

# Stagflation light

Atradius Economic Outlook



# Atradius Economic Research

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# Executive summary

**The global economy is facing an unprecedented mix of challenges which are bringing it to the brink of recession in 2023. Stubborn inflation is the most dire challenge, which has far-reaching knock-on effects across the entire economy. We now find ourselves in a much-feared ‘stagflation’ reality – one characterised by low GDP but high price growth. Central banks have undertaken an aggressive tightening path to help prevent entrenchment of high prices and low growth. While this comes at a cost to global demand, it may just be enough to ensure ‘stagflation- light’.**

## Key points

- Global GDP growth is forecast to slow sharply to 1.2% in 2023 from 2.9% in 2022 as stagflation kicks in. The slowdown is broad based, primarily driven by the cost-of-living crisis in advanced economies, tightening financial conditions, the ongoing Russian war in Ukraine and lingering effects from the pandemic. The downturn should be relatively short-lived though, as the contraction in demand will allow prices to cool off through the year.
- We expect global CPI inflation has now reached its peak and that disinflation will pick up through 2023, bringing the average rate down to 5.3% from 7.9% in 2022. Rapidly tightening monetary conditions are easing demand-side pressures as supply chain bottlenecks subside. The energy and food components will remain volatile as long as the war in Ukraine rages on, but base effects ensure a downward inflationary trajectory.
- Global trade growth is quickly falling back to levels closer to world GDP growth as the pandemic effects fade and global demand falters. With sentiment indicators deep in contractionary territory, we now forecast trade to grow only 3% in 2022 and 1.5% in 2023.
- Advanced economies as a whole will see their growth come to a standstill in 2023 as high inflation and tighter financing conditions constrain consumer purchasing power. The situation for European economies that are more dependent on energy imports from Russia is especially subject to downside risk.
- GDP growth in emerging market economies (EMEs) is forecast to decelerate to 2.9% in 2023 from 3.6% in 2022. EMEs in general have already been dealing with tighter domestic financing conditions and spill-overs from Russia's invasion of Ukraine, especially through prices. These will continue to drag on growth in 2023 as global demand weakens and the higher interest rate environment threatens debt sustainability.
- As the global economy teeters on the edge of recession in H1 of 2023, dragged down by advanced economies, we see persisting inflation to be the main risk. Should further energy price shocks occur in addition to a vicious wage-price spiral in advanced economies, and monetary policymakers fail to rein in price growth, this would lead to a deeper global recession with even higher prices further choking off growth. We call this scenario ‘stagflation-strong’ and expect that it would halve global GDP growth to 0.6% in 2023.



# 1. The global macroeconomic environment

## The Ukraine war continues

In our July Economic Outlook, bearing the title 'Stagflation Threat', we reported that our forecast for the global economy was subject to large uncertainties. These concerned in particular the duration of the hostilities in Ukraine and the extent to which Russia would respond to sanctions imposed by the US, the UK and the EU.

Our initial view of a short-lived conflict, with Russia unwilling to respond by cutting gas supplies to the EU was already starting to look less convincing at the time. The early Russian plans to conquer the whole country were being scaled back to the Eastern and Southern parts of Ukraine, as military progress stalled. Meanwhile, the sanctions were being scaled up, such as a ban on Russian oil imports. Then Russia started to gradually turn off the gas flow to the EU. Nevertheless, at the time it seemed that to abandon these baseline assumptions was still a bit premature. As a result, we came up, though hesitantly, with a rather decent forecast for the global economy for 2022 and beyond. The high level of uncertainty was persistently flagged throughout the document though, as was inherent in its title.

Now, in the final days of 2022, those assumptions should definitely be binned as they are clearly no longer tenable. Heavily supported by the US, the UK and the EU, Ukraine has started to push back Russian forces from their positions in Eastern and Southern parts of the country, regaining territory. Ukraine takes the view that Russia should withdraw fully from the country, including the Crimea.<sup>1</sup> Russia is unlikely to do that voluntarily, as it considers these territories now to be part of Russia. Therefore, the fighting is set to last, at least as long as the Western military support continues, and there are no signs that that is wavering. Nor is there any let-up in the attitude towards sanctions against Russia by the US, the UK and the EU. These have continued to be enforced, with a major sanction, a ban on Russian oil to the EU, to be implemented from 5 December this year<sup>2</sup>. The aim is to reduce the benefit to Russia of its oil exports while at the same time keeping up the global oil supply, of which Russia provides about 10%. Russia has responded by further turning down the gas tap to the EU, allowing only an estimated 20% to flow.

These events have repercussions on our view on the economy. First, the impact of the conflict in Ukraine that we

saw evolving during the first half of 2022 will last longer. That means longer lasting damage to local economic development in Russia and Ukraine, much longer lasting damage to trade between Russia and sanctioning countries, and continued upward pressure on the prices for food, oil and other commodities for which Russia is a major or critical supplier (such as tin, nickel, aluminium and fertiliser). Second, the 80% reduction of the gas supply has provided a second energy shock over the summer in Europe. Faced with the picture of households and firms running out of energy during (a potentially cold) winter, countries started to scramble for alternative gas supplies. These were found in the Middle East and in the US, but at a high cost. Pipeline supply is being replaced by seaway supplied LNG (liquified natural gas). The latter requires liquification and subsequent gasification before it reaches the end user. That already boosts the price of gas. Moreover, in bidding for gas, European countries pushed up its price further. Europe is facing another gas price shock.

The upshot of these two effects related to the war in Ukraine is that the case for a relatively brief period of inflation that was envisaged in July has weakened. Inflation is higher for longer, especially in Europe where the second gas price shock is felt the most. This as such already justifies a change in the Outlook. Higher inflation simply reduces purchasing power and thus demand, reflected in lower GDP. It is stagflation force number one for the global economy underlying this Outlook.<sup>3</sup>

## Inflation and stagnation = stagflation

Let us make no mistake. The progression of the war is not the only major issue in the global economy causing GDP forecast revisions. The inflationary environment we currently find ourselves in has been aggravated, not caused, by the war in Ukraine and related energy price rises. The underlying economic issue is the supply and demand imbalance inherited from the pandemic that we described in the previous Outlook. In short, the pandemic caused a shift in consumption from services to goods, as services were not or

<sup>1</sup> As expressed by President Zelensky during the G20 Summit in Bali. See <https://www.theguardian.com/world/live/2022/nov/15/g20-summit-2022-live-updates-bali-ukraine-volodymyr-zelenskiy-to-address-world-leaders>

<sup>2</sup> A price cap for Russian oil is still to be approved. This is for rerouted oil and can be enforced though insurance companies that insure Russian oil shipments (these are dominated by the UK/EU).

<sup>3</sup> Stagflation is defined as a period without GDP growth while inflation is relatively high, that is to say far above the central bank target (2% in most advanced economies). In this Outlook we use the term somewhat loosely, referring to (unusually) low global growth (below 1.5%) coupled with high inflation.



only to a limited extent available during lockdowns. As the production of goods was likewise reduced, a large demand surplus was created. Supply chain disruptions were a testimony to this, and moreover added to inflationary pressures. This situation is especially prominent in the world's largest economy, the US. The level of pandemic support for firms and, especially, households in the US was unrivalled at 14% of GDP. This further pushed up inflation in the US - to levels not seen for decades: 8% in 2022.

High inflation was initially seen as transitory, and was expected to fade as the recovery from the pandemic gathered pace. But it did not, partly due to the war, prompting central banks all over the world, and notably the Fed, to act with an increasingly aggressive set of interest rate hikes. In conjunction with raising policy rates, central banks are taking money out of the economy by stopping the programme of asset purchases and then only partially reinvesting redemptions on assets held on the central bank balance sheet. This process of rate hikes and balance sheet reduction is called monetary tightening. Monetary tightening causes interest rates to rise, curtailing demand and GDP, thus putting a brake on inflation. It is now taking place at a pace and to levels far higher than we envisaged in July. Similarly to inflation, monetary tightening reduces demand and GDP as well. This is stagflation force number two underlying this Outlook.

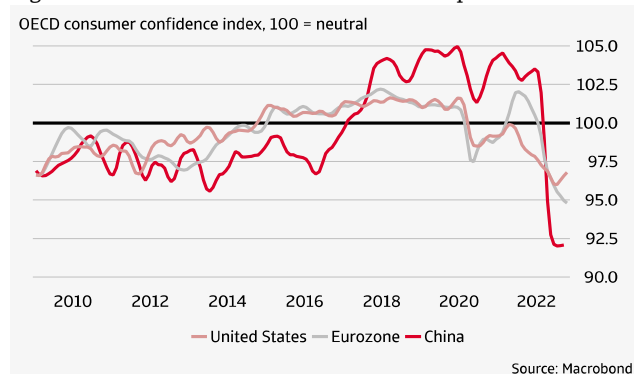
Whereas the war in Ukraine predominantly affects the European economy, and monetary tightening the US economy, for the second largest major global economy, China, matters look somewhat different. China is not affected strongly by the war. Inflation is low at 2% and monetary tightening absent. It has other problems which, given the size of its economy, are negative for global GDP. First, it continues to adhere to a zero tolerance Covid-19 policy. In China, mass testing, mass quarantining and even mass lockdowns are still being imposed at very low infection numbers, dwarfed by those elsewhere in the world. This affects production in the country and clearly demand, especially for services, and thus GDP. Moreover, a property crisis is evolving, with large property developers such as Evergrande in choppy waters. This has caused homebuyer sentiment to plummet, as housing projects for which payments had already been made were not finished. The government has stepped in to support the developers but the situation remains fragile. Such support is expected to be targeted at and limited to systemic developers to avoid moral hazard issues. That in turn creates the uncertainty dampening GDP growth. These idiosyncratic Chinese issues are stagflation force number three underpinning this Outlook.<sup>4</sup>

<sup>4</sup> We are taking a somewhat loose approach here. In China we observe neither strict growth stagnation nor high inflation. But a significant slowdown it is and therefore contributing to global stagflation.

## Moving into stagflation territory

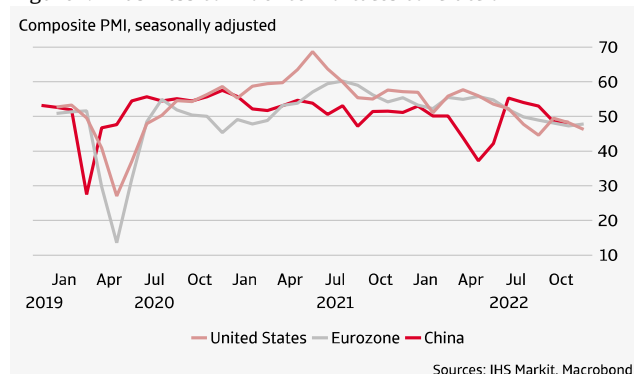
Thus we see that stagflation forces, inflation boosted by the war in Ukraine, monetary tightening and the Chinese slowdown have taken charge. The impact on the global economy is already being felt in 2022 and will be more marked in 2023. Survey based sentiment indicators strongly support this view.

Figure 1.1 Consumer confidence still far below par



The drop in consumer confidence in the US turned around in July and resumed an upward trend, according to the OECD consumer index. But its level is still in negative territory (below 50). The indicator for the eurozone is in negative territory and still falling. In both regions the loss of purchasing power that comes with high inflation is the dominant factor. Chinese consumer confidence dropped earlier in the year into significantly negative territory and has shown hardly any movement since. A broader sense of uncertainty related to lockdowns and housing market issues play a key role. The upshot of this picture is negative for GDP growth. Being in negative territory indicates contraction in consumer spending in the three major global economies.

Figure 1.2 Business confidence indicates contraction



Business sentiment indicators paint a similar picture. The composite PMI, which covers industrial production as well as services, started to slide in both the US and the eurozone

after the war broke out. The PMIs reached negative territory (below 50) over the summer and have slid further, with only a slight rebound in November. In the eurozone the fear of energy rationing dominates, negatively affecting production; in the US, it is monetary tightening. The China indicator fell below 50 at the start of the year, slumped, recovered and fell back. It now signals contraction. The zero tolerance Covid-19 policy and property sector issues are at the heart of the matter. The picture indicates that for the three major economies goods and services production is set to shrink. These are rather strong signals for the upcoming months, pointing at a global recessionary environment, which we think will last well into 2023.

This will not yet feature strongly in the 2022 outcomes, which are expected to be rather decent given the data that have come in so far. GDP growth will be significantly lower across the regions than in 2021, which was expected given that the latter was a pandemic recovery year. Roughly, GDP growth has halved compared to 2021. The exceptions are the US which is already feeling the brunt of the recessionary force and war-hit Eastern Europe. In both economies GDP growth is much smaller compared to 2021. Also, since our July Outlook these forecasts have not changed markedly for the global economy as a whole (-0.1 percentage point revision), with some heterogeneity though. The US and China (and thus Emerging Asia) had to be revised downward as the recessionary forces have started to weigh on these economies. The now less severe recession in Russia helped the much better Eastern Europe forecast, whereas the Latin America forecast is up, benefiting more from higher commodity prices.

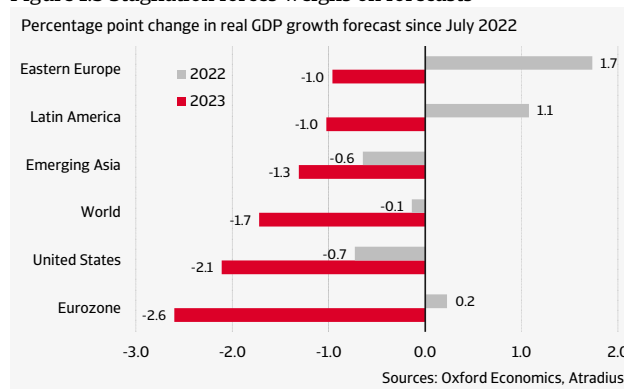
The full weight of the recessionary forces will start to be felt in the first part of 2023 and will have a much more significant impact than in 2022. Indeed, we expect global GDP growth to shrink to 1.3%, a growth level not seen for a long time. Especially the advanced economies, the US and the eurozone, are forecast to face a recession. The only region to escape the stagnation is Emerging Asia, China included. The low level of anticipated growth is one indication that the stagflation forces are to kick in in 2023. The other is the forecast revision since our July Outlook, which has been revised downward by 1.7 ppt for 2023. The revisions for the eurozone and the United States, both more than 2 ppt, are noteworthy, far above average revisions, reflecting the severity of the stagflation forces. No region escapes the axe of the revision, although revisions for Asia, Eastern Europe and Latin America are relatively small, around 1% ppt. After 2023 we see the stagflation forces dissipate, with more normal levels of GDP growth expected in 2024. This is stagflation in a mild form. It is 'stagflation- light'.

**Table 1.1 Real GDP growth (%) – global regions**

	2021	2022e	2023f	2024f
Eurozone	5.3	3.1	-0.1	2.2
United States	5.9	1.8	-0.4	1.4
Emerging Asia	7.2	3.7	3.8	4.8
Latin America	6.8	3.4	0.2	2.5
Eastern Europe	6.5	1.1	0.2	3.4
<b>World</b>	<b>6.0</b>	<b>2.9</b>	<b>1.2</b>	<b>2.9</b>

Sources: Oxford Economics, Atradius

**Figure 1.3 Stagflation forces weighs on forecasts**



## Stagflation-light assumptions

Our forecast is subject to a number of assumptions, two of which we have already unveiled: that related to the war, and the Russian response to sanctions. For completeness sake we add these to the following set of assumptions.

