

■ The German economy

■ Macroeconomic situation

German economic output stagnant in Q2 2022

Economic output in Germany stagnated in the second quarter of 2022. According to the Federal Statistical Office's flash estimate, seasonally adjusted real gross domestic product (GDP) stalled compared with the previous quarter.¹ Growth for the first quarter was revised significantly upwards to 0.8% as against the previous publication.² This meant that GDP was recently barely short of its level in the fourth quarter of 2019, the quarter before the outbreak of the coronavirus crisis. The economy was caught between opposing forces in the second quarter. Although the elimination of most coronavirus mitigation measures lent a strong boost to previously beleaguered service providers, surging prices and uncertainty associated with the war in Ukraine put pressure on households and enterprises. Industry was also confronted with weaker demand and the persistence of marked supply bottlenecks. Shortages of materials weighed on the construction sector, too, which was already suffering from a labour mismatch. Furthermore, construction activity had expanded sharply in the first quarter owing to favourable weather conditions, resulting in a countermovement in the second quarter. Unfavourable developments in the gas market since mid-June have been dampening the outlook for economic activity. Overall, German economic output could more or less stagnate again in the third quarter, while at the same time the probability of GDP declining in the fourth quarter of 2022 and the first quarter of 2023 has increased significantly.

¹ Seasonal adjustment here and in the remainder of this text also includes adjustment for calendar variations, provided they can be verified and quantified.

² As usual at this release date for GDP statistics, the results published previously for the quarters and years from 2018 onwards have been revised and new statistical information has been taken into account. The Federal Statistical Office attributed the strong revisions from 2020 onwards to the increased uncertainty in calculations for the years affected by the coronavirus pandemic (see Federal Statistical Office (2022)).

The economy was buoyed mainly by private consumption in the second quarter. The elimination of coronavirus mitigation measures went hand in hand with a strong increase in consumer spending on services to which access had previously been restricted. Exports also provided a boost. Business investment in new machinery and equipment is likely to have risen only marginally owing to the high level of uncertainty and supply bottlenecks. Construction investment is likely to have fallen sharply, however.

Private consumption and exports buoyed economy

Price-adjusted exports of goods to both euro area and non-euro area countries increased significantly in the second quarter. The value of exports to the United States rose particularly steeply. By contrast, exports to China fell sharply in April and May as a result of the lockdowns there. Exports to Russia experienced a

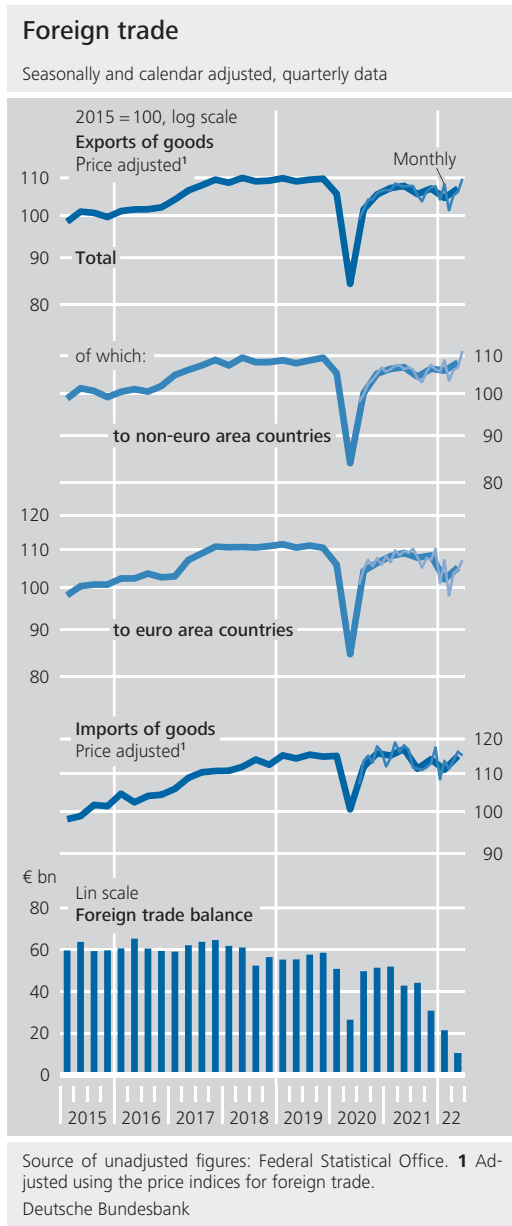
Goods exports up significantly

Aggregate output

Adjusted for price, seasonal and calendar effects



Source of unadjusted figures: Federal Statistical Office. ¹ Price and calendar adjusted.
 Deutsche Bundesbank



within Germany. Imports of capital goods, for example, rose sharply both in terms of value and after price adjustment. By contrast, manufacturers of capital goods experienced a distinct drop in nominal sales in Germany, even posting a strong decline after price adjustment.

