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1. International economy

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1.1 The global economy bounced back strongly in 2021, but the recovery is uneven and incomplete

The strengthening of the global economy that began in mid-2020 continued throughout the year under review, and even exceeded the expectations prevalent in January 2021. Quite obviously, it was more difficult than previously to predict how the recovery would proceed, and the growth forecasts underwent multiple significant revisions. It was in fact the first time in modern history that a pandemic had caused a severe global economic crisis, and the erratic course of this tenacious virus continued to affect the economy in 2021. However, the link between the epidemic and the crisis has weakened as the proportion of vaccinated citizens in the population has risen continuously, and people and businesses have adapted their behaviour and learned to live with the virus. Moreover, at the beginning of the year, there was still great uncertainty over the pace at which the vaccination campaigns could be rolled out around the world and the degree to which the success of that vaccination would permit the speedier reopening of the economy. In short, economists and policy-makers are advancing into unknown territory: forecasts are even harder than usual to make and they have to be constantly revised as our understanding of events evolves.

Table 1.1

GDP of the main economies

(percentage changes in volume compared to the previous year)

	January 2022 projections			*p.m. January 2021 projections*	*p.m. Level compared to pre-COVID[1]*
	2019	2020	2021	*2021*	*2021 Q4*
Advanced economies	1.7	–4.5	5.0	*4.3*	*101.6*
of which:					
United States	2.3	–3.4	5.6	*5.1*	*102.9*
Japan	0.0	–4.5	1.6	*3.1*	*99.6*
Euro area	1.5	–6.5	5.1	*3.9*	*99.9*
United Kingdom	1.4	–9.4	7.2	*4.5*	*98.7*
Emerging economies	3.5	–2.2	6.8	*6.4*	*106.0*
of which:					
China	6.0	2.3	8.1	*8.1*	*110.3*
India	4.0	–7.3	9.0	*11.5*	*105.9*
Russia	2.0	–2.7	4.5	*3.0*	*102.9*
Brazil	1.4	–3.9	4.7	*3.6*	*99.6*
Low-income countries	5.3	0.1	3.1	*5.1*	*n.*
World	2.8	–3.1	5.9	*5.5*	*103.9*
p.m. World trade	0.9	–8.2	9.3	*8.1*	*n.*

Sources: ECB, IMF.
1 Index, 2019 Q4 = 100.

A global recovery marked by geographical faultlines

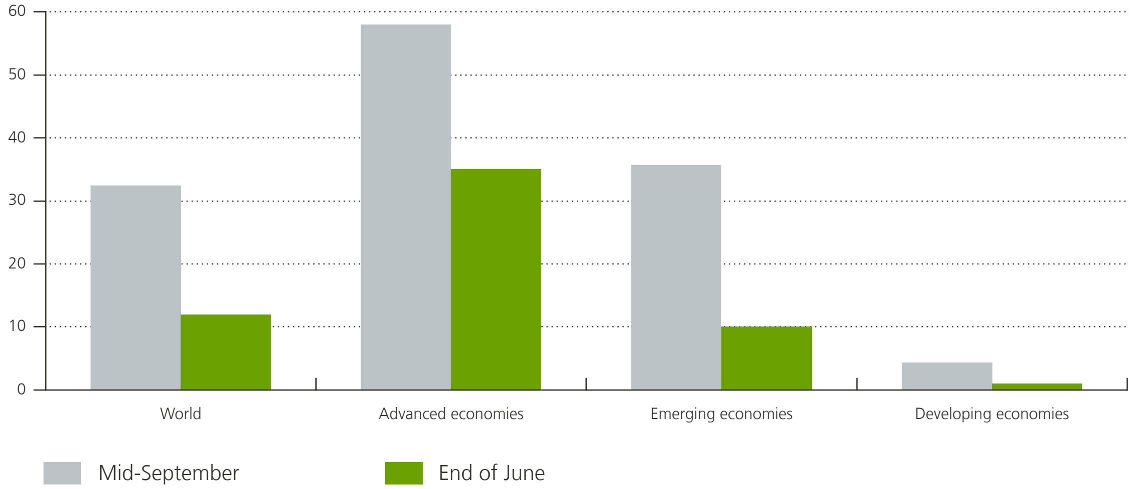
On average, the year 2021 was much better than expected for the advanced economies. But low-income countries achieved very disappointing economic growth, so that – for the first time in several years – they collectively recorded a slower expansion than the advanced economies. In addition, taking account of their faster population growth, the income gap widened considerably in 2021. Unequal access to the coronavirus vaccines is a major factor here. In September, while 60 % of the population of the advanced economies was fully vaccinated, the vaccination campaigns had yet to be launched in the poorest countries. The more fragile institutional framework in developing countries and the more informal character of their economies make them very vulnerable to any resurgence of the virus, while their governments do not have the financial resources to grant substantial aid.

The emerging economies as a whole recovered in line with expectations, but wide variations emerged between countries. Many, with the exception of China, initially struggled to restart their economic activity, owing to new waves of the more contagious Delta variant of the coronavirus in the spring (in India and Latin America) and in the summer (in South-East Asia). The vaccination campaign also started later there than in the advanced economies or was greeted with great scepticism by the population (in Russia, Eastern Europe and the Balkans), so that those countries remained more susceptible to the virus. However, once the restrictions were lifted, the economic rebound generally exceeded expectations, as is evident from the robust growth of the Indian economy in the third quarter.

Chart 1.1

The vaccination campaigns are progressing much more slowly in the poorest countries

(fully vaccinated individuals, in % of the population)



Source: IMF.

The Chinese economy was the first to recover from the pandemic in the second half of 2020. There, a zero-tolerance policy and restrictions on international travel were the main measures taken against the virus. The economy also benefited from the vigour of global demand for certain goods (face masks, electronics) which China produces in large quantities. As international trade continued to pick up following the full reopening of the Western economies in the first half of 2021, Chinese exports recorded further sustained growth. However, production struggled to keep up with this strong demand for exports, as the economy faced acute shortages of electricity plus new waves of coronavirus leading to the temporary closure of factories and ports. In the autumn, the Chinese economy also had to contend with headwinds coming from the real estate sector, which is estimated to represent, directly and indirectly, almost 30 % of activity. The measures taken by the authorities in 2020 to contain the financial risks in that sector had in fact caused problems for some heavily indebted Chinese developers, such as Evergrande. In addition, small regional banks and shadow banks that are very exposed to property companies saw a rise in their non-performing loans. All these factors caused the property market to run out of steam, curbing the growth of the Chinese economy.

In the advanced countries, full reopening of the economy and society was only possible after a successful vaccination campaign. The United Kingdom and the United States kicked off first at the turn of the year, and the rest of Europe soon followed. These advanced economies bounced back with unprecedented vigour. In comparison with previous crises, the economy was in fact in a unique position at the start of the revival. Unlike the global financial crisis, this one did not require the correction of underlying macroeconomic imbalances. On average, the current crisis has caused hardly any deterioration in the financial situation of households, thanks to the savings built up during the successive lockdowns (scope for consumption was limited and governments made up for the loss of income) and the new rise in the value of housing and financial assets. Consequently, the reopening led to a spending spree with a strong focus on consumer durables, which created a mismatch between demand and supply resulting in price increases and extended delivery times. As the year progressed, firms also encountered ever more problems in obtaining the raw materials, intermediate inputs or staff they needed and were forced to scale down their activities or even suspend them temporarily. Global value chains came under pressure when production units remained closed in countries where the virus was raging. These supply-side constraints, which are examined in detail below, and the accompanying spike in inflation, alongside the resurgence of this tenacious virus, put the brakes on the recovery at the end of the year.

A mismatch has emerged between demand and supply, resulting in price rises and extended delivery times

In Japan, on the other hand, the recovery fell short of expectations throughout the year, as the country lagged behind with vaccination and even had to reimpose temporary restrictions at the time of the Olympic Games.