First, the military conflict lasts well into 2023. The main economic spill-overs from the war, upward pressure on commodity prices, particularly for oil and gas, food, wheat and some key inputs from Russia and Ukraine remain.

Second, US, UK and EU sanctions remain in place over the forecast horizon and last well beyond the conflict itself. Russia keeps the gas flow to the EU at the current 20% of the pre-war level. Despite the oil import ban as of 5 December, the global oil supply is not significantly jeopardized. This may be due to Russia accepting the (far) below market oil price, and effective circumvention of the ban via reflagged tankers that can carry insurance, and other OPEC member production adjustment. The result is that we see no new energy price shock, either in the gas, or in the oil market.

Third, now that the Covid-19 pandemic has grown endemic, future waves are set to be milder and much less economically disruptive, as far fewer restrictions will be imposed to curb infections. Temporary lockdowns may not be avoided but the impact on growth is smaller and shorter. China is expected to phase out the zero tolerance policy on Covid-19 to the extent that the damage to the economy is significantly reduced.

Fourth, supply chain disruptions are set to abate as the Chinese zero tolerance is phased out. Easing of supply chain tensions is also helped by the demand contraction as a result

of the loss of consumer purchasing power, monetary tightening and the post pandemic demand switch from goods to services.

Fifth, with consumer confidence low and purchasing power seriously hit by unexpectedly high and persistent inflation, the consumer is not able to keep up growth to the levels that we had forecast in earlier Outlooks. The pandemic support packages have indeed provided the consumer with a lot of additional purchasing power, or excess savings. But inflation has dented these as well as nominal incomes to such an extent that the boost to the economy of releasing those savings is no longer realistic. These now eroded savings are needed to keep up purchasing power and at least limit the damage of inflation.

Sixth, after the remaining pandemic fiscal support programs have expired during 2022, the global fiscal stance will inevitably revert to consolidation. But the process was supposed to be gradual and, now that inflation has proved higher and more persistent, this is even more likely to be the case. Especially in the advanced economies, where governments have more room to step up spending, support for households hit by loss of purchasing power will be provided. This support will be far smaller than the pandemic support programs however, and is targeted more towards the needy. We assume that fiscal policy errors in the shape of large support packages will be limited.

Seventh, we see inflation coming down as the forecast period progresses. This hinges on the assumption that there will be no further oil or gas shock. Moreover, as inflation currently works its way through the economy, no wage price spiral of any significance will develop. This means that inflation will eventually dampen down to levels much closer to those required by central bank targets. These will not be achieved in 2023, especially not in the US. But a switch to a high inflationary environment is not on the cards.

Eighth, we think that further monetary policy tightening is inevitable until sometime in mid-2023. But we expect the pace to slow down as it will become clear that there is an underlying reversal to more normal inflation levels. This is contingent on the absence of further energy price shocks and muted wage development. Central bank policy target achievement is credible for households and firms. This keeps inflation expectations anchored, underpinning the muted nominal wage development and thus lowering inflation.

Ninth, while the risks of deglobalization have grown due to geopolitical tensions, there is little evidence that this is happening so far, especially outside the US. As to the US relationship, especially with China, we assume no meaningful thawing and thus tariffs and non-tariff barriers erected over the past years remain in place. At the same time, the global trade system will remain in place.

Tenth and last, 'scarring' of workers and capital owing to the pandemic is contained, as is the impact on productivity and potential GDP. This is largely due to the support packages put in place by various governments. The side-effect of locking in employees and machines in unproductive or 'zombie' firms is limited. Therefore, the 'scarring' of ability of workers

and capital was contained, and thus the negative effect on productivity and potential GDP.

## Trade growth grinding to a halt

The stagflation environment resonates in global trade as well. It was never expected that the 9.8% trade growth of 2021 would be anywhere near matched. Still, in the first half of 2022, trade held up rather well, so 4% trade growth should be achievable. In view of the developments since July, we have reduced that to 3%. Meanwhile, as indicated by forward indicators such as global export orders (see figure 1.4) trade growth is moving to a halt later in the second half of the year and will only slowly recover in 2023. We forecast 1.5% trade growth for 2023. As the global economy will rebound in late 2023, global trade will follow suit. 2024 will show higher trade growth, in the range of 2.5% to 3%.

Figure 1.4 Forward indicators: halt of trade growth imminent

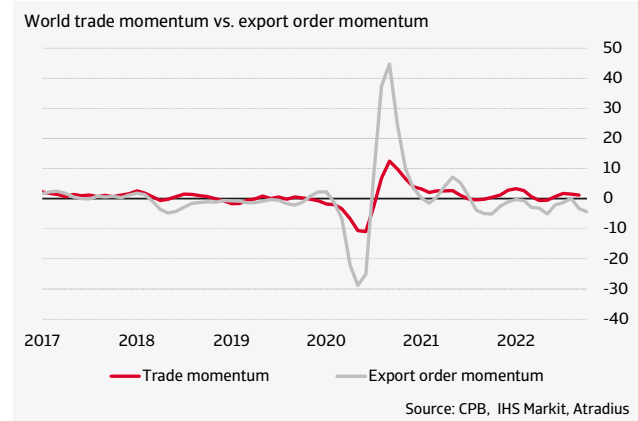
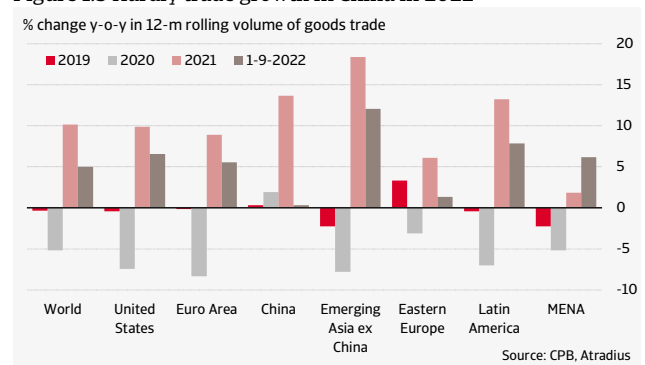


Figure 1.5 Hardly trade growth in China in 2022



This picture implies we are broadly in line with the 1:1 relationship trade growth has recently shown with GDP growth. We think global trade growth has, on average, settled down on this. Looking a little deeper than this global aggregate, we see the following issues behind the slowdown. First, especially in Europe and the US, GDP growth is lower due to high (though as we see it: later declining) inflation, monetary tightening and production bottlenecks, especially in Europe, caused by the war in Ukraine. This depresses import demand, which drives global trade. Second, monetary

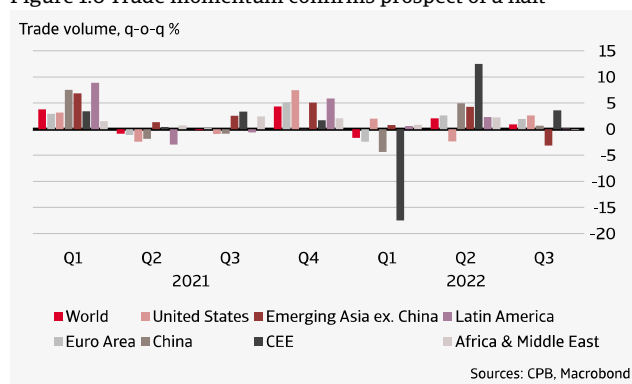


tightening has eroded import demand, especially from emerging economies. These countries saw their currency depreciate against the greenback as the latter benefitted from rapid monetary tightening by the Fed. Third, closely related to the first two points, energy prices are high as a result of the war. This implies that energy intensive production has to be scaled back or even (temporarily) stopped. This is what we are observing particularly in Europe. Fourth, the war is limiting trade between Russia and, notably, Europe, due to sanctions from Europe as well as counter sanctions and the 'delivery restraints' of energy from Russia. This does not mean Russian trade vanishes entirely. It is diverted, for example to China. Indeed, China's USD value of imports from Russia grew by 51% y-o-y in August this year. This was mainly driven by mineral imports: up 64% y-o-y. Oil and gas were up, as were coal, nickel, palladium and aluminium. Russian imports of Chinese machinery and equipment started to soar after lockdowns in China were eased: 43% and 30% y-o-y growth in July and August respectively. But such trade is more costly (otherwise it would have already taken place) and the net impact on global trade is negative. Fifth, China's zero tolerance policy on Covid-19 and the accompanying lockdowns as well as the uncertainty coming from the housing crisis is restraining Chinese import demand. The Covid policy also causes production outlays to be temporarily affected, depressing international trade. This is partly temporary, but may also trigger demand shifts towards other countries. Again, this is trade diversion with a net negative impact on global trade. Sixth, the post pandemic shift from goods to services is underway, with a net negative impact on global trade. Consumers purchased outdoor gear, electronics and cars during the pandemic and have now started buying services again. This is only partly trade generating, in particular trade in services such as travel. Other demand goes to local services such as restaurants, events and culture. Seventh, on the positive side, we see supply chain disruptions significantly coming down, as reflected in the global supply chain index (see figure 1.7). Shipping costs and delivery times have dropped due to lower demand as a result of inflation and monetary tightening as well as the shift to services. The result is lower trade cost, which helps global trade. These seven elements capture our story line for global trade growth.

It is worthwhile to zoom in on the developments in global trade during 2022, thus sharpening the picture of future global trade growth. The overall picture of global trade until September tells the story of developments so far: lower but decent growth (figure 1.5).<sup>5</sup> Unsurprisingly, trade in Eastern Europe hardly grew, reflecting the war in Ukraine. China also scarcely grew, reflecting the Covid-19 policy and property crisis. But the rest of Emerging Asia powered ahead with a growth figure above 10%. The other above average growth regions are Latin America which benefitted from higher revenues from commodities, generating purchasing

power for imports.<sup>6</sup> A similar story holds for MENA which receives more oil and gas revenues. About average trade growth is observed for the US and Europe. That something is going to change can be seen from the three-month rolling quarter-on-quarter data which represent the momentum. That figure is positive for global trade and even now for two months in a row. But the overall figure of barely above 1.25% is only a third of that registered in January. This average holds more or less for the eurozone, the US and Latin America as well. China is still exceptionally low. Emerging Asia holds up strongly whereas Eastern Europe seems to have recovered rather well from the blow earlier in the year. As argued above, this picture is very likely to weaken further during the rest of 2022 and into 2023.

Figure 1.6 Trade momentum confirms prospect of a halt



The trade growth in Emerging Asia is impressive and expected to continue. What is going on here? Largely geopolitics as well.<sup>7</sup> More particularly it is the side-effect of the standoff between the US and China on trade. President Trump imposed tariffs on Sino-US trade during his presidency; and the Biden administration, although taking a more pragmatic (rather than hostile) approach towards 'strategic rival' China, has not scaled them back. This now starts to weigh on trade between the two countries. US imports from China now stand 6% higher than in 2018, implying a loss of Chinese market share of no less than 4 ppt (to 17%). Conversely, Chinese imports from the US grew only 12%, representing a 2% ppt loss of US market share in China. Data tell a story that tariffs really matter. China's share in US imports not covered by tariffs rose 3% pts to 39% in 2022 only; the share of goods covered by a 7.5% tariff shrank by 7% pts to 18%; the share of goods covered by a 25% tariff shrank 6% ppt to 10%. Is this trade destruction? No, it simply goes to other countries in the Asia region. Exports from Cambodia, Vietnam, Bangladesh, Thailand and Indonesia to the US rose exponentially during 2018-2022, with all these countries gaining market share at the expense of China. But it is not only tariffs that matter here. Part of the trade diversion was to take place anyway as the Chinese economy grew away from emerging status, with ditto labour costs levels. That

<sup>5</sup> These are 12-month rolling averages y-o-y. So the period September 2021-August 2022 is compared with the 12-month period before.

<sup>6</sup> This is what economists call a terms of trade benefit. Or in plain American: getting more bang for your buck.

<sup>7</sup> This paragraph draws on Fresh factories, The Economist, November 12<sup>th</sup> 2022.

made a diversion of trade towards other Emerging Asian countries inevitable in any case.

Figure 1.7 Supply chain pressures have fallen sharply



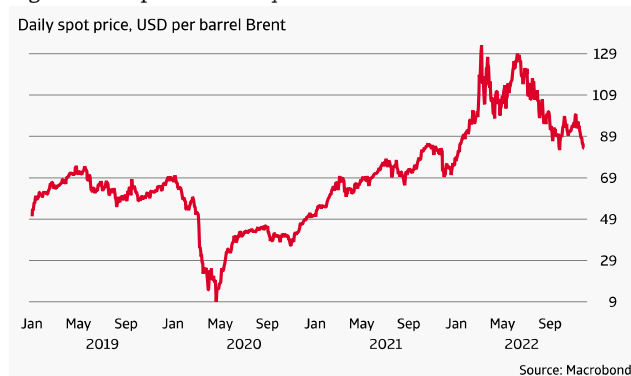
## Volatility is the buzzword in energy markets

Since the summer, the oil price has fallen sharply from its June height of about USD 130 per barrel Brent to slightly above USD 90 and hovering at this level. This fall mainly reflects mounting stagflation fears for the global economy while OPEC+ price support has helped stabilize the price later in the year. Gas prices moved in the opposite direction, especially in Europe where they reached an all-time high in August. The European gas price has now fallen back significantly, but remains four times higher than before the Ukraine war. Gas prices in the US and more in particularly Asia are higher as well. The European August spike was due to EU countries bidding against each other in an attempt to rebuild inventories for the winter. After the gas tanks were filled, prices fell, helped by a very mild October month. Coal prices increased in Q3 as countries turned to coal as a substitute for gas. Prices are now more than 150% higher than the average of the past five years. Within our baseline scenario, we expect some easing of the high fossil fuel prices over the forecast horizon. But they are set to remain at high levels, and for European gas: very high levels. Price volatility, moreover, is set to remain high to very high, especially in the European gas market where the threat of Russia turning off the tap lingers.

**Oil.** Price volatility is a common feature of the oil market. But the swings in 2022 are rather large even for this market. They are driven by a number of factors: slowing GDP growth, concerns about stagflation, the zero Covid-19 tolerance policy in China and releases from strategic reserves. These all put downward pressure on the price. The strength of the US dollar also played a role: oil is denominated in US dollars, so an appreciation of that currency erodes purchasing power, especially in the emerging economies. OPEC+ agreed to reduce production by 2 million barrels per day (about 2% of

total supply) in October. This is an inflated figure as actual production numbers are significantly below quota and the impact on prices is therefore more limited than the headline figure suggests.

Figure 1.8 Oil price volatility



Oil consumption slowed in 2022 from 3.7% y-o-y in H1 to 1% y-o-y in Q3 due to Chinese lockdowns (reducing demand by 7% y-o-y in Q3) and weaker demand, especially the advanced economies. The latter was even softened by government support by way of, for example, gas tax cuts. European countries also switched power generation from gas to oil due to higher gas prices. Aircraft fuel consumption grew rapidly as well. Oil production rose by 2% q-o-q in Q3 and has now reverted to its pre-pandemic level. OPEC+ contributed about 50% to the increase; in Russia, Nigeria and Kazakhstan production quotas were not met. The US stepped in and increased production, which is now back at pre-pandemic levels. In the short term, there is a limit to this expansion. Oil producers focus on returning cash to investors instead of investing in new production and there are labour and equipment shortages. The balance of supply and demand in the oil market is tight. This is reflected in lower industry inventories, which are 5% lower than at the beginning of the year. Moreover, several IEA countries have released oil from their strategic inventories, intended to stabilize the oil price.

