


KIEL INSTITUTE **ECONOMIC OUTLOOK**

German Economy Autumn 2024

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GERMAN ECONOMY IN AUTUMN 2024: STRUGGLING TO GAIN TRACTION

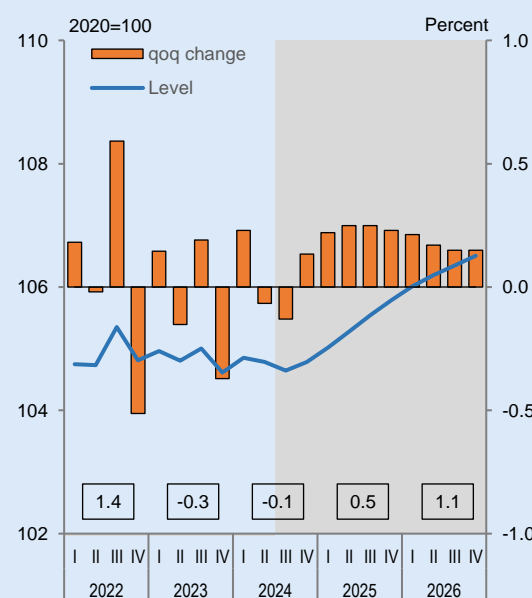
Jens Boysen-Hogrefe, Dominik Groll, Timo Hoffmann, Nils Jannsen, Stefan Kooths, Christian Schröder und Nils Sonnenberg

The German economy is not getting off the ground. The signs of a beginning recovery that were observable a few months ago have not materialized. Leading indicators now are signaling that economic output will continue to stagnate for the time being. The manufacturing industry is in recession and private households are holding back on consumption despite rising real incomes. Investments continue to suffer from the high level of uncertainty and restrictive financing conditions. GDP is likely to increase slightly from next year onwards. The restrictive impact of monetary policy is gradually easing. The continued rise in real incomes will lead to moderate increases in private consumption and the stable economic expansion of the world economy is likely to stimulate exports somewhat. Given the current low level of overall economic production, however, the recovery will remain weak. Overall, we have revised our forecast downwards. For the current year, we now expect GDP to decline by 0.1 percent (summer forecast: +0.2 percent), while next year it is likely to increase by 0.5 percent (1.1 percent). In 2026, GDP will probably increase by 1.1 percent, also supported by the higher number of working days, which will contribute 0.3 percentage points to the growth rate. Inflation has continued to fall and will probably be around 2 percent in the next two years. Unemployment will rise from 5.7 percent in 2023 to 6.1 percent in 2025 due to the weak economy. Demographic change will increasingly affect the labor market in the coming years and are expected to lead to a decline in employment in 2026. The budget deficit is likely to fall from 2.6 percent relative to GDP in 2023 to 1.7 percent in 2025, mainly due to the removal of the energy price brakes. The fiscal policy course for 2026 is uncertain given the upcoming general election.

GDP will not increase in the second half of the year. While leading indicators for our summer forecast showed some signs of a beginning recovery, they have deteriorated again in recent months. In particular, business expectations, which had risen for four months in a row through May, have fallen again since then. Although leading indicators had pointed to robust growth, GDP declined slightly in the second quarter. Overall, there are currently no signs of a significant economic upturn in the second half of the year. The marked deterioration in the business situation of firms up to August and the decline in capacity utilization in the manufacturing industry compared with the second quarter even point to a noticeable decline in GDP. However, the purchasing managers' index points only to a slight decline in GDP, and the sentiment indicators reported by the European Commission have deteriorated only slightly compared with the second quarter. All in all, we expect GDP to fall slightly by 0.1% in the third quarter (Figure 1).

Foreign trade has been weak since the beginning of last year. Since then, trade activity has declined with the usual large fluctuations over the course of the quarters. Most recently, global trade in goods was almost 7 percent above the level of 2019.

Figure 1:
Gross domestic product

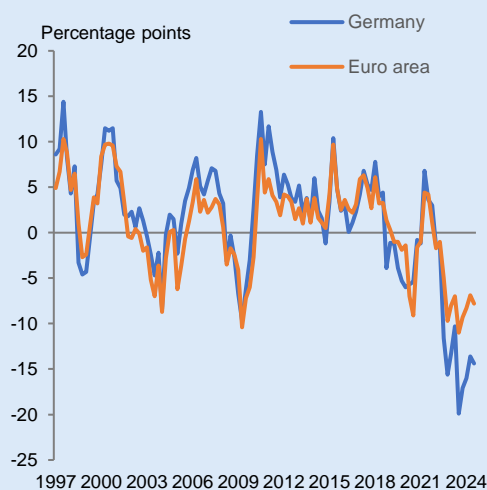


Quarterly data: Volumes, seasonally and calendar adjusted.
Annual data (boxes): Volumes, change in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*; shaded: Kiel Institute forecast.

German exports of goods rose by just under 1 percent during this period. The appreciation of the effective exchange rate in this period is likely to have contributed to the weak expansion of exports. However, there are increasing signs that structural problems are also weighing on the export industry: the share of firms that reported a deterioration in their competitive position on foreign markets in recent quarters was, on balance, significantly higher in Germany than in other euro area countries (Figure 2). Over the forecast period, exports are expected to return to moderate growth, as economic output in destination countries is likely to increase and global trade continues to expand. However, exports are unlikely to be able to keep pace with global trade for the time being. This is supported by the surveys on the competitive position in foreign markets as well as by the fact that price competitiveness has deteriorated further, recently. We do not expect exports to be able to roughly keep pace with global trade activity - as was the case before the start of the pandemic - again until 2026, by which time we expect price competitiveness to improve somewhat by then.

Figure 2:
Domestic competitive position



Quarterly data. Change in competitive position outside of the European Union: balance of the shares of firms, that report of an improvement or a deterioration in their competitive position vs. the previous quarter.

Source: European Commission.

Private consumption will rise moderately. The development of private consumption in recent years has been better than previously reflected in official data, as shown by the revised data show following the extensive general revision by the Federal Statistical Office: Last year, private consumption was already 0.3% above its pre-crisis level in 2019, while it was still around 1.5% below its pre-crisis level according to the official data from summer. This recovery of private consumption, which we have been expecting for some time, is now reflected in the official figures. However, contrary to expectations, the recent significant increase in real incomes has not been reflected in a corresponding increase in private consumption: Overall, private consumption in the second quarter is roughly at the same level as last year. In the same period, real net wages and salaries and mass incomes rose by 3%. The savings rate has been on an upward trend again for four quarters. In the first half of the year, it was 1 percentage point higher than a year ago. For the forecast period, we expect real disposable incomes to rise. After inflation-related catch-up effects in wages and monetary social benefits, the growth in nominal disposable income will slow in the next two years. However, as the price pressure at the consumer level has eased noticeably, real disposable income will increase by 1.3 percent (2024), 0.4 percent (2025), and 0.8 percent (2026). Given our assumption that the savings rate will not change much going forward after a strong increase this year, private consumption will grow by a little more than 0.5 percent in the next two years, after a 0.4 percent increase in this year.

Higher financing costs continue to weigh on construction investment, but first signs of an upturn are in sight. In the second quarter, construction investment fell by around 2 percent as a result of the slump in demand since the turnaround in interest rates. Based on leading indicators, we expect a decline of 1.6 percent in the third quarter. Moreover, construction investment is likely to continue to decline in the winter half-year, driven by residential construction, which is particularly sensitive to interest rates. Construction investments will bottom out in the course of 2025. Indicators supporting this view include the positive trend in real estate transactions, the volume of new loans, and the number of mortgage contracts reported to Schufa. Lower interest rates on loans and, above all, lower real estate prices have already made home ownership more affordable. The expectations of real estate developers have also been on the rise since February. These positive signals are likely to be reflected with a delay in incoming orders and in construction investment. Moreover, civil engineering is supporting construction

investment. Based on the upward trend in new orders and high order backlogs, e.g., for investments in the railway network, investment in civil engineering will continue to increase over the forecast period. Overall, we expect construction investment to decline by 3.9 percent in 2024 and 1.2 percent in 2025. In 2026, construction investment is expected to increase for the first time in 5 years (2.8 percent).

The weak investment environment continues to weigh on investment in machinery, equipment, and vehicles. Investment in machinery, equipment, and vehicles fell by 4.1 percent in the second quarter, the third consecutive quarter of significant declines. This was due to a decline of about 6 percent in private investments in machinery, equipment, and vehicles. In addition to the weak sales outlook, the elevated level of uncertainty about economic policy is likely to have dampened investment activity. Higher financing costs are also weighing on companies' investment activity. By contrast, the highly volatile government investment in equipment rose by around 15 percent - supported by spending from the special fund for the German armed forces. Leading indicators continue to send negative signals. We expect investment in equipment to fall by 1.9 percent in the third quarter. Private investment in machinery, equipment, and vehicles is likely to decline further in the winter half-year. Business expectations of capital goods manufacturers are pointing downward, while economic policy uncertainty remains high in Germany according to media analyses. Private investment in machinery, equipment, and vehicles will only gradually return to an expansionary path in the course of 2025, in line with a moderate economic recovery. New orders for capital goods from Germany rose by 4 percent in the second quarter, albeit at a low level. By contrast, government investment in machinery, equipment, and vehicles, will increase due to the expansion of military procurement over the entire forecast period. Overall, we expect investments in machinery, equipment, and vehicles to decline by 7.2 percent in 2024. In 2025 and 2026, investments in machinery, equipment, and vehicles will increase by 1.4 percent and 5 percent, respectively.

Inflation fell below 2 percent in August, although service prices continued to rise strongly. From March to July, the inflation rate fluctuated between 2.2 and 2.4 percent. In August, it fell to 1.9 percent, mainly due to a sharp decline in energy prices compared to the previous year. The headline inflation rate is strongly influenced by rising service prices, with annual price increases in this sector holding steady at 3.9 percent since May. We expect that price pressure for services will ease only gradually. In contrast, food and non-energy industrial goods saw much lower inflation rates in August, at 1.5 percent and 0.8 percent, respectively. For food and various categories of goods, upstream producer prices have resumed an upward trend after temporary price declines. Looking ahead, we expect the disinflationary process in food and non-energy goods to end, with price pressures gradually increasing. Energy prices fell by 5.1 percent in August compared to the high prices in the previous year (base effect). Overall energy prices are expected to continue their downward trend. We assume that crude oil prices (Brent) will slightly decrease in 2025 and 2026, which would reduce the prices of diesel, gasoline, and heating oil. However, part of this decline will be offset by increases in CO₂ prices. From May to July, consumer prices for natural gas and electricity were largely flat, and our forecast projects only modest declines for the remainder of the year. However, we do not expect further declines in 2025 and 2026. Rising grid charges for electricity and higher CO₂ prices are likely to push up the prices of gas. All in all, inflation is expected to converge toward 2 percent over the forecast period. This year, inflation is projected to average 2.2 percent, with elevated core inflation (+2.7 percent) being offset by a 2.7 percent decline in energy prices. In 2025, core inflation is expected to remain high at 2.4 percent (well above the long-term average of 1.4 percent). However, with a projected 1.8 percent decline in energy prices, headline inflation will fall to 2 percent. In 2026, energy prices are expected to rise slightly by 0.1 percent, while core inflation will ease to 2.1 percent, keeping the overall inflation rate stable at 2 percent.

Basic pay rates accelerate, while inflation compensation bonuses end. After more than a year, the collective bargaining negotiations for various retail districts reached agreements in May and June that provide for an increase in basic pay in the current year of more than 10 percent and an inflation compensation bonus of 1,000 Euro. As expected, the wholesale and foreign trade sector followed shortly thereafter with an almost identical agreement. As a result, the collective bargaining agreements for the

current year have been largely fixed in all major sectors. We expect an overall increase in negotiated wages and salaries of 6.8 percent, compared to 4 percent last year. For next year, we expect a significantly lower increase (+3.4 percent). Although basic pay rates will again increase more than in the previous year, wage growth will be significantly dampened by the end of inflation compensation bonuses. These can only be paid tax-free by employers until the end of this year. According to the latest figures from the Federal Statistical Office, between October 2022 and December 2024, almost 86 percent of all employees covered by collective bargaining agreements will have received inflation compensation bonuses, which (for full-time employees) amount to an average of 2,672 Euro. We do not expect such high one-time payments to be negotiated after this period, which is consistent with existing agreements that extend to 2025 and beyond. In 2026, the increase in negotiated wages and salaries is likely to decline further (to +3.1 percent) in the face of overall weak economic activity and a slowdown in inflation.