Construction investment is likely to have fallen steeply in the second quarter. Part of the decline can be explained by the fact that the first quarter had been bolstered by mild weather conditions and there was a countermovement in the second quarter. However, higher interest rates for building finance and construction costs are also expected to have dampened investment. Nominal sales in the main construction sector available up to May signal particularly sharp declines in housing construction and public construction, but investment in commercial buildings was probably lower as well.

Steep fall in construction investment

Private consumption is likely to have risen significantly in the second quarter of 2022. The elimination of most coronavirus mitigation measures lent a strong boost to previously beleaguered services. Price-adjusted sales in the hotel and restaurant sector were considerably higher, for example. High inflation and uncertainty about the future supply of energy weighed on households' purchasing power and willingness to spend, however. This was particularly noticeable when it came to the purchase of new cars and in the retail sector. The number of new private car registrations went down considerably according to the German Association of the Automotive Industry (VDA). Price-adjusted retail sales likewise fell sharply.

Private consumption up significantly

Price-adjusted imports of goods increased strongly in the second quarter, with imports from non-euro area countries showing a steeper rise than imports from euro area countries. The value of imports from Russia declined considerably. By contrast, imports from OPEC countries were substantially higher, partly driven by a sizeable rise in import prices for energy. Price-adjusted imports of intermediate and capital goods increased sharply, whereas

Strong increase in imports of goods

very considerable decline due to sanctions. Broken down by category of goods, price-adjusted exports of consumer and capital goods were up substantially. Exports of intermediate goods dropped slightly, however.

Business investment in machinery and equipment likely to have risen only marginally

Business investment in machinery and equipment is likely to have increased only marginally in the second quarter. Uncertainty surrounding the war in Ukraine had a negative impact on the propensity to invest. Supply bottlenecks and lower demand for industrial products are also likely to have been contributing factors. Although more machinery and equipment was imported from abroad, less was sourced from

imports of consumer goods were up only slightly. Energy imports were down strongly again.

■ Sectoral trends

Industrial production burdened by supply bottlenecks, high uncertainty and a sharp rise in prices

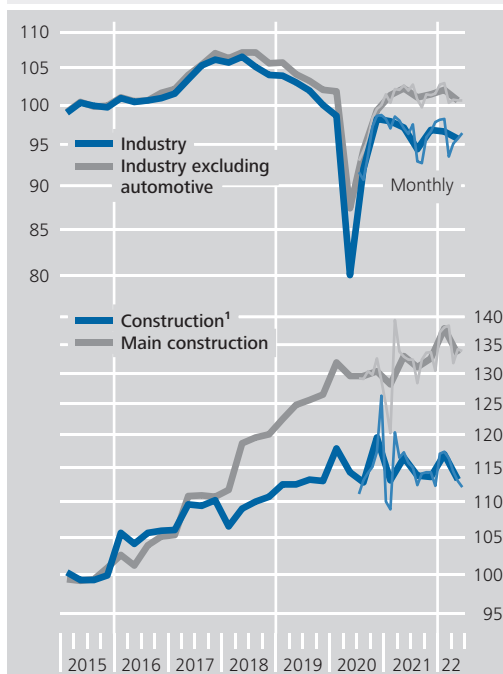
After seasonal adjustment, second-quarter industrial output was slightly down on the previous quarter's level (-1%). The war against Ukraine led to new supply chain problems and burdens related to high inflation and uncertainty also increased. Industrial output picked up again slightly following the steep decline in March. In June, however, it was still markedly below the February level, which was barely affected by the Russian attack on Ukraine. Production of intermediate goods fell distinctly in the second quarter compared with the previous quarter. The manufacture of chemical products and other non-metallic mineral products declined particularly sharply. The high energy intensity of these sectors, combined with the strong rise in energy prices, is likely to have been the key factor in this. Production of capital goods was down slightly. While production in the mechanical engineering sector flagged somewhat, significantly more motor vehicles and motor vehicle parts were manufactured. Production of consumer goods remained stable in the second quarter.

Industrial capacity utilisation stable

According to the ifo Institute, capacity utilisation of tangible fixed assets in manufacturing remained constant between the surveys in April and July. It thus continued to distinctly exceed its long-term average. Although the production of capital goods declined somewhat in the second quarter, manufacturers of capital goods reported a marked increase in capacity utilisation. By contrast, capacity utilisation decreased slightly among intermediate goods producers and remained virtually unchanged in the case of consumer goods. This is consistent with developments in the production of intermediate and consumer goods.

