their supplier base rather than resort to extensive nearshoring or reshoring, i.e. transferring previously offshored business operations to countries that are closer to home or repatriating activities. Western firms doing business in Russia, on the other hand, seem to be taking steps to reduce their exposure. These run the gamut from a total withdrawal or a temporary halt or reduction of activity to the postponement of new investments in the country. Increasing geopolitical tensions between the US and China over semiconductors and related technologies are also prompting various companies to reconsider their activities in China and/or their relationships with Chinese suppliers. The long-term effects of these developments on the (re)organisation of GVCs are not yet known. Although massive deglobalisation appears unlikely at this stage, international trade and GVCs will certainly be subject, due to geopolitical considerations, to more prudent risk management and possibly also greater regionalism and friendshoring in the coming years.

Europe, too, is becoming increasingly aware of the trade-offs posed by international economic integration. Alarmed by, amongst other things, a lack of medical equipment at the start of the pandemic, a shortage of electronic chips in the automotive industry during the economic recovery and the more recent interruption of Russian gas supplies, the European authorities and institutions are increasingly paying policy attention to national security concerns and strategic sectors. In this context, it is necessary to consider, on the one hand, the objectives of cost optimisation and moderation of consumer prices and, on the other hand, security of supply. The disadvantages of exposure to various external demand and supply shocks as a result of international trade and the integration of companies on a global scale must moreover be weighed against the advantages of such integration in terms of diversification possibilities and protection against local shocks. For its part, the EU has announced an open strategic autonomy (OSA) agenda, the fundamental objective of which is to develop its capacity to act autonomously where and when appropriate while continuing, where possible, to cooperate with international partners. The OSA agenda includes various regulatory, structural and budgetary initiatives, such as the identification of interdependencies and risks affecting value chains for critical goods and services, a common framework for screening foreign direct investment, a European industrial policy, a revised trade policy and a proposal for a European Chips Act.

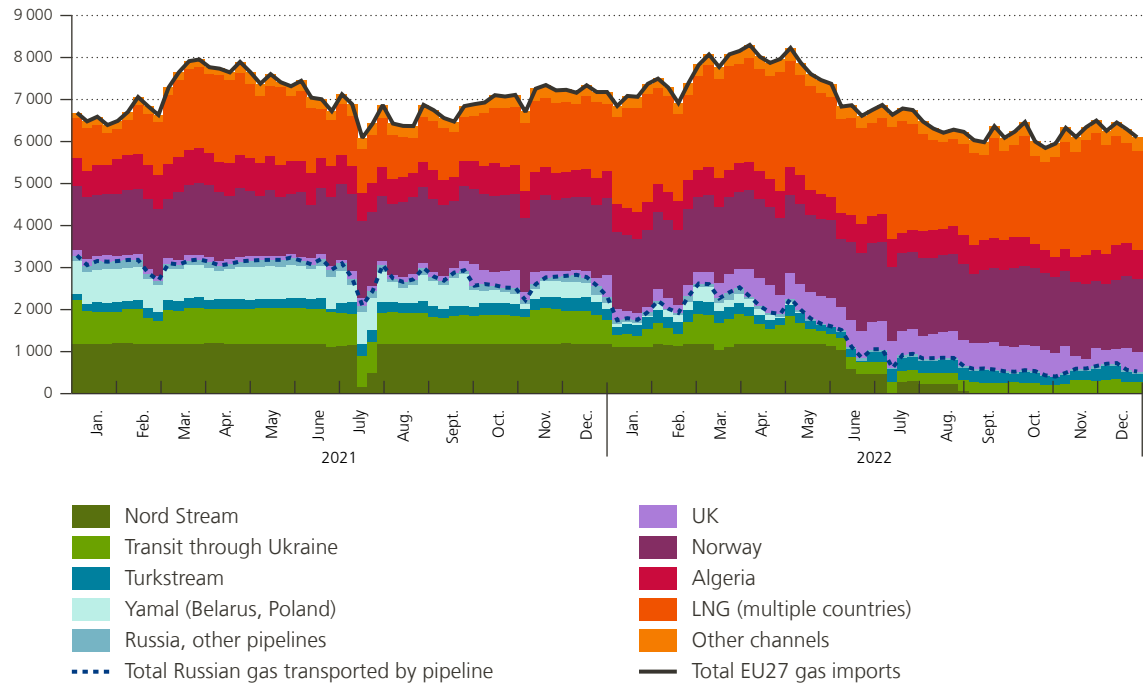
* Based on Buysse, K. and D. Essers (2022), "Are we entering an era of deglobalisation?", NBB, *Economic Review.*

Russia's invasion of Ukraine generated tremendous price shocks and volatility in energy and other commodity markets. In Europe, the impact on the gas market was unprecedented. By 2021, the faster-than-expected recovery of demand had come up against a shortage of energy and other commodities, which significantly pushed up prices. At that time, the price of European gas had already been boosted by, amongst other factors, the planned phase-out of gas extraction in the Netherlands and repair works on gas facilities in the UK and Norway. In 2022, gas prices broke new records – reaching highs of over € 300/MWh in August, more than twenty times the level seen in 2019, before the pandemic – and displayed unprecedented volatility in the wake of Russia's invasion of Ukraine. The latter caused considerable uncertainty about the continuity of gas supplies to Europe. In mid-June, Gazprom reduced supplies to Germany via the Nord Stream 1 pipeline to 40 % of capacity and then cut them altogether at the end of August for an indefinite period. As a result, by the end of the year, gas imports by pipeline from Russia

Chart 1.2

European imports of Russian pipeline gas were gradually but drastically reduced

(million cubic metres per week)



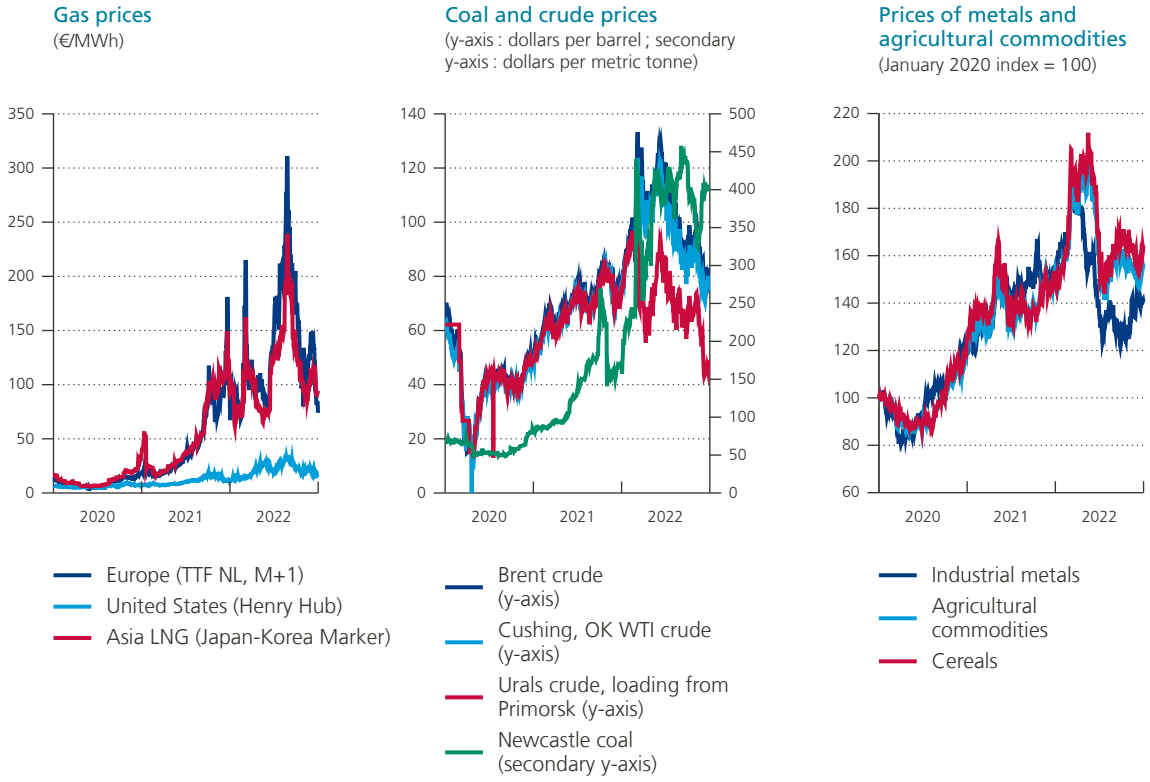
Sources: Bruegel and ENTSOG.

had fallen to around one-sixth of their pre-invasion level. In addition to the decrease in Russian gas supplies, the rush to stockpile gas in time for winter also contributed to the price surge. When it became clear that winter stocks were being built up faster than expected, gas prices fell considerably, although they remained well above levels seen in previous years. Prices for supplies in the coming years were still significantly higher.

