SPRING REPORT 2024

1. Recovery of the German economy is delayed further

2. Freight transport between infrastructure requirements and decarbonisation

This is a translated version of the original German-language chapter "Kurzfassung: Frühjahrsgutachten 2024", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text. 1. In this spring report, the German Council of Economic Experts (GCEE) presents its current economic outlook for the years 2024 and 2025. In a second chapter, the GCEE discusses the challenges for freight transport between in-frastructure requirements and decarbonisation.

1. Recovery of the German economy is delayed further

- 2. After real gross domestic product (GDP) of the German economy declined by 0.2 % in 2023, the GCEE expects only low GDP growth of 0.2 % in 2024. > CHART K1 LEFT > ITEM 36 However, the German economy is projected to gain some momentum over the course of the year. Inflation is expected to decline, and nominal wages are expected to increase, > CHART K1 RIGHT leading to sustained growth in real incomes and a moderate upturn in private consumption expenditure over the course of 2024. > ITEM 38 In 2025, capital formation is also expected to support German GDP growth, which is anticipated to be 0.9 %.
- 3. **Consumer price inflation** in Germany has continued to **slow**, with significant declines in energy and import prices. Monetary policy is restraining overall economic demand. The GCEE expects that the national consumer price index will increase **by 2.4 % in 2024 and 2.1 % in 2025** down from 5.9 % last year. However, rising labor costs are creating domestic price pressures, preventing a faster normalisation of inflation rates. SITEM 47 Core inflation is expected to reach 3.0 %

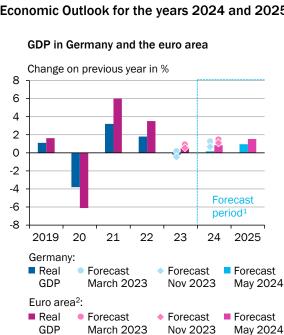


CHART K1 Economic Outlook for the years 2024 and 2025 at a glance

Key economic indicators (in %)

	2023	2024 ¹	2025 ¹
Germany			
GDP growth ³	- 0.2	0.2	0.9
Inflation rate	5.9	2.4	2.1
Unemployment rate ⁴	5.7	5.8	5.6
Wage growth ⁵	6.3	5.1	3.7
Budget balance ⁶	- 2.1	- 1.5	- 1.0
Euro area			
GDP growth ^{2,3}	0.6	0.8	1.5
Inflation rate ⁷	5.4	2.4	2.1
Global economy			
GDP growth ^{2,3}	2.7	2.6	2.7
Inflation rate	5.3	4.5	3.4

Forecast by the GCEE. 2 – Values are based on seasonal and calendar-adjusted quarterly figures. 3 – Constant prices.
 Registered unemployed in relation to civil labour force. 5 – Change of gross wages and salaries (domestic concept) per employees' hour worked.
 In relation to nominal GDP; territorial authorities and social security according to national accounts.
 Change of the Harmonised Index of Consumer Prices.

Sources: Eurostat, Federal Statistical Office, national statistical offices, own calculations © Sachverständigenrat | 24-050-02 in 2024 and 2.4 % in 2025. Inflation in the euro area has also fallen significantly. \square ITEM 26 It can therefore be assumed that monetary policy tightening has peaked, with the first interest rate cuts to be expected over the course of the year. \square ITEM 27 This easing should improve financing conditions throughout the forecast horizon.

4. The ongoing war in Ukraine and the conflict in the Middle East pose significant **risks to the global economy**. SITEM 16 In addition to the risk of energy prices rising again, the future direction of monetary and fiscal policy is uncertain. If inflation in the euro area does not continue to decline as expected, the ECB may delay its first policy rate cuts. SITEM 30 At the same time, additional consolidation may be necessary for the German government budget in 2025. SITEM 48 Both factors could hinder economic recovery, with heightened uncertainty likely to further dampen the investment climate. SITEM 40

2. Freight transport between infrastructure requirements and decarbonisation

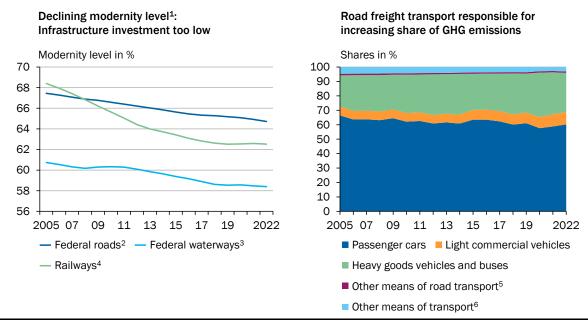
5. Inexpensive, fast and reliable freight transport is crucial for a modern economy with complex value chains, based on the division of labour. It significantly contributes to overall economic productivity. In Germany, freight transport is especially important due to the country's relatively large industrial sector and central geographic location. N ITEM 60

Freight transport in Germany faces **two key challenges**. SCHART K2 First, the **deteriorating condition of transport infrastructure** is already causing capacity bottlenecks and delays, and the anticipated growth in freight transport will further strain the infrastructure. STEMS 75 FF. Second, **freight transport**, which accounts for 8 % of German greenhouse gas emissions (GHG emissions), **must be decarbonised**. STEMS 80 FF. Although the revised Climate Protection Act no longer specifies annual or sector-specific climate targets, Germany must still meet mandatory European targets for the transport and building sectors under the Effort Sharing Regulation (ESR).

