fall of 2024

German economy in

Change – economic situation and

weak growth

GEMEINSCHAFTS-
DIAGNOSE #2-2024

service contract of the Federal Ministry for Economic Affairs and Climate Protection

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The Joint Diagnosis Project Group hereby presents its analysis of the development of the global economy and the German economy, which it prepared on behalf of the Federal Ministry for Economic Affairs and Climate Protection.

The 149th Joint Diagnosis entitled

German economy in transition – economy and growth weak

contains a detailed short-term forecast up to 2026 and a medium-term projection of economic development up to 2029. The main topic deals with cyclical and structural aspects of private household savings.

The German economy has been stagnating for over two years . A slow recovery is likely to begin in the coming quarters . But economic growth will not be able to continue the trend from before the COVID-19 pandemic in the foreseeable future. Decarbonization , digitalization, demographic change and probably also increased competition with companies from China have triggered structural adjustment processes in Germany that are dampening the growth prospects for the German economy.

Gross domestic product is expected to fall by 0.1% in 2024 and increase by 0.8% and 1.3% in the next two years , respectively. The institutes are thus slightly revising their forecast from spring 2024 downwards. The narrow recovery will be driven by rising private consumption, which is being stimulated by strong growth in real disposable income. The economic upturn in important sales markets, such as neighboring European countries, will support German foreign trade . Together with more favorable financing conditions, this will benefit capital investment.

Economic policy should remove barriers to productivity , allow structural change and reduce political uncertainty.

Discussions with various institutions in advance once again contributed greatly to the success of the joint diagnosis. We would like to thank all those involved from the federal ministries, the Deutsche Bundesbank, the European Central Bank and the Federal Statistical Office.

Berlin, September 19, 2024

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German economy in transition –

economy and growth weak

The German economy has been stagnating for over two years. Economic output increased slightly at the beginning of the year, but shrank again in the second quarter. A slow recovery is likely to set in in the coming quarters. However, economic growth will not return to the trend before the COVID-19 pandemic.

Decarbonization, digitalization, demographic change and probably also the increased competition with companies

Companies from China have triggered structural adjustment processes in Germany that are dampening the growth prospects for the German economy.

The structural change and the economic downturn are particularly affecting the manufacturing industry.

The competitiveness of capital goods manufacturers and energy-intensive industries is suffering from the increased energy costs and the increasing competition from high-quality industrial goods from China, which are displacing German exports on the world market. In economic terms, however, the manufacturing industry is also suffering from the weak global industrial economy and the associated lack of new orders. The significant underutilization in the manufacturing industry is mitigated by the partly strong increase in gross value added in the service sectors - particularly those dominated by the state.

A dynamic recovery is not expected in the forecast period, as the economic constraints are only likely to be gradually lifted.

The narrow recovery will probably be driven by increasing private consumption, which will be stimulated by strong increases in real disposable income. The economic upturn in important sales markets, such as neighboring European countries, will support German foreign trade. Together with more favorable financing conditions, this will benefit investment. Fiscal policy is slightly restrictive.

All in all, gross domestic product is expected to fall by 0.1% in 2024 and then increase by 0.8% and 1.3% in the next two years respectively. The institutes are thus revising their forecast from spring 2024 slightly downwards, mainly because the recovery in industry is now weaker. The unemployment rate will be 6% this year and next year, before falling to 5.7% in 2026.

Employment is expected to rise slightly over the course of the forecast. Inflation will again be close to the ECB target at 2.2% this year and 2.0% in 2025 and 2026.

A risk for the assumed expansion of the German economy is a further increase in uncertainty regarding the economic policy framework, which would slow the purchasing propensity of private households and companies.

There is considerable uncertainty as to the extent to which structural adjustment processes will impact overall economic production potential.

The **global economy** is currently growing more slowly than before the pandemic, with differences between regions narrowing. While momentum is slowing in the US, it is being held back by structural problems in China. Europe is showing the first signs of recovery after a period of stagnation . The services sector is driving global economic expansion, and industrial production, particularly in emerging markets, is also partially recovering. This is reflected in the increased trade in goods in the first half of 2024, but since summer 2024 the momentum has been slowing again.

In the **USA,** economic momentum proved robust in the first half of the year, driven by private and government consumption and also by government-supported corporate investments. However, a slowdown is now gradually becoming apparent . The labor market is showing initial signs of weakness, and construction investments have also declined. The outlook for private consumption, the central pillar of the US economy, is becoming more gloomy.

In the **eurozone** and **Great Britain,** economic output increased slightly in the first half of the year after a year and a half of stagnation . Continued strong real wage growth and rising employment in Europe indicate a revival in private consumption. Services are the main beneficiaries of this, while development in the manufacturing sector has so far remained weak . The economy tends to be weaker in countries with a high proportion of industry, while it is stronger in economies with a high proportion of services .

In **China,** the real estate crisis continues to weigh on the economy and is having an impact on private consumption. As the domestic economy weakens, the importance of exports for the economy is increasing, especially since Chinese industry has built up a significant amount of additional capacity in recent years.

Prices for **industrial raw materials** rose significantly in spring 2024, but have recently declined and were only slightly higher in August than a year earlier. Weather extremes increase the risk of rising food prices. Oil and gas prices are volatile due to geopolitical uncertainties. Sea freight costs have also risen significantly, also due to longer routes as a result of terrorist attacks.

Inflation is proving to be more sluggish than expected a few months ago . In the US, inflation only fell to 2.9% by **August ,** while in the eurozone it fell somewhat more sharply from 2.8% to 2.2% over the same period. Core inflation (excluding energy and food) remains high and is only falling gradually. In the eurozone in particular, it has stagnated in recent months. Prices for services continue to rise sharply, as areas such as rents react to price increases with a delay.

In view of falling inflation rates, most central banks have now begun to turn around interest rates, and the degree of **monetary policy** restriction should now also slowly decrease in the major economies . However, the Japanese central bank is pursuing a different path , having only begun to withdraw from the negative interest rate policy and tighten monetary policy relatively late.

Fiscal policy is likely to be slightly restrictive in most economies . While the elimination of support measures will have a restrictive effect, long-term investment programs in the USA and Europe are likely to support expansion. However, the still high interest rate level, despite the interest rate turnaround that has been initiated, is likely to increase the pressure on public budgets to consolidate .

The **global economy** will probably expand only moderately in the forecast period, supported primarily by the services sector and consumption. However, recessionary tendencies in the USA are unlikely to become entrenched. Investments will continue to trend upwards and should gradually be stimulated by further interest rate cuts.

Expansion is likely to be somewhat stronger in the EU and Great Britain, while developments in the USA and China are likely to slow down. Expansion will remain strong in the Asian industrialized countries and especially in India. Inflation will probably continue to fall over the forecast period. Energy prices will again contribute more strongly to this, especially in the coming months , while the core rate will only fall slowly.

There are **risks** from geopolitical tensions and potential trade conflicts. The recent financial market turbulence shows that economic risks could also arise from financial markets.
In addition, the increasing debt burden of some countries could lead to an increase in risk premiums.

The **German economy** has been stagnating for over two years . Although economic output increased slightly at the beginning of the year, it shrank again in the second quarter. A slow recovery is likely to begin in the coming quarters. But economic growth will not be able to continue the trend from before the COVID-19 pandemic in the foreseeable future. Decarbonization , digitalization, demographic change and probably also increased competition with companies from China have triggered structural adjustment processes in Germany that are dampening the long-term growth prospects for the German economy . Since the pandemic, production potential has been repeatedly revised downwards.

The structural change and the economic downturn are particularly affecting the **manufacturing industry.** The competitiveness of capital goods manufacturers and the

Energy-intensive industries are suffering from rising energy costs and increasing competition from high-quality industrial goods from China, which are displacing German exports on the world markets.

The effects of the structural adjustment processes are difficult to estimate, and indicators suggest that the manufacturing industry is increasingly providing accompanying services, which have so far compensated for the decline in industrial production. In economic terms , however, the manufacturing industry is also suffering from the weak global industrial economy and the associated lack of new orders.

The significant underutilization in the manufacturing industry is mitigated by the partly strong increase in gross value added in the service sectors - particularly those dominated by the state.

The ongoing **weakness in investment in equipment and construction** is symptomatic of the problems in the manufacturing industry . In addition, German foreign trade has hardly benefited from the revival in world trade recently. German exports of capital goods in particular have been weak. In terms of the economy in Germany, the still high interest rate level and the high level of economic and geopolitical uncertainty are likely to have put a strain on companies' investment activities and private households' propensity to buy .

Although private **consumption** was able to support the economy in the first half of the year, the hoped-for recovery failed to materialize despite a strong increase in real disposable income.

Private households increasingly put their income aside instead of spending it on consumer goods.

The savings rate has increased for four consecutive quarters and remains above its long-term level.

An international comparison shows that the **savings rate** in Germany is high. Structural analyses by institutes indicate that the size of the public budget balance, the level and growth of income , as well as the real interest rate in general are not relevant for the German savings rate, which is high compared to other countries . Cultural factors play a role.

The precautionary motive in particular seems to be particularly relevant in this country. The recent increase in the propensity to save among private households is therefore likely to be due in particular to the growing uncertainty about the economic policy framework and increasingly also to concerns about one's own job.

A dynamic recovery is not expected in the forecast period. The structural adjustment processes will continue and the economic constraints are likely to be resolved only gradually. Overall

The leading indicators for the third quarter suggest that economic output will decline slightly again.

A **less dynamic recovery is** likely to begin from the end of the year . It will be driven by increasing private consumption, which is stimulated by strong increases in real disposable income. German foreign trade is likely to pick up again somewhat, supported by the economic situation in important sales markets, such as neighboring European countries. Together with the improving financing conditions, this will also benefit capital investment. Value added in the manufacturing sector should also benefit from this and will probably return to pre-pandemic levels by the end of 2026 .

Fiscal policy is slightly restrictive in the current and coming year. The federal government's "growth initiative" is likely to provide only a small impetus in the forecast period. This forecast takes into account those of the 49 measures that have already been specified, such as the correction of bracket creep or the extension of the regulations on declining-balance depreciation. The remaining measures contain important proposals for strengthening the supply of labor and improving the business environment; however, some of them still need to be specified or will probably only be decided and implemented with considerable delay.

All in all, gross domestic product is expected to fall by 0.1% in 2024 and then increase by 0.8% and 1.3% in the next two years respectively. The institutes are thus slightly revising their forecast from spring 2024 downwards, mainly because the recovery in industry is now weaker. Potential growth is declining due to declining productivity growth and the shrinking working population and will only amount to 0.4% in 2029.

Underutilization is increasing again this year, and the production gap will gradually close in the next two years.

The economic weakness is also reflected in the number of unemployed, which has recently continued to rise, particularly due to job cuts in the manufacturing sector. Overall, however , the **labor market** remains robust. Employment is still increasing, albeit at lower rates and mainly in the public and other service sectors. In the context of the sluggish recovery, the institutes expect the unemployment rate to be 6% this year and next, before falling to 5.7% in 2026. Employment is likely to rise slightly over the course of the forecast.

The lower **inflation** is supporting the purchasing power of private households. The institutes expect inflation to be close to the ECB target again this year at 2.2% and 2.0% in 2025 and 2026 , and will probably be driven mainly by inflation in the services sector.

A further significant increase in political uncertainty represents an economic **risk .** Concerns remain about the possible inability of the governing coalition to act, as the parties supporting it are pursuing different objectives. This could make the economic policy framework even more unclear , which could put a greater strain on investment activity than assumed in the forecast.

In addition, there is considerable uncertainty about the extent to which the **structural adjustment processes** are putting a strain on overall economic production potential . In particular, the weakness of the manufacturing sector at the current margin cannot be clearly attributed to cyclical or structural factors. German exports have not recovered to the same extent as world trade since the pandemic , probably because structural factors such as rising energy prices, the shortage of skilled workers and declining price competitiveness, especially vis-à-vis China, are putting a strain on German industry. A reallocation of resources from the manufacturing sector to the service sectors can already be observed. This has an impact on aggregate productivity progress, because average labor productivity is lower in most service sectors .

Economic policy measures to increase productivity are therefore worthwhile so that the production of goods and services is as efficient as possible and no resources are wasted. Measures aimed at reducing barriers to production (bureaucracy, regulation), education and investment in research and development have the greatest potential in this regard.

1. Situation and forecast of the global economy

overview

The global economy is currently expanding at a slightly lower rate than in the decade before the COVID-19 pandemic . The pace has hardly changed for almost two years (Figure 1.1, page 15). There are economic differences between the individual regions, which are narrowing over the course of this year. While the previously very robust economy in the USA is now losing momentum, structural problems in China are dampening overall economic expansion somewhat more than before. At the same time, the economy in Europe is on the up again after a long period of stagnation.

Services remained the main driving force behind global economic expansion until recently, but industrial production, which had merely stagnated last year, picked up noticeably in the emerging markets in the first half of the year. In line with this, trade in goods also picked up there. After an increase of 0.3% in the first quarter, it actually increased quite significantly in the second quarter, by 1.0%. However, the recovery in the manufacturing sector does not seem to have continued in the summer . The mood among purchasing managers deteriorated noticeably worldwide in July. In addition, falling prices for important industrial raw materials and a fall in freight rates in container shipping indicate that the momentum in industrial production and world trade is once again slowing down.

In the USA, overall economic production did not increase quite as quickly as in the previous year. In contrast, Great Britain and the Eurozone emerged from stagnation, and in Japan the recessionary tendencies that were evident up until the first quarter of this year appear to have been overcome. In China, the economy continued to expand only moderately - although there were significant fluctuations from quarter to quarter. At the same time, production in India increased very strongly .

The US economy has proven to be remarkably robust over the past two years, despite the dramatic rise in interest rates. It is being driven by private household and government consumption as well as corporate investment. The latter has been supported not least by government measures.1 However, the effect of the programs has apparently passed its peak : the expansion of commercial construction investment decreased significantly at the beginning of the current year, and in the second quarter it fell

declined, as did housing investment. Recently, there have also been increasing signs of a slowdown in the labor market. The increase in non- agricultural employment has almost halved since the spring, the unemployment rate rose noticeably and was half a percentage point higher in August than at the beginning of the year. Since wage increases have slowed noticeably at the same time and the extra savings from the pandemic have now been used up by large sections of the population , the prospects for private consumption , the most important pillar of the US economy, have clouded over.

In the eurozone, gross domestic product increased noticeably in the first and second quarters - by ¼% each - after one and a half years of near stagnation; the same applies to Great Britain, where overall economic production rose even more significantly. Continued strong real wage growth and rising employment are leading to a revival of private consumption in Europe. Services have benefited greatly from the revival , while development in the manufacturing sector has so far remained weak. In line with this pattern, the economy tends to be weaker in countries with a high industrial share of value added , while it is stronger in economies with a high service share.

In China, the crisis in the real estate market continues and continues to impact private consumption. As domestic demand weakens, the importance of exports for the economy is increasing, particularly since Chinese industry has built up significant additional capacity in recent years . In this context, there are many accusations that exports are supported by subsidies that contradict international trade rules. As a result, some trading partners, first the USA, then the EU and most recently Canada, have imposed or announced high tariffs on certain imports from China, whereupon the Chinese government has threatened countermeasures.

Slow decline in core inflation

The prices of industrial raw materials rose in the spring in line with the recovery of the industrial economy in general, but have recently fallen again . Despite the recent decline, they are still significantly higher in some cases than they were a year ago. This does not apply to grain, where a rich harvest in North America has eased the market situation, but the increasing

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1 *Joint Diagnosis Project Group:* Purchasing power returns – political uncertainty high, Joint Diagnosis Autumn 2023, Halle (Saale), Box 1.1.

Figure 1.1

Total economic production in the world

(a) Gross domestic product of the world1
Quarterly growth rates in %
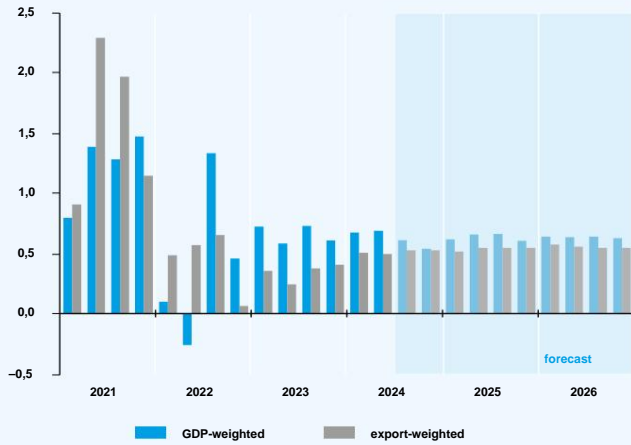
*Aggregate from the countries listed in Table 1.1. Weighted by the gross domestic product of 2023 in US dollars or the share of German exports.

Sources: IMF; OECD; national statistical offices; calculations by the institutes; from the third quarter of 2024: forecast by the institutes.

(b) Gross domestic product in the USA
Price and seasonally adjusted trend
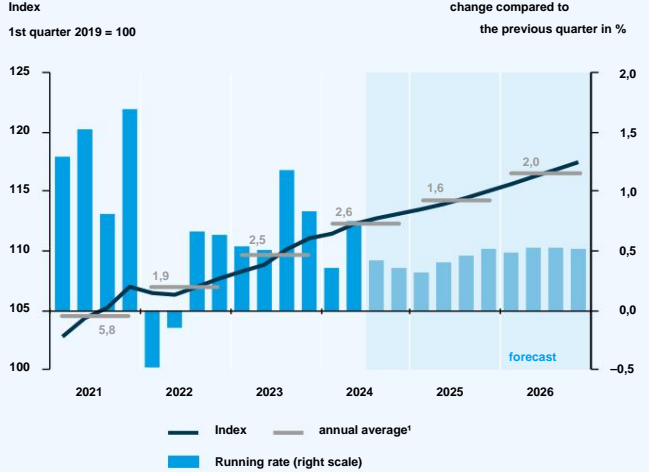
1 Figures: Change in original values compared to the previous year in %.

Sources: Bureau of Economic Analysis; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

(c) Gross domestic product in China
Price and seasonally adjusted trend
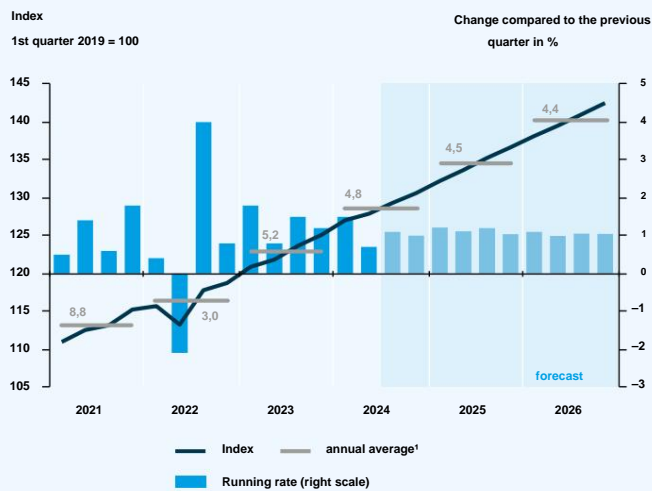
1 Figures: Change in original values compared to the previous year in %.

Sources: China National Bureau of Statistics; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

(d) Gross domestic product in the euro area
price, seasonal and calendar adjusted history

1 Figures: Change in original values compared to the previous year in %.

Sources: Eurostat; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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The freak weather with heat waves, droughts or heavy rain poses a risk to the food supply and has the effect of increasing prices in the long term.2 The prices of crude oil and natural gas remain vulnerable to geopolitical shocks, which is reflected in high volatility. A barrel of Brent oil cost around 88 US dollars at the beginning of July and barely more than 70 dollars at the beginning of September. The forecast is therefore based on a two-week average of futures market prices.

The forecast is based on the assumption that the oil price will remain almost unchanged during the forecast period. The European gas price rose quite significantly in August, which is probably due in part to the war in Ukraine and temporary production interruptions in Norway . Recently it has fallen slightly again. Overall, the consumer price index was hardly influenced by the energy component in most countries compared to the previous year . On the other hand, sea freight costs, which rose in the first half of the year, tended to increase prices.

2 *Deutsche Bundesbank:* Monthly Report August 2024, 18-21.

have risen dramatically. In addition to a renewed increase in world trade, this is also likely due to the fact that since last November, for safety reasons , large parts of the shipping traffic have been diverted from the Suez Canal route to the much longer route around the Cape of Good Hope. Accordingly, freight rates on the routes between Asia and Europe have risen particularly sharply. The recent decline has made little difference to the massive increase in freight costs compared to the previous year.

At the consumer level, the decline in inflation rates in many advanced economies has proven more sluggish than expected just a few months ago.
Inflation in the USA has fallen only slightly since last autumn - to 2.9% in August - and has even risen noticeably again in the meantime. Disinflation in the eurozone was somewhat stronger and more consistent due to more favourable developments in energy and food prices, where inflation fell from 2.8% to 2.2% between January and August. The main reason for the slow decline in inflation was that the energy component was becoming less of a brake. In the summer, energy prices were at times even higher than a year earlier, thus making a positive contribution to inflation again . Core inflation (excluding energy and food) in particular remains high and is only falling slowly . In the eurozone in particular, it has hardly fallen at all in recent months. The prices for services are still rising sharply, as there are important components that react with a significant delay to the general price increase (e.g. rents) and it is more difficult in these areas to compensate for the strong wage increases through productivity increases.

monetary and fiscal policy dampen

In view of declining inflation rates, most central banks have now begun to cut interest rates.
Since last year, key interest rates have been reduced in a number of emerging markets and in the countries of Central and Eastern Europe, although they had also been raised earlier and often more sharply. Among the major central banks, the European Central Bank (ECB) was the first to do so at the beginning of June, followed by the Bank of England at the end of July and finally the US Federal Reserve in mid -September. This heralds a broad-based turnaround in interest rates . In the major currency areas in particular, interest rates are still high - compared to the 2010s - and, given that inflation is only slowly approaching its target, they will probably be reduced more cautiously than expected a few months ago. This means that monetary policy in the advanced economies is likely to remain restrictive for some time to come.

The Bank of Japan has been pursuing a special path for some time . Unlike the other central banks, it had hardly tightened its policy in view of the surge in inflation in 2022 and 2023. It was only in March of this year that

it ended its negative interest rate policy, and while the other central banks initiated interest rate cuts, it raised its key interest rate to 0.25% at the end of July. At the beginning of August, financial market turbulence occurred when share prices fell sharply worldwide and the Nikkei share index collapsed by 25% within a few days. The background to this was apparently the liquidation of credit positions, so-called carry trades, in which low-interest funds are taken out in yen and invested in higher-interest currencies, primarily the dollar. While share prices on international stock exchanges mostly recovered quickly, the Nikkei was still around 10% below its historic high recorded in July.

Fiscal policy is likely to have a slightly restrictive effect in most countries over the forecast period. The International Monetary Fund estimates that the structural primary balance in the group of advanced economies will improve significantly between 2024 and 2026 and slightly in emerging and developing countries.3 This is due, for example, to the elimination of the support measures granted in connection with the COVID-19 pandemic and the energy price crisis . Longer-term investment programs such as the Inflation Reduction Act in the USA and the NextGenerationEU program have a supportive effect on fiscal policy . The primary deficit in the USA is likely to fall only very slowly. The need for consolidation is also increasing because the past interest rate increases are gradually being reflected in the financing costs of public budgets, so that in many places a greater focus is likely to be placed on reducing the public debt ratios that have risen in recent years (Focus: On the significant increase in public debt ratios in important economies, page 21).

outlook

The global economy is likely to continue to develop little momentum over the forecast period . However, recessionary tendencies, as was increasingly feared in July in light of disappointing economic data in the USA, are not likely. Rather, the production of services is likely to continue to increase significantly, while the manufacturing sector is not expected to gain momentum until next year. In view of the robust labor markets in many places and the, albeit slow, decline in inflation, private consumption is likely to be the main pillar of the economy on the demand side. However, investments remain on an upward trend and should gradually be stimulated by further interest rate cuts.

Geographically, the economic situation is likely to become increasingly balanced. While the annual average increase in production in the European Union and in

3 **IMF:** World Economic Outlook. Steady but Slow. Resilience amid Divergence. April 2024.

While the pace of growth in Great Britain is accelerating, the expansion in the USA will probably be somewhat weaker next year than in the current year. In China, the gradual slowdown is likely to continue. Expansion will remain strong in the Asian industrial countries and especially in India.

Inflation is likely to fall noticeably over the forecast period and be close to target in 2026. Based on the assumptions made, energy prices will again contribute more strongly to this, especially in the coming months, while the decline in the core rate will continue to be slow. Against this background, the fact that monetary policy is only being relaxed gradually is dampening the outlook for industrial production and investment.

After an increase of 2.7% this year, global production is expected to grow by 2.5% in 2025 and 2.6% in 2026 (Table 1.1, page 17). Weighted by exports, the growth rate will not decline next year , but will increase slightly from 1.9% to 2.1%, mainly due to the economic recovery in Europe outside Germany. For the advanced economies as a whole, the institutes expect growth of 1.8% this year and 1.6% and 1.8% in the next two years. The institutes are thus revising their forecast for global production for 2024 upwards by 0.2 percentage points compared to the spring report . The forecast for growth in 2025 is 0.1 percentage points lower (Figure 1.2, page 18). Global trade in goods will grow by 1.5% this year and 2.3% next year.

Growth of 2.4% is expected for 2026.

Table 1.1

Real gross domestic product, consumer prices and unemployment rate in the world

	Weight (GDP) in %	Gross domestic product1				consumer prices1				unemployment rate2			
		Changes compared to the previous year in %								inÿ%			
		2023	2024	2025	2026	2023	2024	2025	2026	2023	2024	2025	2026
Europe	**28,2**	**0,9**	**1,4**	**1,6**	**1,7**	**8,0**	**5,3**	**3,9**	**3,2**				
EU-27	19,8	0,5	0,9	1,6	1,7	5,9	2,5	2,2	2,1	6,0	5,9	5,8	5,7
Great Britain	3,6	0,1	1,1	1,5	1,5	7,3	2,5	2,1	2,1	4,0	4,3	4,3	4,2
Switzerland	1,0	0,7	1,4	1,6	1,7	2,1	1,3	1,2	1,2	4,0	4,2	4,3	4,2
Norway	0,5	0,7	2,2	1,8	1,7	5,5	3,2	2,3	2,2	3,6	4,0	4,0	3,8
Russia	2,2	3,6	3,8	1,6	1,0	5,9	7,7	7,0	6,0				
Türkiye	1,2	4,5	4,0	3,0	4,0	53,9	60,0	35,0	22,0				
American	**37,8**	**2,4**	**2,3**	**1,7**	**2,1**								
deer	29,5	2,5	2,6	1,6	2,0	4,1	2,9	2,1	2,0	3,6	4,2	4,4	4,2
You have	2,3	1,1	1,1	1,8	2,1	3,9	2,5	2,1	2,1	5,4	6,4	6,5	6,2
Latin America3	6,0	2,0	1,2	2,3	2,4								
Asia	**34,0**	**4,6**	**4,2**	**4,1**	**4,0**								
Japan	4,5	1,9	0,0	1,0	0,9	3,3	2,3	1,8	1,6	2,6	2,5	2,4	2,4
China without Hong Kong	19,0	5,2	4,8	4,5	4,4								
South Korea	1,8	1,3	2,5	2,2	2,4	3,6	2,5	2,0	1,9	2,7	2,8	2,8	2,8
If	3,8	7,8	7,1	6,6	6,6								
East Asia without China4	4,7	3,4	4,1	3,9	4,0								
total5	**100,0**	**2,7**	**2,7**	**2,5**	**2,6**								
Advanced Economies6	64,8	1,6	1,8	1,6	1,8	4,7	2,7	2,1	2,0	4,4	4,6	4,6	4,5
emerging markets7	35,2	4,8	4,3	4,1	4,1								
For information:													
export-weighted8		1,4	1,9	2,1	2,3								
purchasing power weighted9		2,9	2,7	2,5	2,7								
world trade10		−1,1	1,5	2,3	2,4								

1 Gross domestic product adjusted for price changes. For country groups: Weighted average of countries, weighted by the nominal gross domestic product of 2023 in US dollars.

2 For country groups: Weighted average of the countries. Weighted by the number of employed persons in 2023.

3 Brazil, Mexico, Argentina, Peru, Colombia, Chile.

4 Indonesia, Taiwan (province of China), Thailand, Malaysia, Singapore, Philippines, Hong Kong (Special Administrative Region of China).

5 Sum of the listed country groups. Weighted by the gross domestic product of 2023 in US dollars.

6 EU 27, Great Britain, Switzerland, Norway, USA, Canada, Japan, Korea, Taiwan, Hong Kong, Singapore.

7 Russia, China excluding Hong Kong, India, Indonesia, Thailand, Malaysia, Philippines, Latin America.

8 Sum of the countries listed. Weighted by the shares of German exports in 2023.

9 Purchasing power parities from: IMF, World Economic Outlook, October 2023.

10 Real goods trade. Value for 2023 from CPB.

Sources: IMF; Eurostat; OECD; CPB; Institute calculations; 2024 to 2026: Institute forecast.

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Figure 1.2

Forecast revision

Annual data; change in the institute's forecasts compared to
the joint diagnosis spring 2024 in percentage points

Source: Institute calculations.

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of tech stocks could also be reflected in a slowdown in the economy, for example because assets are reduced or investment programs are cut. On the capital markets, the increasing debt burden in some countries could lead to an increase in risk premiums.

However, the high prices of tech stocks are also an indication of the great potential of new technologies, especially with regard to the use of artificial intelligence.

This may have been underestimated in the current forecast in terms of its impact on overall economic activity, particularly for the medium term, but possibly also for the next two years.

The regions in detail

In the **USA,** the economy expanded robustly in the first half of 2024, as private households continued to consume strongly and investments were significantly expanded. However, the economy is likely to lose momentum over the forecast period. Private consumption in particular is likely to weaken, as the labor market has not been as favorable as before. Growth in real wages and especially in employment has tended to slow since the beginning of the year , and the unemployment rate has risen from 3 ½% to 4.2% in August since the middle of last year.

Inflation continued to decline, most recently due mainly to slower increases in housing costs and lower vehicle prices. The recent fall in oil prices is likely to further dampen inflation. In mid-September, the US Federal Reserve began its interest rate turnaround. However, there are different assessments as to how quickly further key interest rate cuts will follow . The members of the Central Bank Council - like the institutes - see the key interest rate for the end of 2025 at an average of 3 ½%, while key interest rate expectations on the financial markets are half a percentage point lower. In any case, monetary policy will initially have a restrictive effect, and only later in the forecast period can more favorable financing conditions be expected to stimulate investment activity. Despite the good economic situation, the general government budget deficit was very high last year at 8.8% in relation to gross domestic product. The major industrial policy programs Inflation Reduction Act and CHIPS Act contributed to this. This year, no major stimulus is expected from financial policy. There remains great uncertainty about the future course of economic policy in the run-up to the presidential election, and some investment decisions will therefore probably not be made for the time being . All in all, gross domestic product is expected to rise by 2.6% this year . Next year, the growth rate is expected to fall to 1.6% before the economy picks up again in 2026. Inflation is expected to average 2.9% in 2024 and around 2% in 2025 and 2026 (Table 1.2, page 19).

risks

Risks for the global economy continue to arise from geopolitical tensions, especially Russia's ongoing war against Ukraine, hostilities in the Middle East and China's threats against Taiwan. This means that uncertainty remains high for economic decision-makers, and an escalation of conflicts in oil- and gas-rich regions in particular could cause energy prices to rise sharply again . The rise of populist parties in Europe is also causing uncertainty for the economy, particularly with regard to the direction of fiscal policy at European and national levels, but also with regard to the investment climate (Focus: On the economic policy implications of growing populism in Europe, page 29).

There are also risks with regard to global trade conflicts and the future direction of US policy after the presidential elections there. Trade barriers not only have a negative impact on exports, but also drive up prices if imports are subject to high tariffs.

The turbulence on the stock markets in August is part of a development that is characterized by increased volatility and is a reminder that the financial markets can also pose risks to the economy . A correction of the very high valuation

In **China,** the economy expanded at a moderate pace overall in the first half of the year and at a slightly slower pace than in the previous half. Compared to the previous year, gross domestic product in the second quarter only grew by 4.7%. The ailing real estate market, faltering consumer demand and the weak financial situation of local municipalities are dampening the economy. In addition, there were severe storms and floods . Exports, on the other hand, rose sharply, and there was also impetus from government investment in the high-tech sector. Economic momentum will probably remain subdued by Chinese standards in the near future. In the summer, the purchasing managers' index for the economy as a whole deteriorated noticeably and was recently only slightly above the expansion threshold, while the index for the manufacturing sector even slipped below it. Consumer confidence also deteriorated; it has been at a historically very low level since spring 2022 . Price increases remain low as a result of the economic weakness, although inflation rose slightly to 0.6% in August, driven by higher food prices. The government is making greater efforts to end the ongoing real estate crisis and presented a package of measures together with the central bank in May of this year . Part of the package is a central bank fund to rescue property developers worth the equivalent of 70 billion dollars, around a third of which had been spent by August. However, the fall in prices on the real estate market continued unabated until recently and residential construction investments continued to decline. Against this background, the government's growth target of 5% will probably be narrowly missed this year. For 2025 and 2026, the institutes expect slightly lower rates of 4.5% and 4.4% respectively. The slowdown in the increase in production is not only cyclical, but also reflects lower potential growth in the Chinese economy.

In **Japan,** overall economic production expanded quite strongly in the second quarter after having declined significantly in the first quarter due to special factors.4 Both private consumption and private investment increased significantly, and public investment even rose very strongly. While activity in the service sector continued to expand noticeably in the summer according to the indicators , the recovery in the manufacturing sector is weak at best: the purchasing managers' index was again slightly below the expansion threshold of 50 in July and August. Inflation, which had risen to over 4% at the end of 2022, is only declining slowly. Most recently, it remained at 2.8% over the summer. Higher energy prices, also due to a partial termination of government programs to mitigate the energy crisis, were offset by lower price pressure on food. Thanks to

Table 1.2

Key data on economic development in the USA

	2023	2024	2025	2026
Change compared to the previous year in %, price-adjusted				
gross domestic product	2,5	2,6	1,6	2,0
private consumption	2,2	2,3	1,6	1,8
government consumption and investment	4,1	2,9	1,2	1,0
Private investment	0,6	4,0	3,0	3,9
inventory changes1	−0,3	0,1	0,0	0,0
Domestic use	1,9	2,9	2,0	2,1
Export	2,6	2,0	2,4	3,4
Imported	−1,7	3,7	3,4	3,3
external contribution1	0,6	−0,3	−0,3	−0,0
consumer prices	4,1	2,9	2,1	2,0
in % of nominal gross domestic product				
Budget balance2	−8,8 −6,2 −5,8	−6,5		
current account balance	−3,3	−3,0	−2,9	−3,0
in % of the workforce				
unemployment rate	3,6	4,2	4,4	4,2

1 growth contribution.
2 Federal government (calendar year, federal government plus states and municipalities).

Sources: Bureau of Economic Analysis; Bureau of Labor Statistics; International Monetary Fund; 2024 to 2026: Institutes' forecast.

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Following the high wage agreements negotiated in the spring, real wages have recently increased, improving the prospects for a revival of private consumption.
At the beginning of August, the Bank of Japan tightened its extremely expansionary policy somewhat by raising the key interest rate from 0.1% to 0.25% and announcing its intention to halve its monthly bond purchases. In an environment of falling interest rates internationally, this led to a significant appreciation of the Japanese currency, which had, however, depreciated massively in the previous two years. All in all, the Japanese economy is likely to expand moderately again in the next two years, after little more than stagnation is expected for 2024 due to the weak start to the year .

In the **Central and Eastern European member states of the European Union,** the economy has been on an upward trend since the last winter half-year. After a strong increase at the beginning of this year, the increase in production slowed in the second quarter in a number of countries due to a slowdown in the manufacturing sector and weather-related agricultural outages. In Poland, on the other hand, industrial production continued to grow significantly and gross domestic product rose again sharply. Inflation rates in the region were particularly high in 2023 at around 10% , but with the elimination of the inflation in energy and food prices that was the main reason for this, they have since fallen significantly. Minimum wages and pensions have been raised sharply and, given low unemployment, real wages are rising sharply.

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4 Car production was disrupted following a scandal involving irregularities in the Registration procedures for the models of a major manufacturer were temporarily suspended. New registrations also collapsed. In addition, production suffered from the effects of a severe earthquake on New Year's Day.

Financing conditions are also less unfavourable than in 2023. The central banks of the Czech Republic, Hungary and Romania have further reduced their key interest rates over the course of the year; the Polish central bank last did so at the end of 2023, but had not raised its interest rates as much before. All of this points to an economic recovery. However, it is likely to be moderate, as the currently weak demand in important foreign sales markets, especially Germany, is only picking up slowly. In addition, fiscal policy in most countries is slightly restrictive because government aid to cope with the surge in energy costs is expiring and there is a need for consolidation in a number of countries with public budget deficits of 5 to 6% in relation to gross domestic product. All in all , the gross domestic product of the group of countries is expected to grow by around 3% in the next two years, after 2.2% in 2024.

Real wage growth is increasing sharply. In addition to strong demand for labor - including the recruitment of soldiers - this is also due to a shrinking supply, as the workforce has shrunk significantly since 2020 as a result of emigration. This is also likely to gradually slow down the increase in production. The shrinking supply of labor and war production are driving up prices, and inflation has increased significantly since last year, reaching over 9% in July. As a result, the central bank raised the key interest rate again in July, to 18%. The high interest rates have stabilized the exchange rate , but are likely to slow production over the forecast period . The overall economic expansion rate will therefore continue to slow down. Against this background, the institutes expect lower growth of 1 ½% in 2025 and 1% in 2026, after just under 4% in the current year.

Overall economic production in **Russia** rose sharply in the first half of the year. The momentum in the second quarter was somewhat weaker than at the beginning of the year. The Russian economy continues to be dominated by the war against Ukraine. Public orders for armaments contributed significantly to the strong expansion, which was reflected in strong increases in investments and a strong expansion of industrial production. In addition, private consumer spending also increased in view of a historically low unemployment rate of just under 2 ½% and high

In **Latin America,** the economy expanded at a moderate pace in the first half of 2024. Despite the revival in global trade, the region's exports remained largely sluggish. In contrast, private household demand in Brazil and, to a lesser extent, Mexico benefited from increasing employment and rising real wages. Inflation has not eased further recently; in Brazil and Mexico it was around 5% in the summer. Although key interest rates have been cut everywhere except Argentina, in some cases significantly, they still largely exceed inflation rates. The high public deficits

Figure 1.3

gross public debt

In relation to gross domestic product in %
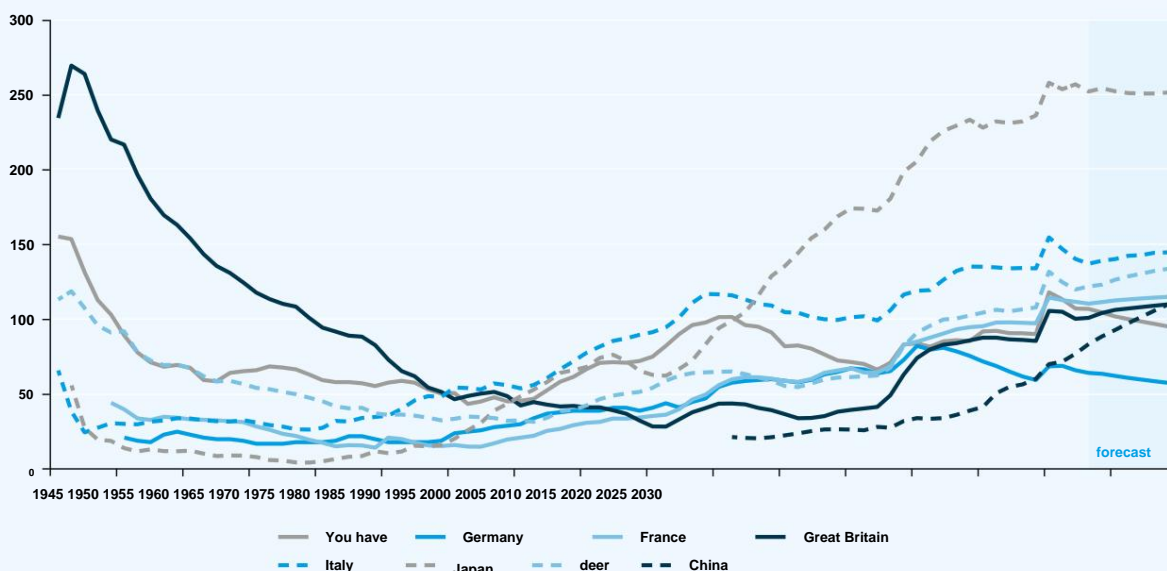
Sources: Until 2014: JORDÀ-SCHULARICK-TAYLOR MACROHISTORY DATABASE, Release 6, 2022; from 2015: IMF World Economic Outlook database; calculations of the institutes.

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te – in Brazil and Mexico they amounted to around 5% of gross domestic product – are likely to force a slightly restrictive fiscal policy course in the coming year . In Argentina, fiscal policy is already extremely restrictive. There, a market economy reform program with radical cuts in public spending, thoroughgoing deregulation, the elimination of subsidies and price controls, and the liberalization of the exchange rate led to a severe consolidation crisis, the lowest point of which was probably passed this spring. The economy in the region is likely to remain moderate in the coming year . The institutes are forecasting an increase in economic output in Latin America of 1.2% this year and 2.3% next year.

Focus: On the significant increase in public debt ratios in important economies

In recent years, public debt has risen sharply in the major economies , to more than 100% of economic output in all G7 countries except Germany (Figure 1.3, page 20). For China, the International Monetary Fund (IMF) predicts a ratio of 84% for 2023 , but according to an expanded IMF debt concept, it is 117%.5 The trend of a rising debt ratio also exists in the aggregate across all economies for which data is available (Figure 1.4, page 21). The share of public debt in the total debt of the non-financial sector in the world is also trending upwards (Figure 1.5, page 21). In 2020, the first year of the COVID-19 pandemic, public debt ratios jumped due to government measures to contain the crisis and a collapse in economic output. In the two years that followed, debt ratios then fell significantly, as nominal gross domestic product rose sharply in many countries due to the surge in inflation. Monetary policy responded with drastic interest rate hikes, and as a result, capital market interest rates also rose significantly. With them, the costs of public debt servicing also rise, although usually with some delay, namely only when low-interest securities mature and the issuance of new securities finances these payment obligations.6 According to IMF calculations and projections, the increase in the interest burden is moderate overall in advanced economies, but considerable for the USA (Figure 1.6, page 22).