High European gas prices had substantial spillover effects on the markets for other energy commodities as well as on electricity prices. Europe partially made up for the reduction in Russian pipeline gas supplies by importing more liquefied natural gas (LNG), mainly from the US, Qatar and Nigeria. More non-Russian oil and coal were also imported. As a result of this increased demand, most LNG, oil and coal prices rose in the rest of the world. However, the price differential between the benchmark values for gas traded in Europe (TTF) and in the US (Henry Hub) widened further than in 2021. This wide price divergence reflects a continuing fragmentation of the global gas market and is the result of logistical constraints on both sides of the Atlantic: the US cannot liquefy and ship enough gas to meet the additional demand in Europe, while the capacity of European LNG regasification facilities is limited. In addition, a fire at a major LNG terminal in Texas prevented the export of large quantities of gas from June. On the other hand, the Asian benchmark for LNG cargo prices (Japan-Korea Marker) followed European benchmark gas prices, given Europe's increased weight in global LNG demand and weaker demand in Asia (particularly China). Record gas prices also pushed up European electricity prices. It was indeed often necessary to resort to relatively expensive gas-fired power plants to meet European electricity demand, especially as cheaper means of electricity generation in Europe faced a number of problems. France was forced to temporarily shutter a large number of its nuclear

Chart 1.3

Energy and other commodity prices have been affected by exceptionally large shocks



Sources: Bloomberg, Goldman Sachs, Refinitiv and S&P.

power plants, while an extreme drought in the summer months hampered hydropower generation and the cooling of thermal power plants. Moreover, the supply of water to German coal-fired power plants could not be ensured owing to the low level of the Rhine. Finally, Europe's solar and wind power capacity proved insufficient to make up for lower energy production from other sources.

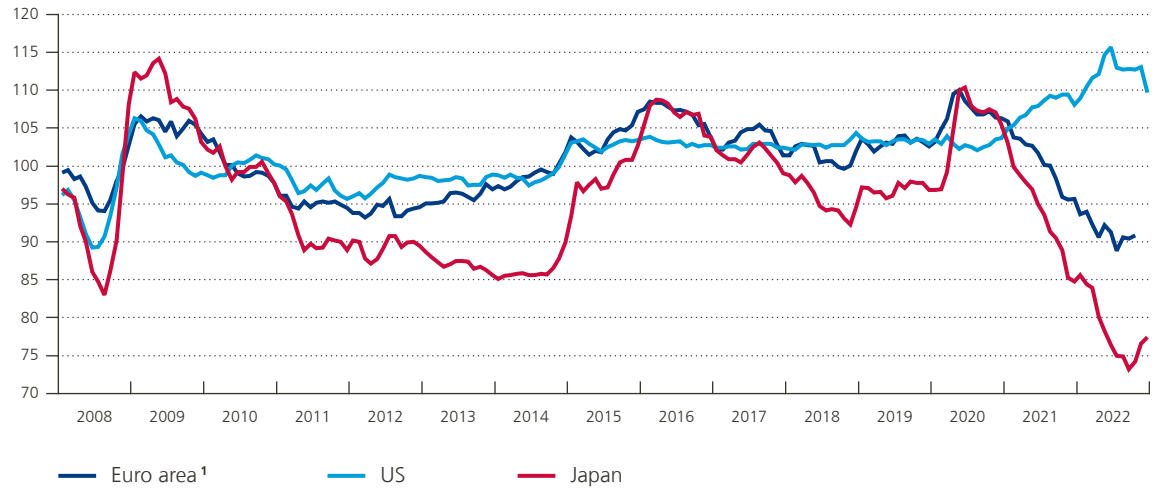
International food and industrial metal prices also reached new highs as a result of Russia's invasion of Ukraine. After dipping during the pandemic, global commodity prices rebounded some time before the invasion; the latter caused severe disruptions in the production and supply of foodstuffs from Ukraine and Russia, including for grains, such as wheat, barley and maize, and vegetable oils. Due to the Russian blockade of Ukrainian Black Sea ports, millions of tonnes of grain harvested the previous year were initially prevented from reaching their final destination. The embargo threatened food security in emerging markets and low-income countries in Africa and Central Asia. Temporary export bans and controls in other economies, combined with higher fertiliser prices (resulting in turn from higher energy prices and restrictions on Russian and Belarusian exports), further exacerbated these problems. It was not until the summer of 2022 that food prices fell considerably, partly as a result of a Russian-Ukrainian agreement to resume grain exports through the Black Sea and good grain harvests elsewhere in the world. Prices of industrial metals such as copper, aluminium and nickel reached record highs at the beginning of the year, owing to fears of war-induced shortages and sanctions on Russia, but subsequently eased as demand, particularly from China, fell.

Although some historical parallels can be drawn, the current energy crisis differs in several ways from the crises of the 1970s. In 2022, the combined energy expenditure (oil, gas, coal and electricity) of advanced economies rose to a level, expressed as a percentage of GDP, only seen in the wake of the two prior global oil shocks. Compared to these earlier crises, the recent price hikes are more pronounced, more persistent and more broadly based, with the surge in gas and electricity prices weighing more heavily. Another difference is that, in 2022, the energy intensity (energy consumption per unit of real output) of advanced economies was only about half that of the 1970s. In addition, the energy mix has changed significantly over the years, mainly in terms of a substantial decrease in oil and coal dependence.

Chart 1.4

Terms of trade deteriorated significantly in the euro area and Japan, while the United States benefited from an improvement thanks to its position as a net energy exporter

(ratio between export and import prices, 2010 index = 100)



Sources: Bank of Japan, BLS, Eurostat and Refinitiv.

1 For the euro area, only trade with non-member countries is taken into account.

The energy crisis has had a widely varying macroeconomic impact on the main economic blocs. As a major net importer of energy – in particular costly piped gas from Russia and LNG – the euro area faced a historically severe deterioration in its terms of trade, which started in 2021 and continued into 2022. In the euro area countries, current account balances deteriorated sharply, even with the dampening effect of high prices on energy consumption. In this regard, the widening deficit in the energy trade balance was a crucial factor. Even Germany's traditionally large current account surplus was almost completely wiped out in the summer months. In several southern EU Member States, the impact of the energy crisis on the current account balance was partially mitigated by the post-pandemic recovery of the tourism sector. In Japan, the sharp depreciation of the yen contributed to a dramatic deterioration in the terms of trade. In contrast, the United States witnessed a clear improvement in its terms of trade thanks to its position as a net exporter of both gas and oil, particularly in the first half of 2022. However, the US current account balance remained structurally very negative, due to highly dynamic domestic demand and the dollar's role as the main global reserve currency. In emerging economies, the situation was more nuanced, with substantial differences between net importers and exporters of energy and other commodities.

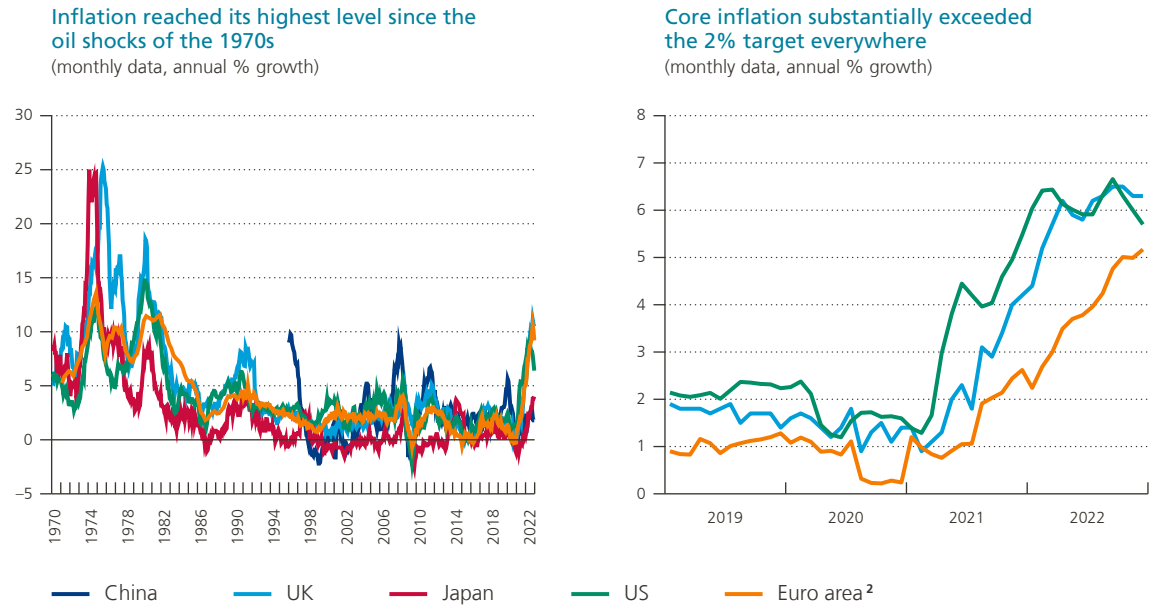
1.2 A global surge in inflation, the magnitude and duration of which exceeded expectations

In the major advanced economies, inflation continued to rise, reaching its highest level in 40 years, except in China. Successive shocks led to a return of inflation in 2021, which worsened in 2022. Time and time again, monthly inflation figures exceeded expectations. The persistence of these shocks also contributed significantly to keeping inflation at elevated levels for longer than expected and its gradual broadening to more categories of goods and services. By September, over 50 % of the goods in the consumer price index (CPI) basket had registered price rises of more than 6 % in the US, the UK and the euro area, indicating that firms were increasingly passing on higher costs (for raw materials, intermediate inputs and labour) to sales prices. Towards the end of the year, a fall in energy and food prices, coupled with an easing of supply chain bottlenecks, brought some relief, resulting in lower inflation almost everywhere.