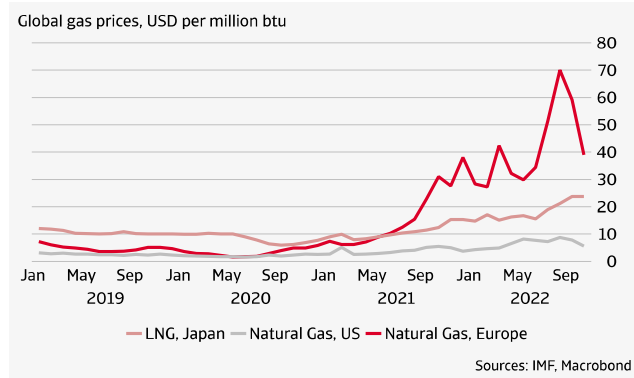
Our forecast of somewhat easing but highly volatile oil prices is built on the stagflation environment, which limits oil demand, in combination with a continuation of the switch from gas to oil and below-quota OPEC+ production. Other factors are the low levels of inventories and limited spare capacity (especially in the US). China demand is to recover only gradually as Covid-19 restrictions are eased. Moreover, the import ban on Russian oil for the EU is due to be implemented by December 5. To prevent Russia rerouting oil to the EU, a price cap of USD 60 per barrel is imposed. It implies Russian oil can only be bought at a capped price,<sup>8</sup> which Russia has already announced it will disregard. The ban clearly adds to uncertainty and price volatility. And it is likely to significantly reduce Russian oil production as well (by about 20% according to the IEA). The upshot of these forces is that demand as well as supply growth will be very

<sup>8</sup> In order to prevent Russian oil being rerouted and still ending up in the EU, a price cap is imposed (to be checked). Above the capped price oil cannot be insured, at least not by insurers based in the EU or UK, where most of them are based.

limited, in the range of 1%-1.5% in 2023. The cap is the recipe for high volatility.

**Gas.** After Russia followed up on its threats and effectively reduced gas exports to the EU by 80%, prices shot up. EU prices that had been volatile between USD 30-40 per million btu, three to four times the pre-war level then doubled again to peak at USD 70. This had a ripple effect on other markets, especially in Asia where countries were suddenly facing European countries competing for LNG as well. The US also felt the impact of the ferocious bidding, as the country is an LNG exporter. After the tanks were filled, and households and firms reacted to the higher prices, European prices fell back to the USD 45, still above the pre summer spike level. This summer rollercoaster fundamentally changed the market. Relatively cheap pipeline gas from Russia to the EU is now being replaced by the much more expensive LNG coming from North Africa (Algeria), the Middle East (Qatar) and the US.<sup>9</sup> Price levels in the other gas regions remained higher as well. Emerging economies such as Pakistan and Bangladesh bore the brunt. They were outcompeted in the LNG market and faced power shortages. Other Asian countries such as Japan and South Korea were protected by long term contracts, but still sought to diversify away to nuclear for power sourcing.

Figure 1.9 Uncertainty in European gas market prevails



Gas consumption fell in Q3, in Europe by 10%. Energy intensive production outlays such as fertilizer plants cut back output, power generation switched to other sources, including coal. Households faced with potentially huge energy bills responded by saving on energy consumption, helped by the mild autumn weather in Europe. Government policies aimed at increased consciousness to reduce energy consumption, and in particular gas, provided further support. Gas production took a hit, as expected, particularly in Russia (17% shrinkage y-o-y in August). The country has very limited options for replacing pipeline exports. The shortfall was partly offset by the US, with a 10% production increase in Q3. In the US the rig count is up, with some of the production increase coming from gas derivatives of oil production. Exports from the US to Europe soared, although hampered by the explosion at the Freeport LNG terminal

early in the summer. Higher production was observed in Qatar, Australia and Egypt.

We expect this picture of significant supply disruption of gas from Russia, only partially made up for elsewhere, with higher prices and lower gas demand, to hold over the forecast period. The key to future developments will be in Europe. Assuming a relatively mild winter, gas tanks will be gradually emptied. Filling them for the winter of 23/24 will be a challenge, more so than this summer. This is because in H1 2022 Russian gas still flowed to Europe, in much greater quantities than the current 20% that now remains. In 2023 this flow is unlikely to recur and therefore has to be made up for. European LNG imports are expected to increase by 60% in 2023, helped by new import terminals, including floating terminals. But that increase is more than double the available export capacity elsewhere, creating uncertainty about feasibility. Even if the EU achieves coordination amongst, rather than competition between its members, prices will remain elevated. Moreover, price volatility is set to remain high as Russia has already hinted it will possibly play out the card of cutting the remaining 20% of the gas flow to Europe.

**Coal.** Coal prices increased significantly during H1 and then levelled off after the summer. The price went up as demand increased due to the price rises in the gas market that spilled over: in power generation coal replaced gas especially in the EU. In China, coal consumption was influenced by weather conditions; in the US it actually fell. The link of coal prices to (European) gas market developments is set to remain over the forecast period. As gas prices are to remain high and volatile, demand for coal will be higher than before the Ukraine war. Relatively elevated prices are therefore expected.

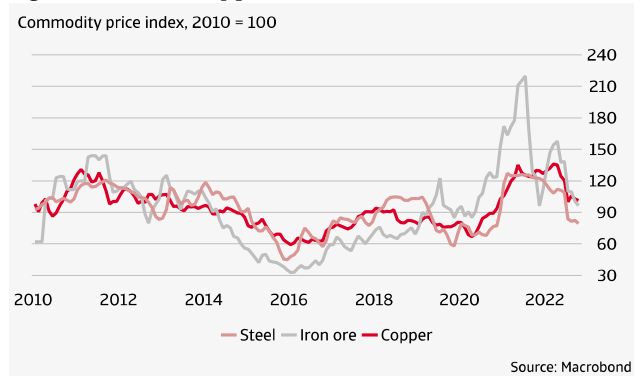
## Commodity prices caught by stagflation

Commodity prices that rose with the shock of the Ukraine war, had already calmed down during the summer and have further declined since. We refer to metals prices and food prices in particular. Prices are expected to decline further for food and - especially - for metals where stagflation forces are felt strongest. This will help inflation to come down over the course of 2023.

**Metals.** Metals prices fell 13% in Q3 y-o-y as the economy slowed down and demand growth in China, the largest buyer, remained subdued. But the shock of the war is still felt: the price level remains much higher than a year ago. But this will not hold. Metals prices, especially those for iron ore and copper, are expected to decline significantly in 2023 and flatten in 2024.

<sup>9</sup> LNG requires liquification of gas drilled, transport per ship and gasification, adding USD 8-10 per btu to the cost.

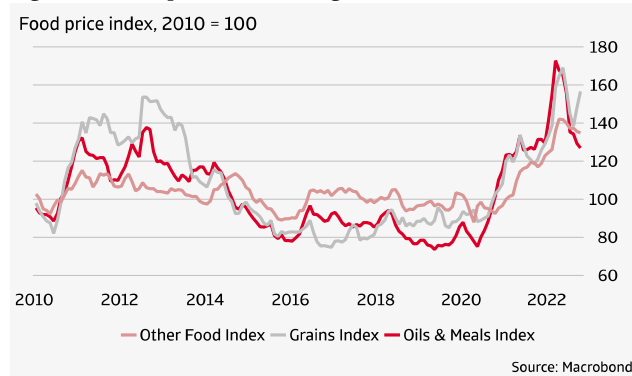
Figure 1.10 Commodity prices much lower



Iron ore prices dropped 23% q-o-q in Q3 2023 and are now 35% lower than the March peak. Iron ore is used as an input for steel production, which has been reduced, in particular due to lower industrial production and construction. In China the property sector is weak. On top of that are China steel production facilities closures due to zero-Covid-19 policies. Outside China, steel production was cut back as well, reflecting weakness in the construction sector. The other factor is that the iron ore market is oversupplied, even taking into account the currently lower supply from Ukraine and Russia as well as India. Price pressures are therefore set to continue into 2023, with capacity additions coming from Australia and Brazil weighing in as well. New projects in countries such as Guinea reinforce this. Some relief may come from limitation of steel output in China as part of the energy transition. Copper prices declined 19% in Q3 q-o-q. The commodity is very sensitive to global economic developments, and therefore the slowdown is strongly felt, with concerns about stagflation already weighing on prices as well. Supply disruptions play a role, particularly those in Chile and Peru, as does reduced production in some of China's metal refining regions. Copper smelting and refining are relatively low energy-intensive, as a result of which, no European production cuts have been reported. Still, with stagflation forces weighing on demand, prices are expected to drop more than 10% in 2023, after which stabilization will occur. Underlying price support is coming from the energy transition. Copper is an input for electric vehicles and renewable power, both significantly more copper intensive than regular cars and conventional power.

**Food.** The grain price index fell by 12% in Q3 y-o-y, as did the broader food price index now that the UN-brokered deal that facilitates grain exports from Ukraine is in place. Nevertheless, prices remain 20% higher than a year ago. That is not going to last. The Ukraine deal and some countries increasing production leads to bigger supply while stagflation reduces demand. The expected price fall in 2023 is expected to be rather mild, however flattening out in 2024.

Figure 1.11 Food prices stuck at higher level



## High inflation unlikely to persist

In view of the picture we have sketched so far, a slowdown and even prospects of GDP stagnation suggest that the very high levels of inflation we are currently observing are unlikely to persist. This picture is reinforced if one takes into account the moderation of energy prices as well as lower commodity and food prices that we have argued are on the cards. We maintain the view expressed in previous Outlooks that lower and even much lower inflation than we are currently facing is ahead. It may be well into our forecast horizon but we think inflation will ultimately be ending at the targets levels of the central banks which is around 2%. This is a low inflation environment.

Admittedly, the most recent data are not exactly in keeping with this view. True, US inflation seems to have peaked in June at 9.1% y-o-y and has meanwhile fallen back to 7.7% in October. This is attributable to lower energy inflation which went from 3% in June to 1.3% in October, as food inflation remained constant at 1.5%. Core inflation, which strips out these volatile components, has risen again from June and is now at 6.3% y-o-y. In the eurozone the situation is somewhat different. Inflation is higher, with the October reading of headline inflation at 10.6%, up from 8.6% in June. Core inflation is still lower than in the US at 5%, but on a rather steep rise (3.7% in June). Energy inflation remained constant at 4% y-o-y, with the remaining inflation impetus coming from food price inflation which rose to 2.9% versus 2% in June.

In emerging economies, the general picture of inflation is more in line with that in the advanced economies, as countries are facing price rises in food and energy, as well as often facing an impetus from dollar appreciation. The outlier is China, where headline inflation remains low, with the October reading at 2.1% y-o-y confirming the stability throughout the year. In South Africa and India levels are already significantly higher at above 7%, whereas the Brazil reading is above 10% and in Russia almost 13%. Turkey is the outlier on the high side at 85% in October, with the country facing a range of idiosyncratic issues (see emerging economies section).

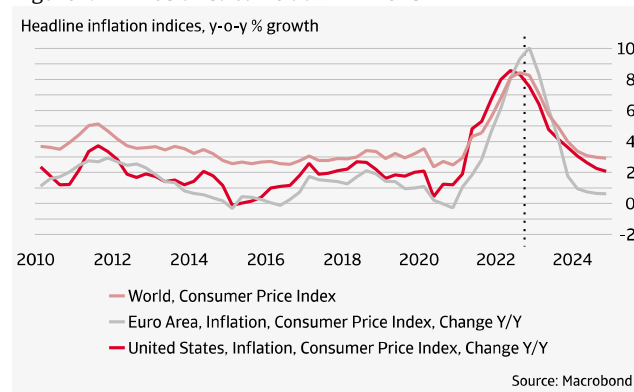


The following remarks are relevant, zooming in on the US and eurozone. First, in the US core inflation is high and persistent. This was supported by the large stimulus package (12% of GDP) that the US government handed out during the pandemic to households in particular. In the eurozone the focus of (smaller) stimulus packages was on job preservation. The demand boost, particularly for consumers, coming from government support was therefore larger in the US. Second, energy inflation in the eurozone is much higher, reflecting the status of energy imports. The US is energy self-sufficient. Energy prices are rising much faster in the eurozone than in the US. Third, taking this into account, the rise in core inflation as well as food inflation in the eurozone is a reflection of energy prices that gradually trickle down into the rest of the economy. Energy is simply input in all production processes. Eurozone firms have started to pass on at least part of the energy price rise to consumers. US firms are less pressed to do this.

With this in mind, we can explain why we think that inflation will come down significantly over the forecast horizon. First, to the extent inflation is caused by energy price inflation, as is the case in the eurozone, one should look at this for a clue to developments in inflation. As we have argued that energy prices will stay elevated, but no further energy shock is expected, energy inflation will gradually move to lower figures.<sup>10</sup> This means that the impetus for the trickledown effect from energy, so prominent in the eurozone, will disappear over time. Second, high inflation implies significant erosion of purchasing power of consumers in particular. That in itself has an impact on demand for goods and services and therefore is providing a slowdown of inflation. The higher inflation is, the larger this effect of slowing demand. It can be softened by the savings that were accumulated during the pandemic. Third, inflation pressure will also be relieved as supply chain disruptions ease. Such disruptions cause firms to search for alternative suppliers, and that comes at a cost. Relief will then stop this process and eliminate this inflation source. In the trade section above we have argued that we observe these pressures unwinding. This process is underpinned by weaker aggregate demand as well as the post-pandemic demand switch from goods to services. It is goods supply in particular that is hampered by supply disruptions. Fourth, the process of inflation coming down described so far can be seriously impaired if wage growth is such that firms are forced to pass wage increases on into prices, which will then again trigger wage growth etc. So far, this is not what we are seeing. Even in the US, where the unemployment rate is still at record low levels at 3.5%, the three month nominal wage growth average of 6.4% is significantly below the inflation rate over that period. In the eurozone, wage growth was still below 3% in September, indeed well below the inflation level.

The unemployment rate in the eurozone has come down markedly recently and is now under 6.6%. That, however, is still a far cry from the US level of 3.5%. Fifth, recent research by the IMF highlights the importance of inflation expectations for nominal wage demands.<sup>11</sup> Indeed, it is especially inflation expectations (and productivity growth), and much less changes in the unemployment rate, that are relevant in nominal wage demands. In this context, the picture of inflation expectations in the US and eurozone do not give rise to concerns. Inflation expectations are indeed higher than over the past couple of years. But the rise seems most prominent in the short term and levels are indeed far below the inflation levels currently observed. Moreover, medium-term expectations point at slightly above the 2% target inflation. These point at muted increases of wage demands, dampening inflation. Sixth, an argument related to the previous one: central banks are aggressively tightening monetary policy (see below) to get inflation back to target. That is important because as long as it is credible, inflation expectations and therefore wage growth will be contained. Moreover, central bank action has an additional dampening effect on inflation because it restrains demand as financing costs are driven up. That affects both investment and durable goods consumption. Seventh and last, we think that the underlying forces of a low inflation environment may perhaps have somewhat weakened, but have not disappeared. These are: globalization, suppressing inflation as the number of suppliers of a good or service is high; digitization, generating transparency of prices and possibilities for comparison; low labour union membership, weakening wage demands; and population aging, which results in higher savings. This means that we do expect the world to return to a low inflationary environment.<sup>12</sup>

Figure 1.12 Inflation to come down in 2023



<sup>10</sup> This is a simple calculus effect as for the calculation of energy inflation in, say June 2023, one compares the energy price of that month with that of June 2022. As we assume no energy price changes, energy inflation in that month will be zero.

