

Competition 2026

For a competition-oriented
economic policy

Legal notice

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The Monopolies Commission is committed to gender-neutral language. Where possible, the Commission's publications use dual forms or other gender-neutral phrasing. In compound nouns, the masculine form is used for greater readability. All references to persons apply equally to all gender identities.

The English version of this main report has been automatically generated using AI-assisted translation. Consequently, inaccuracies or errors cannot be ruled out. The original German versions of the texts shall always take precedence.

DATE: July 2026

Mandate

As an independent institution, the Monopolies Commission advises the Federal Government, the Bundestag and the Bundesrat, public authorities and the public on competition, competition law and regulation – in a scientifically sound, independent and accessible manner.

Our mandate is to monitor and assess competition in Germany and to derive recommendations for policy decisions from this analysis. We analyse where competition is functioning effectively, where markets are becoming unbalanced, and where political or regulatory frameworks can be improved.

In accordance with Section 44(1) of the Act against Restraints of Competition (GWB), the Monopolies Commission submits its main report, to be drawn up every two years, to the Federal Government. It is entitled ‘Competition 2026: Towards a Competition-Oriented Economic Policy’.

In this main report, we examine the current state and trends in corporate concentration in Germany in Chapter 1 and assess antitrust decision-making practice in Chapter 2. In Chapter 3, we analyse electricity prices as a means of industrial policy, and in Chapter 4 we look at the AI transformation.

Transparency

In preparing the 26th Main Report, the Monopolies Commission relied on the cooperation and expert advice of specialists from a wide range of fields. The Commission would like to thank all the academics mentioned in the report, as well as members of the judiciary, public authorities, companies and associations, for their support.

The President of the Federal Cartel Office, Mr Andreas Mundt, the Vice-President, Prof. Dr Konrad Ost, and the relevant staff members from the decision-making departments and the Policy Department provided significant support in the preparatory work for this report. They provided the Monopolies Commission and the academic staff with the opportunity to discuss decision-making practice and general competition policy issues during a round-table discussion on 16 April 2026, as well as in numerous one-to-one meetings.

The Monopolies Commission held a video conference on 30 April 2026 with the Director-General of the European Commission’s Directorate-General for Competition, Mr Anthony Whelan, to discuss issues relating to European merger control, antitrust and abuse of a dominant position supervision, and general competition policy.

On 23 March 2026, the Monopolies Commission's academic staff held discussions with the secretariat of the Expert Commission on Research and Innovation (EFI) on the indicators that can be used to select sectors for industrial policy measures.

As part of the drafting of the chapter on a competition-oriented economic policy for the AI transformation, the Monopolies Commission held a dozen discussions and roundtable meetings with companies, business associations and experts, including German start-ups, small, medium and large industrial enterprises, and international players. To ensure the greatest possible openness on the part of the participants, it was agreed in advance that no statements in the report would be attributed to specific individuals by name.

During the preparation of the report, AI-supported tools were used selectively as aids, for example to provide linguistic and editorial support and to structure individual work processes. The analyses, assessments and recommendations were drawn up by the Monopolies Commission and its secretariat. Responsibility for the entire content of the report lies solely with the Monopolies Commission.

Contributions and Acknowledgements

This main report was largely prepared by members of the Monopolies Commission's academic staff. The Monopolies Commission's office leads the process of preparing the report and coordinates the work of the Monopolies Commission.

The Secretariat is headed by Dr Marc Bataille as Secretary-General and Dr Juliane Scholl as Managing Director.

The following staff members were primarily involved in the individual chapters:

- Chapter 1: Jonathan Meinhof, Dr Jan-Philip Schain
- Chapter 2: Dr Thiemo Engelbracht, Emanuel Kollmann, Sebastian Oschmann
- Chapter 3: Dr Nadine Hahn, Emanuel Kollmann, Kim-Ines Meier, Jonathan Meinhof, Dr Hendrik Schmitz, Dr Torben Stühmeier
- Chapter 4: Dr Stefan Bulowski, Christian Hildebrandt, Julia Reimer

Michelle Busch, Marion Schadowski, Katharina Schneider and Dr Oliver Zierke also provided valuable support.

The members of the Monopolies Commission owe a debt of gratitude to all staff members. Responsibility for this report lies solely with the members of the Monopolies Commission.

#TEAMCOMPETITION

On a personal note

With effect from 1 July 2026, the Federal President of the Federal Republic of Germany has appointed Constanze Buchheim and Prof. Dr Tomaso Duso for a further term of office each, until 30 June 2030. The terms of office of members Pamela Knapp, Dagmar Kollmann and Prof. Dr Rupprecht Podszun will each end on 30 June 2028.

In Memoriam

In November 2024, Prof. Dr Erhard Kantzenbach, a member of the Monopolies Commission from 1974 to 1986 and its Chairman from 1979 to 1986, passed away.

In February 2025, Dr Horst Greiffenberg, Secretary-General of the Monopolies Commission from 1980 to 2012, passed away.

In July 2025, Karsten Schulz, who was responsible for the IT department at the Monopolies Commission's secretariat for many years, passed away.

In March 2026, Prof. Dr Dr h.c. Ulrich Immenga, a member of the Monopolkommission from 1979 to 1989 and its Chairman from 1986 to 1989, passed away.

The Monopolies Commission owes them a great deal. We shall honour their memory.

Table of Contents

Foreword	8
Chapter 1	10
In brief	12
1 Concentration Reporting	15
1.1 Current state of aggregate corporate concentration among large enterprises in Germany	15
1.2 Aggregate competition analysis: cost shock, falling margins and declining productivity in the manufacturing sector	36
1.3 Energy intensity, the role of international trade and the high-tech boom	45
1.4 The shift of value added from large enterprises abroad	77
1.5 Recommendations at a glance	90
Bibliography	92
Chapter 2	97
In brief	99
2 Assessment of antitrust decision-making practice	105
2.1 Specific issues in the application of competition law (here: competition law damages, armaments, fuels)	105
2.2 Overview of legislative developments	178
2.3 Overview of antitrust decision-making practice	195
2.4 The EG Group/OMV merger and its implications for competition policy	226
2.5 Recommendations at a glance	239
Bibliography	241
Legal sources	252
Chapter 3	255
In brief	256
3 Industrial electricity prices as a tool of industrial policy	259
3.1 Shaping industrial policy to be competition-oriented	264
3.2 Electricity prices as a special case in industrial policy	287
3.3 Recommendations at a glance	331

Bibliography	333
Legal sources	342
Data sources	343
Chapter 4	345
In brief	347
4 A competition-oriented economic policy for the AI transformation	349
4.1 Focusing on European strengths	349
4.2 Industrial companies and the AI transformation	354
4.3 Three instruments of a competition-oriented AI economic policy	383
4.4 Recommendations at a glance	428
Bibliography	431
Legal sources	438
Directory	439
Figures	439
Tables	442
Boxes	442
Online Appendix	444

Foreword

Germany is debating industrial policy. The debate is heated, urgent and involves billions. What this debate needs is a clear compass: the aim must be to strengthen innovative capacity and entrepreneurial spirit in order to secure prosperity. This is also important because a strong economy is the foundation for democracy and the rule of law, for peace, freedom and social justice. However, such an economy can only exist through competition. This report examines what a competition-oriented economic policy might look like.

Competition is not an antiquated theory. It is the foundation for the limitation of power, for freedom and the driving force that creates innovation and prosperity. No subsidy, no ‘national champion’ can replace what a functioning market achieves. Challenging times may require greater state intervention. But competition must remain the guiding principle.

As an independent advisory body to the Federal Government and the legislative bodies, in this 26th Main Report we focus on four topics that examine the triad of competition policy, regulation and industrial policy from different perspectives – and which all seek an answer to the same fundamental question: What measures does the German economy need to remain competitive?

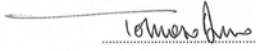
- What do the trends among the 100 largest companies reveal about the state of German industry, and what impact has the energy price shock had on the manufacturing sector?


- How can industrial policy strengthen competition, from addressing the burden of electricity prices to promoting strategic technologies?
- Why is the AI transformation of German industry falling short of its potential, and how can we accelerate the process?
- How can competition law be made more effective – from claims for damages and defence markets to adaptive merger control?


Our recommendations on these issues are not straightforward, but they are important. We hope you find this an insightful and engaging read!

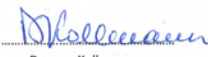



Bonn, 9 July 2026


 Tomaso Duso


 Constanze Buchheim


 Pamela Knapp


 Dagmar Kollmann


 Rupprecht Podszun

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Concentration reporting



Chapter 1

In brief	12
1 Concentration Reporting	15
1.1 Current state of aggregate corporate concentration among large enterprises in Germany	15
1.1.1 The growing importance of large enterprises	15
1.1.2 Identification of the largest companies based on their domestic value added	17
1.1.3 Methodological approach to estimating domestic value added	18
1.1.4 The 100 largest companies in Germany	19
1.1.5 Macroeconomic significance of the 'Top 100'	24
1.1.6 Shareholder structure of the 'Top 100'	26
1.1.7 Personnel links among the "100 Largest"	30
1.1.8 Involvement of the 'Top 100' in business combinations	34
1.2 Aggregate competition analysis: cost shock, falling margins and declining productivity in the manufacturing sector	36
1.2.1 Declining price mark-ups since 2021	39
1.2.2 Germany has a cost and productivity problem	40
1.2.3 Conclusion	45
1.3 Energy intensity, the role of international trade and the high-tech boom	45
1.3.1 Energy-intensive industries as drivers of aggregate development	47
1.3.1.1 Energy-intensive industries with declining margins	51
1.3.1.2 Energy-intensive industries suffer a massive slump in productivity	52
1.3.2 Imports stabilise non-energy-intensive industries	56
1.3.2.1 Import and export ratios occur in tandem	57
1.3.2.2 Price premiums by import and export intensity	60
1.3.2.3 Prices and marginal costs underpin the trading channel	64
1.3.3 High-tech bucking the trend	67
1.3.3.1 Price mark-ups indicate an upward trend	69
1.3.3.2 Productivity is also picking up in the high-tech sector	71
1.3.4 Conclusion	75
1.4 The shift of value added from large enterprises abroad	77
1.4.1 Methodology and Selection of Large Enterprises	77
1.4.2 The importance of the manufacturing sector	78
1.4.3 Decline in the domestic share of value added by large German enterprises	79

1.4.4	A higher proportion of domestic employment is associated with lower growth	82
1.4.5	Value added is shifting abroad, particularly in the manufacturing sector	86
1.4.6	Conclusion	88
1.5	Recommendations at a glance	90
	Bibliography	92

In brief



Reporting on market concentration forms part of the Monopolies Commission's core statutory remit: since 1978, it has been examining trends in corporate concentration in Germany. In its 2026 Main Report, the Monopolies Commission focuses in particular on the manufacturing sector, energy-intensive industries and the high-tech sector. It is here that trends in costs, productivity and domestic value added are particularly evident, as is how companies are responding to changing business conditions.

