

>>>> Economic recovery with one foot on the brake

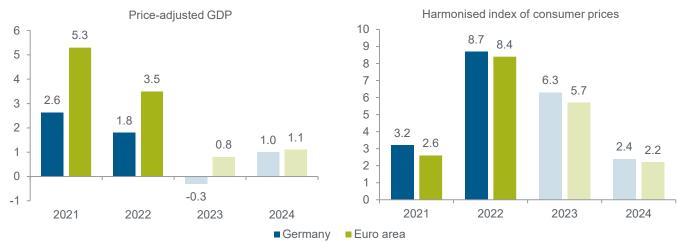
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- After a mild technical recession, the German economy now looks set to return to a path of moderate growth. Easing supply shocks and increasing wage growth are bolstering the economy, but given the broad inflationary pressure, monetary policy still has one foot on the brake pedal.
- KfW Research reiterates its forecast that the German economy will contract minimally in 2023 as a whole (-0.3%). Adjusted for calendar effects, this practically means stagnation. GDP is set to grow by 1.0% in 2024, confirming previous forecasts.
- KfW Research expects inflation to hit 6.3% in 2023, and then 2.4% in 2024 (HICP). The contribution
 of energy prices to inflation is already falling sharply. Still, strong wage growth means that core
 inflationary pressure will fall only slowly.
- Ecological price tag for GDP: the predicted economic trajectory means that Germany's greenhouse gas emissions are expected to drop, but by a good 5% in 2023 and a good 6% in 2024, less than the policy target.
- The euro area is carrying greater momentum over from the previous year and will grow more strongly than Germany in the first half of this year. Its GDP will likely grow by 0.8% in 2023 and 1.1% in 2024. Annual inflation is expected to be 5.7 and 2.2%.

Figure 1: Economic growth and inflation

Per cent year-over-year change



Sources: KfW Research, Destatis, Eurostat

Germany dips into a technical recession

Germany was ultimately unable to avoid a technical recession in the winter half year. After gross domestic product (GDP) adjusted for price, seasonal and calendar variations contracted by 0.5% in the final quarter of 2022, the Federal Statistical Office in a second estimate reported a mild contraction of -0.3% for the first quarter of 2023 as well. Growth was again slowed primarily by household consumption, which managed to defy inflation-induced purchasing power losses for an extended period last year but has nowfallen by around 3% compared with the peak of summer 2022. Gross fixed capital formation in machinery and equipment as well as exports, on the other hand, rose in the first quarter because industrial production got back up and running thanks to easing global material bottlenecks and sharp drops in energy prices since the end of 2022. Value added in manufacturing increased by 2.0% quarter on quarter despite a setback in March.

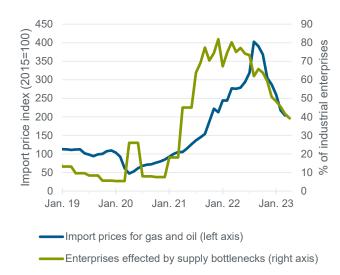
Supply shocks are easing while monetary policy is putting on the brakes – a mixed environment

Manufacturing in particular is currently benefiting from the easing of the two main supply shocks. First, material and supply bottlenecks decreased significantly around the world already over the past year and, with a slight delay, are becoming less and less of a constraint on production for businesses in Germany as well. Second, current wholesale energy prices, especially for natural gas, are now well below 2022 levels, and prices on the spot market are only moderately higher up to the end of the forecast horizon. 1 As a consequence, production in sectors that were affected by material shortages, such as automotive engineering, has been expanding vigorously for some time now, and production in particularly energy-intensive areas such as basic chemicals has also been recovering since the start of the year. Besides, even if incoming manufacturing orders should decline further, the unusually high stock of unfilled orders, which has a range of 7.4 months, provides the basis for further significant expansion of industrial production. The ifo survey thus shows that manufacturers' output expectations for the next three months are pointing upwards, and business expectations for the next six months have brightened since autumn. New orders in the first guarter stagnated roughly on the level of the previous quarter amid very volatile monthly data.

Although the ECB will probably come to the end of its interest rate cycle this summer, the restrictive effect of the monetary tightening that began in 2022 is still intensifying. In the current interest rate cycle, the effect was first felt in the decline in construction activity, which was steep last year already. Alongside a massive drop in credit demand from households, banks are now also reporting much weaker demand for loans from businesses. They are increasingly tightening their lending criteria as well.2 In addition, households and businesses will experience a gradually rising interest cost burden when they have to renew their old low-interest loans. Most of the monetary policy models used by the ECB indicate that the dampening effect on economic activity from the monetary tightening of 2022 will reach its peak only this year and remain strong in 2024 as well. The strongest dampening effect on prices is expected to occur in 2024 and 2025.3

Figure 2: Supply shocks are easing

Import prices for energy and material bottlenecks in manufacturing



Sources: Destatis, ifo Institute

Box: Volatility of industrial indicators.