Effective earnings will slow significantly after very strong increases. Effective earnings (gross wages and salaries per employee) grew by 6.4 percent last year and thus increased significantly faster than negotiated wages and salaries. One reason for the exceptionally high positive wage drift is the fact that voluntary pay rises were already implemented in the retail sector last year despite the protracted wage dispute. Accordingly, about half of the recently agreed wage increases in the retail sector are likely to have already been implemented, which in itself increases the wage drift in 2023 and reduces it in 2024. Moreover, part of the wage drift in the last year is still due to the increase in the minimum wage to 12 Euro in October 2022. In the current year, there are signs of a somewhat weaker but still strong increase in effective earnings. Between January and June, earnings were on average 6 percent higher year-over-year. For the full year, we expect an increase of 5.2 percent. In the next two years, wage growth is likely to slow noticeably (+3.2 percent and +2.7 percent, respectively). The high increase in labor costs and the weak development of labor productivity will lead to a sharp rise in real unit labor costs, especially in the current year. However, this is merely a normalization of the relationship between labor costs on the one hand and prices and labor productivity on the other hand, given the sharp declines in the past due to the lagged response of wages to the surge in inflation.

Both unemployment and employment remain on an upward trend for the time being. The number of people in employment has continued to rise moderately in recent months to 46.2 million in July. The increase in employment is being driven exclusively by foreign nationals. The number of employees with a German citizenship has been trending downward for more than two years, mainly due to demographic aging. Over the past twelve months, the increase in employment subject to social security contributions has taken place exclusively in the service sector - in absolute terms the largest increases in professional service providers, public administration, education, healthcare and nursing, and social services. By contrast, manufacturing – especially manufacturers of intermediate goods – and construction recorded net jobs losses, and the decline in temporary employment continued unabated. Self-employment also continued to decline. The rise in unemployment is mainly due to the weakened labor demand in the face of the economic weakness. In August, a seasonally adjusted 2.8 million people (rate: 6.0 percent) were registered as unemployed. Unemployment has risen by around 300,000 people since summer 2022 – adjusted for the effect of Ukrainian refugees. The number of unemployed people with Ukrainian passports has remained largely constant since then. The increase in unemployment recorded over the past two years is mainly due to the cyclically sensitive unemployment insurance system (+23 percent), while unemployment in the basic income support system only increased by 8 percent. The relationship between unemployment and job vacancies (Beveridge curve) also indicates that the rise in unemployment is primarily due to a decline in the demand for labor by firms rather than a structural deterioration in the labor market. According to the IAB Labour Market Barometer, local employment agencies expect unemployment to rise further in the coming months. Leading indicators of employment are also pointing to a continued slight increase in employment. Against this backdrop, we initially expect further increases in both employment and unemployment over the rest of this year. If, as we expect, economic activity recovers somewhat unemployment should begin to decline gradually over the course of next year. In the case of employment, the aging of the potential labor force, which we estimate will pass its peak

around the middle of the forecast period, will stand in the way of stronger increases. Having said that, this estimate is subject to considerable uncertainty, as age-specific participation rates and immigration are difficult to forecast. All in all, we expect the unemployment rate to rise from 6.0 percent (2024) to 6.1 percent (2025) before declining slightly to 5.9 percent (2026).

The general government budget balance is projected to improve in 2024, mainly due to the elimination of energy subsidies. While this sharp reduction in subsidies helps to curb expenditure growth, revenues are rising rapidly, driven by wage increases, outpacing the decline in profit tax revenues. Additional revenues are coming from higher truck tolls. As a result, the budget deficit is expected to fall from 2.6% of GDP in 2023 to 1.9% in this year. In 2025 and 2026, the budget deficit is expected to decline at a slower pace. While several fiscal policy measures and a moderate economic recovery will provide some relief to the general government budget, rising expenditures in healthcare and care for the elderly continue to exert pressure. Additionally, the growing number of pensioners is putting further pressure on the pension fund. As a result, the deficit barely declines in 2025 and remains almost unchanged in 2026. However, the projection for 2026 is subject to considerable uncertainty due to federal elections in 2025.

Table 1:

Key indicators

| | 2023 | 2024 | 2025 | 2026 |
|--|--------|--------|--------|--------|
| Gross domestic product (GDP), price-adjusted | -0.3 | -0.1 | 0.5 | 1.1 |
| Gross domestic product, deflator | 6.1 | 3.2 | 1.5 | 1.6 |
| Consumer prices | 5.9 | 2.2 | 2.0 | 2.0 |
| Labor productivity (per hour worked) | -0.6 | -0.7 | -0.2 | 0.6 |
| Employment (1000 persons) | 46,011 | 46,184 | 46,251 | 46,221 |
| Unemployment rate (percent) | 5.7 | 6.0 | 6.1 | 5.9 |
| <i>in relation to nominal GDP</i> | | | | |
| Public sector net lending | -2.6 | -1.9 | -1.7 | -1.7 |
| Gross public debt | 62.7 | 62.5 | 63.2 | 63.4 |
| Current account balance | 6.2 | 6.9 | 6.8 | 6.6 |

GDP, consumer prices, labor productivity: percentage change on previous year; unemployment rate: as defined by the Federal Employment Agency.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Federal Employment Agency, *Monthly Bulletin*; Federal Employment Agency, *Employment Statistics*; shaded: Kiel Institute forecast.

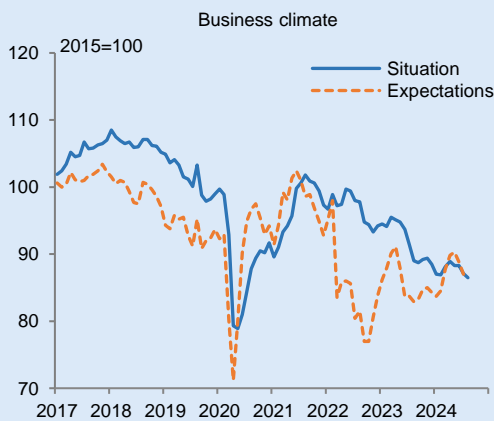
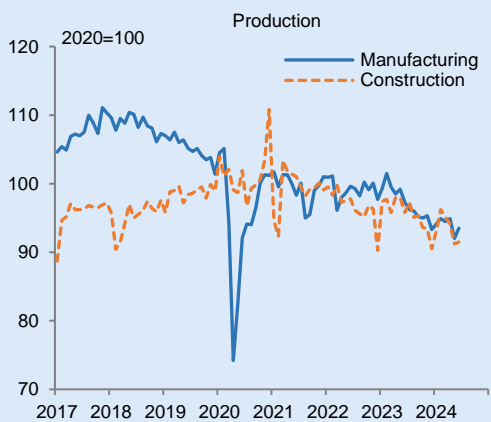
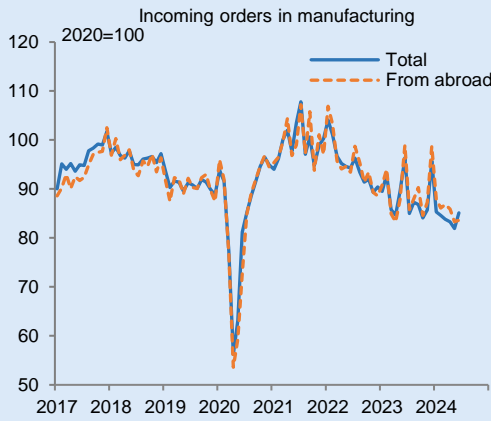
Data annex

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1. Leading indicators

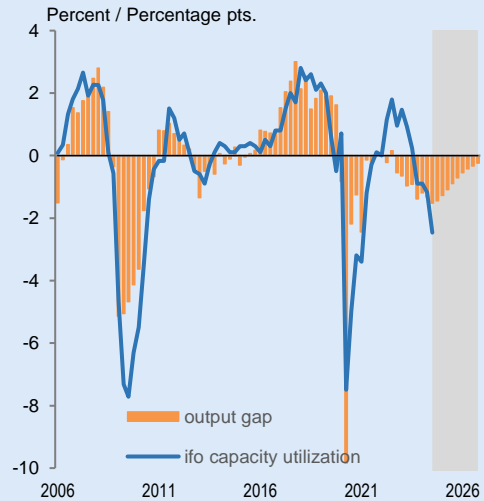
Figure 1.1:
Leading indicators



Monthly data, seasonally adjusted.

Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*, ifo, *Konjunkturperspektiven*; Kiel Institute calculations.

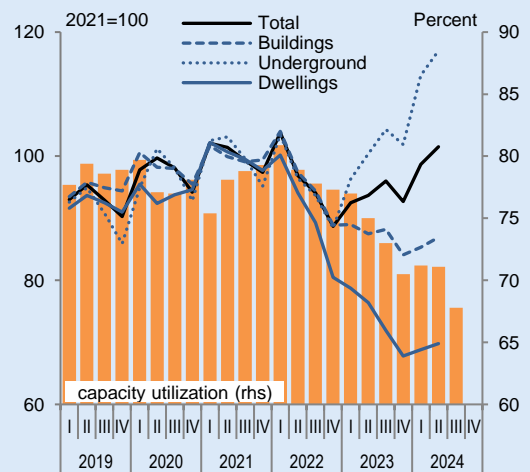
Figure 1.2:
Capacity utilization



Quarterly data: GDP deviation from potential output, estimation of potential output from the medium-term projection spring 2024 (Boysen-Hogrefe et al. 2024), deviation of ifo capacity utilization indicator from the mean (2005 bis 2019).

Source: Federal Statistical Office, ifo institute - Leibniz Institute for Economic Research, Kiel Institute forecast.

Figure 1.3:
Order stocks and capacity utilization in construction industry

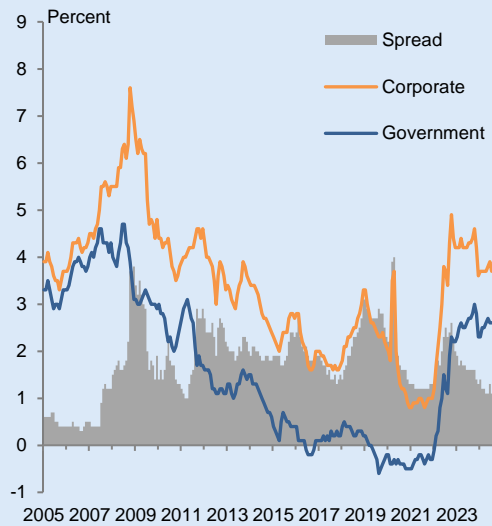


Quarterly data. Capacity utilization (deviation from normal level): seasonally adjusted; order stocks: price, seasonally and working-day adjusted.

Source: Federal Statistical Office, *GENESIS database*; ifo, *Konjunkturperspektiven*.

2. Monetary conditions and prices

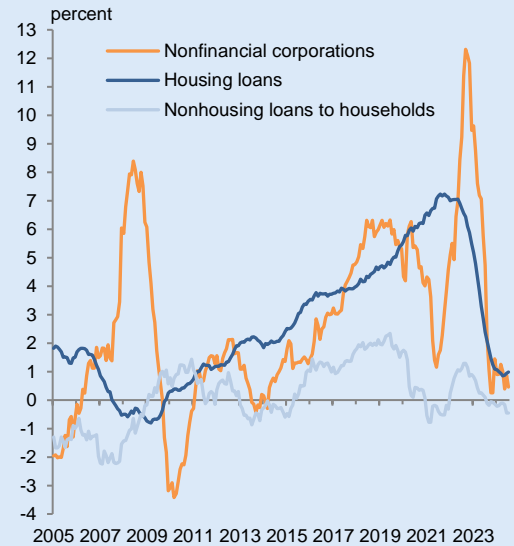
Figure 2.1:
Bond yields



Monthly data, average maturities above three years.