1 – How is value added by the 100 largest companies in Germany developing, and how are they responding to changing business conditions?

PROBLEM



The concentration report shows that the 100 largest companies remain of great significance for economic performance, employment and political influence, even though their aggregate shares of value added and employment are tending to decline in the long term. From a competition policy perspective, it is not so much size in itself that is problematic, but rather the possibility that economic power, political influence, ownership structures or interlinked personnel may indirectly impair competition.

At the same time, a large proportion of these companies are showing a decline in domestic value-added. In the manufacturing sector in particular, global value-added is growing faster than domestic value-added, meaning that global corporate growth is becoming increasingly decoupled from Germany as a business location.

CONTEXT



The 'Top 100' are determined on the basis of their domestic value added in order to measure their macroeconomic significance in a way that is comparable across sectors. In 2024, their share of total macroeconomic value added stood at 13.9 per cent. At the same time, personnel links and merger activity remained evident, but were significantly lower than in previous decades when viewed over the long term.

An analysis of the 'Top 100' excluding banks, insurance companies and foreign parent companies shows that the decline in the domestic share is occurring primarily in the

manufacturing sector. These companies have often grown globally, whilst domestic value added has stagnated or declined; this trend therefore points more to location- and structural issues than to a general weakness of the companies.

RECOMMENDATIONS



In the Monopolies Commission's view, the relative shift of value added in the manufacturing sector abroad is a response to location conditions and is therefore driven not only by cyclical factors but also by structural ones. Growth abroad, particularly within the European single market, is, however, primarily an expression of free entrepreneurial decisions and does not in itself constitute a competition problem. From the Monopolies Commission's perspective, this shift only becomes relevant where avoidable, home-grown locational disadvantages distort such decisions. This gives rise to three recommendations:

- 1** A competition-oriented industrial policy should examine the extent to which the weakness of the manufacturing sector stems from avoidable regulatory burdens and should remove such distortions without hindering market-driven adjustment processes.
- 2** Where the state intervenes, it should prioritise the general framework conditions and take a horizontal approach, rather than protecting individual sectors or locations. This includes reducing regulatory components of energy prices, bureaucratic burdens and barriers to investment and adjustment.
- 3** Sector- or company-specific support should only be provided where it addresses a clearly identified market or transformation failure and is designed in a way that is open to competition. **70**

2 – How has the energy price shock affected price mark-ups and productivity in the manufacturing sector?

PROBLEM



The energy price shock is more than just a temporary cost burden, particularly for the manufacturing sector. It is hitting an industry that has already been showing signs of a slowdown for several years. If certain sectors are less able than others to absorb rising costs or pass them on in the face of international competition, margins and productivity will fall and the sector's long-term prospects will deteriorate. This could permanently alter Germany's industrial structure and jeopardise prosperity.

CONTEXT



The industrial slowdown was already becoming apparent before the most recent crises. Since 2017, price-adjusted value added and labour productivity in particular have shown weaker growth. The crises of recent years have exacerbated this trend. Since 2021, price mark-ups in the manufacturing sector have also fallen significantly. Although prices rose significantly overall by 2023 compared with 2019, companies' costs increased even more sharply and could only be passed on to a limited extent.

At the same time, a clear divide is evident within the manufacturing sector. In energy-intensive industries, costs rose more sharply and productivity and price mark-ups fell more significantly than in non-energy-intensive industries, which proved to be more resilient overall. High-tech sectors, by contrast, recorded rising price mark-ups and productivity, but were unable to keep pace in an international comparison.

International integration also plays a role. Higher import intensity was associated with more favourable trends in non-energy-intensive industries. In energy-intensive industries, the results also point to possible substitution effects relative to domestic intermediate goods production. Higher export intensity tended to be accompanied by weaker trends in price mark-ups. Comparatively similar employment trends despite differing developments in value added also point to labour market rigidities.

RECOMMENDATIONS



Competitive business conditions determine whether industrial capacity in the manufacturing sector can be productively renewed or whether it comes under sustained cost pressure. At the same time, business conditions influence how international trade linkages play out. Imports can cushion cost increases, but they can also displace domestic intermediate goods production if domestic production conditions remain uncompetitive in the long term. From the Monopolies Commission's perspective, this gives rise to two recommendations:

- 1** Policymakers should take a long-term view and improve the general business environment. Market-driven structural changes should not be held back by the permanent protection of existing structures.
- 2** Labour market policy should facilitate professional mobility and effective competition for skilled workers. Barriers to mobility and recruitment should be removed. This also includes examining the extent to which employment protection rules and non-wage labour costs hinder mobility and recruitment. Digital and AI-related skills, along with an innovation-oriented mindset, should be fostered from an early stage. **70**

1 Concentration Reporting

1 Pursuant to Section 44(1), first sentence, of the German Act against Restraints of Competition (GWB), the Monopolies Commission assesses the state and development of corporate concentration in Germany. It fulfils this statutory mandate through two complementary analyses. Firstly, it measures the macroeconomic corporate concentration of large enterprises, based on the domestic value added of the 100 largest companies (section 71.1). Secondly, the Monopolies Commission calculates company-specific price mark-ups (section 71.2). These can serve as an indicator of market power and are used to assess competitive developments. Price mark-ups capture competitive pressure at company level and thus provide a perspective that does not depend solely on the observable market structure.

2 In addition to these aggregated, cross-sectoral analyses, the Monopolies Commission addresses current issues relating to corporate concentration in Germany in this chapter. This year's report focuses in particular on industrial policy issues and the competition policy challenges posed by the increasing use of AI. Section 71.3 contains a sector-specific analysis of price mark-ups and labour productivity, taking into account, amongst other factors, the energy, import, export and technology intensity of the respective sectors. Section 71.4 examines the extent to which trends towards the relocation of value added by large enterprises abroad are already observable, with a particular focus on the manufacturing sector.

1.1 Current state of aggregate corporate concentration among large enterprises in Germany

1.1.1 The growing importance of large enterprises

3 Aggregate firm concentration measures the concentration of firms at the macroeconomic level. Unlike the measurement of firm concentration in individual markets, which examines the intensity of competition within the respective market, aggregate firm concentration serves to assess concentration patterns at the macroeconomic level. To this end, indicators such as the number of employees or value added are used. On this basis, the share of an economy's largest companies in the respective macroeconomic indicator is determined and has been used by the Monopolies Commission as a measure of aggregate corporate concentration since 1978.

4 Viewed in isolation, company size is not necessarily relevant from a competition policy perspective. What is decisive, rather, is whether companies hold a dominant posi-

tion in relation to the relevant market, based on an appropriate market definition. Under competition law, this becomes relevant if the resulting market power is abused. Thus, even small firms may hold a dominant market position, for example if they operate in a regionally defined market, whilst a very large firm does not automatically hold a dominant market position if it operates in a global market. Regardless of this, large firms play a key role in terms of employment and tax revenue, even without existing market power. By virtue of their size alone, they have particular opportunities to influence national political developments, the structure of markets and the allocation of state subsidies, and thus indirectly to influence competition (see, for example, Monopolies Commission, 2008, para. 329). Personnel or financial links between large enterprises can further reinforce these avenues of influence through an additional concentration of economic clout (Haucap, 2025).

5 Despite the potential risks of undue influence, the existence and targeted support of large enterprises – referred to as ‘national champions’ – have once again been viewed more favourably in recent years (OECD, 2024; Schneider, 2023; Terzi et al., 2023). The underlying argument is based on the assumption that key competitive processes are increasingly taking place at a global level and that a certain scale is required to survive in this competitive environment (Draghi, 2024). In particular, competition between business locations and between economic systems has come to the fore. From a German or European perspective, this view prioritises the ability to compete globally in individual sectors with at least one large enterprise, rather than maintaining intense domestic competition amongst several relevant providers who play only a minor role in the global context.

6 In addition, there is a rise in protectionism at the global level, as well as international trade restrictions. Furthermore, existing locational disadvantages in Germany – particularly as a result of high energy prices and an increasing bureaucratic burden on domestic companies – are being perceived more acutely. These framework conditions make industrial policy interventions to support domestic companies appear to be an increasingly central component of the national economic strategy (see **7 Chapter 3**). However, if existing locational disadvantages are to be offset by subsidies, there is a risk that large enterprises will benefit disproportionately. Furthermore, studies indicate that small and medium-sized enterprises suffer disproportionately from bureaucratic requirements (European Commission et al., 2022; Icks/Weicht, 2022; Kitching et al., 2015). Overall, there is therefore a risk of a renewed increase in corporate concentration at the macroeconomic level in the medium term. Against this backdrop, examining aggregate corporate concentration appears particularly relevant at present.