Figure 1.4

Global public debt

In relation to gross domestic product in %
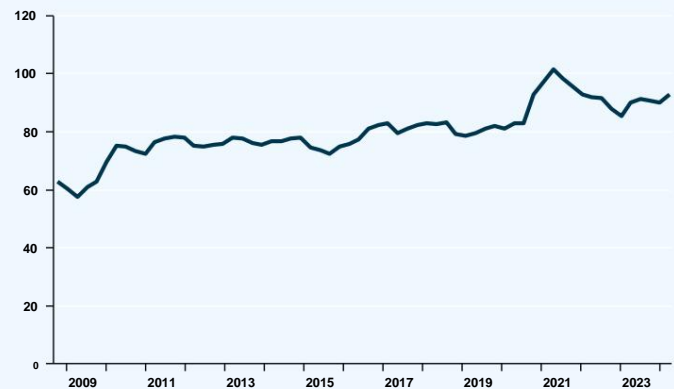
Sources: Bank for International Settlements; calculations of the institutes.

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Figure 1.5

Public sector share of total global non-financial sector debt

Inÿ%

Sources: Bank for International Settlements; calculations of the institutes.

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The question arises as to what extent the higher level of debt poses a risk to the economy as a whole . After all, the USA, Great Britain and Canada had debt ratios similar to those of today in the period after the Second World War, and they managed to reduce these ratios significantly in the decades that followed . Debt reduction was facilitated at that time by high rates of overall economic growth, which exceeded capital market interest rates on average until the 1970s . In general, if the real interest rate is below the growth rate of production, the burden of a given product is higher.

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5 For the first quota, see **IMF:** World Economic Outlook April 2024, for the second, see **IMF:** People's Republic of China, Article IV Consultation press release, 2024, page 3.
  This includes the indebtedness of financing vehicles of regional authorities and government-guided funds.

6 Public debt service has increased more rapidly in countries where a significant portion of the public debt consists of inflation-indexed securities. This is particularly true for Italy and the United Kingdom.

Figure 1.6

debt service expenses

In relation to government revenue in %
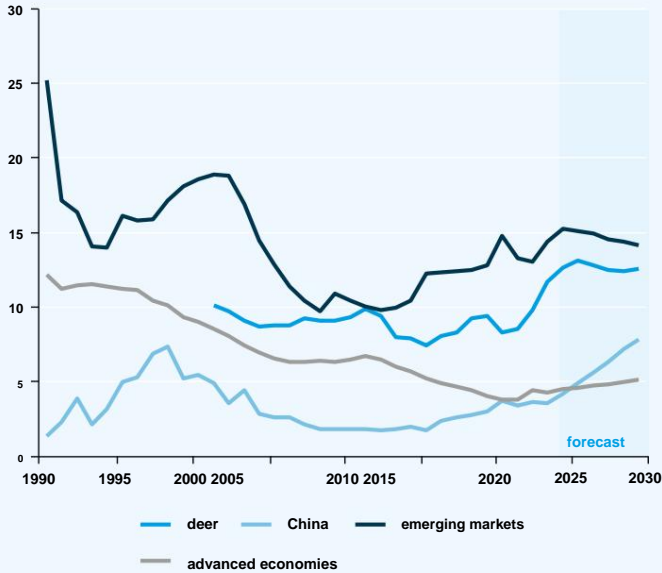
Sources: IMF Fiscal Monitor April 2024; calculations of the institutes; from 2024: IMF forecast.

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Figure 1.7

Public deficits

In relation to gross domestic product in %

Sources: IMF World Economic Outlook Database, April 2024; calculations by the institutes.

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lumen of old debts becomes easier for the public sector over time, even if interest and repayment are financed exclusively through new borrowing . This condition is currently and will probably also be met in the coming years in general (with exceptions , particularly in Italy), even if growth rates in the advanced economies are much lower than in the post-war period and are likely to continue to decline, mostly for demographic reasons.7

Nevertheless, debt ratios in most major economies are likely to continue to rise in the coming years (Figure 1.3, page 20). Although fiscal policy is currently generally more or less neutral, this means that structural deficits are not being reduced significantly (Figure 1.7, page 22). Lower deficits could in principle be achieved by reducing spending or increasing revenue . However, curbing government spending is likely to be particularly difficult in the coming years for a number of reasons. In particular, pension payments and health services are rising as the population ages almost everywhere , and part of this spending is borne by public budgets almost everywhere. In addition, the transition to a carbon-neutral production method that is being sought in many places is likely to place a burden on government budgets, as subsidizing green technologies is often chosen as the path to climate neutrality rather than taxing emissions. It is also expected that geopolitical conflicts will cause defense spending to rise significantly in many places in the coming years. On the other hand, an increase in tax rates currently seems politically difficult to implement in many countries . The players on the financial markets do not seem to be particularly worried about this at the moment. For example, risk premiums for government bonds of highly indebted countries have mostly moved little recently. The reasons for this probably lie in the peculiarities of the two countries that bear the majority of public debt and whose deficit ratios are also rising particularly quickly, namely the USA and China. As a debtor, the USA benefits from the role of the US dollar as the global reserve currency, i.e. the most important international transaction, investment and reserve currency. Because American government bonds yield secure returns in the reserve currency, the US dollar, they are particularly attractive. As long as the need for transaction, investment and reserve media increases with global economic growth, it can be expected that the need for US government bonds will also increase, and this will give the US government additional scope for spending. However , it is not certain that the dollar will remain the undisputed global reserve currency in the future. The Chinese renminbi could soon pose a serious challenge to it.
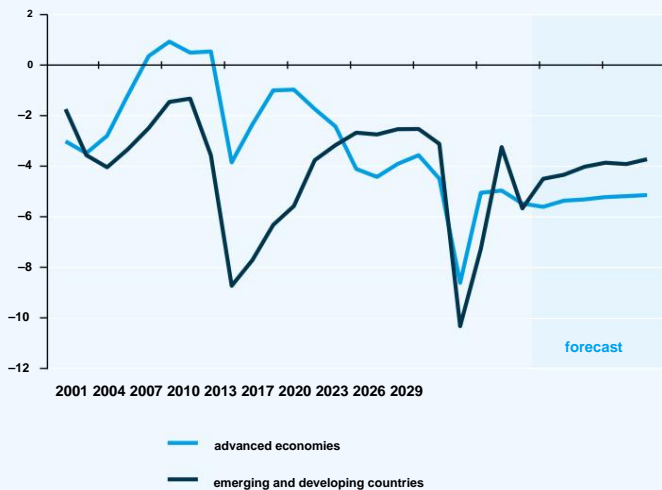
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7 A current forecast for the difference between the capital market yield on government bonds and the nominal growth rate of gross domestic product on average for the years 2024 to 2029 can be found in the IMF Fiscal Monitor Data Base of April 2024.

There are signs that a Chinese-dominated economic area is emerging at a distance from the mostly advanced economies grouped around the USA , with the Renminbi as its leading currency.8

For China itself, the increasing national debt is made easier by the fact that only a very small proportion of liabilities are foreign-owned and that capital market controls limit the ability of Chinese creditors to take advantage of more attractive investment opportunities abroad. The savings rate of companies and households in China is so high that it covers both a significant current account surplus and the extensive public financing needs.

While the solvency of the Chinese state is hardly at risk , the state's high reliance on capital markets entails the risk that the use of financial resources by the public sector will replace more efficient private uses, i.e. that public investments will crowd out more productive private investments.

The medium-term solvency risks are greater for highly indebted countries that do not have their own central bank, such as some member states of the European Monetary Union . The risk premiums for debt securities of these countries remain moderate because the markets assume that the ECB or ultimately the partner countries will come to the aid of debtor countries under pressure if necessary . Countries that have control over their monetary system generally have the option of limiting their indebtedness through monetary expansion. However, this gives rise to risks for price stability in the medium and long term. If the players in the financial markets come to the conclusion that a country's fiscal policy is not sustainable, the external value of its currency can therefore fall in a very short time. This was evident in autumn 2022, when the British government announced a drastic and inadequately financed tax cut programme. The subsequent collapse of the pound on the currency markets and the increase in risk premiums for British government bonds forced the abandonment of the program within a few days and brought down the Prime Minister.

Finally, high levels of national debt can also limit the scope for economic policy action in other respects . The case of Japan shows this: the yen has lost value drastically in recent years , by more than 20% in real terms compared to the beginning of 2020.

A key reason for this is that the Bank of Japan has not followed the significant interest rate increases of other advanced economies and has kept its key interest rate close to 0%. This is not least due to Japan's extraordinarily high national debt ratio of 252%, as a tighter monetary policy

A significant increase in capital market interest rates could put the state budget under pressure.9

economic situation in the euro area

In the euro area, the one-and-a-half-year period of stagnation was overcome in the first half of 2024, and overall economic production has expanded by around ¼% per quarter since then. While services increased significantly, weakness in the manufacturing sector continued. On the consumption side, exports in particular expanded significantly in the spring, while consumer spending stagnated and investments declined.

Economic development varied greatly in the individual countries. In France, gross domestic product expanded moderately, mainly due to continued favorable foreign trade, while in Italy the moderate expansion was also driven by investments. The recent strong expansion in Spain was broadly supported. In contrast, overall German economic production declined.

Price increases continue to ease, albeit hesitantly. Inflation, as measured by the Harmonized Index of Consumer Prices (HICP), fell to 2.2% in August 2024 , reaching its lowest level in three years, after remaining largely unchanged in previous months. The core rate, however, was stable at just under 3%. The labor market remained robust. Although overall economic production stagnated over the past year and expansion has been moderate so far this year, unemployment fell to its historic low of 6.4% in July. The weak economy has so far contributed to an increase in unemployment in only a few countries, such as Germany, Finland and Austria. Overall, employment in the euro area has remained upward until recently, but the pace of expansion has slowed.

Monetary policy gradually becoming less restrictive

Following the key interest rate increases from July 2022 to September 2023 by a total of 4.5 percentage points, the European Central Bank (ECB) reduced the deposit rate by 0.25 percentage points each in June and September of this year to 3.5%. Following the reduction in the gap between the deposit rate and the main refinancing rate in September (Box 1.1, page 28), the interest rate for main refinancing operations is now 3.65% and that for marginal lending operations is 3.9% (Figure 1.8, page 24). Monetary policy therefore continues to have a restrictive effect, as short-term real interest rates are likely to be well above the neutral level.

8 Dazu etwa **Arslanalp, S.; Eichengreen, B.; Simpson-Bell, Ch.:** The Stealth Erosion of Dollar Dominance: Active Diversifiers and the Rise of Nontraditional Reserve Currencies, IMF WP/22/58, 2022.

9 **Miyamoto, H.:** Government Debt and Monetary Policy Perspectives in Japan, The Economists' voice 20/1, 2023, 131–134; **Alberola, E. et al:** Unconventional monetary policy and debt sustainability in Japan, Journal of The Japanese and International Economies 69, 2023, 1–11.

Figure 1.8

On the monetary situation in the euro area

Inÿ%

(a) Money market interest rates1
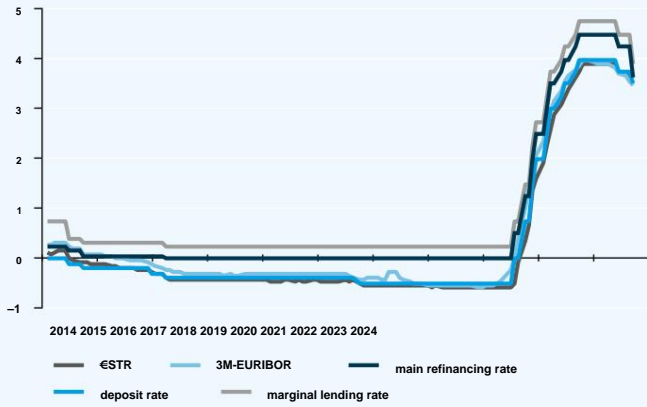
Legend: €STR | 3M-EURIBOR | main refinancing rate | deposit rate | marginal lending rate

(b) capital market interest rates2

Legend: corporate bonds (AAA) | corporate bonds (BBB) | government bonds (AAA) | government bonds (euro area)

(c) Loan interest3

Legend: Households: Consumption | Households: Housing | Pursue

(d) Realzinsen4

Legend: 1 year | 10 years

(e) Changes in loan portfolios5

Legend: Households: Consumption | Households: Housing | Pursue
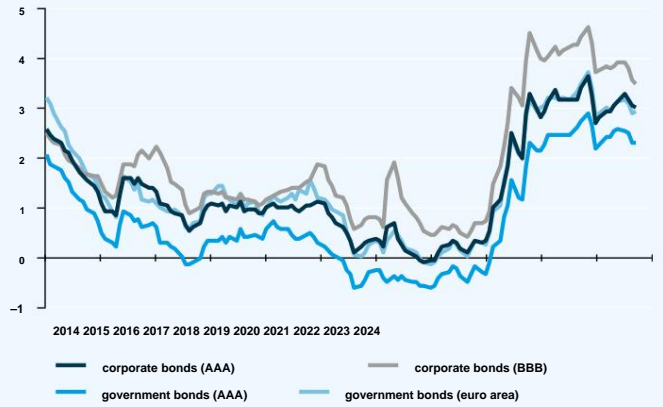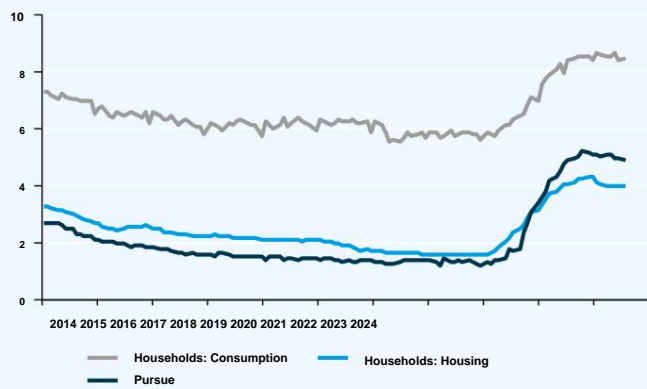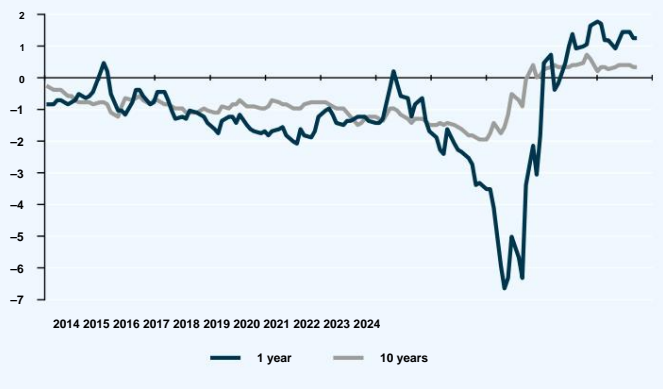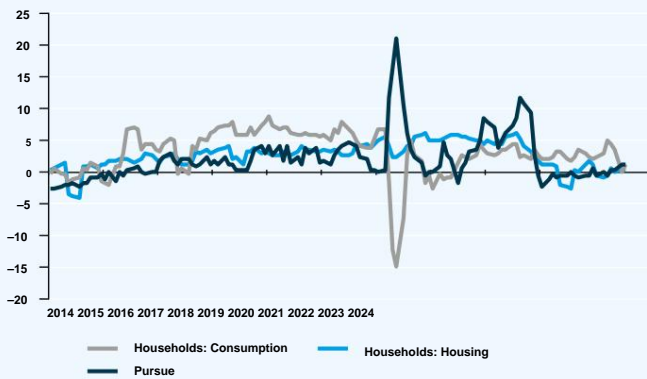
(f) Change in euro exchange rates6

Legend: USD/EUR | GBP/EUR | normal effective exchange rate
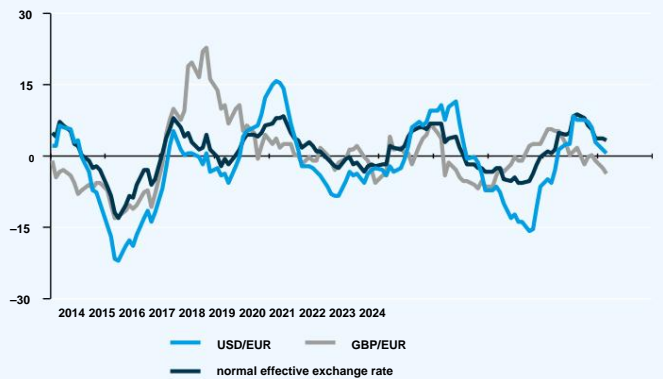
1 The Euro Short-Term Rate €STR replaces the previous overnight reference interest rate EONIA, which was discontinued at the end of 2021. The Euro Short-Term Rate has been available since October 2, 2019; for the period before that, the EONIA minus 8.5 basis points is shown.

2 Corporate bonds = yields for bonds from companies with the highest (AAA) or medium (BBB) credit rating and a remaining term of ten years. Government bonds = yields for bonds from the entire euro area and from euro area countries with the highest credit rating (AAA) and a remaining term of ten years.

3 Interest rates on loans to non-financial corporations and on loans to households for consumption or for new housing construction.

4 Difference between overnight index swaps (OIS) and inflation-indexed swaps (inflation expectations and inflation risk premium) in the euro area for a term of one year and ten years, respectively.

5 Loan stocks of non-financial corporations and households for consumption and housing construction respectively (three-month moving average of changes compared to the previous month, in %, annualised, seasonally adjusted).

6 Annual growth rates in %. Nominal effective exchange rate for 41 partner countries of the euro area.

Sources: European Central Bank; Macrobond; LSEG Datastream; calculations by the institutes.

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The ECB is continuing to reduce its bond holdings . Since July 2023, all repayments from the holdings of the asset purchase programme (APP) have not been reinvested. This has since led to an average reduction in holdings of EUR 27 billion per month. In addition, in December 2023 the ECB decided to reduce the holdings of the Pandemic Emergency Purchase Programme (PEPP) by EUR 7.5 billion per month in the second half of 2024 and to stop reinvesting completely from the beginning of 2025 , which means a reduction in holdings of an average of EUR 15 billion per month. The current holdings under the two purchase programmes are so high at around EUR 4,435 billion that at this rate of reduction they would only be fully liquidated in around nine years. Taken on its own, the reduction in the purchase programmes is likely to have a slightly increasing impact on long-term capital market interest rates.

The institutes assume that the ECB Governing Council will decide on further interest rate cuts. At the end of 2024, the deposit rate is expected to be 3.25%. By the summer of 2025, it is expected to be reduced to 2.25%.
The main refinancing rate will then be reduced accordingly to 2.4% and the marginal lending rate to 2.65%.

Given the decline in nominal interest rates, short-term real interest rates are likely to approach the level of longer-term real interest rates by the summer of 2025. Monetary policy should then be roughly neutral.

Of course, the high interest rate phase will continue to have an impact for some time , for example because higher-interest loans will continue to run and limit the scope for investment. Since money market rates will continue to be based on the deposit rate during the forecast period , the three-month Euribor, which was just under 3.5% at the beginning of September, is likely to fall to 2.25% by the end of the forecast period.

On the European capital markets, government bonds yielded just under 3% at the beginning of September, around 0.7 percentage points lower than the highest monthly value in the previous year (October 2023). The development was also driven by the international interest rate context and the lower yields in the USA. With inflation declining globally, interest rate cuts also became more likely in this country and long-term yields fell accordingly. The expected key interest rate cuts are now likely to have been priced in here , so that a stable interest rate of around 2.9% on government bonds can be expected for the remainder of the forecast period.

The yields on long-term bonds of non-financial companies are also likely to remain at their current levels.

The declines in the effective interest rates for real estate and corporate loans were 0.3 and 0.2 percent respectively.

percentage points weaker. Further declines in new business are expected until the summer of 2025.
Since spring, there has been a slight increase in the volume of credit in the private sector. In the forecast period , the volume of credit, particularly for real estate financing, is likely to increase slightly, partly due to the lower interest rates .

Fiscal policy is gradually becoming restrictive

At 3.6% of gross domestic product, the aggregate budget deficit of the member states in the euro area in 2023 was almost the same as in the previous year and thus significantly higher than expected in the spring. The phasing out of discretionary measures was offset by higher spending and lower tax revenues as a result of the weak economy.10 Accordingly, according to the latest estimates of the European Commission, the structural (i.e. adjusted for the cyclical component) general government financing balance improved by 0.5 percentage points to -3.6% in 2023, indicating a tightening of fiscal policy.

However , adjusted for the additional government revenues that flowed to the member states as transfers under the EU's Recovery and Resilience Facility (ARF), the degree of restriction was significantly lower. The ECB even assesses the direction of fiscal policy as neutral.11

Budget deficits are likely to decline only gradually over the forecast period. On the one hand, the expiry of the remaining support measures in connection with the energy crisis is unlikely to improve budgets significantly, as these measures are already barely effective given the now lower energy prices and are therefore leading to lower spending. In addition, falling interest rates are unlikely to reduce budget deficits, particularly in the highly indebted countries, as the effective interest rate on public debt has so far only increased slightly due to the long maturities. While the overall fiscal policy course is likely to become restrictive, the funds from the ARF will continue to provide considerable expansionary impulses, especially for public investment.

Among the five largest economies in the euro area, France and Italy continue to have budget deficits over the forecast period that are well above the 3% limit set by the Stability and Growth Pact (Table 1.3, page 26). In summer 2024, the European Council decided to initiate an excessive deficit procedure against seven member states, including France and Italy.

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10 **European Commission:** Spring 2024 Economic Forecast https://economy-finance.
ec.europa.eu/document/download/c63e0da2-c6d6-4d13-8dcb-646b0d1927a4_en?fi-
lename=ip286_en.pdf

11 **ECB:** Macroeconomic projections September 2024, https://www.ecb.europa.
eu/press/projections/html/ecb.projections202409_ecbstaff~9c88364c57.en.html#toc5

Table 1.3

Fiscal balances of public budgets in selected euro area countries

In % of nominal gross domestic product1

	2022	2023	2024	2025	2026
Germany	−2,6	−2,1	−2,1	−1,9	−1,9
France	−4,8	−5,5	−5,1	−4,8	−4,1
Italy	−8,6	−7,4	−4,5	−4,9	−3,9
Spain	−4,7	−3,6	−2,7	−2,2	−2,0
Netherlands	−0,1	−0,3	−2,1	−2,7	−3,0
Eurozone2	**−4,1**	**−3,4**	**−3,3**	**−3,3**	**−2,9**

1 According to the definition of the Treaty of Maastricht.
2 Sum of the countries; weighted by gross domestic product.

Sources: Eurostat; European Commission; 2024 to 2026: Institutes' forecast.

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Table 1.4

Key data on economic development in the euro area

	2023	2024	2025	2026
Change compared to the previous year in %, price-adjusted				
gross domestic product	0,4	0,8	1,4	1,5
Domestic use	0,2	−0,4	1,2	1,4
private consumption	0,7	0,7	1,2	1,4
government consumption	1,2	1,7	1,3	1,2
gross fixed capital formation	0,9	−1,3	3,0	1,7
inventory changes1	−0,6	−0,2	0,0	0,0
external contribution1	0,2	0,3	0,0	0,1
Export	−0,5	2,2	3,9	3,8
Imported	−0,9	0.0	3,9	3,9
consumer prices2	5,3	2,4	2,1	2,0
in % of nominal gross domestic product				
Budget balance3	−3,6	−3,3	−3,3	−2,9
current account balance	1,5	3,3	3,3	2,8
in % of the workforce				
unemployment rate4	6,5	6,4	6,3	6,2

1 expansion contribution.
2 Harmonized Index of Consumer Prices.
3 General government, calculated for the aggregate of the five largest euro area countries.
4 Standardized.

Sources: Eurostat; European Commission; Institute calculations; 2024 to 2026: forecast
the institutes.

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Outlook: Economic momentum will not pick up until 2025

The leading indicators currently provide little indication of a stronger economic recovery. Thus, the overall economic expansion is likely to continue with almost unchanged momentum in the second half of 2024.

Monetary policy continues to have a braking effect. The momentum in the services sector, which has recently supported the economy, is likely to decline. In countries where tourism has recently reached a very high level, capacity bottlenecks are becoming increasingly noticeable. At the same time, the signals in the manufacturing industry currently continue to point to a downturn. A recovery in this economic sector is not expected until next year . All in all, real gross domestic product will rise by 0.8% in 2024, somewhat more than in the previous year, but will probably continue to grow more slowly than production potential. In the coming year, the easing of monetary policy should then gradually stimulate the economy. The construction industry in particular will pick up somewhat, and demand for intermediate goods will also rise. While the easing of monetary policy is essentially stimulating investment , consumer spending is likely to benefit from real wage increases (Table 1.4, page 26). Gross domestic product is expected to grow by 1.4% in 2025 and by 1.5% in 2026 (Table 1.5, page 27).

Inflation is likely to continue to fall over the forecast period and reach the ECB's inflation target of 2% in 2026. However, due to the volatility of the energy price component, the development will not be steady. The core rate will remain significantly elevated for some time due to persistently high price increases in services. Unemployment will fall in most member states over the entire forecast period. In a number of countries, the labor shortage will continue to increase, so that wage developments will be supported from this side. The unemployment rate in the euro area will probably average 6.4% in 2024 and fall to 6.3% and 6.2% in the two following years.

Table 1.5

Gross domestic product, consumer prices and unemployment rate in the European Union

	weight (GDP) inÿ%	Gross domestic product1				consumer prices2				unemployment rate3			
		Changes compared to the previous year in %								inÿ%			
		2023	2024	2025	2026	2023	2024	2025	2026	2023	2024	2025	2026
Germany	24,3	−0,1	−0,1	0,9	1,2	6,1	2,4	2,0	2,0	3,0	3,3	3,2	3,2
France	16,5	1,1	1,1	1,2	1,5	5,7	2,5	2,0	1,9	7,4	7,4	7,4	7,3
Italy	12,3	1,0	0,8	1,1	1,0	6,0	1,2	1,9	2,0	7,7	7,0	6,9	6,9
Spain	8,6	2,5	2,7	1,8	1,8	3,4	3,0	2,2	2,1	12,2	11,6	11,3	11,4
Netherlands	6,1	0,1	0,6	1,6	1,5	4,2	3,2	2,3	1,9	3,6	3,6	3,5	3,5
Belgium	3,4	1,4	1,2	1,4	1,6	2,3	3,9	2,6	2,2	5,5	5,7	5,4	5,3
Ireland	3,0	−5,2	−1,9	3,5	3,6	5,2	1,7	1,9	1,9	4,3	4,4	4,4	4,4
Austria	2,8	−0,7	0,0	1,0	1,6	7,8	3,0	2,3	2,1	5,1	5,0	5,0	4,9
Finland	1,6	−1,2	−0,2	1,9	1,7	4,4	1,0	1,8	1,9	7,2	8,1	7,6	7,2
Portugal	1,6	2,3	1,8	2,0	2,1	5,3	2,5	2,0	2,0	6,6	6,5	6,3	6,2
Greece	1,3	2,0	2,5	2,1	2,0	4,2	2,8	1,9	2,0	11,0	10,2	9,4	9,1
Slovakia	0,7	1,6	2,2	2,3	2,5	11,1	2,8	2,8	2,5	5,9	5,5	5,4	5,2
Luxemburg	0,5	−1,1	1,1	2,4	2,4	2,9	2,5	2,0	2,0	5,2	5,6	5,3	5,2
Croatia	0,4	3,1	3,6	2,6	2,5	8,5	3,4	2,7	2,2	6,1	5,8	5,5	5,5
Lithuania	0,4	−0,3	2,2	2,8	3,1	9,0	1,1	2,2	2,2	6,9	7,5	7,2	6,9
Slovenia	0,4	1,9	1,2	2,3	2,2	7,3	2,1	1,8	2,1	3,7	3,2	3,1	3,1
Latvia	0,2	0,0	0,6	2,3	2,7	9,5	1,2	2,0	2,1	6,5	6,8	6,4	6,1
Estonia	0,2	−3,1	−0,3	3,3	3,5	9,4	3,2	2,4	2,2	6,4	7,5	7,2	6,8
Cyprus	0,2	2,5	3,3	2,1	2,2	4,0	2,0	2,0	2,1	5,9	4,9	4,6	4,5
Malta	0,1	7,8	4,1	3,8	3,6	5,6	2,4	2,3	2,2	3,1	3,0	2,9	2,8
euro area as a whole	**84,7**	**0,5**	**0,8**	**1,4**	**1,5**	**5,3**	**2,4**	**2,1**	**2,0**	**6,6**	**6,4**	**6,3**	**6,2**
... without Germany	60,4	0,8	1,1	1,5	1,6	5,1	2,4	2,1	2,0	7,9	7,5	7,4	7,3
Poland	4,4	0,1	3,3	3,6	3,4	11,0	3,7	3,7	3,0	2,8	2,9	2,8	2,7
Sweden	3,2	−0,1	0,5	1,9	2,1	6,0	2,1	1,9	2,0	7,7	8,2	7,8	7,4
Denmark	2,2	2,5	1,6	2,1	2,1	3,4	1,4	2,0	1,9	5,1	5,7	5,3	5,0
Romania	1,9	2,1	1,8	3,2	3,4	9,8	5,9	4,1	3,3	5,6	5,3	5,2	5,1
Czech Republic	1,8	0,0	1,0	2,7	2,8	12,1	2,4	2,1	2,1	2,6	2,8	2,6	2,4
Hungary	1,2	−0,7	1,6	3,1	3,5	17,5	4,2	4,1	3,3	4,0	4,4	4,1	3,9
Bulgaria	0,6	2,0	2,3	3,0	2,7	8,7	2,9	2,6	2,3	4,3	4,4	4,0	4,1
EU-274	**100,0**	**0,5**	**0,9**	**1,6**	**1,7**	**5,8**	**2,5**	**2,2**	**2,1**	**6,0**	**5,9**	**5,8**	**5,7**
CEE Countries5	12,2	0,6	2,2	3,1	3,1	10,0	3,6	3,3	2,8	4,0	4,1	3,9	3,8

1 The growth rates are adjusted for price, seasonal and calendar effects.

2 Harmonized Index of Consumer Prices.

3 Standardized.

4 Sum of the countries listed. Gross domestic product and consumer prices weighted by the gross domestic product of 2023 in US dollars.
  Unemployment rate weighted by the number of employed persons in 2023.

5 Central and Eastern European countries: Slovakia, Croatia, Lithuania, Slovenia, Latvia, Estonia, Poland, Romania, Czech Republic, Hungary, Bulgaria.

Sources: Eurostat; IMF; Institute calculations; 2024 to 2026: Institute forecast.

Box 1.1

On the new monetary policy ECB's framework for action

In March 2024, the ECB decided to adjust its monetary policy framework.1 Among other things , it was planned to reduce the interest rate differential between the deposit rate (lower limit) and the main refinancing rate (middle) or marginal lending rate (upper limit) (Figure 1.9, page 28). This was implemented in September. The differential between the deposit rate and the main refinancing rate shrank from 0.5 to 0.15 percentage points. The marginal lending rate followed suit and remains 0.25 percentage points above the main refinancing rate. With the interest rate move in September, the main refinancing rate thus fell by 0.6 percentage points, while the monetary policy impulse was only -0.25 percentage points.

---

1 According to the ECB, the monetary policy framework is designed to "support short-term monetary market rates so that they are as closely as possible consistent with the monetary policy decisions of the Governing Council." (ECB Press Release, 13 March 2024 https:// www.ecb.europa.eu/press/pr/date/2024/html/ecb.pr240313~807e240020.de.html).

Overall, excess reserves remain high, so that the deposit rate continues to be the relevant key interest rate. This system was only established in recent years . At the start of the monetary union, the ECB operated in a system of scarce reserves and was able to control the supply of reserves in the banking system with its original open market operations (two- week main refinancing operations and three-month longer-term refinancing operations). For example, a more generous provision led to an increased supply of reserves in the banking system and thus to a falling interest rate on the interbank money market. The limited amount of refinancing operations offered was auctioned in a competitive process.

Banks that needed liquidity and were unable to access it borrowed the reserves from other banks with excess liquidity. Money market rates thus moved very close to the main refinancing rate.

In 2008, the ECB fought the recession in the wake of the financial crisis by significantly lowering key interest rates . In order to provide banks with additional liquidity,

Figure 1.9

interest rate corridor and central bank reserves1
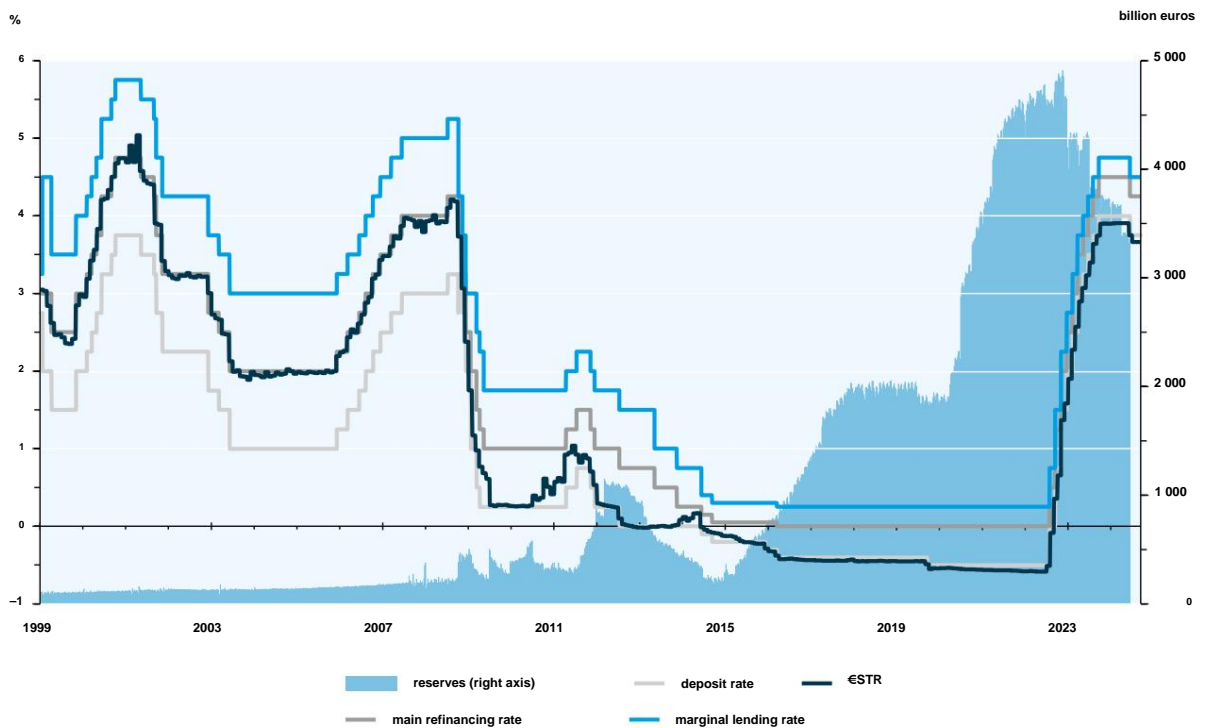
1 The Euro Short-Term Rate €STR replaces the previous overnight reference rate EONIA, which was discontinued at the end of 2021. The Euro Short-Term Rate has been available since October 2, 2019; for the period before that, the EONIA minus 8.5 basis points is shown. The figure shows a moving monthly average.

Sources: European Central Bank; LSEG Datastream; calculations by the institutes.

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In order to increase liquidity and prevent bank insolvencies, the ECB switched to the full allotment system, ie every demand from the banks was met by the provision of corresponding refinancing operations. This temporarily increased the amount of reserves in the banking system . Accordingly, there were stronger fluctuations in the money market rates around the main refinancing rate , often downwards.

With the start of quantitative easing through bond purchase programs in 2015, the amount of reserves rose sharply. Since reserves were no longer scarce, the interest rate on the money market fell to the lower limit of the interest rate band (deposit rate). In principle, banks are only willing to lend reserves at a higher interest rate than they themselves earn on a deposit with the ECB. However, since excess reserves have narrowly limited the demand for reserves on the money market, there have been very low transaction volumes there since then.

Although the excess reserves have declined slightly since their peak of over EUR 4,500 billion in mid-2022, the current reduction path of the bond portfolio means that it will take another nine years for them to be completely reduced . The amount of excess reserves is therefore expected to remain high for the foreseeable future . This is in line with the ECB's stated aim of continuing to control the monetary policy stance via the deposit facility rate.

In light of the experience of the US Federal Reserve in 2019, when there were strong fluctuations in the money market as a result of the reduction of excess reserves ,2 the ECB has now narrowed the interest rate differential as a preventive measure, so that the money market interest rate would jump by a maximum of 0.15 percentage points on the main refinancing rate. The volatility of interest rates on the money market is thus limited.

On the other hand, this reduces the incentives for an active interbank market, because banks can earn less than 0.15 percentage points if they offer reserves on the money market. A revival of the interbank market therefore seems unlikely, not least because the ECB wants to maintain full allotment of refinancing operations . In the medium term, the ECB plans to continue to hold securities holdings (structural bond portfolio), which, together with new structural longer-term refinancing operations, should help to cover the banking sector's liquidity needs.3 The interest rate on the deposit facility will therefore probably remain the key interest rate that determines the money market in the medium term. However, the reduction in the main refinancing rate represents a significant reduction in the refinancing costs of banks that do not have large excess reserves.

2 **Anbil, S.; Anderson A.; Senyuz Z.:** What Happened in Money Markets in September 2019?, in: FEDS Notes. Washington: Board of Governors of the Federal Reserve System, February 27, 2020, (https://www.federalreserve.gov/econres/notes/feds-notes/what-happened-in-money-markets-in-september-2019-20200227.html).

3 **Schnabel, I.:** The Eurosystem's operational framework, in: speech at the Money Market Contact Group meeting, 2024.

Focus: On the economic policy Implications of the growing Populism in Europe

Since the financial crisis, populist parties have been playing an increasingly important role worldwide and in Europe in particular.12 This development can have consequences for European economic policy if populist parties systematically favor different policy measures than established parties. Against this background, after defining terms, typical economic policy positions of populist parties are identified and the economic consequences of populist economic policy are shown.

definitions

According to a broad definition, populists are characterized by an antagonism between

between the "people" and the "established elites".13 Accordingly, populist parties present themselves as the true representatives of the people's interests against the "corrupt elites". In addition, the people are often ascribed a national identity that is in contrast to the elites' globalization projects.

electoral successes and possible causes

In Europe, parties classified as populist have seen a strong increase in support since the 2000s (Figure 1.10, page 30). Between 2000 and 2023, their share of the vote grew from around 12% to more than 24%. This is almost exclusively due to the growth of right-wing populist parties.14 In the literature, both

13 **Mudde, C.:** Populist radical right parties in Europe, In: Cambridge University Press, 2007. Rodrik, D.: Is Populism Necessarily Bad Economics?, In: AEA Papers and Proceedings, 108: 196–99, 2018. **Guriev, S.; Papaioannou, E:** The political economy of populism, In: Journal of Economic Literature 60.3: 753–832, 2022.

14 **Scheiring, G; Serrano-Alarcón, M; Moise, A; McNamara, C; Stuckler, D:** The Populist Backlash Against Globalization: A Meta-Analysis of the Causal Evidence, In: British Journal of Political Science, 54(3):892–916, 2024; **Rodrik,D.:** Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism, In: Annual Review of Economics 13.1: 133–170, 2021.

12 **Rodrik, D.:** Is Populism Necessarily Bad Economics?, In: AEA Papers and Proceedings, 108: 196–99, 2018. **Algan, Y.; Guriev, S; Papaioannou, E; Passari,E:** The European trust crisis and the rise of populism, In: Brookings Papers on Economic Activity Fall: 309–400, 2017. **Funke, M.; Schularick, M; Trebesch,C:** Populist leaders and the economy, In: American Economic Review 113.12: 3249–3288, 2023.

cultural and economic causes identified:15

Xenophobia is a prominent cultural factor.16 Economic factors are often financial crises that lead to the rise of populist forces.17 Furthermore, the displacement of domestic production by imports from China is identified as a driving force for growing populism.18 In Germany, populist parties are attracting support from people whose jobs are threatened by international competition or structural change, such as increasing automation.19 In addition, specific economic problems are significant in individual countries . These include, for example, the role of cuts in government spending in the Brexit vote20, the indebtedness of private households in foreign currency in Hungary21, or mismanagement of public funds in France22.

Economic policy positions of populist parties

The positions of right-wing and left-wing populist parties on economic policy issues in the EU member states have been recorded by the Chapel Hill Survey since 1999.23 Parties are classified within the political spectrum on the basis of expert surveys .

However, the demarcations do not fully correspond to the definition of populist parties used here. However, it is clear that extreme parties, both on the left and right of the spectrum, are characterized by a pronounced anti-establishment and anti-elite rhetoric , which is the essential characteristic of populist parties (Figure 1.11, page 31).

The Chapel Hill Survey also includes the parties' positions on immigration policy and the internal market (free mobility of goods, services, capital and labour within the EU). Right-wing extremists advocate a very restrictive immigration policy and speak out against the internal market. Left-wing extremists often support a liberal immigration policy, but have a similarly critical view of the internal market (Figure 1.12, page 31).

A European economic policy that is more strongly influenced by populist parties would therefore be expected to tend towards a move away from the European internal market and towards more national protectionism.24

15 *Rodrik,D.:* Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism, In: Annual Review of Economics 13.1: 133–170, 2021.

16 *Becker, S. O.; Fetzer, T.:* Does migration cause extreme voting, In: Center for Competitive Advantage in the Global Economy and The Economic & Social Research Council: 1–54, 2016. *Dustmann, C.; Vasiljeva, K.; Piil Damm, A.:* Refugee Migration and Electoral Outcomes, In: The Review of Economic Studies 86.5: 2035–2091, 2018. *Edo, A.; Giesing, Y.; Öztunc, J.; Poutvaara, P.:* Immigration and electoral support for the far-left and the far-right, In: European Economic Review 115: 99–143, 2019.