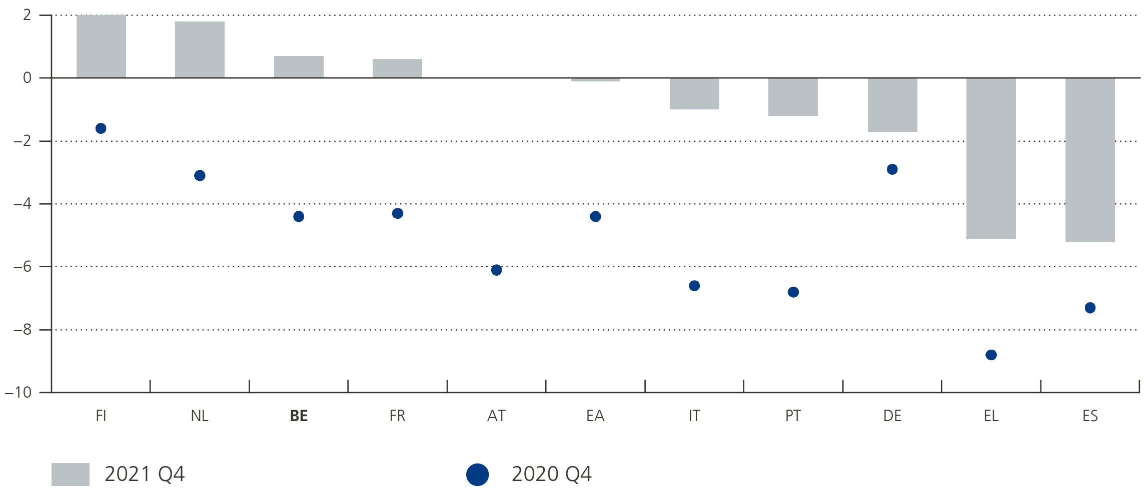
The economic profile outlined above was particularly pronounced in the United States, largely on account of the country's unprecedented policy response involving three support plans for the American economy, adopted successively between March 2020 and March 2021 and together representing 20 % of GDP. On each occasion, the emphasis was on assistance for households, except the most wealthy ones, with the aim to boost the purchasing power of people with a high propensity to consume and thus to give a strong impetus to the US economy once it was fully reopened. That rebound actually occurred in the first half of the year. Conversely, the termination of certain temporary support measures at the end of the summer produced a negative fiscal impulse in the third and fourth quarters.

In the United Kingdom, economic activity in 2020 was particularly affected by the pandemic, especially during the winter, with what was initially termed the British variant, and by the risk of an abrupt exit from the European Single Market and Customs Union in the absence of any agreement. Thanks to the Trade and Cooperation Agreement concluded on 24 December 2020, the impact on

Chart 1.2

In many euro area countries, GDP has already regained or even surpassed its pre-crisis level

(change compared to GDP in 2019 Q4, percentage points)



Sources: ECB, NBB.

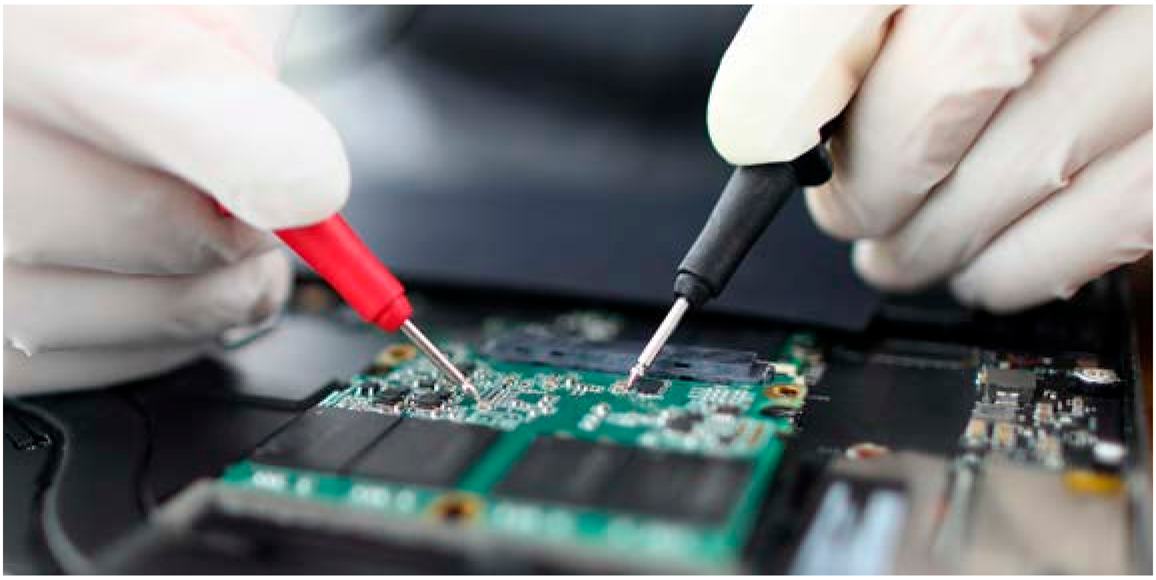
trade relations between the EU and Great Britain – Northern Ireland remaining in the European Single Market and Customs Union – was limited, especially as the introduction of certain barriers was postponed until 1 January 2022. In addition, thanks to prompt vaccination, the United Kingdom was able to ease the public health restrictions more quickly, resulting in a remarkable rebound in 2021.

In the advanced countries, the recovery following the coronavirus crisis was thus significantly faster than after the global financial crisis: at the end of the year, many of them had regained or even surpassed the level of production prevailing just before the pandemic. That was true of many euro area countries, with the main exception of the Southern Member States where the recovery remained incomplete. They were in fact the most severely affected by the epidemic. Their heavy dependence on tourism is certainly a factor. Nonetheless, Germany's economic recovery also failed to live up to expectations, with production in manufacturing industry suffering from bottlenecks in the supply of certain components. In particular, the motor vehicle industry which is very important in Germany saw output slump on account of the shortage of semiconductors and other supply chain disruptions. Finally, the Member States with a lower vaccination rate were more vulnerable to the resurgence of the more contagious Delta variant during the autumn. Overall, income inequality between the euro area Member States widened less than initially feared. The solidarity mechanisms provided by the European policy response were a contributory factor here.

Bottlenecks hamper the rapid expansion of supply

During the lockdown, the accelerating digitalisation of society following the outbreak of the pandemic and the temporary closure of services involving close contact led to a shift in demand from services to goods, and a shift between various categories of goods, particularly in favour of consumer electronics. Even after the full reopening of the advanced economies, the shadow of the epidemic continued to hover over consumption behaviour. In particular, demand for consumer durables thus reached an extreme peak and came up against the shortage of supply. The rapid increase in production was impeded by bottlenecks affecting the various links in the production process, particularly commodities, intermediate goods such as semiconductors and plastics, and logistical services.

The transport sector, and more specifically maritime container transport, had trouble coping with the



exceptional peak in the trade of goods. Port infrastructure cannot be expanded quickly, and a number of container ship operators that had gradually scaled back their capacity owing to the lack of demand following the outbreak of the pandemic were only able to build it back up gradually. In addition, when industrial activity took off again in China, the containers were apparently located in the wrong place so they first had to return empty. New outbreaks of the virus also led to a shortage of port workers and further temporary closures of major container ports in China. This resulted in long waiting times in the ports. A container ship which ran aground in the Suez Canal in March further exacerbated the delays.

Semiconductors are a key component in a number of products such as smartphones, computers, consumer electronics, ICT infrastructure, motor vehicles and industrial machinery. The sudden surge in demand for remote working equipment and consumer electronics combined with an unexpectedly rapid revival in demand for motor vehicles at the time of reopening led to serious bottlenecks in the supply of semiconductors. The shortages were made even worse by temporary interruptions in the case of some major producers and by the build-up of strategic stocks of semiconductors by Chinese firms affected by the American export restrictions.

The organisation of production processes in the form of complex global value chains, a particular feature of the semiconductor industry and the motor vehicle industry among others, makes such sectors vulnerable to disruption in one link or another. Apart from the need to restart machinery, the principal requirement for the production chain's recovery is good coordination between entities and locations. Production processes based on maximum efficiency and minimum stocks are therefore vulnerable to unexpected demand and supply shocks. Thus, many vehicle manufacturers reduced their stocks of semiconductors significantly when demand for motor vehicles collapsed following the outbreak of the pandemic, which left them unprepared for the ensuing vigorous upsurge in demand.