<sup>11</sup> Wage dynamics post-Covid-19 and wage price spiral risks, IMF World Economic Outlook October 2022, p 51-69.  
<https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>.

<sup>12</sup> The BIS has discussed how such a switch could occur, namely because inflation at higher levels becomes more important for economic agents, allowing for a wage price spiral to be set in motion. This would be reflected in inflation expectations becoming far higher than they are now. See Inflation: looking under the hood, BIS speech June 26, 2022.  
<https://www.bis.org/speeches/sp220626a.htm>



Figure 1.13 Containing wage pressures

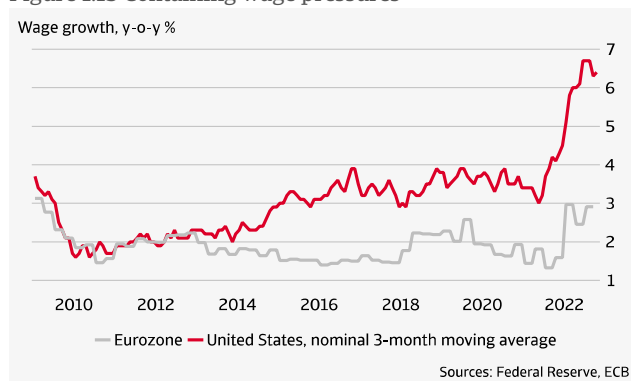
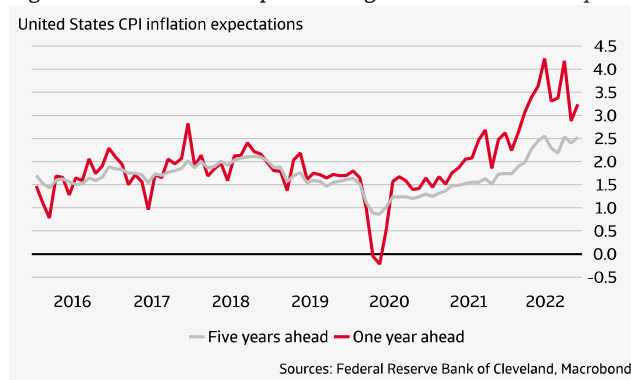


Figure 1.14 Eurozone inflation expectations remain anchored



Figure 1.15 US inflation expectations give no reason to worry



## Pace of tightening to slow and ultimately to reverse

The above picture of headline inflation should perhaps not worry central banks too much. The level is high, but it is expected to come down as the sources of inflation, predominantly energy, commodity and food price rises, fade. One could expect central banks to normalize monetary policy, that was lax during the pandemic in support of the economy, in a relatively moderate fashion.

But this is not what we are seeing, especially in the advanced economies. Central banks seem rather nervous, especially in

the advanced economies. Led by the Fed, they have embarked on an increasingly aggressive tightening path. While the first step of the rate hike was a rather modest 0.25 basis point in March, in April it was already 0.5 bps and since then, there have been only steps of 0.75%, with the current level of the Fed policy rate having reached 4%. The other leg of tightening, the so-called quantitative tightening, implies a reduction of the balance sheet that grew by USD 2 trillion to USD 9 trillion over the pandemic. The reduction is achieved by only reinvesting expiring bonds below a cap, which is currently USD 95 billion per month. This has led to a balance sheet reduction of USD 300 billion since June. The ECB started tightening later but meanwhile has taken aggressive steps as well, pushing the policy rate up to 2% in three steps over a three-month period. The ECB has also stopped its bond purchasing program, but is yet to announce when it will start reducing the balance sheet. It has even announced a new program, the Transmission Protection Instrument, in order to address disorderly market dynamics such as large spread differences of government bonds. Both central banks have stopped providing the financial markets with so-called forward guidance in which they set out the envisaged rate hikes. We expect monetary tightening to continue, but the pace will be significantly reduced as inflation comes down over the forecast horizon. Ultimately the tightening will be reversed, as we shall argue below.

To get to our argument, first consider how the steps should be interpreted. We observe central banks have become increasingly worried that inflation will persist. This is an issue in the US where core inflation is high, but also more and more in the eurozone where it is rapidly increasing. While there was initial hesitancy about inflation persistency, and thus slow tightening, central banks are now pulling out all the stops. This is particularly considered important to prevent inflation expectations from becoming de-anchored. If that happens a vicious wage price spiral could be set in motion. That implies erosion of confidence in central banks' core task to fight inflation, their very *raison d'être*. In such circumstances they will have to tighten even more aggressively. By acting now, this kind of stepped-up tightening can be prevented. Still, while keeping inflation at around 2% is the core business of central banks, they have to strike a balance as well. This is because fighting inflation, especially if it is done aggressively, has a side effect of choking economic development: interest rate hikes make borrowing for firms and households more expensive. Therefore in the mandates of the Fed and the ECB, economic development is included. For the Fed even to the extent that the mandate is dual, it must achieve low inflation and low unemployment, while for the ECB it is more vaguely phrased. This means that for every rate hike a close eye should be kept on the economy as well.

In the context of this balancing act, the question is where monetary tightening will end. The relevant metric to consider here is the so-called neutral rate of interest, which is the level of the interest rate where inflation is at its central bank mandate value, i.e. 2%, and the economy is growing at its potential. Machines and workers are used at their capacity, no more, no less. This is may be a theoretical

concept, and arguably it is. But it has its value. The reason is that it can give us an indication of where the interest rate is going. Take the US. Oxford Economics estimates that this neutral rate is at 3%.<sup>13</sup> With current inflation at 8%, we know that the central bank will raise the interest rate to bring inflation level down. But this will not last, and the rate will be brought back towards 3% as soon as inflation comes down. Such a rate hike correction will then expand economic activity without inflationary consequences. The point here is that there is an underlying long term force that pulls the economy back towards the 3% interest rate. If that force is ignored and the central bank keeps the rate above 3%, it would constrain economic activity unnecessarily, as inflation is under control. That would be considered a policy error, and one can assume it will not happen. Therefore we can expect interest rates to fall back from their current levels as soon as inflation is under control. For the eurozone, Oxford Economics calculates the neutral rate to be even lower than 3%, for which reason there is an underlying pull towards an even lower interest rate.<sup>14</sup> This means official rates are lower than in the US. Again, after the inflation fight has been won, rates will come down quickly. The upshot of this analysis is, in combination with our view on inflation, that as soon as the inflation rate comes down persistently, the Fed and ECB will slow rate hikes, and then reverse towards the neutral levels.

Clearly, we have not reached that point yet. Meanwhile, the impact of the central bank action, especially the Fed's, reverberates in the financial system, where uncertainty reigns as rates go up. On the back of the official rate rises, yields on government paper have continued to increase, reaching levels above 4.5% of the US treasuries and above 2% in the eurozone (for Germany, the benchmark). The euro slid further versus the USD reaching a low of USD 0.96 to the euro in September after which some recovery set in. The uncertainty was particularly felt in the stock market where the S&P 500 index swung no less than 20% between low and high, the eurozone STOXX more than 30% and the Emerging Markets MSCI more than 10%. Even the volatility VIX index itself showed large swings. We expect this situation to calm down, but only gradually, as inflation comes down and central banks act as we expect. At that point, the financing cost increase for firms and households will level off, but to a considerably higher level than when the tightening started.

Figure 1.16 The dollar surge has stabilised

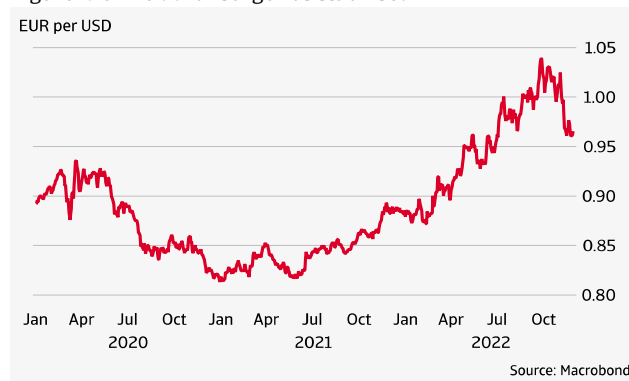
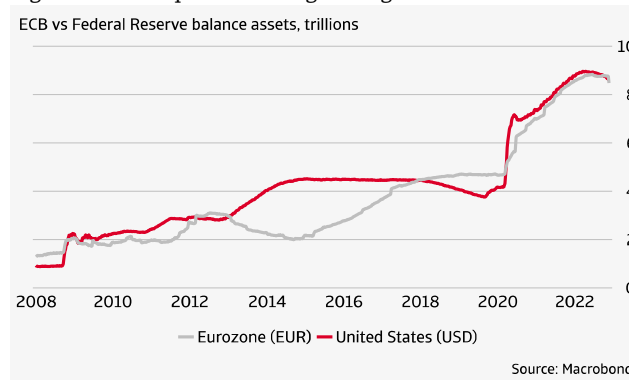


Figure 1.17 Slow quantitative tightening



<sup>13</sup> Why the neutral rate will fall below pre-pandemic lows. Research Briefing US Oxford Economics, 29 September 2022.

<sup>14</sup> Long-term forces to keep interest rates and inflation low. Research Briefing Eurozone Oxford Economics, 23 November 2022.

Figure 1.18 Aggressive interest rate hiking

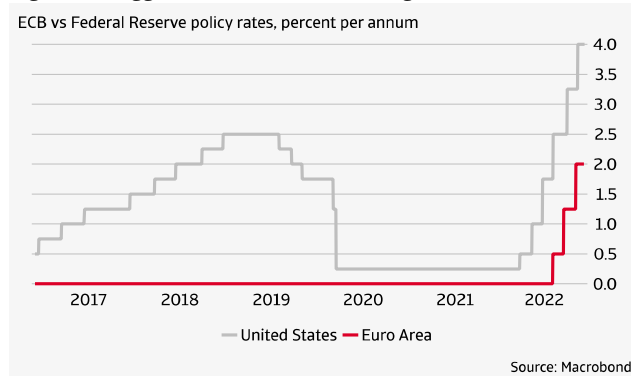


Figure 1.21 Volatility down but still high

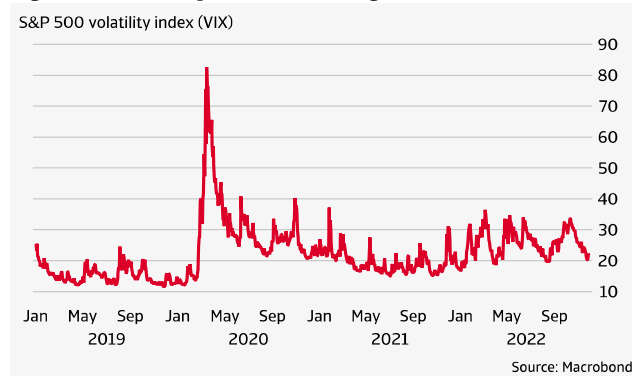


Figure 1.19 Borrowing costs are up significantly

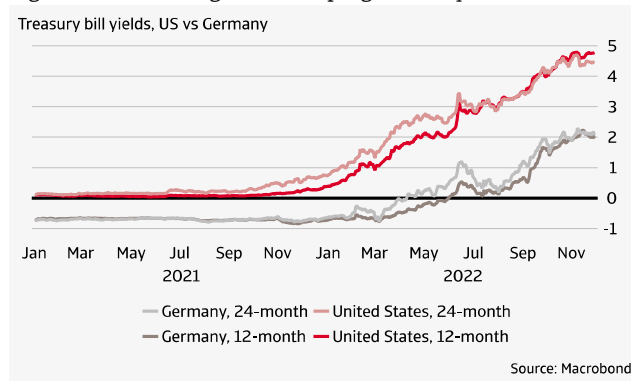
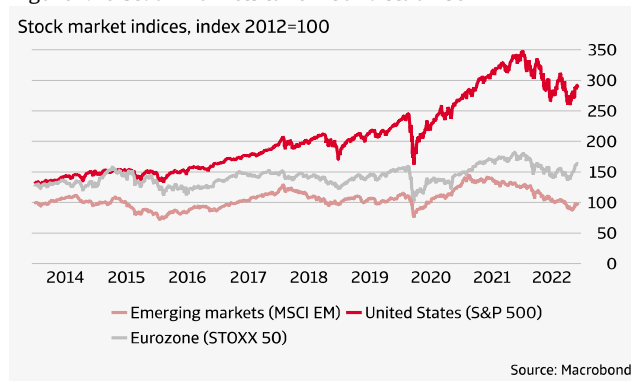


Figure 1.20 Stock markets take hit and stabilise



## Not much room for further fiscal expansion

What about the role of the government in this situation of slow growth, high inflation and central banks that have started to apply the brakes, hiking interest rates? Governments have spent vast amounts, especially in the advanced economies, to help economies through the pandemic. As the latter retreated in the course of 2021 and 2022 it is natural to see the government retreat as well. After all, the spending had not been for free, pushing the global public debt to GDP ratio by 12 ppt up to 123%. The overall picture, especially in the advanced economies, is indeed in line with this expectation.

Government structural deficits, as a measure of the extent of government stimulus in the economy,<sup>15</sup> are coming down, in the advanced economies from 6.1% in 2021 to 3.8% this year and only marginally declining afterwards, implying a contractionary impulse. The US is an outlier on the upside, with the huge government support package of 12% of GDP leading to a 2021 deficit of 11%. But this is to be reduced to 3.8% in 2022 and will only slightly widen afterwards, providing a mild stimulus. This stimulus is not coming from the so-called Inflation Reduction Act of 2022 of the Biden administration. That bill, as the name suggests, is contractionary, with about USD 740 billion in revenues and authorizing only USD 340 billion spending on energy transition and affordable care. German structural deficit figures pale in comparison, with the peak of 3.4% in 2021 shrinking to 1% and below afterwards. This lower stimulus figure is in spite of a EUR 200 billion support program (5% of GDP) to address the energy crisis, which will (at least partly) be funded by taxes on windfall profits of firms benefitting from the energy crisis. Stimulus in other large eurozone countries is reduced as well but remains much higher, especially in France (around 4%) and to a lesser extent Spain (2%) and Italy (down from 4% to 2%).

Is this affordable? To some extent inflation comes as a blessing here if we consider the debt ratio. Via the

<sup>15</sup> The structural deficit is defined as the government deficit which would remain if the impact of the business cycle on the economy is eliminated (such as high unemployment

spending in a recession). It is expressed as a percentage of potential GDP, which again eliminates the impact of the business cycle.

denominator effect of a higher nominal GDP 2022 advanced economies debt-to-GDP levels shrink by 12 ppt to 111% after which they stabilize. This effect is visible even more prominently in the US where a 15% point reduction has been achieved in 2022, to a still very high level of 145%, after which not much change is expected. This level contrasts with Germany's at just above 60% which will hardly move either. The debt-to-GDP levels for Italy, Spain and France have declined but remain far above 100% without much change ahead. The upshot is that, despite the blessing of inflation on nominal GDP, the debt-to-GDP level comes out higher than before the pandemic. This, in combination with increasing interest rates, suggests shrinking room for expansionary fiscal policy. There is considerable divergence between countries though, with Italy, for instance, already close to its expansionary limits.

There is another question that inflation and the monetary tightening raises. That is: should fiscal policy be expansionary at the same time that the firemen of the central banks are out? On the face of it, the answer is "No", because any structural fiscal deficit implies an impetus from the government for economic activity. That could trigger inflation which is exactly what central banks do not want at this stage. Ideally, packages like the US Inflation Reduction Act should be built as these account for about one third of fiscal contraction. But, unlike eurozone countries, the US does not face an energy crisis. Fiscal policy in the eurozone requires much more finetuning. Support for households and firms, especially those hit hardest, is needed. At the same time, finetuning the targeting of such measures towards these is difficult, especially if this has to be done at short notice. The side-effect of the support measure could then very well be inflationary. But as the size of the support packages generally remains limited, such an outcome seems unlikely. This holds at least for the short term. For the longer term, reducing the structural deficit seems inevitable. There is not much room for further fiscal expansion.