7 The legislature was also aware of the potential impact of a concentration of economic power. As part of the second amendment to the Act against Restraints of Competition (GWB), the Monopolies Commission was therefore tasked with regularly monitoring corporate concentration (Federal Government, 1964). A high level of corporate concentration is not regarded as positive or negative in itself. However, it is assumed that a ‘restriction of competition through concentration [...] may jeopardise the preservation of a free and socially satisfactory economic and social order’. Against this backdrop, the exercise of economic ‘control by an ever-shrinking group of individuals’ was viewed critically. The Monopolies Commission fulfils its mandate by presenting the current state and trends in aggregate corporate concentration, thereby creating transparency regarding the distribution of economic control. In this way, potential undesirable developments can be identified at an early stage and addressed where necessary.

1.1.2 Identification of the largest companies based on their domestic value added

8 Since the start of its reporting, the Monopolies Commission has determined aggregate corporate concentration on the basis of the 100 largest companies in Germany (hereinafter ‘the 100 largest’). The term ‘company’ does not refer here to a legally independent entity. Rather, the large companies under consideration are corporate groups (conglomerates). All legally independent companies belonging to a corporate group are to be regarded as a single economic entity. The parent company is the top-tier entity of this economic entity. Parent companies with their registered office in Germany are obliged, pursuant to Section 290 of the German Commercial Code (HGB), to prepare consolidated financial statements. These consolidated financial statements must include all companies over which the parent company can exercise a controlling influence, either directly or indirectly. These companies are referred to as subsidiaries. This regularly also includes companies with their registered office abroad, provided the relevant conditions are met; they must likewise be included in the consolidated financial statements. However, the Monopolies Commission’s remit relates to the assessment of corporate concentration in Germany. Consequently, subsidiaries based abroad are not taken into account in the context of this section. As a result, the analysis generally covers (sub-)groups, although only those subsidiaries that have their registered office in Germany are included in the group. This is referred to below as a ‘domestic group’.

9 To define the group of the ‘100 largest’, the Monopolies Commission has, since its Fourth Main Report, used the (net) value added of the enterprises. Value added is a measure familiar from national accounts, where it is reported in the production, use

and distribution accounts. In the input-output accounts, economic value added corresponds to the production value of all companies minus intermediate inputs. In the distribution accounts, it corresponds to the sum of the incomes of the groups involved in this process, i.e. labour income, corporate and property income, and production taxes paid to the state. Accordingly, the value added of an individual company can also be viewed from two perspectives. On the one hand, it corresponds to the value that the enterprise adds to the intermediate inputs used. On the other hand, it corresponds to the sum of the labour income, profits and interest generated by the enterprise, as well as the taxes paid. How value added is specifically calculated on the basis of annual financial statement data is set out in detail in the [↗Online Appendix 1.1](#) to this report.

10 The use of value added to determine aggregate corporate concentration offers significant advantages over alternative indicators. It enables a cross-sector comparison of the economic performance of companies. Unlike sector-specific metrics – such as turnover for industrial, retail and service companies, balance sheet totals for credit institutions or gross premium income for insurance companies – value added provides a uniform and comparable basis for assessment. Furthermore, its use is also conceptually justified. Reporting on aggregate corporate concentration aims to provide transparency regarding the distribution of economic power. At the macroeconomic level, gross domestic product regularly serves as a measure of economic performance and as a benchmark for policy evaluation. As economic value added largely corresponds to gross domestic product, it is suitable as a consistent benchmark for assessing aggregate corporate concentration.

1.1.3 Methodological approach to estimating domestic value added

11 In its current main report, the Monopolies Commission analyses corporate value added for the year 2024 (‘the current reporting year’). Complete data for more recent years were not available at the time of writing. Furthermore, the Monopolies Commission has adapted its methodological approach to determining domestic value added for the current reporting year. Unlike in previous reporting years, no company surveys were conducted. The main reasons for this were the sometimes limited usability of previous company data, the improved data availability now provided by commercial databases and publicly accessible financial statements, and the administrative burden associated with surveys for both companies and the Monopolies Commission. Internal analyses based on the data reported in previous years have shown that, with a few exceptions, the switch to estimation methods results in deviations of less than three per cent.

12 To define the shortlist for the ‘Top 100’, particular consideration was given to the 250 domestic companies with the highest turnover outside the finance and insurance sectors, the 25 largest companies in these sectors by balance sheet total, and the companies included in the previous reporting year. Domestic value added was then estimated on the basis of group, sub-group or individual financial statements, depending on the group structure and data availability. In particular, foreign holdings, specific structures in the food retail sector and domestic subsidiaries of foreign parent companies were taken into account. The detailed methodological approach is set out in the [↗Online Appendix 1.1](#), ‘Methodology for the selection and data availability of the candidate pool for the “100 Largest”’.

1.1.4 The 100 largest companies in Germany

13 [↗Table 1.1](#) shows the 100 largest companies in Germany for the reporting year 2024, based on their domestic value added. The number of employees at the domestic group companies is also shown.

Table 1.1: The largest companies in 2024 by domestic net value added

Rank	Company	Domestic value added (million EUR)	Change (per cent)	Domestic workforce	Sector
1 –	Volkswagen AG	37,604	-5,8	295,178	Industry
2 ↑	Deutsche Telekom AG	19,732	+30.4	74,550	IT/Media
3 ↓	Mercedes-Benz Group AG	18,172	-25.9	114,741	Industry
4 ↑	Deutsche Bahn AG (excluding DB Schenker)	15,205	+5.1	214,047	Transport
5 ↑	Robert Bosch GmbH	14,300	-0.4	129,649	Industry
6 ↓	Bayerische Motoren Werke AG	13,290	-20.3	89,490	Industry
7 ↑	DHL Group	10,512	+21.8	218,783	Transport
8 ↓	Siemens AG	9,027	-26.6	88,476	Industry
9 ↑	E.ON SE	8,304	+381.7	42,293	Energy
10 ↑	Allianz SE	7,794	+73.2	40,599	Insurance
11 –	REWE Group	7,536	+0.9	272,000	Retail
12 ↑	Deutsche Lufthansa AG	6,996	+11.9	66,336	Traffic
13 ↑	SAP SE	6,160	+5.8	26,944	IT/Media
14 ↑	Commerzbank AG	6,073	+25.3	26,646	Bank
15 ↑	RWE AG	5,843	+161.4	13,505	Energy
16 ↑	Schwarz Group	5,732	+15,7	179,294	Retail
17 ↑	EDEKA Group	5,521	+6.9	132,242*	Retail

Rank	Company	Domestic value added (million EUR)	Change (per cent)	Domestic workforce	Sector
18 ↑	EnBW Energie Baden-Württemberg AG	5,454	+53.7	27,005	Energy
19 ↑	Roche Group Germany	5,454	+20.8	18,256	Industry
20 ↓	Deutsche Bank AG	5,427	-5.5	35,773	Bank
21 ↓	Fresenius SE & Co. KGaA	5,132	-27.2	86,101	Industry
22 ↓	INA Holding (Schaeffler AG)	4,708	-35.9	75,640	Industry
23 ↑	Asklepios Kliniken GmbH & Co. KGaA	4,201	+15.1	50,802	Health
24 ↓	BASF SE	4,125	-53.0	50,602	Industry
25 ↑	Aldi Group	3,974	+21.3	91,736*	Retail
26 ↑	C. H. Boehringer Sohn AG & Co. KG	3,434	-23.1	16,636*	Industry
27 ↓	ZF Friedrichshafen AG	3,298	-6.2	52,027	Industry
28	ING Holding Deutschland GmbH	3,294		5,917	Credit institution
29 ↑	Amazon Group Germany	3,242	+45.9	57,470*	Other
30 ↑	Daimler Truck Holding AG	3,219	+161.9	38,277	Industry
31 ↓	thyssenkrupp AG	3,139	-36.3	54,235	Industry
32 ↑	Rethmann SE & Co. KG	3,106	-2.1	51,712	Waste management
33 ↑	Ford Group Germany	3,036	+5.6	17,365	Industry
34 ↓	Shell Group Germany	2,989	-45.4	4,073*	Raw materials
35 ↑	Siemens Energy AG	2,901	+55.9	25,644	Industry
36 ↑	Bayer AG	2,864	+7.7	21,824	Industry
37 ↑	Sanofi Group Germany	2,827	+84.8	7,179	Industry
38 ↓	Carl Zeiss AG	2,808	+3.4	22,524	Industry
39 ↑	STRABAG Group Germany	2,652	+28.9	39,013	Other
40 ↓	Munich Reinsurance Company AG	2,587	-45.7	19,123	Insurance
41	TenneT TSO GmbH	2,544		4,391	Energy
42 ↑	Sana Kliniken AG	2,443	+23.6	33,230	Health
43 ↑	KfW Banking Group	2,415	+13.6	8,387	Credit institution
44 ↑	Bayerische Landesbank	2,415	+37.6	6,890	Credit institution
45	Uniper SE	2,258	+315.8	4,865	Energy
46 ↓	HGV mbH	2,185	-19.9	23,280	Housing
47 ↓	Würth Group	2,146	-18.7	27,308	Industry