While inflation in the US was more demand-driven, in the euro area, the UK and Japan it

Chart 1.5

Headline and core consumer price inflation [1] rose further in 2022



Sources: BIS, BLS, ECB and ONS.

1 Core inflation: the CPI excluding food and energy in the US and excluding energy, food, alcohol and tobacco in the UK and the euro area.

2 Inflation data through 1990 Q4 are based on ECB quarterly figures and, thereafter, on monthly data from the BIS.

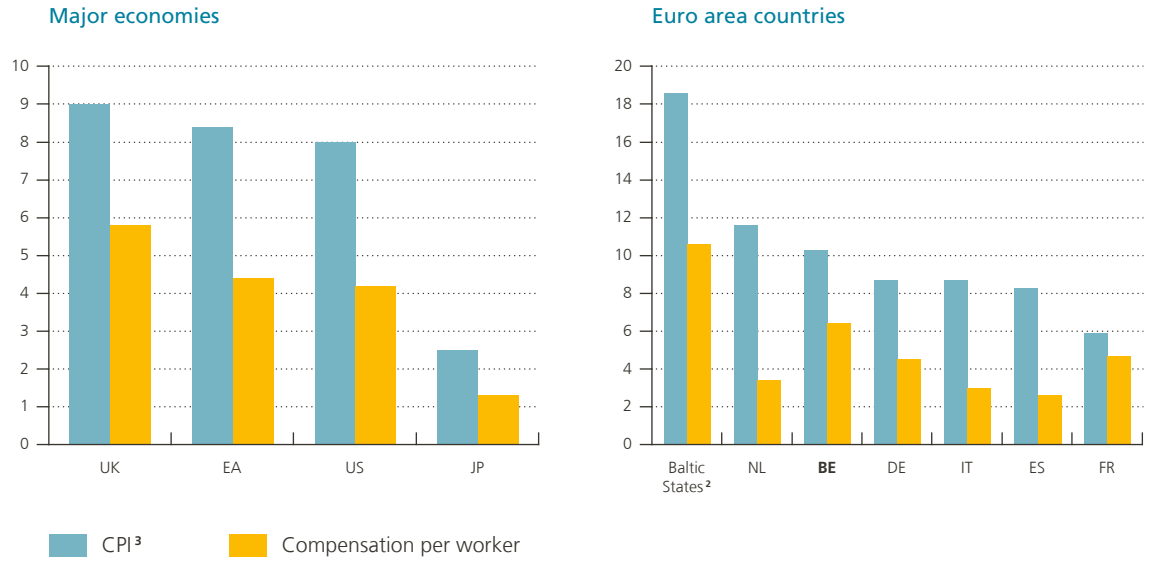
was fueled primarily by the energy price shock. In the United States, core inflation rose much earlier than in the euro area and also contributed more to consumer price inflation. Private demand in the US rebounded much more vigorously than in other economies due to generous government support packages between March 2020 and March 2021. This led to a sharp acceleration in demand for consumer durables when the economy partially reopened in 2021, which was met with a slow adjustment in supply, resulting in strong price increases. When the last of the pandemic-related restrictions were lifted in 2022, demand for (contact-intensive) services surged, leading to further price increases due to staff shortages. As explained below, the tightening of the labour market and the associated increase in wages occurred earlier and more sharply in the US than in the euro area. Conversely, the supply shock impacting energy markets, particularly the gas market, was much larger in the euro area and the United Kingdom than in the United States. Energy was thus initially the main driver of inflation in the euro area and the UK, although the rising cost of energy (as well as labour and other inputs) was gradually passed on to the prices of other goods and services. The energy price shock was also responsible for the surge of inflation in Japan, with values – for the first time in many decades – well above the 2 % threshold. Finally, the sharp depreciation of the euro, the pound sterling and the yen against the US dollar led to an even steeper rise in import prices in these economies, while in the US import prices fell from July onwards.

The pace of inflation in the various euro area countries was extremely uneven, with annual values ranging from just under 6 % in France to around 18.5 % on average in the three Baltic States. Several factors explain this heterogeneity. The weight of food and energy in the consumption basket varies from one country to another, depending on consumer spending patterns. Electricity price increases also fluctuated widely depending on country-specific differences in the energy mix, the structure of energy contracts, the market position of local energy producers, and existing and new government measures (see section 1.5 for more information). With regard to the latter, some governments opted for price caps and reductions in VAT

Chart 1.6

Inflation and labour cost increases[1] varied across countries

(annual average, percentage change)



Sources: BLS, EC, Eurostat, OECD, ONS and the Statistics Bureau of Japan.

1 Estimates for 2022: EC (autumn) for the euro area and its Member States, OECD (Economic Outlook 2022/2) for other countries.

2 Weighted averages for Estonia, Latvia and Lithuania, weighted by nominal GDP in 2021.

3 CPI for the US, UK and Japan, HICP for the euro area and its Member States.

and excise duties to limit the impact of the shock on households and businesses. These country-specific characteristics also play a role in determining the speed at and extent to which higher energy prices are passed on to consumers. The very high inflation in the Baltic States, for example, reflected the weighting of food and energy in their consumption baskets, combined with a high degree of dependence on oil and (Russian) gas. At the other end of the spectrum, notably in France, the capping of electricity prices and the regulation of gas prices are estimated to have depressed inflation by three percentage points, not to mention the fact that its oil and gas dependency is much lower.

Nominal wage growth lagged behind inflation in various countries, exerting downward pressure on purchasing power. The heterogeneity of inflation across countries was also reflected in nominal wage growth. This is not surprising, since wages usually follow price increases with a certain time lag. The Baltic States thus reported on average the highest wage growth. Differences in wage dynamics are also partly due to the fact that labour market shortages and institutions and the composition of employment by sector vary from country to country. An automatic wage indexation system, such as that in place in Belgium, accelerates the transmission of price increases to wages.

1.3 The global economy started the year in high spirits which then subsided

While the strong recovery which kicked off in 2021 initially continued into the following year, new shocks significantly slowed global growth, which amounted to 3.4 % for 2022. A full return to life as normal after the winter led to a strong rebound in demand for contact-intensive services. Forced saving during the pandemic due to lack of consumption opportunities also supported spending. As the year wore on, however, the persistent rise in inflation led increasingly to a fall in household purchasing power and higher costs for businesses. In particular, a sharp rise in the prices of basic necessities, such as food, fuel and electricity, forced lower-income groups to postpone less essential purchases. Government support measures in some countries only partially offset the rising energy costs of households and businesses. The heightened uncertainty caused by geopolitical tensions and higher financing costs resulting from the tightening of central bank policy in response to rising inflation prompted companies

Table 1.1

GDP of the main economies

(percentage change in volume compared to the previous year)

				p.m. Contribution to world growth	*p.m. Share of world GDP*[1]
	2020	**2021**	**2022**	***2022***	***2021***
Advanced economies	–4.4	5.4	2.7	*1.1*	*42.0*
of which:					
United States	–3.4	5.9	2.0	*0.3*	*15.7*
Japan	–4.6	2.1	1.4	*0.1*	*4.1*
Euro area	–6.3	5.2	3.4	*0.4*	*12.0*
United Kingdom	–9.3	7.6	4.1	*0.1*	*2.3*
Emerging economies	–1.9	6.7	3.9	*2.3*	*58.0*
of which:					
China	2.2	8.4	3.0	*0.6*	*18.6*
India[2]	–6.6	8.7	6.8	*0.5*	*7.0*
Russia	–2.7	4.7	–2.2	*–0.1*	*3.1*
Brazil	–3.9	5.0	3.1	*0.1*	*2.3*
World	–3.0	6.2	3.4	*3.4*	*100.0*
p.m. World trade	*–7.8*	*10.4*	*5.4*		

Sources: ECB and IMF.

1 As defined by the IMF and calculated on the basis of purchasing power parities (2017 version).

2 For India, the growth figures cover the fiscal year, which starts in the second quarter of the calendar year.

around the world to scale back their investment plans. These factors also contributed to a steady erosion of consumer and business confidence. Trade followed the path taken by the global economy, with almost all countries facing sluggish export demand by the end of 2022 and most ending the year with weak economic growth in the fourth quarter.

Differences in growth across major regions and countries over the past year were, to a large extent, attributable to heterogeneous exposure to the abovementioned factors. Food accounts for a larger share of household budgets in emerging economies than in advanced ones, making the former more vulnerable to supply problems affecting specific crops such as wheat and maize. In contrast, growth has remained at a reasonable level in most Asian countries. The latter, which mainly consume rice – the price of which has risen substantially less – often have energy price regulation mechanisms and fuel subsidies and are less economically dependent on Russia. In the emerging economies of Central and Eastern Europe, the opposite is true, due to their geographic proximity to Ukraine and resulting vulnerabilities related to trade, energy supply and an influx of refugees. At the other end of the spectrum, commodity exporters had wind in their sails in the first half of the year but were subsequently obliged to contend with faltering global demand. Gas exporters in particular benefitted from Europe's search for new suppliers.