Output in industry and in construction

2015 = 100, seasonally and calendar adjusted, quarterly data, log scale



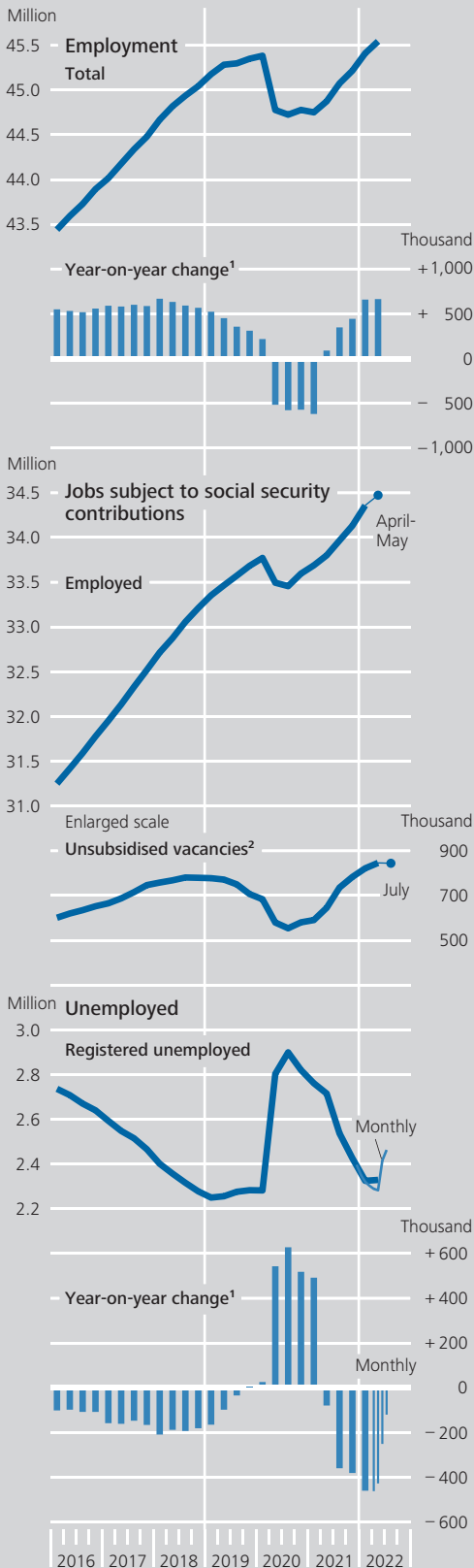
Source of unadjusted figures: Federal Statistical Office. ¹ Main construction sector and finishing trades. Deutsche Bundesbank

In the second quarter, construction output fell steeply compared with the first quarter in seasonally adjusted terms. A similarly strong decline was recorded in the finishing trades and in main construction, as well as its subsectors of building construction and civil engineering. One reason was the previously high output due to the mild weather conditions in winter but other supply-side factors also weighed on the construction sector. The percentage of enterprises in the main construction sector reporting disruption to their activity due to a lack of staff was significantly higher than in the previous quarter, according to surveys by the ifo Institute. There was also a considerable increase in the percentage of enterprises stating that production is being impeded by a shortage of materials. In addition, the rise in interest rates on housing loans is likely to have put a strain on the construction sector. Utilisation of equipment was down sharply in line with the decline in output; it remained high in a long-term comparison, however.

Steep decline in construction output

Labour market

Seasonally adjusted, quarterly data



Sources of unadjusted figures: Federal Statistical Office and Federal Employment Agency. **1** Not seasonally adjusted. **2** Excluding seasonal jobs.
 Deutsche Bundesbank

Economic output in the services sector is likely to have risen noticeably in the second quarter. Growth was driven by those services which had previously been severely restricted by the coronavirus protective measures. Activity in the hotel and restaurant sector is expected to have increased substantially, for example. According to surveys conducted by the ifo Institute, business conditions in the services sector (excluding trade) improved strongly. However, surging prices exerted considerable pressure on the retail sector. Retail sales of food, beverages and tobacco products, as well as furniture, furnishings, household appliances and home improvement materials fell particularly sharply. The relaxation of containment measures also brought a significant drop in retail sales via mail order and via the internet. By contrast, strong growth was posted in retail sales of clothing, footwear and leather goods. Motor vehicle sales are also likely to have been affected by high inflation and uncertainty in connection with the war in Ukraine. According to data provided by the German Association of the Automotive Industry, new passenger car registrations were down considerably. The price-adjusted data available up to May show that wholesale sales also dropped sharply.