In the larger emerging market economies the situation is somewhat different. In India, China and particularly Brazil the structural balance was high (even as high as 10% for Brazil). Resumption of growth in 2021 led to a significant decline. But in 2022 and beyond, the fiscal stance is expansionary, and much more than in the advanced economies. Indeed in 2022 the deficits vary from 6% to 8% of GDP. In terms of affordability, their debt-to-GDP ratio, especially India's and China's at below 60%, seems to allow some more room than most of the advanced economies. The aggregate debt ratio of these large emerging economies is below the threshold of 65%, where that of the advanced economies is far above 90%. On aggregate though, the debt-to-GDP ratio is 65%, and with higher financing costs this allows limited if any room for fiscal expansion.

Figure 1.22 Government debt far above thresholds

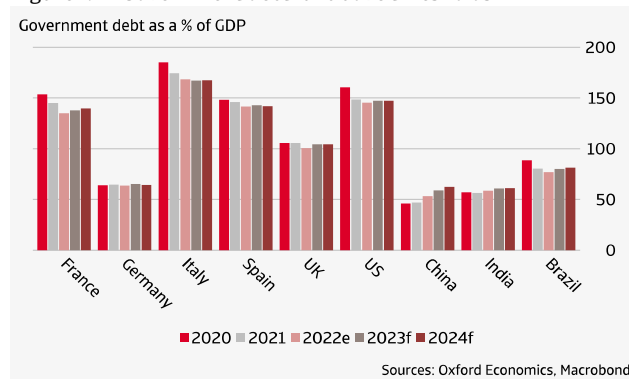
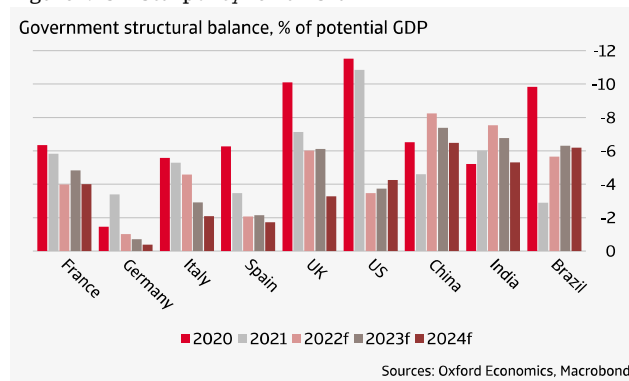


Figure 1.23 Fiscal policy remains lax



## Worse is possible: stagflation-strong

In this outlook we have pictured a world where, due to high inflation, economic activity will hardly grow. This will not last long because we expect inflation to come down and GDP to recover somewhere in 2023. We call that stagflation-light. This a development that we consider most likely and is in that sense our baseline scenario.

In particular, the development of inflation is key to this. We think that we are having only a supply and energy price-driven bout of inflation. That will fade after the main causes - supply bottlenecks and energy price shocks - have calmed down and these effects have worked their way into the economic systems, bringing core inflation down too. This rests on the underlying assumption that a wage price spiral will not be set in motion because inflation expectations remain anchored around the central bank mandate levels. Central bank credibility is not challenged in that scenario.

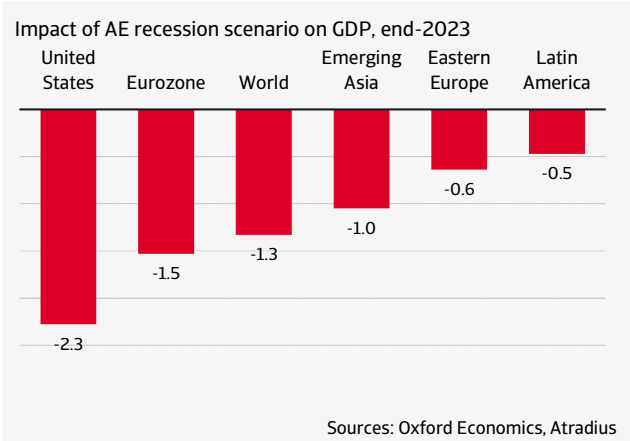
This is of course by no means a certain path of economic development. Inflation may be more persistent, as it already in a way has proved to be during 2022. Inflation expectations may become de-anchored and wages and prices may start to show that feared vicious cycle. That would bring the global economy into much more dire straits than we envisage now, shaving off an increasing percentage of GDP growth compared to the baseline as the figure shows.

Essentially, this represents a switch from a low inflation to a high inflation environment. It causes what we call a stagflation-strong scenario.

This would impact global GDP as follows. Central bank credibility is threatened by the persistency of inflation. Replacement of Russian gas supplies takes more time than envisaged, resulting in higher energy prices than under the baseline, limiting the disinflationary effect. That will trigger even more rapid tightening than what we are currently seeing. Policy rates are raised further. Financial markets are rocked by the rapid monetary tightening. Bond yields rise sharply and equity prices plummet 15%-20% below the baseline. A flow to the safe haven, the US, causes further USD appreciation. With higher inflation expectations at 1%-1.5% above the baseline, nominal wages rise faster than anticipated but despite this, do not keep up with price pressures. Consumer disposable income is squeezed and consumption takes a hit. The global economy slows, and growth is halved in 2023 compared to the baseline - ending at 0.6%. This lower demand gradually erodes supply as well, so that over a longer term output is 1.5%-2% lower. In essence

what we describe here is a world, similar to our baseline, but with a much greater negative impact of inflation than expected. Stagflation-strong, in other words.

Figure 1.24 The impact of persistent inflation





## 2. Developments in major economies

### Advanced economies

High inflation will be the main hindrance to growth in advanced economies in 2023. High energy and food prices are the main inflation drivers, though other components such as services and non-industrial goods also increasingly contribute. Many governments have implemented policy measures to shield households from rising energy costs, which keeps fiscal policy broadly supportive in 2023. Central banks, on the other hand, have started to tighten monetary policy to combat high inflation. Growth in advanced markets is projected to come to a complete standstill in 2023 (0.0%), after an already meagre growth in 2022 (2.5%). Several key advanced markets – US, UK and the eurozone – are expected to fall into recession in 2023. We expect growth in the US to decline further as stubborn inflation and hawkish monetary policy take their toll on consumption. Eurozone GDP growth is also expected to be in negative territory, mainly as a result of high energy prices. Growth is expected to increase slightly in 2024 (1.8%), as inflation moderates and households' purchasing power improves.

Table 2.1 Real GDP growth (%) – advanced markets

	2021	2022e	2023f	2024f
Eurozone	5.3	3.1	-0.1	2.1
United States	5.9	1.8	-0.4	1.4
United Kingdom	7.5	4.3	-0.7	1.8
Japan	1.7	1.6	0.9	1.6
<b>Advanced economies</b>	<b>5.3</b>	<b>2.5</b>	<b>0.0</b>	<b>1.8</b>

Sources: Oxford Economics, Atradius

### Eurozone: a purchasing power crisis

As the reality of a protracted Russian invasion of Ukraine sinks in, the outlook for the eurozone is turning grimmer. The eurozone is relatively exposed to the conflict due to its geographical proximity to the war and high reliance on imports of fossil fuels. The shocks of the war set the eurozone on a path of lower growth and higher inflation. We expect 3.1% GDP growth in 2022, followed by a much weaker -0.1% in 2023. Growth in 2023 has been revised down by 2.6 percentage points compared to our July Economic Outlook. This negative growth revision has taken place among all major economies (see figure 2.1). In 2024, eurozone GDP growth is expected to pick up again to 2.1%, as the negative effects of the war wear off.

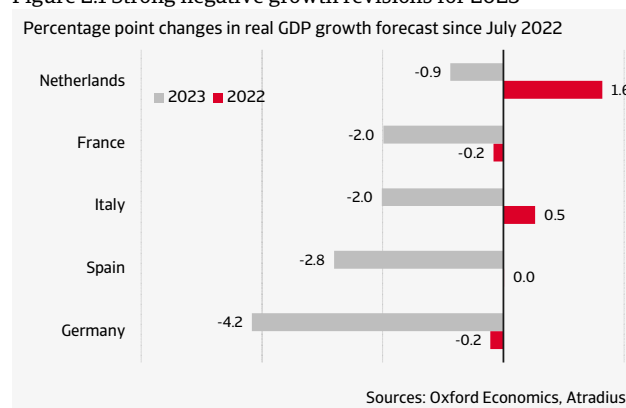
Table 2.2 Real GDP growth (%) – eurozone

	2021	2022e	2023f	2024f
Austria	4.7	4.3	-1.0	2.5
Belgium	6.1	2.8	-0.2	2.5
France	6.8	2.5	0.2	1.9
Germany	2.6	1.5	-1.1	2.7
Greece	8.0	6.1	-0.2	2.2
Ireland	13.4	7.8	1.7	2.2
Italy	6.7	3.7	-0.1	1.2
Netherlands	4.9	4.7	0.8	1.6
Portugal	5.5	6.6	0.4	1.8
Spain	5.5	4.5	0.8	2.5
<b>Eurozone</b>	<b>5.3</b>	<b>3.1</b>	<b>-0.1</b>	<b>2.1</b>

Sources: Oxford Economics, Atradius

In our downside scenario, 'stagflation-strong', we assume that inflation is more persistent than anticipated, triggering additional monetary tightening. In this scenario, eurozone GDP growth in 2023 slows to -1.5% vs. -0.1% in the baseline. The growth picture for 2024 is only mildly weaker in this scenario (1.8% vs. 2.1% in the baseline).

Figure 2.1 Strong negative growth revisions for 2023



In our baseline scenario we assume that GDP enters recessionary territory in Q4 2022 and that growth will remain negative on a quarterly basis in Q1 2023. The eurozone is facing several headwinds, including energy prices, while the initial benefits from the reopening of the economy are mostly exhausted. Sentiment indicators confirm this picture. The European Sentiment Indicator (ESI)

declined in the past couple of months, to 92.5 in October (100 is the neutral level). A similar negative sentiment is visible in the composite Purchasing Managers Index (PMI), which dropped below 50 (the neutral level) four months ago. The latest composite PMI reading was 47.8 in November 2022.

The ongoing slowdown is visible in both services and manufacturing. While industrial production numbers for September were positive (4.3% year-on-year), industry is facing several headwinds, such as soaring energy costs, weakening demand, supply disruptions, and input shortages – though supply pressures have been improving recently. The manufacturing PMI fell deeper into contractionary territory in September, due to further slides in both output and new orders. Export demand also sank sharply as geopolitical uncertainty, high inflation and weaker economic conditions around the world weighed on foreign spending.

The services PMI likewise is in contractionary territory. Firms point to weak demand conditions amid intensifying price pressures. Employment levels continued to rise across the eurozone services sector, though the rate of job creation is slowing.

### Robust employment growth, but real wages under pressure

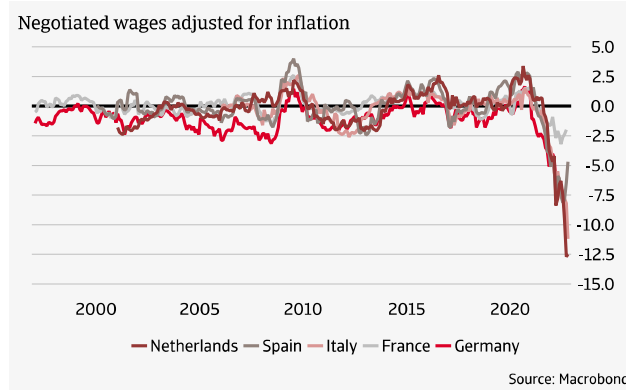
For 2022, we still expect robust consumption growth of 3.7% year-on-year, mainly thanks to strong consumption growth in the first half of the year driven by a reopening of the economy. However, we also expect consumer spending in the eurozone to fall in Q4 2022 and Q1 2023 as consumption fundamentals – real incomes and employment – weaken, while soaring energy prices keep inflation high. While consumption growth is likely to recover from Q2 2023, the weak start to the year means that consumption growth in 2023 on average will be a meagre 0.1%.

Employment growth remained robust throughout 2022, leading to a further decline in the unemployment rate. In recent months, however, there has not been much improvement as unemployment remained roughly constant (the latest figure was 6.6% in September). The outlook for the labour market worsens slightly as we expect employment to show mild contraction in 2023. This could lift the unemployment rate to an average of 7.2% in 2023, slightly above the 2022 average (6.8%) (though still low by historical standards).

There are no clear signs of wage growth picking up in the eurozone: the indicator of negotiated wages increased by 2.9% year-on-year in Q3 of 2022, a little higher than in Q2, but more or less on a par with the first quarter (3.0%). Given the current high inflation, this means real wages are declining (-6.4% in the eurozone in Q3 of 2022). Real wages are falling in all major eurozone countries (figure 2.2), with the largest drop in the Netherlands<sup>16</sup> (-12.5% in October),

followed by Italy (-11.2% in October) and Germany (-10.2% in September).

Figure 2.2 Real wage growth is negative

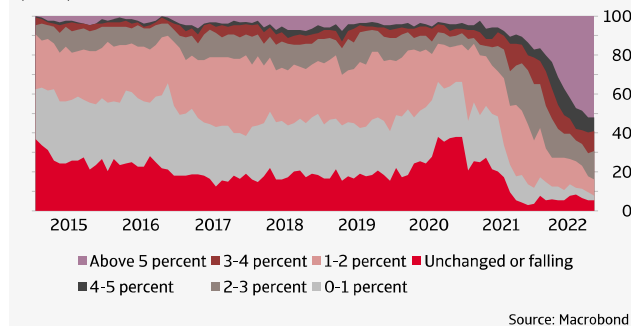


### Still very high inflation

Eurozone inflation rose further to 10.6% in October, from 9.9% in September. Surging energy prices remain the main inflation driver, with the energy component of inflation increasing by almost 41.5% year-on-year in October. Food inflation also rose substantially by 13.1%. The core inflation rate (excluding energy and food) rose by 5.0% in October, up from 4.8% in September. Inflation is thus clearly broadening beyond just energy and food components (see figure 2.3).

Figure 2.3 Inflation broadening beyond energy and food

Distribution of price changes of individual components in the inflation (HICP) basket



For non-energy industrial goods, persistent supply bottlenecks, the depreciation of the euro and rising input costs combined with robust demand pushed prices up across various goods categories. Intensifying pressures across most service categories mainly reflect the post-pandemic surge in demand coupled with high energy prices. We forecast that inflation will remain high in the final months of 2022. In 2022, the average inflation rate is expected to be 8.4%, followed by a somewhat lower (average) inflation of 5.0% in 2023. In 2024, inflation has the potential to decline much further - in our current forecast to 0.6% albeit surrounded

<sup>16</sup> The large drop in real wages can mainly be attributed to high inflation. Consumer inflation in the Netherlands is overestimated in the current environment of rising energy prices, as the Dutch statistics office assumes that all energy contracts of households are renewed each month. In reality, however, many households have a contract with a fixed

energy prices for a given period (e.g. one year). A new measure of inflation, currently under development, would lead to a smaller real wage drop estimate.

with high uncertainty - as the effect of high energy prices wears off and supply chain bottlenecks disappear.