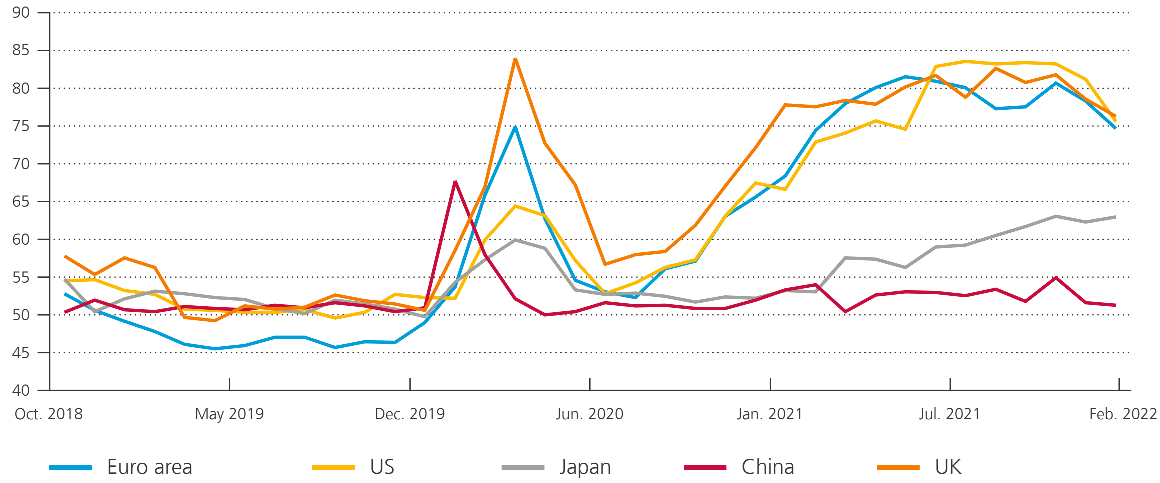
Whereas the lack of demand previously eroded business leaders' confidence, supply problems have now become the main source of concern for business leaders in manufacturing industry. The bottlenecks are causing a (marked) extension of delivery times and historically low stocks of finished products. The problem is particularly acute in the United States, the United Kingdom and the euro area, economies which are driven by strong domestic demand, in contrast to Japan and China where consumption remained sluggish, especially in the second half of the year. Nonetheless, export-oriented Chinese and Japanese firms also faced longer delivery times.

There is great uncertainty over how long it will take to eliminate all the shortages. If the disruptions are due to temporary closures of production facilities following natural disasters or epidemiological emergencies,

Chart 1.3

Delivery times lengthened considerably in the United States, the United Kingdom and the euro area

(PMI indices[1] for delivery times in manufacturing industry)



Source: Refinitiv (an LSEG company).
1 Indices defined as 100 less the proportion of firms polled responding that delivery times are shorter or the same as in the preceding month.

the shortages can generally be corrected in a few months. That is the baseline scenario that many economists had initially anticipated. But experience also tells us that structural shifts in demand or supply have a much longer-lasting impact on the economy. Thus, some of the changes relating to the coronavirus will probably become permanent. In the absence of any notable improvement, there is a growing conviction that the supply disruptions will last longer than expected.

The shift in demand towards consumer durables was also behind the rapid recovery of international trade in goods, following its collapse in the second quarter of 2020. That vigorous expansion persisted at first in 2021 but subsided later in the year owing to the bottlenecks described above. International trade in motor vehicles and spare parts was particularly affected, and that was also reflected in the downturn in sales of new cars in all the large economies (euro area, United States and China). Conversely, trade in services remained below its end-2019 level, as tourism only partly returned to normal.

There are signs of a growing shortage on the labour markets

The labour markets also staged a swift and vigorous recovery once the restrictions were lifted. But their revival remained incomplete in that employment (in persons and in hours worked) has not yet returned to its end-2019 level. In the euro area, the United Kingdom and Japan, the shock was essentially absorbed by reductions in working time via the use of furlough schemes, which maintained the link between employers and workers. However, American firms had to make their workers redundant because there is no temporary lay-off scheme in that country. Employment there recovered faster in terms of hours worked than in numbers of persons.

The number of vacant posts also increased sharply, notably in the United States and the United Kingdom, where historically high figures were recorded at the end of the year. In the euro area and Japan, too, the number of vacancies regained its pre-pandemic level in the third quarter.

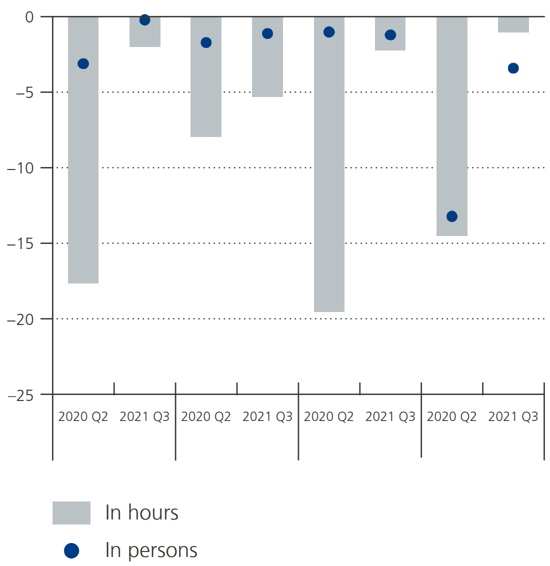
A high number of vacancies sends various signals about the labour market. On the one hand, it may be a sign of a healthy recovery with ample new jobs. On the other hand, it may also suggest a slump in the supply of labour and/or mismatches between demand and supply. These last factors certainly apply in the United Kingdom and the United States. In the latter country, where many workers lost their job after the outbreak of the pandemic, firms are having difficulty attracting them back again now that the economy is picking up. The number of workers in the United States is still more than 3 % below the pre-crisis figure, possibly implying that the labour supply is still suffering from the crisis. The temporary increase in replacement incomes may have contributed to a more wait-and-see attitude, while fear of infection has made a number of sectors less attractive. That is particularly true in hospitality. As well as that, many workers are opting to quit voluntarily, in the hope of benefiting from the current tightness on the labour market and finding a job offering better working conditions. In the United Kingdom, employers are also increasingly reporting recruitment problems ; they attribute them not only to the strength of demand but also to a smaller supply of workers from the EU (owing to Brexit) and skills mismatches. Structural mismatches on the labour market are not yet as pronounced in the euro area as a whole, but they are growing in certain sectors and in some Member States, such as Belgium and the Netherlands.

Chart 1.4

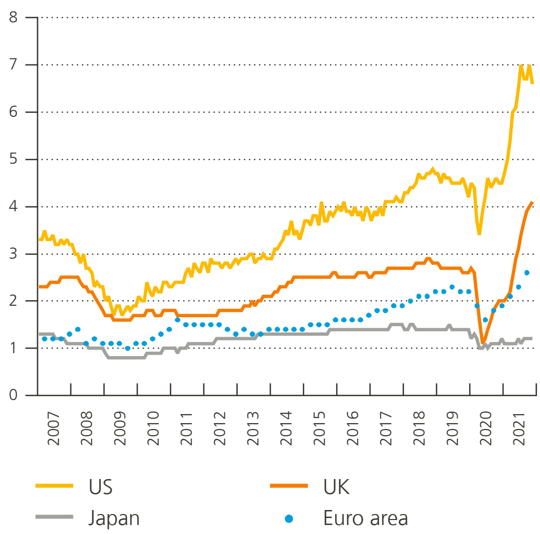
The labour market's recovery is still incomplete, but there are also signs of tightness

(in %)

Employment has not yet fully recovered [1]



Vacancies [2] are rising again



Sources: Bureau of Labour Statistics (US), Bureau of Statistics (Japan), ECB, Eurostat, Federal Reserve Bank of St Louis, Office for National Statistics (UK).