17 *Mian, A.; Sufi, A.; Trebbi, F.:* Resolving Debt Overhang: Political Constraints in the Aftermath of Financial Crises, In: American Economic Journal: Macroeconomics 6.2: 1–28, 2014; *Doerr, S.; Gissler, S.; Peydró, J.-L.; Voth, H.-J.:* Financial crises and political radicalization: How failing banks paved Hitler's path to power. The Journal of Finance, 77 (6), 3339–3372, 2022. *Hüttl, P.; Baumgartner, S.:* When Credit Turns Political: Eviden-ce from the Spanish Financial Crisis, DIW Berlin Discussion Paper No. 2042, 2024.

18 This is especially true for the USA. *Autor, D.; Dorn, D.; Hanson, G.; Majlesi, K.:* Im-porting Political Polarization? The Electoral Consequences of Rising Trade Exposure". In: American Economic Review 110.10: 3139–83, 2020.

19 *Franz, C.; Garamow, A.; Kritikos, A.; Kriwoluzky, A.; Fratzscher, M.:* Economy, demography and structural grievances: The factors behind the success of the AfD in the 2024 European elections, In: DIW Weekly Report 91.30: 479–488, 2024.

20 *Becker, S.; Fetzer, T.; Novy, D.:* Who voted for Brexit? A comprehensive district-level analysis, In: Economic Policy 32.92: 601–650, 2017.

21 *Gyöngyösi, G.; Verner, E.:* Financial crisis, creditor debtor conflict, and populism, In: The Journal of Finance 77.4: 2471–2523, 2022.

22 *Sartre, E.; Gianmarco, D.:* Toxic Loans and the Rise of Populist Candidacies, In: SSRN Working Paper, 2021.

23 *Jolly, S.; Bakker, R.; Hooghe, L.; Marks, G.; Polk, J.; Rovny, J.; Steenbergen, M.; Vachudova, M. A.:* Chapel Hill expert survey trend file, 1999–2019, In: Electoral studies 75: 102420, 2022.

24 *Funke, M.; Schularick, M.; Trebesch, C.:* Populist leaders and the economy, In: Ameri-can Economic Review 113.12: 3249–3288, 2023.

Figure 1.10

Voter share of populist parties in Europe

Inÿ%

Voter shares in national elections in Europe (EU-27 plus Great Britain, Iceland, Norway, Switzerland, Serbia and Montenegro).

Source: Timbro Authoritarian Populism Database, https://populismindex.com/ (accessed September 12, 2024).

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This is consistent with the fact that populist governments often rely on protectionist measures such as tariffs and import restrictions to protect domestic industry . This may at best secure jobs in the short term, but it harms consumers and can lead to trade conflicts and impair competitiveness.

consequences of populist economic policy

The economic consequences of populism have been examined in a number of empirical studies. For the period from 1900 to 2020, it can be seen that 15 years after populist governments came to power, gross domestic product per capita is around 10% below what would otherwise have been possible, which equates to an annual loss of growth of around 0.7 percentage points.25 With regard to the specific policy measures identified in the previous section as being preferred by populist parties, such as restrictive migration and protectionism, Brexit in Great Britain

and the trade conflict between the USA and China can be used as widely analyzed case studies. While the economic costs of Brexit alone are estimated at 2.5% of gross domestic product by the end of 2018,26 various studies also show negative effects for the trade conflict initiated

by President Trump , both for the US economy and abroad, especially China.27

Figure 1.11

Expression of anti-establishment and anti-elite rhetoric of the parties

Survey result: 0 = very weak, 10 = very strong

Sources: Chapel Hill Survey, March 2024. Survey in 2023. The classification of the parties follows the Chapel Hill Survey; calculations of the institutes.

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With regard to migration policy, there is a risk, among other things , that the emergence of populist parties could deter well-educated and particularly productive population groups, as they often have a preference for cultural diversity.28 This would weaken innovation and competitiveness and affect investment activity. A business survey shows that 69% of the companies surveyed in Germany classify the AfD party as a risk to Germany as a location.29 In the long term , these factors endanger the economic stability and economic growth of the regions affected.

Figure 1.12

Positions of national parties on Migration Policy and the EU Internal Market

Survey result: Position on migration policy: 1 = strongly liberal, 10 = strongly restrictive; Position on Internal Market: 1 = strongly in favor, 10 = strongly against

■ position on migration policy

■ Position on the internal market and the free movement of capital and labour
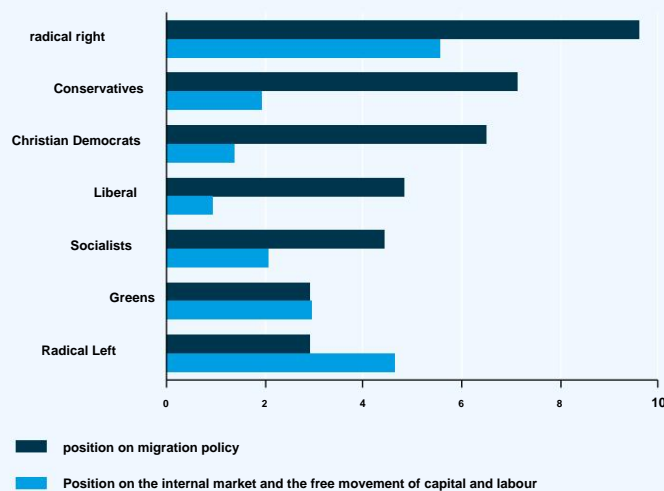
Sources: Chapel Hill Survey, 2019. The classification of the parties follows the Chapel Hill Survey; calculations of the institutes.

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25 Funke et al. (2023) aaO The growth of real gross domestic product 15 years before and after the populists took power is examined using the "synthetic control" method. For each populist-governed economy, a counterfactual equivalent is constructed from a large number of non-populist countries and the actual development is compared with the development of this synthetic economy.

26 **Born, B.,; Müller, G. J.; Schularick, M.; Sedláýek, P.:** The costs of economic natio-nalism: evidence from the Brexit experiment, In: The Economic Journal, 129(623): 2722–2744, 2019.

27 **Fajgelbaum, P. D.; Goldberg, P.K.; Kennedy, P.J.; Khandelwal,A.K.:** The return to pro-tectionism, In: The Quarterly Journal of Economics, 135(1): 1-55, 2020. **Boer, L.; Menk-hoff, L.; Rieth, M.:** The multifaceted impact of US trade policy on financial markets, In: Journal of Applied Econometrics, 38(3): 388-406, 2023. **Ferrari Minesso, M.; Kurcz, F.; Pagliari, M. S.:** Do words hurt more than actions? The impact of trade tensions on financial markets, In: Journal of Applied Econometrics, 37(6): 1138–1159, 2022.

28 **Ottaviano, G. I.P.; Peri, G.:** The economic value of cultural diversity: evidence from US cities. Journal of Economic Geography 6 (1): Pages 9–44, 2006. **Behrens, K.; Duranton, G.; Robert-Nicoud, F.:** Productive Cities: Sorting, Selection, and Agglomeration, Journal of Political Economy, 122 (3): 507–553, 2014.

29 **Knut Bergmann, K.; Diermeier, M.:** European elections: Every second company publicly speaks out against the AfD, German Economic Institute, 2024, online at: https://www.iwkoeln.de/presse/pressemitteilungen/matthias-diermeier-knut-bergmann-jedes-zweite-unternehmen-macht-sich-oeffentlich-gegen-die-afd-stark. html [accessed on: 11.09.2024].

2. Situation and forecast of the German economy

overview

The German economy has been treading water for over two years . As expected by the institutes, economic output increased slightly at the beginning of the year, but shrank again in the second quarter. A slow recovery is likely to set in in the coming quarters , but economic growth in Germany will no longer be able to continue the trend from before the COVID-19 pandemic - because the pronounced phase of weakness has not only cyclical causes. Decarbonization , demographic change and probably also increased competition with companies from China have triggered structural adjustment processes in Germany that are dampening the long-term growth prospects for the German economy. Since the pandemic, production potential has been repeatedly revised downwards and is almost 4% lower in 2024 than forecast by the institutes in autumn 2019.

The overlapping effects of structural change and economic downturn are particularly evident in the manufacturing sector. Capital goods manufacturers and production in energy-intensive industries are particularly affected. Their competitiveness is suffering from the increased energy costs.

and increasing competition from high-quality industrial goods from China, which are displacing German exports on the world markets. The effects of the structural adjustment process are difficult to estimate because indicators of economic performance paint different pictures. Although gross value added in the manufacturing sector has largely stagnated since 2018, production has fallen by more than 12% in the same period. This gap reflects a structural change in which the manufacturing sector is increasingly providing accompanying services that have so far compensated for the decline in industrial production.

In economic terms, however, the manufacturing sector is also suffering from the weak global industrial economy and the associated lack of new orders. The reported order backlog is still high.
However, orders from the pandemic period often cannot be processed profitably due to increased prices. Companies are therefore producing significantly less than their production capacities would allow. This underutilization has recently increased. The consequences of the weakening of the economy are being mitigate

Table 2.1

Quarterly data on the development of the expenditure components of gross domestic product1

Change compared to the previous quarter in %

	2023				2024				2025				2026			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
private consumption expenditure	−0,4	0,8	−0,0	−0,0	0,3	−0,2	0,1	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,2	0,1
Public consumption	0,2	−0,2	1,2	0,7	−0,1	1,0	0,3	0,2	0,2	0,3	0,3	0,2	0,2	0,2	0,2	0,2
buildings	1,3	−0,7	−1,3	−1,9	0,8	−2,0	−0,9	−0,2	0,2	0,4	0,5	0,6	0,5	0,5	0,5	0,4
equipment	−1,0	−0,2	0,5	−2,1	−1,6	−4,1	−0,7	0,2	0,5	0,7	1,0	1,0	1,0	1,1	1,1	1,1
Other facilities	1,7	1,0	0,9	1,4	1,4	0,6	0,4	0,4	0,8	0,8	0,8	0,8	0,6	0,6	0,5	0,5
inventory investments2	−0,3	−0,1	−0,2	−0,7	−0,1	0,4	−0,0	0,0	−0,0	−0,0	0,0	0,0	0,0	−0,0	−0,0	−0,0
Domestic use	−0,3	0,2	−0,1	−0,9	0,0	0,0	0,0	0,3	0,3	0,4	0,4	0,3	0,3	0,3	0,3	0,2
external contribution2	0,5	−0,4	0,3	0,5	0,2	−0,1	−0,2	−0,1	−0,0	0,0	−0,0	−0,0	−0,1	−0,1	−0,1	−0,1
Export	0,2	−0,4	−0,7	−0,9	1,3	−0,2	0,0	0,3	0,6	0,7	0,6	0,5	0,4	0,3	0,3	0,3
Imported	−1,0	0,5	−1,4	−2,0	0,8	0,0	0,4	0,5	0,6	0,7	0,7	0,7	0,6	0,5	0,5	0,5
gross domestic product	0,1	−0,2	0,2	−0,4	0,2	−0,1	−0,1	0,2	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,1

1 Values adjusted for price, season and calendar.
2 Contribution to the change in gross domestic product in percentage points (Lundberg components).

Sources: Federal Statistical Office; from the third quarter of 2024: forecast of the institutes.

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in the manufacturing sector due to the partly strong increase in gross value added in the service sectors, particularly those dominated by the state.

The ongoing weakness in investment is symptomatic of the problems in the manufacturing industry. Private investment in equipment has been in free fall for four quarters. In addition, German foreign trade has hardly benefited from the revival in world trade recently . German exports of capital goods in particular have been weak. In terms of the economy in Germany, the still high interest rates and the increased economic and geopolitical uncertainty are likely to have put a strain on companies' investment activities and private households' willingness to buy . Construction investment does not appear to have bottomed out yet .

Private consumption was able to support the economy in the first half of the year, but the hoped-for recovery failed to materialize despite a sharp rise in real disposable income. Private households increasingly put their income aside instead of spending it on consumer goods. This was probably mainly due to increasing uncertainty about the economic policy environment and, increasingly , concerns about their own jobs. The savings rate has increased for five quarters in a row and was most recently 11.3%, almost half a percentage point above its long-term level (Chapter 5, page 73).

A dynamic recovery is not expected in the forecast period, as the structural adjustment processes are ongoing and the economic constraints are only likely to be gradually removed. Overall, the leading indicators for the third quarter suggest that economic output will fall slightly again. From the end of the year, gross domestic product is then likely to expand at moderate rates (Table 2.1, page 32).

The narrow recovery is likely to be driven by increasing private consumption (Table 2.2, page 33), which is supported by strong increases in real disposable income . German foreign trade is likely to pick up again somewhat in the next two years. Due to increased competition from Chinese goods, German exports and imports are unlikely to benefit from increases in world trade to the extent they did before the pandemic began . However, they are being stimulated by the fact that the economy in neighboring European countries, the most important sales markets for German suppliers, is likely to pick up. Together with more favorable financing conditions, this will benefit capital investment.

Value creation in the manufacturing sector should also benefit from this and return to pre-pandemic levels by the end of 2026.

Table 2.2

Contributions to the change in gross domestic product

Price-adjusted, in percentage points

	growth contributions				import-adjusted growth contributions1			
	2023	2024	2025	2026	2023	2024	2025	2026
consumer spending	−0,2	0,6	0,8	0,7	−0,1	0,6	0,5	0,4
private households	−0,2	0,2	0,5	0,5	−0,1	0,2	0,3	0,3
Stands	−0,0	0,4	0,3	0,2	0,0	0,4	0,2	0,2
gross fixed capital formation	−0,3	−0,7	0,1	0,7	−0,2	−0,4	0,0	0,4
buildings	−0,4	−0,4	−0,0	0,3				
equipment	−0,1	−0,4	0,0	0,3				
Other facilities	0,2	0,1	0,1	0,1				
inventory changes	0,1	−0,4	0,1	−0,0	0,1	−0,4	0,0	0,0
Domestic use	−0,4	−0,5	0,9	1,4	−0,2	−0,2	0,5	0,8
external contribution	0,1	0,4	−0,2	−0,1				
Export	−0,1	−0,0	0,7	1,0	0,0	0,1	0,2	0,4
Imported	−0,3	−0,4	0,8	1,1				
Gross domestic product2	**−0,3**	**−0,1**	**0,8**	**1,3**	**−0,3**	**−0,1**	**0,8**	**1,3**

1 Use aggregates minus their import content.
2 Change compared to previous year in %; deviations in the totals are due to rounding of the figures.

Sources: Federal Statistical Office; calculations of the institutes; 2024 to 2026: forecast of the institutes.

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Figure 2.1

gross domestic product

Price, season and calendar adjusted

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024:
forecast of the institutes.

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To strengthen economic growth, the Federal Government has presented a package of 49 measures in the form of a "growth initiative". These are aimed at strengthening the supply of labour and improving the framework conditions for companies. Some of these proposals address the removal of a number of obstacles to production, such as unnecessary bureaucracy, but they remain quite vague. The initiative also contains a number of concrete proposals for regulatory changes, which will probably only be implemented with great effort.

implemented or are likely to have an effect with a longer delay. The measures specified in terms of fiscal policy, however, are taken into account in this forecast. These are essentially extensions and expansions of existing measures, such as the correction of bracket creep or the expansion of the regulations on declining-balance depreciation.

Some of these were already taken into account in earlier reports of the joint diagnosis or prevent a restrictive impulse by eliminating measures that were previously only introduced temporarily. The growth impulse of the initiative is therefore of little importance for the forecast (section: "Continued high deficits in public budgets, page 53").

Table 2.3

Statistical Components of the Rate of Change of Gross Domestic Product

Price-adjusted, in %

	2023	2024	2025	2026
Statistical overhang1	−0,1	−0,2	0,1	0,5
annual rate2	−0,2	0,2	1,3	0,8
Average change, calendar adjusted	−0,1	−0,1	0,9	1,0
calendar effect3	−0,2	−0,0	−0,1	0,3
Average change	−0,3	−0,1	0,8	1,3

1 Price, seasonally and calendar adjusted GDP in the fourth quarter of the previous year in relation to the quarterly average of the previous year.

2 Price, seasonally and calendar adjusted GDP in the fourth quarter in relation to the corresponding quarter of the previous year.

3 In % of price-adjusted GDP.

Sources: Federal Statistical Office; 2024 to 2026: Institutes' forecast.

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Fiscal policy is likely to be slightly restrictive in the current and coming year. In the current year, the elimination of aid measures taken to cushion the energy crisis is leading to lower expenditure compared to the previous year. In the coming year, the contribution burden on employee wages will increase significantly, which in itself will ease the burden on the budget.

However, this is offset by increased spending on social security. In 2026, fiscal policy will then be more or less neutral.

All in all, gross domestic product is expected to fall by 0.1% in 2024 (Figure 2.1, page 33).1 The institutes are therefore slightly revising their forecast from spring 2024 downwards by 0.2 percentage points. For 2025, the institutes are forecasting an increase in gross domestic product of 0.8%, 0.6 percentage points less than in the forecast from spring 2024. On the one hand, the new data shows a smaller catch-up effect for private consumption, and on the other hand, the recovery in industry is now weaker (Box 2.1, page 35). In 2026, economic output is then expected to grow by 1.3%, although 0.3 percentage points will be due to the higher number of working days (Table 2.3, page 34). Potential growth is decreasing due to declining productivity growth and the shrinking working population, and will be just under 0.4% in 2029. This means that the estimate of production potential for the years 2024 to 2029 has been revised downwards again . Nevertheless, underutilization is increasing again in the current year, and the production gap is expected to be -1.1% in 2024 (Figure 2.2, page 34).

Figure 2.2

capacity utilization

In percentage points (deviation from the mean) or %

forecast

2006 2008 2010 2012 2014 2016 2018 2020 2022 2024 2026

— deviation of GDP from production potential

— ifo capacity utilization of the entire economy
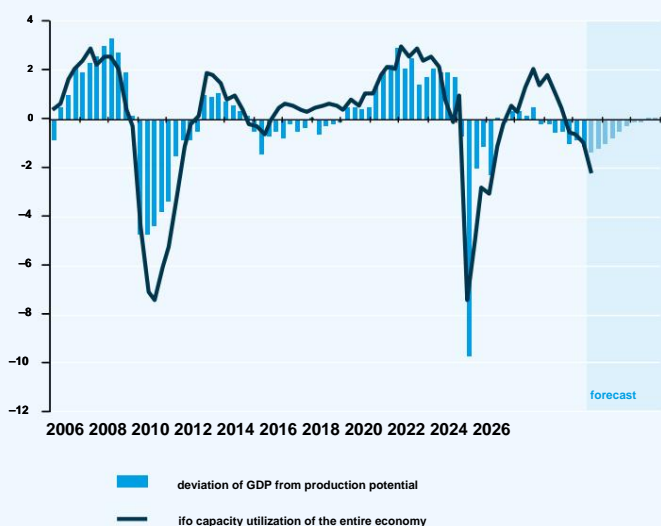
Sources: Federal Statistical Office; ifo Institute - Leibniz Institute for Economic Research; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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As the recovery progresses, the gap will gradually close over the forecast period (Chapter 3, page 58).

The economic downturn is also reflected in the number of unemployed. This has been rising continuously since the beginning of 2023, albeit at a slow pace. The increase is mainly due to the economically sensitive legal area of the Third Social Code.

1 The 68% forecast intervals based on the historical forecast errors of the Joint Diagnosis Project Group range from -0.4% to 0.2% in 2024 and from -0.9% to 2.5% in 2025.

(SGB III) and is increasingly affecting the manufacturing sectors. Short-time work is also continuing to rise, but is moderate given the weak industrial economy. This shows that many companies see the lower demand for labor as permanent and are therefore relying on job cuts or relocation of production rather than short-time work. Overall, however, the labor market remains robust. Employment is still increasing, albeit at lower rates than before and mainly in the public and other service providers. In the context of the sluggish recovery , the institutes expect the unemployment rate to be 6.0% this year and next, before falling to 5.7% in 2026 (Table 2.4, page 35). Employment is expected to rise slightly over the course of the forecast.

The volume of work per employed person is expected to increase somewhat as part of the economic recovery . A decline in sick leave could provide additional support for working hours. However, the institutes do not expect the reported sick leave to return to full normality, as part of the increase recorded since 2022 is likely to be due to the introduction of the electronic certificate of incapacity for work in the same year and thus to more complete recording of short periods of incapacity for work in particular.

As a result, the scope for expansion resulting from a decline in sick leave is lower than it appeared to the institutes in the spring.

The lower inflation rate is supporting the purchasing power of private households. The increase in consumer prices has already slowed significantly since spring 2023. The institutes expect inflation to continue to rise in the current year.

Table 2.4

Key data of the forecast for Germany

	2021	2022	2023	2024	2025	2026
Gross domestic product1	3,7	1,4	−0,3	−0,1	0,8	1,3
employed persons2 (1,000 people)	45 052	45 675	46 011	46 176	46 244	46 267
unemployed (1,000 people)	2 613	2 418	2 609	2 775	2 781	2 664
Unemployment rate BA3 (in %)	5,7	5,3	5,7	6,0	6,0	5,7
consumer prices4	3,1	6,9	5,9	2,2	2,0	2,0
unit labor costs4, 5	-0,3	4,4	6,7	5,2	2,7	1,6
fiscal balance of the state6						
In billion euros	−116,4	−84,9	−107,5	−92,6	−82,5	−85,8
In % of nominal gross domestic product	−3,2	−2,1	−2,6	−2,1	−1,9	−1,9
current account balance						
In billion euros	254,6	174,5	248,7	283,1	276,9	267,8
In % of nominal gross domestic product	6,9	4,4	5,9	6,6	6,3	5,9

1 Price-adjusted. Change compared to previous year in %.
2 domestic concept.
3 Unemployed in % of the civilian workforce (definition according to the Federal Employment Agency).
⁴ Change compared to previous year in %.
5 Domestically generated compensation of employees per employee hour in relation to the price-adjusted gross domestic product per employed hour.
6 In the definition of the national accounts (ESA 2010).

Sources: Federal Statistical Office; Federal Employment Agency; Deutsche Bundesbank;
2024 to 2026: Forecast of the institutes.

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next year, at 2.2% and 2.0% in 2025 and 2026, respectively, and will be close to the ECB's target.
Falling energy prices are contributing to this. In contrast, the core rate (consumer prices excluding energy) will remain elevated for the time being and will not be close to 2% until 2026. The main reason for this is that inflation in services will continue for the time being.

Box 2.1

forecast correction for the year 2024

In the current autumn projection , the institutes are slightly lowering their forecast for the current year's gross domestic product by 0.2 percentage points compared to the spring. A relatively strong first quarter was followed by a decline in economic output in the second quarter, which was characterized by weaker domestic absorption with the exception of government consumption . The institutes expect a slight economic recovery from the fourth quarter of 2024. Overall, a decline in economic output of 0.1% is expected for the current year, while a slight increase in gross domestic product of 0.1% was still expected in the spring (Table 2.5, page 36).1

In August 2024, the Federal Statistical Office revised the national accounts (SNA) as part of a

In a Europe-wide harmonized general revision, the system was comprehensively revised and switched to the reference year 2020.2 The 2024 revision of the national accounts includes several significant innovations . These include in particular the introduction of new data sources (e.g. the structural survey in trade and the services sector), the application of an updated classification of private consumption expenditure and the implementation of certain new calculation methods.

For example, the general revision led to a significant increase in government consumption, as public transport companies and infrastructure companies of Deutsche Bahn, which were previously market producers in the non-financial corporations sector, are now classified as non-market producers in the government sector. Both exports and imports, on the other hand, have increased significantly in level.

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1 *Project Group Joint Diagnosis:* 2024, ibid.

2 *Federal Statistical Office:* Background paper on the 2024 general revision of the Federal Economic Federal Accounts for Germany, Wiesbaden, 27 August 2024.

revised downwards, while the momentum was largely maintained. The now lower trading volume is due to the fact that the turnover of so-called VAT traders is no longer counted as exports and imports. VAT traders are non-domestic economic units that have no physical location, no workforce and no production in the country, but are registered with their trading activity in the country.

In addition, the entire national accounts systems were comprehensively reviewed and, where necessary, revised or new findings were integrated into the calculations. In order to avoid breaks in the time series, the results for Germany were recalculated back to 1991. While the adjustment of the reference year results in higher levels for many price-adjusted variables, the implementation of the innovations also leads to revisions in the rates of change.

In their spring report, the institutes had assumed that private consumption would rise by 0.9% this year thanks to rising real wages due to high wage agreements and the significantly declining inflation , thus supporting the economy. According to the revision,

It turns out that private consumption had already returned to pre-pandemic levels in 2022, meaning that the recovery expected in the spring has already taken place. However, after an increase in the first quarter, spending on private consumption fell again in the second quarter of the current year. Overall, the development in the first half of the year was somewhat weaker than forecast in the spring, and a further radical recovery is still to come in the second half of the year. The savings rate is also likely to be below the level forecast in the spring. The current projection expects a growth rate of 0.4% in private consumption expenditure for 2024.

Public consumption is counteracting the downward revision of gross domestic product with a significant upward revision. Accordingly, with a growth rate of 1.9% for 2024, government consumption is supporting economic output even more strongly in the current forecast than was assumed in the spring (1.4%). The forecast for equipment investment has been revised significantly downwards.

In the spring it was assumed that the decline

Table 2.5

Forecast and forecast correction for the year 2024

Use of price-adjusted gross domestic product

	spring report 2024		Autumn Report 2024 Forecast		forecast correction for 2024	
	values for 2024 Growth				Difference in growth rates or contributions in percentage points	
	change compared to previous year in %	contribution Change compared to in percentage points1	growth contribution in previous year in %	growth contribution in percentage points1		
	(1)	(2) (3)		(4)	(3) – (1)	(4) – (2)
Domestic use	0,1	0,1	−0,5	−0,5	−0,6	−0,6
private consumption	0,9	0,5	0,4	0,2	−0,5	−0,3
State consumption	1,4	0,3	1,9	0,4	0,5	0,1
buildings	−2,2	−0,3	−3,6	−0,4	−1,4	−0,1
equipment	−1,8	−0,1	−6,7	−0,4	−4,9	−0,3
Other fixed capital investments	0,9	0,0	3,9	0,1	3,0	0,1
inventory changes	-	−0,3	-	−0,4	-	−0,1
external contribution	-	0,0	-	0,4	-	0,4
export	−1,0	−0,5	−0,1	0,0	0,9	0,5
import	−1,2	0,5	−1,0	0,4	0,2	−0,1
gross domestic product	0,1	0,1	−0,1	−0,1	−0,2	−0,2
For information:						
US gross domestic product	2,4	-	2,6	-	0,2	-
gross domestic product of the euro area	0,7	-	0,8	-	0,1	-
world trade	1,3	-	1,5	-	0,2	-
consumer prices	2,3	-	2,2	-	−0,1	-

1 Contributions of the use components to the change in gross domestic product (Lundberg components). The growth contribution of a use component is calculated from its rate of change weighted by the nominal share of the aggregate in the gross domestic product from the previous year. Deviations in the totals are due to rounding of the figures. Data for gross domestic product: change compared to the previous year in %.

Sources: Federal Statistical Office; United States Bureau of Economic Analysis (US BEA); Eurostat; The Netherlands – Centraal Planbureau (CPB); calculations of the institutes.

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in the fourth quarter of 2023 was partly due to temporary factors. This was supported by the fact that, according to the calculations at the time, equipment investments were trending upwards until the third quarter and government subsidies for the purchase of electric vehicles had expired. Based on this, the institutes forecast that equipment investments would remain weak in the first half of the year, but would at least stabilize. However, equipment investments developed much more weakly than expected in the spring and fell significantly in the first half of the year. The long-standing weak order intake has apparently had an earlier and stronger impact on investments. Overall, the institutes have lowered their forecast for the growth rate for the current year from ÿ1.8% to ÿ6.7%. A significant decline in private investments is crucial, while the forecast for public equipment investments has been adjusted upwards.

The forecast for construction investments is 1.4 percentage points lower than in the spring. While the institutes had assumed in the spring that investments in construction would reach their lowest point in the second half of the year after the significant declines of recent years, the current leading indicators suggest further declines in the short term, so that the recent moderate signs of recovery are only likely to become apparent next year.

Decomposition of the forecast revision for 2024

In percentage points

	forecast correction (in total)	Revision there VGR	forecast error	forecast adjustment
	sum (I) to (III)	(I)	(II)	(III)
gross domestic product	–0,3	–0,0	0,1	–0,3
Domestic use	–0,7	-0,4	–0,1	-0,2
private consumption	–0,4	–0,1	–0,2	–0,1
State consumption	0,5	0,3	0,2	0,0
buildings	–1,4	–0,5	–0,2	–0,7
equipment	–5,0	0,4	–4,6	–0,8
Other fixed capital investments	3,0	1,1	1,8	0,1
export	0,9	0,6	0,8	–0,5
import	0,1	–0,1	0,4	–0,2

Note: Approximate decomposition of the forecast correction. Revision: Contribution of the revision of the national accounts by the Federal Statistical Office; Forecast error: Contribution of the difference between the forecast for the first two quarters of 2024 from the spring diagnosis and the current national accounts; Forecast adjustment: Contribution of the forecast adjustment for the third and fourth quarters of the current year; Deviations in the totals are due to rounding.

Sources: Federal Statistical Office; calculations of the institutes.

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The institutes are now less pessimistic about exports for 2024. This is due both to the upward revision of exports for 2023 and to a forecast error of 0.8 percentage points for the first half of the year (Table 2.6, page 37): Due to an increase in goods exports to China and the USA, the increase of 1.3% in the first quarter of 2024 was significantly stronger than expected. While in the spring a significant recovery in exports was expected in the second half of the year as part of a revival of the global economy, the outlook is somewhat more moderate according to the autumn projection. Overall, despite the strong start to the year, exports are likely to decline by 0.1% in 2024 as a whole. The development

Imports were stronger at the beginning of the year than expected in the spring. The development in the second half of the year is also likely to be weaker - also due to the negative development of equipment investments.

The institutes are now estimating the growth rate in the manufacturing sector for the current year at -2.4%, which is significantly lower than in the spring report (-0.6%). In the first half of the year, industrial value added developed worse than expected in the spring. A lack of orders continues to weigh on industry, so the institutes are only expecting a slight recovery by the end of the year. In the spring, a more significant acceleration had been expected here.

risks

The analysis of structural adjustment processes continues to be of central importance for the assessment of overall economic development in Germany .
These processes are directly reflected in the estimation of the overall economic production potential (Chapter 3, page 58). There are considerable uncertainties here , as the underlying procedure takes structural breaks into account in the marketability of existing production structures are often only recognized with a delay.[2] If structural change accelerates, this usually leads to a temporarily lower production potential , since new production structures are built up more slowly than the existing ones become obsolete. These discrepancies can only be remedied in the long term by reallocating the

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2 *Joint Diagnosis Project Group:* German Economy III – Reform of the Debt brake is not a panacea, Spring 2024, Kiel, 37 f, 2024.

Production factors are balanced. If productivity problems are of a regulatory nature - for example due to bureaucratic burdens that bind workers or a lack of openness to new technologies that inhibits innovation - the necessary political adjustment also usually only takes place in the long term, since considerable problem pressure must first be built up.

An additional risk is a further significant increase in political uncertainty. Although the federal government recently adopted a draft budget for 2025 , there are still concerns about the possible inability of the governing coalition to act, in which the parties that support it are pursuing different objectives. This uncertainty could make the economic policy framework even more unclear , which could put a greater strain on the domestic economy, especially on investments, than assumed in the forecast.

Table 2.7

assumptions of the forecast

annual averages

	2023	2024	2025	2026
Electricity price Euro/MWh (Phelix)	98,7	77,0	91,4	84,3
Gas price Euro/MWh (TTF) Oil	40,7	33,6	39,8	34,4
price US dollar/barrel (Brent)	82,5	80,5	73,3	71,4
World Trade1	−1,1	1,5	2,3	2,4
US dollar/euro exchange rate	1,08	1,09	1,10	1,10
ECB main refinancing rate (end of year)	4,5	3,4	2,4	2,4
ECB deposit rate (end of year)	4,00	3,25	2,25	2,25

1 Price-adjusted; change compared to previous year in %; world trade in goods as defined by CPB.

Sources: LSEG Datastream; Eurostat; European Central Bank; CPB; 2024 to 2026: forecasts and assumptions of the institutes.

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Financing environment is gradually improving

Financing conditions are still tight given the current monetary policy. However, there are signs of a gradual easing. The yield on 10-year federal bonds was 2.3% in August , around 0.7 percentage points below the peak in autumn last year. Corporate bond yields followed the momentum of federal bonds, with risk premiums remaining stable. The yield curve has flattened somewhat in recent quarters, but remains inverted, i.e. the yields on long-term bonds are lower than those on short-term bonds. Lending rates peaked at the end of last year and have been declining slightly since then. Interest rates on corporate loans and housing loans were around 0.3 percentage points lower in July than in the fourth quarter of 2023, at 5.0% and 3.9% respectively.

Private sector credit stocks have been largely stagnating for some time. However, there are initial signs that lending is gradually picking up again.
After the slump in the past two years, new lending for real estate loans has recently increased again, albeit at a drastically lower level and with considerably higher construction prices than in the previous record year of 2021. In addition , the banks participating in the survey on lending reported that demand for housing loans increased in the first half of the year. The banks cited the improved prospects on the residential real estate market and the slightly lower interest rate level as reasons. The banks also recently assessed the demand for corporate loans more positively again. On the loan supply side, however, the banks stated

that they had tightened their lending guidelines again, which they justified with a higher credit risk. The ifo economic indicators also showed a

positive trend.

Companies participating in the survey continue to perceive banks' behavior in loan negotiations as restrictive.

The institutes expect that the headwinds from financing conditions will gradually subside over the forecast period . With the expected key interest rate cuts by the ECB, short-term capital and credit market interest rates in particular are likely to fall (Table 2.7, page 38).

At the long end, however, interest rates will hardly change, as the decline in short-term interest rates is likely to have already been largely priced in. Accordingly, yields on 10-year federal bonds will remain at around the current level of 2.3%. In view of rising real incomes and improved prospects for the real estate markets, demand for real estate loans should nevertheless recover slightly.

Fiscal policy has only a moderate impact on the economic situation

Fiscal policy is initially moderately restrictive in the forecast period . Although the balance of measures reported for 2024 is significant, these are due to the end of the energy price caps.

There was a large amount of spending here last year, but even if the measures had continued, they would have been considerably lower in the current year given the significantly lower energy prices . In subsequent years , the fiscal policy measures tend to lead to rising revenues and expenditure. Overall, the effects are small, although there is considerable uncertainty about the direction of fiscal policy in 2026 due to the upcoming federal election in 2025.

On the revenue side, the fiscal policy measures will ease the burden on public budgets , particularly in 2024 and 2025. The elimination of inflation compensation premiums at the end of this year will ensure

Table 2.8

Fiscal policy measures1

Burdens (-) and reliefs (+) of the general government budget in billion euros compared to previous year

	2024	2025	2026
revenues of local authorities2			
Inflation Compensation Act: Tariff shift and allowances 2023 VAT reduction on gas from October	−13,2	−2,4	−1,0
1, 2022 to March 31, 2024 Temporary VAT reduction in the catering industry Inflation	4,4	1,0	-
compensation premium Increase in tobacco tax Degressive depreciation (2nd	2,9	0,5	-
and 4th Corona Tax Relief Act)	3,0	5,9	-
	-	0,9	0,8
	2,2	5,0	3,8
Annual Tax Act 2022 Growth	0,2	1,0	−1,1
Opportunities Act Future Financing Act	−1,0	−2,5	−0,7
Reduction of electricity tax Elimination of	−0,3	−0,2	−0,1
peak equalization of electricity	−2,8	−0,5	-
tax Increase in basic and child allowances 2024	1,7	-	-
Adjustment of income tax rate, allowances, child benefit 2025 &	-	−3,3	1,3
2026 (Tax Development Act)	-	−7,2	−7,6
Increase in air transport tax Elimination of	0,4	0,1	-
agricultural diesel subsidies Annual Tax Act 2024	-	0,1	0,1
Tax Development Act (without	−0,4	0,4	0,5
income tax rate)	-	−0,8	−2,3
Global Minimum Tax Pillar 2 Revenue Emissions	-	-	1,0
Trading (BEHG)	4,4	3,2	3,5
Plastic tax Increase	-	-	1,4
in truck toll Increase in	7,0	0,9	0,2
broadcasting fee Other tax measures³	-	0,4	-
	−0,3	−2,3	−1,0
social security revenues			
Increase in the average additional contribution to statutory health insurance Increase in the contribution rate in statutory	2,5	6,5	4,0
long-term care insurance by 0.35 percentage points as of 1 July 2023 Inflation compensation premium **Expenditure of local authorities**	3,4	2,3	-
	3,9	8,5	-
Electricity and gas price caps Special fund	29,3	1,3	-
KTF Energy cost subsidies for	−6,0	2,4	2,3
companies Aid for hospitals and care facilities (energy crisis)	1,0	-	-
	5,0	-	-
Start-up Opportunities Program Schools Digital	−0,4	−0,5	−0,5
Pact School One-off	-	0,2	0,6
payment to pensioners and students (net)	1,0	-	-
Housing benefit reform	0,4	−0,5	-
Germany Ticket Cuts in	−1,0	−0,5	-
citizen's allowance and parental allowance Consolidation	0,5	0,4	-
measures by the federal government (cuts in support for rural areas and the digitization of administration)	1,0	0,0	-
Support for Ukraine Special Fund of	−2,0	3,5	-
the German Armed Forces Investment grants	−7,0	−4,0	−4,0
to the DB Social housing Additional funds for	−4,4	−4,9	-
transport infrastructure	−0,7	−0,4	−0,2
	-	−0,3	
Changes to Bafög	−0,1	−0,2	-
Expiration of the purchase premium for electric cars	2,6	-	-
Corona measures	2,5	-	-
introduction of citizen's allowance	−0,3	-	-
social security expenditure			
Adjustment of Pensions in the East	−0,4	-	-
disability pensions	−0,1	−0,1	−0,1
basic pension	−0,2	−0,1	−0,1
Statutory Health Insurance Financial Stabilization Act	0,3	-	-
hospital reform	−0,5	−0,4	−0,2
Health Care Strengthening Act	−0,3	-	-
Nursing Staff Strengthening Act and Nursing Reform	−0,3	−0,8	−0,1
Nursing Support and Relief Act	0,2	−3,0	−0,2
In total	**38,2**	**9,5**	**0,3**
In relation to gross domestic product in %	0,9	0,2	0,0

1 Without macroeconomic repercussions.

2 The effects of the changes in tax law relate to the fiscal year.

³ including the Second Family Relief Act, the Third and Fourth Corona Tax Relief Act, the Annual Tax Act 2020, the Health Care Development Act, the Research Allowance Act, the Fund Location Act, the Act to Modernize Corporate Tax Law, and the increase in the flat-rate allowances for people with disabilities.

Sources: Federal Government; calculations and estimates of the institutes.

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how the tax-exempt wage components are replaced by regular wage increases, for additional income from wage tax and social contributions. In addition, the reduced sales tax rates in the gas and catering sectors no longer apply. The federal government also receives additional income from the expansion of the truck toll and higher rates for the CO_2 tax. In all years of the forecast period, it is also expected that the contribution rates in statutory health and social long-term care insurance will increase. The overall rather restrictive impulses on the revenue side will be mitigated by the Growth Opportunities Act and the Future Financing Act, as well as by the regular shift in the tariff thresholds and the increase in the allowances. For the years 2025 and 2026, this compensation for the "cold progression", which has been taking place regularly since 2015, is part of the current "Growth Initiative". Other revenue-related measures contained therein are likely to be of lesser importance or merely ensure that certain expansionary measures, such as electricity tax relief for industry, continue to exist.

Government spending is contributing to the overall restrictive course this year – above all the reduction in temporary measures to cushion the energy crisis. Furthermore, there are reduced expenditures due to various austerity measures at the federal level, which are a result of

of the Constitutional Court ruling for the 2024 federal budget . This is offset by additional expenditure on the Bundeswehr special fund and the Climate and Transformation Fund (KTF)3 as well as for investment grants to Deutsche Bahn. While increasing outflows of funds are to be expected from the Bundeswehr special fund in the coming years, the reserve for the KTF will be almost completely used up , so that the program expenditure must be financed entirely through revenue from the CO_2 tax and the European emissions trading system. It is also assumed that support for Ukraine from budget funds will decrease and be replaced by other sources. On the social insurance side, a number of measures in the area of health and care are expected to result in minor additional expenditure overall.

Overall, the budget impact of fiscal policy measures will amount to EUR 38.2 billion in 2024 (0.9% of gross domestic product), EUR 9.5 billion (0.2%) in 2025 and EUR 0.3 billion (0.0%) in 2026 (Table 2.8, page 39).

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3 The payments under the EEG for the years 2024 to 2026 are not considered discretionary fiscal policy measures at this point. The fact that this will result in a major burden on the federal budget for the first time in 2024 is irrelevant in the national accounts, since the general revision of the national accounts in August 2024 means that the EEG system has been counted in its entirety as part of the government sector since its introduction. The EEG surcharge collected up to 2022 and the payments financed from it are therefore counted as government revenue or expenditure for the entire period.

In this sense, the abolition of the EEG levy on January 1, 2023 was a levy reduction (measure). There is no discretionary change in the forecast period compared to 2023.

Table 2.9

Gross domestic product and gross value added by economic sectors
Price-adjusted, in %

	2024				2025				2026				2024	2025	2026
	I	II	III	IV	I	II	III	IV	I	II	III	IV	Change compared to the previous year2		
	Change compared to the previous quarter1														
gross domestic product	0,2	–0,1	–0,1	0,2	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,1	–0,1	0,8	1,3
including:															
Gross value added of the economic sectors 0.0		–0,1	–0,1	0,2	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,1	0,1	0,8	1,3
including:															
Manufacturing excluding construction –1.3		–0,5	–0,9	0,0	0,2	0,4	0,4	0,5	0,4	0,3	0,2	0,1	–2,5	–0,1	2,0
including:															
manufacturing industry	–1,0	–0,2	–1,0	0,0	0,2	0,4	0,4	0,5	0,5	0,3	0,2	0,2	–2,4	–0,0	2,2
energy supply, water supply, etc. –3.5		–1,8	–0,5	0,1	0,2	0,3	0,3	0,3	0,2	0,2	0,1	0,1	–2,9	–0,4	0,9
construction industry	1,9	–3,2	–0,5	–0,1	0,1	0,3	0,4	0,4	0,4	0,4	0,3	0,3	–3,0	–0,7	2,2
trade, transport, hospitality	0,3	–0,6	–0,1	0,2	0,4	0,5	0,5	0,3	0,3	0,2	0,2	0,1	0,7	0,9	1,6
Information and Communication	0,9	0,6	0,5	0,5	0,6	0,6	0,6	0,6	0,5	0,5	0,4	0,4	2,7	2,3	2,1
financial and insurance service providers	0,5	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	1,2	0,5	0,5
real estate and housing	0,3	0,7	0,2	0,3	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	1,8	0,9	0,4
business service providers	–0,3	0,9	0,2	0,4	0,4	0,4	0,4	0,3	0,2	0,2	0,2	0,1	1,7	1,6	1,0
public service providers	0,5	0,1	0,2	0,3	0,3	0,2	0,2	0,1	0,1	0,1	0,1	0,1	1,3	0,9	0,5
Other service providers	2,0	–0,2	–0,1	0,2	0,4	0,5	0,5	0,4	0,3	0,2	0,2	0,1	1,3	1,2	1,2

1 Chained absolute values, quarterly values adjusted for seasonally and calendar effects.
2 Original values; annual averages.