In early May the Federal Statistical Office reported an astonishing collapse of industrial indicators for March. Particularly noteworthy is the 10.7% decline in price-adjusted new orders, because the only time a month-on-month drop of this magnitude was reported since unification was at the height of the pandemic. Real production in manufacturing, however, also decreased by a significant -3.2%. The main reason both decreases are surprising is that industrial enterprises still reported not just an improved business situation but also better business and industrial output expectations in the March ifo economic survey. Hence, irregularities in seasonal and calendar adjustment are most likely responsible for the scale of the declines. An exceptionally high illness rate in March may also help to explain the change. Both factors suggest revisions or positive rebound effects in the April data, and the development of industrial indicators remains positive overall in the first quarter due to strong preceding months (see Figure 3).

Figure 3: Industrial indicators in March

Variation on the previous month or quarter in per cent



Inflation is trending downward

The easing of supply bottlenecks is gradually filtering through to consumer price inflation as well, which dropped from 11.6% last October to 7.6% in April, according to the Harmonised Index of Consumer Prices (HICP). The contribution of energy prices to inflation has already fallen significantly in the past months and is expected to turn negative in the course of the year. This is due not just to more moderate wholesale prices but to the state-sponsored price caps on electricity and gas as well as base effects from the previous year's price increases. The annual core inflation rate without energy and food, on the other hand, only fell moderately from 5.9% to 5.6% in April. However, steep drops in producer prices and sales price expectations are at least very clear harbingers of falling inflation in the industrial goods components of the basket of goods in the near future. On the other hand, the importance of wages as a driver of inflation is likely to increase further, given the level of the collective wage agreements most recently negotiated, current wage demands and the fact that the labour market remains tight. The wage development is being felt particularly in the services components of the basket of goods, whose inflation only began to increase sharply in recent months. But declining profit margins, due in part to the restrictive effect of monetary policy, are likely to partly offset the inflationary pressure from wage development. On balance, we expect the downward trend in reported monthly inflation rates to continue. This year, total inflation in Germany is set to remain on a very high level of 6.3% (HICP) before dropping to 2.4% in 2024. Core inflation without energy and food is likely to be even slightly higher in 2024 than the overall rate.

Wage growth will stabilise household consumption

While collectively agreed wages increased by a mere 2.2% in 2022, the collective wage agreements most recently negotiated, especially in the metal industry and the public sector, indicate a sharp acceleration of wage growth in the course of the year. The growth of effective wages per worker, which had already increased to 4.7% last year, is also likely to accelerate again slightly. To be sure, real incomes should at best stagnate overall, and household consumption is likely to decrease slightly this year. But considerable increases in nominal wages in the course of the year will likely put household consumption back on a path of moderate growth in the second half of the year, and in 2024 it will then also benefit from significant increases in real wages.

Construction investment is nosediving, external trade balance is steady

By contrast, there is still little hope for improvement in the development of construction investment, especially in residential construction. It is likely to drop sharply as a result of the massive increases in financing costs resulting from the interest rate reversal and continuing very high prices of construction and land. The bottom could then be reached in the course of 2024 as land prices ease, and particularly as the first monetary easing is then also likely to take place in the euro area. Increased financing costs will also slow down corporate investment this year. But moderate growth is still likely in 2023 because of the urgent need for investment in energy transition and digitalisation projects and the pent-up demand experienced by capital goods manufacturers, who were

paralysed by supply problems. Rising defence spending means that public-sector investment will significantly expand already this year.

Global economic growth is likely to be subdued, with growth rates of 2.8% in 2023 and 2.9% in 2024 (3.4% in 2022). In the USA in particular, we expect a significant slowdown compared with previous years due to the stiff monetary headwinds and the associated turbulence in the banking system and growth in Europe is also likely to be weak, especially in the current year (see below). China, on the other hand, is experiencing a temporary growth spurt as a result of lifting its zero-COVID policy, although primarily in the services industries. On balance, the sluggish global economy is likely to slow Germany's export growth, although the pent-up demand is also stabilising exports slightly as supply bottlenecks have dissipated. Still, the external trade balance, the difference between exports and imports, is likely to be the main driver of growth in 2023 owing to weak consumption in Germany and, thus, a low import growth rate.