1 Deviation from the corresponding average value in the last quarter of 2019.

2 Defined as the ratio between the number of vacancies and the total number of posts filled and not filled.

1.2 Inflation has accelerated considerably in most countries owing to both supply and demand factors

The combination of supply shortages and vigorous demand has driven up many input prices

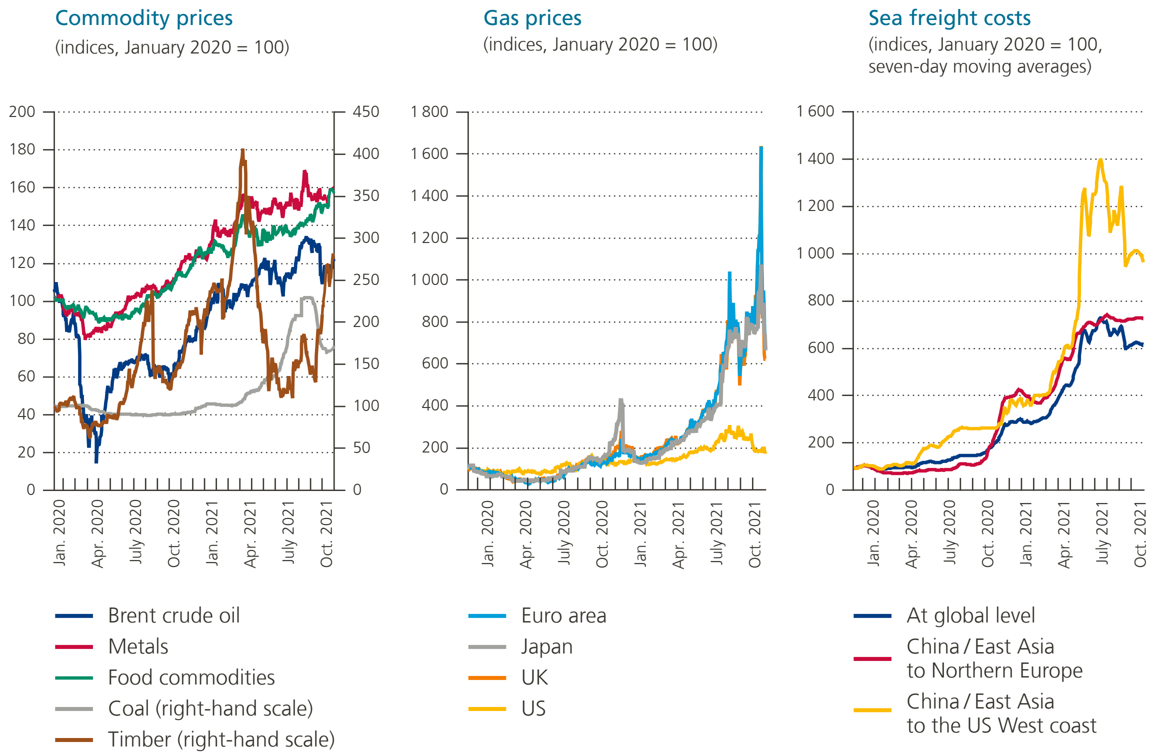
The strong recovery of demand after the sharp decline in 2020 also drove up prices, mainly energy and commodity prices but also the cost of intermediate goods and transport (particularly sea freight). As previously mentioned, various factors contributed to the situation where supply fell short of demand and global value chains were seriously disrupted. For example, the price of container shipping from China and East Asia to the West coast of the United States increased tenfold between January 2020 and the end of December 2021.

In the case of oil and gas, investment in production capacity during the years preceding the coronavirus crisis had been clearly insufficient owing to the low market prices prevailing at that time. Moreover, the slump in oil prices in 2020 bankrupted several independent shale oil producers in the United States, while others underwent mergers or acquisitions. When global demand for oil picked up following the particularly weak year 2020, OPEC+ only slightly raised its output targets. In some parts of Asia and Europe, high gas prices have also led to the substitution of oil for gas in electricity generation, putting additional pressure on oil prices. However, discovery of the Omicron variant of the coronavirus did trigger a fall in oil prices at the end of November, just after a number of countries (including the United States, the United Kingdom and China, in particular) had announced plans to use strategic oil reserves in order to curb the rising cost of energy. In regard to gas, the scheduled scaling down of extraction in Groningen, in the Netherlands, continued as planned (activities closing down in 2022) so that the supply of gas diminished further. In addition, various idiosyncratic factors were at work, such as a long, cold winter in 2020-2021 in the United States and North-East Asia, so that stocks were largely exhausted and frozen wells impeded production; periods of drought that limited hydroelectric production in Brazil, Turkey and California; below-average wind-generated electricity in Europe; Hurricane Ida in the United States; insufficient extra gas supplies from Russia to make up for the shortfall in supplies from other regions; the closure of various Chinese ports owing to coronavirus restrictions, etc.

Owing to the COVID-19 crisis, maintenance work also had to be postponed from 2020 to 2021 at gas and coal extraction sites (especially gas production sites in the United Kingdom and Norway), further reducing the supply of these energy commodities just at a

Chart 1.5

Input prices rose sharply in 2021



Sources: EIA, Freightos, Refinitiv (an LSEG company).

time when demand was expanding strongly. The unplanned shutdown of some LNG plants, supply problems upstream of the production chains, unexpected repairs and cumulative delays on certain investment projects are all additional factors which reduced global gas supplies. In China, the economic recovery caused the coal price to jump, as coal production was unable to keep up with demand. China is a global price setter for coal, in view of its massive demand for it. Disruptions in coal production in other major exporting countries (Indonesia, Australia and South Africa) also drove up coal prices. Pressure on prices only eased to some extent when China stepped up its coal production considerably in the final quarter. High gas prices also prompted a shift in global demand, as a number of electricity producers on major American, European and Asian markets switched back from gas to coal.

Gas and coal prices therefore reached record levels, taking electricity prices in their wake. In China, the soaring coal prices were not reflected proportionately in electricity prices since they are subject to strict government regulation there. As a result, several electricity producers refused to produce at a loss, leaving electricity supplies diminished and large swathes of China had to contend with power cuts. Consequently, a number of highly energy-intensive industries (such as steel, aluminium and cement) suspended their activities entirely or in part, and that in turn had repercussions on the availability and prices of certain materials and goods at global level. In October, in a bid to prevent a prolonged energy crisis, the Chinese government therefore decided to authorise larger electricity price fluctuations. In Europe, electricity prices reached unprecedented levels, mainly owing to the transmission of high gas prices (for various reasons, gas power stations currently dictate the prices on European electricity markets), but also as a result of the marked rise in the price of emission rights under the European Emissions Trading System in 2021.

The prices of various other commodities also increased or fluctuated widely owing to supply problems and the strong surge in demand linked to the pandemic. For example, the price of timber for construction displayed substantial variations in 2021, rising steeply in the spring and at the end of the year. Food commodity prices climbed throughout the entire year, except for a brief decline during the summer months. In particular, prices of vegetable oils and cereals went up because of poor harvests in Canada, the United States and Russia, while strengthening demand and the shortage of seasonal workers in Malaysia exerted upward pressure on palm oil prices.

Apart from commodity prices, intermediate goods also became more expensive. Semiconductor prices are an obvious example. The reason lies in the situation described above in which rising demand – due mainly to the expansion of remote working and growing demand for motor vehicles – is confronted by disrupted supplies.

In various countries, consumer prices increased much more steeply than in recent years

Inflation rose sharply in most of the major economic blocs

The higher prices of commodities and inputs were then transmitted to consumer prices, so that core inflation also exhibited a marked – albeit less steep – upward trend. Consumer prices were also affected by the increase in prices of services. The reopening of economies caused booming demand for services, while the rise in input prices, and above all the shortage of labour in some services involving close contact, likewise had an adverse effect on the supply of services. Finally, inflation rates were also propelled by base effects compared to 2020, including certain government measures relating to the coronavirus crisis (such as the temporary cut in VAT in Germany in the second half of 2020).

From the second half of the year, consumer prices therefore rose much more sharply than in recent years in almost all the major economic blocs, with the notable exceptions of Japan and China. While input prices did go up in Japan as elsewhere, that rise was passed on to a much smaller extent in consumer prices. In China, low inflation is due partly to the large weight of food prices in the consumption basket (around 30 %), and in particular the price of pork, which has fallen in the course of the year. In the United Kingdom, consumer prices rose faster than in the euro area because the labour market was already tighter there, partly on account of Brexit. In addition, temporary government measures related to the COVID-19 crisis (such as the cut in VAT rates in the hospitality sector) generated base effects. The United States recorded the highest inflation rates owing to the marked rise in transport costs, the growing tightness on the labour market – which affected services prices – and an escalating demand for goods (essentially durables).