Sources: Federal Statistical Office; from the third quarter of 2024: forecast of the institutes.

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The development in detail

Production remains subdued

A recovery in overall economic production has so far been slow. Gross value added has only increased marginally over the past two years . Despite increasing positive signs, stagnation continued in the first half of the year. Since then, leading indicators have deteriorated again, meaning that the recovery expected in the spring will probably not materialize in the second half of the year. The purchasing managers ' index for the economy as a whole has fallen below the expansion threshold again, and the ifo survey indicators also point to pessimistic expectations among companies . Overall, the institutes are expecting a further slight decline in value added in the third quarter. In the fourth quarter, the upward forces are likely to become somewhat more visible. Activity in consumer-related sectors will be stimulated at least somewhat by the noticeably upward real income of private households , and gross value added in the manufacturing sector will probably stabilize at a low level. However, strong momentum is not foreseeable because companies' business expectations have remained at a low level until recently.

Figure 2.3

Production and gross value added in manufacturing industry

Price, season and calendar adjusted

Index 2020 = 100

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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The manufacturing sector is the main reason for the overall economic weakness . Although its value added had recovered as supply bottlenecks and backlogs of orders eased and exceeded the level from 2019, it has been declining again since the spring of 2023. The reported order backlogs are still extremely high in a long-term comparison. However, a large part of these stocks were built up during the pandemic in 2020 and 2021, so that they can no longer be processed profitably due to the now higher price level . In addition, new orders remain at a low level despite noticeable increases at the current margin.

A large proportion of companies now rate their order situation as extremely poor and cite the lack of demand as an obstacle to production.
A key economic factor for the low demand for industrial goods – especially from domestic sources – is the high level of economic uncertainty.
Given the continued decline in capacity utilization, a decline in industrial production and gross value added in the manufacturing sector is to be expected in the third quarter of 2024 (Table 2.9, page 40).4

A divergence between value added in the manufacturing sector and industrial production has been observed since the 2010s . While gross value added has more or less stagnated since 2018, the production index has increased by over

12% (Figure 2.3, page 41). The gap is reflected in a reduced intermediate consumption ratio, which is accompanied by an increase in non-industrial activities. While the production index only measures the output of industrial goods, the gross value added also includes the service activities of the manufacturing industry, such as research, development and trading services. The stagnation of gross value added therefore indicates that companies in the manufacturing industry have so far been able to compensate for the lower value added from the production of goods by expanding non-industrial activities . If this structural change continues, value added will develop more favorably than production in the forecast period.

In the long term, increases in gross value added could therefore also be accompanied by a decline in industrial production.

In addition to the weak economy, structural problems are weighing on industry. The decline in production in important sectors of the economy, such as energy- intensive industries or capital goods manufacturers, is probably partly permanent in nature. This is indicated by the decline in employment with only a small use of short-time work in these sectors.

On the one hand, the change in Chinese industrial policy in particular is putting pressure on the German export industry. Chinese demand for German industrial goods is falling because these are increasingly being manufactured locally and no longer imported from Germany. At the same time, China is making a name for itself in the global economy.
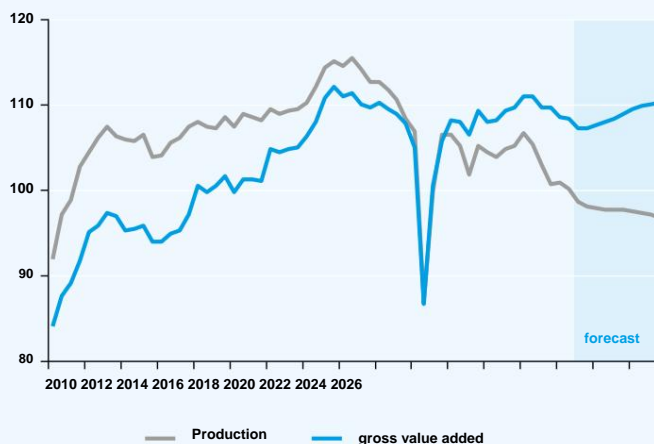
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4 The sharp decline in industrial production in July was caused by the factory holidays some automobile manufacturers. A strong countermovement is already emerging for August.

It is increasingly emerging as a competitor on the world market and is battling with Germany for important sales markets (Box 2.2, page 43). On the other hand, companies in energy-intensive industries are suffering from high energy costs compared to other countries.

In the further course of the year, the order situation is likely to stabilize with the economic recovery in other European countries and value creation is likely to increase again somewhat.
Recently, incoming orders have risen quite sharply , but they were oversubscribed by large orders and overall they are still at a low level.

Gross value added in the service sectors has recently been on an upward trend, without developing any great momentum. In the consumer-related sectors, however, value added decreased in the second quarter. One reason for this could be that the higher disposable income has not yet been reflected in higher private consumption, but rather in increased savings. In the next few quarters, value added in the consumer-related sectors of trade, transport and hospitality is expected to stagnate until private consumer spending increases in the coming winter half-year. In transport, the lack of demand for industrial goods is also likely to depress value added . Business service providers are likely to experience a decline in the third quarter under the influence of weak production.

in the manufacturing sector will also only stagnate. In line with a slow recovery in industry, however, value creation will probably also be increasingly expanded in this sector. In the public service sector, however, only a weak expansion of value creation is likely to take place.

Overall, services are likely to support the economy , resulting in a slight decline in gross value added of 0.1% for the third quarter . In the remainder of the forecast period, it is expected to grow at somewhat stronger rates as the global economy continues to expand and private consumption increases . All in all, price-adjusted gross domestic product is likely to stagnate more or less this year, grow by 0.8% in 2025 and by 1.3% in 2026.

Structural change meets foreign trade

German foreign trade is burdened by economic and increasingly structural problems . The improvement in export business that had been apparent at the beginning of the year was only short-lived and , despite the moderate expansion of the global economy, there was no turnaround in the second quarter. While German exports of goods were largely able to benefit from the expansion of global trade in the past, they have now seemed to have been decoupled from it for two years and have not provided any positive impetus for the German economy (Chapter 4, page 64). A return to the previous export strength therefore seems increasingly unlikely for the forecast period.

Figure 2.4

exports of goods by industry

Price and seasonally adjusted1

Index 2019 = 100

— manufacturing industry as a whole

— manufacture of chemical products

— manufacture of motor vehicles and motor vehicle parts

— consumer goods manufacturers

— mechanical engineering
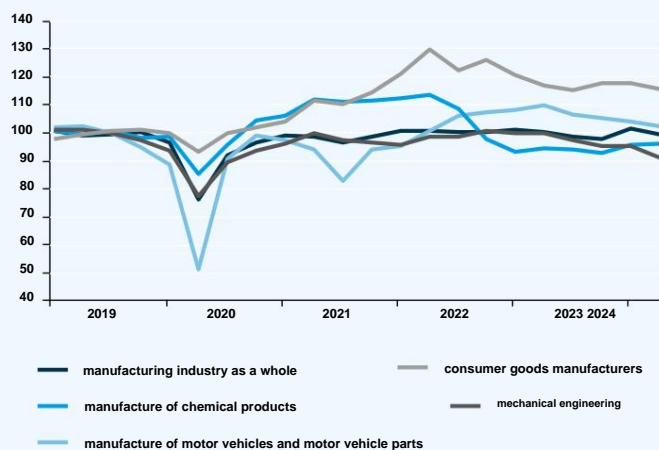
1 Nominal exports deflated by the respective export prices, lagged by one month.

Sources: Federal Statistical Office; Eurostat; calculations of the institutes.

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In economic terms, the global industrial weakness, restrictive monetary policy in many places and a shift in demand from capital to consumer goods are putting pressure on foreign business. At the same time, structural factors are at work.
Since the outbreak of the war in Ukraine and the subsequent energy crisis in mid-2022, exports of chemical products, the production of which is particularly energy-intensive, have fallen by 15% and have stabilized at this level, suggesting a permanent shift in production capacities (Figure 2.4, page 42). With an export share of 10%, this sharp decline reduces total goods exports by a good 1.5% in purely mathematical terms. For all energy-intensive industries, the loss is twice as high.

Mechanical engineering has also recently lost sales opportunities. Automobile exports, in which German exporters traditionally had comparative advantages, are back at the level of five years ago and have thus come through the economic downturn in domestic automobile production relatively unscathed. However, the growth in German automobile exports has recently been weaker than that of automobile production worldwide and in China in particular.

Box 2.2

On the Competitiveness of German Exporters vis-à-vis China

German foreign trade is in a phase of far-reaching structural changes. Since the COVID-19 pandemic, German exports of goods have not been able to catch up with the re-expanding world trade (Chapter 4, page 64), which has had a negative impact on overall economic performance given that the industry is dependent on exports. Effects that were already observable before the COVID-19 pandemic are coming into play , but are only now unfolding their full strength. In recent years, China's role in world trade and in relation to German foreign trade in particular has changed. While the share of goods exports from China in world trade was not even 2% in the early 1990s, it has now risen to more than 14%.

In comparison, the share of German exports of goods in world trade has almost halved from 12% to 7% in the same period .

The general loss of competitiveness of German exporters is offset by a simultaneous gain in competitiveness of Chinese exporters, which can be attributed to, among other things, an active Chinese industrial and trade policy, state subsidies for certain products and a weak domestic demand . Due to improved production technology ("industrial upgrading"), China's business model has developed from a producer of labor- intensive, simple consumer goods to a competitor in higher-quality industrial goods, with excess capacity there currently pushing its way onto the world market at cheaper prices.[1]
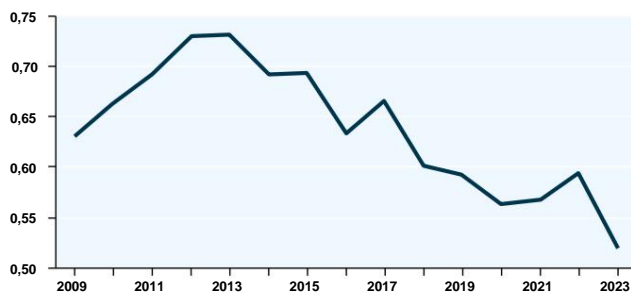
The comparative cost advantage, and thus the competitiveness , of a country on an export market can be described using the RCA coefficient (Revealed Comparative Advantage, or Balassa Index), which calculates the exports in an economic sector relative to the exports of all economic sectors of a country (numerator) and relates this to the exports of the economic sector across all countries relative to the sum of the exports of all countries and economic sectors (denominator).

$$ RCA_{ij} = \frac{X_{ij}/\sum_j X_{ij}}{\sum_i X_{ij}/\sum_i \sum_j Xij} $$

If the RCA coefficient of a country in a product group is greater than one, it exports disproportionately more in this area than the respective comparison group and this is referred to as a revealed comparative advantage. The higher the index, the more pronounced the degree of specialization of this country in the respective export market. A disadvantage of the RCA coefficient is that it cannot distinguish between actual specialization and tariff and non-tariff trade barriers, since only recorded flows of goods are considered.

Since 2012, the RCA differences between Germany and China have been following a downward trend (Figure 2.5, page 43). This reflects the fact that the relative differences in competitiveness between the two countries have decreased significantly in aggregate.

While the export-weighted difference in the RCA coefficients was still 0.73 in 2012, it shrank to 0.52 in 2023. The export sectors of both countries have thus become more similar. In traditionally export-strong industries such as mechanical engineering and cars in particular, the differences decreased rapidly to 26% and 31%, respectively; only in the area of pharmaceutical products could increases in the competitiveness of German exporters compared to Chinese ones be observed.

Against this background, the loss of German world market share to China is unlikely to be reversed in the forecast period, also because China is likely to continue its trade and industrial policy course. Therefore, in this forecast, the trend rates of goods exports remain somewhat behind the dynamics of world trade.

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[1] *Al-Hashimi, A.; Emter, L.; Gunnella, V.; Ordoñez Martínez, I.; Schuler, T.; Spital, T.:* Why competition with China is getting tougher than ever. The ECB Blog, 3 September 2024.

Figure 2.5

relative competitive advantage

Germany's stance towards China

weighted RCA difference

Difference in the Revealed Comparative Advantage indices weighted by German export shares between Germany and China (SITC 3-digit).

Sources: UNCTAD; Federal Statistical Office; calculations of the institutes.

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Figure 2.6

German goods exports by region

Price, season and calendar adjusted1

Index (100=2019)

China	deer	EU27	World
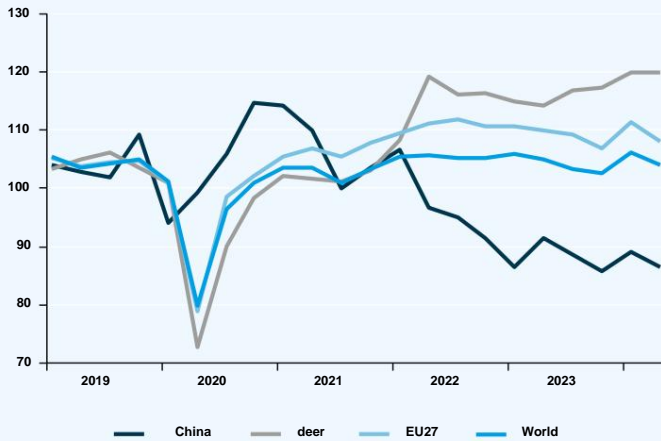
1 Nominal exports deflated by the price index of total merchandise exports lagged by one month.

Sources: Federal Statistical Office; calculations by the institutes.

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Figure 2.7

Export

Price, season and calendar adjusted

Chained volume information in billion euros   **change compared to the previous quarter in %**

forecast

Volume	annual average1
Running rate (right scale)	

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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The change in the goods structure is accompanied by a regional shift and, in particular, the changing role of China in world trade. While German exports of goods have benefited from the booming economy in the USA since the end of the COVID-19 pandemic , deliveries to China have fallen by a good 15% since the end of 2019 (Figure 2.6, page 44). If the decline in German exports to China is permanent, total exports of goods could be 1.0% lower in purely mathematical terms. In addition to gaining global market shares , the competitive position of Chinese companies has improved due to comparative cost advantages, not least due to far-reaching industrial and trade policies . Improved production processes, which now increasingly enable Chinese manufacturers to produce capital goods, are likely to have noticeably worsened the competitive position of German exporters (Box 2.2, page 43). This picture is supported by surveys conducted by the European Commission, according to which the competitive position of German industrial companies outside the internal market has deteriorated more than the EU average.

In the second quarter, exports unexpectedly fell, while imports stagnated. Trade in goods with the countries of the European Union was particularly weak, as their economies were supported primarily by consumption rather than by the capital goods that are important for German foreign trade . Price-adjusted exports also flattened in trade with the United States and China , although nominal increases were still recorded. Trade in services was still declining in the first quarter, but supported overall exports in the second quarter through increased manufacturing and business-related services as well as tourism in the hotel and catering industry during the European Football Championship.

Exports are likely to stagnate in the third quarter. The positive development of exports in the specialty trade (1.5%) and incoming orders from abroad (5.1%) in July do indicate a slight revival in goods exports in the current quarter. However, the recovery is likely to take some time. At the current margin, the other sentiment indicators are clearly clouded over. For example, the ifo export expectations and orders from the manufacturing industry abroad recently fell noticeably. Although world trade picked up significantly in the second quarter, global demand for industrial goods, which is more relevant for the export-oriented manufacturing industry , stagnated in the most important trading partner countries. The ongoing global industrial weakness in the advanced economies will probably dampen German goods exports even further in the coming quarters. In the further forecast period, exports are likely to pick up again.

slightly. However, the structural challenges in the German manufacturing industry are likely to lead to a significantly weaker expansion dynamic compared to world trade.

Overall, exports are expected to decline by 0.1% this year and expand by 1.5% and 2.3% in the next two years, respectively (Figure 2.7, page 44).
They are only gradually catching up with the dynamics of world trade. In relation to gross domestic product, exports of goods will fall from 33.1% in 2019 to 32.5% in 2026.

Imports are expected to increase by 0.4% in the third quarter of 2024 , with imports of goods growing somewhat more slowly (0.2%). Although specialty trade expanded significantly in July, no impetus is expected from consumption and investment for the time being. As for the further course of the forecast, imports are expected to gradually recover, supported by a hesitant increase in investment and an accelerated development in private consumption. However, the catch-up effects, particularly in imports of goods, are likely to be small and growth rates will be weaker towards the end of the forecast period in line with the slowdown in the manufacturing sector.

Taken together, imports are expected to decline by 1.0% this year and increase by 2.2% in 2025 and 2.9% in 2026 (Figure 2.8, page 45).

They are therefore increasing more than exports. In relation to gross domestic product, imports of goods will therefore fall from 27.1% in 2019 to 26.3% in 2026.

Foreign trade prices continued the upward trend that began in the fourth quarter of the previous year in the first half of the year. With wages rising in many places, prices for services showed significantly stronger momentum than those for goods. As in the recent past, import prices for energy fell sharply throughout the first half of the year. In the forecast period, wage increases are likely to go hand in hand with rising service prices. A more subdued development is to be expected for goods prices, however.

In particular, increased competition from China is likely to further limit the pricing flexibility of German exporters .

The terms of trade recently reached a level that was significantly above the average pre-pandemic level. In the further forecast period, a decline to the level of the long-term average is expected due to increased competition in the goods markets, so that the terms of trade are likely to deteriorate (Table 2.10, page 45). The current account balance in relation to gross domestic product is expected to be 6.6% this year and 6.3% next year.

Figure 2.8

Imported

Price, season and calendar adjusted

Volume — annual average[1]

Running rate (right scale)

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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Table 2.10

Indicators on Foreign Trade[1]

	2023	2024	2025	2026
	Change compared to the previous year in %			
exports, price-adjusted	−0,3	−0,1	1,5	2,3
Were	−0,9	0,1	1,5	2,3
services	1,7	−0,8	1,6	2,3
imports, price-adjusted	−0,6	−1,0	2,2	2,9
Were	−3,7	−2,6	1,7	2,5
services	8,2	2,8	3,3	3,7
Terms of Trade	3,8	1,2	−0,3	−0,3
indicator of price competitiveness[2]	2,9	0,2	−0,6	−0,6
	In billion euros			
net exports, nominal	167,7	203,8	192,9	182,4
current account balance[3]	248,7	283,1	276,9	267,8

1 In the definition of national accounts.
2 Compared to 37 trading partners, based on consumer price indices. Increase means a deterioration in price competitiveness.

3 In the definition of balance of payments statistics.

Sources: Federal Statistical Office; Deutsche Bundesbank; calculations of the institutes; 2024 to 2026: Forecast of the institutes.
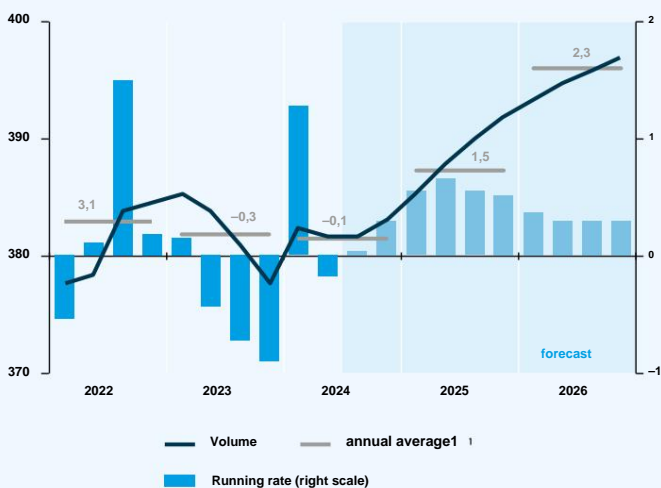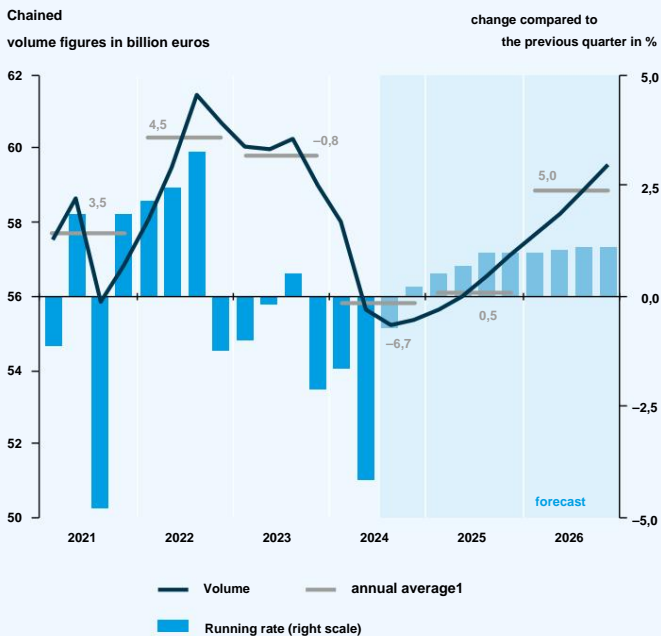
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Figure 2.9

investments in equipment

Price, season and calendar adjusted

Chained
volume figures in billion euros

change compared to
the previous quarter in %

Volume   annual average1

Running rate (right scale)

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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In July, both the production of capital goods and the sales of their manufacturers fell significantly below the level of the previous quarter. New registrations of commercial vehicles in July and August were also below the average for the second quarter. The historically low and continuing decline in capacity utilization in industry does not suggest any impetus for private equipment investments. Although incoming orders rose in June and July as strongly as they have not since the middle of last year, this was partly due to large orders and in particular to orders for other vehicles : without large orders, incoming orders fell significantly in July. Contrary to the development in private equipment investments, public procurement is likely to continue to expand significantly in the current quarter and thus have a supporting effect. Overall, the institutes expect a decline in equipment investments of 0.7% for the third quarter.

Over the remainder of the forecast period, investments in equipment are likely to increase somewhat from the current low level . This is because monetary policy will become less and less restrictive, and an economic recovery in neighboring European countries should also provide incentives for more investment through somewhat stronger foreign demand . For example, the business expectations of capital goods manufacturers, as recorded in surveys , have become increasingly less pessimistic since the beginning of the year - despite a slight decline at the current end . However, due to the ongoing weakness of industry and the structural shift of the German economy towards services, the overall momentum is likely to remain subdued.

Equipment investments decline sharply

Investments in machinery, equipment and vehicles fell by over 4% in the second quarter of 2024 (Figure 2.9, page 46). The main reason for this was the 6.2% drop in private investment in equipment. Companies have been cutting back on equipment investments since the winter of 2022/23 , but the downward trend began in the course of 2019, interrupted in the meantime by the ups and downs during the pandemic crisis. One reason for the weakness is probably that production in the manufacturing sector has been declining since mid-2018, and with it the need for companies to invest is also steadily decreasing.

At present, in addition to the clouded sales expectations, the weak external economic environment and the still unfavourable financing conditions, the high level of economic policy uncertainty is slowing down companies' investment activity.

In contrast, volatile government equipment investments rose by around 15%, largely due to federal investments.

For the third quarter, indicators point to a further decline in equipment investment.

The institutes expect private equipment investments to fall by 9.4% in 2024. In 2025, they are likely to fall by 0.9% before rising by 4.2% in 2026. Government equipment investments are likely to expand particularly strongly in 2024, at 20.8% ; the institutes expect rates of 11.3% and 10.0% for the following years . They will be supported throughout the forecast by the impulses from the Bundeswehr special fund.

Investments in other assets, which include research and development spending, increased significantly in the second quarter. Unlike with machinery and equipment, spending here is trending strongly. While less and less is being invested in industrial production capacity, investments in technical knowledge have so far remained clearly on the up. Despite weak public investment, growth of 3.9% is expected for 2024. In the subsequent period, research and development spending is likely to continue to rise, also as a result of the digitalization and decarbonization of the economy. Investments in other assets are likely to increase by 2.7% in 2025 and 2026.

Despite the stabilizing effect of commercial construction and the increase in investments in other assets , corporate investments are expected to decline significantly in 2024, by 4.0%. This can be attributed to the weak development in equipment investments, which account for around half of total commercial investments. A moderate recovery in corporate investments is expected for 2025 (0.9%), followed by a significant increase in 2026 (3.7%).

counteract the expansion of real residential construction activity. The business climate for construction companies, however, remains tense, even if expectations have brightened slightly. In the future, the Growth Opportunities Act should have a supportive effect, especially through special depreciation for the construction of new rental apartments.

Non-residential construction is likely to maintain its stabilising effect (Table 2.11, page 47). In civil engineering, surveys show that construction companies are assessing their

Bottom in sight for construction investments

Construction investments continued to decline in the first half of this year (-1.2%). In the first quarter, construction investments did increase by 0.8% , which was largely driven by public construction, which increased by 7.2%. However, as in the first quarters of previous years, the increase exaggerated the economic momentum, as seasonal adjustments do not adequately take into account the increasingly mild winters.5 In the second quarter, construction investments continued their downward trend and fell by 2.0%. This was mainly due to the 2.3% decline in residential construction, which is particularly sensitive to interest rates. The decline in non-residential construction, on the other hand, was less pronounced, which is probably mainly due to civil engineering, whose capacity utilization was significantly higher than that of building construction until recently.

For the third quarter, the institutes are expecting a further decline in construction investments of 0.9%. Construction production remained subdued until recently, and capacity utilization in the construction industry declined in the third quarter according to the monthly figures available . The persistently high construction prices and difficult financing conditions in particular are having a dampening effect here.

In the final quarter of this year and next year, the two-part development of building and civil engineering is likely to continue. Incoming orders in civil engineering remain at a high level and were again on an upward trend in July. In contrast, the situation in building construction, and in particular in residential construction, remains tense, which is reflected in the low number of building permits. Accordingly, the order backlog in residential construction is at just over three months, the lowest level since the beginning of 2016, although the decline has recently slowed somewhat. On the financing side, however, there are initial positive signals. The interest rate for real estate loans has fallen slightly since the beginning of August, and the number of newly concluded mortgage contracts has increased year-on-year since the beginning of the year. A moderate increase can also be observed in the nominal volume of new loans , although the continuing rise in construction prices

Table 2.11

construction investments

	2023	2022	2023	2024	2025	2026
	Shares in %	Change compared to the previous year in %, price-adjusted				
residential buildings	61,6	−4,3	−4,1	−4,8	−1,2	2,7
non-residential buildings	38,4	−3,3	−2,3	−1,6	0,9	2,8
Commercial construction	24,0	−2,4	−4,1	−3,0	1,3	3,4
Public Construction	14,4	−4,8	0,8	0,7	0,3	1,9
construction investments	100,0	−3,9	−3,4	−3,6	−0,3	2,7

Sources: Federal Statistical Office; 2024 to 2026: Institutes' forecast.

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Figure 2.10

construction investments

Price, season and calendar adjusted
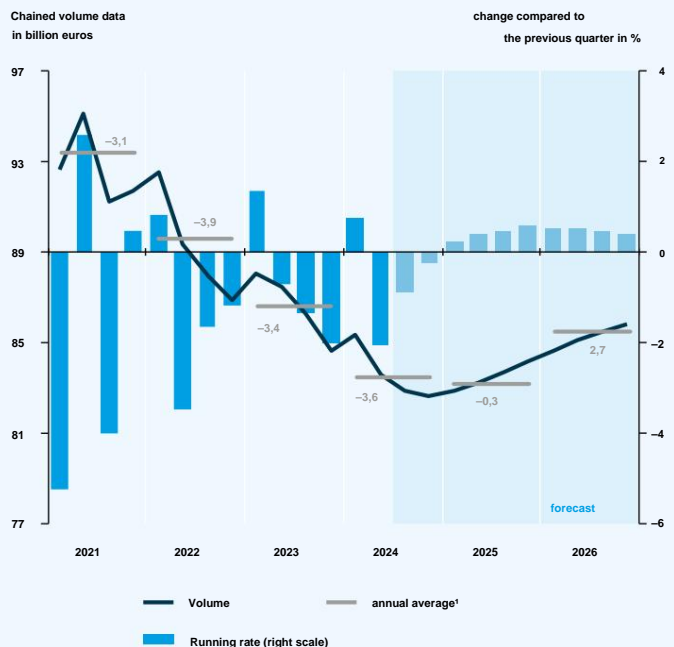
1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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5 **Schmidt, T.; Balleer, A.; Benner, N.; Blagov, B.; Dirks, M.; Isaak, N.; Jessen, R.; Kirsch, F.; Kotz, S.; Krause, C.; Nöller, M.; Schacht, P.:** Early summer 2024: Economic recovery in Germany lacks momentum. RWI Economic Reports, 2024, 75, 2, 37–74, Box 1.

The business situation is positive and business expectations there - as in non-residential construction - are pointing slightly upwards . The number of orders in commercial construction and public construction also rose significantly in the first half of the year. The orders are likely to be processed in the further forecast period. In civil engineering, the expansion and maintenance of the electricity, rail and road networks are likely to play an important role. The tight financial situation of many municipalities, on the other hand, will have a dampening effect.

Overall, the institutes expect a subdued development for the construction industry . Construction investments are likely to fall by 3.6% this year. Next year, they will then probably fall by around 0.4%, determined by the continued weak residential construction, before rising more noticeably again in 2026 with an increase of 2.8% (Figure 2.10, page 47).

After a slowdown at the end of 2023, construction prices have picked up again noticeably in the first half of the year. The ifo construction price expectations have also recently been pointing upwards again. Company surveys on the cost coverage of the construction prices achieved currently show no scope for construction price reductions. The institutes expect construction prices to rise by 2.9% this year compared to the previous year . In the coming years, price increases are likely to ease (1.3% in 2025 and 1.6% in 2026).

Private consumption above pre-crisis level

Following the general revision of the national accounts, the development of private consumption is more positive than before. According to the current calculations, private household consumption in 2023 was 0.2% higher than in 2019, after a shortfall of 1.5% had been reported according to previous data .

In the first half of the current year, consumption continued to recover, initially increasing by 0.3%, before falling by 0.2% in the second quarter. This is remarkable in that the income losses due to purchasing power have now been offset. There has thus been no sustained upturn in consumption so far this year. The European Football Championship is also unlikely to have had any further impact on domestic consumers' spending habits. Spending on catering and accommodation services fell by 1.6% , while prices in this area rose by over 6%, significantly more than the general price level.

The savings rate had also returned to normal in the meantime , after peaking at over 20% during the pandemic. However, it has been on an upward trend again for four quarters now and was most recently 0.6 percentage points above its long-term average of 10.7%. The ongoing economic uncertainty is likely to be a driving force behind the increased propensity to save among private households. Part of the increase in disposable income is therefore likely to have flowed into savings. From a conceptual point of view, there are a number of indicators that could provide information on the economic trend of the savings rate. These include the interest rate level, uncertainty measures and the saving and purchasing propensity of private households measured by surveys . In particular, the consumer climate indicators and unemployment expectations provide clues to the short-term development of the savings rate (Chapter 5, page 73).

Accordingly, the institutes expect that the savings rate will gradually decline again from its elevated level over the forecast period and will reach 10.6% in 2026.

After disposable income increased by 4.7% in the first half of the current year, it is expected to rise by 3.3% in the second half of the year . The dynamic in income development is fed in particular by the significant increase in wages and salaries as well as monetary social benefits.

Although nominal growth rates remain significantly below those of recent years, the slowing rise in consumer prices should lead to an increase in real disposable income .

Figure 2.11

private household consumption expenditure1

Price, season and calendar adjusted
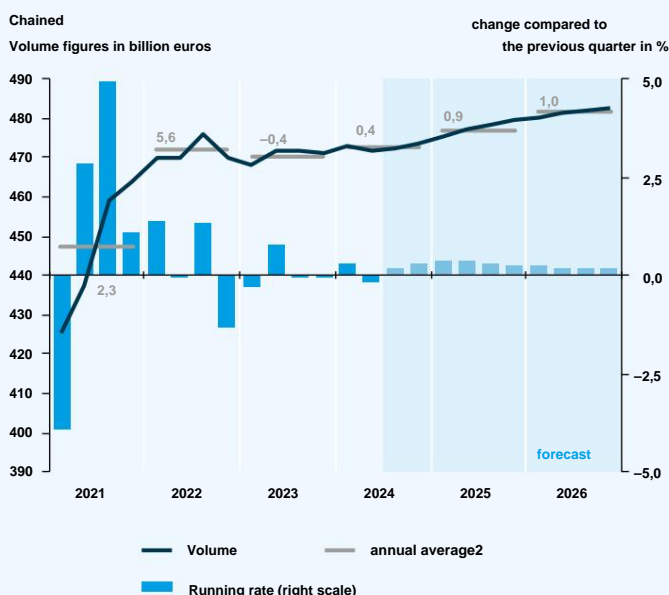
1 Including private non-profit organizations.
2 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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This year, the growth rate is expected to be 1.3%, which is significantly higher than the rates of recent years. A slowdown in income dynamics is expected for the remainder of the forecast period, which is likely to be reflected in growth rates in real disposable income of 0.7% in 2025 and 1.1% in 2026.

Both the retail sector and consumer-related service providers are currently cautious about their business situation. However, a cautious optimism has recently been observed with regard to their business expectations. On the consumer side, too, various sentiment indicators point to a slow upward trend in consumption. Against this background, private consumer spending is likely to rise slightly in the current quarter.

In the coming quarters they will probably initially increase somewhat more strongly, but the expansion will slow down over the further course of the forecast. Overall, the institutes are expecting private consumption to increase by 0.4% this year . In each of the next two years it is likely to increase by around 1% (Figure 2.11, page 48).

Government consumption with declining momentum

Government consumption expenditure is expected to expand strongly this year, by 1.9%, adjusted for price. About half of this high increase is due to the statistical surplus from the previous year. In the first half of 2024, high intermediate goods purchases as part of military procurement and a further increase in sick leave compared to the previous year led to increases in intermediate goods purchases and social benefits in kind. In addition, additional spending as a result of discretionary measures in the health and care sector will stimulate government consumption in 2024. Government consumption is then likely to expand at a weaker rate in 2025 and 2026. Demographic change is increasingly leading to additional spending, especially on social benefits in kind . However, this is offset by the fact that discretionary measures in the health and care sector, such as the Health Care Strengthening Act or the Care Reform, will be associated with lower additional expenditure in 2025 and 2026 than in 2024.

Unemployment continues to rise for the time being

In August, 2.8 million people (rate: 6.0%) were registered as unemployed after seasonal adjustment. This means that unemployment has increased by around 300,000 people since August 2022. The number of unemployed people with a Ukrainian passport has hardly changed in the same period. Unemployment rose by 23% in the last two years in the cyclically sensitive legal area of SGB III (unemployment insurance), whereas it only rose by 8% in the legal area of SGB II (basic security/ citizen's allowance).

The ratio of unemployed to vacancies also suggests that the increase in unemployment is primarily due to a decline in labour demand on the part of

of companies and not so much to supply-side factors in the labor market.6

Although short-time work has also increased and is at a higher level compared to long-term levels, the increase of 39,000 people (in employee equivalents) since August 2022 is rather small given the poor economic situation in industry. This suggests that many affected companies view the lower demand for labor as permanent and are therefore resorting to job cuts and/or relocations despite the general labor shortage, instead of bridging this gap with the help of short-time work.

The moderate increase in employment continued . The number of employed persons increased in recent months to 46.2 million. While the number of employees with only marginal wages stagnated, the number of those in social security expanded.

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6 Adjusted for the effect of Ukrainian refugees, there is no significant difference. application of the so-called Beveridge curve. According to estimates by **Weber, E.:** The dovish turnaround: Germany's social benefit reform and job findings, in: IAB Discussion Paper 7/2024, Institute for Employment Research, Nuremberg, 2024, the citizen's allowance reform in January 2023 led to a decline in employment from benefit receipt of almost 6% within the first 12 months after it came into force. However, according to the institutes' calculations, this only corresponds to a long-term increase in the overall unemployment rate of an estimated 0.1 percentage points.

Figure 2.12

employed people

domestic concept, seasonally adjusted
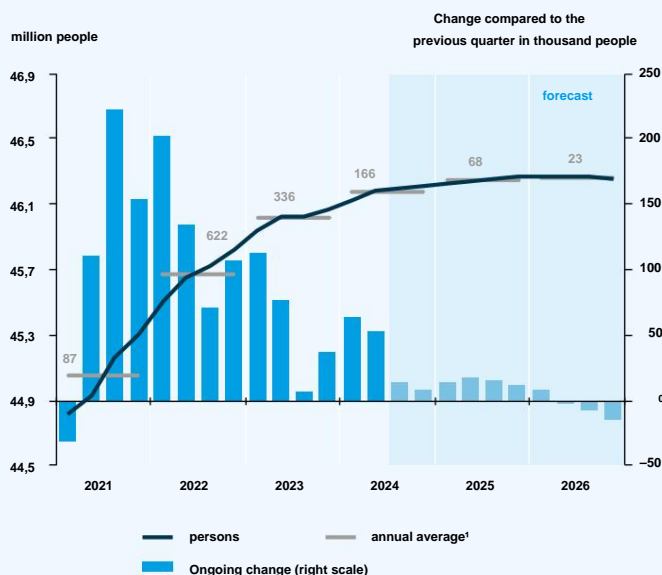
1 Figures: Change in original values compared to the previous year in thousands of people.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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Machine Translated by Google

Figure 2.13

unemployed

seasonally adjusted

1 Figures: Change in original values compared to the previous year in thousands Persons.

Sources: Federal Employment Agency; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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Table 2.12

labor market balance

annual averages in thousands of people

	2022	2023	2024	2025	2026
work volume (million hours)	61 211	61 437	61 631	61 816	62 028
employed persons in Germany	45 675	46 011	46 176	46 244	46 267
employees	41 781	42 163	42 356	42 443	42 486
including:					
SV employees	34 525	34 799	34 949	35 071	35 192
marginally employed	4 127	4 199	4 196	4 175	4 136
self-employed	3 895	3 847	3 820	3 802	3 781
Pendlersaldo	211	210	201	200	200
employed nationals	45 464	45 801	45 975	46 045	46 068
unemployed	2 418	2 609	2 775	2 781	2 664
unemployment rate1	5,3	5,7	6,0	6,0	5,7
unemployed2	1 343	1 335	1 508	1 514	1 451
unemployment rate3	2,9	2,8	3,2	3,2	3,1

1 Unemployed in % of the civilian workforce (definition according to the Federal Employment Agency).
2 ILO definition.
3 Unemployed as a percentage of the domestic workforce (employed domestic workers plus unemployed).
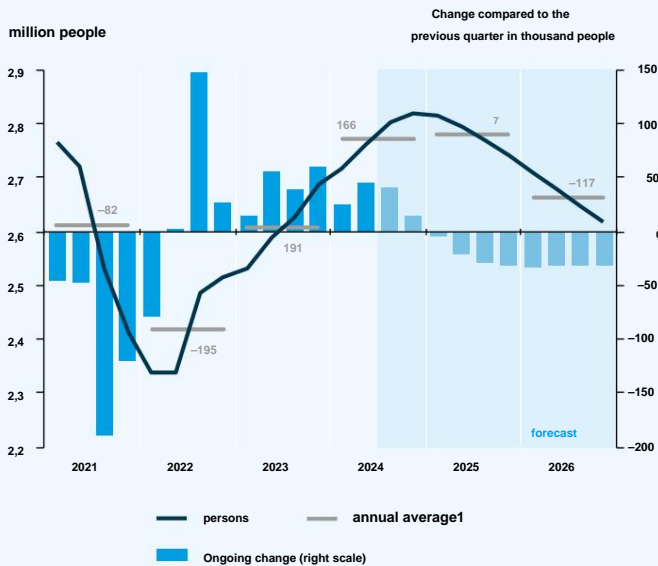
Sources: Federal Statistical Office; Federal Employment Agency; 2024 to 2026: forecast of the institutes.

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The increase in employment subject to social insurance contributions continues to be slight. The increase in employment continues to be driven exclusively by people of foreign nationality; the number of employees with German passports has been falling for over two years, which is primarily due to demographic aging. Furthermore, the increase in employment subject to social insurance contributions over the past twelve months has only taken place in the service sector - in absolute terms the greatest increase was in the health sector, in the care and social services sector, in public administration, in qualified business service providers and in education and teaching. In the manufacturing sector - especially in the chemical industry - and in construction, on the other hand, jobs were cut on balance; the decline in temporary employment also continued unabated. The decline in the number of self-employed people continued to slow.

According to the IAB labor market barometer, local employment agencies expect unemployment to continue to rise in the coming months . In addition, the early indicators for employment have recently moved mostly sideways and point to a continued slight increase in employment. Against this background, the institutes initially expect slight increases in both employment (Figure 2.12, page 49) and unemployment (Figure 2.13, page 50) for the rest of the year . If economic activity recovers somewhat - as the institutes expect - unemployment should begin to fall over the course of the coming year. In the case of employment, stronger increases are offset by the ageing workforce potential, which according to estimates will pass its peak in the forecast period (Chapter 3, page 58). However, the estimate is subject to a high degree of uncertainty, as the age-specific participation rates and immigration are difficult to predict. Overall, the institutes expect the unemployment rate to be 6.0% this year and next, before falling to 5.7% in 2026 (Table 2.12, page 50).

The working hours worked (volume of work per employed person) are likely to increase slightly in the forecast period as the economy recovers . In addition, there will be significantly more working days available in 2026 than in the previous year. Working hours are also likely to be supported by an assumed decline in sick leave . However, the institutes do not expect the reported sick leave to return to full normality, as part of the increase recorded since 2022 is likely to be due to the introduction of electronic certificates of incapacity for work in the same year and thus to more complete recording of short periods of incapacity for work in particular.