Distinct growth in services sector likely

Labour market

Economic strains also left their mark on the labour market in the second quarter. The labour market's rapid catch-up process following the lifting of pandemic restrictions lost considerable momentum. Even so, employment continued to rise. Only relatively little use of short-time work was still being made. Whilst unemployment increased considerably starting in early June 2022, this was due solely to the fact that Ukrainian refugees were included in German social security legislation. Positive expectations regarding future developments were pared back slightly.

Economic strains destroying momentum of labour market catch-up

In the second quarter of 2022, growth in the number of people in work was only around

Employment increased more slowly in Q2 than in Q1

half as high as in the first quarter. Nevertheless, looking at the quarterly average, total employment still exceeded the first-quarter level on a seasonally adjusted basis by a considerable 133,000 persons, or 0.3%, due to the statistical carry-over effect. The rise in employment has been largely attributable to the increasing number of jobs subject to social security contributions for some time now. Self-employment is still on the decline, and exclusively low-paid part-time employment is showing some degree of stabilisation. Both forms of employment are far from their pre-pandemic levels, quite in contrast to employment subject to social security contributions.

Growth in employment subject to social security contributions slower in almost all sectors

The moderate employment growth is mainly due to jobs subject to social security contributions being filled at a slower pace, with almost all sectors being affected. In the production sector (excluding construction), supply bottlenecks, logistical problems and uncertainty caused by the war in Ukraine are likely to delay the awaited recovery from losses sustained during the pandemic. In addition, this is the only sector in which short-time work continues to play a significant role. In almost all other sectors of the economy, short-time work for economic reasons has tailed off considerably in recent months. At the same time, however, employment in those sectors increased only at a subdued pace. This is also partly due to the mild weather conditions in the first quarter. The subsequent comparatively muted pick-up in the second quarter is likely to explain, at least, the stagnation in seasonally adjusted terms in the construction sector, which had previously experienced strong employment growth. However, the shortage of qualified staff is also likely to put the brake on stronger employment growth in healthcare and social work, for example. In recent months, the only exception seeing sustained robust employment growth has been the IT sector, which has benefited from structural change.

Developments in registered unemployment have been influenced by Ukrainian refugees re-

ceiving basic social security payments. Unemployment was in decline up to May, but rose steeply in June. After a three-month transitional period, most refugees are now entitled to receive the basic welfare allowance (SGB II). According to the Federal Employment Agency, in July, the latest month for which data are available, around 168,000 more Ukrainians were registered as unemployed than in February, before the influx of refugees.³ Without the effect of refugees from Ukraine, unemployment would have been slightly below the previous quarter's level throughout the second quarter. After seasonal adjustment, a total of 2.46 million persons were registered as unemployed in July. The unemployment rate went up by 0.4 percentage point to 5.4% from May to July.

Ukrainian refugees registering as unemployed is also a first step towards labour market integration. However, data on developments in employment by nationality are not yet available for the period since the Russian attack on Ukraine. The Federal Statistical Office has already recorded a net influx of more than 630,000 new arrivals in its migration statistics, which currently run up to April. Whether Ukrainian refugees, the majority of whom are women and children, have a notable impact on the supply of labour in the medium term is likely to depend on how the war progresses and how keen they are to return home – the desire to return will probably be great given the fact that many families have been separated.

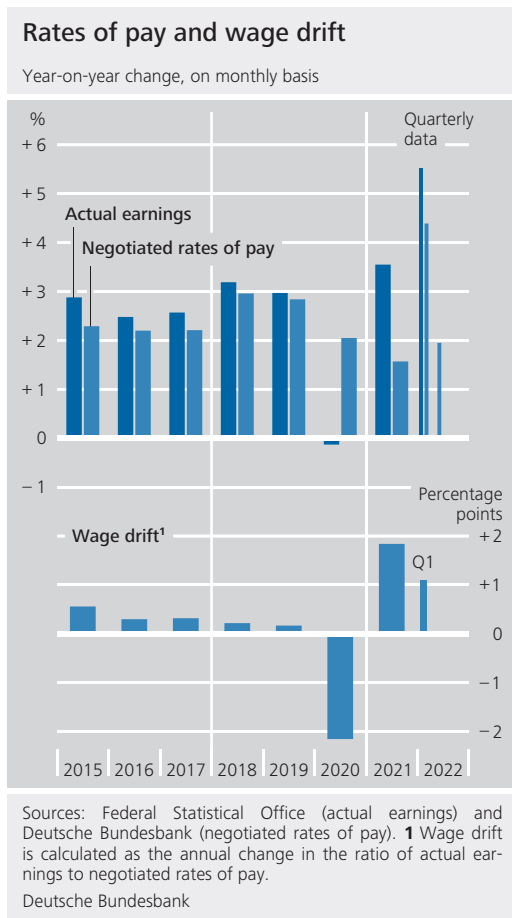
Economic strains are increasingly causing enterprises to slightly scale back their employment plans, which have been very expansionary to date. The employment barometer of the ifo Institute, which conducts surveys of enterprises to chart the recruitment plans of trade