Germany: stagnation in 2023, 1.0% growth in 2024

According to the ifo survey, sentiment in German businesses brightened significantly in the first quarter and rose further at the start of the second quarter before experiencing a setback in May. According to the ifo survey, current situation assessments rather point to a stagnation, but the activity index from the purchasing managers' survey (Composite PMI) suggests quite strong growth in the current quarter. On balance, we expect moderate growth in Germany during this quarter and in the second half of the year. Initially, the main drivers will be catchup effects in industrial production and growth in businessrelated services, followed by a moderate recovery of household consumption, with positive effects on consumer-related services. Owing to the contraction at the end of the previous year and in the first quarter, as well as the fact that the year 2023 has around two fewer working days than 2022 (calendar effect), overall price-adjusted gross domestic product this year should nonetheless be 0.3% below that of the previous year. Thus, we maintain our previous forecast because GDP developed roughly as expected at the start of the year and the fundamental economic drivers have hardly changed. In the coming year, growth should then accelerate to 1.0% (previous forecast: +1.0%), with a negligible calendar effect. Adjusted for price and calendar effects, our forecasts practically translate into stagnation in 2023 (-0.1%) and growth of 1.0% in 2024, in line with the previous forecast.

Pressure to take action on climate change remains high

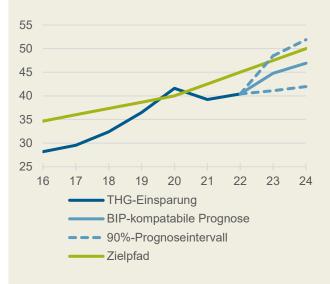
Pressure to act on climate change remains high. According to the ecological price tag for GDP, the new indicator we introduced with our autumn forecast for 2022, our current economic forecast implies that greenhouse gas emissions this year and next will be a good 5% and 6% higher, respectively, than would correspond with the interpolated target trajectory of a 65% reduction by 2030 against the 1990 baseline (see box).

Box: Ecological price tag for GDP

Economic growth has a wide range of social and ecological consequences that are typically disregarded in the usual economic forecasts; it is a necessary but not sufficient condition for sustained prosperity. Therefore, the time has come to focus more comprehensively and rigorously than before on the consequences of economic activity, particularly for the environment and climate. To this end we have developed a simple approach for systematically integrating the expected greenhouse gas (GHG) emissions into our economic forecast for Germany.⁴

Figure 4: GHG emissions in Germany

Reduction against 1990 baseline in per cent



Sources: Destatis, Eurostat, KfW Research

The starting point is an identity equation according to which total GHG emissions are the product of GDP and the emission of GHG per unit of GDP, in other words, GHG intensity. We take the GDP from our economic forecast and estimate the expected development of GHG intensity using a linear trend extrapolation. Our approach is explained in detail here. It enables the greenhouse gas emissions being expected under current conditions to be compared with the reduction targets set by policymakers, which require Germany to reduce its emissions by 65% against the 1990 baseline by 2030 (see Figure 3). That will sharpen our awareness of the trade-off that exists between more goods and income on the one hand and the consumption of key natural resources on the other hand. It means we attach an ecological price tag on GDP, that will tell us how much the expected growth will presumably cost us as a society in the form of GHG emissions that harm the climate.

On the basis of our new economic forecast, the ecological price tag predicts that emissions will drop this year and next, but at a lower rate than intended. Thus, Germany's GHG emissions are expected to be around 34 million t CO_2 equivalent or a good 5% higher in 2023, and around 38 million t CO_2 equivalent or a good 6% higher in 2024 than prescribed by the reduction trajectory set by policymakers (see Table 1). The predicted additional average annual emissions are almost equal to Slovakia's total emissions in 2020 (37 million tonnes of CO_2 equivalent).

Table 1: GHG emissions and policy trajectory Million tonnes of CO₂ equivalents

	2021	2022	2023	2024				
Actual/forecast	760	746	691	664				
Target path	719	688	657	626				
Actual/forecast deviation from target path								
Absolute	41	57	34	38				
Percent	5.7	8.3	5.2	6.1				

Sources: Destatis, Eurostat, KfW Research

Like all forecasts, the ecological price tag for GDP also involves forecast risks. With reference to the 90% forecast interval presented in Figure 3, which is derived from the historic forecast errors of our approach, the statement that the reduction targets were missed in the forecast period appears to be empirically well validated.

Euro area will grow by 0.8% in 2023 and 1.1% in 2024

The euro area grew at a rate of +3.5% last year, significantly faster than Germany, and the euro area business cycle proved to be much more stable in the last two quarters as well. An initial preliminary estimate by Eurostat shows that the euro area economy grew by 0.1% in the first quarter of 2023 after stagnating at the end of 2022. While Italy and Spain experienced a high quarterly growth rate of 0.5%, in which factors such as support from the EU Recovery Fund and booming tourism have likely played a role, the French economy expanded by a slightly weaker 0.2%. Euro area GDP is now 3% higher than the pre-COVID-19 level of the fourth quarter of 2019. The recovery in Germany, however, has been lagging already since mid-2021, primarily because the country was hit harder by supply bottlenecks in the industrial sector. German GDP is currently slightly below the pre-crisis level.