Source: Deutsche Bundesbank, *Monthly Reports*; Kiel Institute calculations.

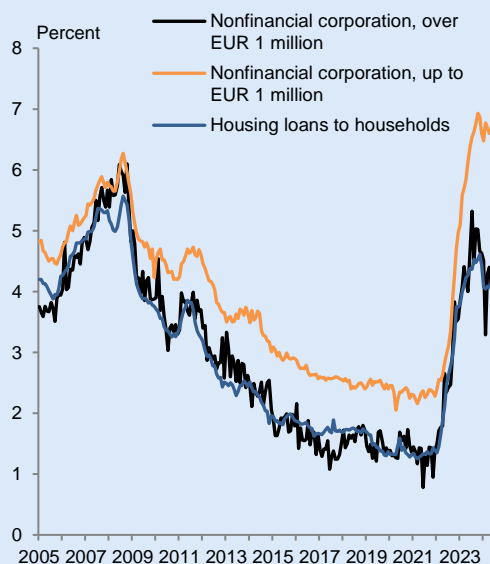
Figure 2.3:
Credit growth



Change compared to one year ago; Monthly data.

Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*; Kiel Institute calculations.

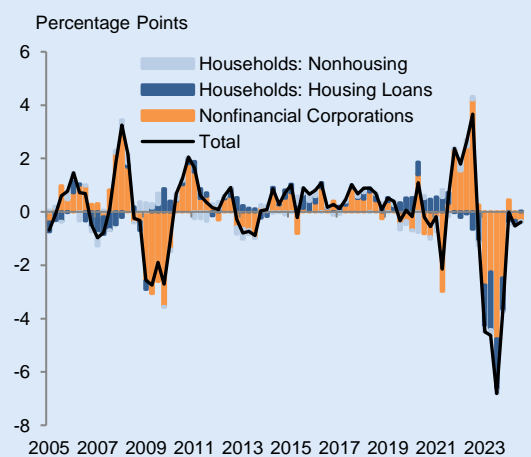
Figure 2.2:
Loan interest



Monthly data; new business, 1–5 years, fixed.

Source: Deutsche Bundesbank, *MFI interest rate statistics*.

Figure 2.4:
Credit impulse

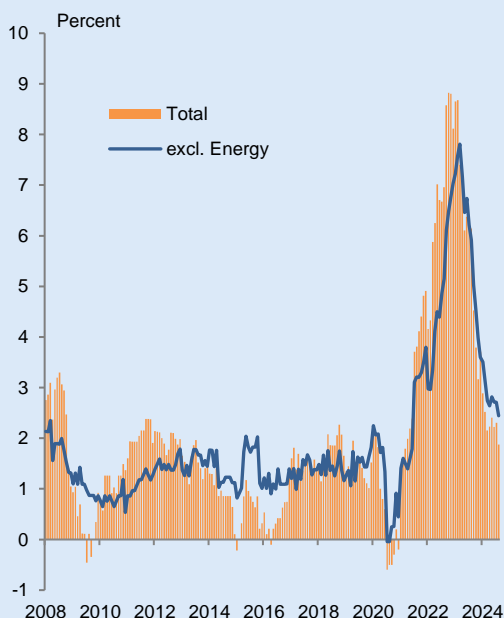


Quarterly data, most recent quarter based on first month; calculations follow Biggs et al. (2009), *Credit and economic recovery*, DNB Working Paper 218, De Nederlandsche Bank, Amsterdam.

The credit impulse is the change of the credit growth relative to the growth in GDP.

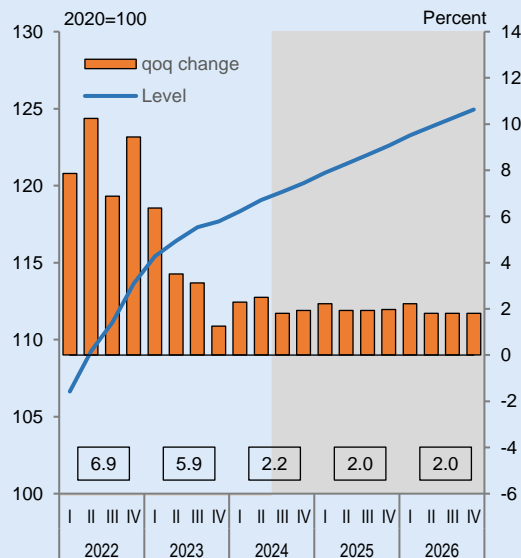
Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*; Kiel Institute calculations.

Figure 2.5:
Consumer prices



Monthly data; year-on-year change.
Source: Deutsche Bundesbank, *Time series databases*; Kiel Institute calculations.

Figure 2.6:
Consumer price index



Quarterly data: seasonally adjusted; qoq change: annualized.
Annual data (boxes): Volumes, change in percent.

Source: Federal Statistical Office, *Fachserie 17, Series 7*; shaded: Kiel Institute forecast.

Tabelle 2.1:
Projections and assumptions on the international environment 2023–2025

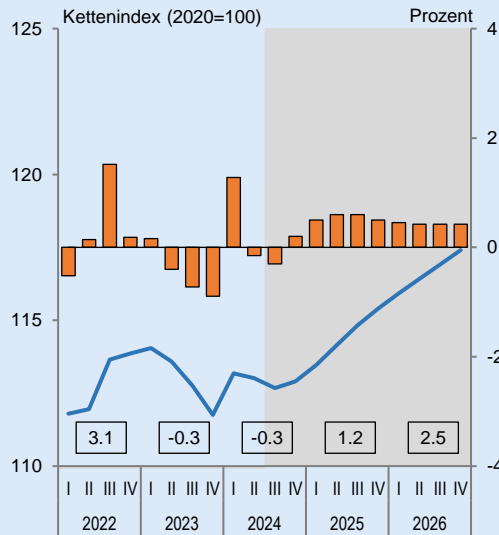
| | 2024 | | | | 2025 | | | | 2026 | | | |
|------------------------------|------|------|------|------|-------|------|------|-------|------|------|------|------|
| | I | II | III | IV | I | II | III | IV | I | II | III | IV |
| ECB key interest rate | 4.00 | 3.75 | 3.50 | 3.25 | 2.75 | 2.50 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| Long-term interest rate | 2.28 | 2.48 | 2.32 | 2.35 | 2.35 | 2.35 | 2.35 | 2.35 | 2.35 | 2.35 | 2.35 | 2.35 |
| US-dollar/euro exchange rate | 1.09 | 1.08 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| Price competitiveness | 91.8 | 92.1 | 92.0 | 91.9 | 91.7 | 91.5 | 91.4 | 91.2 | 91.0 | 90.9 | 90.8 | 90.7 |
| Export markets | 0.5 | 0.6 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 |
| Oil price | 83.0 | 84.6 | 81.2 | 78.2 | 76.9 | 75.8 | 75.1 | 74.4 | 73.7 | 73.1 | 72.5 | 72.0 |
| Gas price | 27.4 | 31.7 | 36.6 | 41.0 | 42.3 | 40.2 | 39.9 | 41.0 | 41.4 | 33.1 | 32.5 | 34.0 |
| Electricity price | 69.6 | 73.9 | 76.8 | 99.5 | 105.7 | 85.8 | 92.2 | 104.4 | 88.7 | 88.7 | 88.7 | 88.7 |

ECB key interest rate: main refinancing operations (end of quarter); long-term interest rate on 9–10 year bonds; price competitiveness: against 60 trading partners, based on consumer price inflation; index: 1991:I = 100, increasing values indicate deterioration of price competitiveness; export markets: GDP growth in 41 countries, weighted with shares in German exports, change over previous quarter. Oil price: US-Dollar per barrel North Sea Brent. Gas price: Euro per MWh (TTF). Electricity price (Phelix, Baseload).

Source: ECB, *Monthly Bulletin*; Deutsche Bundesbank, *Monthly Bulletin*; IMF, *International Financial Statistics*, Refinitiv, EEX, ENDEX; Kiel Institute calculations; shaded: Kiel Institute forecast or assumption.

3. External trade

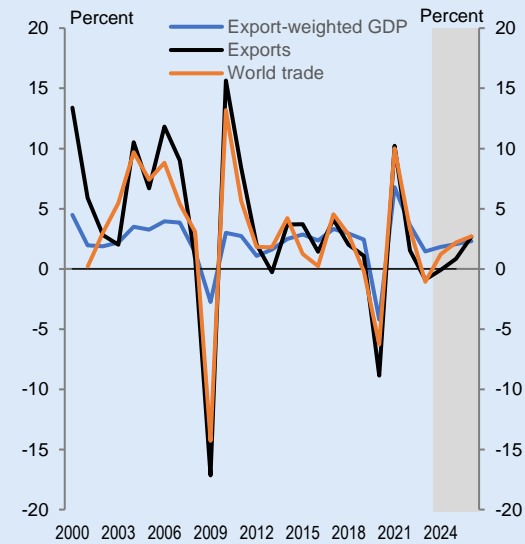
Figure 3.1:
Exports



Quartalsdaten: preis-, kalender- und saisonbereinigt; Veränderung gegenüber dem Vorquartal (rechte Skala).
Jahresdaten: preisbereinigt, Veränderung gegenüber dem Vorjahr in Prozent (gerahmt).

Quelle: Statistisches Bundesamt, Fachserie 18, Reihe 1.2 und 1.3; grau hinterlegt: Prognose des IfW Kiel.

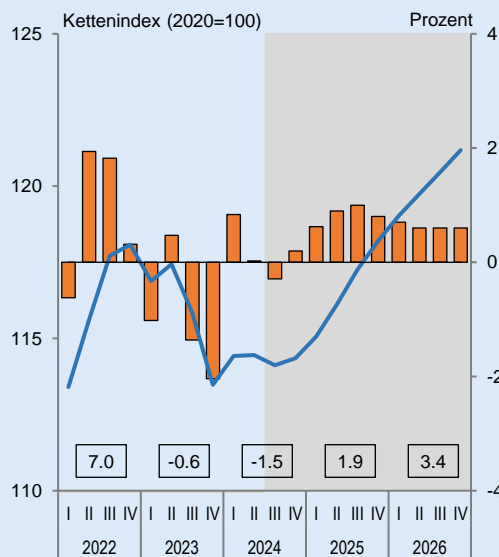
Figure 3.3:
Export-weighted GDP, world trade, and exports



Annual data; price-adjusted; trade in goods; lines: growth rate.

Sources: CPB, Destatis; international statistical offices; shaded gray: Kiel Institute forecast.

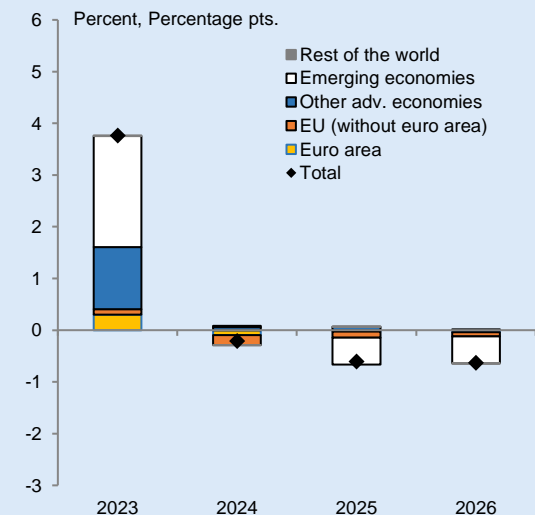
Figure 3.2:
Imports



Quartalsdaten: preis-, kalender- und saisonbereinigt; Veränderung gegenüber dem Vorquartal (rechte Skala).
Jahresdaten: preisbereinigt, Veränderung gegenüber dem Vorjahr in Prozent (gerahmt).