### ECB continues to hike policy rates

Responding to high inflation, the European Central Bank (ECB) has hiked the deposit rate by a cumulative 200 basis points since the start of the year, including two jumbo 75 basis point rate hikes in September and October. The deposit rate currently stands at 1.5%. Recent ECB communications, including the minutes of the October meeting, reveal that policymakers remain concerned about inflation dynamics. We therefore expect another 75 basis point hike sometime between the end of this year and early 2023.

The ECB has taken only small steps to reduce its large balance sheet. It has made it more attractive for banks to repay TLTROs, which were a source of ultra-cheap liquidity during the pandemic. Banks repaid EUR 300 billion of TLTRO loans in November - about 15% of what they took out during the pandemic years. However, there is no plan yet as to how to proceed with the huge stock of bonds the ECB bought under its asset purchase programs. Reducing the amount of assets too aggressively could trigger a financial market panic. ECB interest rate hikes temporarily led to a widening of bond yields between periphery states and Germany earlier this year. Thanks in part to the launch of a new instrument, the Transmission Protection Instrument (TPI) (see Box), bond yields of periphery countries have decreased somewhat in recent months.

#### Transmission Protection Instrument: A new tool in the ECB's toolkit

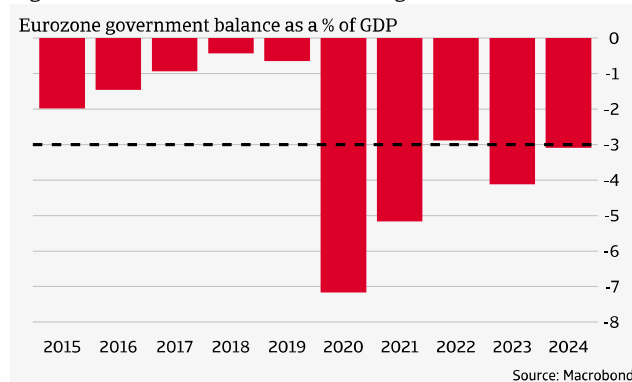
The new Transmission Protection Instrument adds to the ECB's existing range of instruments to intervene in debt markets. While it has not been used yet, it works as a backstop against sudden financial market panic. The TPI gives the central bank the option to buy public debt securities and even private sector securities issued in countries that face disorderly market dynamics not related to structural economic differences between countries. In practice, the instrument is most likely to be used in countries with a vulnerable fiscal position (e.g. Italy), that have a higher likelihood of being confronted with financial market panic. There are, however, certain eligibility criteria before the TPI can be used, such as that a country must follow a healthy and sustainable fiscal and macroeconomic policy. Purchases under the TPI need to be conducted in such a way as to have no persistent impact on the overall balance sheet and hence on the monetary policy stance.

### Fiscal policy remains expansive

The economic expansion has been driving a reduction in government deficits in 2022. The overall eurozone public

deficit declined from 5.1% in 2021 to an estimated 2.9% in 2022. However, measures aimed at shielding households from surging energy prices are weighing heavily on the member states' budgets. The European Commission is estimating the net budgetary cost of measures to mitigate the impact of high energy prices at 1.2% of GDP in 2022 and 0.9% in 2023 (EU).<sup>17</sup> For 2023, we expect the eurozone deficit to increase to 4.1% of GDP as economic activity weakens, followed by a decline of the deficit in 2024 (3.1%) thanks to improving economic conditions. The budget deficit for the eurozone thus remains relatively high in the coming two years and above the 3% target stated in the Stability and Growth Pact. The structural deficit for the eurozone came down significantly in 2022. It is expected to increase again in 2023 - albeit mildly - due to the measures associated with the energy crisis.

Figure 2.4 Eurozone deficit to remain high in 2023 and 2024



Owing to sustained fiscal stimulus measures, eurozone government debt also remains high: an estimated 94% of GDP in 2022 and even slightly higher in 2023 and 2024 (95%). At the same time, there are several member states with significantly higher debt, such as Italy and Greece. Although short-term debt sustainability risks are limited, several member states with high government debt cannot afford to do nothing about their budgetary policies in the long term.

## United States: mild recession on the cards

The United States' road to recovery from the pandemic has been a bumpy one and the new year may bring with it the greatest obstacles yet. We expect a mild recession to take hold in early 2023 as surging prices and interest rates choke off domestic demand against a weak global backdrop. Given the resilience of consumer spending, we expect this recession to be mild with a 0.4% full-year contraction before the economy resumes growing at a meagre 1.4% in 2024. But navigating this roadblock will take very careful steering from the Federal Reserve. In our downside scenario in which

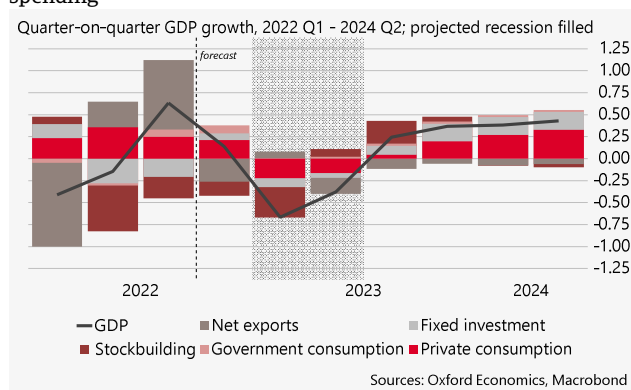
<sup>17</sup> These are measures that have been credibly announced and specified in sufficient detail by end-October 2022. The 2023 cost may end up significantly higher if member states decide to prolong existing measures or to implement new ones.

stagflation becomes entrenched, the magnitude and duration of the recession would increase significantly, shaving 2.3% off GDP by end-2023.

### Downturn reaches consumers...

The United States economy already experienced a 'technical recession' with two consecutive quarters of negative growth in H1 of this year, but this was driven by supply chain issues and one-off changes in inventories. Domestic economic activity, particularly private consumption, continued relatively unabated, buoyed by the tight labour market and drawdown of pandemic-era savings. But through the year, rapidly rising prices increased consumer pessimism and have increasingly fed into weakening purchasing power. Aggressive monetary tightening from the Federal Reserve has increased borrowing costs and weighed on asset prices, especially of mortgages, intensifying the strain on Americans' wallets. We expect this to result in a contraction in private consumption in H1 of 2023, signalling a 'real' recession.

Figure 2.5 Recession driven by contraction in US consumer spending



Consumer spending accounts for 70% of US economic output and the contraction there has far-reaching effects – one that, ideally, should ease pressure on prices. The tight labour market boosts the resilience of consumer spending though, which contributes to the difficult task at hand for the Federal Reserve but should also ensure that this economic downturn will be short-lived. We explore this in greater depth in the next sub-section after looking to the other engines of growth.

Compared to some major European economies, the United States is relatively insulated from the global headwinds. The US is not dependent on Russia for energy and as such is less directly impacted by the prolonged war in Ukraine. The strong US dollar and lower external demand are weighing on exports, but the magnitude of the impact on overall GDP growth is and will remain much smaller than the drag that supply chain pressures exerted in the first quarter of this year.

The midterm elections of November 8 proved not as sharp a rebuke of President Biden's presidency as some expected, as the Democrats maintained control of the Senate. But the Republicans have reclaimed a narrow majority in the House of Representatives and the situation remains highly

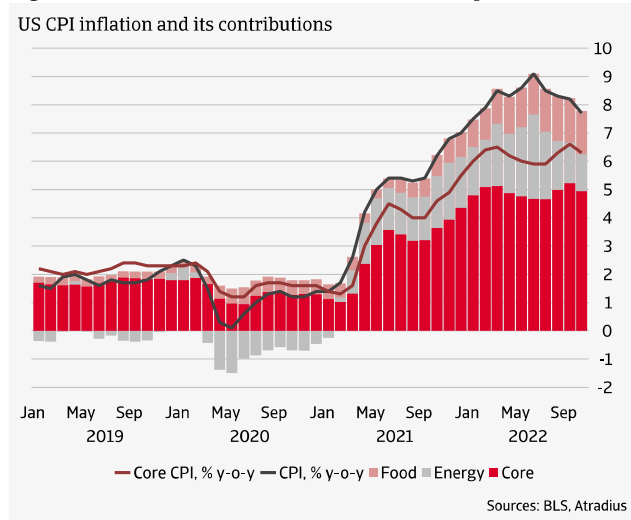
polarised. The split Congress will likely prevent meaningful legislation over the forecast period and make for a nearly neutral contribution of government consumption to headline GDP growth. Legislative achievements of the first half of President Biden's term such as the infrastructure spending bill and Inflation Reduction Act should contribute to higher private investment as 2023 goes on. Private investment is likely to pick up in physical infrastructure and some clean energy sectors in particular. The outlook for business investment in the coming quarters is grim though, considering tighter financial market conditions and recession fears which cause firms to delay capital spending.

### ...but inflation impact to be gradual

Private consumption has proven to be resilient over the past quarters despite gathering storm clouds, driving healthy GDP growth in Q3. However, soaring inflation, Fed policy and stock market volatility have sent consumer sentiment even lower than seen in the Great Recession with a trough of 50.0 in June 2022 compared to a low of 55.3 in November 2008 according to the University of Michigan's consumer sentiment index (1966 Q1 = 100). The index has recovered slightly to 56.8 in November but sentiment remains very pessimistic. This is not yet indicated in short-term spending patterns though, as retail sales increased 1.8% in October, surpassing monthly inflation and market expectations.

Consumer resilience is supported by the tight labour market and relatively strong state of household finances. The substantial savings that households accumulated during the pandemic and the strong labour market have allowed consumers to lower their personal savings ratios to cover the higher prices. The personal savings ratio dropped to 3.1% of disposable income in September, its lowest rate since 2007 and down from 7.5% at the start of the year. Unemployment remains low at 3.7% and the economy continues to create more jobs. Wage growth remains high at 6.4% in October as measured by the Atlanta Fed's Wage Growth Tracker. But with headline inflation at 7.7% in the same month, real personal incomes continue to shrink. It does mark a small relief from the peak of 6.7% in wage growth in August but that may also be attributed to a decline in the participation rate to 62.2% from 62.4% over the same period. Further, at the industry level, severe labour shortages persist. Bureau of Labor Statistics (BLS) data shows that as of September, the number of unemployed workers with the required expertise could fill less than half of job openings in the wholesale and retail trade, leisure and hospitality, and durable goods manufacturing industries.

Figure 2.6 Core inflation in the US remains sticky



With real incomes declining and savings rates historically low, consumers are expected to finally rein in spending in H1 of 2023. With some signs of relief in inflation, the Federal Reserve is expected to slow down its pace of rate hikes from December which could offer some respite. But this is a cautious pivot and it's too early to be confident that inflation is on a downward path. This is because persistent inflation in the US has been driven by more demand-side causes than is the case in other major markets. Looking at figure 2.6, we can see that headline inflation has been on a steady downward trajectory since June but this is mostly due to an easing of energy prices. Core inflation is slower to adjust as it's more dependent on demand aspects like consumer spending. The anticipated recession should contribute to gradually lower core inflation as 2023 carries on. If that fails to materialise, the consumer resilience does offer the Fed more space to step on the gas again in its monetary tightening.

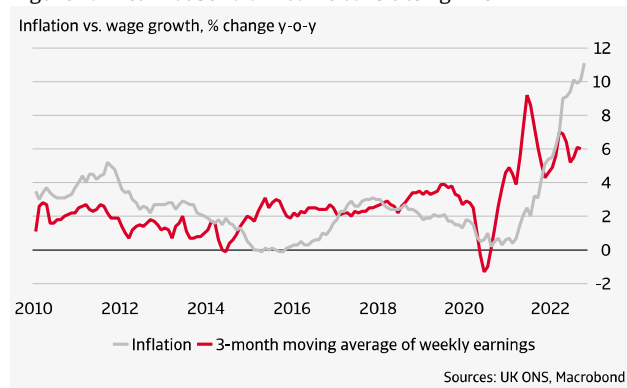
## United Kingdom economy in dire straits

The economy of the United Kingdom has seemingly gone from bad to worse over the course of 2022 and will stay the worst performer in 2023 among the Group of Seven large industrial economies. We now forecast a 0.7% contraction in economic output over 2023, a staggering 2.0 percentage points lower than we projected in our July Economic Outlook. The fundamentals are broadly unchanged. Structural supply constraints, limited fiscal effects and post-Brexit trade disruptions are exacerbating the negative impact of the war in Ukraine on (energy) inflation, consumer sentiment, and business supply chains. But policy blunders and a weaker external backdrop have now further contributed to the UK's dismal outlook. Furthermore, in contrast to the relatively short-lived recession in the US, the UK's downturn will be more broad-based and will last longer. A weak recovery is expected to take hold only in 2024, with 1.8% growth forecast. The UK is now not expected to reach its pre-pandemic GDP level until 2025.

## Soaring inflation continues to drag on real incomes

Inflation accelerated to 11.1% in October, its highest rate since October 1981. In contrast to the US, food and energy are much larger components of shifts in headline prices for the UK. Soaring food prices and higher import costs due to sterling weakness are major drivers. But the main culprit is gas and electricity prices which were up 128.9% and 65.7% y-o-y respectively. Headline inflation surpassed market expectations but was still not as bad as the estimated 13.8% it could have been in the absence of the government's energy price guarantee to protect households from rising energy costs.

Figure 2.7 Real household income contracting in UK



Inflation has been sharply increasing through 2022 and wages have not managed to keep pace, weighing on the purchasing power of Britons. The jobs market is very tight with unemployment at 3.6% but there has been very little pass-through into wage growth. There are signs that the labour market is past its peak tightness as unemployment has ticked up from one month before and surveys show that some firms are freezing hiring to cope with higher costs. This suggests that the potential for wages to help UK consumers in the forecast period is slim.

## Tighter fiscal and monetary policy to worsen recession

Government policy is further straining the outlook for consumer spending. Persistent inflation has forced the Bank of England to continue its hawkish tightening path. In its November meeting, the Monetary Policy Committee hiked the policy rate by 75 bps, from 2.25% to 3%, its eighth consecutive increase and the largest hike in 30 years. But given domestic weakness, the MPC is likely to slow down its tightening with the bank rate peaking at 4% in early 2023.

On top of this, government policy missteps are further exacerbating the squeeze on household incomes. The tax cuts announced in September's mini-budget resulted in a large sell-off of UK assets and rising yields on gilts, sharply increasing the costs of government borrowing. This also drove up mortgage rates and wiped hundreds of billions off UK pension fund values. The markets have broadly recovered since the new chancellor Jeremy Hunt reversed the majority of these tax cuts but the outlook for home prices is poor, continuing the drag on consumer sentiment.



The new government's fiscal plans announced in the Autumn Statement on November 17 indicate a tightening of fiscal policy, accounting for 1.8% of GDP, over the next five years. While the tightening is mainly back-loaded which should limit the blow to short-term economic activity, it does tie the government's hands with regard to offering support in the current economic downturn. Furthermore, it will further exacerbate the UK's productivity issues, keeping potential growth lower for longer.

## Japan: short-lived revival of exports

Our forecast is that Japanese GDP growth slows from 1.6% in 2022 to 0.9% in 2023, rebounding somewhat to 1.6% in 2024. For 2023, GDP growth has been revised down by 1.5 percentage points since our previous Economic Outlook in July, reflecting a sluggish global economic projection and high inflation.