Rank	Company	Domestic value added (million EUR)	Change (per cent)	Domestic workforce	Sector
48 ↑	MTU Aero Engines AG	2,110	+63.9	6,182	Industry
49 ↓	Liebherr International Group Germany	2,061	-13.6	24,057*	Industry
50 ↓	Evonik Industries AG	2,058	-17.1	18,305	Industry
51 ↓	Airbus Group Germany	2,036	-59.0	59,241	Industry
52 ↑	DIRK ROSSMANN GMBH	1,989	+77.7	35,741	Retail
53 ↑	VINCI Group Germany	1,979	+50.5	21,233*	Construction
54 ↑	KPMG AG, a firm of auditors	1,959	+16.9	14,427	Other
55 ↓	Bertelsmann SE & Co. KGaA	1,933	-31.1	28,800	IT/Media
56 ↑	dm-drogerie markt Verwaltungs-GmbH	1,761	+27.1	60,373	Retail
57 ↑	Stadtwerke München GmbH	1,679	+20.3	11,604	Energy
58 ↓	PricewaterhouseCoopers GmbH	1,679	-9.2	12,793*	Other
59 ↑	Infineon Technologies AG	1,613	+29.3	15,232	Industry
60 ↓	DZ Bank AG	1,575	-40.9	11,969	Insurance
61	Procter & Gamble Group Germany	1,546	+99.7	8,316	Industry
62 ↑	EWE AG	1,541	-0.0	11,007	Energy
63 ↑	DEKRA SE	1,540	-2.2	23,949*	Other
64 ↑	Landesbank Baden-Württemberg	1,536	+11.8	7,967	Credit institution
65	Amprion GmbH (M31)	1,528		2,956	Energy
66 ↑	maxingvest AG	1,495	+18.8	13,639	Other
67 ↓	Rheinmetall AG	1,494	-6.0	14,589	Industry
68 ↑	Charité University Medicine Berlin	1,467	+15.4	18,242	Health
69 ↓	MERCK KGAA	1,439	-22.1	13,236	Industry
70 ↑	EY Group Germany	1,433	+2.2	10,564	Other
71	DekaBank Deutsche Girozentrale AG	1,432		5,241	Credit institution
72	Landesbank Hessen-Thüringen Girozentrale	1,418	+142.8	5,804	Credit institution
73 ↓	Fraport AG Frankfurt Airport Services Worldwide	1,402	-5.7	17,010	Traffic
74 ↓	Deutsche Börse AG	1,393	-10.9	4,101	Other
75	KION Group AG	1,354	+182.6	12,627	Transport
76 ↓	Otto Group	1,290	-17.9	21,334	Retail

Rank	Company	Domestic value added (million EUR)	Change (per cent)	Domestic workforce	Sector
77 ↑	Wacker Chemie AG	1,276	-42.9	10,657	Industry
78 ↓	AXA Group Germany	1,272	-17.7	7,904	Insurance
79 ↑	Cologne Municipal Utilities	1,251	+2.1	15,537	Energy
80 ↑	United Internet AG	1,250	-0.4	8,998	IT/Media
81 ↓	Salzgitter AG	1,216	-34.4	18,585	Industry
82	Telefónica Deutschland Holding AG	1,205	+40.1	7,848	IT/Media
83 ↓	Deloitte GmbH	1,151	-30.7	7,489	Other
84 ↑	DFS Deutsche Flugsicherung GmbH	1,122	+0.7	6,200	Traffic
85 ↑	DACHSER GROUP SE & CO. KG	1,115	-2.1	19,388	Transport
86	Zalando SE	1,112	+164.8	14,977	Retail
87	Freudenberg & Co. KG	1,095	+3.3	13,064	Industry
88 ↓	IBM Group Germany	1,080	-22.8	3,931	IT/Media
89	Ceconomy AG	1,075	+3.3	22,563	Retail
90 ↑	TRUMPF GmbH + Co. KG	1,054	-7.5	9,505	Industry
91	Krones AG	1,046	+14.9	11,312	Industry
92	Vivantes – Network for Health GmbH	1,041	+9.8	19,888	Health
93 ↓	Adecco Group Germany	1,031	-15.1	22,625	Other
94	Dr August Oetker KG	1,022	+14.0	18,905	Industry
95 ↓	Kühne + Nagel AG & Co. KG	1,013	-22.6	12,981	Transport
96	Axel Springer SE	1,007	-0.1	8,254	Industry
97 ↓	Vonovia SE	995	-29.0	15,076	Residential
98 ↓	Stellantis Group Germany	995	-38.8	8,576	Industry
99	Microsoft Deutschland GmbH	979		2,853	IT/Media
100	BECHTLE AG	978	+42.8	11,012	IT/Media

Notes: The data is based on the financial year ending 30 June 2024.

Rank: ↑ (↓) indicates that the company has moved up (down) in the ranking compared with 2022; – indicates no change. If no figure is given, the company was not included in the 'Top 100' in 2022.

Value added: The value added shown represents an estimate for the domestic group companies. The estimation methods are set out in Online Appendix 1.1.

Employees: The figures relate to the domestic group companies. Estimates are marked with an *.

Sector: Classification according to economic sector as per NACE Rev. 2 / WZ 2008.

Source: Own surveys.

14 The reporting year 2024 is characterised, on the one hand, by relative weakness in the manufacturing sector. For example, the major automotive groups Volkswagen AG, Mercedes-Benz Group AG and BMW AG, as well as large industrial companies from other sectors such as Robert Bosch GmbH, Siemens AG, Fresenius SE & Co. KGaA and INA-Holding, together with their subsidiaries Schaeffler AG and Continental AG, each recorded a decline in value added compared with 2022; in many cases, this decline was well over 20 per cent.

15 In recent years, public debate has repeatedly linked the weakness of Germany as an industrial location to high energy prices and onerous bureaucratic requirements. The sections [71.3](#) and [71.4](#) examine the relative weakness of the industrial sector in greater detail. [7 Chapter 2](#) outlines options for action regarding Germany's status as an industrial location, high electricity prices and possible subsidies.

16 On the other hand, energy suppliers are showing relative strength. Companies such as E.ON SE, RWE AG, EnBW Energie Baden-Württemberg AG and Uniper SE have managed to increase their domestic value added, in some cases by well over 50 per cent. This development is largely attributable to the energy price shock resulting from the Russian invasion of Ukraine in 2022, which had previously led to a significant reduction in the energy suppliers' value added, as sharply rising costs could not be passed on, at least in the short term. The sharp rise in value added should therefore be interpreted primarily as a recovery effect.

17 Furthermore, it is evident that the 'Top 100' list continues to be dominated by companies in the industrial, energy, retail, transport and traditional financial sectors. Companies with AI-related business models, for example in the software or cloud sectors, remain only sporadically represented. SAP SE is the only company with a German parent company whose core business is clearly based on software or cloud-based platform solutions. The associated challenges and disadvantages in international competition are discussed in [7 Chapter 4](#).

18 Compared with 2022, the following companies have dropped out of the 'Top 100' (2022 ranking in brackets): BioNTech SE (9), Hapag-Lloyd AG (18), ExxonMobil Group Germany (30), UniCredit Group Germany (41), Vodafone Group Germany (43), TOTAL Energies (47), Accenture Group Germany (60), K+S AKTIENGESELLSCHAFT (61), BP EUROPA SE (77), Debeka Group (78), Philip Morris International Group Germany (79), Wüstenrot & Württembergische AG (83), John Deere GmbH & Co. KG (89), Vattenfall Group Germany (93), Linde AG (94), B. Braun Melsungen AG (95), Rolls-Royce Group Germany (100).

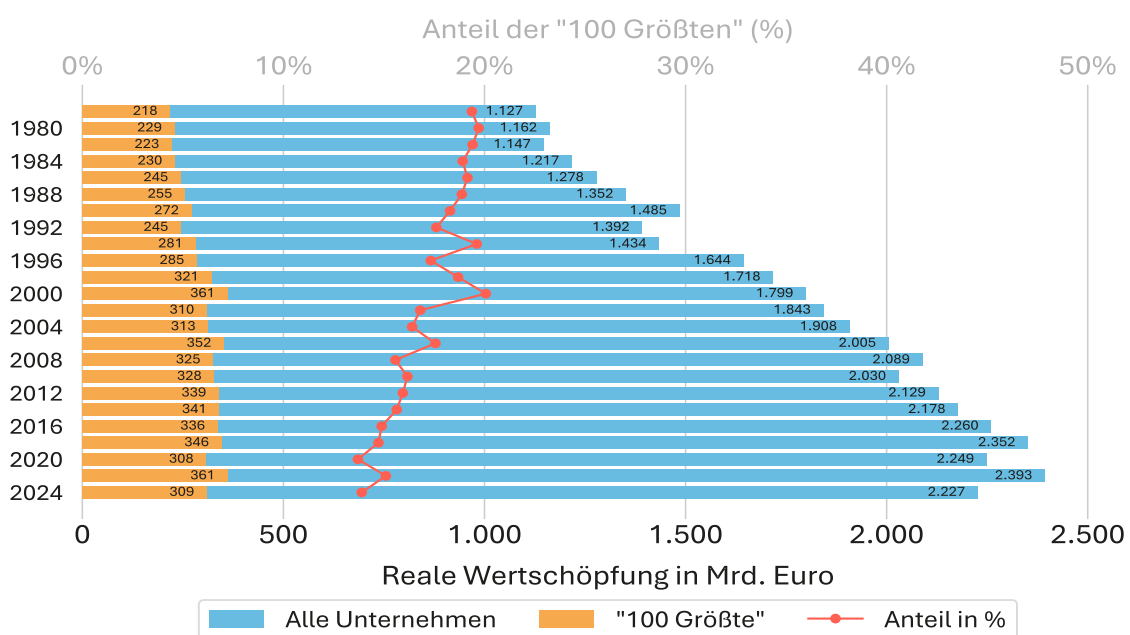
19 In the 2024 reporting year, however, the following companies joined the ranks of the “Top 100” for the first time (2024 ranking in brackets): TenneT TSO GmbH (41), Uniper SE (45), Procter & Gamble Group Germany (61), Amprion GmbH (M31) (65), DekaBank Deutsche Girozentrale AG (71), Landesbank Hessen-Thüringen Girozentrale (72), KION Group AG (75), Telefónica Deutschland Holding AG (82), Zalando SE (86), Freudenberg & Co. KG (87), Ceconomy AG (89), Krones AG (91), Vivantes – Netzwerk für Gesundheit GmbH (92), Dr August Oetker KG (94), Axel Springer SE (96), Microsoft Deutschland GmbH (99), BECHTLE AG (100).