Unemployment up significantly by granting of basic welfare allowance to Ukrainian refugees

Degree to which Ukrainian refugees integrated into labour market still uncertain

Employment plans somewhat more cautious

³ That being said, the Federal Employment Agency reports increased uncertainty in unemployment figures for Ukrainians. In particular, availability on the labour market may be restricted by childcare duties or illness, which still needs to be examined in detail. Initially, the focus was on the granting of basic social security benefits. See Statistics provided by the Federal Employment Agency (2022).



Wages and prices

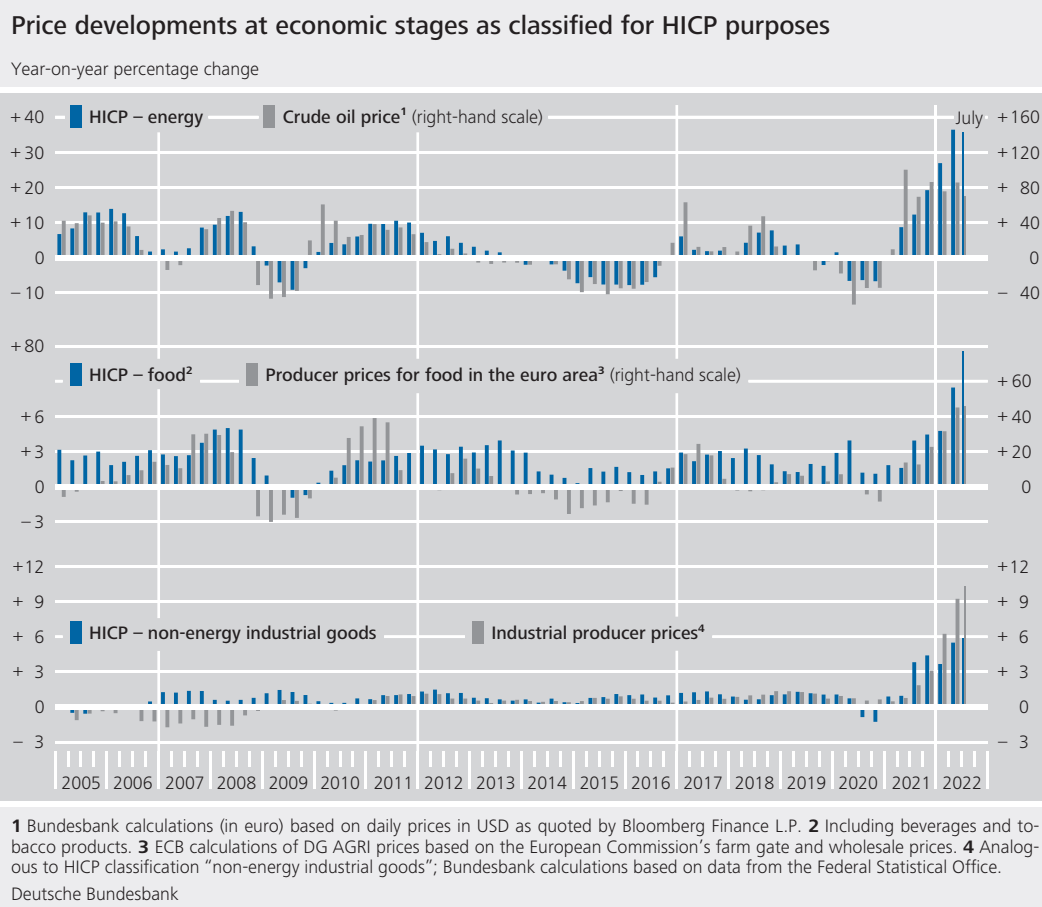
Negotiated wages grew more weakly in the second quarter of 2022 than in the first, rising by 1.9% on the year in Q2 compared with 4.4% in Q1. In the first quarter, however, high bonus payments in industry and coronavirus bonuses had temporarily caused the growth rate to soar. By contrast, adjusting for these bonus payments, negotiated rates of basic pay rose more sharply in the second quarter than in the first, climbing by 2.1% as opposed to 1.6%. Actual earnings are likely to have once again risen more strongly than negotiated wages in the second quarter, with growth being hardly any smaller than in the first quarter. This was due primarily to the significantly higher number of hours worked in a year-on-year comparison owing to the massive drop in short-time work in 2022.