Western sanctions damaged the Russian economy and put severe pressure on its financial system, but a complete collapse was avoided. The Russian central bank intervened quickly by introducing capital controls and raising its key interest rate sharply for a short period to support the ruble. The reduction in gas deliveries to Europe was partially offset by an increase in gas prices. In addition, countries that did not adopt sanctions, such as Turkey, India and China, were willing to buy more Russian oil. On the other hand, domestic demand suffered serious setbacks, while the production structure shifted to a war economy.

In China, the zero-COVID policy and a further slowdown in real estate activity significantly

weakened economic growth. The Chinese authorities firmly maintained their zero tolerance policy towards the virus. Repeated lockdowns undermined consumer and business confidence and depressed both consumption and business investment. These effects were partially offset by new investment in infrastructure. On the other hand, the number of real estate companies facing financial difficulties continued to grow, leading to a rapid build-up in handover delays. This situation caused great concern amongst buyers who had already made down payments and discouraged new buyers. As a result, the number of new construction projects shrunk by almost 40 % in the first three quarters and property prices stagnated. In order to put a halt to this negative spiral, the financial authorities temporarily eased credit standards for mortgages and for loans to real estate companies.

In the advanced economies, the slowdown started in the US earlier than elsewhere, constraining economic growth. The US economy contracted slightly in the first half of the year before rebounding in the third quarter (only to lose momentum again at the end of the year). The sluggish growth in the first six months of the year was due to the depletion of stocks and increased imports of consumer durables against a backdrop of continued robust consumption. The direct impact of Russia's invasion of Ukraine on the US economy was limited, as the US is a net exporter of gas and wheat. Nonetheless, stubbornly high inflation and the associated rapid tightening of monetary policy gradually slowed demand, particularly affecting interest-sensitive components such as housing investment.

The euro area and the UK were more exposed to the negative fallout from Russia's invasion of Ukraine due to their geographic proximity to the war zone and their dependence on imported fossil fuels. Nevertheless, growth in the euro area exceeded expectations in the first half of the year. Demand for contact-intensive services picked up sharply after the last pandemic-related health measures were lifted in early spring and was a major driver of growth through the summer. Savings accumulated during the pandemic partially offset the loss of purchasing power caused by price increases. Business investment, imports and exports also held up well in the first half of the year. Although the decline in household purchasing power remained limited on average thanks to the support measures adopted by Member States, rising inflation and uncertainty, eroding confidence and weakening global demand weighed on the various components of growth in the second half of the year. The result was a marked slowdown at year's end.

Economic developments in the UK were similar to those in the euro area. The strong growth dynamics of 2021 continued into the first quarter of 2022, but economic activity then slowed rapidly, declining in the second half of the year despite governmental support measures. Global factors were compounded in the summer by a government crisis that undermined public confidence in institutions. These successive shocks prevented the UK economy from fully recovering from the coronavirus pandemic in 2022.

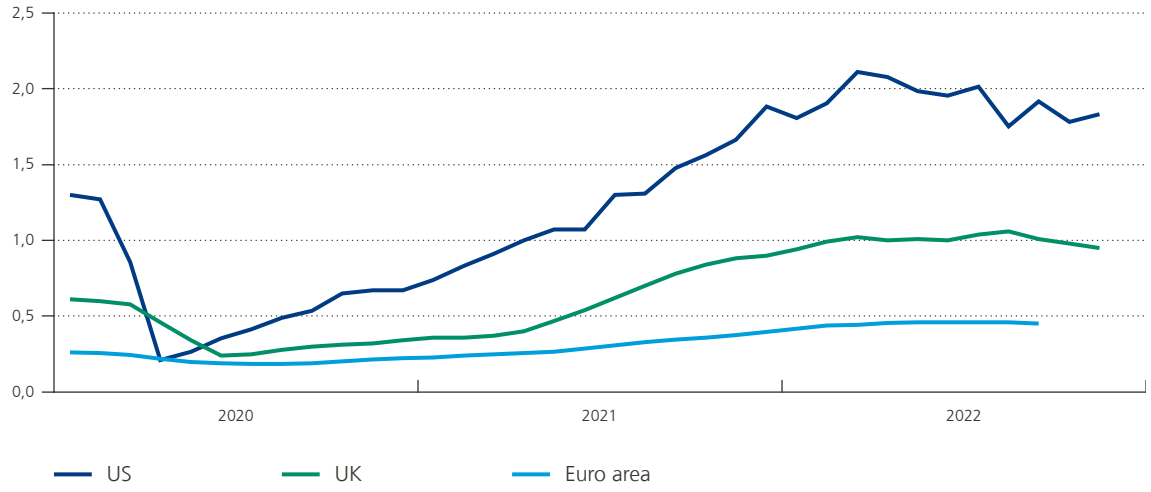
Tight labour markets in advanced economies supported consumption but hampered supply-side expansion, particularly in labour-intensive services. Despite the slowdown in growth, employment held up very well in the US, the UK and the euro area, and unemployment rates fell to their lowest levels in years. The strong recovery from the coronavirus crisis was accompanied by increasing pressure on labour markets. The number of job vacancies rose significantly as the economy reopened, while the impact of the pandemic on unemployment remained limited. In the euro area and the UK, the shock was cushioned by the use of furlough schemes, while in the US the effects proved to be short-lived as laid-off employees were quickly rehired. However, not all workers returned to the labour market after the pandemic, far from it. To date, the employment rate on the other side of the Atlantic and in the UK is still slightly lower than it was before the pandemic. This could be due to a deterrent effect amongst the over-55s, many of whom retired, and to greater inactivity for health reasons. On the other hand, the employment rate in the euro area rose somewhat over the same period as did the number of people over 55 in employment. These positive developments have helped to mitigate the fall in household purchasing power due to inflation.

In 2022, consecutive shocks widened growth differences between euro area Member States. On the one hand, the end of the acute phase of the

Chart 1.7

Labour markets were significantly tighter in 2022 than on the eve of the pandemic

(ratio between the number of job vacancies and the number of unemployed)



Sources: BLS, Eurostat and ONS.

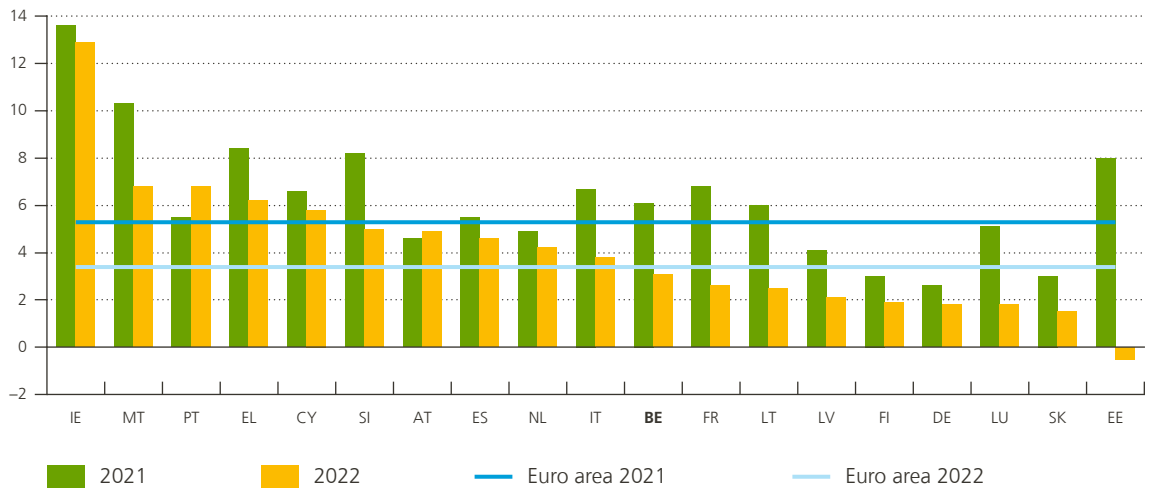
pandemic boosted countries that depend heavily on tourism. A summer season without pandemic-related restrictions translated into strong demand for contact-intensive services in the second and third quarters, leading to a sharp rebound in tourism and leisure. In particular, this allowed the countries in the southern periphery of the euro area to grow more strongly than others. The relatively large expenditures funded by the Recovery and Resilience Facility (RRF) also contributed to this growth. On the other hand, Member States with a substantial industrial base were penalised two-fold in 2022 by persistent delays in supply chains and significantly higher production costs. As mentioned above, supply chain pressures remained very high for an extended period due to repeated lockdowns in parts of China and Russia's invasion of Ukraine. Companies more highly integrated into global value chains were particularly affected. Starting in the summer, the most energy-intensive sectors, such as chemicals and metal and mineral production, were hit hard by the sharp rise in energy costs. Apart from these energy-intensive sectors, industrial output was generally resilient. Many companies in fact were able to introduce energy-saving measures.