The current forecast does not take into account possible effects of the labor market policy measures of the growth initiative. A large part of these measures are aimed at expanding the employment of (1) people of retirement age by means of financial incentives and the abolition of the ban on fixed-term contracts without objective reasons if an employment relationship with the same employer previously existed, (2) women, for example by expanding childcare places, and (3) people in transfer systems, for example by means of start-up funding and stricter reasonableness rules and cooperation obligations. In addition, there are measures to reduce bureaucracy in order to reduce hurdles to taking up work and to facilitate the immigration of skilled workers. Depending on when the individual measures come into force and how they will be designed exactly - both of which were not yet certain before this report was completed - there could be positive employment effects as early as the forecast period .

Wage dynamics are slowing down

For the current year, the wage rates in all major wage areas have been largely fixed. After the wage negotiations for the various retail districts, which lasted for over a year , had led to agreements in May and June that provided for an increase in the basic wage rate in the current year of over 10% and an inflation compensation premium of 1,000 euros , the wage partners in wholesale and foreign trade followed suit a short time later, as expected, with an almost identical agreement. A possible wage agreement in the metal and electrical industries before the end of the year is unlikely to have any further influence on the annual rate.

The institutes expect collective wages to increase by a total of 4.9% this year, after 3.6% last year (Table 2.13, page 51). In the coming year, the increase is likely to slow significantly to 2.8%. Although collective wages are once again increasing more sharply than in the previous year, the increase in collective wages will be noticeably dampened by the abolition of inflation compensation premiums. These can still be collected tax-free until the end of the current year. According to the latest information from the Federal Statistical Office, between October 2022 and December 2024, almost 86% of all collective wage employees will have received inflation compensation premiums, which (for full- time employees) will amount to an average of EUR 2,672. After this period, such high one-off payments are no longer to be expected. This is also reflected in the collective agreements that have been concluded to date. In 2026, the dynamics of collectively agreed wages are unlikely to change much, in line with continued weak overall economic development and moderate price increases.

The growth in effective earnings (gross wages and salaries per employee) will also slow down after very strong increases. Effective earnings rose by 6.4% last year, thus increasing significantly earlier than collectively agreed earnings. The exceptionally large wage drift was due to the fact that wage increases in retail probably already occurred last year due to the very long-running collective bargaining conflict. For example, the German Retail Association recommended that retail companies covered by collective agreements increase their wages by 5.3% from October 2023, which could be offset against a later collective agreement . In this respect, around half of the recently agreed collective bargaining increases in retail have probably already been implemented, which in itself increases the wage drift in 2023 and reduces it in 2024. In addition, part of the wage drift last year is due to the

minimum wage increase to 12 euros in October 2022. In the current year, a somewhat weaker but still significant increase in effective earnings is emerging. Between January and July, wages and salaries per employee were on average 6% higher than the respective previous year's figures. For the year as a whole, the institutes expect an increase of 5.0%. In the next two years, wage dynamics are likely to calm down noticeably (3.1% and 2.9% respectively).

The high increases in wage costs and the weak labor productivity are leading to a sharp increase in real unit labor costs, especially in the current year. However, given the previous sharp declines due to the delayed reaction of wages to the sharp rise in inflation, this merely represents a normalization of the relationship between wage costs on the one hand and prices and labor productivity on the other. The institutes do not expect any major change in real unit labor costs for 2026 .

Table 2.13

On the development of wages

Domestic concept, change compared to previous year in %

	2022	2023	2024	2025	2026
Average working hours	−0,2	−0,1	0,1	0,2	0,4
earnings per employee	4,3	6,4	5,0	3,1	2,9
earnings per hour	4,5	6,6	4,9	2,8	2,5
wage drift (employees)	2,2	2,9	0,1	0,2	0,1
collective wage (month)	2,2	3,6	4,9	2,8	2,8

Sources: Federal Statistical Office; 2024 to 2026: Institutes' forecast.

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## Inflation largely normalized, but Service prices are still rising sharply

Consumer price inflation fell to 1.9% in August , the lowest level in more than three years. From March to July, the inflation rate fluctuated between 2.2% and 2.4%. Energy prices, which fell by 5.1% year-on-year, contributed to the decline in August. However, the core inflation rate (consumer prices excluding energy) is still high at 2.6%, which is mainly due to the persistently high increase in the price of services (3.9%) . Food and industrial goods excluding energy, on the other hand, recorded much lower inflation rates in August at 1.5% and 1.0% respectively .

The year-on-year rate of the energy component, particularly for fuels and heating oil, is currently affected by a special effect. In the autumn of last year, the world market price for oil (Brent) rose noticeably . The price is currently well below the level of the previous year. This base effect, which dampened prices from August to October, will disappear towards the end of the year, so that inflation will then probably rise again. According to the futures market quotations, the oil price is likely to fall slightly in the forecast period (Table 2.7, page 38), which in itself will push up fuel and heating oil prices.
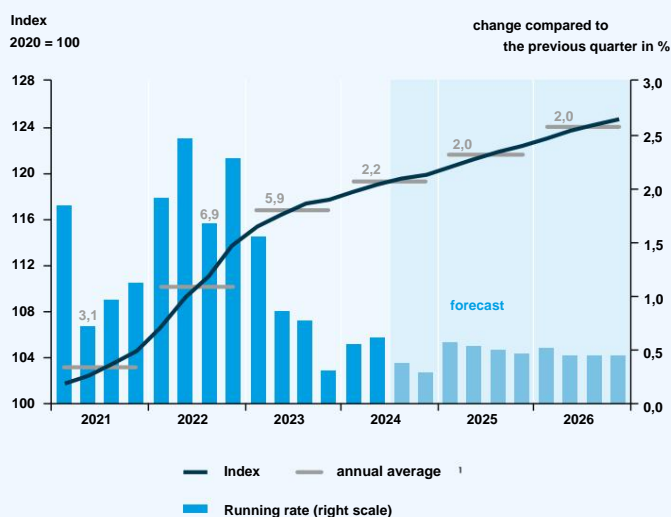
However, the CO_2 price increase at the turn of the year 2024/25 and 2025/26 will counteract this decline.[7]

Consumer prices for electricity and gas have largely stagnated recently. In April, the sales tax rate on gas, which was reduced to 7% in October 2022 against the backdrop of the energy crisis, was increased back to its original level of 19%. However, the increase was only slightly reflected in consumer prices for gas. The lower wholesale prices, which are gradually being passed on to consumer prices due to the suppliers' long-term procurement strategy , are likely to have counteracted major price adjustments.[8] Wholesale prices for electricity and gas have been moving sideways for several quarters, so that the assumptions about their future price path deviate only insignificantly from those in the most recent spring report. According to the stock exchange quotations for electricity (gas) in August and September, the institutes expect an average price of 91.4 (39.8) and 84.3 (34.4) euros/MWh for 2025 and 2026, respectively. The passing on of the stock exchange prices, which have fallen compared to the crisis year of 2022, by the energy suppliers is now well advanced in the consumer price statistics. In their forecast, the institutes are still assuming slight price declines for the electricity and gas components for the current year. However, no further price declines are assumed for 2025 and 2026. Among other things, the network charges for electricity are likely to continue to rise and the increase in CO_2 pricing will be noticeable in gas contra Overall, the energy component is expected to decline by 3.3% and 2.5% in 2024 and 2025, respectively, and increase slightly by 0.9% in 2026.

Core inflation has weakened significantly since its peak in spring 2023, but is still at an elevated level. The main contributors to price pressure are service providers, who have increased their prices not only year-on-year, but also across the board over the past few months.[9] The price increase coincides with sharp wage increases , which have a cost impact on service providers in particular due to the higher labor intensity . Service prices usually react with a delay to a sharp rise in the general price level. During the inflation surge, service prices initially rose much more slowly than goods prices. If rents are left out of the equation , however, service prices have now caught up, so that the relative price structure compared to industrial goods excluding energy is roughly the same as that of the

Figure 2.14

consumer prices

Seasonally and calendar adjusted

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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7 The CO_2 price applies to fuels, heating oil and gas. At the beginning of 2025, it will rise from 45 to 55 euros/ton. In 2026, it will then move within a price corridor between 55 and 65 euros. The direct effect on inflation is expected to be around 0.1 percentage points in each case.

8 The situation is similar with the price of electricity for households, which has so far remained largely stable despite the elimination of state subsidies for network charges.

9 Price pressure was particularly high recently in the case of motor vehicle insurance, which August by around 26% compared to the previous year. Their contribution to overall inflation was 0.2 percentage points, despite their low weight in the weighting scheme (0.8%).

2019. However, prices for services excluding rents have been rising more sharply than those for goods for a long time before this, which is likely to be due, among other things, to rising relative demand for services and weaker productivity growth in this sector.10 The increase in the relative prices of services is therefore likely to continue for the time being . There is also still some catching up to do with rents , which have increased significantly less than other domestic prices since the COVID-19 pandemic .

This is already evident in the rents, which have been rising sharply for several quarters and have recently risen by 2.1%, significantly faster than the long-term average (1.2%). The catching-up process is likely to take even longer due to the discrepancy between the level of new contract rents and existing rents. Overall, therefore, the price increase in services is likely to subside only slowly and will continue to contribute above average to overall inflation.

In contrast to services, price developments for food and industrial goods excluding energy are currently lagging behind overall inflation.

The fall in energy and raw material prices has been having a dampening effect for some time. However, this effect is likely to gradually fade. There is also a slight upward trend in the upstream production stages (import and producer prices) . The price increase for food and industrial goods excluding energy should therefore gradually normalize.

Figure 2.15

consumer prices excluding energy
Seasonally and calendar adjusted

1 Figures: Change in original values compared to the previous year in %.

Sources: Federal Statistical Office; calculations of the institutes; from the third quarter of 2024: forecast of the institutes.

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Overall, the institutes expect consumer prices to rise by 2.2% in 2024 and 2.0% in 2025 (Figure 2.14, page 52). The core rate will remain high at 2.7% this year and 2.4% next year , but falling energy prices will counteract overall inflation in both years (Figure 2.15, page 53). In 2026, the core rate is expected to be 2.1% and the overall inflation rate 2.0%.

income and additional tax relief for depreciation. Sales tax is likely to increase more than gross domestic product in 2024 and 2025 - initially driven by the normalization of the sales tax rate on gas and in the catering industry, and later by the increase in construction investments. Other production taxes will probably expand strongly. The main reason for the increases is the increase in the CO2 price.

Continued high deficits in public budgets

State revenues are likely to expand more than nominal gross domestic product over the entire forecast period . In 2024 and 2025, strong increases in wages and salaries will probably lead to a sharp increase in wage and income tax revenues. In addition, the use of tax -free inflation compensation premiums is declining, which is also boosting tax revenues. The adjustment of the tariff base values in line with the forecast inflation rates is having a dampening effect . In 2026, income tax is likely to expand with decreasing momentum.

In comparison, profit-related taxes are likely to remain low throughout the forecast period due to the moderate development of corporate and asset values.

Overall, tax revenues are expected to increase by 4.2% in 2024, 3.4% in 2025 and 2.7% in 2026, reaching EUR 1,060 billion. The tax rate will be 23.1% in 2024, 23.4% in 2025 and 23.3% in 2026.

Revenues from social security contributions are likely to expand strongly in the forecast period; here too, strong wage increases and the expiration of the inflation compensation premium in 2024 and 2025 will give a strong boost to revenues. At the same time, increases in contribution rates are expected for all three forecast years.

State sales are expected to increase more sharply in 2024 than in the previous year. The increase will be driven by the expansion of the truck toll. Sales prices are also likely to increase in view of the consolidation

10 *Amatyakul, P.; Igan, D.; Lombardi, M. J.:* Sectoral price dynamics in the last mile of post-Covid-19 disinflation, in: BIS Quarterly Review, 45, 2024.

pressure from local authorities. In 2025 and 2026, the corresponding revenues will probably increase at somewhat lower rates.

The received investment income will still be stimulated by the increased interest rates in 2024 , but the institutes expect significantly smaller increases in the two following years , especially since interest rate cuts are foreseeable for the forecast period.

Revenue from other current transfers has fluctuated in recent years with payments from the Next Generation EU program. In the current year, fewer funds are likely to be drawn down than in the previous year, which will dampen other current transfers . In 2025, other current transfers will probably increase slightly again thanks to increasing payments from the Next Generation EU program.

In 2026, a stagnation of other current transfers received is to be expected.

All in all, the institutes expect a strong increase in revenues of 5.1% this year. In 2025, revenues are expected to increase by 4.4% and in 2026 by 3.2% to EUR 2,173 billion.

Government expenditure is increasing more slowly than revenue this year . Interest expenditure, monetary social benefits and employee compensation are likely to expand again at high rates . However, this is offset by the elimination of measures to cushion the overall economic consequences of the rise in energy prices.

in particular the "electricity and gas price brake" and payments to stabilize network charges, which in themselves amounted to over 30 billion euros on the expenditure side in 2023.

Employee compensation is expected to increase at a rate of 4.3% in 2024 , slightly less than in the previous year. For example, the collectively agreed wages of federal and municipal employees were increased significantly on March 1, 2024, and state employees will receive monthly payments as part of the inflation compensation premium up to and including October, followed by a large flat-rate wage increase on November 1, 2024. However, the inflation compensation premiums for federal and municipal employees have been eliminated .

In 2025, employee compensation will expand at a somewhat slower pace. Although employees in the federal states will receive a salary increase on February 1, 2025, just as strong as employees in the federal and local governments in the previous year, the one-off payments of the inflation compensation premium will be eliminated entirely. In 2026, the increase in employee compensation is likely to slow down again as inflation falls.

Monetary social benefits, which were noticeably expanded last year, not least due to the introduction of the citizen's allowance and a significant increase in child benefit , will increase somewhat more cautiously in 2024. The sharp increase in basic security rates at the beginning of the year will increase spending. In addition, the 4.6% pension increase on July 1, 2023 will have an impact in the first half of 2024. On July 1 of the current year, pensions were increased again at a similar rate.

Table 2.14

Selected financial indicators1

In relation to nominal gross domestic product in %

	state revenue			government spending			financing balance	gross debt level	for information: interest tax rate2
	in total	including:		in total	including:				
		Steer	net social contributions		interest expenditure	gross investment			
2016	45,9	23,7	16,4	44,7	1,2	2,4	1,1	67,6	5,0
2017	45,9	23,8	16,5	44,6	1,0	2,5	1,3	64,0	4,3
2018	46,6	24,1	16,7	44,7	0,9	2,6	1,9	60,7	3,8
2019	46,9	24,1	16,9	45,6	0,8	2,7	1,3	58,6	3,3
2020	46,7	23,2	17,6	51,1	0,6	3,1	−4,4	67,9	2,8
2021	47,5	24,4	17,2	50,7	0,6	2,9	−3,2	67,9	2,4
2022	46,9	24,3	16,9	49,0	0,7	2,8	−2,1	64,8	2,9
2023	45,8	22,9	17,0	48,4	0,9	2,8	−2,6	62,7	3,8
2024	46,7	23,1	17,5	48,9	1,1	3,0	−2,1	63,0	4,6
2025	47,6	23,4	18,1	49,5	1,1	3,0	−1,9	63,5	4,8
2026	47,7	23,3	18,2	49,6	1,1	3,1	−1,9	63,6	4,9

1 In the definition of national accounts.
2 Government interest expenditure in relation to tax revenue.

Sources: Federal Statistical Office; 2024 to 2026: Institutes' forecast.

In addition, the number of unemployed will be higher than in the previous year. In 2025 and 2026, the momentum in monetary transfers is likely to weaken. For example, basic security rates are not expected to be increased on January 1, 2025, the number of unemployed will fall again later on, and pension adjustments are likely to be lower in 2025 and 2026.

Social benefits in kind will increase at an accelerated rate in 2024, after a slight increase in the previous year, also because various measures in the health and care sector will cause additional expenditure. As the forecast period progresses, demographic change will increasingly increase expenditure, but the additional expenditure due to discretionary measures in the health and care sector will be lower, so that the expansion will weaken somewhat in 2025 and 2026.

Intermediate goods purchases are also likely to lose momentum over the forecast period, not least as a result of declining inflation and the strained budgetary situation .

The state's gross investments continue to grow strongly . This is primarily due to the development of public equipment investments, which reflect the increasing outflow of funds for military procurement from the Bundeswehr special fund . The state's construction investments, on the other hand, are likely to expand only moderately over time, with the decline in price dynamics in particular dampening the increase.

Subsidies will decrease noticeably in 2024.
This decline is due to the collapse of goods

Figure 2.16

structural primary balance

In % in relation to nominal production potential

1 The structural primary balance is the sum of the bars.

Sources: Federal Statistical Office; calculations of the institutes; 2024 to 2026: forecast of the Institute.

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Table 2.15

fiscal balance, structural fiscal balance and structural primary balance of the general government

In relation to gross domestic product or production potential in %

	EU-Methode1				Modified EU Method (MODEM)1			
	2023	2024	2025	2026	2023	2024	2025	2026
general government financing balance	−2,6	−2,1	−1,9	−1,9	−2,6	−2,1	−1,9	−1,9
− Cyclical component2 = cyclically	−0,4	−0,7	−0,6	−0,3	−0,3	−0,6	−0,4	0,0
adjusted financial balance	−2,2	−1,4	−1,3	−1,6	−2,3	−1,6	−1,5	−1,9
− One-off effects3	-	-	-	-	-	-	-	-
= structural financial balance	−2,2	−1,4	−1,3	−1,6	−2,3	−1,6	−1,5	−1,9
+ interest expenses	0,9	1,1	1,1	1,1	0,9	1,1	1,1	1,1
= structural primary balance	−1,3	−0,4	−0,2	−0,5	−1,4	−0,5	−0,4	−0,8
Change in the structural primary balance compared to the previous year For information: structural	0,5	0,9	0,2	−0,3	0,5	0,9	0,2	−0,4
financing balance in billion euros	−91,2	−62,3	−56,9	−73,9	−95,5	−68,2	−65,6	−87,3

1 For an explanation of the EU method and the modified EU method, see Chapter 3.
2 Calculated with a budget semielasticity of 0.504.
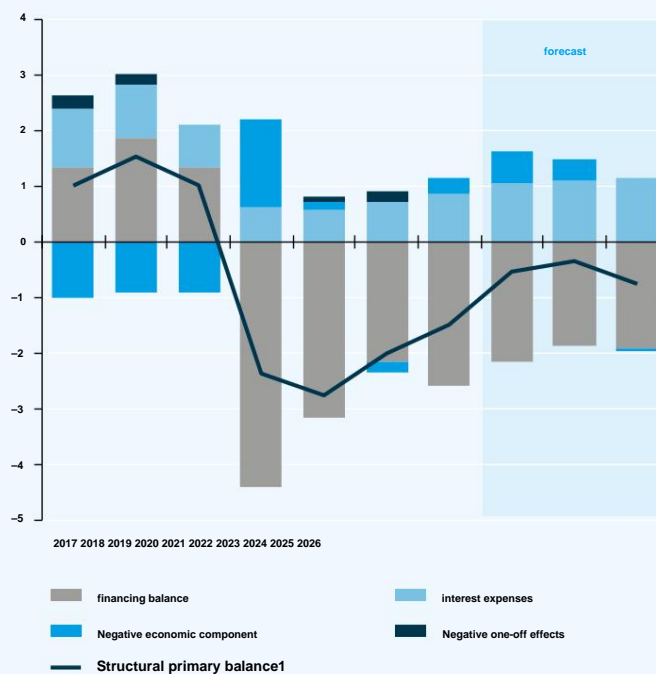3 Effects of court decisions.

Note: General government fiscal balance in relation to gross domestic product. One-off effects, interest expenditure, cyclical component, cyclically adjusted fiscal balance, structural fiscal balance and structural primary balance in relation to production potential.

Sources: Federal Statistical Office; calculations and estimates of the institutes.

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subsidies in the wake of the abolition of the "electricity and gas price brake". Other subsidies, however, are likely to expand noticeably in the current year due to rising expenditure in connection with the EEG.

In the coming years, subsidies will probably increase slightly overall in view of further rising payments under the EEG .

The amount of capital transfers made has increased noticeably in recent years. This is likely due to aid payments to companies and expenditure by the KTF or

Outflows of funds from the German Recovery and Resilience Plan (DARP) played a role. During the forecast period, it can be assumed that the capital transfers made will practically stagnate at a high level.

Expenditure on other current transfers is likely to be lower in 2024 than in the previous year because payments to the EU are expected to be significantly weaker than in 2023. Significantly higher EU payments are expected for 2025 and 2026 , so that current transfers will increase again in these years. Investment income paid will expand strongly in 2024 for the third year in a row because the yield on newly issued public bonds has been significantly higher than in previous years since 2022. For the following years, the institutes expect

with a further increase in government interest expenditure, although this is gradually weakening. Overall, public spending will increase by 4.1% in 2024, a similar rate to the previous year. In 2025 and 2026, public spending will expand by 3.7% and 3.3% respectively. In relation to gross domestic product, government spending will rise from 48.4% in 2023 to 49.6% in 2026 (Table 2.14, page 54).

All in all, the general government budget deficit is expected to fall to 2.1% this year, from 2.6% in relation to gross domestic product in the previous year . In 2025 and 2026, the government's fiscal balance in relation to gross domestic product will be -1.9% in each of the years (Table 2.15, page 55).

The structural deficit according to the modified EU method will decrease from 2.4% of potential output in 2023 to 1.9% in 2026.

The structural primary balance will increase from -1.4% of potential output in 2023 to -0.8% in 2026 (Figure 2.16, page 55). The government's gross debt will increase from 62.7% in 2023 to 63.6% in 2026.

3. Potential assessment and medium-term projection

estimation of production potential

The institutes estimate the production potential using a method based on that of the European Commission (EU method). The basis is a Cobb-Douglas production function, which includes the potential volume of work, the overall economic capital stock and the trend in total factor productivity (TFP).1 The volume of work measured in hours is derived from the working-age population, the trend participation rate, the structural unemployment rate and the trend in average working hours per employed person. In addition, the institutes also calculate the production potential using a modified method (modified EU method, MODEM), in which extrapolation models are adapted to empirical conditions in Germany, for example for working hours, labor force participation and TFP. All models are regularly checked and updated.

The institutes base their economic assessment on the results of the modified EU method. The medium-term projection and the cyclical adjustment of public financial indicators are carried out using the EU method in order to ensure comparability with the federal government's financial planning .

For population development, the institutes are guided by variant W2-G2-L2 of the 15th coordinated population forecast published by the Federal Statistical Office in December 2022 , which is based on moderate assumptions on migration, birth rate and the increase in life expectancy, as well as the actual population level at the end of 2023.2

In the present projection, the migration balance is also adjusted to the current circumstances, since at the time of calculating the population forecast, the extent of refugee migration from Ukraine in particular could not be fully taken into account . The current migration and, as a special effect, the migration movement from Ukraine. The continuous reduction in the migration balance to 250,000 people in 2033 assumed in the population forecast is only applied to the remaining migration. The migration balance amounted to a good 1.5 million people in 2022 (including around 960,000 people from Ukraine) and was around 660,000 people last year (including just over 110,000 people from Ukraine).

For the current year, a war-related net immigration from Ukraine of almost 100,000 people is assumed, which will continue to weaken to a total of 70,000 people in the next two years. The remaining migration balance will gradually decrease from around 410,000 people this year to 370,000 people at the end of the projection period.

Assuming that 60% of Ukrainian refugees are of working age (15-74 years), the working population in Germany as a whole will only increase in the current year, but will then decline as a result of demographic aging. This means that the peak of the working population will be reached earlier than the estimate in spring, as the remaining migration in particular will have slowed down significantly in 2024. However, the assumptions on refugee migration are subject to a high degree of uncertainty. In recent years, the migration projections have been a figure that the institutes have tended to underestimate, which in itself subsequently led to an upward revision of the production potential.3

Since the above -average immigration in 2015, the participation rates have been considered separately for refugees and for the rest of the working population . Based on data on employment and unemployment from the IAB Immigration Monitor, a participation rate of 47% (2022) and 54% (2023) was derived for Ukrainian refugees.4 This rate is expected to rise to 70% by 2028.5 This implies a participation rate of all

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1 *Havik, K.; McMorrow, K.; Orlandi, F.; Planas, C.; Raciborski, R.; Roeger, W.; Rossi, A.; Thum-Thysen, A.; Vandermeulen, V.:* The Production Function Methodology for Cal-culating Potential Growth Rates & Output Gaps, European Economy, Economic Papers 535, Brüssel, 2014. doi:10.2765/71437.

2 Although the Federal Statistical Office published revised population figures based on the 2022 census in July 2024, these are not yet available in the level of detail required to estimate production potential, such as by age. The institutes are therefore basing their current projection on population figures according to the 2011 census. In any case, the revision of the population figure is likely to significantly change only the growth contributions of participation and the working population, but not the overall contribution of the volume of work. It is therefore not expected to have any significant effect on production potential.

3 *Joint Diagnosis Project Group:* German economy is ailing - reform of the debt brake is not a panacea, Joint Diagnosis Spring 2024, Kiel 2024, Chapter 5.

4 This results from an increase in employment among all Ukrainian citizens by 154 000 persons and an increase in unemployment by 190 000 persons in relation to net immigration of working age (IAB Immigration Monitor, various editions).

5 Such an increase also seems realistic given that the refugees who immigrated in 2015/2016 have already significantly increased their participation by 2022. Using survey data, Brücker et al. (2023) document great progress in the labor market integration of this group. According to this, 54% of refugees with a stay of six years were employed. *Brücker, H.; Jaschke P.; Kosyakova Y.; Vallizadeh E.:* Development of labor market integration since arrival in Germany: employment and wages of refugees are increasing significantly, in: IAB-Kurzbericht 13/2023, Nuremberg, 2023. However, there are differences between this group and the refugees from Ukraine, for example with regard to the demographic structure and the legal conditions for access to the labor market.

Refugees of around 64%, which roughly corresponds to the value for 2021.6 The participation rate of the rest of the working population is extrapolated in the medium term according to MODEM on the basis of an age cohort model in order to take into account the shift in the population structure from age cohorts with high labor force participation to cohorts with significantly lower labor force participation . The overall economic participation rate is the weighted average of the participation rate of refugees interpreted as structural and the trend in labor force participation of the rest of the population.7 In the projection period, the overall economic participation rate is expected to initially rise slightly and then fall from 2027 to the end of the projection period to roughly the value for 2023 .

The estimate of the structural unemployment rate takes into account the special labor market situation of refugees , but is essentially based on the structural unemployment rate of the remaining employed persons, which is determined using a Hodrick-Prescott filter . The overall structural unemployment rate is therefore expected to be around 2.8% in 2023 and to rise slightly by 2029 due to the higher unemployment rate among refugees.

Working hours per employed person have been on a downward trend for a long time due to increasing part-time employment , which has leveled off slightly in recent years. Their development is projected over the medium-term projection period using a time series model . The noticeable drop in working hours in the pandemic year 2020 will continue to be taken into account as a special effect in the projection model. Otherwise, the institutes return to their original approach when projecting working hours per employed person and specify a time series model for the period up to the end of the short-term forecast. Finally, the trend is determined for the entire period using a Hodrick-Prescott filter. In earlier reports, the estimation period ended with the pre-pandemic year 2019.8 This approach was intended to prevent pandemic-related special effects , such as increased sick leave and short-time work, from impacting the trend. However, it has now become clear that part of the increase in sick leave since 2022 is due to the introduction of electronic certificates of incapacity for work in the same year and thus to a mere reporting effect.

Therefore, the trend in working hours has probably been overestimated so far , which is due to the changed approach.

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6 The development of the participation rate of refugees to date is also determined based on data on employment and unemployment. According to these, the rate has increased from around 10% to over 60% since 2014.

7 The institutes have also adjusted the methodology for extrapolating the trend in labor force participation of the rest of the population. Instead of a first-order autoregressive model, the model is now specified with two lags.

8 *Joint Diagnosis Project Group:* German economy is ailing – reform of the debt brake is no panacea, Joint Diagnosis Spring 2024, 61, Kiel 2024.

is avoided. Working hours per employed person will continue to fall during the projection period, although the trend will level off significantly and the decline will probably be less than in the past.

Overall, the potential volume of work will decline by an average of 0.2% per year in the medium term . After a further increase in the current year, it will shrink from 2025 onwards due to demographic factors (Figure 3.1, page 59) and will therefore dampen the growth of production potential from then on.

The capital stock is determined on the basis of the forecast of gross fixed capital formation and the exit rate. The exit rate is extrapolated using the most recently available value from 2023. Fixed capital formation in the years 2027 to 2029 is extrapolated using the potential investment rate in a time series model. By the end of the medium term, the capital stock will increase by an annual average of 0.9%.

The residual TFP is the part of economic output that cannot be explained solely by the quantitative use of the production factors capital and labor . In estimating the TFP trend, the institutes in this report change their approach.

The reason for this is the inherent arithmetic of the old model, which leads to the TFP growth rate

Figure 3.1

Components of the change in the volume of work according to the modified EU method (MODEM)

Change compared to previous year in % (work volume) or contributions in percentage points (components)
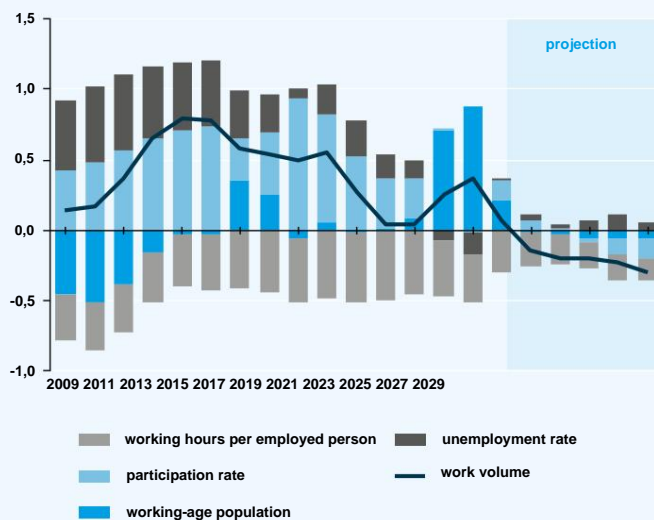
working hours per employed person   unemployment rate
participation rate   work volume
working-age population

Sources: Federal Statistical Office; calculations and projections of the institutes.

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Figure 3.2

revisions of the TFP

Growth rates of trend TFP in %

| 2017 | 2018 | 2019 | 2020 |
| 2021 | 2022 | 2023 | 2024 |

Sources: Federal Statistical Office; calculations and projections of the institutes in the autumn of respective year.

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Figure 3.3

Components of the change in production potential according to the modified EU method (MODEM)

Change compared to previous year in % (production potential) or contributions in percentage points (components)

- work volume
- total factor productivity
- Kapitalstock
- production potential

Sources: Federal Statistical Office; calculations and projections of the institutes.

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always return to their historical average, which is why they increase at the end of the respective projection period. As a result, the estimate has been revised downwards year after year - and not only because of the downward revision of the short-term forecasts (Figure 3.2, page 60).

The institutes had already reacted to this in the past by starting the TFP trend calculation only from 1996, which reduced the historical average.9 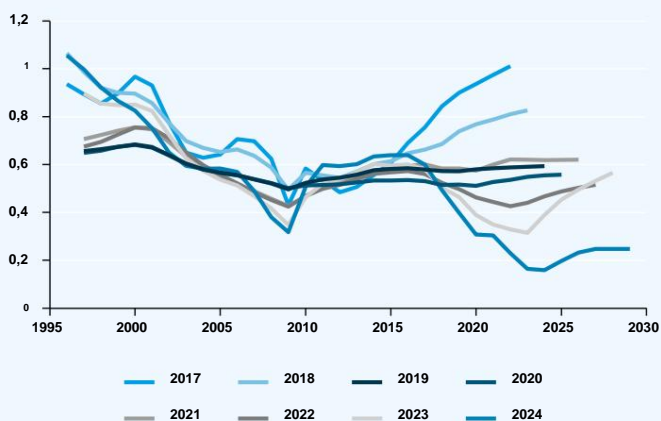However, the most recent average growth rate of TFP also appears implausibly high in light of the previous revisions. The basis for the estimate is still a so-called unobserved components model, which breaks down TFP into a trend and a residual component. The form of the model modified by the institutes means that the TFP trend will increase in the projection period at the last estimated rate, which is 0.2% in the period from 2023 to 2029.

All in all, production potential according to MO-DEM will grow by an annual average of 0.4% by the end of the projection period (Table 3.1, page 61). The growth rate is thus a good 0.8 percentage points below the average since 1996. While the volume of work dampens the growth of production potential on average , the growth contributions of the capital stock and TFP amount to 0.3 and 0.2 percentage points respectively (Figure 3.3, page 60). The level of production potential has again been revised downwards compared to previous estimates (Figure 3.4, page 61)
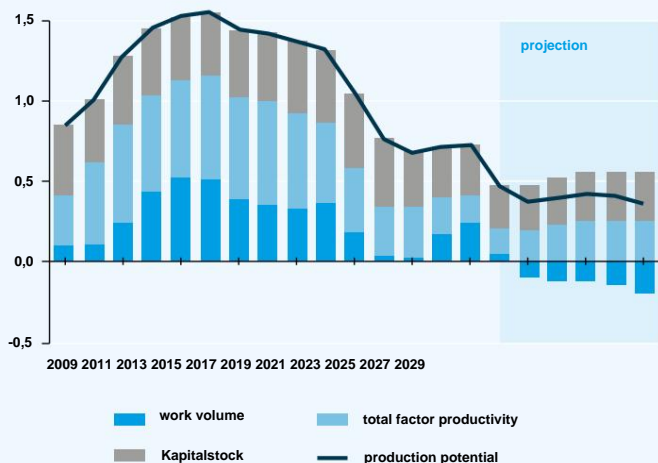
The European Commission's method differs from the MODEM method in terms of the calculation of the structural unemployment rate, the projection of the participation rate in the medium term and the specification of the time series models.10 This joint diagnosis also deviates from the procedure for estimating the trend rate of TFP. The structural unemployment rate is calculated by the European Commission using a Phillips curve model , but without explicitly taking refugee migration into account. The participation rate in the medium term is not forecast on the basis of an age cohort model, but on the basis of a simple time series model . In addition , in contrast to the MODEM method, the EU method uses original values instead of calendar-adjusted values.

According to the EU method, the annual average growth rate of production potential in the period from 2023 to 2029 is higher at 0.6% than the MODEM method. At the end of the projection period, potential growth will be around

9 **Joint Diagnosis Project Group:** Industry in Recession – Growth Forces te schwinden, Joint Diagnosis Autumn 2019, 61, Berlin 2019.

10 For a comparison of the EU method and MODEM, see **Joint Diagnosis Project Group:** Upswing remains strong – tensions are increasing, Joint Diagnosis Autumn 2017, Chapter 3, Table 3.2., Kiel, and **Joint Diagnosis Project Group:** Industry in recession – growth forces are waning, Joint Diagnosis Autumn 2019, Chapter 3, Box 3.1, Berlin 2019.

0.8%, while according to MODEM it drops to 0.4%.

In addition to the different projections of the TFP trend, this difference is primarily due to a higher trend participation rate in the EU method, which, unlike the MODEM method, does not take into account a demographically induced decline in labor force participation. With regard to the output gap in the short term, there are mainly differences in the level between the methods, but the trends are similar (Figure 3.5, page 62). In the current year, the output gap according to MODEM is likely to be -1.1% and according to the EU method -1.4%.

International framework for the medium-term projection

The slowdown in global production growth is likely to continue between 2027 and 2029. Both the Chinese economy and the advanced economies are on a declining growth path, and other regions of the global economy are unlikely to provide sufficient counterweight. The projection of medium-term macroeconomic development is based on the assumption that nominal exchange rates remain unchanged. It is also assumed that real commodity prices will not change over the remainder of the projection period, ie the nominal oil price will increase from 2027 at the inflation rate of 2 percent assumed for the USA.

Figure 3.4

production potential according to the modified EU method (MODEM)

Autumn forecasts, in billion euros1

Legend: 2019 | 2020 | 2021 | 2022 | 2023 | 2024

1 Due to the adjustment of the base year in the course of the general revision and the higher level of gross domestic product that was thus included in this projection, the previous estimates were adjusted by the difference in the level of price-adjusted gross domestic product for 2015 in order to be able to compare the levels.

Sources: Federal Statistical Office; calculations and projections of the institutes.

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The Chinese economy is playing an increasingly smaller role as a growth engine of the global economy. Even if the current real estate crisis is overcome, structural factors are leading to lower growth rates.

The potential for productivity gains through
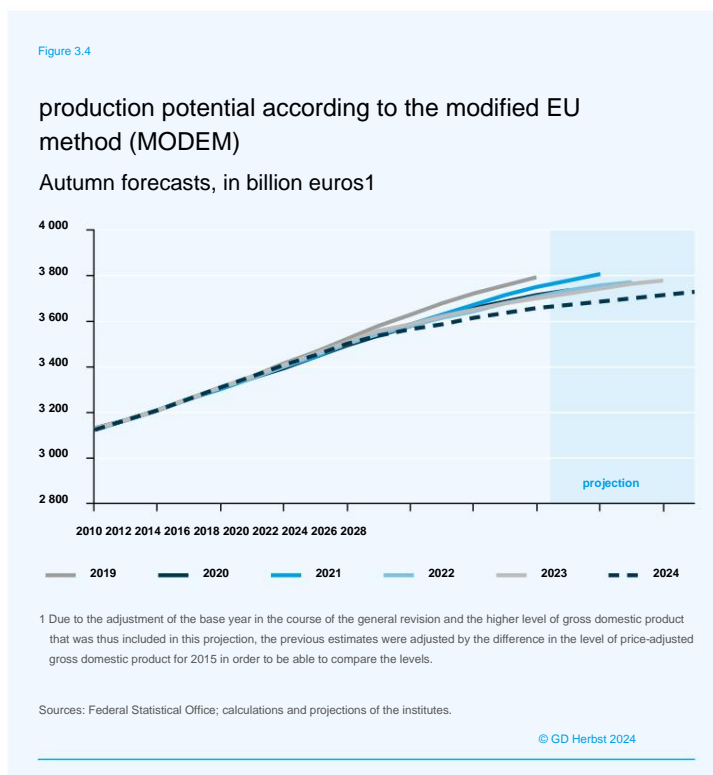
Technology adaptation has become less, which is inevitable in an economic catching-up process. Demographic factors will also increasingly have a slowing effect in the future , as the low birth rates of the past decades are leading to a gradually shrinking workforce potential. The slowing growth in China will probably only be partially compensated by stronger growth in developing and emerging countries with more favorable demographic profiles.

Table 3.1

Production potential and its determinants according to the EU method and modified EU method

Annual average change in %1

	1996-20232	EU Method				Modified EU Method (MODEM)			
		1996-2023		2023-2029		1996-2023		2023-2029	
production potential	1,3	1,2		0,6		1,2		0,4	
Kapitalstock	1,5	(0,5)	1,5	(0,5)	0,9	(0,3)	1,5	(0,5)	0,8	(0,3)
TFP	0,6	(0,6)	0,6	(0,6)	0,3	(0,3)	0,6	(0,6)	0,2	(0,2)
work volume	0,2	(0,2)	0,2	(0,1)	0,1	(0,1)	0,2	(0,2)	−0,2	(−0,1)
working-age population	0,0		0,0		0,0		0,0		0,0	
participation rate	0,5		0,5		0,2		0,5		0,0	
unemployment rate	0,2		0,2		−0,1		0,2		0,1	
Average working hours	−0,5		−0,5		−0,1		−0,4		−0,2	
For information:									
labor productivity	1,0		1,0		0,6		1,0		0,6	

1 Differences in the aggregated values arise from rounding. In brackets: growth contributions.
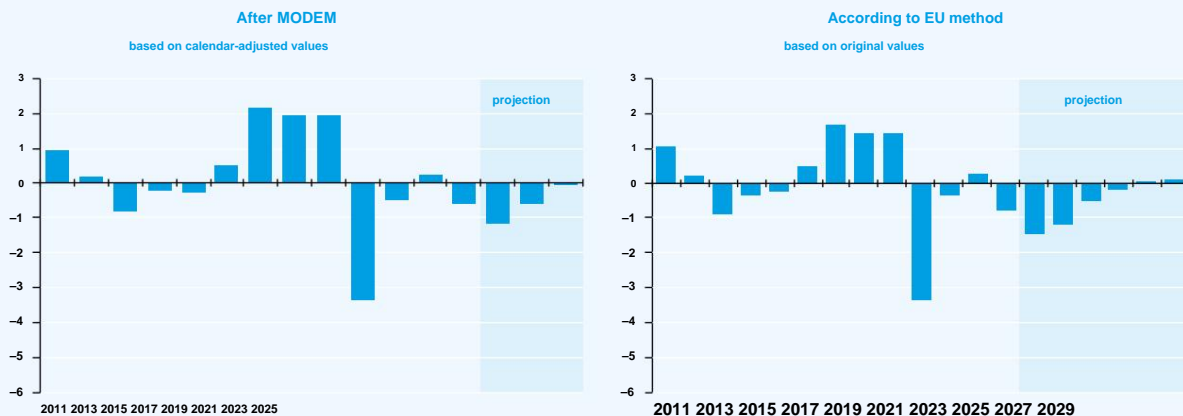2 Actual development of gross domestic product and its determinants.

Sources: Federal Statistical Office; calculations and projections of the institutes.

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Figure 3.5

Output gap according to EU and modified EU method

In relation to production potential in %

After MODEM
based on calendar-adjusted values

According to EU method
based on original values

Sources: Federal Statistical Office; calculations and projections of the institutes.

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The growth of production capacities will also slow down in the advanced economies over the projection period, with demographic ageing having a dampening effect in Europe and Asia in particular. The shortage of skilled workers in particular is already the biggest obstacle to growth in many countries. In demographic terms, the development in the United States is more favorable, especially since the country is also particularly attractive in the increasing competition for internationally qualified workers. In addition, the increasing polarization of the geopolitical blocs has increased the willingness to forego specialization advantages in order to reduce dependencies in strategic sectors . This comes at the expense of productivity and ultimately reduces growth. A downside risk for global growth prospects is trade conflicts that seriously disrupt existing global production networks, as well as an expansion of geopolitical crises, which could have a significant impact on oil and raw material prices. An upside risk lies in stronger productivity gains that could arise from the rapid development and application of AI technologies .

projection of the overall economic development until 2029

The institutes base their medium-term projections on the production potential derived using the EU method, which also forms the basis for the Federal Government's medium-term financial planning. It is assumed that the production gap will gradually close by 2029 and that the growth rates of economic output will approach the potential rates (Figure 3.5, page 62).