Leading indicators such as the Economic Sentiment Index and the Purchasing Managers' Index point to slightly higher growth in Southern Europe at the start of the second quarter as well, while momentum in France is slightly weaker than in Germany. The growth rates in the four largest euro countries should generally align in the coming quarters. Furthermore, the EU Recovery Fund as well as pent-up demand in international tourism will bolster growth in Southern Europe at a disproportionately high rate. The ECB's largely completed cycle of key interest rate rises, however, will put slightly more pressure on households in Spain and Italy because of the higher share of variable-rate loans, and Germany is likely to benefit more from the dissipation of supply bottlenecks in manufacturing.

Overall, we expect price and calendar-adjusted growth of 0.8% in the euro area in 2023. While the outlook for the next quarters is similar to that of Germany, much of the higher growth is attributable to the greater momentum from the previous year (statistical carry-over) and the better start to the year. In 2024 the euro area should experience growth of +1.1%, practically the same momentum as Germany. We anticipate an average annual euro area inflation rate of 5.7% for 2023. Next year it should be 2.2%, which is near the ECB's inflation target.

Table 2: Price-adjusted GDP growth in the euro area

Per cent year-over-year change

	DE	FR	IT	ES	EA
2021	2.6	6.8	7.0	5.5	5.3
2022	1.8	2.6	3.8	5.5	3.5
2023	-0.3	0.6	1.1	2.0	0.8
2024	1.0	0.9	0.7	1.2	1.1

Sources: Destatis, Eurostat, KfW Research

Downside and upside forecast risks

Besides the military and geopolitical risks caused by Russia's invasion of Ukraine, developments in the energy markets continue to be the greatest imponderables of the economic forecast. It is assumed that the gas price will move along the current forward rates up until 2024. In other words, starting from the very low current spot price of EUR 36 on average in the first half of May, a moderate increase to a good EUR 50 per MWh is expected from autumn 2023 to the end of 2024. However, if global demand for liquefied natural gas increases unexpectedly, all gas supplies from Russia⁶ to the EU are suspended or the winter of 2023/2024 is a very cold one, prices could rise much more strongly and thus worsen the growth and inflation outlook. Given the successes at reducing consumption in the past months and continuing high storage levels, a gas shortage next winter is now quite unlikely but still possible in unfavourable constellations particularly if piped supplies from Norway should stop as a result of sabotage.

Uncertainties also remain about the impact of global monetary tightening. Firstly, the transmission of monetary policy impetus to the real economy and, in particular, inflation always progresses slowly and at an uncertain rate, creating the risk of over-tightening or under-tightening by central banks. Secondly, the turbulence in the US banking system illustrates that a rapid interest rate reversal may lead to undesired side-effects. According to the ECB's Financial Stability Report, European banks have mostly hedged their interest risks and are also capitalised well enough to absorb rising loan defaults. But it is definitely possible that still undetected fractures opened up in the financial system in the course of the prolonged low-interest phase.

Furthermore, inflation could even prove to be more persistent than we expect regardless of the impact of monetary policy: Wage increases could turn out even higher than we assume or, unlike before, households could resort to spending the significant excess savings they accumulated during the pandemic. Both could contribute to significantly higher consumption and economic growth in the forecast period but would probably also lead to even tighter monetary policy.

Finally, the German economy remains particularly vulnerable as soon as geopolitical risks materialise as a result of its close integration into complex international value chains and high share of exports in GDP. Thus, a severe reduction of trade with China, for example in connection with the war in Ukraine or the Taiwan conflict, could lead to significant setbacks, particularly for manufacturing.

 $^{^{1}\} Cf.\ \underline{https://www.theice.com/products/27996665/Dutch-TTF-Gas-Futures/data?marketId=5564180}$

² Cf. ECB Bank Lending Survey: https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html

³ Cf. Lane, Philip: The euro area hiking cycle: an interim assessment; Dow Lecture by Philip R. Lane, Member of the Executive Board of the ECB, at the National Institute of Economic and Social Research; London, 16 February 2023.

⁴ Cf. Borger, K. (2022), GDP forecasting and greenhouse gas emissions – an integrated approach, Focus on Economics No. 400, KfW Research.

⁵ We refer to the euro area 20 including the new member Croatia. Without Croatia the euro area economy contracted by 0.1% in Q4 2022. Thus, Q1 2023 growth was also +0.1%.

⁶ Whereas direct pipeline supplies from Russia to Germany ended since the explosion of the Nordstream pipeline in September 2022, Eastern and Southern European countries are still being supplied with gas through the Turkstream Pipeline via Ukraine. In addition, 10% to 20% of Europe's liquefied natural gas imports come from Russia.

Cf. https://www.bruegel.org/dataset/european-natural-gas-imports

⁷ Cf. Joint Economic Forecast Spring 2023: Inflation High at Core - Strengthen Supply Forces Now, Box 21, April 2023.