1.1.5 Macroeconomic significance of the ‘Top 100’

20 The economic significance of the ‘Top 100’ for Germany as a business location deserves particular attention. To this end, we calculate both the share of the ‘Top 100’ in total economic value added and the proportion of employees at the ‘Top 100’ out of the total number of employees across all companies in Germany.

21 The share of the ‘Top 100’ in total economic value added is determined by comparing the aggregate domestic value added of these companies with total economic value added. The latter is calculated on the basis of total net value added, adjusted for the public sector. This methodological approach has been adapted compared with previous reports and harmonised with the methodology used to determine total employment figures. Further details on this can be found in the [Online Appendix 1.1](#).

Figure 1.1: Development of real value added from 1978 to 2024



Notes: The method for calculating total net value added was slightly adjusted for the 2024 financial year. The comparative figure shown is now calculated on the basis of price-adjusted net value added, excluding the public sector and non-profit organisations (see Online Appendix 1.1). ‘Top 100’ represents the aggregated, price-adjusted net value added for a given year. Deflation is carried out using an implicit price index of total economic value added, with 2020 as the reference year.

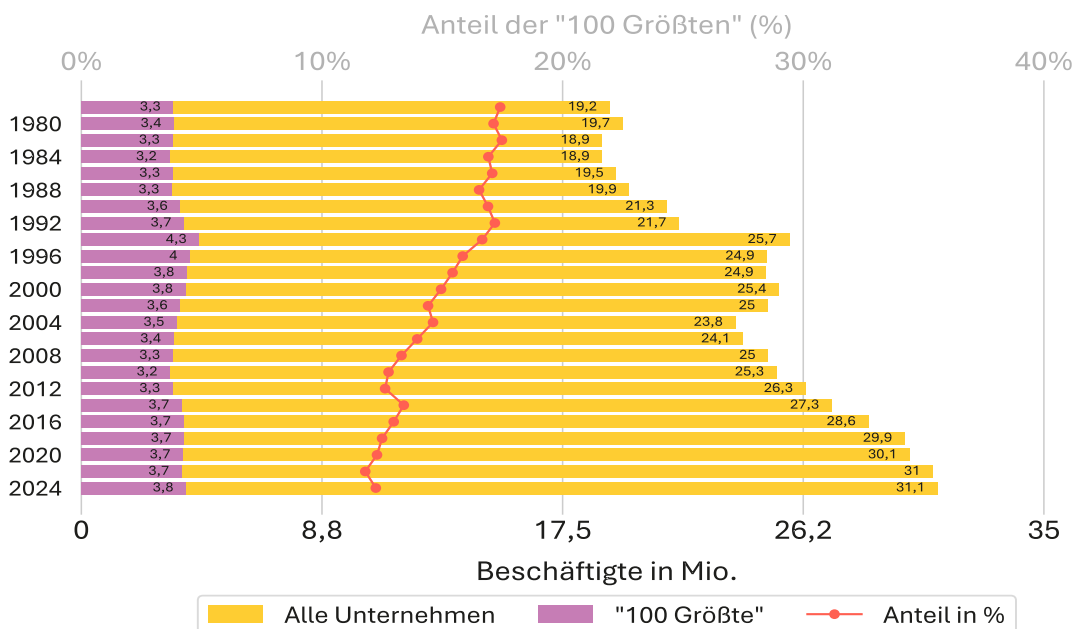
Source: Own calculations and data from the Federal Statistical Office.

22 **Figure 1.1** shows the trend in real net value added for the economy as a whole and the aggregate contribution of the ‘Top 100’. When adjusted for inflation, a decline is evident for both the economy as a whole and the aggregate value added of the ‘Top 100’. The decline in the economy as a whole is attributable to a combination of economic stagnation and high inflation in recent years. The decline in value added by the ‘Top 100’ is due in particular to the fall in value added by large industrial groups.

23 The share of the ‘Top 100’s’ aggregate value added in the overall economy stood at 13.9 per cent in 2024. This marks a continuation of the long-term downward trend.

24 In addition, the share of the workforce accounted for by the ‘Top 100’ is examined. To this end, the aggregate number of employees at the ‘Top 100’ is set in relation to the total number of employees subject to social security contributions in companies in Germany, excluding the public sector. Further methodological notes can be found in **the Online Appendix 1.1**.

Figure 1.2: Development of employment figures from 1978 to 2024



Notes: The total number of employees was calculated on the basis of the employment statistics from the Federal Employment Agency as at 31 December 2024. The starting point is the total number of employees subject to social insurance contributions in Germany, minus those in sectors classified as non-business (public sector, private households, extraterritorial organisations), plus civil servants at Deutsche Bahn AG, Deutsche Post AG and Deutsche Telekom AG (see Online Appendix 1.1 ‘Determination of macroeconomic reference figures’).

Source: Our own calculations based on our own surveys and data from the Federal Employment Agency (2025).

25 ↗ **Figure 1.2** shows the trend in aggregate employment figures for the ‘Top 100’ and the economy as a whole. As labour costs constitute a significant component of value added and are closely linked to employment figures, a similar downward trend in the share of the ‘Top 100’ can be seen as in Figure 2. Nevertheless, the share of the ‘Top 100’ rose to 12.2 per cent in 2024, up from 11.8 per cent in 2022.

26 In contrast to value added, employment figures in both the economy as a whole and among the ‘Top 100’ did not decline in 2024, but remained stable or rose slightly. In 2024, the ‘Top 100’ employed a total of 3.81 million people in their domestic subsidiaries, compared with 3.65 million in 2022.

27 However, the long-term trend shown here of a declining share of the ‘Top 100’ is to some extent at odds with studies which, for Germany (as well as for other industrialised nations), have observed a more or less constant or slightly increasing share of large enterprises in turnover over recent decades and point to a tendency towards greater corporate concentration (Bajgar et al., 2025; Bighelli et al., 2023; Ma et al., 2026). However, on the one hand, the Monopolies Commission’s analysis of the ‘Top 100’ focuses on a smaller segment of the corporate landscape than, for example, Ma et al. (2026), who consider the top 1 per cent of companies. On the other hand, the Monopolies Commission’s analysis focuses on companies’ domestic value added, whereas other studies often use different indicators (e.g. companies’ total turnover).

28 Firstly, changes in turnover do not necessarily mean that value added develops in the same way. Secondly, companies can also experience significant growth in their total value added, whilst their domestic value added stagnates, as Section **71.4** demonstrates for the manufacturing sector. These discrepancies reinforce the Monopolies Commission’s view that, despite the significantly greater complexity involved in data collection and analysis, it is important to consider domestic value added and that this cannot simply be replaced by an examination of company turnover. Nevertheless, it might be interesting for future analyses to investigate how these rather contradictory trends fit together.

1.1.6 Shareholder structure of the ‘Top 100’

29 The “Top 100” are classified and analysed below in terms of their majority ownership structures. The focus is therefore not on the complete structure of all direct and indirect shareholdings, but on the question of whether a company can be attributed as a whole to a specific group of shareholders. This analysis provides insight into the extent to which Germany’s largest companies are characterised by individuals, families or family foundations, foreign investors or parent companies, the public sector,

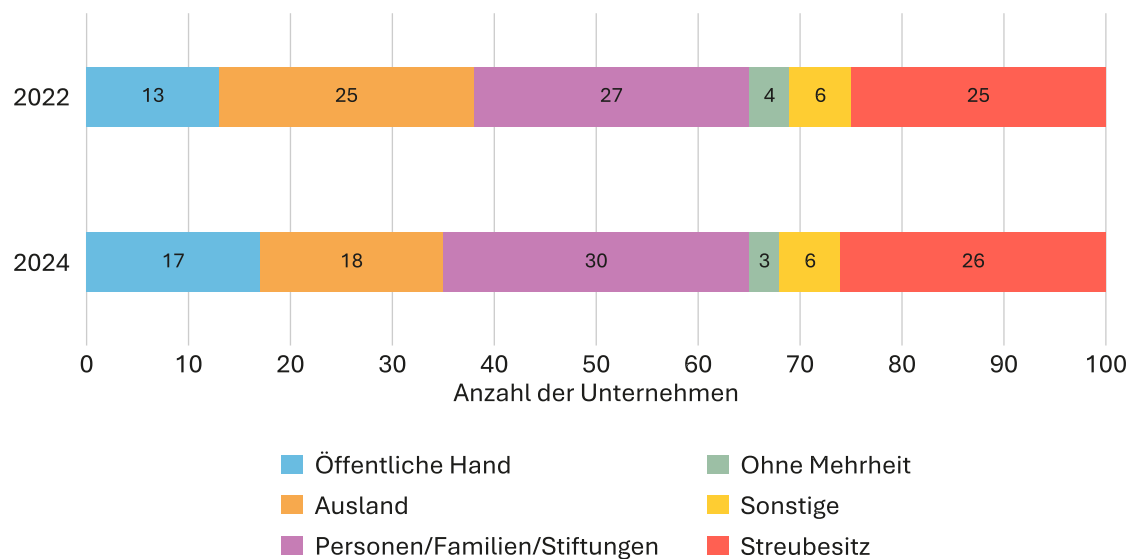
other companies or free float. It thus complements the ranking-based analysis of value creation with an ownership-based perspective on the structure of the largest corporate groups.