After the pandemic-related decline and the dampened recovery as a result of the energy crisis, employment will expand again in the projection period with increasing labor force participation (Table 3.2, page 63). However, due to weak demographic developments, this employment growth remains below that of previous years.

The projection shows gradual shifts in the consumption components. Exports will probably develop a subdued dynamic overall, with world trade increasing only moderately , and the external balance is likely to decline in relation to gross domestic product . The share of investments in nominal gross domestic product is likely to increase only moderately. As a result of demographic developments, the share of government consumption will be somewhat higher (Table 3.3, page 63). The gross domestic product deflator will increase at an annual average rate of 1.8% over the projection period. The nominal gross domestic product will increase accordingly by an average of 2.8%.

In addition to external economic risks, there are domestic risks for overall economic development. Due to the foreseeable demographic change, the participation rate is likely to increase less than projected on the basis of the EU method. Calculations by the institutes using an age cohort model show that the participation rate is likely to fall slightly in the projection period , as older cohorts with a rising but below-average labor force participation rate make up an ever larger share of the population. In this case, the labor supply would develop noticeably weaker. In addition, the increasing

Table 3.2

Employment, Productivity and Economic Growth

Year	employed people (Inland)	employees employees (Inland)	working hours per employed people	gross domestic product			in respective prices	Deflator
				Price-adjusted, chained volume values				
				In total	Is employed people	Per working hour		
	thousand people		Hours	billion euros	Euro		billion euros	2020 = 100
2017	44 290	39 997	1 388	3 522	79 531	57	3 331	95
2023	46 011	42 163	1 335	3 616	78 581	59	4 186	116
2029	46 446	42 776	1 332	3 786	81 523	61	4 928	130
Total change in %								
2023/2017	3,9	5,4	−3,8	2,6	−1,2	2,7	25,7	22,4
2029/2023	0,9	1,5	−0,2	4,7	3,7	4,0	17,7	12,4
Annual average change in %								
2023/2017	0,6	0,9	−0,6	0,4	−0,2	0,4	3,9	3,4
2029/2023	0,2	0,2	−0,0	0,8	0,6	0,7	2,8	2,0

Sources: Federal Statistical Office; calculations of the institutes; period 2029/2023: projections of the institutes.

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Ageing has a dampening effect on the investment rate and thus on the growth of the capital stock.[11] The development of TFP resulting from the EU method is also subject to high uncertainty.
Since the EU method is based on the period from 1980 onwards, growth is likely to be overestimated in view of the weak TFP development for years, which is why the

11 *Joint Diagnosis Project Group:* Pandemic delays recovery – Demo-Graphy slows growth, Joint Diagnosis Spring 2021, Essen 2021, Chapter 5.

Institutes respond by making adjustments to MODEM. In addition, risks arise from the restructuring of the capital stock with regard to digitalization and decarbonization.[12]

12 *Joint Diagnosis Project Group:* Purchasing power returns – Political Un-security high, Joint Diagnosis Autumn 2023, Halle (Saale) 2023, Chapter 5.

Table 3.3

Use of nominal gross domestic product

Year	gross domestic product	consumer spending		gross investment			external contribution
		Private households	Stands	In total	gross fixed capital formation	inventory change	
In billion euros							
2017	3 331,1	1 753,8	658,0	683,3	671,1	12,2	236,0
2023	4 185,6	2 205,6	905,2	907,1	899,9	7,2	167,7
2029	4 928,4	2 606,5	1 103,5	1 060,2	1 062,9	−2,7	158,2
shares of gross domestic product%1							
2017	100,0	52,6	19,8	20,5	20,1	0,4	7,1
2023	100,0	52,7	21,6	23,6	21,9	1,6	2,1
2029	100,0	52,9	22,4	21,5	21,6	−0,1	3,2
Total change in %							
2023/2017	25,7	25,8	37,6	32,8	34,1	-	-
2029/2023	17,7	18,2	21,9	16,9	18,1	-	-
Annual average change in %							
2023/2017	3,9	3,9	5,5	4,8	5,0	-	-
2029/2023	2,8	2,8	3,4	2,6	2,8	-	-

1 Differences in the aggregated values arise due to rounding.

Sources: Federal Statistical Office; calculations of the institutes; period 2029/2023: projections of the institutes.

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4. On economic policy

downturn and weak growth in Germany

The German economy has not returned to its previous performance since the outbreak of the COVID -19 pandemic at the beginning of 2020. In the second quarter of 2024, gross domestic product was roughly at the level of 2019 and thus well below the trend that production followed in the period from the financial crisis to 2019 (Figure 4.1, page 64).[1] The weakness of the German economy has structural and cyclical reasons. On the one hand, production potential is lower today than projections before the pandemic would have expected[2], and on the other hand, there is underutilization in the form of a negative production gap (Chapter 3, page 58).

In the period between the global financial crisis and the outbreak of the COVID-19 pandemic (2011 to 2019), the potential growth rate was still 1.4% per year; since 2020, it has only been about half as high (Table 4.1, page 64). If we only look at the years since the energy crisis (2022-
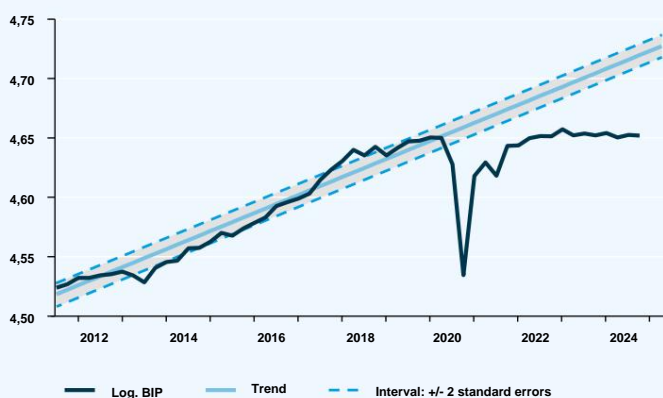
2024), the average potential growth rate is 0.6%. Although it had already been expected before the pandemic that the potential growth rate in Germany would decrease, partly due to the ageing of the population, the institutes had only expected the rate to fall to 1.1% in autumn 2019.[3] The main reasons for the sharp decline in the potential growth rate are the growth contributions of the labor factor and total factor productivity.[4]

Capital accumulation also contributes somewhat less to growth than before.

In addition, the estimate of production potential in Germany has been revised downwards considerably in recent years , and to a much greater extent than in other advanced economies (Figure 4.2, page 65). The downward revision of the potential growth rate is mainly due to a weaker increase in total factor productivity and lower capital accumulation.

The slowdown in growth is accompanied by a downturn that began in 2022 as a result of the massive increase in energy prices. Overall, the economic situation in Germany is currently and in the future worse than in other countries that are also exposed to major shocks (pandemic , Russia's war against Ukraine) and global developments (structural change in China, decarbonization). In order to overcome the weak growth of the German economy, it is necessary to better understand its background.

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1 The picture changes little if one estimates the pre-crisis trends over a longer period, for example since the introduction of the euro in 1999. Compared to a longer-term trend, German gross domestic product recovered somewhat more significantly up to 2022, but since then economic output has lagged considerably behind the longer-term trend, as in the estimate underlying Figure 4.1.

2 See *Joint Diagnosis Project Group:* German economy is ailing – reform of the debt brake is no panacea, Joint Diagnosis Spring 2024, Figure 3.3, Kiel, 2024.

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3 See *Joint Diagnosis Project Group:* Industry in recession – growth forces are waning, Joint Diagnosis Autumn 2019, Table 3.1, Berlin, 2019.

4 Productivity progress in the advanced economies has been slowing for some time now. advanced economies; for the historical background and explanatory approaches see *Goldin, I.; Koutroumpis, P.; Lafond, F.; Winkler, J.:* Why is productivity slowing down?, in: Journal of Economic Literature, 62(1), 196–268, 2024.

Figure 4.1

Gross domestic product in Germany and trend 2012 to 2024

Dark blue line: logarithmic gross domestic product (chain index, 2015=100).
Light blue line: Linear trend estimated with a regression model for the log gross domestic product for the reference period 2011 to 2019 with constant and linear trend as explanatory variables taking into account autocorrelated residuals (AR terms for lag 1 and lag 2).

Sources: Federal Statistical Office; calculations of the institutes.

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Table 4.1

Potential growth and growth contributions from labor, capital and productivity

Period	potential growth rate	Work	Capital	TFP
1991 – 2019	1,47	0,10	0,63	0,74
1999 – 2019	1,31	0,19	0,53	0,59
1999 – 2007	1,35	0,04	0,65	0,66
2011 – 2019	1,38	0,37	0,42	0,58
2020 – 2024	0,67	0,10	0,33	0,23
2022 – 2024	0,64	0,15	0,30	0,18

Potential growth rate in percent. Growth contributions in percentage points.

Source: Institute calculations.

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Figure 4.2

Revision of the potential estimate for 2024 compared to 2019

Germany

potential in 2019 — potential 2024 — BIP

euro area

potential in 2019 — potential 2024 — BIP

France

potential in 2019 — potential 2024 — BIP

Italy

potential in 2019 — potential 2024 — BIP

Spain

potential in 2019 — potential 2024 — BIP
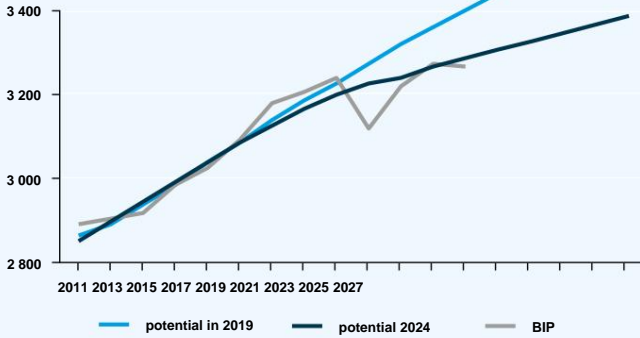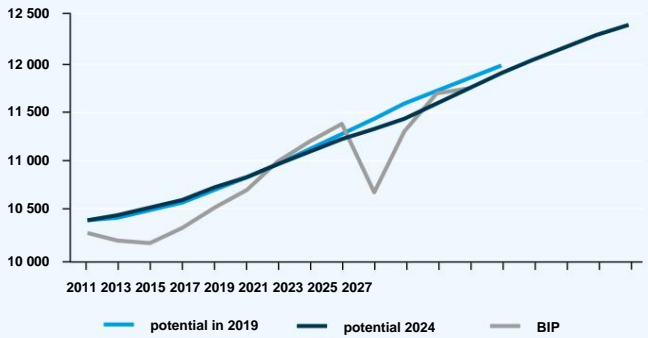
deer

potential in 2019 — potential 2024 — BIP
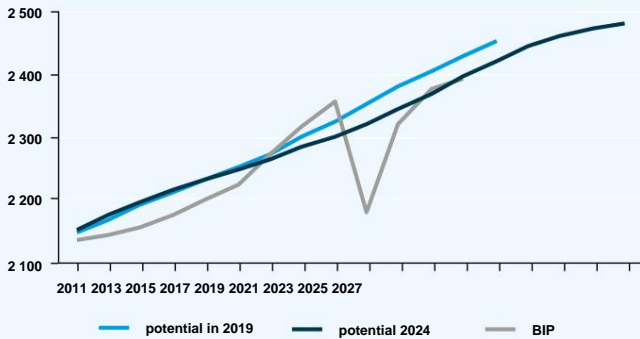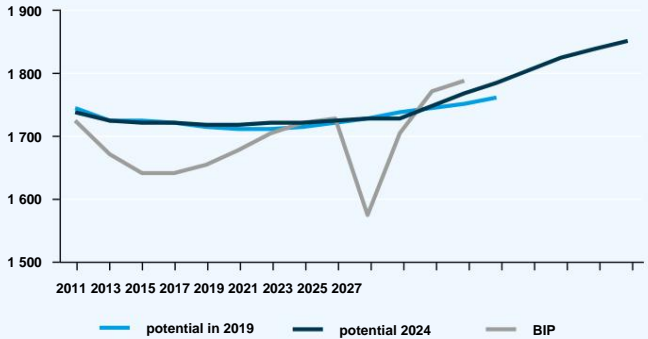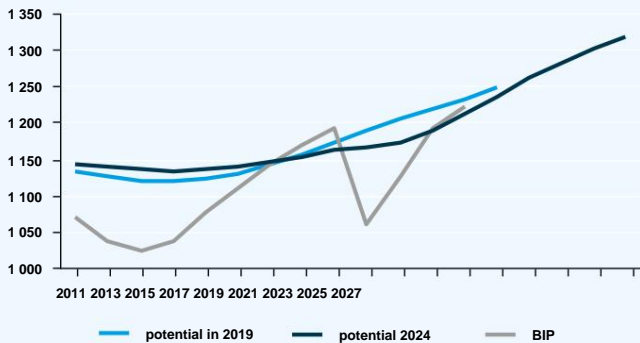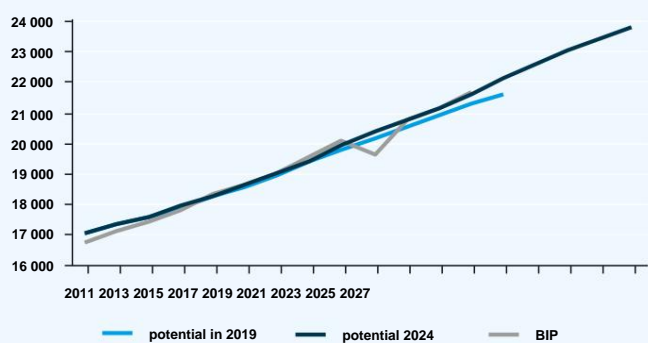
Potential 2019: EU Commission estimate from autumn 2019; Potential 2024: EU Commission estimate from spring 2024, GDP: price-adjusted gross domestic product in national currency, as of spring 2024.

Source: European Commission.

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World trade back on trend – weak growth specific to Germany

On the consumption side, the weak growth in Germany is broad-based. Only government consumption is at a level that corresponds to the pre-crisis trend. exports, equipment investment and private consumption

had recovered somewhat from the pandemic shock by the beginning of 2022 , but have since fallen back again (Figure 4.3, page 66). Construction investments have now been in free fall for four years.

Figure 4.3

Use Components of Gross Domestic Product in Germany and Trends 2011 to 2019

Export
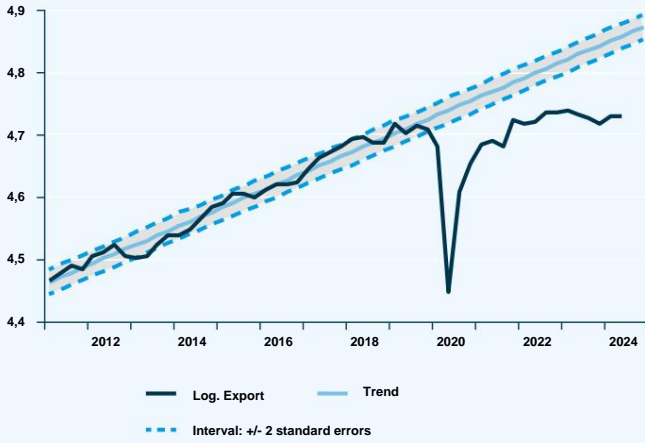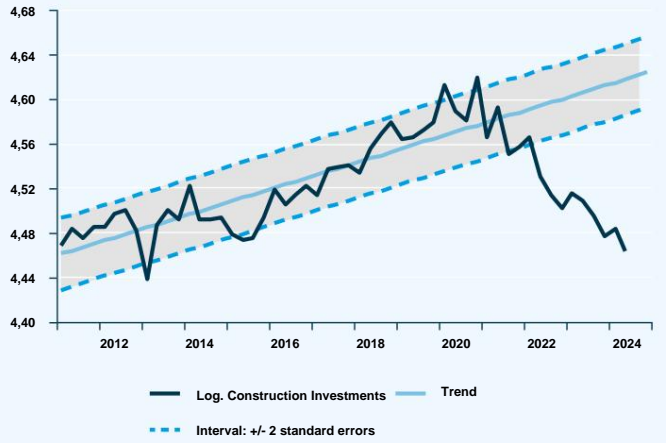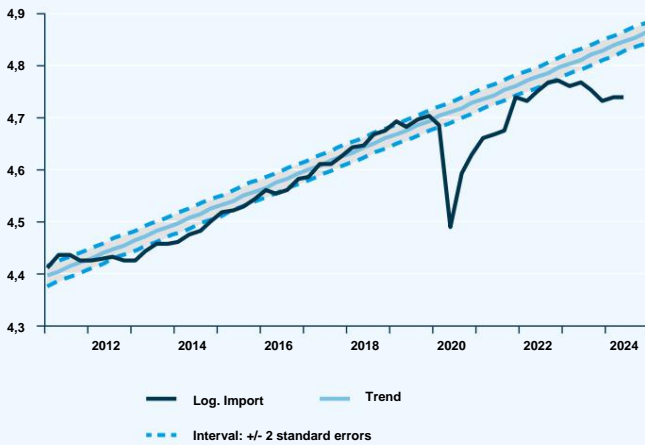
Log. Export — Trend
Interval: +/- 2 standard errors

construction investments

Log. Construction Investments — Trend
Interval: +/- 2 standard errors

Imported

Log. Import — Trend
Interval: +/- 2 standard errors

private consumption

Log. Private Consumption — Trend
Interval: +/- 2 standard errors

equipment investments

Log. Equipment Investments — Trend
Interval: +/- 2 standard errors

government consumption

Log. State Consumption — Trend
Interval: +/- 2 standard errors
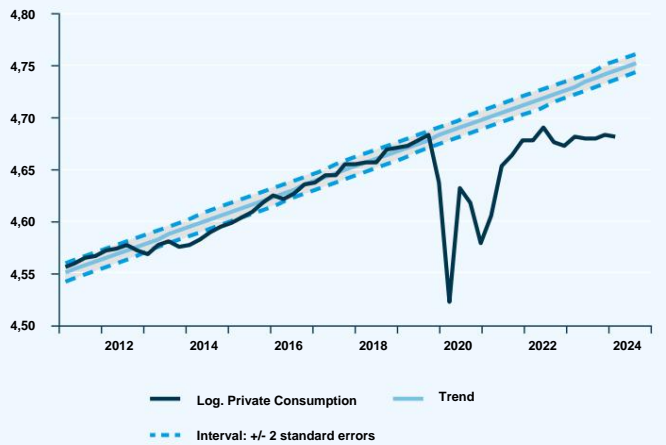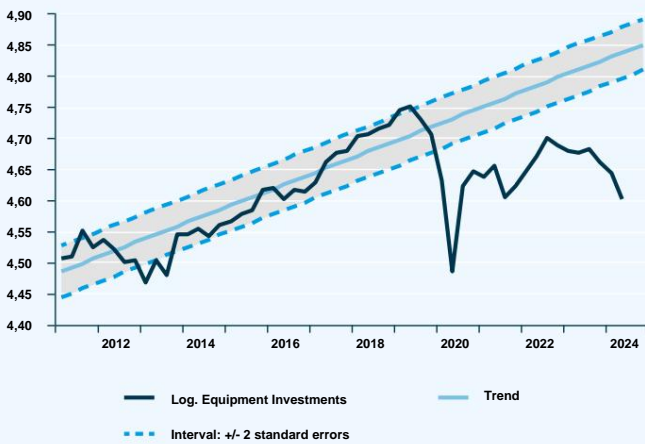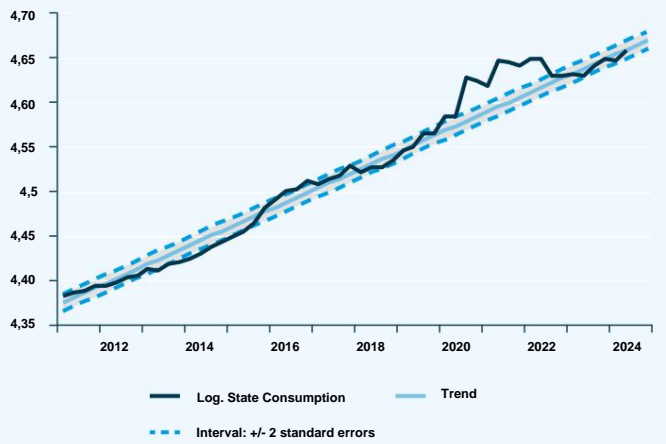
Logarithmized use components of the price-adjusted gross domestic product in Germany (dark blue line). Linear trend (light blue line) estimated with a regression model for the logarithmized use components for the reference period 2011 to 2019 with constant and linear trend as explanatory variables, taking into account autocorrelated residuals (AR terms for lag 1 and lag 2). Dashed lines: +/- 2 standard errors.

Sources: Federal Statistical Office; calculations of the institutes.

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The pandemic and widespread protectionist tendencies have affected world trade, which has also affected German foreign trade.

However, the weakness of world trade has now largely been overcome. German exports have not recovered to the same extent; however, they cannot explain the weakness of production overall. This is illustrated by model simulations in which the actual development of production in Germany is conditioned on hypothetical developments for world trade and German exports. World trade collapsed drastically in 2020 (Figure 4.4 (a), page 67, dark blue line). This contributed substantially to the sharp decline in German exports (Figure 4.4 (b), page 67, grey line), which in turn accounted for a considerable proportion of the decline in gross domestic product.

product (Figure 4.4 (c), page 67, light blue line). The sharp decline and sudden recovery in equipment investment in 2020 can also be well explained by the shocks to world trade and exports (Figure 4.4 (d), page 67, light blue line). World trade is now almost back to the projection that results from a trend estimate for the period 2011 to 2019 (Figure 4.4 (a), page 67).

Accordingly, exports and gross domestic product should have recovered with the normalization of world trade (Figure 4.4 (b), page 67, grey line), if Germany-specific shocks had not occurred. In particular, the drastic decline in equipment investment in the current year cannot be explained by external economic influences (Figure 4.4 (d), page 67).

Figure 4.4

Simulation results for world trade, German exports and gross domestic product in Germany

(a) World trade — Index 2021 = 100

(b) Export — billion euros in 2020 prices

(c) Gross domestic product — billion euros in 2020 prices

(d) Equipment investments — billion euros in 2020 prices

Legend: baseline (without shocks); Actually; global trade shock; world trade and export shock
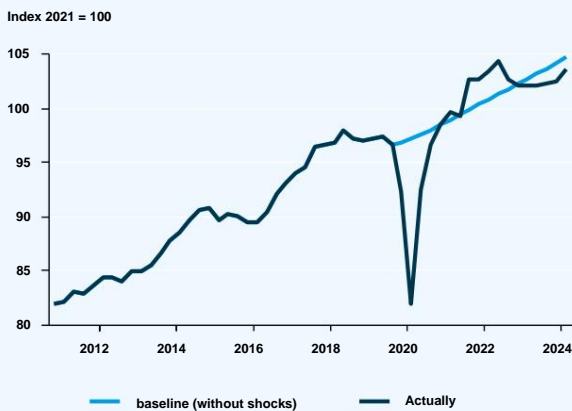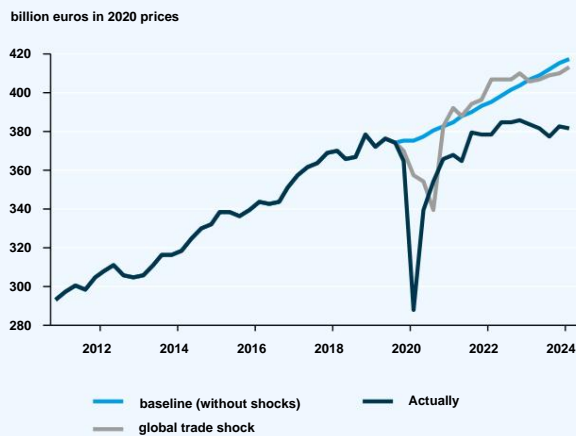
Simulation with vector autoregressive models for the rates of change in world trade, German exports and German gross domestic product (ac) and for the rates of change in world trade, German exports and equipment investment (d). World trade is exogenous in each case. Exports react simultaneously to world trade and with a delay to gross domestic product or investment. The lag length of the models is 2. The estimation period is 2011 to 2019. In the baseline simulation, all shocks are set to zero. In the "world trade shock" simulation, the shocks to exports and gross domestic product or equipment investment are set to zero.
In the simulation "World trade and export shock", only the shock of the third equation (for gross domestic product or equipment investment) is set to zero.

Sources: Federal Statistical Office; calculations of the institutes; CPB Netherlands Bureau for Economic Policy Analysis.

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The weakness of German exports since 2022 can be attributed to a combination of factors: structural challenges in important markets, rising energy prices and declining (price) competitiveness.5 An important factor is the change in trade relations with China.

The "Made in China 2025" initiative aims to strengthen local industry and reduce dependence on foreign imports. This affects not least the goods groups of machinery and vehicles, which are important for Germany, and has contributed significantly to the decline in German exports to China since 2022. In addition, Chinese producers are also displacing German manufacturers in third-party markets.

The energy crisis following Russia's attack on Ukraine has had a greater impact on German exports than on those of many other countries. Germany 's energy-intensive industries, such as the chemical and metal industries, were particularly hard hit due to exploding natural gas and electricity prices. Although the government introduced measures to support energy-intensive producers, costs remained much higher than in competitor countries such as the USA and Asia.6

In addition, nominal unit labour costs in Germany have risen by 17.4% since the beginning of 2022, more than in the euro area and especially than in the other large euro area countries (France: 8.9%, Italy: 14.8%, Spain: 9.1%).7 Overall, this has led to a reduced competitiveness of German manufacturers .

Negative supply shock as trigger for the downturn

After the oil price shocks of the 1970s, gross domestic product in West Germany stagnated for longer periods of time; therefore, the Joint Diagnosis Project Group expected as early as autumn 2022 that the recovery from the dramatic rise in gas prices at that time would take a long time.8 As with the oil price shocks of the 1970s, the current downturn was triggered by a negative supply shock, but this time not from the oil price, but from the gas price and, as a result, from the electricity price. Such cost shocks increase inflation and at the same time dampen real economic activity. Economic policy has attempted to mitigate the rise in energy costs through expansionary fiscal policy for households and companies. This is likely to reduce the already

The expansionary fiscal policy prior to the energy price shock, in combination with accommodative monetary policy, has fuelled inflation, which was already high, even further.9 The monetary policy reaction in the form of higher interest rates is putting additional strain on the recovery from the energy price shock in interest-sensitive sectors such as the construction industry. While a massively supportive fiscal policy at the height of a crisis is understandable, it does carry the risk that the necessary structural change will be delayed. This is all the more true as the European climate protection policy and - even more so - the German Climate Protection Act imply a serious upheaval in the energy supply of companies anyway.

Deindustrialization in Germany?

Even though gas and electricity prices have now fallen significantly again, it is becoming apparent that energy in Germany is likely to be more expensive for the foreseeable future than before the energy price shock and that this effect will make German energy-intensive production sites less attractive in international comparison in the long term. Production in energy-intensive industries is around 15% below the 2021 level. However, development in this area has been weak for some time.10

The energy price shock is likely to accelerate the decline in the nominal share of gross value added in the manufacturing sector in total gross value added, which has already been observed for some time (Figure 4.5, page 69), while the share of service providers is increasing. Even within the companies classified as manufacturing, the share of other activities that do not represent industrial production but, for example, trading activities has increased. In addition, increased research and development activity is increasing value added in the manufacturing sector.11 Both of these together could explain the discrepancy that has been observed for some time between the development of real value added and the production index for the manufacturing sector (Chapter 2, page 32). Compared to other advanced economies, the industrial share is still high.

Overall, the weakness of industrial production at the current margin cannot be clearly attributed to cyclical or structural factors. However, the accelerated structural change that can be observed is accompanied by increased macroeconomic adjustment costs and is putting a strain on economic dynamism.

5 There has also been a temporary shift in the demand shares between goods and Services contributed to the weakness of German exports. *Joint Diagnosis Project Group:* German economy is ailing - reform of the debt brake is no panacea, Joint Diagnosis Spring 2024, 22 ff, Kiel, 2024.

6 Measured by the real effective exchange rate based on producer prices, the euro has appreciated by around 4% since 2022, see *Emter, L.; Gunnella, V; Schuler, T.:* The energy shock, price competitiveness and Euro area export performance, in: ECB Economic Bulletin, 3/2023, 2023, https://www.ecb.europa.eu/press/economic-bulletin/focus/2023/html/ecb.ebbox202303_03~23c48fe595.en.html.

7 Data on an hourly basis. Eurostat: https://doi.org/10.2908/NAMQ_10_LP_ULC.

8 See *Joint Diagnosis Project Group:* Energy Crisis, Recession, Loss of Prosperity, Joint Diagnosis Autumn 2022, Figure 4.1., Essen, 2022.

9 Giannone and Primiceri (2024) show that the increase in core inflation in Euro area after the pandemic can be explained primarily on the demand side, see *Giannone, D.; Primiceri, GE:* The drivers of post-pandemic inflation, NBER Working Paper 32859, 2024.

10 The capital stock in the energy-intensive sectors has been declining for some time, not just since the energy price shock, see *Joint Diagnosis Project Group:* Inflation high at its core – strengthen supply forces now, Joint Economic Forecast Spring 2023, 81 f, Munich, 2023.

11 *Lehmann, R.; Wollmershäuser, T.:* Structural change in the manufacturing sector: production undercuts gross value added, in: ifo Schnelldienst, 77(2), 55–60, 2024.

Figure 4.5

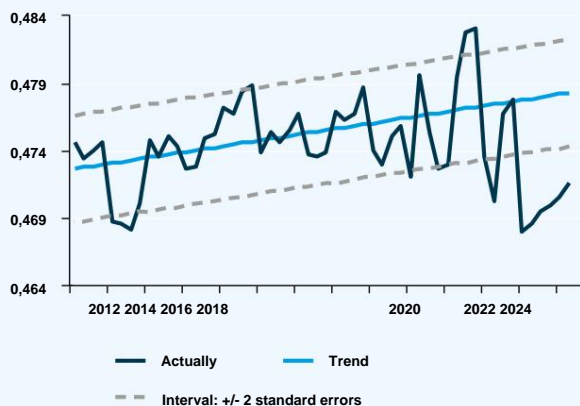## Shares of economic sectors in gross value added
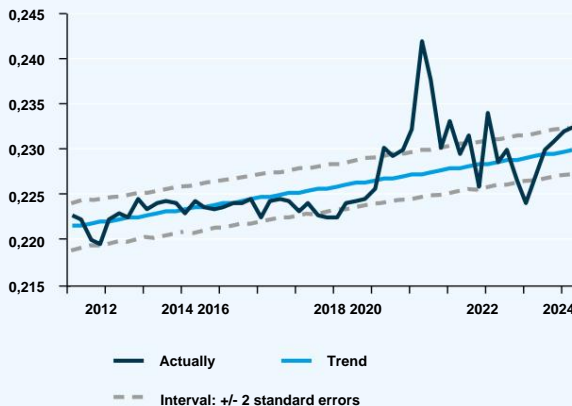
manufacturing industry

Actually — Trend
Interval: +/- 2 standard errors
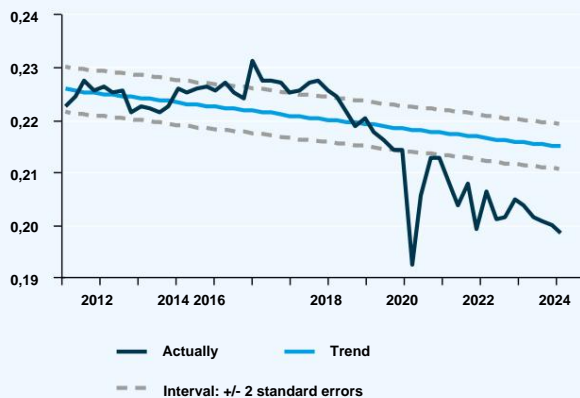
Manufacturing industry without manufacturing

Actually — Trend
Interval: +/- 2 standard errors

Market service manager

Actually — Trend
Interval: +/- 2 standard errors

Public and other service providers

Actually — Trend
Interval: +/- 2 standard errors

Percent in relation to gross value added in current prices (dark blue line). Linear trend (light blue line) estimated with a regression
model for the proportions for the reference period 2011 to 2019 with constant and linear trend as explanatory variables taking into account autocorrelated residuals (AR terms for lag
1 and lag 2), dashed line: +/- 2 standard errors.

Sources: Federal Statistical Office; calculations of the institutes.

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The reallocation of resources from manufacturing to the service sectors has an impact on aggregate productivity growth, as average labor productivity is lower in most service sectors . This process began before the pandemic, but has intensified in recent years (Figure 4.6, page 70). This makes it all the more important not to focus economic policy solely on industry, but to promote productivity growth in the service sectors.12 Overall, there are no good economic reasons for aiming for a specific industrial quota, even if deindustrialization in the sense of a reduction in the share of manufacturing in total value added should continue.

Economic policy has so far been more of a part of problem as part of the solution

Especially in times of structural change , a clear economic policy compass is needed to ensure planning security for private households and companies . The corporate investments and housing renovations required by private households for the transformation to a less energy-intensive and emission -free economy are hampered if the framework conditions are unclear or if multiple changes in wind and current make navigation difficult. Measured by the Economic Policy Uncertainty Index, economic policy uncertainty in Germany has been particularly high in international comparison since 2021. In the USA, Italy and Spain, economic policy uncertainty is currently significantly lower than during the global financial crisis or the COVID-19 pandemic, for example;

12 measures to increase productivity in the service sectors will be
which is discussed, for example, in: **Holtemöller, O. (ed.):** How can we boost competition in the services sector?, Baden Baden: Nomos, 2017.

Figure 4.6

Contributions of economic sectors and structural change to productivity progress

In % or percentage points
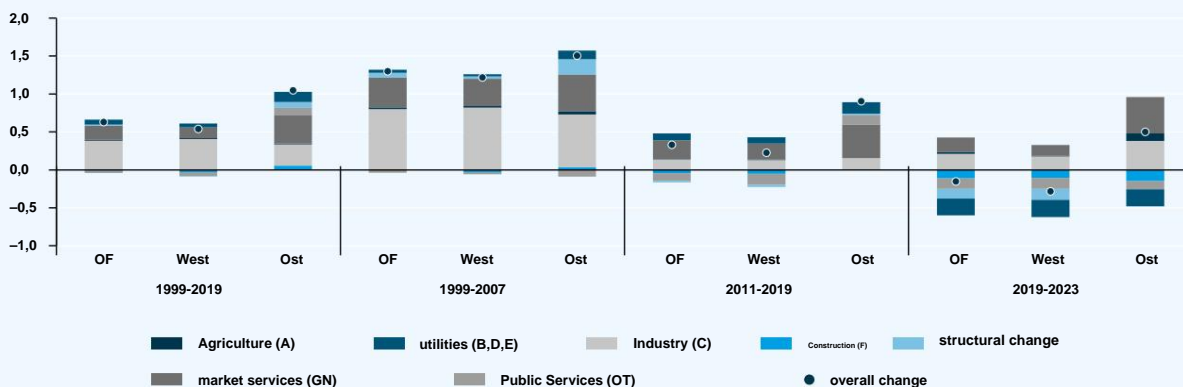
The decomposition of labour productivity follows *Wong, W.-K.:* OECD convergence: A sectoral decomposition exercise, Economics Letters 93, 210–214, 2006.

Sources: National accounts of the countries; calculations of the institutes.

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in France and Germany it is significantly higher than it was at the time, but in France it is still lower than in Germany. The current federal government does not agree on many points, for example on budget policy. The financing deficits of the general government are increasingly in conflict with national and European fiscal rules. For example, the financing deficit is significantly higher than the limit for structural net borrowing under the debt brake of 0.35% in relation to gross domestic product. Even if there are significant differences in definitions, it is questionable whether the general government deficit is compatible with the debt brake over the entire forecast period (2024-2026) , also because the reserves of the special funds will be more or less used up towards the end of the forecast period. With gross debt levels exceeding 60% in each year of the forecast period and structural deficits barely declining, each exceeding 1.5% of economic output, it is also questionable whether the new fiscal rules will be complied with at European level.

In order for companies and households to regain confidence in economic stability, a change of course in economic policy seems essential. Such a change of course should lead to fewer detailed regulations, fewer subsidies for individual companies, less state-supported preservation of vested interests and more room for market-based adaptation processes to changing conditions. For example, emission reduction targets can best be achieved through market-based adaptation to higher CO2 prices.13

Economic Policy Implications

Economic policy measures to increase production potential should address the causes of weakness. With its growth initiative, the federal government offers some good approaches, for example in terms of work incentives for people over the standard retirement age. However, the abundance of measures and the lengthy implementation period in some cases do not help to make economic policy clearer and more predictable for households and companies . The federal government's expectations of the growth initiative regarding its effect on potential growth are therefore likely to be rather high.14

In any case, it is doubtful whether the higher economic growth rates of past years can be achieved again. In previous reports, the institutes have repeatedly pointed out with simulation calculations that the legally regulated emission reduction targets are unlikely to be achievable without material losses given the current speed of energy-saving technological progress and the current rate of expansion of renewable energies.15 The fact that greenhouse gas emissions in Germany were on the targeted reduction path last year is also related to the weakness of the energy -intensive industry: around half of the lower emissions in 2023 compared to the previous year are likely to be due to production declines in energy-intensive industries.

---

13 See *Gropp, R.; Holtemöller, O.:* Six points for an efficient green transport formation, in: IWH Policy Notes, 2/2024, Halle (Saale), 2024.

14 The Federal Ministry for Economic Affairs and Climate Protection expects the first year an effect of 0.5 percentage points, cf. *Federal Ministry for Economic Affairs and Climate Protection:* The Federal Government's Growth Initiative, in: Highlights of Economic Policy August 2024, 11, 2024.

15 *Joint Diagnosis Project Group:* Purchasing power returns – political uncertainty high, Joint Diagnosis Autumn 2023, 82 ff., Halle (Saale), 2023.

industries.16 If this is merely a matter of relocation abroad, this reduction in emissions in Germany will not contribute anything to reducing global warming.

In addition to decarbonization, demographic change is putting pressure on potential growth through a shrinking workforce. The best way to strengthen potential growth in terms of labor volume is therefore to increase labor force participation.

For example, it sometimes takes quite a long time for migrants to reach the average labor force participation rate of natives.17 There is also still room for improvement in the labor force participation rate of older workers.

In addition, the average working hours of employed persons are following a long-term downward trend, partly because as income increases, leisure time becomes more attractive than working time. This long-term and international trend is not expected to be reversed in the foreseeable future. To the extent that lower production potential is merely an expression of the population's leisure preferences,18 there is no reason to counteract this politically. However, the working hours per employed person are particularly low in international comparison.19 It should be noted that the low working hours per employed person are also an expression of a high part-time rate, which in turn contributes to flexibility in the labor market. However, this may also be due to unfavorable incentive effects in the transfer and income tax system, so that there are starting points here for strengthening the employment rate.

activity and thus the production potential.20

However, the Pension Package II goes in the opposite direction, among other things because it will lead to significant increases in the contribution rate to statutory pension insurance in the medium term.21

It is particularly worthwhile for economic policy to take measures to increase productivity,22

because, regardless of individual preferences, it is socially advantageous if the production of goods and services is as efficient as possible and no resources are wasted. Measures aimed at reducing barriers to production (bureaucracy, regulation), education and investment in research and development have the greatest potential in this regard - together with an environment in which the disappearance of companies that are no longer profitable is not seen as a negative thing, but as a necessary part of creative destruction à la Schumpeter . On the whole, the German social system offers good protection against the individual hardships associated with it.

The focus of economic policy should be on improving productivity, international competitiveness and the framework conditions for all companies and employees. In order to create fiscal scope for investment spending despite the currently tense environment , infrastructure could, for example, be financed more by users. With an appropriate institutional framework, credit- financed investments in infrastructure should be possible despite the debt brake. At the same time, this should limit the operational scope of policy-makers and align provision more closely with demand. In addition, the entire subsidy and funding policy should be reviewed.

16 **Holtemöller, O.:** Current trends: Decline in greenhouse gas emissions in 2023 will be about half due to decline in production, in: Economy in Change, 30(2), 28, 2024.

17 For refugees, it takes over ten years to reach the average employment rate. gen quota of natives is reached, for other immigrants it is also more than five years, **Joint Diagnosis Project Group:** German economy is ailing - debt brake is not a panacea, Joint Diagnosis Spring 2024, 73, Kiel, 2024. In particular, among immigrant women with and without children, the labor force participation in all age groups is significantly lower than that of women without children and of mothers without an immigration history, **Keller, M; Körner, T.:** Households, families and living arrangements with an immigration history - effects on the employment of parents, in: WISTA - Economy and Statistics, 4/2024, 48, 2024.

18 **Wanger, S.; Weber, E.:** Working hours: trends, desire and reality, in: IAB-For- Research Report, 16/2023, Nuremberg, 2023.

19 On average between 2015 and 2019, the average working hours per employed person in Germany were 1,388 hours. This was significantly lower than in other OECD countries; in France it was 1,516 hours, in Japan 1,693 hours and in the USA 1,825 hours. The number of working hours per employed person is negatively correlated with the level of government revenue in relation to gross domestic product (correlation coefficient -0.56, R2=0.31), **Rogerson, R.:** Why labor supply matters for macroeconomics, in: Journal of Economic Perspectives, 38(2), 137–158, 2024.

20 **Blömer, M.; Hansen, E.; Peichl, A.:** The design of the transfer withdrawal in the Interdependence with the citizen's allowance, the basic child benefit and the housing benefit, in: ifo Research Reports, 145, 2024; **Peichl, A.; Bonin, H.; Stichnoth, H.; Bierbrauer, F.; Blömer, M.; Dolls, M.; Hansen, E.; Hebsaker, M.; Necker, S.; Pannier, M.; Petkov, B.; Windsteiger, L.; Fuest, Cl.; Immervoll, H.; Lenze, A.; Schöb, R.; Siegloch, S.; Werding, M.:** On the reform of the transfer withdrawal rates and improving employment incentives, Research Report 629K, Federal Ministry of Labor and Social Affairs, 2023.

21 **Holtemöller, O.; Schult, C.; Zeddies, G.:** Costs of the measures from the pension package II of March 2024 and financing options, in: IWH Studies, 2/2024, Halle (Saale), 2024.