Negotiated wages excluding bonus payments still up moderately in Q2

and industry over the coming three months, fell significantly across all sectors in June and July. The survey of developments in employment conducted by the Institute for Employment Research (IAB) among managers of the regional employment agencies remained somewhat more stable, but was also tilted to the downside. Nevertheless, enterprises intend to increase employment on balance. The reported number of vacancies subject to social security contributions has also fallen slightly in the past two months, but remains very high. The Federal Employment Agency's BA-X job index also declined after rising robustly over a two-year period. The long and ever increasing time taken to fill vacancies reflects the ongoing shortage of staff in large parts of the economy. The survey on unemployment carried out by the IAB shows a further rise in unemployment over the next three months. Its informative value is impaired by the registration of refugees, however.

At present, the growth in negotiated wages is still being driven by old collective agreements, which were concluded in an environment of lower inflation rates and pandemic-related challenges. That said, some new pay deals concluded in the second quarter, in which inflation had risen sharply, were slightly higher than previously. Despite this, they fell well short of the annual consumer inflation rate. The still high level of uncertainty, stemming first and foremost from the effects of the war in Ukraine, as well as the sometimes high cost burden on enterprises stood in the way of higher pay deals. Annualised wage growth in the latest wage agreements for Deutsche Telekom, the steel industry and office cleaning companies ranged from 3.1% to 6.1% for the middle pay groups. Agreements at cooperative banks and in the plastics processing industry were distinctly lower. In addition, some agreements concluded in the first half of the year already factored in the increase in the general statutory minimum wage to €10.45 per hour from 1 July 2022 as well as the decision to raise it further to €12 from 1 October 2022. This benefited the lower pay groups, in particular.

Recent wage agreements contain higher rates



Potentially substantial wage agreements in the coming months

The ongoing loss of purchasing power due to high inflation is likely to play an increasingly important role in upcoming wage negotiations. The trade unions' minimum demand is compensation for the high inflation rates. In the metal-working and electrical engineering industry and at Volkswagen AG, the IG Metall trade union demanded a wage increase of 8% to apply for a 12-month period. Wage increases will be dampened somewhat by the ongoing high level of uncertainty, concerns about jobs and the limited scope for income distribution resulting from higher import prices. Nonetheless, wage settlements will probably be higher than in the second quarter because of growing labour market shortages, amongst other factors.

Inflation in Q2 still extremely dynamic

The exceptionally strong rise in seasonally adjusted consumer prices (as measured by the Harmonised Index of Consumer Prices – HICP) continued into the second quarter, too. Energy prices went up as crude oil prices continued to

increase. The latter rose even more sharply in euro terms as a result of the marked depreciation against the US dollar. This development obscured the temporary reduction in fuel taxes (fuel rebate). The lower tax rates were introduced for three months starting from June as part of the government's relief package and were probably also passed on to end customers for the most part. Furthermore, tariffs for electricity and gas, which had already been substantially increased at the beginning of 2022, were again raised significantly in the second quarter. The main adjustments to the tariffs usually take place at the start of the year, with only minor changes being made throughout the rest of the year. Food prices rose even more sharply as not only the prices of agricultural products but also other costs, such as those for transport and packaging, went up markedly. Prices for non-energy industrial goods were likewise somewhat higher again than in the previous quarter. Rising commodity costs and supply bottlenecks are likely to have

been the main factors at play here. Enterprises swiftly passed them on to consumers. By contrast, there will probably be a certain delay before the depreciation of the euro leaves its mark on retail prices for these products. The cost of services continued to rise markedly up to May. In June, however, prices fell distinctly as a result of the introduction of the €9 ticket for local/regional public transport, which is also part of the relief package and is available for three months. Nonetheless, the underlying trend of marked price increases for services continued unabated in June, too.

Inflation rate still exceptionally high despite relief package, ...

In annual terms, the average HICP rate rose to 8.3% in the second quarter. In May, it hit a new peak of 8.7%, but temporarily weakened again slightly in June in the wake of the relief package. The rate excluding energy and food climbed to 3.7% in the second quarter. In June, however, it likewise fell slightly again as a result of the temporary introduction of the €9 ticket.

... even recording a further rise in July and ...

In July, prices surged again on the month in seasonally adjusted terms. Food prices, in particular, continued to rise very sharply. Prices for some products even recorded significant double-digit percentage increases. Energy prices did not fall, but remained constant. Crude oil prices declined and the government assumed the renewable energy levy (EEG levy), which had previously accounted for a considerable part of electricity tariffs.⁴ However, this was offset mainly by higher gas prices. Prices for non-energy industrial goods continued to rise very dynamically, and services also recorded significant price increases again after the relief provided by the introduction of the €9 ticket in June. Annual headline inflation climbed from 8.2% to 8.5%.⁵ The rate excluding energy and food held steady at 3.2%.