30 The classification of companies into shareholder categories is based on information published in company balance sheets, consolidated financial statements and management reports.¹ Where shareholders, parent companies, controlling companies or details of shareholdings are disclosed in these documents, this information is used to determine majority ownership. The analysis determines whether a shareholder category holds more than 50 per cent of the capital or voting rights, or whether the financial statements clearly indicate a controlling influence. Shareholdings of less than one per cent are classified as free float. If no shareholder category holds a majority stake, the company in question is assigned to the ‘no majority ownership’ category. The analysis thus deliberately distinguishes between majority shareholdings and minority shareholdings. Minority shareholdings and cross-shareholdings between companies in the ‘Top 100’ are not examined further in this section.

31 The companies are classified into the categories ‘identified foreign investors’, ‘public sector’, ‘individuals, families or family foundations’, ‘free float’, ‘other’ and ‘no majority ownership’. The category “identified foreign investors” comprises, in particular, German group entities that are majority-owned or wholly owned by a foreign parent company. The category “individuals, families or family foundations” includes companies in which the majority shares are held by one or more natural persons, families or foundations attributable to them. The ‘public sector’ category covers companies in which the federal government, the Länder, local authorities or other public bodies hold a majority stake. The ‘free float’ category covers companies in which no identifiable group of shareholders holds a majority and the ownership structure is characterised by broad distribution across the capital market. The ‘Other’ category is used to record majority ownership structures that cannot be clearly assigned to any of the aforementioned groups.

32 ↗ **Figure 1.3** shows the structure of majority ownership in the ‘Top 100’ for the reporting years 2022 and 2024. A comparison of the composition of the ‘Top 100’ in these two years reveals that 83 of the companies under consideration were identical. No change in majority shareholdings was observed in any of these 83 companies. The changes shown in the distribution of majority shareholdings are therefore not attributable to changes in ownership of individual companies, but are due to the altered composition of the ‘Top 100’ with regard to the remaining 17 companies.

¹ The survey methodology differs from that of previous years in that the information on ownership structures for the current financial year is taken directly from the companies’ balance sheets and is not, as in previous years, based on data from the ‘Orbis’ database.

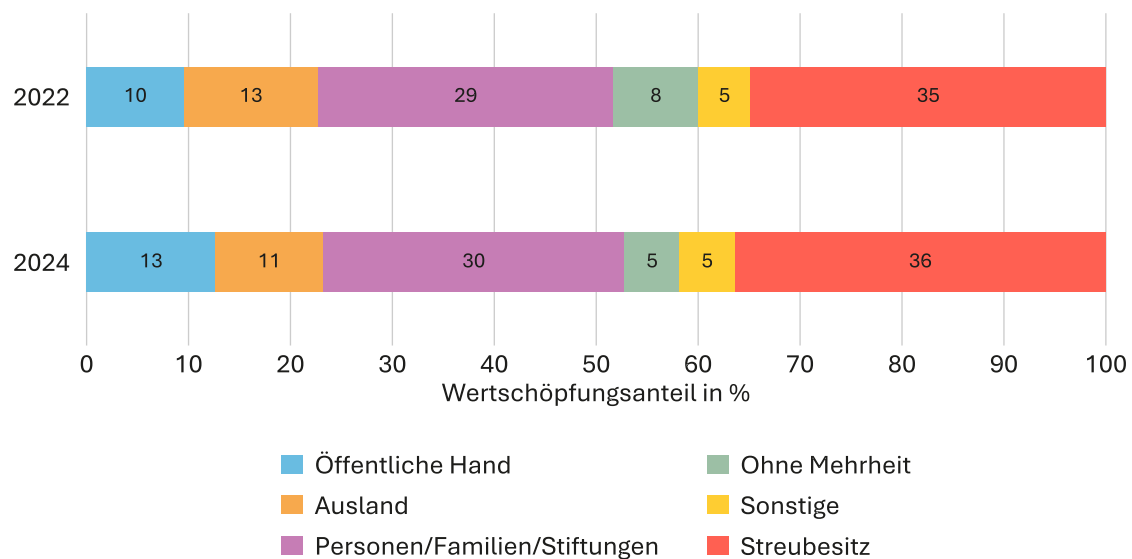
Figure 1.3: Shareholder structure of the “Top 100”

Note: Due to a change in the survey methodology, the results presented for 2022 differ from those of the Monopolies Commission (2024).

Source: Own surveys based on company balance sheets.

33 Compared with the 2022 reporting year, the main increases were in the number of publicly owned companies (+4 to 17) and companies owned by individuals, families or family foundations (+3 to 30). By contrast, the number of companies in which identified foreign investors hold a majority stake fell (-7 to 18). There were (virtually) no changes in the number of companies with free float (+1 to 26), those without a majority shareholder (-1 to 3) and other companies (unchanged at 6). These changes relate exclusively to changes in the composition within the group of the ‘100 Largest’ and not to structural changes in the ownership structure of individual companies (see [732](#)). Notwithstanding these changes, companies with dispersed shareholdings and those owned by individuals, families or family foundations continue to form the largest groups.

34 [732](#) **Figure 1.4** also illustrates the share of total domestic value added generated by companies in the respective majority ownership category among the “100 Largest”. This analysis weights the ownership categories according to their economic significance within the group of the “100 Largest”.

Figure 1.4: Share of value added by the ‘Top 100’ by majority ownership

Note: Due to a change in the survey methodology, the results presented for 2022 differ from those of the Monopolies Commission (2024).

Source: Own surveys based on company balance sheets.

35 In the 2024 reporting year, companies with dispersed shareholdings accounted for the largest share of the total value added by the “100 Largest”, at around 36 per cent (+1 percentage point compared with 2022). These were followed by companies owned by individuals, families or family foundations, with 30 per cent (+1 percentage point). Furthermore, the share of value added attributable to publicly owned companies rose to 13 per cent (+3 percentage points). By contrast, the share of companies owned by identified foreign investors fell to 11 per cent (-2 percentage points) and the share of companies without a majority shareholder to 5 per cent (-3 percentage points). Other companies maintained an unchanged share of 5 per cent.

36 Overall, the analysis of ownership structures allows the “Top 100” to be categorised according to the dominant form of ownership control. It shows which shareholder groups characterise the largest companies in Germany and how the composition has changed compared with the previous reporting year. However, it does not provide any information on minority shareholdings, cross-shareholdings or common ownership structures.

1.1.7 Personnel links among the “100 Largest”

37 The ‘100 Largest’ were also examined for personnel links within management and supervisory bodies. If a person from the management or supervisory body of a company within the ‘100 Largest’ group holds a further position in another company within this group, a personnel link exists between the companies concerned via that person. It can be assumed that individuals holding multiple positions in different companies have a vested interest in the success of each of these companies. In this respect, personnel links can contribute to the alignment of interests and thus reinforce the concentration of corporate control in large companies.

38 Under Section 285(10) of the German Commercial Code (HGB), companies limited by shares and certain partnerships are required to disclose the members of the management body and the supervisory board in the notes to the annual accounts. The members of the management and supervisory bodies of the ‘Top 100’ can therefore generally be identified on the basis of the published annual reports. As the study relates to domestic sub-groups, in the case of companies with a foreign parent company, the bodies of the top-tier company in Germany are used to determine the directorships.

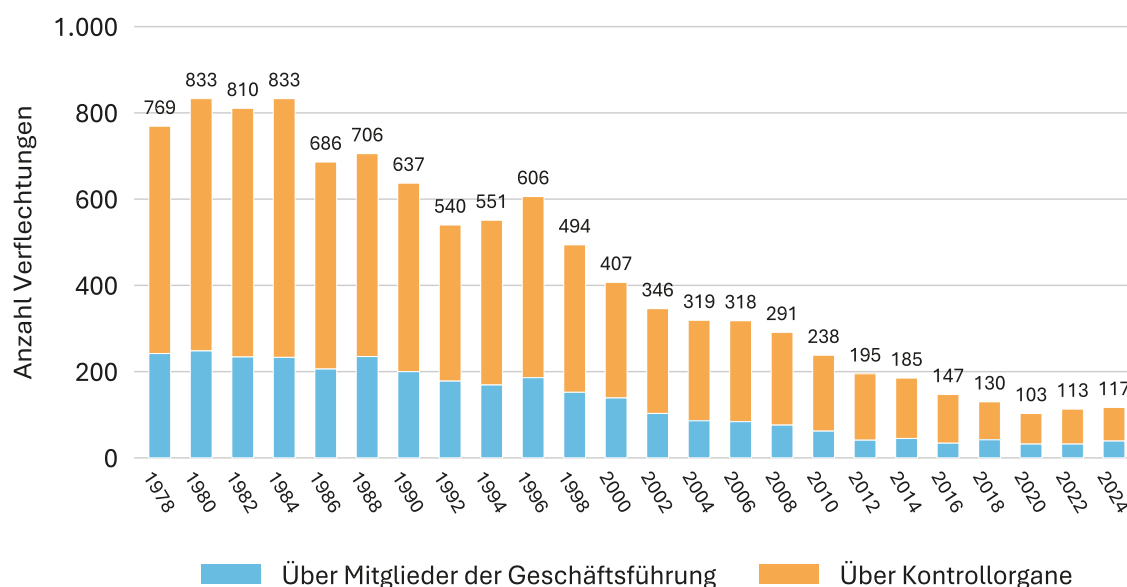
39 On this basis, for the 2024 reporting year, directors and board members from 99 companies within the ‘Top 100’ were identified. No information was available from the Procter & Gamble Group Germany; furthermore, for the Aldi Group, information was available only for Aldi Nord. A total of 1,954 individuals were identified, who collectively held 2,071 positions. Of these, 551 were executive positions and 1,520 were positions on supervisory bodies. Thirty-nine executive positions and 185 positions on supervisory bodies were linked through interlocking directorships. This corresponds to 7.1% of all executive board positions and 12.2% of all positions on supervisory bodies. Whilst personnel interlinkages therefore continue to exist, they each account for only a comparatively small proportion of the total number of positions held. ↗ **Table 1.2** shows how the positions are distributed across executive and supervisory bodies.