Some Member States displayed particular vulnerability due to a high degree of dependence on Russian gas. Countries are by no means all in the same boat when it comes to dependence on various energy sources and the availability of alternatives. Although European energy markets are partially

Chart 1.8

New shocks widened the growth gap between euro area Member States

(real GDP growth, annual %)



Sources: ECB and NBB.

integrated, capacity constraints and other bottlenecks affecting gas and electricity networks led to disparities in wholesale prices. Germany, Italy, Central and Eastern Europe and the Baltic States were particularly affected due to the relatively high importance of Russian gas in their energy mix. In these countries, companies with gas-based production faced enormous challenges.

Finally, the shock caused by Russia's invasion of Ukraine and the resulting sanctions against Russia had varying effects on the Member States through the trade channel. The sanctions and ensuing international payment problems severely disrupted trade with Russia, while the war complicated trade with Ukraine. Russia and Ukraine are not major trading partners of most Member States, with the exception of the Baltic States and Cyprus for services. The heightened attention paid to the consequences of geopolitical tensions also revealed an additional vulnerability, namely high dependence on trade with China, especially for Germany, where 7.5 % of total exports are intended for the Chinese market.

1.4 Central banks intervened forcefully almost everywhere, leading to a tightening of financial market conditions

After more than a decade of accommodative monetary policy, central banks around the world began an accelerated process of normalisation, as inflation proved stronger and more stubborn than expected. Since 2007, central banks around the world have taken extraordinary measures to mitigate the economic impact of various crises (the global financial crisis, the European sovereign debt crisis and the COVID-19 pandemic), which not only brought policy rates close to their effective floors but also inflated their balance sheets. Central banks were faced with the highest inflation rates seen in decades due to a very strong recovery in the wake of the pandemic, with signs of overheating in some economies, coupled with supply shocks. The speed, strength and persistence of inflation caught both central banks and the markets off guard. Indeed, the impact of the rapid recovery and the fact that the supply shocks were initially thought to be temporary meant that central banks did not react immediately. However, when it became clear that the significant price increases were persistent and widespread, central banks in both advanced and emerging economies sped up the process of normalising monetary policy in order to avoid the emergence of second-round effects and a de-anchoring of inflation expectations which could generate self-fulfilling dynamics. This process is being carried out in a relatively synchronous manner worldwide.

Nevertheless, the pace of normalisation varies across regions. Dissimilarities in the origin, severity and persistence of inflation across countries led to differences in the initiation and pace of this process. Exogenous shocks to the global economy – such as Russia's invasion of Ukraine, waves of COVID-19 and supply chain bottlenecks – have affected areas and their economic prospects to varying degrees. Against this backdrop, several central banks decided to adopt a "meeting-by-meeting" approach based on the data.

The Bank of England took a historic step by starting to sell off bonds. After ceasing, in March 2022, to reinvest the proceeds from maturing bonds, the Bank of England began selling off bonds in November 2022. It thus became the first G7 central bank to take steps to actively reduce the size of its balance sheet. Indeed, faced with a tight labour market and substantial upward pressure on domestic costs and prices, the Bank of England announced in July 2022 its intention to start selling off bonds as from October 2022. However, following the announcement of the mini-budget and the ensuing high volatility in the gilt market, it was forced to postpone this plan by one month. In addition, the policy rate was raised on several occasions starting in December 2021, each time by 25 or 50 basis points, taking it from 0.25 % to 3.5 % by December 2022.

The Federal Reserve stopped quantitative easing. In light of the US economy's progress in terms of employment and the significant rise in inflation, the Fed began to curb its asset purchases in November 2021, before halting them entirely in March 2022. Starting in June 2022, the US central bank also began to reduce the size of its balance sheet by ceasing to reinvest all maturing Treasury and agency mortgage-backed securities. Simultaneously, the Federal Reserve raised its policy rate for the first time in March 2022, and again several times, by 50 or 75 basis points, bringing the federal funds target rate to a range of 4.25 % – 4.5 % in December 2022. These 75-basis-point rate hikes were the largest increases since 1994.

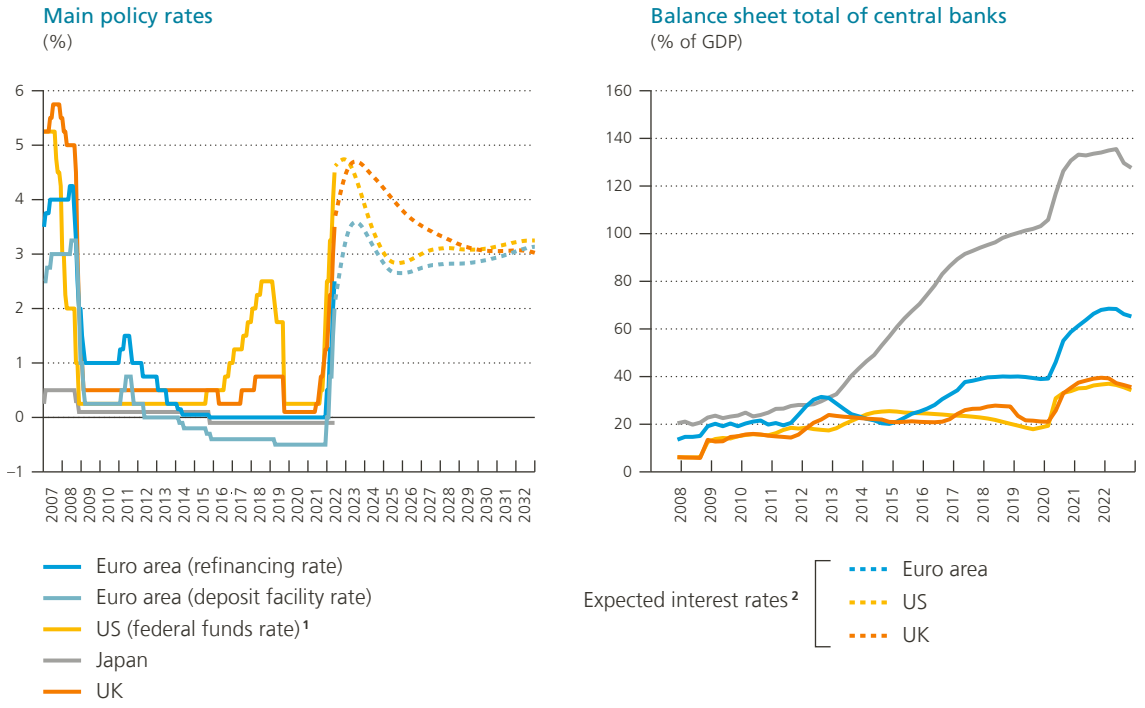
The ECB started normalisation later. In the euro area, the ECB kicked off its normalisation process in December 2021, with an announcement that it would end purchases under the pandemic emergency purchase programme (PEPP) at the end of March 2022. At the same time, the ECB decided to temporarily increase purchases under the PPA to ensure a smooth transition after the end of the PEPP; however, a resurgence of inflation in 2022 prompted it to do so for a shorter period and to stop purchases as of 1 July 2022. In December, the ECB announced that it would start to reduce its balance sheet in March 2023 by not reinvesting the proceeds from maturing securities. This will result in a reduction of, on average, € 15 billion per month through the end of June. Finally, the ECB started raising its key interest rates in July 2022, later than other central banks. Since then, there have been several rate hikes, bringing the deposit facility rate to 2 % and the main refinancing operations rate to 2.5 % in December 2022 (for more information, please see chapter 2).

The Bank of Japan continued to pursue an ultra-accommodative monetary policy. With relatively more moderate headline and core inflation rates than elsewhere, the Bank of Japan decided to maintain its –0.1 % rate on deposits and purchases of Japanese government bonds so as to cap the ten-year yield on the latter at 0.25 %. However, at the end of December, it surprised the markets by relaxing its tight control on ten-year Japanese government bond yields "to improve market functioning", while remaining keen to ensure "accommodative financial conditions". The Bank of Japan will now tolerate a fluctuation of these yields between –0.5 % and 0.5 %.

Emerging economies also had to tighten monetary policy to curb inflationary pressures, with

Chart 1.9

After more than a decade of accommodative monetary policy, central banks around the world began a process of accelerated normalisation due to higher and more persistent inflation than expected



Sources: Bank of England, ECB, Eurostat and OECD.
1 Upper bound of the target range.
2 Rate expectations at the end of December.

the exception of China, Turkey and Russia in particular. The central banks of Brazil and Mexico were amongst the first to start tightening monetary policy in March 2021. They continued to do so in 2022, raising their policy rates several times. However, the Central Bank of Brazil decided to change course in September 2022, basing its decision on the fact that the objective of bringing inflation close to the target over a relevant horizon had been achieved. In contrast, in order to revive the economy, which had been affected by pandemic-related lockdowns and a property crisis, the Chinese central bank decided in 2022 on a surprise cut of several key rates. In addition, the reserve requirement was lowered in November 2022 for the second time that year to facilitate the provision of new loans. Likewise, in response to government pressure to stimulate growth, employment and exports despite double-digit inflation, the Turkish central bank cut its policy rates four times starting in August 2022. In November 2022, however, the bank's Monetary Policy Committee announced that it had decided to end the cycle of policy rate cuts. In Russia, after an emergency rate hike in the aftermath of the invasion of Ukraine and the imposition of Western sanctions, the central bank lowered its policy rate on several occasions, justifying these decisions with reference to lower risks to financial stability.