Quelle: Statistisches Bundesamt, Fachserie 18, Reihe 1.2 und 1.3; grau hinterlegt: Prognose des IfW Kiel.

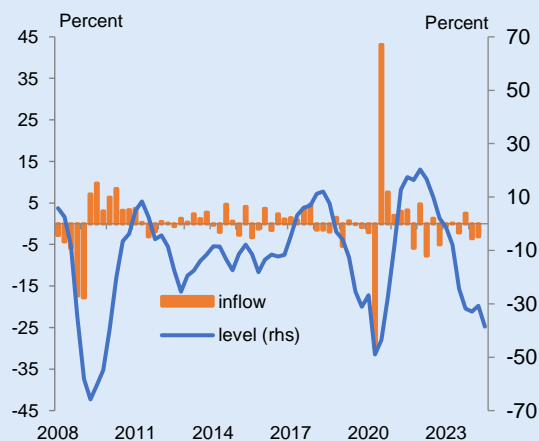
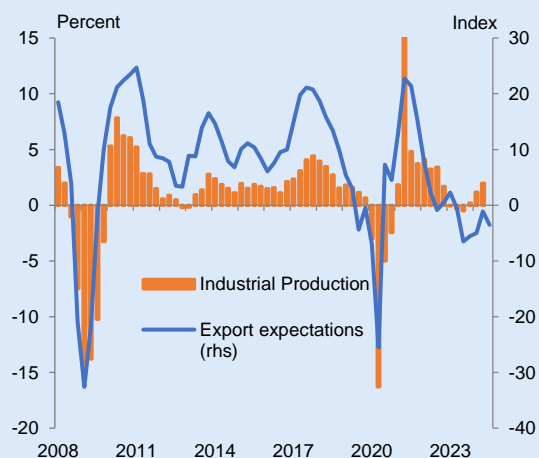
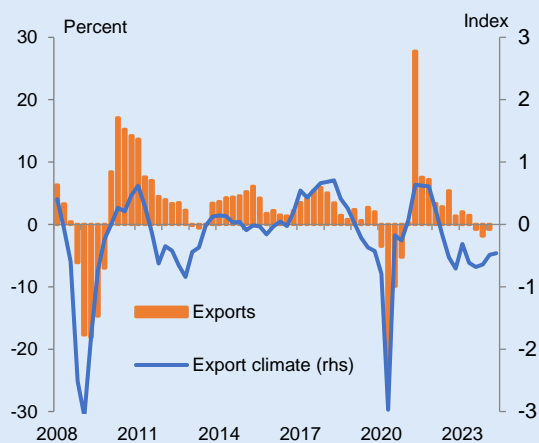
Figure 3.4:
Germany's price competitiveness



Annual data; vis-à-vis 55 countries based on consumer prices and exchange rates; weights according to Germany's price competitiveness indicator vis-à-vis 60 trading partners based on consumer price indices from the Deutsche Bundesbank. Increase reflects worsening of price competitiveness.

Source: Bundesbank; national sources; Kiel institute calculations and forecast.

Figure 3.5:
Export indicators

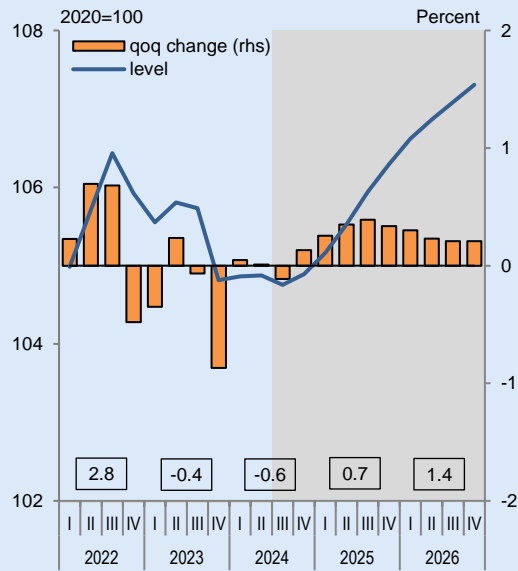


Quarterly data; exports, industrial production, volumes, change on previous year; order inflow: volumes, change on previous quarter; export expectations, foreign orders on hand: volumes; business expectations, industrial production: based on 42 countries weighted by shares of German exports.

Source: Deutsche Bundesbank; Thomson Reuters Datastream; ifo, *Konjunkturperspektiven*; Kiel Institute calculations.

4. Domestic expenditure

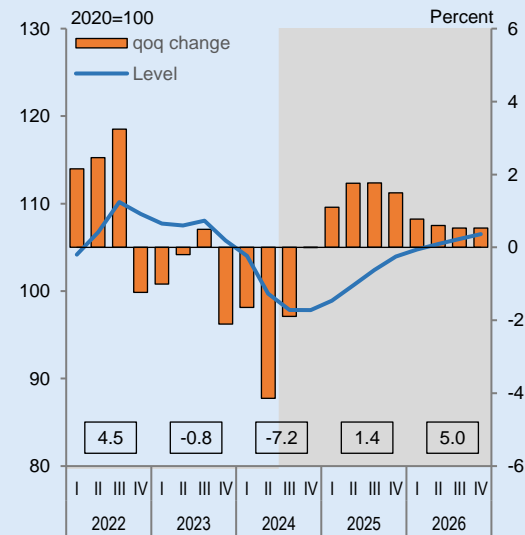
Figure 4.1:
Final domestic expenditure



Quarterly data, price, seasonally and calendar adjusted, qoqchange. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*, shaded: Kiel Institute forecast.

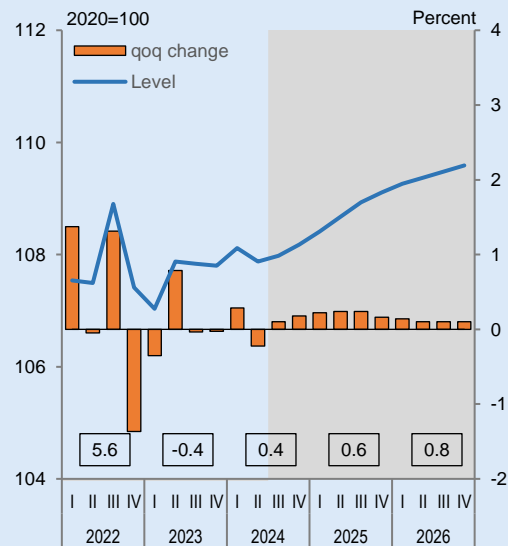
Figure 4.3:
M&E investments



Quarterly data: Volumes, seasonally and calendar adjusted. Annual data (boxes): Volumes, change in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*, shaded: Kiel Institute forecast.

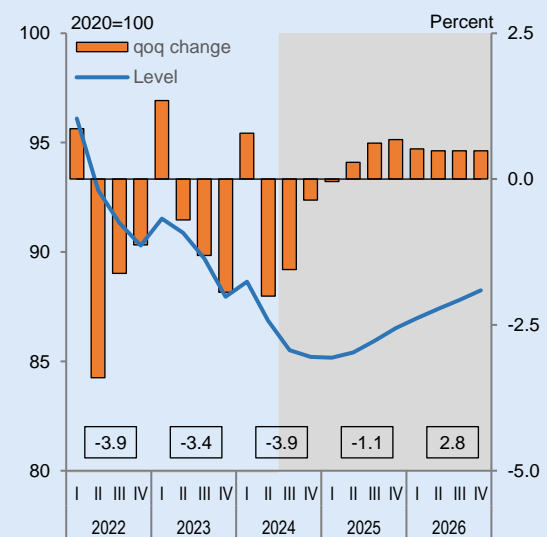
Figure 4.2:
Private consumption



Quarterly data: Volumes, seasonally and calendar adjusted. Annual data (boxes): Volumes, change in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*, shaded: Kiel Institute forecast.

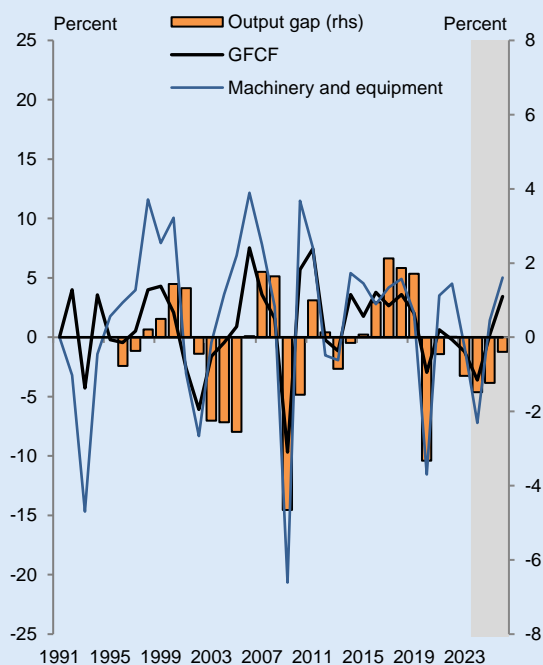
Figure 4.4:
Construction



Quarterly data: Volumes, seasonally and calendar adjusted. Annual data (boxes): Volumes, change in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*, shaded: Kiel Institute forecast.

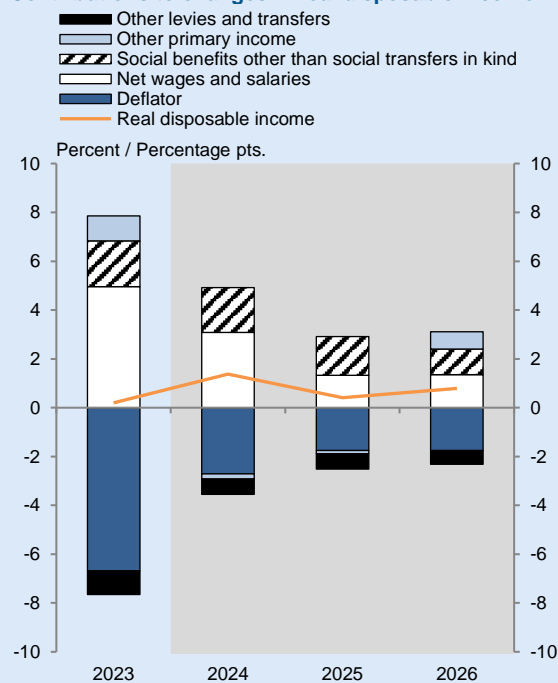
Figure 4.5:
Investment cycles



Annual data; GFCF, machinery and equipment: volumes, change on previous year; output gap: in percent of potential output, estimation taken from medium-run projection.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Kiel Institute calculations; shaded: Kiel Institute forecast.

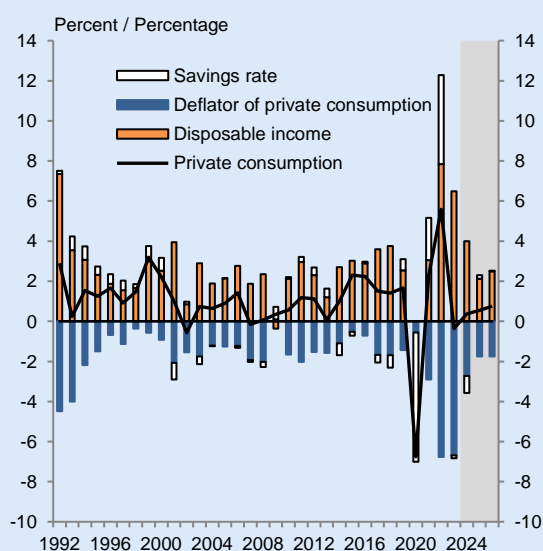
Figure 4.7:
Contributions to changes in real disposable income



Annual data. Other levies and transfers: Levies on social benefits, taxes on consumption and other transfers received (net); Deflator: Deflator of private consumption.

Quelle: Federal Statistical Office, *Fachserie 18, Series 1.2*; Kiel Institute calculations; shaded: Kiel Institute forecast.