The Japanese economy started 2022 relatively weakly, with a surge of Covid infections suppressing growth in Q1 of 2022. The government applied state-of-emergency type measures during the first quarter in most prefectures. These measures limited the operation of restaurants, bars and events. Growth improved in the second quarter and we expect the expansion to have continued in the second half of 2022. Inflation has moved up quite a bit since the start of the year, from 0.5% in January, to 3.8% in October, but remains much lower than in most advanced markets. Energy prices are the main factor contributing to inflation, but increases in food and durable goods prices were also factors. The depreciation of the yen is also contributing to inflation.

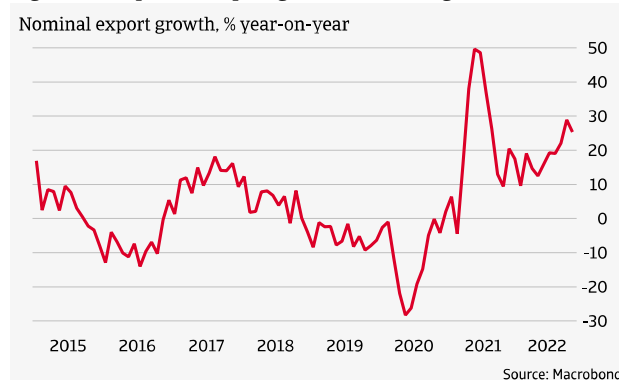
We believe that the higher inflation rate, and the resulting squeeze in real incomes, will suppress consumption growth in the coming quarters. Still, the labour market is holding up quite well, with unemployment declining slightly since the start of 2022 (the latest figure is 2.6% in September). While investment growth will likely turn out negative in 2022, we forecast a 2.9% yearly growth in 2023. Continued accommodative funding conditions and rising spending on digitalisation and automation are likely to support private investments in 2023. At the same time, increasing input prices and decreasing profit margins limit the scale of the rebound.

### Export surge will be short-lived

On the external side, nominal goods exports grew 25.3% year-on-year in October (figure 2.8), compared to a 9.6% growth at the start of the year.

Looking ahead, we expect export growth will improve in the coming months due to a depreciating currency and the easing of supply-chain disruptions in the auto industry. However, this will prove relatively short-lived, with weaker external demand momentum set to drag on the recovery as the global economy rapidly slows. The annual volume growth of exports is forecast to decelerate in 2023 compared to 2022.

Figure 2.8 Japanese export growth increasing in nominal terms



The cabinet approved further fiscal support for households with an expenditure of JPY 3.5 trillion, funded by the reserve fund. It consists of a JPY 50,000 (USD 330) direct payment for low-income households and an extension of fuel subsidies until year-end. Due to higher fiscal spending, the government deficit is expected to remain high this year (7.2% of GDP). There is likely to be a slight improvement in 2023 to 5.4%. The structural government deficit, which is a better measure of underlying fiscal strength, also declines in 2023. The government debt-to-GDP ratio is expected to peak in 2022 at 246% of GDP. We forecast the debt ratio to decline in the coming years, but it remains very high.

## Emerging economies

We expect GDP growth in EMEs as a whole to decelerate to 2.9% in 2023, before rebounding to 4.3% in 2024. Emerging market economies were confronted in 2022 with the fallout from the war between Russia and Ukraine and – predominantly in China – with Covid-related restrictions. Due to monetary tightening in advanced markets, EMEs face tighter financial conditions. This is problematic in particular for EMEs with high private or government debt, which are mostly low-income and developing countries. We expect 2023 growth to slow for EMEs in total, though the slowdown remains contained by idiosyncratic factors that still support growth, such as the Chinese economy that is slowly emerging from Covid lockdowns and an easing in the pace of contraction in Russia.

Emerging Asia remains the fastest growing region in 2023 (4.4%). We expect that Eastern Europe will narrowly avoid a recession in 2023, despite negative growth in Russia and the sharp growth slowdown in Turkey. Latin American central banks led the way in monetary tightening in 2021. With inflation substantially reduced already, real interest rates (nominal interest rates minus inflation) are back in positive territory in larger LatAm countries, which suppresses growth in 2023. For 2024, prospects are across-the-board better for the EME region, due to improving domestic demand and a better international environment.

Table 2.3 Real GDP growth (%) – emerging markets

	2021	2022e	2023f	2024f
Emerging Asia	7.2	3.7	3.8	4.8
Latin America	6.8	3.4	0.2	2.5
Eastern Europe	6.6	1.2	0.1	3.5
MENA	5.2	4.9	2.8	3.2
Sub-Saharan Africa	4.5	3.2	2.9	3.3
<b>Emerging Markets</b>	<b>7.0</b>	<b>3.6</b>	<b>2.9</b>	<b>4.3</b>

Sources: Oxford Economics, Atradius

## Asia: China and India

GDP growth in **China** slowed from 8.1% in 2021 to 3.1% in 2022 as it was constrained by Covid lockdowns. We forecast growth to rebound to 4.2% in 2023 and to 4.7% in 2024, even though it stays below its pre-crisis trend. China has adopted a 'dual circulation framework', which seeks to boost domestic demand and achieve greater self-sufficiency in areas including agriculture, energy and technological supply chains. The domestic leg of dual circulation aims to make the economy more consumption-driven. While China is making partial progress, fixed investment remains a major factor in economic growth. We expect that China's self-sufficiency drive will generate economic inefficiencies. China's growth potential remains constrained by low productivity growth, an excessively leveraged corporate and local government sector and geopolitical tensions.

Export growth will likely remain low in both 2023 and 2024, as the slowdown in developed economies depresses external demand. Besides the challenging international environment, China faces hostile efforts by the United States to restrict its access to high technology and its products. We expect that trade and the current account balance surpluses will shrink in the coming years. The net contribution of trade to growth is likely to be limited or even negative over the forecast horizon.

The 'dynamic zero Covid' policy of the Chinese government had a strong negative impact on 2022 growth, with periodic lockdowns across many Chinese cities. This put a lid on consumption growth. We expect household consumption to rebound in 2023 due to a strong base effect (i.e. rising from a relatively low 2022 level) and the expected recovery in consumer sentiment. The evolution of Covid cases and the government response remain a major uncertainty. New Covid cases again hit record numbers in November, which triggered fresh lockdowns. Public opinion is increasingly turning against the government's strict approach to Covid, and large-scale protests erupted after the latest lockdowns were announced.

The real estate sector presents a major risk to the Chinese economy. Defaults by high-profile developers (e.g. Evergrande) and projects that are being put on hold or cancelled, have shattered the credibility of the real estate development sector. This is reflected in 'mortgage boycotts': homebuyers refusing to pay their mortgage due to fears over whether purchased homes will be completed. House prices are starting to ease amid a drop in transactions. The

authorities have stepped in to provide support to the troubled sector, such as providing credit to fund the completion of unfinished housing projects and ensure home delivery to buyers.

We expect total fixed investment growth to improve slightly from 2.3% in 2022 to 3.9% in 2023. Corporate investment will gain government support but face external headwinds. Chinese authorities have eased some burdens on firms, but this support is partially offset by a deteriorating external environment amid global monetary tightening. This is likely to weigh on corporate investment growth in 2023. On top of this, real estate investment is likely to stay subdued amid weak homebuyer sentiment and financial woes among property developers. The government has announced measures to support the real estate sector, which includes easing the cap on banks' exposure to the property sector, extending developers' loan repayment period and ensuring that housing projects are delivered. While these measures help, it will take time for property investments to recover and homebuyer sentiment to improve.

There is strong fiscal stimulus to shore up growth. The Chinese government has turned to its old playbook of ramping up infrastructure spending to support the economy. In addition to stimulus rolled out in March's Government Work Report and the 33 measures (worth about RMB 1.9 trillion) in May, a further RMB1 trillion worth of fiscal support (in 19 measures) was announced in August, largely focused on infrastructure. These initiatives are feeding through into the economy, with infrastructure investment growth improving in 2022 and likely in 2023 as well.

Monetary policy has become more supportive with a series of interest rate and reserve requirement rate cuts. However, concerns about capital outflows due to monetary tightening in the US are likely to limit the extent to which the Chinese central bank wants to reduce lending rates and expand the supply of credit.

China continues to have relatively low and stable inflation. CPI inflation slowed to 2.1% year-on-year in October, from 2.8% in September, as food prices eased somewhat. Core inflation (excluding food and energy) remained very modest at 0.6% year-on-year. The effect of the global supply shock to energy and food has been limited, given the country's self-sufficiency in both sectors. We expect the inflation rate to stay below the central bank's target rate of 3% in both 2022 and 2023.

In **India**, GDP growth slowed to 7.0% in 2022, down from 8.3% in 2021. In 2023, GDP growth is likely to slow even further to 4.4%, owing to a rapidly weakening global backdrop and slackening domestic demand. There is widespread weakness in the manufacturing industry. Industrial production fell month-on-month on a seasonally adjusted basis in July and August. These trends, in combination with a manufacturing capacity utilisation rate well below 80%, support the view that private investment growth remains lacklustre.

Inflation remains elevated. Headline inflation eased from 7.4% year-on-year in September to 6.8% in October. Fuel

inflation and core inflation (CPI excluding food and all fuel) were broadly unchanged. Inflation is forecast to average 6.9% in 2022 before slowing to 5.5% in 2023. We expect consumers to turn more cautious amid tightened monetary policy and elevated price pressures. High inflation weighs on real income growth and is likely to drag down consumption growth in 2023.

Both exports and imports show weak dynamics. Falling commodity prices and weaker domestic demand are likely to limit imports in the coming months. However, exports are likely to fare worse amid recessions in advanced economies and push the current account deficit to 3.5% of GDP in 2022. Alongside a hawkish US monetary policy, this is likely to keep the Indian rupee under pressure against the US dollar into 2023. However, as India has a significant build-up of FX reserves, this is not forecast to jeopardise India's external position.

In response to inflation, the Reserve Bank of India (RBI) hiked the policy rate several times in 2022, but with global supply bottlenecks easing and domestic inflation expectations stabilizing, the case for continued aggressive tightening has lost ground. We therefore expect no further rate hikes in 2023. The government's fiscal deficit remains relatively high in the near term (7.2% in 2023). This has raised concerns over debt sustainability as the general government debt is nearing 90% of GDP. If nominal GDP growth were to decline persistently, the debt trajectory is no longer sustainable.

## Latin America: Brazil and Mexico

After showing signs of resilience, **Brazil's** GDP slowed to 3.0% in 2022, despite strong private consumption and favourable developments in the labour market. Investments declined by 0.6% in 2022 following tighter monetary policy enacted by the central bank (BCB) in a bid to reduce inflation. Overall, the hike in policy rates – currently stable at 13.75% – successfully brought down the headline y-o-y inflation from its peak of 12.1% in April 2022 to 6.5% in October. Core inflation remains high at 8.3%, as a result of demand pressures, while inflation expectations have increased in the wake of the election of Lula da Silva as new president of Brazil. In the medium term, headline inflation is expected to approach the target. In 2023, Brazilian growth will slow to 0.2%, as private consumption growth (0.5%) will suffer from tighter fiscal and monetary policy and fixed investment growth remains stagnant (-0.2%).

The second round of the presidential elections held at the end of October 2022 resulted in the victory of Lula da Silva over the incumbent Bolsonaro. In the coming month, Lula will have to govern an increasingly divided country, both inside and outside congress. Tighter fiscal policy is needed to reduce the debt ratio, though a more lax approach is expected, likely causing the debt ratio to increase in the medium term. The main risk of a too accommodative fiscal policy is that it will fuel inflation and force the central bank to implement additional monetary tightening, which could then slow economic growth. The current debt ratio stands at

77% of GDP and a continuation of the status quo would result in a projected debt ratio of 82% by 2024.

In **Mexico**, strong performance in the service and tourism sector led to higher than expected growth in the third quarter of 2022 and an estimated growth rate of 2.5% for 2022 in total. In particular, private consumption has benefitted from improving labour market conditions increasing by 6.5% in 2022. Fixed investments (4.6% y-o-y growth in 2022), as well as credit-driven household spending have grown robustly in 2022, despite tighter monetary and financial conditions. The central bank has adopted a hawkish stance aimed at fighting high inflation, which stood at 8.4% in October. The inflation rate averaged approximately 8.4% in 2022 and we expect it to normalize to 4.3% in 2023. Furthermore, conservative monetary policy avoided a weakening of the peso and sustained capital inflows. We expect economic growth to cool to 0.6% in 2023, as private consumption and fixed investments are affected by high inflation, tight monetary and fiscal policy, and slumps in the global and US economies. In particular, headwinds from the United States will negatively affect Mexican exports.

Fiscal policy has remained neutral and oriented toward austerity, with an expected primary fiscal surplus of 0.1% in 2022. The debt ratio remains on a downward trajectory, and it is projected to reach 51% in 2022 and 50% in 2023, down from 53% in 2021. In the medium run, the debt ratio should fall below 50%. President Andres Manuel Lopez Obrador has pushed for increased state intervention, especially in the energy sector, making Mexico less attractive for foreign investors. In addition, his recent attempt to increase his influence over the electoral process is the latest of a series of policy initiatives aimed at consolidating the powers of the presidency.

## Eastern Europe: Russia and Turkey

Due to the fallout of the Russia-Ukraine war and a sharp growth slowdown in Turkey, growth in Eastern Europe is coming to a near standstill in 2023 (0.1%), followed by 3.5% growth in 2024. We forecast that the economy of **Russia** will have contracted by 3.3% in 2022, followed by another 2.0% decline in 2023. The 2022 GDP forecast in particular was upwardly revised compared to our July Economic Outlook. This is mostly the result of unexpected resilience in fixed investment, which grew by 3.2% year-on-year in Q2 of 2022 despite Western sanctions and the negative impact of the war on business confidence.

Certain sectors have been hit hard by the sanctions, including wholesale and retail trade (down 14.1% year-on-year in Q2) and manufacturing (down 4%). The car production sector is one of the worst hit sectors, due to the withdrawal of foreign car manufacturers and the shortage of inputs. Production was down by 95% year-on-year in May 2022. Car sales in September 2022 were 60% lower compared to the year before. Sectors that were performing relatively well were construction and financial and insurance.

Russia still exports large quantities of energy at high prices, despite the reduction of gas exports to Europe and the European ban on the import of crude oil that comes into force in December. Energy exports boost the current account surplus, which rose to USD 215.4 in October. This was up 134% from a year ago, presumably due to high revenues from energy exports and import contraction. We forecast the current account surplus to be 12.7% of GDP in 2022, up from 6.9% in 2021.

Directly after the war in Ukraine broke out, the rouble depreciated strongly (it lost almost 45% vis-à-vis the USD at its lowest point). Thanks to capital controls and a high surplus on the current account, however, the rouble regained all of its lost value and is now trading at levels above where it was just before the Russian invasion. Capital controls include mandatory FX sales by companies, limited FX convertibility, and a freeze on foreign investments that prevents liquidation of these investments. We expect some depreciation to happen in Q4 of 2022 and the beginning of next year, as EU ban on Russian oil and petroleum products comes into force.

Inflation has been easing in recent months. It declined from a peak of 17.8% in April to 12.6% in October. Unemployment remains very low at 3.9% in September. However, a mobilisation of troops since September will change labour market dynamics. The departure of hundreds of thousands of skilled workers will likely result in a much tighter labour market.

The central bank of Russia cut the policy rate several times since end-February (when it sharply hiked the rate to 20%). The policy rate is now at 7.5%, below where it started the year. Further rate cuts are likely in 2023, as the mobilisation shock has dampened demand and confidence, creating extra space for policy easing. Oil and gas exports continue to bring in large revenues for the government budget. At the same time, spending rises as the government allocates more funds to the war in Ukraine. According to our estimates, the 2022 budget is on track to record a small deficit of 1-2% of GDP. In 2023 and 2024, we forecast it to be in the same order of magnitude.