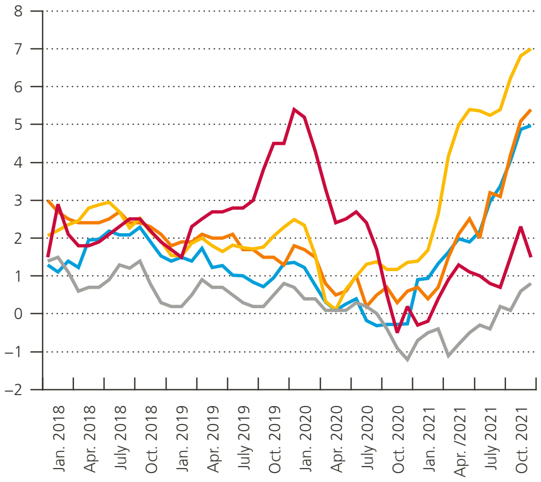
The pandemic makes it hard to interpret wage indicators, which are biased, for instance, by the use of different temporary unemployment schemes in several countries and by the sharp fall in the number of hours worked. Nevertheless, excluding certain sectors in some countries, the labour market situation and the upswing in inflation did not trigger exceptional wage increases in 2021. That could be a sign that the inflationary spike was believed to be temporary. However, wages usually do take a while to respond to fluctuations in inflation. Thus, higher inflation could prove to be more permanent if significant wage increases were to occur in 2022 and be reflected in turn in consumer prices (second-round effects). In particular, in countries where the labour market is already tight and where fuel prices and rents are already rising rapidly (cost increases which are much more apparent to consumers), workers could become more demanding in wage negotiations, and that could spark an escalating wage-price spiral.

Rents often go up in the wake of house price rises, which occurred almost everywhere last year. In much of Europe, Canada and the United States, growth rates were actually in double figures. House prices in the United States shot up, and in November 2021 were already 60 % higher than their previous peak in April 2007. This boom in property prices is attributable to the large volume of savings that households built up during the coronavirus crisis, the low interest rate environment and perhaps also to changes in preferences. The transmission of such a steep rise in house prices to consumer price inflation depends on the way in which the costs associated with owner occupied housing are taken into account and the weight of that component in the total consumer price index.

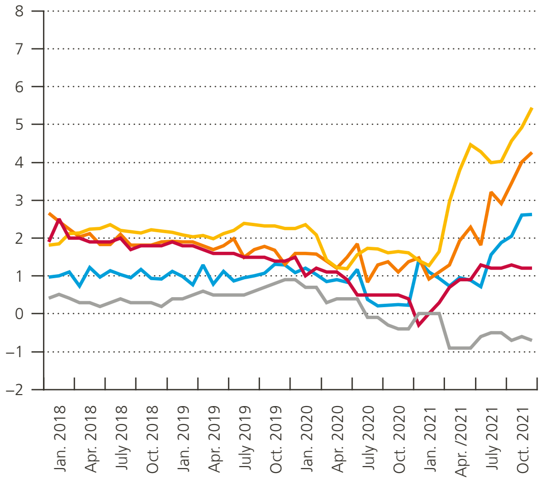
Chart 1.6

Headline inflation and core inflation of consumer prices [1] took off almost everywhere in 2021

Inflation is above 2 % in de the United States, the United Kingdom and the euro area …
(year-on-year growth, in %)



… while core inflation has also displayed an upward trend
(year-on-year growth, in %)



Euro area UK US China Japan

Sources: ECB, BLS, BIS, CEIC, NSO, Refinitiv (an LSEG company), Federal Reserve.

1 Core inflation: CPI excluding food and energy in the United States and Japan; excluding food, energy, alcoholic beverages and tobacco in the United Kingdom and in the euro area.

1.3 Macroeconomic policies supported the global economy, but the first signs of divergence between countries became apparent

Monetary policy generally remained expansionary, …

In response to the pandemic shock, monetary policy was deployed in order to support economic activity, stabilise the financial markets and maintain bank lending to businesses and households. For instance, central banks had cut their key interest rates in the spring of 2020 while also stepping up their asset purchases and, in some cases, widening the range of corporate debt they would agree to buy.

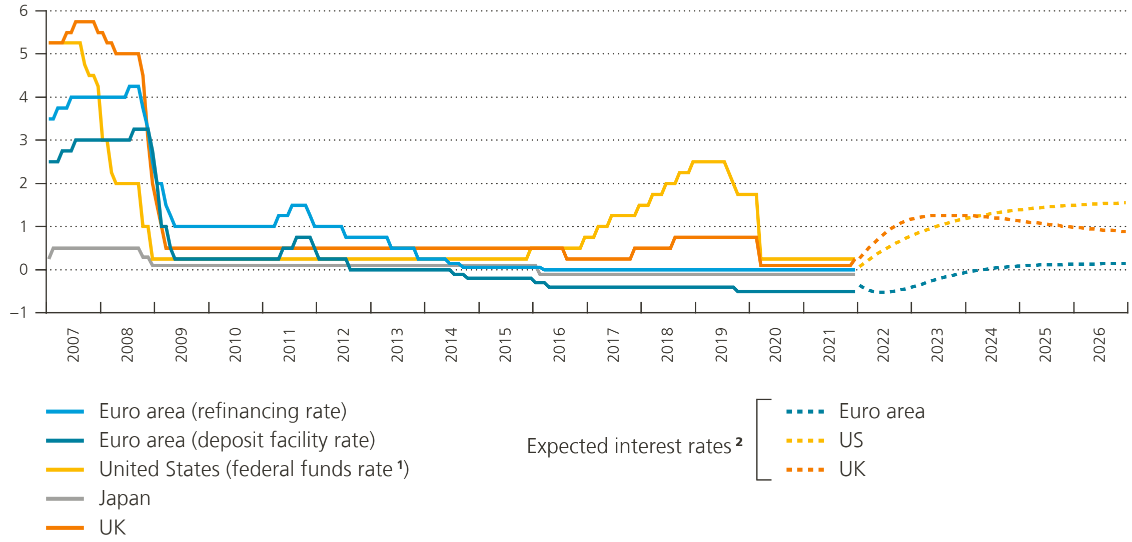
During most of 2021, the main advanced economies did not adjust their key interest rates and where asset purchase policies applied the practice continued, driving up the weight of central bank assets in GDP to new heights.

Conversely, a number of emerging countries – notably in Latin America (Brazil, Mexico, etc.) and Eastern Europe (Russia, Poland, etc.) – had to tighten their monetary policy in order to curb inflationary pressures. In Turkey, however, the monetary authorities which had raised the key interest rates sharply between September 2020 and March 2021 cut the rates by several percentage points in 2021, despite galloping inflation. In most of the large emerging economies (with the exception of Indonesia), asset purchase policies were discontinued. In China, borrowing costs were driven down by the use of monetary policy instruments other than the key interest rates (such as easing of the banks' reserve requirements).

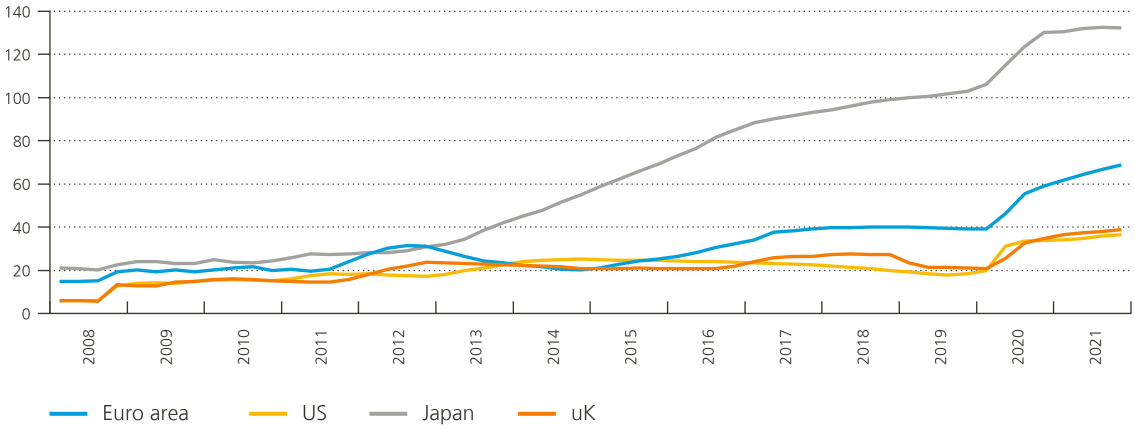
Chart 1.7

The central banks of the main economies kept their key interest rates low and continued to expand the size of their balance sheet

Main key interest rates
(in %)



Central bank balance sheet total
(in % of GDP)



Sources: Bank of England, BIS, Eurostat, OECD, ONS, Refinitiv (an LSEG company).
1 Upper limit of the target range.
2 Interest rate expectations at the end of December.