22 Productivity development not only in Germany but in the EU as a whole has been lagging behind that in the USA for some time, see **Draghi, M.:** The future of European competitiveness. Part A. A competitiveness strategy for Europe, 2024.

5. Savings of private households in Germany: Economic and structural aspects

Around ten percent of the disposable income of private households in Germany is saved. The factors that influence the decision to save are therefore also of central importance for the development of private consumption. The savings rate has been rising noticeably again for over a year and is now above the long-term average. Private consumption has therefore recently lagged behind income growth. In purely mathematical terms, private consumption accounts for more than half of economic output, so even small changes in the savings rate have an impact on the economy as a whole.

Against this background, a distinction is made between structural and cyclical factors in the decision to save . The starting point is the conceptual classification and recording of saving in the national accounts. For the structural factors , various macroeconomic influencing factors are first examined using international comparisons. This is followed by an analysis of the socioeconomic determinants of saving in Germany. The age structure of the population plays an important role here , which enables a projection of the trend development of the savings rate on the basis of the foreseeable demographic change.

Finally, economic factors that are particularly important for the short-term forecast are examined . In addition, an analysis of past data revisions is carried out in order to assess the reliability of the data at the current end.

Save that VGR

Saving refers to the increase in assets achieved through productive activity and thus the part of income that is not consumed by consumption. Saving can be created in all sectors of an economy (private households, corporations and the state) either in the form of real assets or net financial assets.
Changes in tangible assets result from net fixed capital investments, i.e. gross fixed capital investments less the depreciation measured by depreciation. Changes in net financial assets correspond to the financing balance of a sector. This shows the extent to which the individual sectors have provided or received financing on balance (Figure 5.1, page 74). The overall economic financing balance is reflected in the capital account, which shows the change in net claims on foreign countries.

(net foreign position). The balance of the capital account corresponds to the balance of the current account.

At the end of 2023, the net financial assets of private households amounted to EUR 5,765 billion. Financial assets (monetary assets) amounted to EUR 7,939 billion. Euros were offset by liabilities of EUR 2,174 billion.
Euro. A large proportion of the financial assets (41%) were held in the form of cash and deposits.
Shares and investment funds accounted for about a quarter, life insurance and pension entitlements each had a share of 15%. Over the course of 2023, financial assets rose by 263 billion euros. One third of this increase was attributable to cash and deposits.
A quarter was invested in bonds, mainly long-term ones .

For the private household sector, savings are determined based on the financing balance, which is taken from the Deutsche Bundesbank's financing accounts . The build-up of tangible assets - essentially investments in residential buildings - is added to this.
The savings rate measures the ratio of savings to disposable income increased by the increase in company pension entitlements . This includes profit income, which is determined residually for the private household sector. Accordingly, the savings rate is also a residual value, which is therefore subject to greater uncertainty , making it potentially more susceptible to revision.

Depending on whether the accumulation of tangible assets is reported gross or net - i.e. with or without taking depreciation into account - savings are shown as gross or net. Conceptually, the concept of income - and thus also savings - in the national accounts is based on net figures. Income is therefore only the part of the production result that is achieved when assets are retained. However, the European System of National Accounts (ESA) only allows gross statements for savings,1 since not all countries have the imputed depreciation required for net statements. This must be taken into account when comparing savings rates internationally.

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1 Calculation of savings and the savings rate in the ESA system of accounts: gross Saving: B8G = (B6G+ D8)-P3, Net Saving: B8N = (B6N+ D8)-P3, Gross Savings Rate of Private Households: (B8G/(B6G+D8)*100), Net Savings Rate of Private Households (B8N/(B6N+D8)*100) with P3 Consumption Expenditure Private Households Expenditure Concept, D8 Increase in Company Pension Entitlements, B6G Disposable Income (before Depreciation), P51C Depreciation of the Private Households Sector and B6N Disposable Income (after Depreciation).

Figure 5.1

financing balances of the domestic sectors

In relation to nominal gross domestic product in %

Legend: Stands · private households · corporations · domestic sectors as a whole
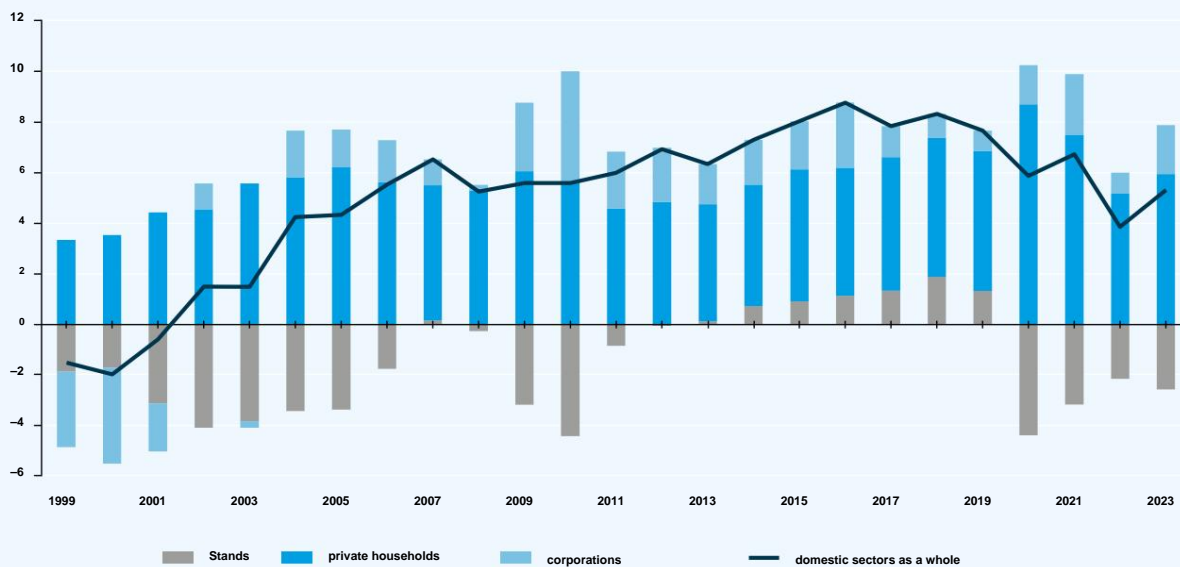
Sources: Federal Statistical Office; presentation of the institutes.

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In Germany, about half of disposable income consists of earned income and a good quarter of other primary income of private households, such as rental income.

The rest is made up of transfers. Valuation-related changes , such as price gains or losses on shares or changes in the value of real estate, do not fall into the income category of the national accounts and are therefore not counted as savings.

In the national accounts, income and expenditure are recorded on an accrual basis. They are therefore booked in the period in which they were economically incurred and therefore independent of the time of the actual payment. For example, rent arrears are allocated in the national accounts to the year in which the corresponding service was provided and the payment obligation arose . Accordingly, savings are also recorded on an accrual basis.

Since 1997, 2,000 people have been surveyed three times a year on behalf of the building societies in a representative sample, the so-called savings climate, about their savings behavior and the purpose of their savings. According to this survey, retirement provision is the most important reason for saving. On average, almost 60% of respondents say that they save money for this purpose. In second place are consumption and travel wishes ("Consumption: purchases , such as buying a car, or for long-held wishes, such as travel"), for which a good 50% save. Around 45% of respondents save money for their own home ("purchase/renovation of residential property/building society contract"). On four occasions,

Unspecified capital investments are the most important, accounting for a good 30%. Other purposes, such as saving for children or one's own education, hardly play a role.

Savings rates in the international Comparison

Germany belongs to the group of industrialized countries with a comparatively high and stable savings rate (Figure 5.2, page 75, a).1 While savings rates fell sharply in many countries in the 1990s , they fell only slightly in Germany. The savings rate is also high in the German-speaking neighboring countries, while it is lower in the Anglo-Saxon countries, Japan and southern Europe (Figure 5.2, page 75, b). A comparison with France and Great Britain is based on the gross savings rate, as no net savings rate is reported for these countries. Great Britain has a low savings rate by international comparison, while France is much closer to the German level (Figure 5.2, page 75, c).

In all countries considered, there was a massive increase in the savings rate during the COVID-19 pandemic, which has returned to normal practically everywhere within two years. The current increase in the German savings rate from 9.5% in the first quarter of 2023 to 11.3% in the

---

[1] There are persistent differences in levels between the federal states. With the exception of Bremen and Saarland, the western German states have a consistently higher savings rate than the eastern German states. Based on state data before the general revision of the national accounts, the savings rate averaged 11.5% in western Germany (excluding Berlin) and 8.1% in eastern Germany (excluding Berlin) from 1991 to 2022.

second quarter of 2024 is moderate in historical and international comparison. Compared to other countries, the savings rate in Germany generally varies little over time.

determinants of the savings rate

To explain the heterogeneity of savings rates between countries, various influencing factors can be derived from economic theory (Table 5.1, page 77). Scatter diagrams with partial regressions illustrate their relevance for Germany in comparison to other industrialized countries (Figure 5.3, page 78).

In each of these regressions, a residual savings rate and a residual influencing factor are considered , for which the influence of all other influencing factors has been eliminated . To calculate the residual savings rate , the savings rate is regressed on all influencing factors except for the influencing factor shown in the scatter diagram and the estimated residual is determined. To calculate the residual influencing factor, the respective influencing factor is regressed on all other influencing factors and the estimated residual is determined. The slope of the trend line shown thus shows the result of a partial regression, which corresponds to the regression coefficient of a regression of the savings rate on a constant and all influencing factors.

Demographics: Basic life cycle models (Box 5.1, page 76) imply, for the purpose of smoothing consumption, that the savings rate of young and old people is lower than that of those of prime working age . Advanced life cycle models, in line with the data, find a stronger correlation between consumption and income and thus a less pronounced hump-shaped course of the savings rate over the life cycle. Three factors are important for this: precautionary saving by young and old people, a reduction in the savings rate in prime working age households with children, and liquidity restrictions, which lead to a stronger influence of income on consumption.

The dependency ratio measures the proportion of young and old people relative to the population of working age . In line with theory, some studies show a negative effect of the dependency ratio on the savings rate, but this is not very strong and often insignificant. An increase in the dependency ratio by one percentage point reduces the savings rate by 0.3 percentage points. Since the residual dependency ratio calculated for Germany is slightly below average in international comparison, this could explain to a small extent the high savings rate in this country. A look over time also shows a significantly negative effect of the dependency ratio on the savings rate.2 Accordingly, the ongoing demographic change could lead to a slightly

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2 To do this, the savings rate is regressed on a constant, the savings rate lagged by one year and the other influencing factors considered. The data range from 1999 to 2022. Excluded from the regression is the home ownership rate considered in an international comparison, for which data is only available for a shorter period.

Figure 5.2

savings rates in selected countries
Inÿ%

a) Countries with high net savings rates

Legend: Germany, Austria, Netherlands, Switzerland, euro area
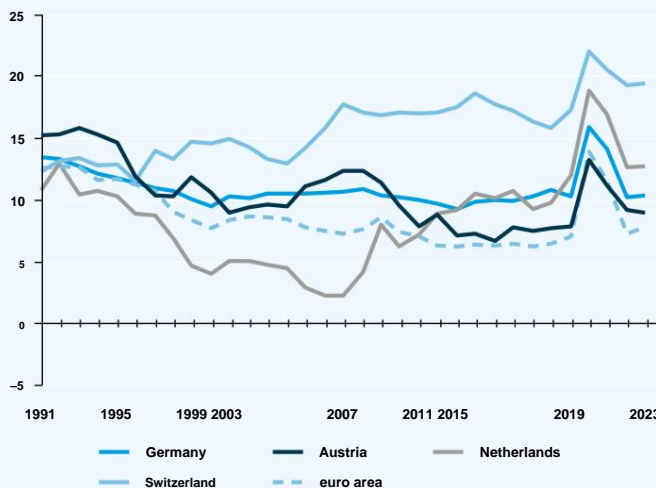
b) Countries with low net savings rates

Legend: Australia, You have, Italy, Japan, Spain, deer
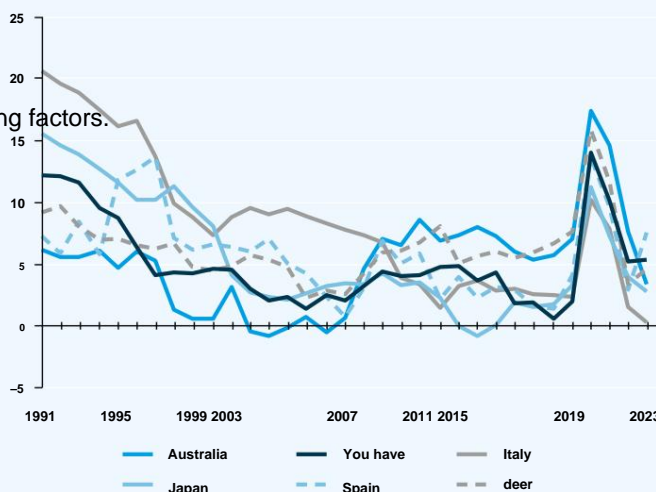
c) Countries for which the gross savings rate is reported

Legend: Germany, France, Great Britain
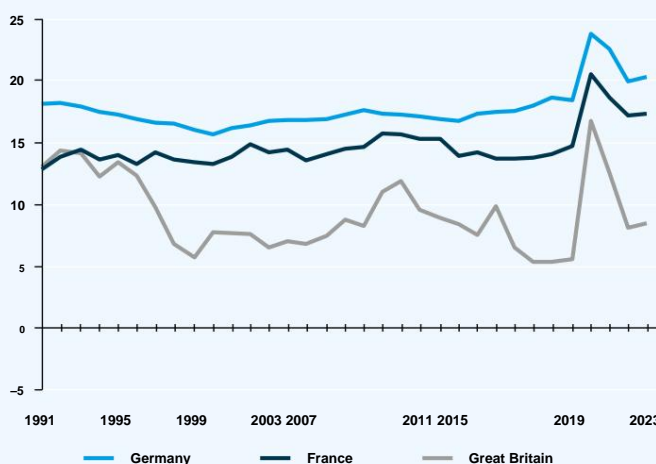
Sources: OECD; Eurostat; Federal Statistical Office; calculations of the institutes.

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life cycle models

The theory of consumption and savings decisions is based on life cycle models. According to this, households maximize their utility by taking into account their expected lifetime income. They therefore aim for the marginal utility of consumption to remain constant over time, which leads to a uniform expenditure of the expected lifetime income (permanent income hypothesis).

Thus, the savings rate is low in periods of life with low income and high in periods of life with high income, resulting in a hump-shaped pattern over the life cycle. Unexpected temporary changes in income can lead to strong (unpredictable) fluctuations in the savings rate (random walk hypothesis).

However, the data show a stronger correlation between consumption and income and thus a more constant savings rate over the life cycle than the simple life cycle models suggest. In recent decades, extended life cycle models have been developed in which this is explained mainly by three factors.[1] Firstly, liquidity restrictions lead to a stronger dependence of consumption on current income. This affects not only low-income households, but also households with a large proportion of illiquid assets, especially real estate. Secondly, an uncertain development of income leads to caution.

save when entering working life. In retirement, precautionary saving also increases the savings rate, as the remaining life expectancy and the amount of future expenditure on health and care are uncertain. Inheritance motives also increase the savings rate in this phase of life.

Third, starting a family increases consumption during the prime working age, when income is also at its highest, which reduces the savings rate during this period of life.

Several factors are cited in the literature to explain the strong parallelism between income and consumption over the economic cycle. In addition to precautionary savings and liquidity restrictions, complementarities between work and consumption also play an important role. If unemployment rises , consumption falls. Those affected can substitute external services with increased personal services . The savings rate therefore falls less in recessions than is implied by basic models. A distinction between the consumption of durable goods and non-durable goods also helps to explain the parallelism between consumption and income over the economic cycle.

For example, a reduction in purchases of durable goods (such as cars and large household appliances) does not necessarily contradict the aim of smoothing consumption, since their longer use restricts consumption utility less than a reduction in the consumption of non-durable goods. Economic downturns can also signal unexpectedly persistent shocks that reduce lifetime income and thus lead to lower consumption.

Overall, it is evident that due to optimization decisions of households, a stronger correlation between consumption and income can be expected than implied by simple models.

1 For an overview of the literature on life cycle models, see **Browning, M.; Crossley, TF** (2001). The Life-Cycle Model of Consumption and Saving, Journal of Economic Perspectives 15(3): 3–22.

declining savings rate. This aspect will be discussed in the following section.

Fiscal policy: From a theoretical point of view, Ricardian effects suggest a negative relationship between public budget balances and private savings.
Empirical studies have concluded that an increase in the budget balance of one percent of gross domestic product leads to a decline in private savings in the range of 0.3 to 0.6% of gross domestic product . Since fiscal deficits in Germany are on average rather low compared to other countries, they cannot explain the high savings rate in Germany. Even when viewed over time, a negative correlation can be found for Germany . However, since the structural budget deficit has fallen since the COVID-19 pandemic, it can only explain the current slight increase in the savings rate to a very small extent.

Income and income growth: For these variables, based on the life cycle model , it depends on whether an increase is temporary or permanent.
If there are temporary increases in income in a period, such as the tax- and social security-free inflation compensation premium introduced in autumn 2022, the savings rate should rise during this time in order to distribute the possible increase in consumption evenly over time. In the case of income increases that are considered permanent, however, the savings rate should remain constant, which also implies consumption smoothing for the present and future. However, income and income growth are often also linked to other changes such as improvements in institutions and the legal system that simplify saving and reduce credit restrictions. This can explain why the empirical literature predominantly finds a positive effect of income and income growth on the savings rate. Since the residual income determined in Germany is close to the average

Table 5.1

Factors influencing the savings rate and their relevance for Germany

influencing factors	literature		relevance for the high savings rate in Germany
	theory	empiricism	
dependency ratio	Slightly negative	Slightly negative	Contributes to a small extent to explaining the high savings rate. In the next few years, the savings rate could fall somewhat due to ongoing demographic change.
public budget balance	Negative	Negative	No relevance due to small budget deficits in Germany.
income	Neutral to positive	Positive	None, since the residual income determined is below the average of the countries considered.
income growth	Neutral to positive, in recessions negatively	positive, negative in recessions	None, since growth on average in Germany is below average. But possible relevance for the current increase in the savings rate, since an analysis over time shows a negative effect of growth on the savings rate.
Real interest	Unclear, at low interest rates are rather negative	Unclear, at low interest rates negative	None, since the residual real interest rate determined is close to the average of the countries considered.
home ownership rate	Negative for persistent real estate price increases	Negative	Possible partial explanation for the high savings rate. However, there are no empirical studies to date and the connection identified here is based on very few observations.
uncertainty	Positive	Positive after strong adverse shocks	No explanation for the generally high savings rate in Germany. An influence on the currently slightly increased savings rate is possible.
culture of thrift and wealth accumulation	Positive	Positive	Probably of great importance. The savings rates in the other German-speaking countries are also above average and the other channels only provide partial explanations for the high German savings rate.

Sources: The literature results are based on the literature reviews in **Rocher, S.; Stierle, MH** (2015). Household saving rates in the EU: Why do they differ so much? European Economy Discussion Paper 005; **Opoku, PK** (2020). The Short-Run and Long-Run Determinants of Household Saving: Evidence from OECD Economies, Comparative Economic Studies 62: 430–464; **Fredriksson, C.; Staal, K.** (2021). Determinants of Household Savings: A Cross-Country Analysis, International Advances in Economic Research 27: 257–272; as well as other individual selected studies.

the sample and the residual income growth is even slightly below average, these do not provide any explanation for the high German savings rate.

However, if we look at the influence of the growth rate of Germany's gross domestic product over time, we see a significantly negative correlation. The economic influences expressed here are consistent with increased precautionary savings during periods of economic weakness, which is also found in the empirical literature. Thus, precautionary savings by households could currently be somewhat higher and have contributed to the increase in the savings rate.

Real interest rate: The effect of the real interest rate on the savings rate is theoretically not clear. If the substitution effect predominates, the effect is positive; if the income effect predominates, the effect is negative. The results of empirical studies are very inconsistent. They range from negative to no effects to positive effects.

One reason could be non-linear relationships between savings decisions and interest rates. Felizi et al. (2023)[3] find a positive effect of interest rates on savings, which decreases with the interest rate level and can even reverse at very low interest rates, so that low interest rates can lead to an increase in savings . In some cases, a negative effect of the real interest rate on the savings rate can be seen over time in a country comparison . However, the residual real interest rate determined in Germany is

close to the mean of the sample, so that it does not help to explain the high savings rate in Germany.

Home ownership rate: The effect of the home ownership rate on the savings rate is not clear. On the one hand, the decision to purchase a home does not necessarily change the total amount of accumulated household savings, although spending on home ownership could also increase savings if consumption is restricted. On the other hand, increases in house prices have a wealth effect for home owners, so that this partially replaces other savings. There are no empirical studies on international differences between the home ownership rate and its effect on the savings rate, but a simple scatter plot shows a negative correlation. The very low home ownership rate could therefore help explain the high savings rate in Germany. However, the correlation is very uncertain due to the few observations.

Uncertainty: In theory, an increase in uncertainty leads to an increase in the savings rate through precautionary saving. Empirically, the literature examines a wide variety of measures such as the unemployment rate, inflation or the volatility of the growth rate of the gross domestic product. A positive effect is found for some, but the results are often insignificant.

In part, there is no clear effect on the savings rate for the four uncertainty indicators unemployment rate, inflation rate, consumer confidence and political uncertainty.

3 **Felizi, M.; Kenny, G. ; Fiz, R.:** Consumer savings behaviour at low and negative interest rates, European Economic Review 157: 104503. 2023.

Comparison between countries. However, it cannot be ruled out that major or repeated crises still lead to an increase in precautionary saving. In particular, studies that analyze major crises such as the global financial crisis find a sharp increase in precautionary saving.[4] In addition, empirical and theoretical analyses show that the savings rate of households increases if they have experienced several economic crises or periods of increased unemployment in their lives.[5] It could therefore be that the current period of economic weakness, in conjunction with the previous crises, has led to the savings rate increasing slightly after the COVID-19 pandemic, even if no connection is visible on average across the entire sample . For the political uncertainty index used here,[6] which has been at a very high level in Germany for two years, and also for consumer confidence, which is still low , there is no significant effect on the savings rate when viewed over time .

Remaining savings rate differences and cultural influences: The literature regularly comes to the conclusion that part of the differences in savings rates remain unexplained. Furthermore, the results of some studies are not reliable because they take into account the heterogeneity between countries and

dynamics.[7] Since the sample considered here includes a much more homogeneous group of countries than most studies, it is not surprising overall that the various influencing factors can only provide a partial explanation for the high savings rate in Germany . Some studies have examined the cultural influence on the savings rate. Costa-Font et al. (2018)[8], for example, analyze how the savings behavior of immigrants differs from natives and find a strong similarity to the savings behavior in the home country, even if this effect diminishes over the generations. Fuchs-Schündeln et al. (2020)[9]

measure various cultural aspects of savings behavior and show that, in particular, a culture of thrift and the desire to accumulate wealth is as strong among second-generation immigrants as in their home country. In the sample examined here, the savings rates in the German-speaking countries of Germany, Austria and Switzerland and also in the neighboring Netherlands are above average, so that cultural similarities in savings behavior probably provide an important explanation for the high savings rate in Germany.

4 *Mody, A.; Ohnsorge, F.; Damiano, S.:* Precautionary Savings in the Great Recession, IMF Economic Review 60(1): 114–138. 2012.

5 *Aizenman, A.; Noy, I.:* Saving and the Long Shadow of Macroeconomic Shocks, Journal of Macroeconomics 46: 147–159. *Malmendier, U.; Shen, L. S.:* (2024). Scarred Consump-tion, American Economic Journal: Macroeconomics 16 (1): 322–55. 2015.

6 *Baker, S.R.; Bloom, N.; Davis, S. J.:* Measuring Economic Policy Uncertainty, The Quar-terly Journal of Eocnomics, 131(4): 1593–1636. 2016.

7 *Haque, NU; Pesaran, MH; Sunil, S.:* Neglected Heterogeneity and Dynamics in Cross-country Savings Regressions, in Panel Data Econometrics: Future Directions, Papers in Honour of Professor Pietro Balestra, J. Krishnakumar and E. Ronchetti (editors), Chapter 3. This analysis shows, for example, that of the significant influence of several factors in an earlier influential study, only the influence of fiscal policy remains when an appropriate estimation method is applied. 2000.

8 *Costa-Font, J.; Giuliano, P.; Ozcan, B.:* The cultural origin of saving behavior, PLoS ONE 13(9): e0202290. 2018.
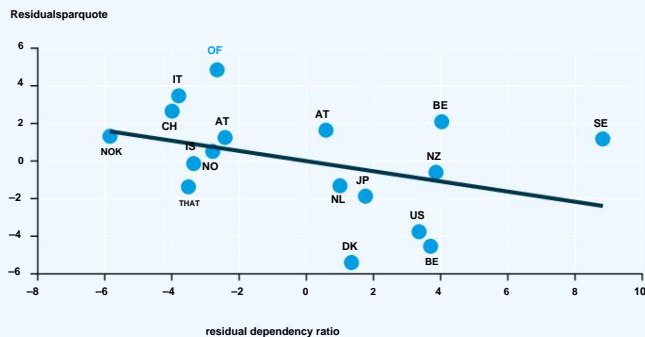
9 *Fuchs-Schündeln, N.; Masella, P.; Paule-Paludkiewicz, H.:* Cultural Determinants of Household Saving Behavior. Journal of Money, Credit and Banking 52(5): 1035–1070. 2020.

Figure 5.3

Determinants of the savings rate (17 countries, averages 1999-2022)

vertical axis: residual savings amount without the influence of all other determinants, horizontal axis: residual influence factor without the influence of all other determinants

dependency ratio

Residualsparquote

residual dependency ratio

Inflation

Residualsparquote

Residualinflation

structural budget balance

Residualsparquote

Home ownership rate (10 countries, 2010-2022)*

Residualsparquote

main topic

residual dependency ratio

Residualinflation

structural budget balance

Residualsparquote
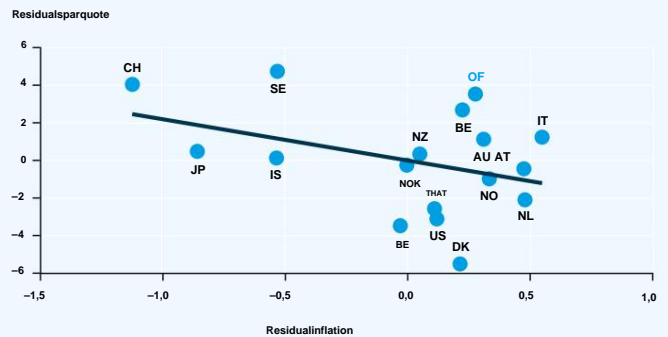
Residual budget balance

Home ownership rate (10 countries, 2010-2022)*

Residualsparquote

Residualwohneigentumsquote

GDP per capita

Resdiualsparquote

residual income

unemployment rate
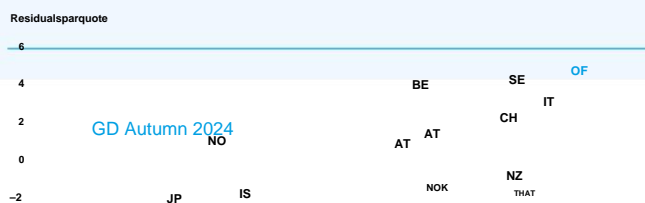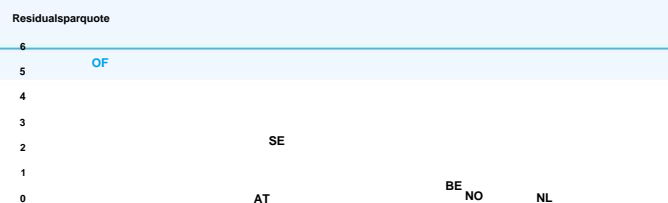
Resdiualsparquote
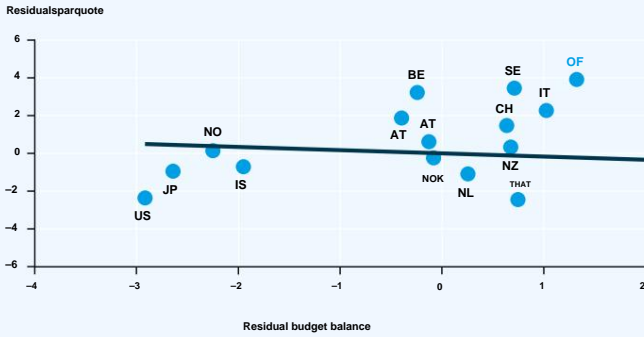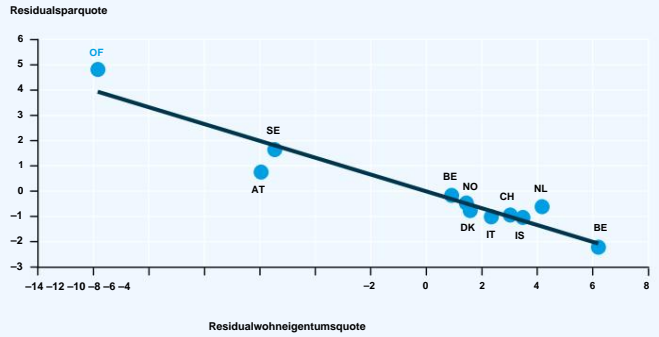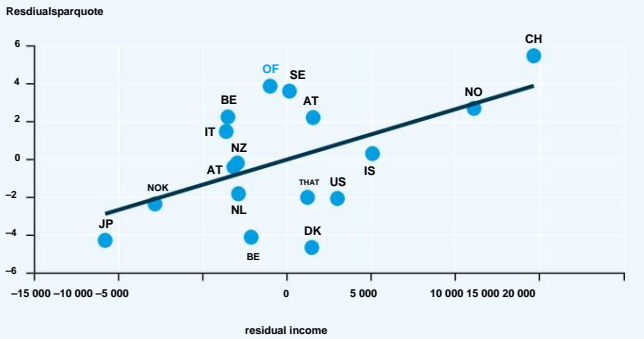
residual unemployment rate

GDP growth rate

Resdiualsparquote

Residualwachstumsrate
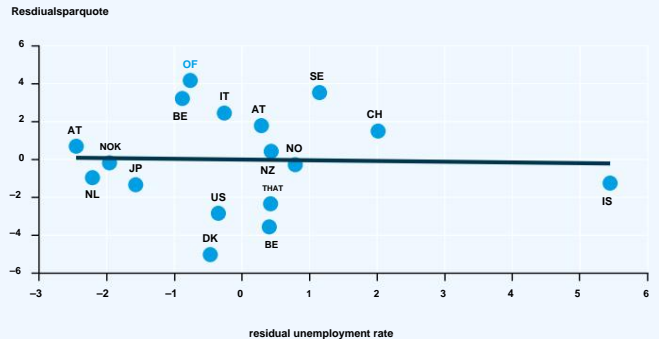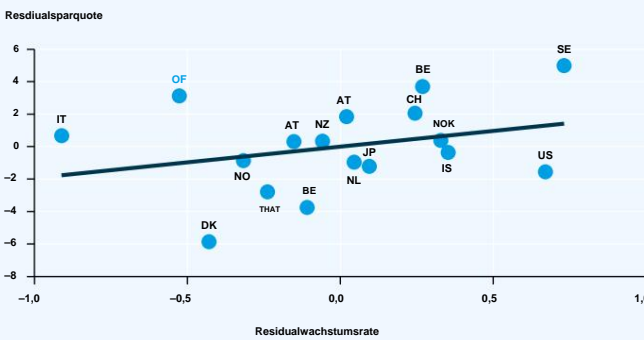
consumer confidence (9 countries)*

Resdiualsparquote

residual consumer confidence

Real interest

Resdiualsparquote
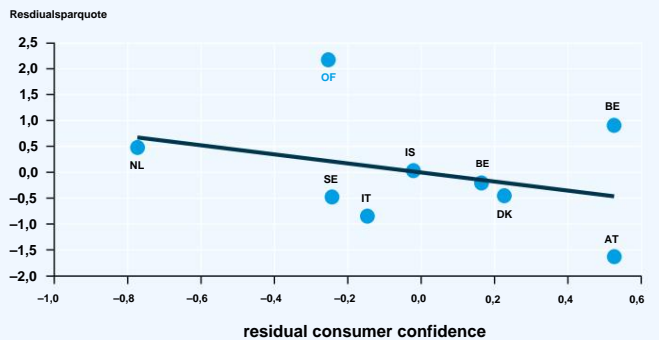
Residual real interest
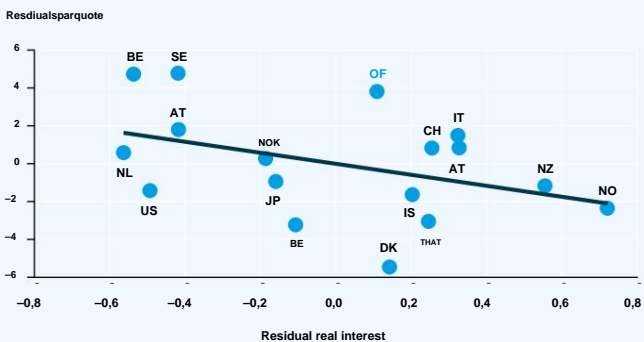
political uncertainty (9 countries)*

Resdiualsparquote

residual policy uncertainty
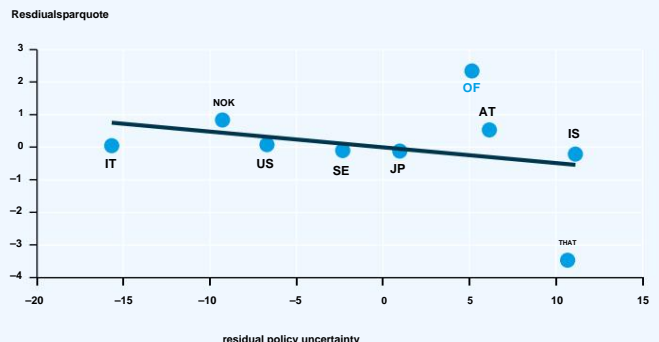
1 In these models, the residuals are calculated due to the few observations without controlling for the unemployment rate, which is hardly had an influence.

Sources: OECD; IMF; Eurostat; Policyuncertainty.com; Institute calculations.

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Figure 5.4

Comparison of selected savings rates

Inÿ%
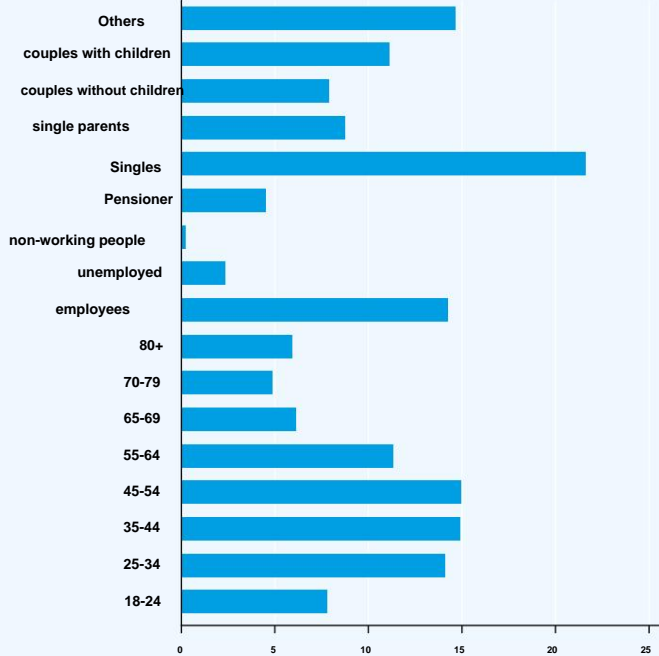
Sources: Income and Consumption Sample 1993-2018; calculations by the institutes.

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Figure 5.5

Decomposition of the change in the savings rate

Change in the savings rate between 1993 and 2018 in percentage points.

Sources: Income and consumption sample; calculations by the institutes.

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Structural Determinants of the German Savings Rate

Structural factors play a key role in the long-term development of the savings rate of private households . The population structure influences the savings rate, as the individual savings rate is very heterogeneous depending on household characteristics. This section will examine long-term changes in the savings rate in Germany due to changes in the three socio-economic factors of age, household composition and professional status. Income distribution also has a structural influence on the overall savings rate. Increasing income inequality can lead to an increase in the aggregate savings rate. Since inequality measured by the Gini coefficient has remained almost unchanged in Germany for two decades, this determinant will not be considered further here.

This empirical analysis uses microdata that reflect the income and expenditure of private households in Germany. The long-term development can be shown by the income and consumption sample (EVS), which surveyed the income and consumption expenditure as well as the demographic characteristics of all household members of around 40,000 households every 5 years between 1993 and 2018. The publication of the EVS for 2023 is still pending.

In the intervening years, the current economic accounts (LWR) are available, which contain the same questions, but are based on a smaller sample of around 7,000 households per year. In addition, the savings rate recorded in the LWR systematically deviates from the value reported in the national accounts and is therefore not suitable for the present analysis.[10]

Demographic change affects savings and consumption behaviour, as the individual savings rate changes over the life cycle (Box 5.1, page 76).
Different age groups therefore have different savings rates. As society ages, the proportions of the groups in the total population are shifting , so that the weight with which group-specific savings rates are included in the overall economic rate is changing. The savings rate is highest in the 35- to 54-year-old group, while people over 65 save the smallest proportion of their disposable income (Figure 5.4, page 80).

If the proportion of older people in the population increases compared to the 35 to 54 year olds, the savings rate will fall if the savings rates within the age groups do not change. On the other hand, the savings rate of the youngest age group (18 to 24 years) is similarly low to that of the over 65s. Their share of the total

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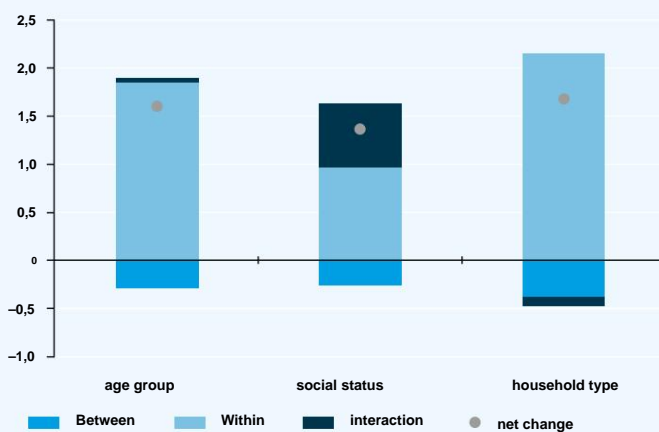
[10] According to the Federal Statistical Office, the reason for this is not only the small sample size but also incomplete information provided by households on investments, withdrawals and debt repayments. In addition, changes to current accounts during the reporting period are generally not taken into account.

Table 5.2

The Savings Rate in Demographic Change

age group	Sparquote (konstant)	Portion					
		2022	2030	2040	2050	2060	2070
18-24	7,81	8,73	8,55	9,19	8,84	8,63	8,79
25-34	14,07	15,09	14,15	13,40	14,17	13,90	13,53
35-44	14,92	15,43	16,00	14,79	14,18	14,99	14,55
45-54	14,97	15,45	15,14	16,12	14,96	14,59	15,22
55-64	11,34	18,64	15,87	14,40	15,75	14,83	14,34
65-69	6,15	7,25	8,89	6,79	7,21	7,31	6,86
70-79	4,89	10,67	12,87	15,22	11,84	13,77	13,40
80+	5,91	8,75	8,53	10,09	13,07	11,98	13,31
total savings rate		**11,02**	**10,79**	**10,61**	**10,62**	**10,56**	**10,53**
difference to 2022			**−0,22**	**−0,40**	**−0,40**	**−0,45**	**−0,49**

Sources: 15th coordinated population forecast (variant G2L2W2); income and consumption sample; calculations by the institutes.

population is also decreasing, thus counteracting the fall in the savings rate. The changing group shares (between effect) imply a fall in the savings rate of 0.3 percentage points in the period from 1993 to 2018 (Figure 5.5, page 80). More significant in the same period is the change in the savings rate within the age cohorts (within effect), which is determined by other factors that affect all age groups equally. For the younger age cohorts in particular, demographic change can also affect the savings rate by encouraging reforms to the statutory pension systems and government incentives for increased private provision.

The household structure is also indicative of the savings rate. Single households have a lower savings rate than couple households. The savings rate of single parents in particular is usually very low, as one income must be sufficient to cover their own consumption and that of their children, and the supply of labor is further reduced by looking after the children , which leaves less room for savings. The trend that has been ongoing for several years is that couples form a household later and have children later and overall fewer. The former reduces the savings rate in itself, the latter increases it. Over the period observed, the shift in group shares led to a savings rate that was 0.4 percentage points lower. Overall, however, the savings rate increased due to the predominant changes within the groups.

Looking at social status, it is clear that employees save more than the unemployed and pensioners. Consumption smoothing plays a role here, ie people save while they are working and stop saving during periods of unemployment and in retirement in order to maintain a similar level of consumption over time. This result also fits with the savings rates of the age groups.

The highest savings rate is recorded among the self-employed , who, however, do not pay into social insurance and therefore save more in order to provide for old age and illness. The number of self-employed people in Germany has been decreasing for several years, while the number of pensioners has been increasing. The structural influence on the savings rate is negative. Overall, this shift in the employment structure has reduced the savings rate by 0.3 percentage points. The increase in the savings rates within the groups and the interaction effect contributed 1.0 and 0.7 percentage points respectively to the net change in the rate being clearly positive.

A structural change in the savings rate is also expected for the coming decades due to the progressive ageing of society . The shift in the proportions of the age groups can be forecast using the 15th coordinated population forecast . Assuming that the savings rates within the respective groups remain constant at their long-term average level determined above, this alone will result in a reduction in the savings rate of 0.5 percentage points in the period from 2022 to 2070, with a large part of this reduction already occurring by 2040 (Table 5.2, page 81).

Economic Determinants of the German Savings Rate

The audit

The residual nature of the private household savings rate could make it particularly susceptible to revision. The more susceptible a variable is to revision, the less suitable it is for diagnosing the current economic situation.