Figure 4.6:
Contributions to change in private consumption



Annual data; disposable income including adjustment for the change in pension entitlements.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Kiel Institute calculations, shaded: Kiel Institute forecast.

Table 4.1:
Gross fixed capital formation

| | 2023 | 2024 | 2025 | 2026 |
|------------------------------|------|------|------|------|
| Total | -1.2 | -3.6 | 0.2 | 3.4 |
| Corporate investment | 0.7 | -4.5 | 0.7 | 3.1 |
| Machinery and equipment | -0.8 | -7.2 | 1.4 | 5.0 |
| Construction (non-dwellings) | -4.1 | -3.5 | -0.1 | 1.8 |
| Other | 4.7 | 3.6 | 2.1 | 2.7 |
| Dwellings | -4.1 | -5.3 | -1.7 | 3.7 |
| Public (non-dwellings) | 0.8 | 1.1 | -0.4 | 0.7 |
| <i>Memorandum item:</i> | | | | |
| Construction | -3.4 | -3.9 | -1.1 | 2.8 |

Volumes; change over previous year in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: Kiel Institute forecast.

5. Industries

Table 5.1:
Gross value added for industries

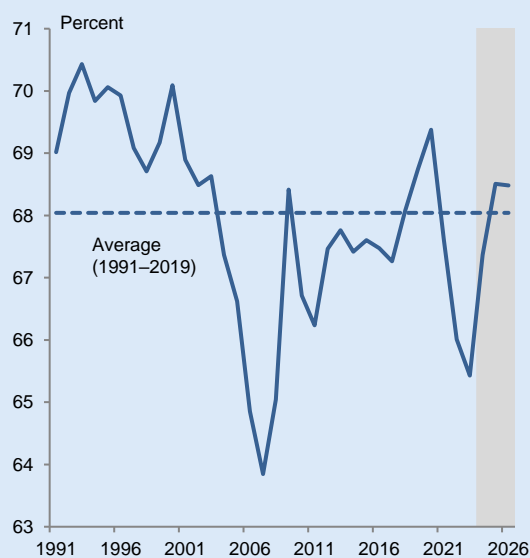
| | 2024 | | | | 2025 | | | | 2026 | | | |
|---|---|------|------|------|------|-----|-----|-----|------|-----|-----|-----|
| | I | II | III | IV | I | II | III | IV | I | II | III | IV |
| | Seasonally and calendar-adjusted, q-o-q change in percent | | | | | | | | | | | |
| Gross domestic product | 0.2 | -0.1 | -0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Gross value added | 0.0 | -0.1 | -0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Industry excl. construction | -1.3 | -0.5 | -0.4 | -0.2 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Manufacturing | -1.0 | -0.2 | -0.4 | -0.2 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Energy, Water etc. | -3.5 | -1.8 | -1.0 | -0.5 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| Construction | 1.9 | -3.2 | -2.0 | -1.0 | -0.5 | 0.0 | 0.2 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| Trade, transport, accomodation, food services | 0.3 | -0.6 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 |
| Information and communication | 0.9 | 0.6 | 0.5 | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 0.8 | 0.5 | 0.5 |
| Financial and insurance services | 0.5 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| Real estate activities | 0.3 | 0.7 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Business services | -0.3 | 0.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 |
| Public services, education, health | 0.5 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Other services | 2.0 | -0.2 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

Quarterly data, volumes.

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: Kiel Institute forecast.

6. Wages

Figure 6.1:
Real unit labor costs



Yearly data; compensation of employees per hour (nominal) in relation to gross value added per hour (nominal).

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: Kiel Institute forecast.

Table 6.2:
Wages and productivity

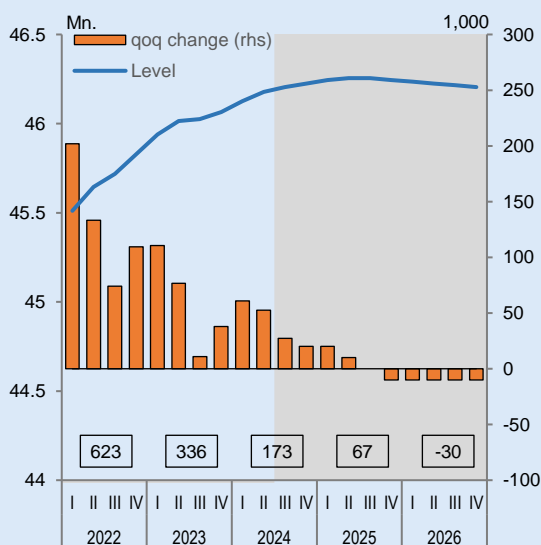
| | 2023 | 2024 | 2025 | 2026 |
|---------------------------|------|------|------|------|
| <i>Per hour</i> | | | | |
| Negotiated wages | 4.0 | 6.8 | 3.4 | 3.1 |
| Gross wages and salaries | 6.6 | 4.7 | 2.6 | 2.0 |
| Wage drift | 2.6 | -2.2 | -0.7 | -1.1 |
| Compensation of employees | 6.0 | 4.5 | 3.0 | 2.2 |
| Labor productivity | -0.6 | -0.7 | -0.2 | 0.6 |
| Unit labor costs | 6.7 | 5.4 | 3.2 | 1.6 |
| Unit labor costs (real) | 0.5 | 2.1 | 1.6 | 0.0 |
| <i>Per capita</i> | | | | |
| Negotiated wages | 4.0 | 6.8 | 3.4 | 3.1 |
| Gross wages and salaries | 6.4 | 5.2 | 3.2 | 2.7 |
| Wage drift | 2.4 | -1.6 | -0.1 | -0.5 |
| Compensation of employees | 5.9 | 5.1 | 3.6 | 2.8 |
| Labor productivity | -1.0 | -0.5 | 0.3 | 1.1 |
| Unit labor costs | 6.9 | 5.6 | 3.3 | 1.7 |
| Unit labor costs (real) | 0.7 | 2.3 | 1.7 | 0.1 |

Change over previous year in percent; wage drift: difference between change of negotiated wages and change of gross wages and salaries in percentage points; labor productivity: real GDP per hour or per capita; unit labor costs: compensation of employees (per hour or per capita) in relation to labor productivity; unit labor costs (real): unit labor costs deflated by GDP deflator.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Deutsche Bundesbank, *Negotiated Pay Rate Statistics*; shaded: Kiel Institute forecast.

7. Employment

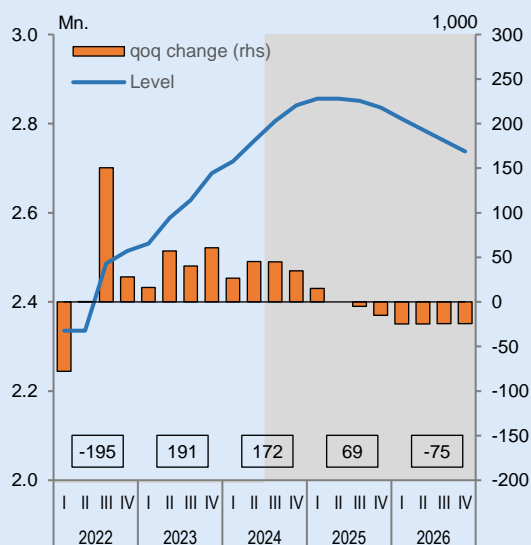
Figure 7.1:
Employment



Quarterly data: seasonally adjusted.
Annual data (boxes): yoy change in 1,000.

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: Kiel Institute forecast.

Figure 7.2:
Unemployment



Quarterly data: seasonally adjusted.
Annual data (boxes): yoy change in 1,000.

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: Kiel Institute forecast.

Table 7.1:

Employment 2020–2024 (1,000 persons)

| | 2022 | 2023 | 2024 | 2025 | 2026 |
|--|--------|--------|--------|--------|--------|
| Hours worked (domestic concept, mn. hours) | 61,211 | 61,437 | 61,832 | 62,241 | 62,538 |
| Persons in employment (domestic concept) | 45,675 | 46,011 | 46,184 | 46,251 | 46,221 |
| Self-employed | 3,895 | 3,847 | 3,820 | 3,800 | 3,780 |
| Employees (domestic concept) | 41,781 | 42,163 | 42,364 | 42,451 | 42,441 |
| Employees subject to social security contributions | 34,525 | 34,799 | 34,954 | 35,071 | 35,141 |
| Minijobs | 4,127 | 4,199 | 4,203 | 4,169 | 4,089 |
| Net commuting | 211 | 210 | 201 | 200 | 200 |
| Persons in employment (national concept) | 45,464 | 45,801 | 45,983 | 46,051 | 46,021 |
| Employees (national concept) | 41,570 | 41,954 | 42,163 | 42,251 | 42,241 |
| Unemployed persons (registered) | 2,418 | 2,609 | 2,780 | 2,849 | 2,774 |
| Unemployment rate (registered; percent) | 5.3 | 5.7 | 6.0 | 6.1 | 5.9 |
| Unemployment rate (ILO; percent) | 2.9 | 2.8 | 3.1 | 3.1 | 3.0 |

Self-employed: including family workers; unemployed persons (registered): definition of the Federal Employment Agency (BA).

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Federal Employment Agency, *Monthly Bulletin*; Federal Employment Agency, *Employment Statistics*; shaded: Kiel Institut forecast.

8. Public finances

Table 8.1

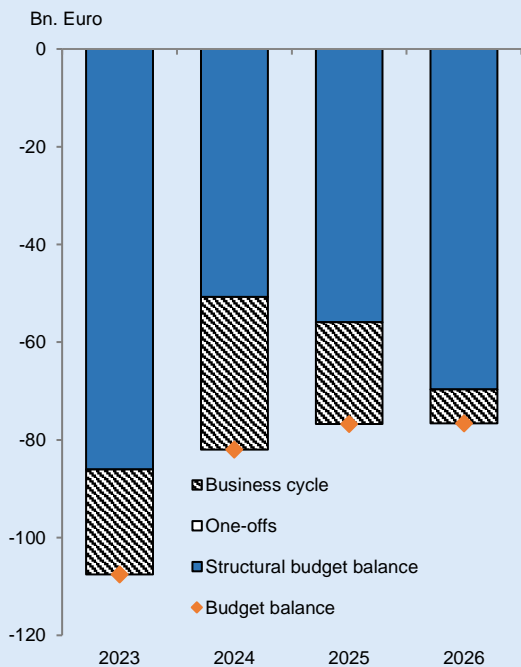
Revenues and expenditures of the general government (bn. Euro)

| | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|----------------|----------------|----------------|----------------|----------------|
| Revenues | 1,852.6 | 1,917.4 | 2,011.6 | 2,102.5 | 2,171.4 |
| →relative to GDP | 46.9 | 45.8 | 46.6 | 47.7 | 48.0 |
| Taxes | 960.8 | 957.6 | 992.2 | 1,024.8 | 1,052.5 |
| →relative to GDP | 24.3 | 22.9 | 23.0 | 23.3 | 23.3 |
| Social contributions | 667.1 | 709.9 | 753.7 | 803.4 | 835.2 |
| →relative to GDP | 16.9 | 17.0 | 17.5 | 18.2 | 18.5 |
| Other revenues | 224.7 | 250.0 | 265.7 | 274.3 | 283.8 |
| →relative to GDP | 5.7 | 6.0 | 6.2 | 6.2 | 6.3 |
| Expenditures | 1,937.5 | 2,025.0 | 2,093.6 | 2,179.3 | 2,248.1 |
| →relative to GDP | 49.0 | 48.4 | 48.5 | 49.5 | 49.7 |
| Compensation of employees | 320.7 | 337.6 | 353.1 | 365.9 | 375.3 |
| Intermediate consumption | 252.2 | 264.0 | 272.8 | 280.3 | 287.3 |
| Social transfers in kind | 354.6 | 362.1 | 391.5 | 409.9 | 425.7 |
| Gross capital formation | 112.2 | 117.1 | 128.5 | 135.9 | 139.8 |
| Capital transfers | 27.9 | 36.6 | 45.0 | 46.7 | 45.9 |
| Social benefits | 613.9 | 657.0 | 699.1 | 734.0 | 759.7 |
| Subsidies | 67.5 | 84.5 | 49.5 | 51.9 | 52.9 |
| Other current transfers | 111.3 | 91.9 | 87.6 | 91.6 | 97.5 |
| Other capital transfers and investment grants | 77.9 | 74.4 | 66.7 | 63.3 | 64.1 |
| Other expenditures | -1.0 | -0.5 | -0.5 | -0.5 | -0.5 |
| Net lending/ net borrowing | -84.9 | -107.5 | -82.0 | -76.7 | -76.6 |
| →relative to GDP | -2.1 | -2.6 | -1.9 | -1.7 | -1.7 |
| Revenues of central, state, and local governments | 1,229.5 | 1,244.9 | 1,291.5 | 1,335.1 | 1,344.2 |
| Net of transfers from social security funds | 1,218.7 | 1,239.6 | 1,289.4 | 1,331.9 | 1,341.0 |
| Transfers from social security funds | 10.8 | 5.3 | 2.1 | 3.2 | 3.2 |
| Expenditures of central, state, and local governments | 1,323.1 | 1,361.4 | 1,367.1 | 1,406.9 | 1,415.0 |
| Net of transfers to social security funds | 1,144.7 | 1,211.9 | 1,224.6 | 1,266.0 | 1,273.8 |
| Transfers to social security funds | 178.4 | 149.5 | 142.5 | 140.9 | 141.2 |
| Net lending/ net borrowing central, state, and local governments | -93.7 | -116.6 | -75.6 | -71.8 | -70.8 |
| Revenues of social security funds | 812.3 | 827.3 | 864.7 | 911.5 | 919.1 |
| Net of transfers from central, state, and local governments | 633.9 | 677.8 | 722.2 | 770.6 | 778.0 |
| Expenditures of social security funds | 803.5 | 818.3 | 871.1 | 916.5 | 926.7 |
| Net of transfers to central, state, and local governments | 792.8 | 813.1 | 868.9 | 913.3 | 923.5 |
| Net lending/ net borrowing social security funds | 8.8 | 9.0 | -6.4 | -4.9 | -7.6 |

Sums may deviate due to rounding. Relative to GDP in per cent.

Source: Federal Statistical Office, *internal worksheet*; Kiel Institute calculations; shaded: Kiel Institute forecast.

Figure 8.1:
Structural budget balance



Source: Europäische Kommission, AMECO; Kiel Institute calculations and forecast.

9. GDP and its components

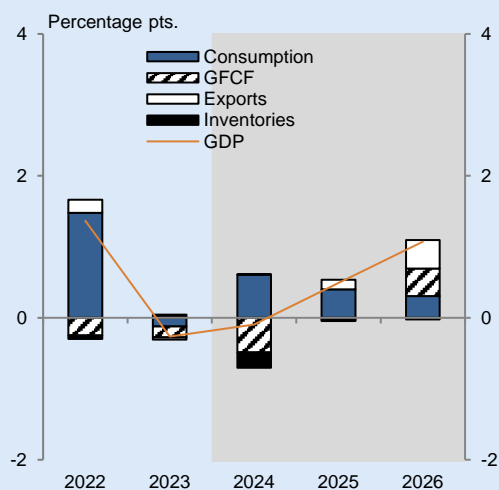
Table 9.1:
Quarterly data

| | 2024 | | | | 2025 | | | | 2026 | | | |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | I | II | III | IV | I | II | III | IV | I | II | III | IV |
| Gross domestic product | 0.2 | -0.1 | -0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Private consumption | 0.3 | -0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Government consumption | -0.1 | 1.0 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |
| Machinery and equipment | -1.6 | -4.1 | -1.9 | 0.0 | 1.1 | 1.8 | 1.8 | 1.5 | 0.8 | 0.6 | 0.5 | 0.5 |
| Constructions | 0.8 | -2.0 | -1.6 | -0.4 | 0.0 | 0.3 | 0.6 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 |
| Other investment | 1.4 | 0.6 | 0.0 | 0.3 | 0.6 | 0.7 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 |
| Change in inventories | -0.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Domestic expenditure | 0.0 | 0.0 | -0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Exports | 1.3 | -0.2 | -0.3 | 0.2 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| Imports | 0.8 | 0.0 | -0.3 | 0.2 | 0.6 | 0.9 | 1.0 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 |
| Net exports | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 |
| Employment (domestic) | 46,125 | 46,178 | 46,205 | 46,225 | 46,245 | 46,255 | 46,255 | 46,245 | 46,235 | 46,225 | 46,215 | 46,205 |
| Unemployment (registered) | 2,716 | 2,761 | 2,806 | 2,841 | 2,856 | 2,856 | 2,851 | 2,836 | 2,811 | 2,787 | 2,762 | 2,738 |

Volumes, seasonally and working-day adjusted. Change on previous quarter in percent; change in inventories, net exports: Lundberg component (contribution to GDP growth); employment, unemployment: seasonally adjusted, 1,000 persons; unemployment: as defined by the Federal Employment Agency (BA).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; Federal Employment Agency, *Monthly Bulletin*; shaded: Kiel Institute forecast.

Figure 9.1:
Import adjusted expenditure-side contributions to GDP growth



Annual data; price-adjusted, growth contribution of each expenditure component adjusted by import content; import content is estimated based on input/output tables; see Kooths and Stolzenburg (2018).

Source: OECD, Input Output Database; Federal Statistical Office *Fachserie 18, Series 1.2*; shaded: Kiel Institute forecast.

10. The German economy

Tabelle 10:
The german economy –

| | 2023 | 2023 | 2024 | 2025 | 2026 |
|---|----------|--------------------------------------|----------|----------|----------|
| | Bn. Euro | Change over previous year in percent | | | |
| Use of gross domestic product, price-adjusted | | | | | |
| GDP | | -0.3 | -0.1 | 0.5 | 1.1 |
| Private consumption expenditure | | -0.4 | 0.4 | 0.6 | 0.8 |
| Public consumption expenditure | | -0.1 | 2.1 | 1.8 | 1.1 |
| Total fixed investment | | -1.2 | -3.6 | 0.2 | 3.4 |
| Machinery and equipment | | -0.8 | -7.2 | 1.4 | 5.0 |
| Construction | | -3.4 | -3.9 | -1.1 | 2.8 |
| Other equipment | | 4.7 | 3.6 | 2.1 | 2.7 |
| Changes in stocks | | 0.1 | -0.4 | 0.0 | 0.0 |
| Domestic Demand | | -0.4 | -0.6 | 0.7 | 1.4 |
| Exports | | -0.3 | -0.3 | 1.2 | 2.5 |
| Imports | | -0.6 | -1.5 | 1.9 | 3.4 |
| Net exports | | 0.1 | 0.5 | -0.2 | -0.2 |
| Use of gross domestic product at current prices | | | | | |
| GDP | 4,185.6 | 5.9 | 3.1 | 2.0 | 2.7 |
| Private consumption expenditure | 2,205.6 | 6.3 | 3.1 | 2.3 | 2.5 |
| Public consumption expenditure | 905.2 | 4.1 | 5.1 | 3.7 | 2.9 |
| Total fixed investment | 899.9 | 4.9 | -0.9 | 1.4 | 5.2 |
| Machinery and equipment | 275.7 | 4.8 | -5.1 | 3.6 | 6.9 |
| Construction | 466.1 | 4.4 | -1.0 | -1.1 | 4.8 |
| Other equipment | 158.0 | 6.2 | 6.9 | 4.8 | 4.0 |
| Changes in stocks (€ bn.) | | 7.2 | -11.4 | -12.7 | -15.3 |
| Domestic Demand | 4,017.9 | 4.2 | 2.2 | 2.4 | 3.2 |
| Exports | 1,816.6 | 0.4 | 0.6 | 2.1 | 3.2 |
| Imports | 1,649.0 | -3.6 | -1.9 | 3.1 | 4.4 |
| Net exports (€ bn.) | | 167.7 | 209.5 | 198.2 | 184.6 |
| Gross national income | 4,332.2 | 5.7 | 3.0 | 2.2 | 2.9 |
| Deflators | | | | | |
| | 2023 | 2023 | 2024 | 2025 | 2026 |
| | Bn. Euro | Change over previous year in percent | | | |
| GDP | | 6.1 | 3.2 | 1.5 | 1.6 |
| Private consumption expenditure | | 6.7 | 2.7 | 1.8 | 1.8 |
| Public consumption expenditure | | 4.2 | 3.0 | 1.9 | 1.8 |
| Investment in machinery and equipment | | 5.7 | 2.3 | 2.1 | 1.7 |
| Investment in construction | | 8.1 | 3.0 | 0.1 | 1.9 |
| Investment in other equipment | | 1.4 | 3.1 | 2.7 | 1.3 |
| Exports | | 0.7 | 0.9 | 0.9 | 0.7 |
| Imports | | -3.0 | -0.4 | 1.1 | 1.0 |
| <i>Addendum: Consumer prices</i> | | 5.9 | 2.2 | 2.0 | 2.0 |
| Income distribution | | | | | |
| Net national income (factor costs) | 3,134.5 | 6.8 | 1.7 | 2.4 | 3.0 |
| Compensation of employees | 2,229.0 | 6.8 | 5.6 | 3.8 | 2.8 |
| in percent of national income | | 71.1 | 73.8 | 74.9 | 74.8 |
| Property and entrepreneurial income | 905.4 | 6.7 | -7.9 | -1.8 | 3.5 |
| Disposable income | 2,404.4 | 6.9 | 4.1 | 2.2 | 2.5 |
| Saving rate | | 10.4 | 11.2 | 11.0 | 11.0 |
| Wages and salaries | 1,846.0 | 7.4 | 5.7 | 3.4 | 2.6 |
| Wage per hour | | 6.6 | 4.7 | 2.6 | 2.0 |
| Unit labor costs | | 6.7 | 5.4 | 3.2 | 1.6 |
| Productivity per hour | | -0.6 | -0.7 | -0.2 | 0.6 |
| Unemployment (1,000) | | 2,608.7 | 2,780.5 | 2,849.3 | 2,774.0 |
| Rate of unemployment (percent) | | 5.7 | 6.0 | 6.1 | 5.9 |
| Total employment (1,000) | | 46,010.5 | 46,183.8 | 46,250.7 | 46,220.7 |
| Public sector budget balance | | | | | |
| Public sector budget balance (€ bn.) | | -107.5 | -82.0 | -76.7 | -76.6 |
| Public sector budget balance (in percent of GDP) | | -2.6 | -1.9 | -1.7 | -1.7 |
| Public debts (in percent) | | 62.7 | 62.5 | 63.2 | 63.4 |
| Change in stocks, net exports: Lundberg-component (contribution to GDP growth); employment, unemployment: as defined by the Federal Employment Agency (BA); public debts: in relation to GDP. | | | | | |
| <i>Source: Federal Statistical Office, Fachserie 18, Series 1.2; shaded: Kiel Institute forecast.</i> | | | | | |