… but normalisation has begun

In March, in view of the vigorous economic rebound and the ensuing rise in inflation, the financial markets were already expecting interest rates to go up and central banks took the first steps towards normalisation. The Bank of Korea was the first central bank among the G20 advanced countries to raise its interest rates since the start of the pandemic, while Australia's central bank and the Bank of Canada began to taper their asset purchases. From October, the Bank of Canada only purchased securities to replace bonds reaching maturity.

In the United Kingdom, the Bank of England's Monetary Policy Committee decided to raise its key interest rate from 0.1 % to 0.25 % at its meeting on 15 December, owing to the tight labour market and signs of more persistent pressure on prices and domestic costs. For the time being, it maintained its stock of sovereign bonds and bonds issued by high-grade non-financial corporations. It also considered that, at this stage, a modest tightening of monetary policy would probably be necessary over the coming three years to bring inflation down sustainably to the target of 2 %.

In the United States and in the euro area, the response by the central banks was guided by the new strategies [1], redefined in August 2020 and July 2021 respectively. Although they differ, these strategies both imply tolerance in the event of the inflation target being temporarily exceeded, notably after a long period in which inflation has remained (well) below that target. Nonetheless, as inflation has risen, central banks have launched a process of normalisation on both sides of the Atlantic, albeit each at their own pace.

In the United States, the Federal Reserve announced in November that it would cut its net purchases of Treasury securities from $ 80 to $ 70 billion and its purchases of agency mortgage-backed securities from $ 40 to $ 35 billion. At its December meeting, it decided to double the rate of tapering, bringing the additional monthly reduction to $ 20 and $ 10 billion respectively over the following three months, so that net purchases of securities will cease by the end of March 2022. The Federal Reserve also plans to raise its key interest rates with effect from March 2022.

In the euro area, the ECB kicked off in December with a gradual reduction in its monetary easing. The rate of normalisation there will be slower and more flexible and will probably start with a lower rate of balance sheet expansion rather than a tightening of the key interest rates (see chapter 2).

Fiscal policy had to remain expansionary in most of the G20 countries

Fiscal policy, which had been radically eased in 2020, remained expansionary overall. With each successive wave of the coronavirus epidemic, governments in the advanced countries had to make regular adjustments to the main measures supporting their economies and they allowed the automatic stabilisers to do their work. Nonetheless, as the economy picked up, the support measures became fewer and more finely targeted, while recovery and investment measures – usually phased over future years – proliferated on both sides of the Atlantic: the European recovery plan focusing mainly on green and digital investment in the EU Member States, and various plans by President Biden in the United States. Congress approved some elements of the Biden plans: innovation and competition, and infrastructure.

In most emerging countries, fiscal policy likewise supported economic activity in 2021, albeit to a lesser degree than in 2020. Nonetheless, some countries ran out of fiscal leeway and were forced to tighten the purse strings.

Overall, and taking account of relatively robust economic growth, the budget deficits declined to a greater or lesser degree from one country to another. Oil-exporting countries, such as Russia and Saudi Arabia, or other commodity-exporting countries like Brazil, Argentina and South Africa, took advantage of soaring prices to reduce their deficits substantially, against the backdrop of high debt levels and limited budgetary scope. On the other hand, these escalating prices placed a burden on the public finances of countries which import these commodities, including India and Turkey. In the euro area, looking at just the large economies, the deficit remained more or less stable, as the deterioration of the deficit recorded in Germany in an election year offset the improvement in the French, Italian and Spanish deficits.

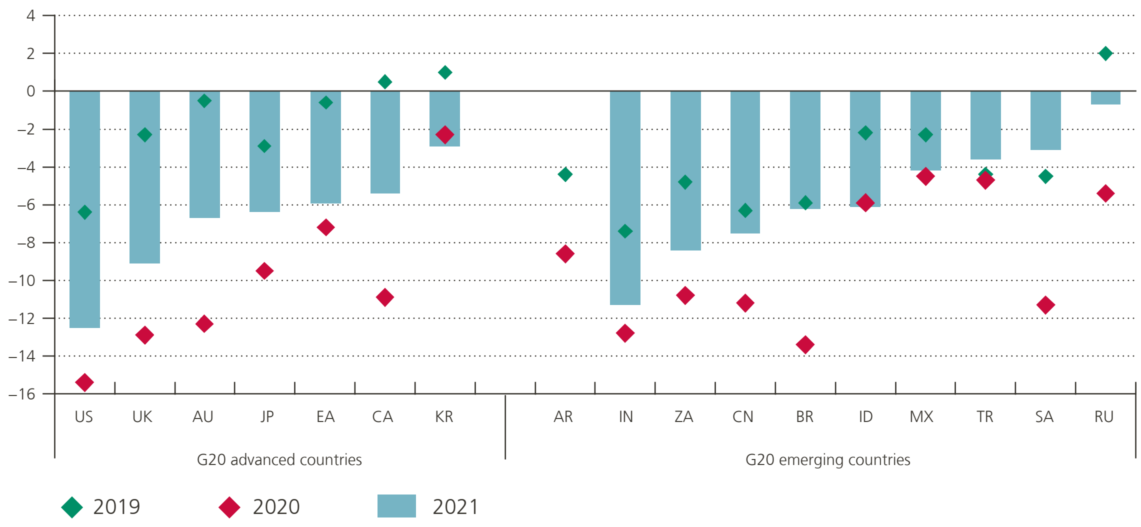
In some countries, the deficits remained substantial, driving public debt to new record levels in 2021 (see box 1 for a historical overview of the public debt). In other countries, despite the deficits, the debt diminished because the (partly mechanical) growth revival enabled growth to exceed the (implicit) interest rate on the debt, and hence to achieve an endogenous reduction in the government debt ratio.

1 See box 2 of the Report 2020 for the revision of the American monetary strategy and chapter 2 of this Report for the ECB's new monetary policy strategy.

Chart 1.8

Public deficits which had deteriorated sharply in 2020 were reduced in 2021, but in varying proportions between countries [1]

(in % of GDP)



Sources: ECB for the euro area, EC for Russia and Turkey, OECD for the other advanced economies and IMF for the other emerging economies.

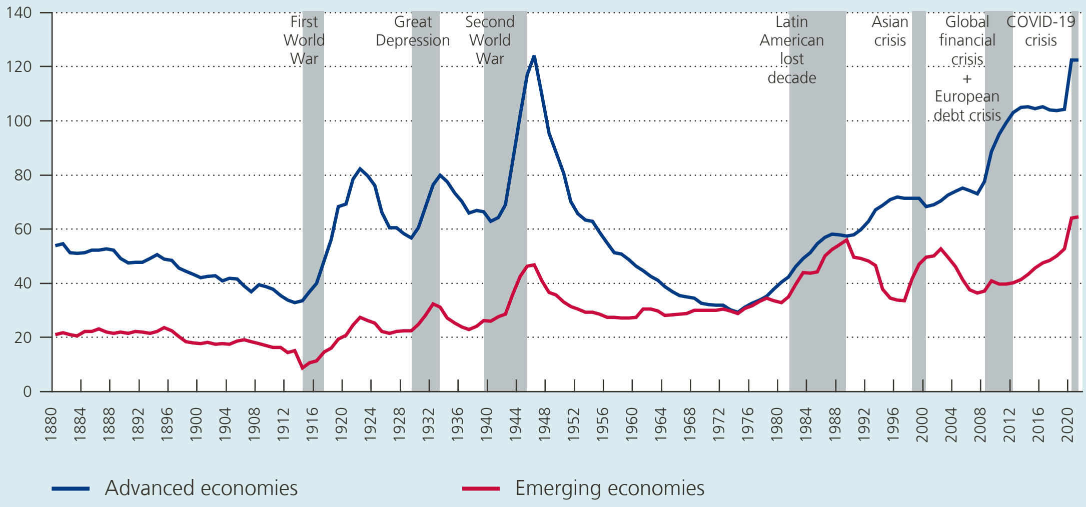
1 The G20 countries are divided into advanced and emerging economies. In each of these two categories, the countries are ranked in descending order of their public deficit in 2021.