In addition, revisions significantly influence the assessment of the quality of forecast models and indicators.[11]

In the following, the revisions in savings and the savings rate of private households are therefore examined in more detail and their extent is compared with revisions of other macroeconomic variables.

For this purpose, the real-time database of the Deutsche Bundesbank is used, which contains different calculations for a large number of macroeconomic aggregates . Savings (in billion euros) are available as a measure of the savings behavior of private households in real time. However, no data is available in the database for the savings rate, and there is also no information on the increase in company pension entitlements. Therefore, the savings rate is calculated here as the quotient of savings and disposable income of private households in order to analyze whether the revisions of both figures cancel each other out.

The analysis is based on a total of 77 calculations for the period from the first quarter of 2005 to the fourth quarter of 2023, with the most recent data set containing information up to and including the second quarter of 2024.[12] The levels of the original values are considered; it is also checked whether seasonal and calendar adjustments cause additional distortion. A total of four revision rounds are examined. A revision is defined as the difference between the levels of two calculations that follow one another immediately. The first revision round is therefore the revision of the first update.

The value shown for savings is usually no longer changed after a total of four revisions. The average absolute revision in the first round is 64 million euros and in the last round of revisions 26 million euros. However, there are two exceptions. Firstly, general revisions can subsequently significantly change the level and the course.[13] The 2024 general revision was quantitatively significant, particularly for the savings rate, which is mainly due to the revisions in disposable income. For savings, on the other hand, the figures are

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11 For an analysis based on the US states, see **Bokun, KO; Jackson, LE; Kliesen, K. L.; Owyang, M. T.:** FRED-SD: A real-time database for state-level data with forecasting applications, in: International Journal of Forecasting 39 (3), 279–297, 2023.

12 The first calculation status as of 24 May 2005 covers the data for the period from the first quarter of 1991 to the first quarter of 2005.

13 In the national accounts, the general economic indicators are used to Revisions are carried out approximately every five years to fundamentally revise the calculations. In addition to conceptual changes, new data sources and new calculation methods are implemented.

Table 5.3

Correlations between saving and other macroeconomic variables for the first revision round

Aggregate	until 2023	until 2019
Save	1,00	1,00
Nominal consumption of private households	−0,02	−0,05
disposable income of private households	0,50	0,32
mass income	−0,25	−0,23
employee compensation	−0,14	−0,18
gross wages and salaries	−0,01	−0,11
residential construction investments (excluding the state)1	0,12	−0,23
corporate and property income1	−0,13	0,09

1 The correlations are based on a shorter sample starting with the second quarter of 2007.

Sources: Deutsche Bundesbank; calculations of the institutes.

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the revisions are limited and, for example, quantitatively far less significant than in the 2014 general revision. Secondly, the fluctuations in the revisions in the years of the COVID-19 pandemic are significantly larger and more persistent. Seasonal and calendar adjustments do not appear to cause any additional distortion. The previous statements apply equally to the savings rate, so that revisions to savings and disposable income do not cancel each other out.

There is little or no correlation within and between the revision rounds. This indicates that the revisions are independent of each other over time . However, this leads to the assumption that revisions of other macroeconomic variables that are directly related to the determination of savings are reflected in this variable . The following examines nominal consumer spending and the disposable income of private households as well as residential construction investments (excluding the state). The connection with corporate and property income is also examined.

For the first round of revisions, there is a fairly high correlation between the revisions in savings and those in disposable income for the period from 2005 to 2023 (0.50; Table 5.3, page 82). If the COVID-19 pandemic is ignored (years 2020 to 2023), the correlation decreases (0.32). With the revisions in nominal household consumption, residential construction investments, and corporate and property income, however, the correlations are small. The effects of the COVID-19 pandemic are in some cases significant. For example, the sign of the correlation with the revisions in residential construction investments changes when the period of the pandemic is included.

Due to the correlation between the revisions in savings and disposable income, it is worth looking into the details. Disposable income is made up of mass income, operating surpluses /self-employed income, property income ("profits" of households) and the balance of transfers received and made. In the real-time database of the Deutsche Bundesbank, only mass income (and wage income as its components) is provided. The revisions in mass income seem to have only a small connection with the revisions in savings. Therefore, there is likely to be an even greater connection with the revisions in household profits. However, this thesis cannot be verified because no real-time data is available for this figure in the database.

Evaluation of indicators for short-term forecasting

For the short-term forecast of the savings rate,
The following 26 indicators were tested for their forecasting quality, which can be grouped into five blocks:

1. **Interest rates:** Nominal interest rates for consumer and real estate loans, two real interest rates (EURIBOR minus inflation, real yield on 10-year federal securities)

2. **Unsicherheit:** World Uncertainty Index, Geopoliti-cal Risk, Economic Policy Uncertainty Index

3. **Inflation:** Consumer Price Index

4. **Net financial assets:** deposits on German current accounts, changes in loan portfolios

5. **Surveys:** Savings climate of building societies, consumers European Commission's survey, GfK survey indicators

In addition to calculating the individual indicator forecasts, the mean value ("forecast pooling") of all indicators and models is also evaluated in order to take account of the forecast and estimation uncertainty. These combination approaches have proven successful in the scientific literature. The forecast experiment is carried out under real-time conditions, ie only the information that was actually available in the past is included.14 The variables to be forecast are savings (seasonally and calendar -adjusted change compared to the previous quarter) and the savings rate (in % of disposable income, seasonally adjusted). In contrast to savings and the savings rate

Table 5.4

forecast quality savings

Model	until 2023	until 2019	until 2023	until 2019
	Nowcast		Forecast	
best indicator	0,61 (unemployment expectations DG ECFIN)	0,95 (Realzins, 3-month EURIBOR)	0,99 (World Uncertainty Index)	0,92 (Interest charges real estate loans)
Prognosepooling in-	0,78	1,00	1,05	0,92
sample mean	0,68	1,03	1,05	1,19
Random-Walk	1,05	1,57	1,55	1,43

All forecast errors are shown relative to the AR(1) process.

Source: Institute calculations.

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Table 5.5

forecasting quality of the savings rate

Model	until 2023	until 2019	until 2023	until 2019
	Nowcast		Forecast	
best indicator	0,75 (GfK consumer climate)	0,95 (intention to buy a car)	0,98 (World Uncertainty Index)	0,92 (World Uncertainty Index)
Prognosepooling in-	0,91	1,63	0,93	1,23
sample mean	1,10	2,13	1,22	1,76
Random-Walk	0,73	0,96	1,01	1,04

All forecast errors are shown relative to the AR(1) process.

Source: Institute calculations.

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the majority of the indicators are not revised. A forecast is always made for the current quarter (nowcast) and the next quarter (forecast). The indicators are evaluated based on the data availability for the period from the first quarter of 2008 to the fourth quarter of 2023; in addition, the forecast quality is given without the influence of the Corona crisis. The root of the mean square forecast error, which is expressed relative to a comparison model without indicators, serves as a measure of the forecast quality.15

For the longer period of the forecast experiment up to and including 2023, there are a number of indicators that can significantly improve the forecast quality compared to the comparison model. The best indicator for the nowcast of savings is consumers' unemployment expectations for the next 12 months (Table 5.4, page 83). The GfK consumer climate index is the best indicator for the savings rate (Table 5.5, page 83). However, if we look at the forecast for the coming

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14 For each iteration of the forecast experiment, the models are re-estimated and the data valid at the time is used. Based on the indicators, a total of four different models are specified. Two models in which only one indicator is included - either exclusively contemporary or with delays - and two models in which the time-lagged value of the variable to be forecast is also taken into account.

15 A total of three comparison models are specified: (i) simple time series model in which today's target value is explained by yesterday's value (AR(1) process), (ii) the average change in net savings or the average savings rate (in-sample mean), (iii) the last known value represents the forecast (random walk). All forecast errors are shown relative to the first comparison model. A relative forecast error of less than one shows that the indicator or model has, on average, a higher forecast quality than the comparison model.

coming quarter (forecast), then all indicators lose forecast quality and can only slightly improve the forecast performance of the comparison models.

Overall, pooling is also a profitable forecasting strategy, both for the nowcast and for the forecast.

Overall, the forecasting quality of the models and indicators depends heavily on the period under consideration and therefore on the Corona crisis. When considering only the years up to 2019, the best indicator in each case only slightly increases the forecasting quality of the comparison model in the nowcast (relative forecasting error: 0.95). The relative forecasting errors in the forecast are 0.92 in each case.

The use of the pooling approach to forecast the third and fourth quarters of 2024 indicates that the savings rate is likely to fall slightly over time. The institutes follow this criterion and assume a declining savings rate for the next two quarters.

Conclusion

The savings rate in Germany has risen slightly in recent years , although the expected upturn in private consumption and economic output as a whole has recently failed to materialize in Germany. An international comparison shows that the savings rate in Germany has been above average since before the pandemic; this can hardly be explained by the relevant determinants derived from theory , which suggests the influence of cultural factors. The recent increase is likely to be due in particular to increased precautionary saving in view of the current weakness of the German economy.

Especially in times of economic crisis, economic indicators make a useful contribution to forecasting the savings rate. Sentiment indicators such as the GfK consumer climate and unemployment expectations are particularly suitable for this . Forecasts for the current quarter can certainly be improved in this way, while predictions further into the future are more difficult using economic analyses. Structural analyses show that in the medium term, demographic change is likely to lead to a slight decline in the savings rate (Chapter 3, page 58).

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Annual results 2023 In billion euros

subject of the proof	entire economics	corporations	Stands	Private households and private organizations without registration	Rest of the world
1 = gross value added	3 824,6	2 594,6	444,7	785,3	-
2 – Depreciation	858,0	472,2	115,2	270,6	
3 = net value added1	2 966,6	2 122,4	329,5	514,7	−167,7
4 – Employee compensation paid	2 223,6	1 614,0	337,6	272,0	19,3
5 – Other production taxes paid	38,6	28,0	0,3	10,3	
6 + Other subsidies received	55,5	53,4	0,2	1,9	-
7 = operating surplus/self-employed income	759,9	533,8	−8,3	234,3	−187,0
8 + Employee compensation received	2 229,0	-	-	2 229,0	13,8
9 – Subsidies provided	84,5	-	84,5	-	4,0
10 + Production and import taxes received	424,3	-	424,3	-	8,3
11 – Earned capital income	1 028,8	951,9	36,6	40,4	377,2
12 + Received capital income	1 174,3	669,9	31,4	473,1	231,7
13 – Primäreinkommen (Net nationaleinkommen)	3 474,2	251,9	326,3	2 896,0	−314,3
14 – Income and wealth taxes paid	519,5	128,4	-	391,1	14,4
15 + Income and wealth taxes received	533,3	-	533,3	-	0,7
16 – Net social contributions paid2	862,1	-	-	862,1	3,5
17 + Net social contributions received2	860,8	150,1	709,9	0,8	4,8
18 – Monetary social benefits provided	740,4	82,6	657,0	0,8	0,7
19 + Received monetary social benefits	730,6	-	-	730,6	10,5
20 – Other current transfers made	439,8	253,7	91,9	94,2	90,6
21 + Other current transfers received	382,0	223,4	33,4	125,2	148,5
22 = Disposable income (expenditure concept)	3 419,1	160,6	854,1	2 404,4	−259,2
23 – Consumer spending	3 110,8	-	905,2	2 205,6	
24 + Increase in company pension entitlements	-	−57,7	-	57,7	-
25 = Saving	308,3	102,9	−51,1	256,5	−259,2
26 – Asset transfers made	105,1	15,4	74,4	15,3	7,2
27 + Capital transfers received	87,7	48,1	19,4	20,1	24,6
28 – Gross investment	907,1	507,3	117,1	282,7	-
29 + depreciation	858,0	472,2	115,2	270,6	
30 – Net acquisition of non-productive assets	19,1	19,4	−0,5	0,2	−19,1
31 = financing balance	222,6	81,2	−107,5	249,0	−222,6
For information:					
32 Disposable income (expenditure concept)	3 419,1	160,6	854,1	2 404,4	−259,2
33 – Social benefits in kind provided	554,6	-	554,6	-	-
34 + Social benefits in kind received	554,6	-	-	554,6	-
35 = Disposable income (consumption concept)	3 419,1	160,6	299,4	2 959,0	−259,2
36 – Consumption3	3 110,8	-	350,5	2 760,3	-
37 + increase in company pension entitlements	-	−57,7	-	57,7	-
38 = Saving	308,3	102,9	−51,1	256,5	−259,2

1 For the rest of the world sector, imports minus exports from or to the rest of the world.

2 Including social contributions from investment income less service charges of private social protection systems.

3 For the government sector, collective consumption; for the private households, private organizations n.e. sector, individual consumption (including government consumption expenditure on individual consumption, i.e. including social benefits in kind).

Source: Federal Statistical Office.

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Annual results 2024 In billion euros

subject of the proof	entire economics	corporations	Stands	Private households and private organizations without registration	Rest of the world
1 = gross value added	3 907,3	2 629,8	462,7	814,8	-
2 – Depreciation	885,7	487,0	119,2	279,5	
3 = net value added1	3 021,6	2 142,7	343,5	535,3	−203,9
4 – Employee compensation paid	2 343,1	1 703,6	352,2	287,3	20,0
5 – Other production taxes paid	40,7	30,0	0,3	10,4	-
6 + Other subsidies received	59,3	57,1	0,2	2,0	-
7 = operating surplus/self-employed income	697,0	466,3	−8,9	239,6	−223,8
8 + Received employee compensation	2 348,8	-	-	2 348,8	14,3
9 – Subsidies provided	55,1	-	55,1	-	4,5
10 + Production and import taxes received	442,0	-	442,0	-	5,1
11 – Earned capital income	1 106,3	1 013,4	46,0	46,9	422,3
12 + Received capital income	1 250,5	738,2	33,5	478,8	278,1
13 = Primäreinkommen (Net nationaleinkommen)	3 576,8	191,1	365,5	3 020,2	−353,0
14 – Income and wealth taxes paid	542,0	131,2	-	410,9	14,9
15 + Income and wealth taxes received	556,2	-	556,2	-	0,7
16 – Net social contributions paid2	909,4	-	-	909,4	3,7
17 + Net social contributions received2	909,3	153,8	754,7	0,8	3,7
18 – Monetary social benefits provided	783,1	84,5	697,8	0,8	0,8
19 + Received monetary social benefits	773,0	-	-	773,0	10,8
20 – Other current transfers made	477,2	282,3	89,0	105,9	100,3
21 + Other current transfers received	413,7	247,2	32,7	133,9	163,8
22 = Disposable income (expenditure concept)	3 517,4	94,1	922,3	2 501,0	−293,6
23 – Consumer spending	3 223,2	-	949,1	2 274,1	-
24 + Increase in company pension entitlements	-	−57,6	-	57,6	-
25 = Saving	294,1	36,5	−26,8	284,5	−293,6
26 – Asset transfers made	106,2	13,0	77,9	15,4	6,9
27 + Capital transfers received	90,2	51,2	19,8	19,2	23,0
28 – Gross investment	886,3	484,5	127,4	274,4	-
29 + depreciation	885,7	487,0	119,2	279,5	-
30 – Net acquisition of non-productive assets	14,2	14,4	−0,5	0,2	−14,2
31 = financing balance	263,4	62,9	−92,6	293,1	−263,4
For information:					
32 Disposable income (expenditure concept)	3 517,4	94,1	922,3	2 501,0	−293,6
33 – Social benefits in kind provided	595,3	-	595,3	-	-
34 + Social benefits in kind received	595,3	-	-	595,3	-
35 = Disposable income (consumption concept)	3 517,4	94,1	327,0	3 096,3	−293,6
36 – Consumption3	3 223,2	-	353,8	2 869,5	-
37 + increase in company pension entitlements	-	−57,6	-	57,6	-
38 = Saving	294,1	36,5	−26,8	284,5	−293,6

1 For the rest of the world sector, imports minus exports from or to the rest of the world.

2 Including social contributions from investment income less service charges of private social protection systems.

3 For the government sector, collective consumption; for the private households, private organizations n.e. sector, individual consumption (including government consumption expenditure on individual consumption, i.e. including social benefits in kind).

Source: Institutes' forecast.

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Annual results 2025 In billion euros

subject of the proof	entire economics	corporations	Stands	Private households and private organizations without registration	Rest of the world
1 = gross value added	4 001,7	2 693,4	477,8	830,5	-
2 – Depreciation	905,6	499,0	123,1	283,5	
3 = net value added1	3 096,0	2 194,5	354,6	547,0	−193,0
4 – Employee compensation paid	2 426,9	1 765,8	363,4	297,7	20,5
5 – Other production taxes paid	44,0	33,0	0,3	10,6	
6 + Other subsidies received	59,6	57,5	0,2	2,0	-
7 = operating surplus/self-employed income	684,7	453,0	−8,9	240,6	−213,5
8 + Employee compensation received	2 432,7	-	-	2 432,7	14,8
9 – Subsidies provided	55,3	-	55,3	-	4,5
10 + Production and import taxes received	458,4	-	458,4	-	5,5
11 – Earned capital income	1 129,6	1 033,7	49,6	46,2	435,1
12 + Received capital income	1 277,9	763,1	34,8	480,0	286,7
13 = Primäreinkommen (Net nationaleinkommen)	3 668,9	182,4	379,4	3 107,0	−346,1
14 – Income and wealth taxes paid	559,9	131,7	-	428,3	15,0
15 + Income and wealth taxes received	574,1	-	574,1	-	0,8
16 – Net social contributions paid2	956,5	-	-	956,5	3,8
17 + Net social contributions received2	957,8	158,4	798,6	0,8	2,5
18 – Monetary social benefits provided	815,8	86,3	728,7	0,8	0,9
19 + Received monetary social benefits	805,6	-	-	805,6	11,2
20 – Other current transfers made	480,8	276,4	95,5	109,0	93,4
21 + Other current transfers received	416,9	241,5	33,1	142,2	157,4
22 = Disposable income (expenditure concept)	3 610,1	87,9	961,1	2 561,1	−287,3
23 – Consumer spending	3 318,8	-	982,1	2 336,6	-
24 + Increase in company pension entitlements	-	−57,6	-	57,6	-
25 = Saving	291,4	30,3	−21,0	282,1	−287,3
26 – Asset transfers made	101,2	13,6	72,0	15,6	7,1
27 + Capital transfers received	86,4	46,9	20,5	19,0	21,8
28 – Gross investment	909,7	502,5	133,6	273,6	-
29 + depreciation	905,6	499,0	123,1	283,5	-
30 – Net acquisition of non-productive assets	13,5	13,7	−0,5	0,2	−13,5
31 = financing balance	259,2	46,4	−82,5	295,2	−259,2
For information:					
32 Disposable income (expenditure concept)	3 610,1	87,9	961,1	2 561,1	−287,3
33 – Social benefits in kind provided	621,2	-	621,2	-	-
34 + Social benefits in kind received	621,2	-	-	621,2	-
35 = Disposable income (consumption concept)	3 610,1	87,9	339,9	3 182,3	−287,3
36 – Consumption3	3 318,8	-	360,9	2 957,9	-
37 + increase in company pension entitlements	-	−57,6	-	57,6	-
38 = Saving	291,4	30,3	−21,0	282,1	−287,3

1 For the rest of the world sector, imports minus exports from or to the rest of the world.

2 Including social contributions from investment income less service charges of private social protection systems.

3 For the government sector, collective consumption; for the private households, private organizations n.e. sector, individual consumption (including government consumption expenditure on individual consumption, i.e. including social benefits in kind).

Source: Institutes' forecast.

Annual results 2026 In billion euros

subject of the proof	entire economics	corporations	Stands	Private households and private organizations without registration	Rest of the world
1 = gross value added	4 120,0	2 776,2	492,3	851,5	-
2 – Depreciation	930,1	511,9	127,0	291,2	
3 = net value added1	3 189,9	2 264,3	365,3	560,4	−182,7
4 – Employee compensation paid	2 501,9	1 820,7	374,3	307,0	21,0
5 – Other production taxes paid	48,2	37,1	0,3	10,8	-
6 + Other subsidies received	59,8	57,6	0,2	2,0	-
7 = operating surplus/self-employed income	699,6	464,2	−9,2	244,6	−203,7
8 + Received employee compensation	2 507,6	-	-	2 507,6	15,3
9 – Subsidies provided	55,5	-	55,5	-	4,5
10 + Production and import taxes received	474,4	-	474,4	-	5,6
11 – Earned capital income	1 142,3	1 044,0	51,8	46,5	447,0
12 + Received capital income	1 295,3	777,3	35,7	482,4	293,9
13 = Primäreinkommen (Net nationaleinkommen)	3 779,2	197,4	393,7	3 188,1	−340,3
14 – Income and wealth taxes paid	571,5	133,0	-	438,4	15,4
15 + Income and wealth taxes received	586,0	-	586,0	-	0,9
16 – Net social contributions paid2	992,7	-	-	992,7	4,0
17 + Net social contributions received2	994,0	163,1	830,1	0,8	2,7
18 – Monetary social benefits provided	843,0	88,5	753,7	0,8	1,0
19 + Received monetary social benefits	832,6	-	-	832,6	11,5
20 – Other current transfers made	505,1	295,4	100,0	109,7	102,5
21 + Other current transfers received	437,7	256,9	32,9	147,9	170,0
22 = Disposable income (expenditure concept)	3 717,2	100,5	989,0	2 627,7	−278,3
23 – Consumer spending	3 413,3	-	1 012,3	2 401,1	-
24 + Increase in company pension entitlements	-	−57,7	-	57,7	-
25 = Saving	303,8	42,8	−23,3	284,3	−278,3
26 – Asset transfers made	101,1	14,3	71,1	15,8	7,3
27 + Capital transfers received	86,5	46,1	21,2	19,2	21,9
28 – Gross investment	955,6	529,5	140,1	286,1	-
29 + depreciation	930,1	511,9	127,0	291,2	
30 – Net acquisition of non-productive assets	13,3	13,6	−0,5	0,2	−13,3
31 = financing balance	250,3	43,5	−85,8	292,6	−250,3
For information:					
32 Disposable income (expenditure concept)	3 717,2	100,5	989,0	2 627,7	−278,3
33 – Social benefits in kind provided	644,2	-	644,2	-	-
34 + Social benefits in kind received	644,2	-	-	644,2	-
35 = Disposable income (consumption concept)	3 717,2	100,5	344,8	3 271,9	−278,3
36 – Consumption3	3 413,3	-	368,1	3 045,2	-
37 + increase in company pension entitlements	-	−57,7	-	57,7	-
38 = Saving	303,8	42,8	−23,3	284,3	−278,3

1 For the rest of the world sector, imports minus exports from or to the rest of the world.

2 Including social contributions from investment income less service charges of private social protection systems.

3 For the government sector, collective consumption; for the private households, private organizations n.e. sector, individual consumption (including government consumption expenditure on individual consumption, i.e. including social benefits in kind).

Source: Institutes' forecast.

The most important data of the national accounts for Germany forecast for the years 2024 to 2026

	2023	2024	2025	2026	2024		2025		2026	
					1st half of the year	2nd half of the year	1st half of the year	2nd half of the year	1st half of the year	2nd half of the year
1. Creation of the domestic product										
Change in % compared to the previous year										
employed people	0,7	0,4	0,1	0,0	0,4	0,3	0,2	0,1	0,1	−0,0
work volume	0,4	0,3	0,3	0,3	0,1	0,5	−0,0	0,6	0,1	0,6
working hours per employed person	−0,4	−0,0	0,2	0,3	−0,3	0,2	−0,2	0,5	0,0	0,6
productivity1	-0,6	−0,4	0,5	0,9	−0,4	−0,5	0,2	0,7	1,1	0,7
gross domestic product, price-adjusted	**−0,3**	**−0,1**	**0,8**	**1,3**	**−0,2**	**0,0**	**0,2**	**1,3**	**1,2**	**1,3**
2. Use of the domestic product in current prices										
a) Billion Euro										
consumer spending	3 110,8 2	3 223,2	3 318,8 2	3 413,3	1 573,6 1	1 649,6 1	1 616,8 1	1 702,0 1	1 663,6 1	1 749,8
Private households2	205,6	2 274,1	336,6	2 401,1	112,3	161,9	138,4	198,2	170,5	1 230,5
Stands	905,2	949,1	982,1	1 012,3	461,3	487,8	478,4	503,8	493,0	519,2
fixed capital investments	899,9	894,3	913,8	960,6	438,3	456,0	439,9	473,9	460,5	500,1
buildings	466,1	462,7	467,2	487,7	230,2	232,6	228,4	238,9	237,1	250,6
equipment	275,7	263,0	269,5	287,9	127,2	135,8	126,7	142,8	134,3	153,5
Other fixed capital investments	158,0	168,6	177,1	184,9	80,9	87,7	84,9	92,2	89,0	95,9
inventory change3	7,2	−8,0	−4,0	−4,7	6,5	−14,5	10,5	−14,5	10,5	−15,2
Domestic use	4 017,9	4 109,5	4 228,5	4 369,2	2 018,4	2 091,2	2 067,1	2 161,4	2 134,6	2 234,7
external contribution	167,7	203,8	192,9	182,4	113,7	90,1	106,7	86,2	102,2	80,2
For information: in relation to GDP in percent	4,0	4,7	4,4	4,0	5,3	4,1	4,9	3,8	4,6	3,5
Export	1 816,6	1 831,1	1 878,4	1 937,4	911,3	919,8	926,6	951,8	954,9	982,4
Imported	1 649,0 1 627,3 4 185,6		1 685,5	1 755,0	797,6	829,7	820,0	865,5	852,8	902,2
Gross domestic product b)	**4 313,4**		**4 421,4**	**4 551,7**	**2 132,1**	**2 181,3**	**2 173,8**	**2 247,6**	**2 236,8**	**2 314,9**
Change in % compared to previous year										
consumer spending	5,6	3,6	3,0	2,9	4,0	3,2	2,7	3,2	2,9	2,8
Private households2	6,3	3,1	2,7	2,8	3,4	2,9	2,3	3,1	2,8	2,7
Stands	4,1	4,9	3,5	3,1	5,6	4,2	3,7	3,3	3,1	3,1
fixed capital investments	4,9	−0,6	2,2	5,1	−0,8	−0,5	0,4	3,9	4,7	5,5
buildings	4,4	−0,7	1,0	4,4	−1,4	−0,0	−0,8	2,7	3,8	4,9
equipment	4,8	−4,6	2,5	6,8	−4,1	−5,1	−0,4	5,2	6,1	7,5
Other fixed capital investments	6,2	6,6	5,1	4,4	7,0	6,3	4,9	5,2	4,9	4,0
Domestic use	4,2	2,3	2,9	3,3	2,3	2,3	2,4	3,4	3,3	3,4
Export	0,4	0,8	2,6	3,1	−0,5	2,1	1,7	3,5	3,1	3,2
Imported	−3,6	−1,3	3,6	4,1	−4,1	1,5	2,8	4,3	4,0	4,2
gross domestic product	**5,9**	**3,1**	**2,5**	**2,9**	**3,6**	**2,5**	**2,0**	**3,0**	**2,9**	**3,0**
3. Use of the domestic product, chained volume data (reference year 2015)										
a) Billion Euro										
consumer spending	2 676,9 1	2 700,1 2 727,2 2 753,8 1 889,8 1 907,3			1 332,6	1 367,5	1 343,2	1 384,0	1 356,6	1 397,3
Private households2	881,9	1 926,1			930,4	959,3	935,6	971,7	945,0	981,1
Stands	795,2	810,6	820,3	828,1	402,3	408,3	407,9	412,4	411,8	416,3
fixed capital investments	730,8	707,3	710,7	734,7	348,0	359,3	342,9	367,8	353,1	381,6
buildings	346,4	334,0	332,9	342,0	166,9	167,1	163,1	169,8	166,9	175,1
equipment	239,3	223,3	224,4	235,5	108,3	115,0	105,7	118,7	110,0	125,5
Other fixed capital investments	147,4	153,1	157,3	161,5	73,8	79,3	75,5	81,8	77,7	83,7
Domestic use	3 442,9	3 426,2	3 459,7	3 510,6	1 693,7	1 732,5	1 701,9	1 757,8	1 725,5	1 785,1
Export	1 526,8 1	1 525,6 1	1 549,2	1 584,3	761,9	763,7	766,2	783,0	782,6	801,7
Imported	352,0	338,1	1 367,6	1 407,4	659,3	678,8	668,4	699,1	686,5	720,9
Gross domestic product b)	**3 615,5**	**3 612,1**	**3 639,4 3 685,3**		**1 795,9**	**1 816,3**	**1 798,8**	**1 840,6**	**1 820,5**	**1 864,7**
Change in % compared to previous year										
consumer spending	−0,3	0,9	1,0	1,0	1,0	0,8	0,8	1,2	1,0	1,0
Private households2	−0,4	0,4	0,9	1,0	0,4	0,4	0,6	1,3	1,0	1,0
Stands	−0,1	1,9	1,2	1,0	2,2	1,7	1,4	1,0	1,0	0,9
fixed capital investments	−1,2	−3,2	0,5	3,4	−3,2	−3,3	−1,5	2,4	3,0	3,8
buildings	−3,4	−3,6	−0,3	2,7	−4,1	−3,0	−2,3	1,6	2,3	3,1
equipment	−0,8	−6,7	0,5	5,0	−6,1	−7,2	−2,4	3,2	4,1	5,7
Other fixed capital investments	4,7	3,9	2,7	2,7	4,6	3,2	2,3	3,1	3,0	2,4
Domestic use	−0,4	−0,5	1,0	1,5	−0,9	−0,1	0,5	1,5	1,4	1,6
Export	−0,3	−0,1	1,5	2,3	−0,9	0,8	0,6	2,5	2,1	2,4
Imported	−0,6	−1,0	2,2	2,9	−2,6	0,6	1,4	3,0	2,7	3,1
gross domestic product	**−0,3**	**−0,1**	**0,8**	**1,3**	**−0,2**	**0,0**	**0,2**	**1,3**	**1,2**	**1,3**

more: The most important data of the national accounts for Germany forecast for the years 2024 to 2026

	2023	2024	2025	2026	2024		2025		2026	
					1st half of the year	2nd half of the year	1st half of the year	2nd half of the year	1st half of the year	2nd half of the year
4. Price level of the use side of the domestic product (2015=100)										
Change in % compared to the previous year										
private consumption expenditure2	6,7	2,7	1,8	1,8	2,9	2,5	1,8	1,8	1,8	1,7
government consumption expenditure	4,2	2,9	2,3	2,1	3,3	2,4	2,3	2,3	2,1	2,1
fixed capital investments	6,1	2,7	1,7	1,7	2,5	2,9	1,9	1,5	1,7	1,7
buildings	8,1	2,9	1,3	1,6	2,8	3,1	1,5	1,1	1,5	1,7
equipment	5,7	2,2	2,0	1,8	2,1	2,3	2,1	1,9	1,8	1,7
Export	0,7	0,9	1,0	0,9	0,4	1,3	1,1	0,9	0,9	0,8
Imported	−3,0	−0,3	1,3	1,2	−1,5	0,9	1,4	1,3	1,3	1,1
gross domestic product	**6,1**	**3,2**	**1,7**	**1,7**	**3,8**	**2,5**	**1,8**	**1,7**	**1,7**	**1,7**
5. Income generation and distribution										
a) Billion Euro										
Primary income of private households2 Social contributions	2 896,0	3 020,2	3 107,0	3 188,1	1 478,5	1 541,7	1 519,3	1 587,7	1 556,8	1 631,3
of employers Gross wages and salaries	383,0	401,7	421,9	436,2	193,6	208,0	204,5	217,4	211,3	225,0
Other primary income4 Primary	1 846,0	1 947,1	2 010,7	2 071,4	931,0	1 016,1	963,7	1 047,0	991,5	1 079,9
income of other sectors **Net**	667,0	671,5	674,4	680,5	353,9	317,6	351,1	323,3	354,1	326,4
national income (primary income)	578,2	556,6	561,9	591,1	270,7	285,9	262,4	299,5	278,3	312,8
	3 474,2	3 576,8 858,0	3 668,9	3 779,2	1 749,2	1 827,6	1 781,7	1 887,2	1 835,1	1 944,1
depreciation **gross**	885,7		905,6	930,1	440,5	445,2	450,8	454,8	462,1	468,0
national income	**4 332,2**	**4 462,5**	**4 574,5**	**4 709,3**	**2 189,7**	**2 272,9**	**2 232,5**	**2 342,0**	**2 297,2**	**2 412,1**
For information:										
national income	3 134,5	3 189,9 2 229,0	3 265,7 2	3 360,3 2	1 557,9 1	1 632,0 1	1 582,6 1	1 683,2 1	1 627,9 1	1 732,4
employee compensation	2 348,8		432,7	507,6	124,6	224,2	168,2	264,4	202,7	1 304,9
corporate and property income	905,4	841,2	833,1	852,6	433,3	407,9	414,4	418,7	425,1	427,5
b) Change in % compared to the previous year										
primary income of private households2	6,0	4,3	2,9	2,6	4,6	4,0	2,8	3,0	2,5	2,7
employers' social contributions	4,0	4,9	5,0	3,4	4,9	4,8	5,6	4,5	3,3	3,5
gross wages and salaries	7,4	5,5	3,3	3,0	6,1	4,9	3,5	3,0	2,9	3,1
Gross wages and salaries per employee Other primary	6,4	5,0	3,1	2,9	5,6	4,5	3,3	2,8	2,7	3,1
income4	3,5	0,7	0,4	0,9	0,8	0,5	−0,8	1,8	0,9	1,0
primary income of the other sectors	1,6	−3,7	0,9	5,2	−1,8	−5,5	−3,0	4,7	6,0	4,5
Net Nationaleinkommen (Primäreinkommen)	**5,3**	**3,0**	**2,6**	**3,0**	**3,6**	**2,4**	**1,9**	**3,3**	**3,0**	**3,0**
depreciation	7,6	3,2	2,2	2,7	3,2	3,2	2,3	2,2	2,5	2,9
gross national income	**5,7**	**3,0**	**2,5**	**2,9**	**3,5**	**2,5**	**2,0**	**3,0**	**2,9**	**3,0**
For information:										
national income	6,8	1,8	2,4	2,9	2,5	1,1	1,6	3,1	2,9	2,9
employee compensation	6,8	5,4	3,6	3,1	5,9	4,9	3,9	3,3	3,0	3,2
corporate and property income	6,7	−7,1	−1,0	2,3	−5,5	−8,7	−4,4	2,7	2,6	2,1
6. Income and income use of private households2										
a) Billion Euro										
mass income	1 857,9	1 961,8 2 017,5 2 078,4			944,4	1 017,4	973,6	1 043,9	1 002,7	1 075,7
Net wages and salaries Monetary	1 286,5	1 355,4 1 384,3 773,0		1 424,1	644,7	710,7	659,4	724,9	677,2	746,9
social benefits less social security	730,6	805,6		832,6	382,8	390,2	399,7	405,9	414,2	418,4
contributions, consumption-related taxes	159,2	166,6	172,4	178,2	83,1	83,5	85,5	86,9	88,6	89,5
Other primary income4	667,0	671,5	674,4	680,5	353,9	317,6	351,1	323,3	354,1	326,4
Other transfers (balance)5	−120,5	−132,3	−130,7 −131,2 2 561,1 2		−58,8	−73,4	−59,1	−71,7	−59,4	−71,8
disposable income	**2 404,4**	**2 501,0**	**627,7**		**1 239,5**	**1 261,5**	**1 265,6**	**1 295,5**	**1 297,4**	**1 330,3**
increase in company pension entitlements	57,7	57,6	57,6	57,7	28,0	29,6	28,0	29,6	28,0	29,6
consumer spending	2 205,6	2 274,1	2 336,6	2 401,1	1 112,3	1 161,9	1 138,4	1 198,2	1 170,5	1 230,5
Save	256,5	284,5	282,1	284,3	155,2	129,3	155,2	126,9	154,9	129,4
Savings rate in percent6 b)	10,4	11,1	10,8	10,6	12,2	10,0	12,0	9,6	11,7	9,5
Change in % compared to previous year										
mass income	8,4	5,6	2,8	3,0	6,4	4,8	3,1	2,6	3,0	3,0
Net wages and salaries Monetary	9,5	5,4	2,1	2,9	6,6	4,2	2,3	2,0	2,7	3,0
social benefits less social security	6,1	5,8	4,2	3,3	6,2	5,4	4,4	4,0	3,6	3,1
contributions, consumption-related taxes Other primary income4 **Disposable income**	6,9	4,7	3,5	3,3	7,3	2,1	2,9	4,0	3,6	3,1
Consumption expenditure Savings	3,5	0,7	0,4	0,9	0,8	0,5	−0,8	1,8	0,9	1,0
	6,9	**4,0**	**2,4**	**2,6**	**4,7**	**3,4**	**2,1**	**2,7**	**2,5**	**2,7**
	6,3	3,1	2,7	2,8	3,4	2,9	2,3	3,1	2,8	2,7
	8,1	10,9	−0,8	0,8	14,1	7,3	−0,0	−1,8	−0,2	2,0

more: The most important data of the national accounts for Germany forecast for the years 2024 to 2026

	2023	2024	2025	2026	2024		2025		2026	
					1st half of the year	2nd half of the year	1st half of the year	2nd half of the year	1st half of the year	2nd half of the year
7. Revenue and expenditure of the state7										
revenue										
Steer	957,6	998,2	1 032,5	1 060,4	486,7	511,5	502,4	530,2	516,3	544,1
net social contributions	709,9	754,7	798,6	830,1	364,2	390,5	387,4	411,2	402,1	428,0
property income	31,4	33,5	34,8	35,7	17,2	16,2	18,0	16,8	18,5	17,2
Other transfers	33,4	32,7	33,1	32,9	13,7	19,0	13,8	19,3	13,6	19,2
wealth transfers	19,4	19,8	20,5	21,2	8,4	11,4	8,7	11,8	9,0	12,2
sales	165,5	176,9	184,8	192,3	83,2	93,7	87,1	97,7	90,6	101,7
Other subsidies	0,2	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1
In total	**1 917,4**	**2 015,9**	**2 104,6**	**2 172,7**	**973,5**	**1 042,3**	**1 017,5**	**1 087,1**	**1 050,1**	**1 122,6**
expenditure										
advance payments8	626,4	663,6	689,5	712,7	320,4	343,2	334,0	355,5	345,1	367,6
employee compensation	337,6	352,2	363,4	374,3	169,1	183,2	174,4	189,0	179,7	194,6
investment income (interest)	36,6	46,0	49,6	51,8	22,7	23,2	25,0	24,7	26,1	25,6
subsidies	84,5	55,1	55,3	55,5	25,5	29,6	25,5	29,8	25,5	29,9
Monetary social benefits	657,0	697,8	728,7	753,7	345,2	352,6	361,3	367,4	374,8	378,9
Other ongoing transfers	91,9	89,0	95,5	100,0	42,9	46,0	46,2	49,3	48,4	51,6
wealth transfers	74,4	77,9	72,0	71,1	30,5	47,3	28,4	43,6	27,8	43,3
gross investment	117,1	127,4	133,6	140,1	55,5	72,0	58,2	75,3	60,8	79,3
Net acquisition of non-productive assets **Total financial**	−0,5 −0,5 **2 025,0 2**			−0,5	−0,2	−0,3	−0,2	−0,3	−0,2	−0,3
				−0,5						
balance	**108,5**		**2 187,0**	**2 258,5**	**1 011,6**	**1 096,9**	**1 052,7**	**1 134,4**	**1 088,0**	**1 170,5**
	−107,5	**−92,6**	**−82,5**	**−85,8**	**−38,1**	**−54,5**	**−35,2**	**−47,3**	**−37,8**	**−48,0**

b) Change in % compared to the previous year

	2023	2024	2025	2026	2024		2025		2026	
					1st half of the year	2nd half of the year	1st half of the year	2nd half of the year	1st half of the year	2nd half of the year
revenue										
Steer	−0,3	4,2	3,4	2,7	3,6	4,9	3,2	3,6	2,8	2,6
net social contributions	6,4	6,3	5,8	3,9	6,5	6,2	6,4	5,3	3,8	4,1
property income	68,7	6,6	4,1	2,5	8,1	5,1	4,6	3,5	2,5	2,5
Other transfers	14,5	−2,2	1,3	−0,8	−6,7	1,3	0,7	1,8	−1,0	−0,6
wealth transfers	5,6	1,9	3,7	3,1	−1,8	4,7	4,1	3,5	2,9	3,3
sales	4,6	6,8	4,5	4,1	6,2	7,4	4,6	4,3	4,1	4,1
Other subsidies	2,7	−14,7	−3,2	−2,5	−25,0	−7,5	−4,3	−2,6	−2,8	−2,3
In total	**3,5**	**5,1**	**4,4**	**3,2**	**4,7**	**5,5**	**4,5**	**4,3**	**3,2**	**3,3**
expenditure										
advance payments8	3,2	5,9	3,9	3,4	6,6	5,4	4,3	3,6	3,3	3,4
employee compensation	5,3	4,3	3,2	3,0	5,1	3,6	3,1	3,2	3,0	3,0
investment income (interest)	31,2	25,7	8,0	4,3	31,9	20,1	9,9	6,1	4,7	3,9
subsidies	25,3	−34,8	0,3	0,3	−39,8	−29,9	−0,0	0,6	0,2	0,4
Monetary social benefits	7,0	6,2	4,4	3,4	6,7	5,8	4,6	4,2	3,7	3,1
Other ongoing transfers	−17,5	−3,1	7,3	4,8	−2,7	−3,5	7,5	7,1	4,8	4,7
wealth transfers	−4,4	4,6	−7,5	−1,3	2,9	5,7	−7,2	−7,8	-2,0	-0,8
gross investment	4,4	8,8	4,8	4,9	9,8	8,1	5,0	4,6	4,4	5,3
Net acquisition of non-productive assets **Total**	−50,3	−7,9	0,5	0,5	−19,5	0,7	0,5	0,5	0,5	0,5
	4,5	**4,1**	**3,7**	**3,3**	**4,4**	**3,9**	**4,1**	**3,4**	**3,4**	**3,2**

1 Price-adjusted gross domestic product per employed hour.

2 Including private non-profit organizations.

3 Including net acquisition of valuables.

4 Self-employment income/operating surplus as well as received less paid property income.

5 Received minus other transfers made.

6 Savings as a percentage of disposable income (including increases in occupational pension entitlements).

7 Local authorities and social insurance.

8 Including social benefits in kind and other taxes on production.

Sources: Federal Statistical Office (Series 18: National Accounts); Institute calculations; 2024 to 2026: Institute forecast.

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