11. National accounts

| National Accounts | | | | | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Forecast period: 2023 to 2025 | | | | | | | | | |
| | 2024 | 2025 | 2026 | 2024 | | 2025 | | 2026 | |
| | | | | H1 | H2 | H1 | H2 | H1 | H2 |
| 1. Production | | | | | | | | | |
| Change over the same period of the preceding year in % | | | | | | | | | |
| Persons in employment | 0.4 | 0.1 | -0.1 | 0.4 | 0.4 | 0.2 | 0.1 | 0.0 | -0.1 |
| Hours worked | 0.6 | 0.7 | 0.5 | 0.1 | 1.1 | 0.5 | 0.8 | 0.3 | 0.6 |
| Hours worked by person in employment | 0.3 | 0.5 | 0.5 | -0.3 | 0.8 | 0.3 | 0.7 | 0.4 | 0.7 |
| Labor productivity ¹ | -0.7 | -0.2 | 0.6 | -0.3 | -1.1 | -0.5 | 0.2 | 0.6 | 0.6 |
| Gross domestic product, price-adjusted | -0.1 | 0.5 | 1.1 | -0.2 | 0.0 | 0.0 | 1.0 | 1.0 | 1.2 |
| 2. Use of gross domestic product at current prices | | | | | | | | | |
| a) EUR bn. | | | | | | | | | |
| Consumption expenditure | 3 225.4 | 3 313.7 | 3 401.5 | 1 573.6 | 1 651.8 | 1 615.2 | 1 698.5 | 1 658.4 | 1 743.2 |
| Private households ² | 2 273.9 | 2 326.7 | 2 385.5 | 1 112.3 | 1 161.6 | 1 134.7 | 1 191.9 | 1 163.7 | 1 221.9 |
| Government | 951.5 | 987.1 | 1 016.0 | 461.3 | 490.2 | 480.5 | 506.6 | 494.7 | 521.3 |
| Gross fixed capital formation | 891.9 | 904.4 | 951.7 | 438.3 | 453.7 | 434.6 | 469.7 | 454.3 | 497.4 |
| Machinery and equipment | 261.7 | 271.1 | 289.7 | 127.2 | 134.5 | 126.3 | 144.8 | 136.0 | 153.7 |
| Construction | 461.3 | 456.2 | 477.9 | 230.2 | 231.1 | 223.3 | 233.0 | 232.1 | 245.9 |
| Other products | 168.9 | 177.0 | 184.1 | 80.9 | 88.0 | 85.1 | 92.0 | 86.2 | 97.9 |
| Changes in inventories ³ | -11.4 | -12.7 | -15.3 | 6.5 | -17.9 | 7.8 | -20.5 | 8.3 | -23.6 |
| Domestic expenditure | 4 106.0 | 4 205.3 | 4 338.0 | 2 018.4 | 2 087.6 | 2 057.6 | 2 147.7 | 2 121.0 | 2 217.0 |
| Net exports | 209.5 | 198.2 | 184.6 | 113.7 | 95.8 | 110.6 | 87.5 | 102.0 | 82.6 |
| Exports | 1 827.6 | 1 866.1 | 1 926.3 | 911.3 | 916.3 | 920.9 | 945.2 | 948.6 | 977.7 |
| Imports | 1 618.1 | 1 667.9 | 1 741.7 | 797.6 | 820.5 | 810.3 | 857.7 | 846.6 | 895.1 |
| Gross domestic product | 4 315.5 | 4 403.5 | 4 522.5 | 2 132.1 | 2 183.4 | 2 168.2 | 2 235.3 | 2 223.0 | 2 299.6 |
| b) Change over the same period of the preceding year in % | | | | | | | | | |
| Consumption expenditure | 3.7 | 2.7 | 2.6 | 4.0 | 3.4 | 2.6 | 2.8 | 2.7 | 2.6 |
| Private households ² | 3.1 | 2.3 | 2.5 | 3.4 | 2.8 | 2.0 | 2.6 | 2.5 | 2.5 |
| Government | 5.1 | 3.7 | 2.9 | 5.6 | 4.7 | 4.2 | 3.3 | 3.0 | 2.9 |
| Gross fixed capital formation | -0.9 | 1.4 | 5.2 | -0.8 | -1.0 | -0.8 | 3.5 | 4.5 | 5.9 |
| Machinery and equipment | -5.1 | 3.6 | 6.9 | -4.1 | -6.0 | -0.7 | 7.7 | 7.7 | 6.2 |
| Construction | -1.0 | -1.1 | 4.8 | -1.4 | -0.7 | -3.0 | 0.8 | 4.0 | 5.5 |
| Other products | 6.9 | 4.8 | 4.0 | 7.0 | 6.8 | 5.1 | 4.5 | 1.4 | 6.4 |
| Domestic expenditure | 2.2 | 2.4 | 3.2 | 2.3 | 2.1 | 1.9 | 2.9 | 3.1 | 3.2 |
| Exports | 0.6 | 2.1 | 3.2 | -0.5 | 1.8 | 1.1 | 3.2 | 3.0 | 3.4 |
| Imports | -1.9 | 3.1 | 4.4 | -4.1 | 0.4 | 1.6 | 4.5 | 4.5 | 4.4 |
| Gross domestic product | 3.1 | 2.0 | 2.7 | 3.6 | 2.6 | 1.7 | 2.4 | 2.5 | 2.9 |
| 3. Use of gross domestic product, price-adjusted (chain-linked, 2010=100) | | | | | | | | | |
| a) EUR bn. | | | | | | | | | |
| Consumption expenditure | 2 700.4 | 2 725.2 | 2 748.9 | 1 332.6 | 1 367.9 | 1 342.7 | 1 382.5 | 1 354.5 | 1 394.3 |
| Private households ² | 1 888.9 | 1 899.3 | 1 913.7 | 930.4 | 958.4 | 932.3 | 966.9 | 939.4 | 974.3 |
| Government | 811.9 | 826.4 | 835.8 | 402.3 | 409.6 | 410.7 | 415.7 | 415.5 | 420.3 |
| Gross fixed capital formation | 704.5 | 706.1 | 730.3 | 348.0 | 356.5 | 339.8 | 366.3 | 349.8 | 380.5 |
| Machinery and equipment | 222.0 | 225.2 | 236.5 | 108.3 | 113.7 | 105.2 | 120.0 | 111.2 | 125.4 |
| Construction | 332.8 | 329.0 | 338.1 | 166.9 | 165.9 | 161.1 | 167.9 | 165.0 | 173.1 |
| Other products | 152.8 | 155.9 | 160.1 | 73.8 | 79.0 | 74.9 | 81.0 | 75.2 | 84.9 |
| Domestic expenditure | 3 422.4 | 3 447.6 | 3 494.9 | 1 693.7 | 1 728.8 | 1 696.1 | 1 751.5 | 1 718.8 | 1 776.1 |
| Exports | 1 522.9 | 1 541.1 | 1 579.7 | 761.9 | 761.0 | 762.2 | 778.9 | 779.3 | 800.4 |
| Imports | 1 332.0 | 1 357.5 | 1 404.0 | 659.3 | 672.7 | 662.2 | 695.2 | 684.6 | 719.4 |
| Gross domestic product | 3 612.0 | 3 629.7 | 3 668.7 | 1 795.9 | 1 816.1 | 1 795.5 | 1 834.2 | 1 812.6 | 1 856.0 |
| b) Change over the same period of the preceding year in % | | | | | | | | | |
| Consumption expenditure | 0.9 | 0.9 | 0.9 | 1.0 | 0.8 | 0.8 | 1.1 | 0.9 | 0.9 |
| Private households ² | 0.4 | 0.6 | 0.8 | 0.4 | 0.3 | 0.2 | 0.9 | 0.8 | 0.8 |
| Government | 2.1 | 1.8 | 1.1 | 2.2 | 2.0 | 2.1 | 1.5 | 1.2 | 1.1 |
| Gross fixed capital formation | -3.6 | 0.2 | 3.4 | -3.2 | -4.0 | -2.4 | 2.8 | 3.0 | 3.9 |
| Machinery and equipment | -7.2 | 1.4 | 5.0 | -6.1 | -8.2 | -2.9 | 5.6 | 5.7 | 4.4 |
| Construction | -3.9 | -1.1 | 2.8 | -4.1 | -3.7 | -3.5 | 1.2 | 2.4 | 3.1 |
| Other products | 3.6 | 2.1 | 2.7 | 4.6 | 2.8 | 1.5 | 2.6 | 0.4 | 4.7 |
| Domestic expenditure | -0.6 | 0.7 | 1.4 | -0.9 | -0.3 | 0.1 | 1.3 | 1.3 | 1.4 |
| Exports | -0.3 | 1.2 | 2.5 | -0.9 | 0.4 | 0.0 | 2.4 | 2.2 | 2.8 |
| Imports | -1.5 | 1.9 | 3.4 | -2.6 | -0.3 | 0.4 | 3.3 | 3.4 | 3.5 |
| Gross domestic product | -0.1 | 0.5 | 1.1 | -0.2 | 0.0 | 0.0 | 1.0 | 1.0 | 1.2 |