In **Turkey**, we expect GDP growth to slow from 4.8% in 2022 to 0.8% in 2023. Economic growth slowed considerably in the third quarter of 2022 and the decline will likely continue in Q4, as the recession in Europe weighs on external demand and high inflation persists. The slowdown is confirmed by the manufacturing Purchasing Managers Index (PMI), which slid further below the 50 mark in October 2022 to 46.4 (50 is the neutral level).

Inflation reached 85.5% in October, according to official figures, its highest level since July 1998. Costs are climbing across the board, with core inflation (excluding energy and food) at 70.4%, with a strong pass-through from the weakening lira. The lira has weakened by 10.2% vis-à-vis the USD since July. The lira has been under pressure since September 2021, due to premature interest rate cuts by the central bank. We expect the lira depreciation to continue in 2023. The high current account deficit, elevated inflation and

monetary policy tightening in the US and eurozone are all factors that exert pressure on the lira.

The Turkish central bank has continued its loose monetary policy in the past couple of months. Despite high inflation, it cut the policy rate by another 150 basis points to 10.5% in October, the third such move since August. It is likely to keep a loose policy in place until the elections in mid-2023. The central bank is intervening in the FX market to support the lira, and it has created a new protection scheme for lira deposits that compensates clients for lira depreciation (above a certain threshold). Furthermore, exporters are asked to convert 40% of their foreign currency revenues into lira. In the medium term, but likely not before the 2023 elections, the central bank may hike the policy rate again to avert a further collapse of the lira.

Recent energy price increases imply continued widening of Turkey's current account deficit in the near term, with less offset from services income as peak tourism season ends. Fiscal policy remains geared towards supporting growth. President Erdogan has raised the net-minimum wage and public-sector pay and pensions. The government also launched measures to mitigate higher utility bills. These are in addition to credit subsidies and the abolition of income tax on the minimum wage.

## Sub-Saharan Africa: South Africa

We predict that **South Africa's** economy will expand by 1.6% in 2022, with growth slowing to 1.0% in 2023 against a weaker global backdrop. High inflation, rising interest rates, sky-high unemployment and transport bottlenecks will constrain domestic demand in 2023. Disruptive load-shedding continues to impose limits on near-term growth. That said, some improvement is expected in 2023 as new private-sector renewable energy projects come on stream. Overall, weak economic conditions will erode household disposable income and heighten the risk of strike disruption and discontent, particularly in the short term.

Headline inflation moderated for the second consecutive month in September, driven mainly by transport disinflation thanks to fuel price decreases in that month. We expect to see further disinflation over the coming months, but price inflation will remain sticky at elevated levels. For 2022, we expect inflation to average 6.9%, followed by 6.0% in 2023. To counteract inflation, the South African Reserve Bank raised its repo rate by 75 bps in September to 6.25% and it is expected to rise to 7.5% by the end of Q1 2023.

On the fiscal side, the budget deficit is estimated to equal 5.3% in 2022, with similar readings expected in the coming years. The budget for fiscal year 2022/23 underlines an improvement in South Africa's fiscal accounts, in part due to strong revenues from higher commodity prices. Fiscal consolidation is needed in the medium term, given the structurally high budget deficit and high public debt level.

Looking forward, South Africa faces a variety of uncertainties. Structural weaknesses include high unemployment, power supply constraints and logistics

bottlenecks. South Africa's Covid vaccination rate remains low at just 33% of the population fully vaccinated, creating greater risks for necessitating Covid restrictions again. Infighting in the ruling party, the African National Congress, and low confidence in the President create further uncertainty within the country.

**Table 2.4 Real GDP growth (%) – major EMEs**

	2021	2022e	2023f	2024f
China	8.1	3.1	4.2	4.7
India	8.3	7.0	4.4	7.1
Brazil	4.9	3.0	0.2	2.7
Mexico	5.0	2.5	0.6	2.2
Russia	4.7	-3.3	-2.0	3.6
Turkey	11.4	4.8	0.8	2.1
South Africa	4.9	1.6	1.0	1.7

Sources: Oxford Economics, Atradius



# Appendix: macroeconomic forecasts – major markets

	GDP growth (% change p.a.)			Inflation (% change p.a.)			Budget balance (% of GDP)			Gross government debt (% of GDP)			Current account (% of GDP)			Export growth (% change p.a.)			Private cons. (% change p.a.)			Fixed investment (% change p.a.)			Government consumption (% change p.a.)			Retail sales (% change p.a.)			Industrial prod. (% change p.a.)		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Australia	3.9	1.7	2.0	6.6	5.8	2.8	-0.7	-1.9	-2.4	54.8	56.8	59.1	1.1	-0.7	-2.4	3.3	8.9	5.7	7.1	2.8	2.3	2.0	3.3	2.2	6.0	-2.0	-2.0	5.3	0.5	1.6	0.5	2.2	3.1
Austria	4.3	-1.0	2.5	8.0	2.4	0.5	-1.1	-2.6	-0.8	118.2	117.4	113.4	0.6	1.0	1.8	14.7	-0.4	3.0	4.6	-2.3	2.4	-0.9	0.4	4.4	2.7	0.5	-0.3	-1.0	-0.7	2.2	7.0	-2.1	1.1
Belgium	2.8	-0.2	2.5	10.0	7.9	0.6	-4.6	-7.3	-6.6	125.1	127.0	129.0	-5.1	-4.3	-1.9	2.4	-1.7	3.7	3.4	0.4	3.2	0.5	2.7	3.0	-0.2	1.5	1.1	-3.1	-1.4	3.1	-5.2	-5.5	2.8
Brazil	3.0	0.2	2.7	9.3	4.7	3.6	-4.5	-6.7	-6.2	76.9	80.0	81.5	-2.5	-2.2	-2.9	2.4	0.9	3.3	4.1	0.0	1.9	-0.6	-0.2	2.8	1.6	1.4	0.3	0.4	-0.6	3.4	-0.3	3.0	3.6
Canada	2.9	-1.3	2.6	7.0	4.7	2.2	-1.9	-3.1	-3.2	112.5	115.9	115.4	0.9	0.8	0.1	3.3	2.1	3.1	5.1	-0.6	2.1	0.0	-3.2	2.7	1.2	-2.1	-0.2	2.3	-1.1	2.1	3.8	-0.6	3.5
China	3.1	4.2	4.7	2.2	2.4	2.1	-8.8	-7.9	-7.0	53.3	58.9	62.6	2.1	0.4	0.1	1.1	-5.9	5.5	1.5	6.4	6.5	2.3	3.9	5.0	6.8	5.3	0.1	1.6	6.7	6.8	4.0	4.3	5.0
Denmark	2.7	0.3	2.9	7.8	3.1	0.9	0.4	-1.7	-0.7	44.0	42.8	43.0	12.5	13.2	11.3	4.7	0.2	3.5	-1.8	0.3	3.4	4.3	-0.8	1.4	0.6	2.7	2.2	-4.2	-2.2	2.2	14.1	-1.1	1.3
Finland	2.3	-0.1	1.6	7.1	3.9	1.2	-1.4	-2.5	-2.0	69.7	71.0	71.1	-5.0	-1.6	-0.9	-0.5	2.4	2.3	2.7	0.0	1.4	3.5	-0.2	0.8	3.4	1.1	1.0	-3.2	-0.2	1.6	2.9	-0.3	1.0
France	2.5	0.2	1.9	5.3	4.8	1.2	-5.5	-7.2	-6.0	135.0	137.8	139.8	-2.0	-3.8	-2.9	7.3	2.4	8.6	2.5	0.4	1.1	1.8	0.0	2.1	2.5	1.7	1.1	2.2	-4.1	1.1	-0.3	-1.3	5.1
Germany	1.5	-1.1	2.7	8.1	5.1	0.0	-1.5	-2.9	-1.9	63.7	65.2	64.4	3.3	2.2	3.4	1.4	1.0	4.9	4.4	0.1	3.3	0.2	0.7	5.9	3.6	-0.8	-0.8	0.1	-1.5	3.2	-0.6	-0.9	5.5
Greece	6.1	-0.2	2.2	10.5	4.9	0.3	-0.6	-5.0	-2.1	212.0	211.7	209.6	-7.7	-7.5	-6.8	9.3	1.3	2.6	8.6	-0.4	1.7	7.9	7.2	11.1	1.1	1.0	-0.8	2.8	-1.5	1.0	2.5	-0.8	2.7
Hong Kong	-3.0	1.4	3.5	2.0	2.4	2.7	-9.8	-3.3	-1.4	2.7	3.7	4.5	6.2	2.4	3.0	-10.3	1.5	8.5	-1.3	4.5	4.5	-7.5	0.0	5.9	7.0	-0.5	1.9	0.1	19.7	4.3	-0.4	0.5	2.4
India	7.0	4.4	7.1	6.9	5.5	4.1	-7.6	-7.3	-5.7	58.7	60.9	61.3	-3.5	-2.8	-2.1	10.3	-1.2	7.2	8.8	3.4	6.9	10.3	1.9	6.7	10.1	9.9	3.8	10.4	4.9	8.3	5.0	1.4	5.6
Ireland	7.8	1.7	2.2	7.7	4.1	0.9	-0.5	-0.6	-0.1	44.5	42.4	40.2	19.2	24.9	24.8	10.0	1.3	3.0	6.2	2.1	2.4	-8.1	-3.7	1.6	-0.4	1.2	1.2	1.6	2.1	3.5	-4.3	-0.2	2.0
Italy	3.7	-0.1	1.2	8.0	4.9	0.6	-5.6	-4.8	-3.7	168.6	167.2	167.5	-0.5	-0.9	-1.1	9.8	-0.5	1.3	3.5	-0.4	1.5	8.1	-0.4	1.8	0.5	0.3	-0.2	1.5	0.7	0.6	0.7	-0.8	4.5
Japan	1.6	0.9	1.6	2.3	1.4	-0.4	-7.1	-5.2	-3.3	245.5	246.2	244.1	0.7	1.3	2.6	3.6	0.1	4.5	2.8	0.9	0.5	-0.9	2.9	4.1	1.4	-0.4	-0.5	0.6	1.7	0.1	0.6	1.5	3.0
Luxembourg	1.8	0.4	3.7	6.4	3.6	1.3	1.6	1.0	1.1	21.4	20.6	18.6	3.9	5.9	6.2	0.8	1.3	4.0	2.0	-0.7	3.2	4.0	2.5	5.1	0.0	-2.1	0.8	1.6	0.6	6.8	-0.3	0.5	3.0
Netherlands	4.7	0.8	1.6	11.0	5.5	0.4	1.2	-3.1	-2.4	59.2	59.6	60.1	4.7	5.6	7.6	4.6	1.8	2.0	6.0	0.1	1.7	3.5	0.6	2.8	1.1	2.4	1.3	-0.1	-1.6	2.9	2.2	-0.9	1.8
New Zealand	2.1	1.8	1.7	7.1	3.6	1.3	-4.2	-1.7	-0.9	45.3	45.0	44.6	-7.4	-4.5	-3.3	3.7	17.5	6.0	2.2	0.4	0.7	2.3	1.1	3.6	6.8	-1.0	-1.5	1.0	1.9	0.7	0.8	4.1	2.1
Norway	2.5	0.9	1.8	6.0	4.8	1.0	21.3	9.1	6.2	37.5	39.9	40.5	29.0	33.5	24.3	0.8	2.4	2.2	5.8	-0.1	2.3	0.5	1.1	4.2	-0.1	1.6	1.6	-4.7	-1.8	1.9	3.1	1.7	-0.2
Portugal	6.6	0.4	1.8	8.0	5.3	1.2	-1.0	-1.4	-0.8	129.1	124.8	122.2	-2.7	-2.9	-2.3	16.8	0.1	2.0	5.5	-0.5	1.3	1.5	2.6	3.0	2.0	0.4	0.4	4.7	-0.9	3.4	0.0	-0.5	2.7
Singapore	3.6	0.7	3.0	6.1	3.2	1.1	-0.4	-0.3	0.2	168.8	166.1	153.2	19.5	15.3	15.6	4.3	-0.4	5.1	11.8	2.7	2.7	1.3	1.9	5.0	-1.4	2.1	1.1	7.0	3.8	4.8	2.1	-3.0	4.3
Spain	4.5	0.8	2.5	8.6	3.5	1.0	-4.1	-4.8	-3.9	141.6	142.8	141.8	0.5	1.1	1.6	17.5	0.0	0.9	1.8	1.0	2.7	5.1	4.1	6.2	-1.8	2.0	2.0	-0.2	1.4	3.2	2.9	-1.7	3.4
South Africa	1.6	1.0	1.7	6.9	6.0	4.7	-5.3	-5.2	-5.3	72.0	73.7	76.2	0.8	1.1	-0.1	7.5	-0.2	2.4	2.4	-0.4	1.6	5.6	6.5	4.4	1.2	0.4	0.4	2.4	-0.4	1.6	0.7	3.9	1.8
South Korea	2.7	1.0	2.4	5.3	3.6	1.1	-1.1	-0.7	-0.3	55.9	55.5	53.5	1.2	1.5	3.1	3.6	-3.5	5.9	4.4	0.7	2.2	-1.6	0.7	3.8	3.4	1.3	1.6	0.6	2.5	1.8	2.9	-0.4	3.1
Sweden	3.1	-0.3	2.2	8.2	5.3	1.1	0.7	-1.8	-0.5	44.7	45.2	44.0	3.0	3.5	3.9	4.3	0.9	2.9	4.0	0.1	2.5	4.6	-1.0	2.0	0.0	2.2	2.0	-2.2	-1.2	3.9	1.6	0.2	2.5
Switzerland	2.1	0.2	2.1	2.8	2.3	0.8	0.1	-0.1	0.1	26.7	26.2	25.4	5.8	6.0	7.5	2.2	0.4	3.9	3.8	0.7	1.5	0.2	0.2	3.2	0.9	-1.2	0.7	-0.8	0.6	1.2	6.9	0.6	3.0
Turkey	4.8	0.8	2.1	72.8	40.2	23.7	-1.3	-3.0	-1.9	28.0	24.8	22.2	-6.1	-3.2	-2.8	12.7	2.8	3.0	14.5	-3.1	-0.7	1.3	-4.2	0.1	0.3	3.6	1.6	9.4	-3.0	-0.8	5.3	-1.3	3.7
United Kingdom	4.3	-0.7	1.8	9.1	6.5	2.3	-6.2	-8.6	-6.4	100.7	105.4	107.5	-5.2	-3.6	-3.1	8.3	4.5	3.5	4.9	-1.0	2.0	5.4	0.2	0.5	1.4	3.0	1.1	-3.1	-1.9	2.1	-2.8	-1.9	0.7
United States	1.8	-0.4	1.4	8.1	4.9	2.4	-4.1	-5.2	-5.8	145.4	147.2	147.2	-3.9	-3.9	-3.9	6.5	-1.7	4.3	2.6	0.1	1.3	-0.5	-0.8	3.3	-0.3	1.1	0.7	0.1	-0.3	0.9	4.3	-2.1	0.4
Eurozone	3.1	-0.1	2.1	8.4	5.0	0.6	-2.9	-4.1	-3.1	-	-	-	-0.6	0.0	1.1	6.2	0.8	3.9	3.7	0.1	2.2	2.1	0.7	3.8	1.8	0.8	0.4	0.4	-1.5	2.0	0.1	-1.0	4.6

Sources: Oxford Economics, Atradius

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