... likely to hit new highs in Q4

Another marked rise in the inflation rate is expected once the measures contained in the relief package expire in September. The increase in the general statutory minimum wage will create additional cost pressures.⁶ In the fourth quarter, prices will probably gradually start to

reflect the depreciation of the euro, too. In addition, a levy on gas tariffs is set to be introduced in October, while the VAT rate on gas is to be lowered from 19% to 7% at the same time.⁷ All in all, the inflation rate could reach a level of 10% in the fourth quarter. However, the inflation outlook remains extremely uncertain, due notably to the unclear situation in the commodity markets, although price risks are still tilted more to the upside at present.

■ Order books and outlook

German economic output is likely to more or less stagnate again in the third quarter, with positive and negative factors remaining broadly balanced according to current estimates. The situation in the gas market is tight owing to the further reduction in gas deliveries from Russia at the end of July. The high level of uncertainty surrounding the supply of gas over the coming winter and the sharp increases in prices are likely to place a considerable strain on households and enterprises. The market research institute GfK found that consumer sentiment is poor, and firms' business expectations fell to very low levels. According to ifo Institute surveys, supply bottlenecks in industry and construction are still a major problem.⁸ Moreover, the shortage of skilled workers recently reached an all-time high.⁹ In addition to supply-side strains, demand is flagging in industry and construction. By contrast, the elimination of coronavirus protection measures continues to provide positive stimuli for previously belea-

Economic output likely to stagnate again in Q3

⁴ Suppliers are legally obliged to pass on the relief provided by the government's assumption of the EEG levy to their end customers. However, this appears to have been largely offset by the sharp rise in the costs of procuring electricity.

⁵ By comparison, the annual rate of inflation according to the national consumer price index (CPI) declined from 7.6% to 7.5%.

⁶ See also Deutsche Bundesbank (2022a).

⁷ The levy will amount to just over 2.4 cents per kilowatt hour at first. In addition to this, a balancing neutrality charge and a storage neutrality charge are also to be introduced.

⁸ In some areas, they could be reinforced by the fact that low water levels are increasingly affecting inland waterway transport.

⁹ See ifo Institute (2022).

guered service providers and related private consumption. In addition, the latest data suggest that industry and foreign trade have been able to withstand adverse factors until recently. According to data from the German Association of the Automotive Industry, the number of passenger cars manufactured in July rose sharply in seasonally adjusted terms compared with the second quarter. This is consistent with enterprises' assessment of the business situation, which has deteriorated as per the latest ifo Institute survey results, although the balance values remain positive.

Future economic developments hampered by unfavourable developments in the gas market

Economic developments will be affected in the third quarter and beyond by unfavourable developments in the gas market. To date, the gas supply from Russia has not been cut off altogether as had been assumed in the adverse scenario outlined in the Bundesbank's June projection.¹⁰ However, gas deliveries from Russia did decline significantly from June onwards.¹¹ Larger deliveries from other countries only partly compensated for this. In addition, the price of natural gas on the spot market and for natural gas futures rose sharply as a result of supply cuts from Russia. As things stand, the average spot price for July and August was closer to what had been assumed in the adverse rather than the baseline scenario of the June projection. Industry and households consumed less natural gas than in the previous year, which was mainly due to the sharp rise in gas prices and the mild temperatures in the spring, but savings in consumption had already been taken into account in the projection. The gas storage level was only slightly above the level assumed in the adverse scenario at the end of the period under review. The Federal Network Agency, too, currently sees a high risk of a gas shortage in the fourth quarter of 2022 and first quarter of 2023 unless industry and households make substantial additional sav-

Demand for industrial goods and construction services

Volumes, 2015 = 100, seasonally and calendar adjusted, quarterly data



Source of unadjusted figures: Federal Statistical Office. ¹ Only calendar adjusted.
 Deutsche Bundesbank

¹⁰ See Deutsche Bundesbank (2022b).
¹¹ For information on gas deliveries and gas storage levels, see Federal Network Agency (2022a).

Business sentiment deteriorated

ings.¹² The risk that economic output will decline in the coming winter has therefore increased significantly.

High energy prices and concerns about a gas shortage are having an impact on business sentiment. The ifo business climate index declined significantly in July compared with the second quarter. Business expectations saw a particularly steep fall, hitting their lowest levels since April 2020. They were negative in all sectors and only showed a slight improvement in the main construction sector. In addition, production plans and export expectations also worsened significantly in the manufacturing sector. The assessment of the business situation likewise deteriorated broadly, although not as strongly as expectations did. The hotel and restaurant industry and business and support services were an exception in this regard. The indicator here was still considerably higher than on average during the second quarter.