The normalisation of monetary policy in the major economic blocs led to a sharp rise in sovereign bond yields, breaking the pattern of very low yields that had prevailed for several years. The raising of policy rates by central banks in advanced economies, together with expectations of further inflation and hence future policy rate hikes, resulted in a rapid rise in sovereign bond yields throughout the year. Despite a marked upward trend, sovereign bond yields were very volatile, even more so than at the height of the pandemic. This reflected the high degree of uncertainty surrounding inflation trends, growth forecasts and monetary policy implications. Long-term interest rates rose steeply for the first time between March and June based on expectations that central banks would step up their fight against rapidly rising inflation. In July, the bond markets briefly eased as recession fears intensified and expectations of an earlier reversal of the monetary policy cycle in advanced economies increased. As soon as the Federal Reserve and the ECB, amongst other central banks, confirmed their determination to maintain price stability, as required by their mandate, interest rates started to rise again. In the last months of the year, bond yield volatility increased further as market liquidity deteriorated. In the euro area, interest rate spreads between southern member countries and Germany started to widen again as

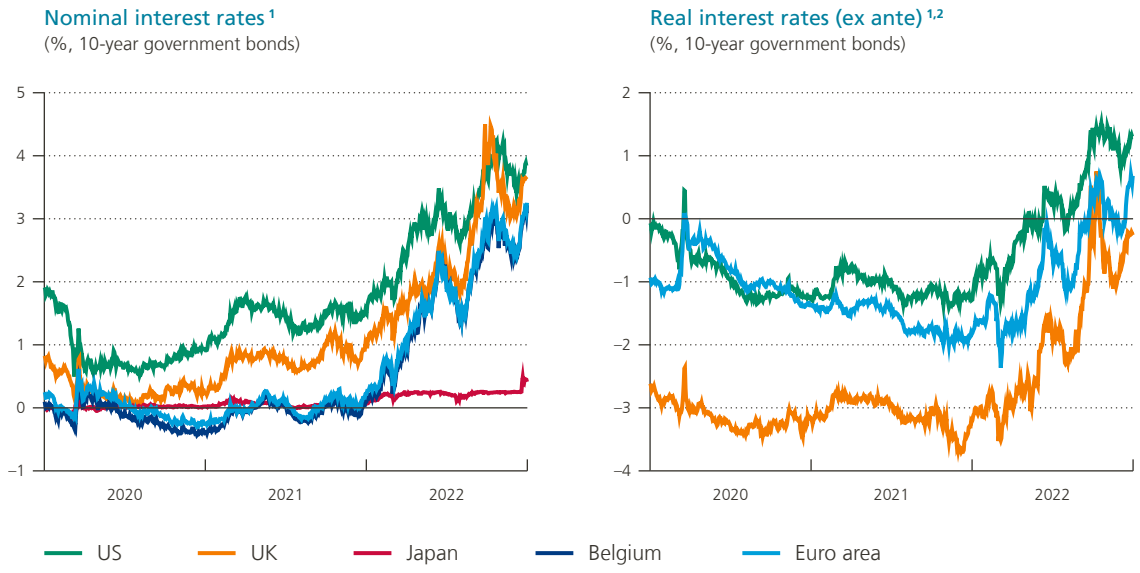
from April, although flexibility in the reinvestment of maturing bonds of various countries purchased under the PEPP and announcement of the new transmission protection instrument (TPI) in July allowed a disorderly widening of these spreads to be avoided. As longer-term inflation expectations remained relatively stable from the end of March onwards, increases in nominal rates were also reflected in a rise in ex ante real interest rates (which returned to positive territory in the US and the euro area). Unlike the situation in other advanced economies and in keeping with the country's yield curve control policy, the rise in bond yields in Japan remained very limited. Bond yields surged only at the end of December, when the Bank of Japan widened the tolerance range for long-term government bond yields.

Rising sovereign yields in advanced economies, combined with a general increase in risk aversion, drove up financing costs for governments in emerging economies, as well as for businesses and households. Aside from the effect of higher risk-free interest rates, emerging markets saw risk premiums on their US dollar-denominated external bonds rise again, after easing in 2021, to levels close to those that prevailed at the time of the sell-off in March 2020, at the height of the pandemic. This increase in financing costs was driven almost entirely by the most vulnerable economies. Nonetheless, the outbreak of a systemic crisis has so far been avoided and only a handful of governments of small economies have defaulted or had to restructure their external debt. Nominal interest rates on local-currency government bonds of emerging countries also rose, although often less than domestic inflation. Monetary policy differences between the United States and China, as well as the sharp appreciation of the dollar, led to significant outflows of foreign capital from the Chinese bond market up to November. Corporate bond yields were also hit hard by monetary policy tightening and heightened risk aversion. Smaller companies, which often find it more difficult to pass on higher production costs to consumers, and companies with lower credit ratings were particularly affected. Finally, mortgage rates in advanced economies rose sharply, from 1.3 % to 2.9 % between December 2021 and November 2022 in the euro area and to over 7 % in the US in November 2022.

Against the backdrop of rising interest rates, sovereign bond markets in advanced economies became sensitive once again to the risks

Chart 1.10

Monetary policy normalisation pushed up sovereign bond yields considerably



Sources: Eurostat and Refinitiv.

1 The aggregate for the euro area is the GDP-weighted average.

2 Nominal 10-year interest rates less expected inflation derived from swap contracts hedging inflation risk for a period of ten years.

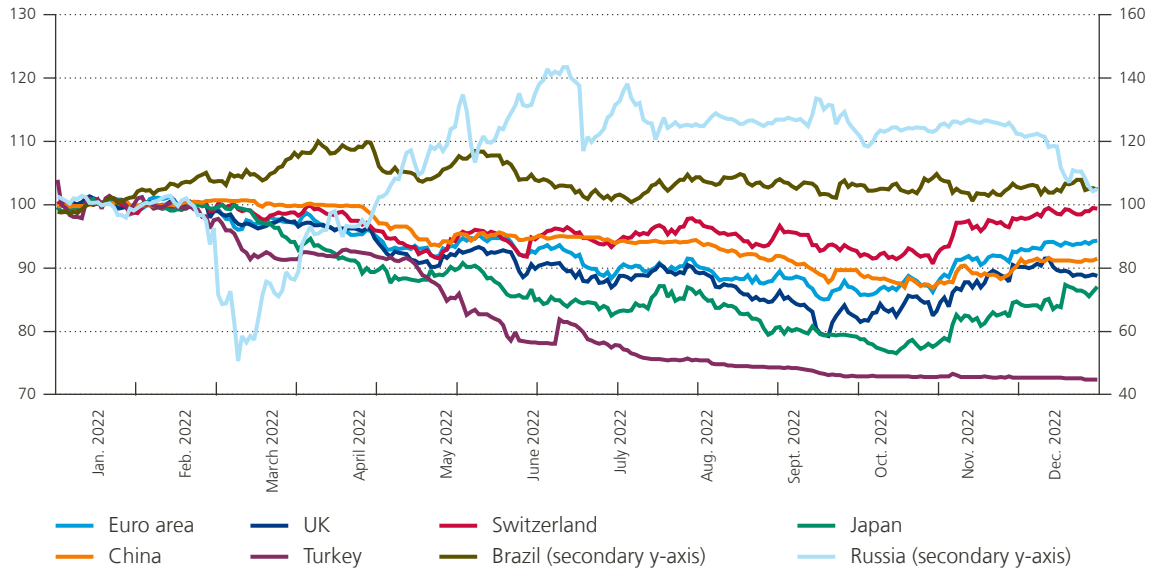
associated with rapid debt accumulation. The reaction of financial markets to the announcement of a "mini-budget" by the newly formed UK government in September is evidence to this effect. In the absence of a credible medium-term budgetary plan, the combination of an energy price guarantee for households and businesses and further stimulus measures raised concerns amongst investors that fiscal discipline was lacking. As a result, the financial markets adjusted their expectations for inflation and interest rates upwards, leading to a fall in the value of financial assets. The pound sterling depreciated to near parity with the US dollar. Long-term gilt yields rose so much that pension funds saw the value of their collateral melt away and were obliged to sell off their holdings *en masse* to meet their liquidity needs. To stabilise the markets, the Bank of England announced its intention to make targeted purchases of long-dated UK government bonds. This communication led to a recovery of the pound and a gradual decrease in the risk premium on gilts. In addition, several of the previously announced fiscal measures were withdrawn, a new prime minister took office and a new, more credible budgetary plan was unveiled in mid-November. This combination of factors ultimately dispelled the perception of heightened risk associated with UK sovereign bonds.