Table 1.2: Seats on management and supervisory bodies of the “Top 100”

	2022	2024
Executive board seats	594	551
- of which with interlocking directorships	34 (5.7%)	39 (7.1 %)
Seats on supervisory bodies	1,476	1,520
- of which with interlocking directorships	194 (13.1 %)	185 (12.2 per cent)

Source: Own calculations based on published annual reports.

40 Personnel links between the ‘Top 100’ remain significant in the current reporting year, but have continued to decline in intensity when viewed over the long term. As shown in **7Figure 1.5**, the total number of personnel links has fallen significantly since the late 1970s. Whilst well over 800 links were still observable in the late 1970s and early 1980s, their number in the 2024 financial year stood at just 117. In 39 of these links, a member of the management board of one of the companies was involved. In the remaining 78 links, no members of the management board were involved.

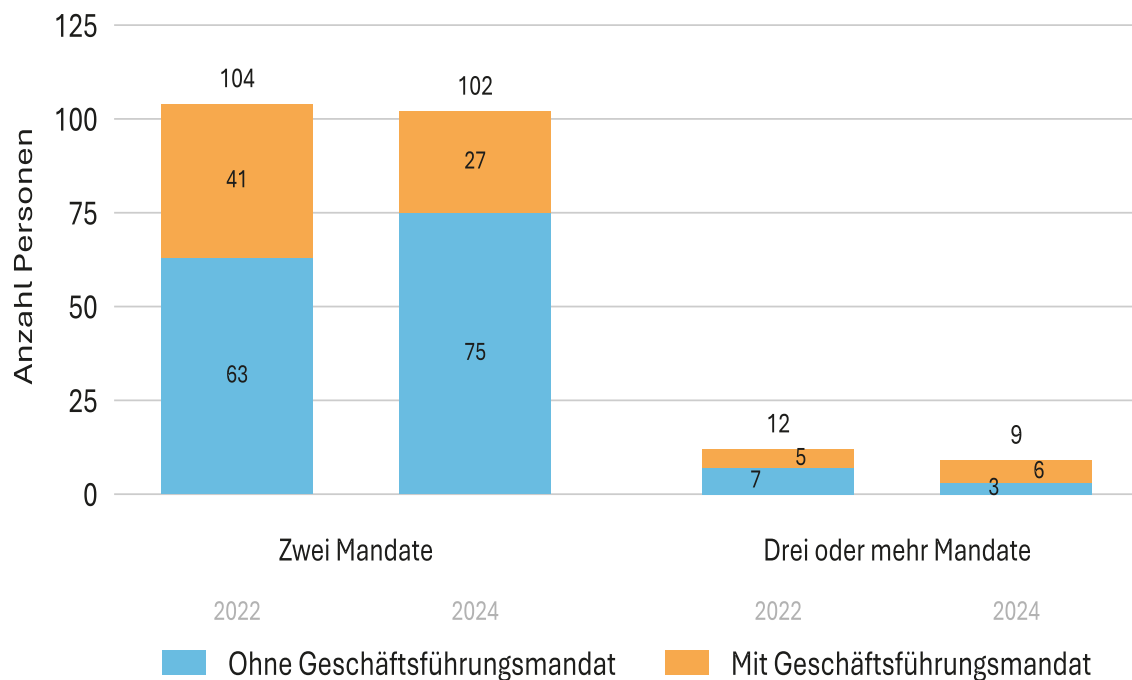
Figure 1.5: Trends in personnel links by type of link

Source: Own calculations based on published annual reports.

41 The long-term decline affects both forms of personnel links. It is particularly pronounced in the case of links via members of the management board. Their number fell from a peak of 248 in 1980 to 39 in 2024. Other personnel links via supervisory bodies

have also declined significantly. Their number fell from 600 in 1984 to 78 in 2024. However, when compared with 2022 in the short term, no clear trend is evident in the 2024 financial year. The number of links via members of the management board rose from 32 to 39, whilst other personnel links via supervisory bodies fell from 81 to 78. Overall, this points to a sideways trend at a low level. Whilst the structure of interlinkages thus remains visible, it has thinned out noticeably compared with previous decades. From a competition perspective, this is generally to be welcomed, as personnel overlaps between the management and supervisory bodies of large companies can increase the risk of limited information separation and reduced strategic independence.

Figure 1.6: Individuals holding multiple appointments on management and supervisory bodies in 2022 and 2024



Notes: Only individuals holding positions at at least two companies from the ‘Top 100’ are shown. One individual held positions on four different supervisory bodies within the ‘Top 100’ in 2024; all other individuals held a maximum of three different positions.

Source: Own calculations based on published annual reports.

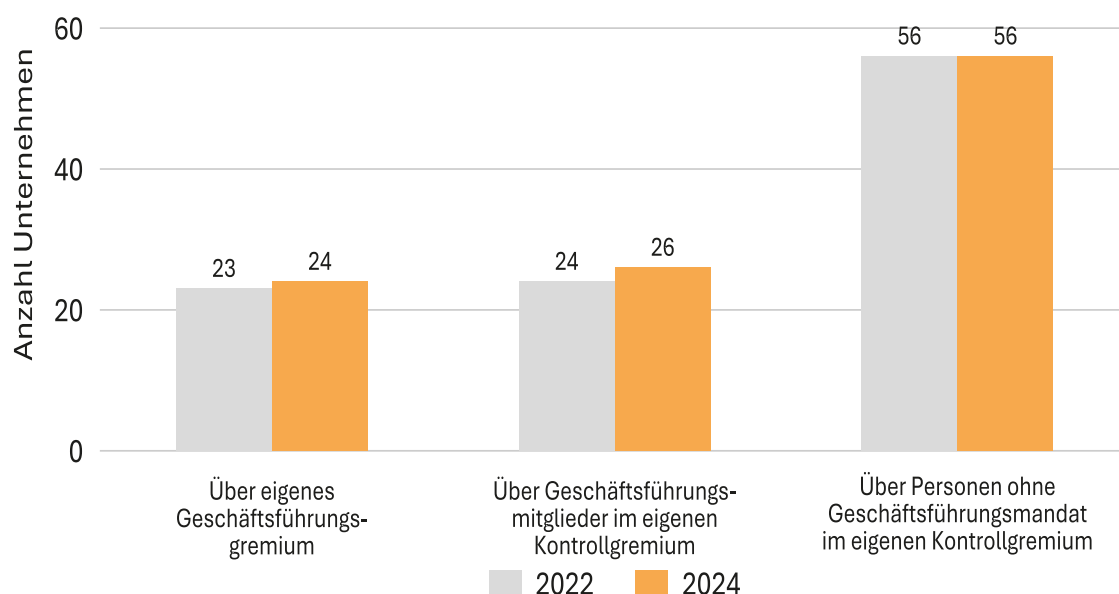
42 This picture is supplemented by [↗ Figure 1.6](#). According to this, in 2024 the interconnections continue to focus primarily on individuals holding two positions on two different supervisory bodies from the ‘Top 100’ (75 individuals). Two individuals held positions on three different supervisory bodies, whilst one individual even held positions on four different supervisory bodies. By contrast, 27 individuals held an executive position in one company and a seat on a supervisory body of a second company from

the ‘Top 100’ group, whilst six individuals held an executive position and two seats on supervisory bodies.

43 At company level, the extent of interconnections also varies. In total, 62 of the “Top 100” were affected in 2024 by at least one personnel-related interconnection with another company from the “Top 100” group. These corporate interconnections arise through various channels.

44 A comparison of the years 2022 and 2024 in [↗ Figure 1.7](#) shows that in 2024, 24 companies had links via their own management board. In 26 companies, links arose via management board members on their own supervisory board. In the case of 56 companies, the interconnection was via individuals without a management mandate on their own supervisory board. Compared with 2022, these figures have changed only slightly. The structure of corporate interconnections has thus remained stable. It should be noted that these three categories are not strictly distinct from one another, but may overlap.

Figure 1.7: Companies linked through personnel connections



Notes: The figure shows the number of companies from the ‘Top 100’ that were linked to at least one other company from this group through personal ties.

Source: Own calculations based on published annual reports.

45 In 2024, a particularly large number of individuals with links to other companies can be found at INA-Holding (Schaeffler AG), Siemens Energy AG, Münchener Rück-

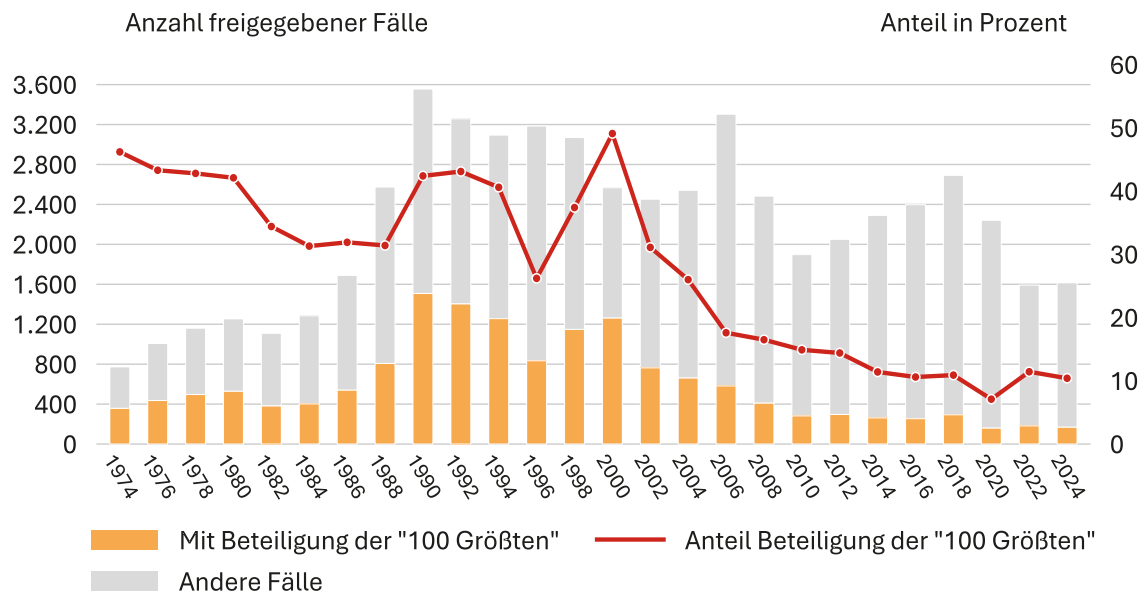
versicherungs-Gesellschaft AG and the KfW Banking Group. At each of these companies, nine individuals hold directorships in other relevant companies. Other companies with high figures include Deutsche Lufthansa AG, Siemens AG and Deutsche Telekom AG, each with seven such individuals, as well as Deutsche Bank AG, Mercedes-Benz Group AG and ZF Friedrichshafen AG, each with six. The interconnections are therefore not concentrated on individual outliers, but across a broader group of large companies.