- 6. Germany's transport infrastructure needs modernization and expansion, which requires increased infrastructure spending. S CHART K2 LEFT Greater emphasis on user financing, for example via a mileage-based car toll, could be a solution. SITEM 127 Allocating budget funds to investment promotion agencies on a long-term basis could stabilize infrastructure spending, ensure planning security, and consolidate planning expertise. SITEM 129 Additionally, non-monetary barriers in planning and procurement processes should be eliminated. This includes prioritizing quality over cost in procurement and moving away from medium-sized company requirements if they result in inefficiently small batch sizes.
- 7. The potential to shift freight transport from road to rail is limited. ITEMS 93 FF. Only 6 % of current road freight transport is theoretically suitable for a short-term modal shift. However, this potential cannot be realised due to a lack of rail capacity. ITEM 98 A greater modal shift would require a significant increase in the efficiency and capacity of rail transport and an improvement

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CHART K2 Freight transport challenges: Sustainable infrastructure and decarbonisation



1 - Net fixed assets in relation to gross fixed assets. Year-end stock without land acquisition. Provisional values for 2020 to 2022.
2 - Excluding administration.
3 - Up to the sea border.
4 - Traffic routes; until 2012 Deutsche Bahn Group.
Changed data basis from 2005. From 2013 railway system group.
5 - Motorbikes and other road transport.
6 - Rail, ship, air and other transport.

Sources: BMDV, Eurostat, own calculations © Sachverständigenrat | 24-125-01

in price competitiveness, for example through a reduction in taxes and levies on traction current. ITEMS 135 FF. Measures to enhance efficiency and capacity include implementing digital automatic coupling across Europe, ITEM 132 improving train path planning with sufficient passing tracks, ITEM 134 and expanding European rail corridors by resolving issues like differences in operating languages. ITEM 135 Separating infrastructure ownership from the rest of the DB Group could also improve rail infrastructure quality and encourage competition between operators. ITEM 137 However, these benefits must be balanced against possible conversion costs and potential losses of economies of scope.

8. The most significant lever for reducing greenhouse gas emissions (GHG emissions) from freight transport is decarbonizing road freight, which accounts for 98 % of GHG of the freight sector's emissions. SCHART K2 RIGHT This requires converting trucks to alternative powertrains, such as battery-electric (BE) or fuel-cell (FCE) systems. National carbon pricing, the CO2 component of truck tolls, and the upcoming EU ETS II (EU Emissions Trading System) provide technology-neutral incentives for this transition. SITEMS 85 FF. However, scaling alternative powertrains requires a corresponding charging and refuelling infrastructure, including grid expansion. SITEMS 144 FF. The public sector has a role to play in resolving coordination problems during development. Public funds should be directed toward expanding the charging infrastructure for alternative drive systems to achieve network and scaling effects. SITEM 141

9. Given the need for decarbonization and limited public funds and planning capacities, government support should initially prioritize developing a nationwide charging infrastructure for BE trucks. ITEMS 149 FF. I A DIFFERING OPINION ITEMS 160 FF. First, BE trucks are the most market-ready low-emission technology and are likely to dominate in the near term. ITEM 104 Recent technological advances in batteries and charging have substantially broadened their applications. Synergy effects can be achieved through BE cars and the electrification of other sectors. For instance, charging infrastructure and grid expansion can benefit from renewable energy generation along highways. To improve the regulatory environment for private investment, areas for high-speed charging along highways must be made available, and network capacity for these charging points must be transparently communicated. ITEM 118

Second, only a focus on BE trucks can achieve significant **progress towards the decarbonisation of road freight by 2030**. SITEM 106 SA DIFFERING OPINION ITEMS 168 FF. While green hydrogen availability remains uncertain in the near term, BE trucks can immediately reduce emissions with the current electricity mix. Additionally, hydrogen has competing applications, especially in industries where processes are challenging to electrify. SA DIFFERING OPINION ITEMS 179 FF.

Third, **BE trucks serve as the technical basis for FCE trucks**. A focus on BE trucks won't preclude future adoption of FCE trucks for long-distance freight if necessary. \supseteq ITEM 156 \supseteq A DIFFERING OPINION ITEMS 173 FF. Such applications are niche, however, and don't justify a nationwide hydrogen refuelling infrastructure. Instead, mobile or private refuelling stations, or synthetic fuels, can meet these needs. \supseteq A DIFFERING OPINION ITEMS 175 FF.