BOX 1

Public debt is reaching historic highs: is the sky the limit?*

Public debt [1]

(in % of GDP)



Source: IMF.

1 The aggregates for the advanced and emerging economies are based on samples of 25 and 27 countries respectively and are weighted by GDP in purchasing power parity terms.

On average, the current public debt-to-GDP ratio of advanced economies is very close to the level observed at the end of the Second World War. The sharp reduction in the public debt ratio in the post-war years was due to an exceptional combination of factors which persisted until the late 1970s: very strong economic growth fuelled by the reconstruction, persistently high inflation, and extensive financial repression (in other words, policies aimed at keeping nominal interest rates on public debt below the free market rate by means of regulatory restrictions and other government interventions). Other major jumps in the public debt ratio of advanced economies coincide with the First World War, the Great Depression of the 1930s, the global financial crisis and the ensuing European sovereign debt crisis, and finally, the COVID crisis. In contrast to what happened after the Second World War, more recent shocks and crises were followed by much more modest debt reductions (if any), so that the overall public debt has been on an upward trajectory since the mid-1970s. The public debt ratio of emerging economies tends to follow a less steep path but is equally characterised by waves of debt accumulation and crisis-related jumps.

While the exact debt dynamics vary between countries, no or hardly any fiscal buffers were rebuilt between the global financial crisis of 2008-2009 and the eruption of the COVID-19 pandemic. True, negative interest-growth differentials (the famous “r-g”) often had a beneficial impact on the debt ratio,

* See Buysse K., F. De Sloover and D. Essers (2021), “Indebtedness around the world: Is the sky the limit?” NBB, *Economic Review*, June.

but the effect was not always sufficiently large to offset the primary fiscal deficits. In the emerging economies, the increasing primary deficits seen in recent years, sometimes combined with other factors (such as exchange rate depreciation) drove up the public debt ratio despite GDP growth which traditionally outpaces that in the advanced economies. As regards the impact of the COVID-19 crisis, public debt ratios jumped in response to the massive budgetary support (particularly in advanced economies), temporarily reinforced by severe drops in economic activity during lockdowns (in both advanced and emerging economies).

High debt levels hamper the government in conducting countercyclical policies and in responding to future shocks. The public debt ratio tends to be negatively correlated with economic growth, but the relationship is likely non-linear and it remains difficult to establish clear causality. Moreover, there is no "magic" universal threshold beyond which public debt has an unambiguously negative impact on growth. The growth effects of public debt also depend on the motives underlying governments' borrowing, such as temporary countercyclical fiscal support, the funding of major investment projects designed to boost production, or politically motivated expenditures (e.g. for electoral purposes).

At the end of the day, public debt has to remain "sustainable", which means that the primary fiscal balances necessary to at least stabilise debt under realistic scenarios should be economically and politically feasible, while keeping refinancing risks manageable and preserving sufficient potential growth. In practice, assessing public debt sustainability is a complex and intrinsically forward-looking exercise which involves a good dose of judgment.

It is sometimes suggested that debt-friendly interest-growth differentials (resulting largely from low interest rates) should make us worry less about high public debts and open up possibilities for more aggressive fiscal stabilisation policies and public investment. While it is true that a negative r-g provides some extra budgetary leeway, it should not be used as a free pass to waive all fiscal discipline. In fact, when primary deficits are large they may outweigh the favourable effects of a negative r-g. Additional fiscal expansion and debt accumulation could themselves lead to a rise in interest rates and/or slower growth. Research has also shown that, while a negative r-g is historically fairly common in both advanced and emerging economies, it is certainly not guaranteed over the longer term since sudden inversions of r-g moving into positive territory may occur if investors lose confidence in public debt sustainability. Furthermore, not all public debts and debtors are created equal. The creditor structure, the currency in which the debt is denominated, together with the macroeconomic fundamentals and the perceived institutional quality of a country are all key factors for public borrowing costs and debt sustainability.

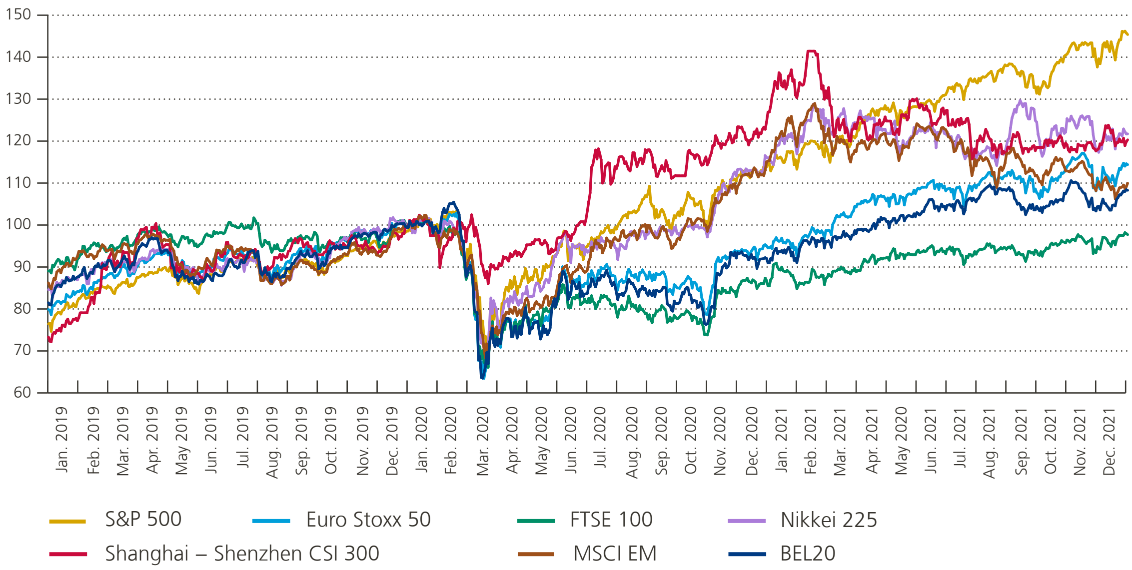
1.4 The financial markets continued to recover but expected regional divergences concerning further policy support began to play a role

Generally speaking, stock markets had a strong year, particularly in the euro area and still more so in the United States, where markets remained on the upsloping path on which they had embarked in the final months of 2020. This upward trend was fuelled mainly by the rollout of the vaccination campaigns and the ensuing further reopening and revival of the economy, enabling firms to post good profits which often exceeded expectations. The continued support of fiscal and monetary policies also boosted market confidence. However, uncertainty over the upswing in inflation and signals implying that the Federal Reserve would consequently tighten its accommodative monetary policy more rapidly than expected triggered a series of temporary drops on American and other stock markets, most notably in September. Uncertainty surrounding the Omicron variant of the coronavirus was another source of volatility towards the end of 2021. While almost all corporate sectors recorded positive results on the American and European stock markets

Chart 1.9

American and European stock markets had a strong 2021

(indices, January 2020 = 100)



Source: Refinitiv (an LSEG company).

over the year as a whole, the shares of technology companies and financial institutions gained the most from the economic rebound. The latter were able to reduce their provisions for default since the expected wave of corporate bankruptcies did not materialise. In addition, American shares in the energy and real estate sectors, like shares in the European car industry, performed better than the stock market average, despite supply chain problems. The strong rise in American stock market indices such as the S&P 500 and Nasdaq was driven to a considerable degree by a small number of positive outliers – including by shares of some large technology companies – and was accompanied by intensive derivative trading.