Foreign exchange markets were marked by a historically strong dollar and wide fluctuations in exchange rates. The US dollar appreciated significantly against almost all other currencies between April and November, reaching its highest level in nominal terms in two decades. Contrary to what is usually observed, it was the currencies of advanced economies, rather than those of emerging markets, that often lost the most ground to the greenback. These exchange rate fluctuations were largely due to the relatively rapid (expected and carried out) tightening of monetary policy in the US and the resulting interest rate differentials with other countries, the tremendous energy price shocks, which penalised energy importers but from which the US (along with other energy exporters) benefited, and weak growth prospects for the EU and the UK. The year as a whole was marked by exceptionally high volatility in the foreign exchange markets. Although the sharp depreciation of the Japanese yen and the pound sterling was more spectacular, the euro also lost substantial value against the dollar and, at the end of 2022, stood 7 % lower than at the beginning of the year. Some Latin American energy-exporting countries, including Brazil and Mexico, which had already started to proactively raise their policy rates,

Chart 1.11

Almost all currencies lost ground to the US dollar

(bilateral exchange rates against the dollar, January 2022 index = 100)



Source : Refinitiv.

saw, on the other hand, their exchange rates appreciate against the US dollar. The Russian ruble also appreciated, very strongly moreover, after having plummeted following the invasion of Ukraine. This turnaround was due to a significant policy rate hike by the Russian central bank early on, several foreign exchange interventions, continued strong export earnings from energy and other commodities, and curbed imports owing to sanctions. The Turkish lira's multi-year depreciation trend continued in 2022, against the backdrop of further interest rate cuts by the Turkish central bank.

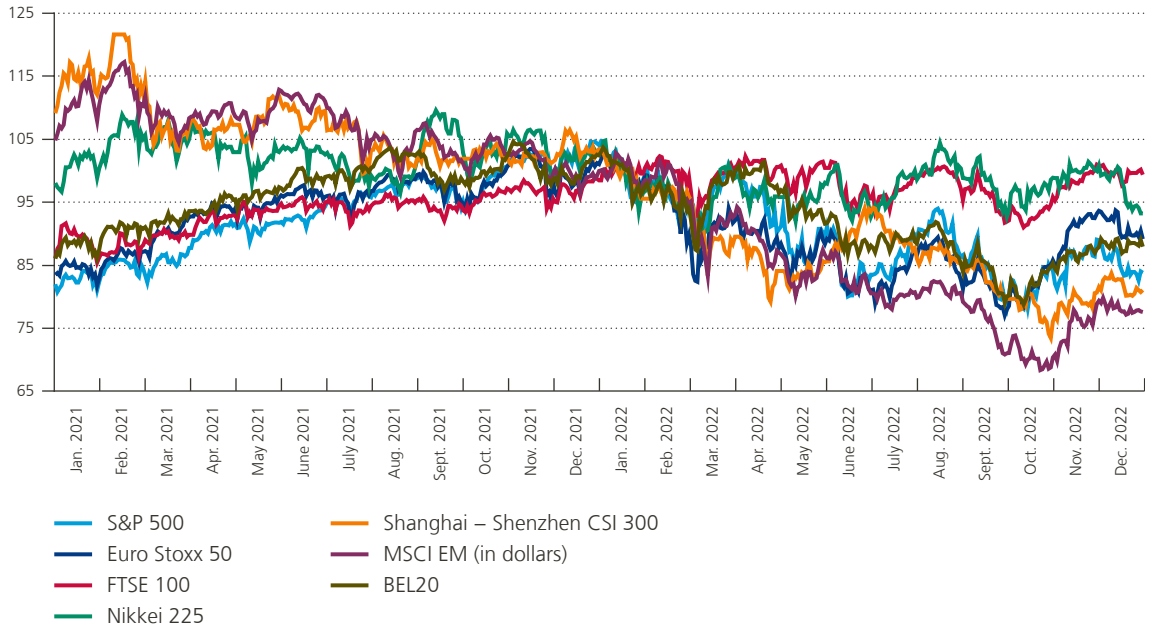
Higher interest rates and risk aversion, as well as weaker growth prospects, weighed heavily on the equity markets. Overall, 2022 was a poor year for equity markets. The major US and European stock markets saw their strong 2021 results largely wiped out, despite a catch-up towards the end of the year. Rising interest rates lowered the present value of future corporate cash flows, which had already suffered from the downward revision of medium-term growth forecasts. On the other hand, the UK and Japanese stock markets, which had recovered only moderately following the pandemic in 2021, continued to fluctuate at the level they had reached at year's end, at least in local currency terms. In most emerging economies, equity markets suffered from increased risk aversion and, in China in particular, a worsening growth outlook. The main exceptions were a number of energy exporters and Turkey, where equities protected local investors from exorbitant inflation. At industry level, the riskier stocks of real estate and technology companies lost the most value, while stock prices of energy producers benefited from rising energy prices.

The past year was also a turbulent one for the inherently more volatile crypto-asset markets. In May, one of the most popular stablecoins, Terra, collapsed following an investor exodus, while in November, the crypto exchange FTX filed for bankruptcy, following which a criminal investigation was launched. Both events sent shockwaves through the crypto-asset world. Bitcoin lost around 60 % of its value against the dollar in 2022.

Chart 1.12

Stock markets performed poorly in 2022

(January 2022 index = 100)



Source: Refinitiv.

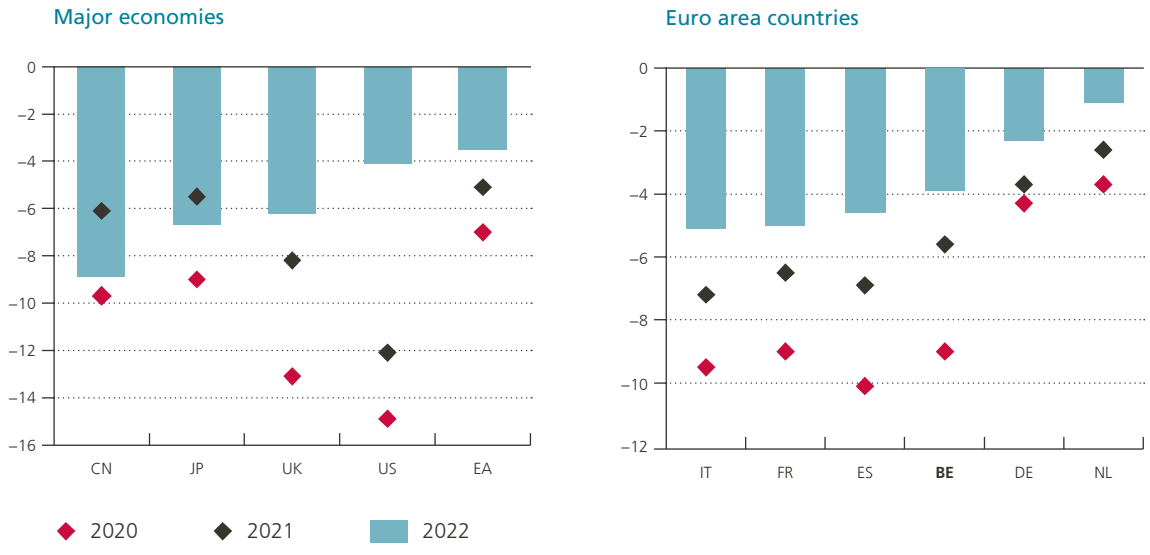
1.5 Governments face a delicate balancing act

After having widened considerably in 2020 as a result of the pandemic, public deficits in most advanced economies continued in 2022 on the path of improvement down which they had started in 2021. In 2021, this progress was due to the reopening of the economy and the mechanical effect of activity levels returning to close to normal compared to the low point reached in 2020, when many industries came to a standstill during lockdowns. In addition, many support measures triggered by the COVID-19 pandemic could be partially or totally discontinued, depending on the sector. In 2022, real GDP continued to grow in most economies, labour markets were resilient and the remaining COVID-19 restrictions were lifted in most countries. The shrinking of the deficit was most noticeable in countries such as the United States, which during the pandemic had used large-scale discretionary measures, in the absence of automatic stabilisers, and introduced substantial stimulus packages. It should also be noted that new legislation, such as the Chips and Science Act and the Inflation Reduction Act, provides for the spreading of investments over a ten-year period. In Europe, deficit reduction has been held back by, amongst other factors, Russia's invasion of Ukraine and measures to limit the impact of inflation on households and businesses.

Chart 1.13

Deficits shrunk again in most countries

(percentage of GDP)



Sources: ECB (December) for the total euro area, EC (autumn) for the euro area countries, IMF (October) for China, NAI-NBB for Belgium and OECD (December) for other advanced economies.

In Japan and China, deficits widened again in 2022. In Japan, the government was only able to relax pandemic-related support measures as from the second quarter and then sought, like other countries, to limit the loss of income for households and businesses as a result of the energy shock. The Chinese authorities, for their part, stepped up investment in infrastructure, particularly at the local level and in state-owned enterprises. The extensive COVID-19 testing carried out as part of the government's zero-tolerance policy also strained public finances.

In the euro area, however, general government borrowing requirements remained excessive in countries with public debt exceeding their GDP. Indeed, in France, Italy, Spain and Belgium, the deficit ranged from about 4 % to 6 % of GDP in 2022, i.e. close to or more than one percentage point above the 3 % reference value stipulated in the Protocol to the Maastricht Treaty. Such deficit levels which would normally be considered excessive, were however tolerated under the European governance framework, as the general escape clause of the Stability and Growth Pact was still in force and in fact will continue to apply in 2023. In Germany and even more so in the Netherlands, deficits had returned to well below 3 % of GDP by 2022.