Substantial drop in industrial new orders

Industrial new orders decreased substantially in the second quarter. Much of the decline is attributable to large orders, but even factoring these out, the volume of new orders fell significantly. There were considerably fewer orders from non-euro area countries, but demand from euro area countries and from within Germany likewise showed a distinct decline. Broken down by sector, the volume of orders received by manufacturers of capital and intermediate goods dropped steeply. By contrast, demand for consumer goods continued to rise sharply, although orders for pharmaceutical products declined markedly. Despite the reduced demand, the stock of unprocessed orders continued to grow. According to Federal Statistical Office data, the order backlog was significantly higher in the second quarter than in the first. The reach of the order books climbed to a new peak. The ifo Institute, however, reports that manufacturing firms rated their order books even more negatively than in the first quarter.

Supply-side factors are currently weighing on construction activity. For example, the share of firms in the main construction sector whose construction activity is affected by a shortage of labour according to ifo surveys has risen sharply again of late. The percentage of firms citing material shortages declined, but nonetheless remained high. Higher mortgage rates and construction prices are dragging on demand for construction services. In April and May – the period up to which data are available – new orders in the main construction sector dropped sharply. According to the ifo Institute’s survey, however, the reach of order books in July was only slightly lower than its peak in February 2022, indicating that orders are still at a healthy level. In month-on-month terms, equipment utilisation fell for the fifth time in a row, yet continued to significantly exceed its long-term average.

Construction sector burdened by supply-side factors as well as higher mortgage rates and construction prices

Catch-up and backlog effects in the use of previously restricted services will probably bolster private consumption in the third quarter as well. However, high price increases are further reducing households’ purchasing power and concerns about a looming shortage of gas in the winter are weighing on consumer sentiment. For example, the consumer climate index calculated by the market research institute GfK recently dropped again from what had previously been its all-time low, with a clear deterioration being seen once again in income and economic expectations, in particular.

High inflation and concerns about energy supply weighing on private consumption

¹² See also the scenarios of the Federal Network Agency (2022b) regarding possible gas supply developments between July 2022 and June 2023. In the worst case scenario, the special report produced by the research project group “Gemeinschaftsdiagnose” on the risk of a gap in the gas supply in Germany predicts a gas deficit of 70 TWh for the period from August 2022 to December 2023. This would not lead to gas shortages until April, May and December 2023. According to this report, a shortage can only be prevented by making considerable cutbacks (see Projektgruppe Gemeinschaftsdiagnose (2022)).

■ List of references

Deutsche Bundesbank (2022a), The macroeconomic impact of the planned increase in the general statutory minimum wage to €12 per hour, Monthly Report, February 2022, pp. 54-55.

Deutsche Bundesbank (2022b), Outlook for the German economy for 2022 to 2024, Monthly Report, June 2022, pp. 13-45.

Federal Network Agency (2022a), Current status of gas supply in Germany, <https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/SecurityOfSupply/GasSupply/start.html;jsessionid=A0F2DAB4565DA652D54FA709D3A15A50>, accessed on 18 August 2022.

Federal Network Agency (2022b), Gas-Szenarien von Juli 22 bis Juni 23, 8. August 2022, https://www.bundesnetzagentur.de/DE/Fachthemen/ElektrizitaetundGas/Versorgungssicherheit/aktuelle_gasversorgung/HintergrundFAQ/Gas_Szenarien.pdf

Federal Statistical Office (2022), Gross domestic product stagnant in 2nd quarter of 2022, press release No 322 of 29 July 2022, https://www.destatis.de/EN/Press/2022/07/PE22_322_811.html;jsessionid=03F69F06988D6F8BD4F7BAB72FD76775.live741

ifo Institute (2022), Shortage of Skilled Workers in Germany Reaches an All-Time High, press release of 2 August 2022, <https://www.ifo.de/en/press-release/2022-08-02/shortage-skilled-workers-germany-reaches-all-time-high>

Projektgruppe Gemeinschaftsdiagnose (2022), Zur Gefahr einer Gaslücke in Deutschland bei einer Drosselung russischer Lieferungen auf 20% – Sonderauswertung Juli 2022.

Statistics provided by the Federal Employment Agency (2022), Berichte: Blickpunkt Arbeitsmarkt – Monatsbericht zum Arbeits- und Ausbildungsmarkt, Auswirkungen der Fluchtmigration aus der Ukraine auf den deutschen Arbeitsmarkt und die Grundsicherung für Arbeitsuchende, Nuremberg, July 2022, p. 12.