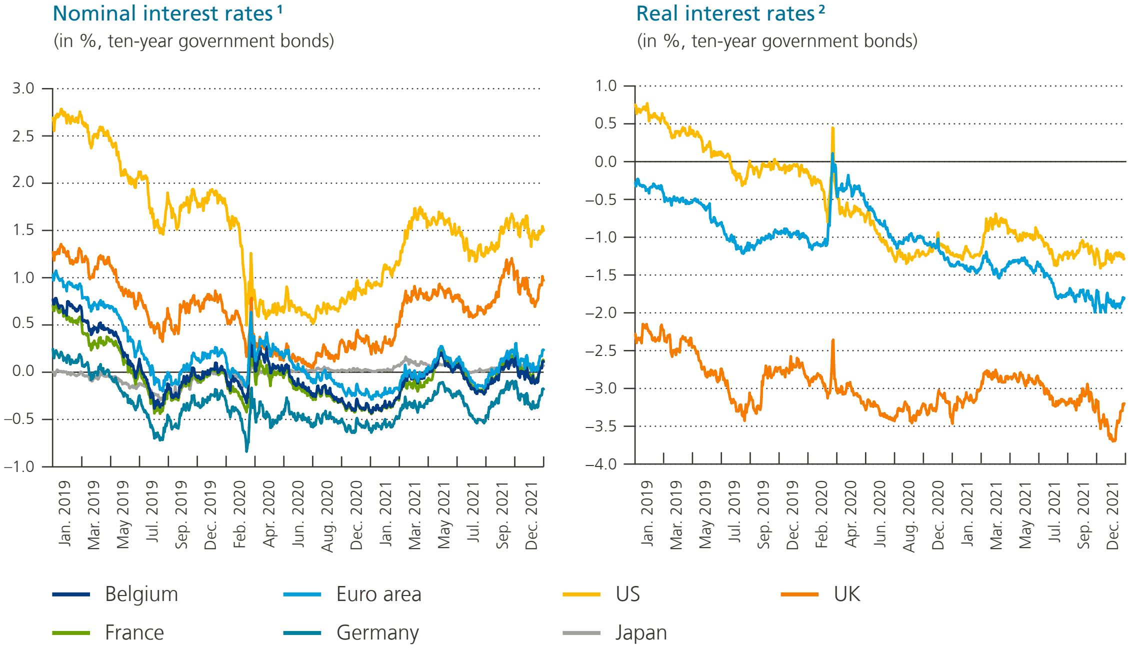
In the United Kingdom, the stock market revival was considerably more gradual than in the United States and Europe, given the persisting concerns over post-Brexit relations with the EU. At the end of 2021, the British FTSE 100 index had still not regained its pre-pandemic level. The Japanese stock market climbed rapidly in the first quarter but then moved rather sideways.

After an exceptionally strong year in 2020, stock markets in continental China underwent a substantial correction. The steepest drops occurred in February-March, when the perception of a potential overvaluation of equity and an expected normalisation of Chinese monetary policy spooked investors, and in July, when the Chinese authorities announced stricter regulation of firms operating digital platforms and in related sectors. Concerns over the Chinese real estate sector, exacerbated by the payment problems of property giant Evergrande, had apparently very little impact on the stock markets. In most of the other emerging Asian and Latin American countries, stocks also performed less well than in the advanced economies. That is due not only to the limited progress of the vaccination campaigns and other domestic vulnerabilities, but also to the expected growth slowdown in trading partner China and the prospect of a general normalisation of monetary policy in the main advanced economies, making riskier investment less attractive.

Nominal yields on advanced countries' sovereign bonds remained historically low, partly owing to the effect of the still highly accommodative monetary policy. However, nominal interest rates ended the year 2021 at a higher level than the year before. In the United States, Treasury yields rose sharply in the first quarter. Thanks to the favourable economic news combined with the strong fiscal stimulus announced by President Biden, investors expected faster growth and accelerating inflation, and consequently a quicker phasing out of the Federal Reserve's monetary policy support. In the second quarter and at the start of the third, the rapid spread of the Delta variant of the coronavirus and disappointing economic data again triggered a slight fall in the nominal yield on US Treasuries. From August onwards, more persistent inflation rates and the Federal Reserve's announcement of the tapering of its purchase programme nevertheless drove interest rates higher again. In the euro area and the United Kingdom, the evolution of nominal yields on sovereign bonds mirrored the pattern in the United States but the upward trend in interest rates was generally less marked – especially in the euro area where the markets expected a more

Chart 1.10

Nominal sovereign bond yields increased but remained historically low, while real interest rates reached new troughs



Sources: Eurostat, Refinitiv (an LSEG company).
1 The euro area aggregate is a GDP-weighted average.
2 Nominal ten-year interest rates minus expected inflation derived from swap contracts covering the inflation risk over a ten-year period.

gradual tightening of monetary policy. In emerging economies, except those in Asia, nominal yields on local currency sovereign bonds picked up significantly in 2021. But the rise in yields on dollar-denominated bonds was considerably more muted, demonstrating the growing importance of currency risk in the pricing of those economies' sovereign bonds.

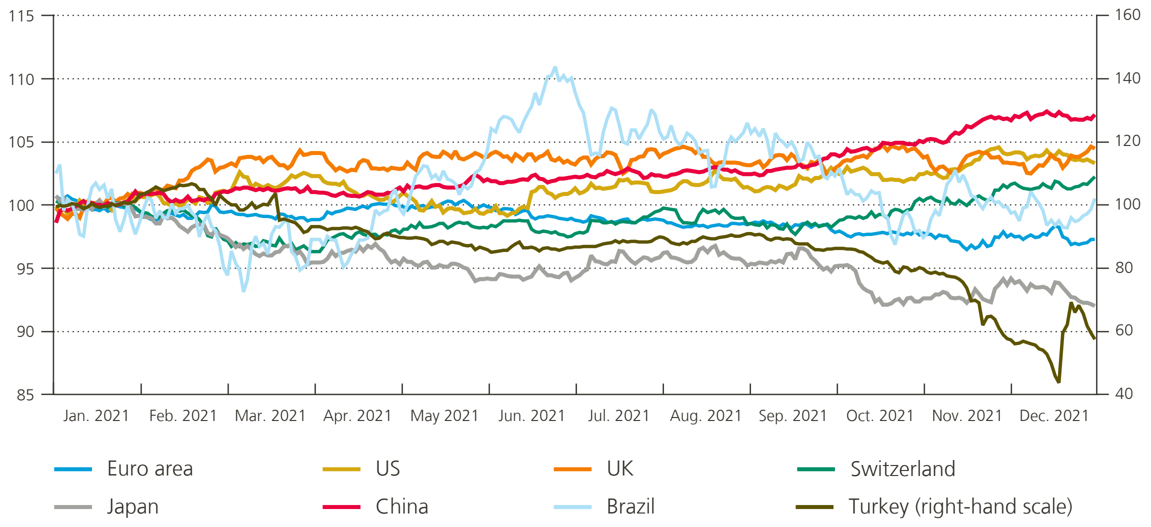
Since inflation expectations outpaced the rise in nominal interest rates, *ex-ante* real yields on government bonds continued to fall. Real interest rates, which had already been negative for some time in the United States, the euro area and the United Kingdom, actually dropped to historically low levels towards the end of 2021.

The exchange rates of the main advanced economies were relatively stable in 2021. Nonetheless, the prospect of monetary policy tightening in the United States, particularly in the second half of the year, caused the dollar to appreciate against the currencies of America's main trading partners, including the euro. Also more generally, the euro depreciated over the course of the year. The Japanese yen weakened considerably, in accordance with predictions that the accommodative monetary policy stance would be maintained longer in Japan than elsewhere. Conversely, the British pound strengthened considerably against the euro because the markets expect the Bank of England to scale down its monetary policy stimulus more quickly than the ECB. The Chinese renminbi also appreciated strongly thanks to China's continuing (albeit decelerating) economic recovery and partly as a result of an attractive carry trade marked by relatively low exchange rate volatility and high yields on renminbi-denominated financial instruments. The currencies of other emerging economies, notably Brazil and Turkey, exhibited high volatility in 2021. Runaway inflation combined with successive reductions in the policy interest rate caused the Turkish lira to sink to new lows.

Chart 1.11

The US dollar appreciated while the euro depreciated against the currencies of the respective main trading partners

(effective nominal exchange rate, indices, January 2021 = 100)



Sources: BIS, Refinitiv (an LSEG company).