Public deficits could have shrunk further but for Russia's invasion of Ukraine and the return of inflation. In particular, public finances in European countries were dragged down by direct costs related to the war, support measures for households and businesses to help them cope with the energy shock and inflation, the ramp-up of investments under the Next Generation EU recovery plan (both loans and investments from own budgets) and higher interest expenses. Across the euro area, interest expenses rose – by 0.1 percentage point of GDP – for the first time since 2012. In France and Italy, they rose by 0.4 percentage point. This reversal of trend was also evident in the implicit interest rate on public debt. However, this increase was more limited than the rise in interest rates on the securities markets as only a small proportion of borrowings is refinanced each year, with governments seeking to extend the maturity of their debt.

Direct support for the war had limited budgetary impact in Western European countries but a greater impact in Eastern European countries and Germany, which provided more military assistance and humanitarian aid and offered temporary protection to a larger share of the four million Ukrainians who fled the conflict.

Support measures for households and businesses in response to the energy shock were substantial in European countries. Although international comparisons are difficult, the measures were on a larger scale in the euro area (accounting for around 1.2 % of GDP for 2022) than in other major economies, as the shock was more severely felt in Europe.

A wide range of measures was put in place. In the EU, these measures were in line with recommendations by the European Commission, with the toolkit gradually expanded. As from 2022, France favoured direct price intervention in the form of a cap on gas and electricity prices. The substantial budgetary cost of this measure was offset by taxation of the windfall profits realised by electricity producers on energy sources other than gas, in particular nuclear and renewables. This tax raised more revenue in France than in the other main euro area countries in 2022. Indirect tax cuts provided significant support to households and/or businesses in all countries, although to a lesser extent in Germany. In 2023, Germany is expected to mainly provide temporary transfer payments to households and companies for energy consumption. In Spain, the main measures adopted in 2022 consisted of a 20-cent-per-litre fuel rebate for the benefit of petrol stations and suspension of a 7 % tax on electricity production.

In the euro area, these measures have, since 2022, weighed most heavily on Italian public finances. While this may be surprising given that the country has little fiscal space, it can be explained by Italy's heavy dependence on (Russian) gas and the holding of early parliamentary elections in September. In addition to reducing indirect taxes, Italy has focused on transfer payments to households, especially pensioners, as well as corporate tax credits for gas and electricity consumption.

Measures disrupting price signals were more dominant, in terms of magnitude, than those targeting income. According to the EC typology, price measures have a direct impact on the marginal cost of energy consumption by households and/or

businesses. They therefore distort price signals and reduce the incentive to limit energy consumption or increase energy efficiency. Yet they accounted for about two thirds of the budgetary funds earmarked for support measures at EU level. In the short term, these measures slow down the pace of inflation but, by boosting demand, could make it more persistent in the medium term, thereby complicating the task of monetary policy.

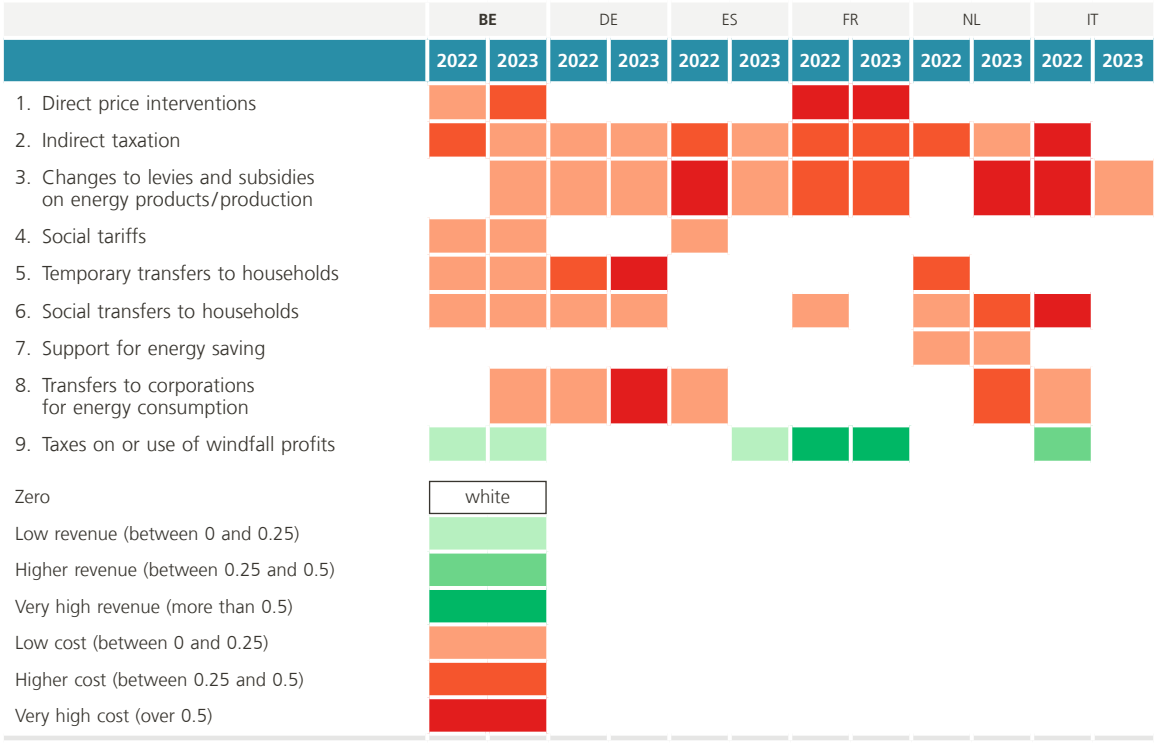
In 2022, measures not targeting households and businesses most affected by energy and inflation shocks moreover accounted for more than 70 % of the total cost to public finances. These included in particular reductions in indirect taxes, VAT and excise duties on fuel, electricity and gas.

Although public debt started to decline in most countries in 2021, it nevertheless remained at a higher level in 2022 than before the pandemic. Indeed, the pandemic pushed up the public debt ratio in 2020, owing to a combination of widening deficits, exogenous factors that increased the debt without affecting the budget balance, and a sharp decline in GDP. In 2021, thanks to a denominator effect in the opposite direction, the return to more normal activity levels enabled an initial fall in the debt ratio, facilitated by a reduction in (primary) deficits. In 2022, the debt ratio continued to decline, mainly due to high nominal GDP growth, with lower real growth being offset at the EU/euro area level by a faster rise in domestic inflation as reflected in the GDP deflator. In the euro area, a decrease in primary deficits also facilitated debt reduction.

Unlike in other major economies, the public debt ratio increased in China and Japan, mainly due to rising deficits.

Table 1.2

Euro area governments adopted various types of support measures in response to the energy shock [1]

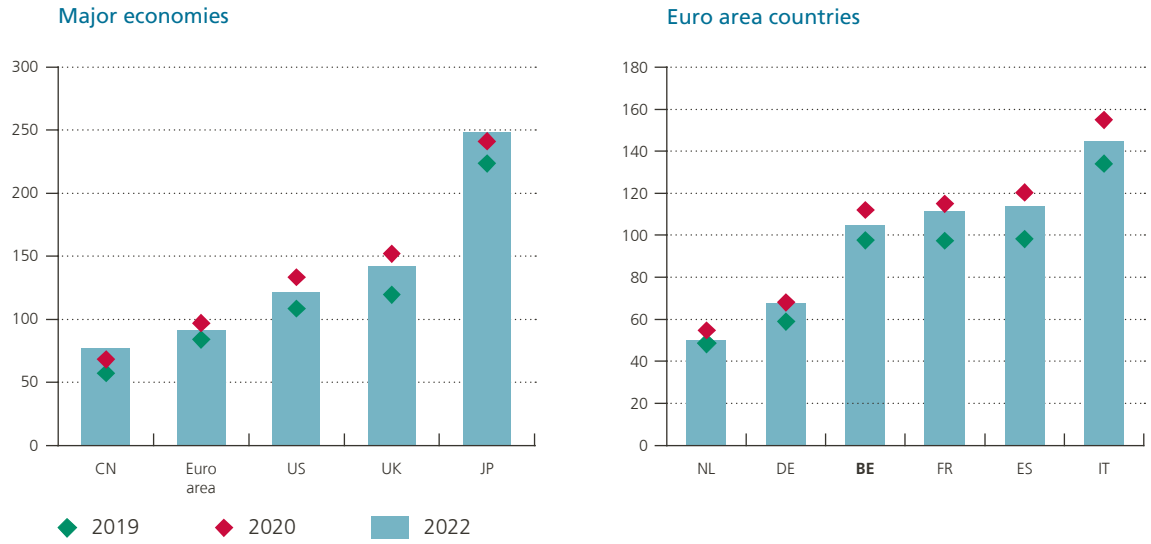


Source: EC (autumn).
1 Measures announced before 31 October 2022, expressed as a percentage of GDP.

Chart 1.14

Public debt has declined in most countries since 2020 but remains at a higher level than before the pandemic

(% of GDP)



Sources: ECB (December) for the total euro area, EC (autumn) for the euro area countries, IMF (October) for China, NAI-NBB for Belgium and OECD (December) for other advanced economies.