| National Accounts (cont.) | | | | | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Forecast period: 2023 to 2025 | | | | | | | | | |
| | 2024 | 2025 | 2026 | 2024 | | 2025 | | 2026 | |
| | | | | H1 | H2 | H1 | H2 | H1 | H2 |
| 4. Deflators (2010=100) | | | | | | | | | |
| Change on the same period of the preceding year in % | | | | | | | | | |
| Private consumption ² | 2.7 | 1.8 | 1.8 | 2.9 | 2.5 | 1.8 | 1.7 | 1.8 | 1.7 |
| Government consumption | 3.0 | 1.9 | 1.8 | 3.3 | 2.6 | 2.0 | 1.8 | 1.8 | 1.8 |
| Gross fixed capital formation | 2.8 | 1.2 | 1.8 | 2.5 | 3.2 | 1.6 | 0.8 | 1.5 | 2.0 |
| Machinery and equipment | 2.3 | 2.1 | 1.7 | 2.1 | 2.5 | 2.2 | 2.0 | 1.9 | 1.6 |
| Construction | 3.0 | 0.1 | 1.9 | 2.8 | 3.2 | 0.5 | -0.4 | 1.5 | 2.3 |
| Exports | 0.9 | 0.9 | 0.7 | 0.4 | 1.3 | 1.0 | 0.8 | 0.7 | 0.7 |
| Imports | -0.4 | 1.1 | 1.0 | -1.5 | 0.7 | 1.1 | 1.1 | 1.1 | 0.9 |
| Gross domestic product | 3.2 | 1.5 | 1.6 | 3.8 | 2.6 | 1.7 | 1.4 | 1.6 | 1.7 |
| 5. National income | | | | | | | | | |
| a) EUR bn. | | | | | | | | | |
| Primary income of private households ² | 3 015.3 | 3 102.5 | 3 189.1 | 1 478.5 | 1 536.8 | 1 520.2 | 1 582.3 | 1 562.7 | 1 626.4 |
| Employers social contributions | 402.0 | 425.8 | 441.3 | 193.6 | 208.4 | 206.2 | 219.6 | 213.5 | 227.7 |
| Gross wages and salaries | 1 951.3 | 2 017.9 | 2 070.9 | 931.0 | 1 020.3 | 968.2 | 1 049.8 | 992.8 | 1 078.1 |
| Other primary income ⁴ | 662.0 | 658.9 | 677.0 | 353.9 | 308.1 | 345.9 | 312.9 | 356.3 | 320.6 |
| Primary income of other sectors | 562.2 | 560.9 | 582.2 | 270.7 | 291.5 | 261.2 | 299.7 | 269.3 | 313.0 |
| Net national income | 3 577.5 | 3 663.4 | 3 771.4 | 1 749.2 | 1 828.3 | 1 781.5 | 1 882.0 | 1 831.9 | 1 939.4 |
| Consumption of fixed capital | 885.7 | 900.1 | 925.9 | 440.5 | 445.2 | 449.3 | 450.8 | 460.5 | 465.4 |
| Gross national income | 4 463.2 | 4 563.5 | 4 697.3 | 2 189.7 | 2 273.5 | 2 230.8 | 2 332.7 | 2 292.5 | 2 404.8 |
| memorandum item: | | | | | | | | | |
| Net national income (factor costs) | 3 186.6 | 3 261.9 | 3 359.0 | 1 557.9 | 1 628.7 | 1 584.8 | 1 677.1 | 1 629.9 | 1 729.1 |
| Property and entrepreneurial income | 833.3 | 818.2 | 846.8 | 433.3 | 400.0 | 410.5 | 407.7 | 423.5 | 423.3 |
| Compensation of employees | 2 353.3 | 2 443.7 | 2 512.2 | 1 124.6 | 1 228.7 | 1 174.3 | 1 269.4 | 1 206.4 | 1 305.8 |
| b) Change over the same period of the preceding year in % | | | | | | | | | |
| Primary income of private households ² | 4.1 | 2.9 | 2.8 | 4.6 | 3.6 | 2.8 | 3.0 | 2.8 | 2.8 |
| Employers social contributions | 4.9 | 5.9 | 3.6 | 4.9 | 5.0 | 6.5 | 5.4 | 3.6 | 3.7 |
| Gross wages and salaries | 5.7 | 3.4 | 2.6 | 6.1 | 5.3 | 4.0 | 2.9 | 2.5 | 2.7 |
| ... per employee | 5.2 | 3.2 | 2.7 | 5.6 | 4.9 | 3.7 | 2.8 | 2.6 | 2.8 |
| Other primary income ⁴ | -0.7 | -0.5 | 2.7 | 0.8 | -2.5 | -2.3 | 1.6 | 3.0 | 2.5 |
| Primary income of other sectors | -2.8 | -0.2 | 3.8 | -1.8 | -3.6 | -3.5 | 2.8 | 3.1 | 4.4 |
| Net national income | 3.0 | 2.4 | 2.9 | 3.6 | 2.4 | 1.8 | 2.9 | 2.8 | 3.1 |
| Consumption of fixed capital | 3.2 | 1.6 | 2.9 | 3.2 | 3.2 | 2.0 | 1.2 | 2.5 | 3.2 |
| Gross national income | 3.0 | 2.2 | 2.9 | 3.5 | 2.6 | 1.9 | 2.6 | 2.8 | 3.1 |
| memorandum item: | | | | | | | | | |
| Net national income (factor costs) | 1.7 | 2.4 | 3.0 | 2.5 | 0.9 | 1.7 | 3.0 | 2.8 | 3.1 |
| Property and entrepreneurial income | -8.0 | -1.8 | 3.5 | -5.5 | -10.5 | -5.3 | 1.9 | 3.2 | 3.8 |
| Compensation of employees | 5.6 | 3.8 | 2.8 | 5.9 | 5.3 | 4.4 | 3.3 | 2.7 | 2.9 |
| 6. Disposable income of private households ² | | | | | | | | | |
| a) EUR bn. | | | | | | | | | |
| Mass income | 1 965.8 | 2 030.1 | 2 082.8 | 944.4 | 1 021.3 | 980.0 | 1 050.1 | 1 005.0 | 1 077.7 |
| Net wages and salaries | 1 360.7 | 1 393.9 | 1 428.3 | 644.7 | 716.0 | 664.7 | 729.1 | 680.5 | 747.9 |
| Social benefits other than social transfers in kind | 774.7 | 814.6 | 841.5 | 382.8 | 391.9 | 402.7 | 411.9 | 416.0 | 425.5 |
| less: Levies on social benefits, taxes on consumption | 169.6 | 178.4 | 187.0 | 83.1 | 86.5 | 87.4 | 91.0 | 91.4 | 95.6 |
| Other primary income ⁴ | 662.0 | 658.9 | 677.0 | 353.9 | 308.1 | 345.9 | 312.9 | 356.3 | 320.6 |
| Other transfers received (net) ⁵ | -125.0 | -132.0 | -137.7 | -58.8 | -66.2 | -63.1 | -68.9 | -66.6 | -71.0 |
| Disposable income | 2 502.8 | 2 556.9 | 2 622.1 | 1 239.5 | 1 263.3 | 1 262.8 | 1 294.1 | 1 294.7 | 1 327.3 |
| Change in pension entitlements | 57.8 | 58.1 | 58.3 | 28.0 | 29.7 | 28.2 | 29.9 | 28.3 | 30.0 |
| Consumption expenditure | 2 273.9 | 2 326.7 | 2 385.5 | 1 112.3 | 1 161.6 | 1 134.7 | 1 191.9 | 1 163.7 | 1 221.9 |
| Saving | 286.6 | 288.3 | 294.9 | 155.2 | 131.4 | 156.2 | 132.1 | 159.4 | 135.5 |
| Saving ratio (%) ⁶ | 11.2 | 11.0 | 11.0 | 12.2 | 10.2 | 12.1 | 10.0 | 12.0 | 10.0 |
| b) Change over the same period of the preceding year in % | | | | | | | | | |
| Mass income | 5.8 | 3.3 | 2.6 | 6.4 | 5.3 | 3.8 | 2.8 | 2.6 | 2.6 |
| Net wages and salaries | 5.8 | 2.4 | 2.5 | 6.6 | 5.0 | 3.1 | 1.8 | 2.4 | 2.6 |
| Social benefits other than social transfers in kind | 6.0 | 5.1 | 3.3 | 6.2 | 5.8 | 5.2 | 5.1 | 3.3 | 3.3 |
| less: Levies on social benefits, taxes on consumption | 6.6 | 5.1 | 4.9 | 7.3 | 5.8 | 5.2 | 5.1 | 4.6 | 5.1 |
| Other primary income ⁴ | -0.7 | -0.5 | 2.7 | 0.8 | -2.5 | -2.3 | 1.6 | 3.0 | 2.5 |
| Disposable income | 4.1 | 2.2 | 2.5 | 4.7 | 3.5 | 1.9 | 2.4 | 2.5 | 2.6 |
| Consumption expenditure | 3.1 | 2.3 | 2.5 | 3.4 | 2.8 | 2.0 | 2.6 | 2.5 | 2.5 |
| Saving | 11.8 | 0.6 | 2.3 | 14.1 | 9.1 | 0.6 | 0.6 | 2.0 | 2.6 |

| National Accounts (cont.) | | | | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Forecast period: 2023 to 2025 | | | | | | | | | |
| | 2024 | 2025 | 2026 | 2024 | | 2025 | | 2026 | |
| | | | | H1 | H2 | H1 | H2 | H1 | H2 |
| 7. Revenue and expenditure by general government ⁷ | | | | | | | | | |
| a) EUR bn. | | | | | | | | | |
| Revenue | | | | | | | | | |
| Taxes | 992.2 | 1 024.8 | 1 052.5 | 486.7 | 505.5 | 502.9 | 521.9 | 516.4 | 536.2 |
| Social contributions | 753.7 | 803.4 | 835.2 | 364.2 | 389.5 | 390.3 | 413.1 | 406.1 | 429.1 |
| Property income | 34.9 | 36.1 | 37.3 | 17.2 | 17.7 | 17.9 | 18.2 | 18.6 | 18.7 |
| Other current transfers | 33.7 | 34.2 | 34.7 | 13.7 | 20.0 | 13.9 | 20.3 | 14.1 | 20.6 |
| Capital transfers | 20.5 | 20.5 | 20.6 | 8.4 | 12.1 | 8.4 | 12.1 | 8.5 | 12.2 |
| Sales | 176.4 | 183.3 | 190.9 | 83.2 | 93.2 | 86.5 | 96.8 | 90.1 | 100.8 |
| Other subsidies | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total | 2 011.6 | 2 102.5 | 2 171.4 | 973.5 | 1 038.1 | 1 020.0 | 1 082.5 | 1 053.8 | 1 117.6 |
| Expenditure | | | | | | | | | |
| Intermediate consumption ⁸ | 664.7 | 690.5 | 713.4 | 320.4 | 344.3 | 333.7 | 356.8 | 345.0 | 368.4 |
| Compensation of employees | 353.1 | 365.9 | 375.3 | 169.1 | 184.0 | 176.4 | 189.5 | 180.8 | 194.5 |
| Property income (interest) | 45.0 | 46.7 | 45.9 | 22.7 | 22.2 | 24.0 | 22.6 | 23.6 | 22.2 |
| Subsidies | 49.5 | 51.9 | 52.9 | 25.5 | 24.0 | 26.7 | 25.1 | 27.3 | 25.6 |
| Social benefits | 699.1 | 734.0 | 759.7 | 345.2 | 353.8 | 362.7 | 371.4 | 377.8 | 381.9 |
| Other current transfers | 87.6 | 91.6 | 97.5 | 42.9 | 44.7 | 45.0 | 46.6 | 47.9 | 49.6 |
| Capital transfers | 66.7 | 63.3 | 64.1 | 30.5 | 36.1 | 28.7 | 34.6 | 29.0 | 35.1 |
| Gross capital formation | 128.5 | 135.9 | 139.8 | 55.5 | 73.1 | 58.6 | 77.3 | 60.7 | 79.2 |
| Net acquisitions of non-produced non-financial assets | -0.5 | -0.5 | -0.5 | -0.2 | -0.3 | -0.2 | -0.3 | -0.2 | -0.3 |
| Total | 2 093.6 | 2 179.3 | 2 248.1 | 1 011.6 | 1 082.0 | 1 055.6 | 1 123.6 | 1 091.9 | 1 156.2 |
| Net lending | -82.0 | -76.7 | -76.6 | -38.1 | -43.9 | -35.6 | -41.2 | -38.1 | -38.6 |
| b) Change over the same period of the preceding year in % | | | | | | | | | |
| Revenue | | | | | | | | | |
| Taxes | 3.6 | 3.3 | 2.7 | 3.6 | 3.6 | 3.3 | 3.2 | 2.7 | 2.7 |
| Social contributions | 6.2 | 6.6 | 4.0 | 6.5 | 5.9 | 7.2 | 6.1 | 4.0 | 3.9 |
| Property income | 11.3 | 3.4 | 3.2 | 8.1 | 14.6 | 4.1 | 2.7 | 3.8 | 2.7 |
| Other current transfers | 0.7 | 1.6 | 1.6 | -6.7 | 6.6 | 1.6 | 1.5 | 1.6 | 1.5 |
| Capital transfers | 5.3 | 0.4 | 0.5 | -1.8 | 10.8 | 0.5 | 0.4 | 0.5 | 0.4 |
| Sales | 6.6 | 3.9 | 4.2 | 6.2 | 6.9 | 3.9 | 3.9 | 4.2 | 4.1 |
| Other subsidies | -10.4 | 0.0 | 0.0 | -25.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 4.9 | 4.5 | 3.3 | 4.7 | 5.1 | 4.8 | 4.3 | 3.3 | 3.2 |
| Expenditure | | | | | | | | | |
| Intermediate consumption ⁸ | 7.0 | 3.9 | 3.3 | 8.7 | 5.4 | 4.2 | 3.6 | 3.4 | 3.3 |
| Compensation of employees | 4.6 | 3.6 | 2.6 | 5.1 | 4.1 | 4.4 | 3.0 | 2.5 | 2.6 |
| Property income (interest) | 22.9 | 3.8 | -1.7 | 31.9 | 15.0 | 5.7 | 1.8 | -1.7 | -1.8 |
| Subsidies | -41.5 | 4.9 | 1.9 | -39.8 | -43.2 | 5.0 | 4.8 | 1.9 | 1.9 |
| Social benefits | 6.4 | 5.0 | 3.5 | 6.7 | 6.1 | 5.1 | 5.0 | 4.2 | 2.8 |
| Other current transfers | -4.6 | 4.5 | 6.5 | -2.7 | -6.4 | 4.9 | 4.2 | 6.5 | 6.5 |
| Capital transfers | -10.4 | -5.1 | 1.3 | 2.9 | -19.3 | -6.2 | -4.2 | 1.2 | 1.4 |
| Gross capital formation | 9.7 | 5.7 | 2.9 | 9.8 | 9.7 | 5.6 | 5.8 | 3.6 | 2.4 |
| Net acquisitions of non-produced non-financial assets | -8.3 | 0.0 | 0.0 | -19.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 3.6 | 4.1 | 3.2 | 5.1 | 2.3 | 4.4 | 3.9 | 3.4 | 2.9 |
| ¹ Price-adjusted gross domestic product per hour worked. ² Incl. nonprofit institutions serving households. ³ Incl. acquisitions less disposals of valuables. ⁴ Operating surplus/mixed income, net property income ⁵ Received less paid other current transfers. ⁶ Savings in percent of disposable income (incl. change in pension entitlements). ⁷ Central, regional, local and social security funds. ⁸ Incl. social transfers in kind and other production taxes. | | | | | | | | | |
| Source: Federal Statistical Office, <i>Fachserie 18: National Accounts</i> ; Kiel Institute calculations and forecasts. | | | | | | | | | |