46 Overall, the latest data confirm the trend that has been observed for some time. Personnel links amongst the ‘Top 100’ have decreased significantly over time, but still exist. The majority of the identified links take the form of overlaps between supervisory bodies. By contrast, personnel links between the management boards of companies and the supervisory bodies of other companies are less common. This suggests that these personnel links are less a reflection of direct management interdependencies. Rather, they occur purely at the level of supervisory and advisory bodies. Furthermore, they are concentrated among a limited number of particularly interlinked companies and individuals. Nevertheless, such interlinkages may also be relevant from a competition perspective, for example where the same individuals are involved in key strategic decisions across several large companies or, in any event, gain in-depth insights into their financial position and strategic direction. Against this background, monitoring personnel interlinkages remains an essential component of merger reporting.

1.1.8 Involvement of the ‘Top 100’ in business combinations

47 For the financial year 2024, all merger proposals cleared by the Federal Cartel Office with completion dates falling between 1 January 2024 and 31 December 2025 were analysed. A total of 1,615 clearances were recorded during this period. In 168 cases, at least one company from the ‘Top 100’ was involved. The ‘Top 100’ thus accounted for 10.3 per cent of all approved merger proposals. Compared with the figures reported in the previous report, the involvement of the ‘Top 100’ has therefore declined slightly; for the financial year 2022, 182 cases, or 11.4 per cent, had been reported.

48 As shown in [↗ Figure 1.8](#), the number of approved mergers has fallen significantly since the peaks of the 1990s and around the year 2000. This applies not only to the total number of approvals but also to the share accounted for by the ‘100 Largest’. As in previous years, the vast majority of approved mergers involve companies outside the ‘Top 100’. Merger activity among the largest companies thus remains at a relatively low level when viewed over the long term.

Figure 1.8: Trends in merger activity among the ‘Top 100’

Notes: The analysis covers transactions taking place between 1 January of the relevant year and 31 December of the following year (a total period of two years), for which clearance was granted with or without ancillary conditions during the preliminary or main review procedure.

‘Involving the “Top 100”’ refers to clearances in which at least one company or its parent company (with or without a control obligation) from the “Top 100” was involved as the acquirer or the acquired entity. Up to the 2006/2007 reporting period, the figures are based on notified mergers; from the 2008/2009 reporting period onwards, due to improved data availability, they are based on merger proposals approved by the Federal Cartel Office.

Source: Own calculations based on data from the Federal Cartel Office.

49 Within the group of the ‘100 largest’, involvement in mergers was also unevenly distributed. Of the 100 largest companies, 66 were involved in at least one approved merger during the relevant period, whilst 34 companies had no such involvement. Siemens AG was particularly frequent, with nine instances of involvement. This was followed by E.ON SE, Robert Bosch GmbH and Volkswagen AG, each with seven cases. Rethmann SE & Co. KG, the EDEKA Group and RWE AG each accounted for six cases.

50 This pattern of involvement suggests that merger activity among the ‘Top 100’ during the reporting period was characterised less by a broad wave of mergers and more by selective acquisitions, portfolio streamlining and sector-specific consolidation processes. A comparatively high level of activity is particularly evident in manufacturing, retail and the energy sector. Overall, this confirms that, for the 2024 financial year too, whilst the ‘Top 100’ continue to play a visible role in merger activity, their contribution to the total number of approved corporate mergers remains well below long-term highs.

1.2 Aggregate competition analysis: cost shock, falling margins and declining productivity in the manufacturing sector

51 The Monopolies Commission regularly examines horizontal business concentration and price mark-ups as part of its concentration reporting in the main report. The following section analyses the average trend in competition on the basis of price mark-ups, price indices and various measures of productivity for the manufacturing sector in Germany.

52 Continuous monitoring of market power indicators at the macroeconomic level is of central importance from an economic policy perspective. It provides important insights into the competitiveness of the economic system and the efficiency of resource allocation. The European Commission has documented increasing concentration across numerous European sectors over the past 25 years, as well as rising price mark-ups and profits, particularly at the top end of the corporate distribution. At the same time, it points out that weaker competition can adversely affect prices, productivity, competitiveness and long-term growth (European Commission, 2024).

53 The development of German industry has been at the centre of an intense economic policy debate for several years. The starting point is the growing concern that Germany's industrial foundations are eroding, with potentially far-reaching consequences for growth, employment and prosperity (Falck/Krause, 2026; Grömling, 2026). Recent analyses show that the industrial sector has been losing ground in terms of value added and international competitiveness for some time now, whilst Germany is becoming increasingly unattractive as a business location due to high energy and production costs (Grömling, 2026). At the same time, the picture is not clear-cut, as alongside declining export momentum and falling investment, there are still competitive and promising industrial sectors (Bolwin et al., 2025; Falck/Pfaffl, 2026; Grömling, 2026).

54 Against this backdrop, the question of how competitive mechanisms within industry are changing in concrete terms – particularly during periods of external shocks – is becoming increasingly important. Russia's war of aggression against Ukraine represents a key turning point in this regard, as it has had a direct impact on cost structures and market processes via energy prices, supply chains and uncertainties. A thorough analysis of price mark-ups, cost trends and changes in productivity enables us to better understand the underlying adjustment processes and to determine whether these represent short-term reactions or are indicative of more profound structural shifts.

55 The following analysis builds on these broader trends and examines changes in competition within the manufacturing sector in 2022 and 2023. An empirical examination of these developments is hampered by the limited availability of up-to-date official microdata. For instance, at the time this report was compiled, the AFiD panel on industrial enterprises – maintained by the research data centres of the Federal Statistical Office and the state statistical offices – only had data available up to the 2021 reporting year, meaning that developments in 2022 and 2023 could not be analysed using this data set. Against this background, company data from Orbis is used to illustrate current trends in price mark-ups, costs and productivity up to 2023. It should be noted that Orbis provides only an incomplete picture of smaller companies. The limitations associated with this data set are outlined in the [7 Online Appendix 1.2](#).

56 The report shows that price mark-ups have, on average, fallen significantly over this period. As this is attributable to higher marginal costs, which were not passed on to customers to the same extent, falling price mark-ups should not be interpreted in this context as an indication of the intensified competition desired under competition policy. At the same time, a decline in total factor productivity and a slump in labour productivity can be observed. In 2022 and 2023, the number of employees rose whilst real value added fell, which caused the significant decline in labour productivity. The analysis thus picks up on key findings from the current debate, according to which the price-adjusted value added in industry has come under pressure since 2017, whilst employment has remained stable in some cases or has even expanded.

57 The aggregate results are largely shaped by developments in energy-intensive industries. In particular, it becomes clear that the observed declines in price mark-ups and productivity are primarily attributable to these industries, which are particularly affected by rising costs. Furthermore, the results suggest that higher import intensity is associated with more favourable trends in price mark-ups after 2019, whilst higher export exposure tends to be accompanied by weaker trends. At the same time, divergent trends are evident in other industrial sectors. In high-tech industries in particular, partly counter-cyclical, positive trends can be observed, characterised by structural demand impulses and innovation-driven dynamics. Against this backdrop, a disaggregated analysis is required to better understand the different adjustment processes within the manufacturing sector. Section [71.3](#) addresses these differences and analyses developments in selected sub-markets in detail.

58 The following presentation is divided into several analytical steps. First, Section [71.2.1](#) briefly analyses the average trend in price mark-ups. Section [71.2.2](#) presents the analysis of prices and various measures of productivity. Section [71.2.3](#)

briefly summarises the results. Section 71.3 then carries out further sub-market analyses of energy-intensive industries, export- and import-intensive industries, and high-tech industries.

Box1.1: Methods and data



METHODS AND DATA

Methods

- The analysis focuses on price mark-ups as a measure of firms' ability to set prices above their variable costs.
- In addition, total factor productivity and labour productivity are examined. Labour productivity is measured as price-adjusted value added per employee.
- Price mark-ups and total factor productivity are calculated on the basis of a production function estimate.
- The ACF method is used with a gross output translog specification.
- Conclusions regarding marginal cost trends are drawn from the relative relationship between price trends and estimated price mark-ups.

Data

- The final analysis sample comprises 1,755 manufacturing firms with 15,698 firm-year observations from 2014 to 2023. With an average of around 303 employees, it primarily represents larger firms.
- The analysis includes firms with data on turnover, employment, labour costs, material costs and tangible fixed assets, observed in at least eight out of ten years.
- In addition, official data from Eurostat and Destatis are used, in particular price indices, trade data and production indices.

A detailed description of the data basis, the variables and the methodological approach can be found in the '↗' **Online Appendix 1.2**.

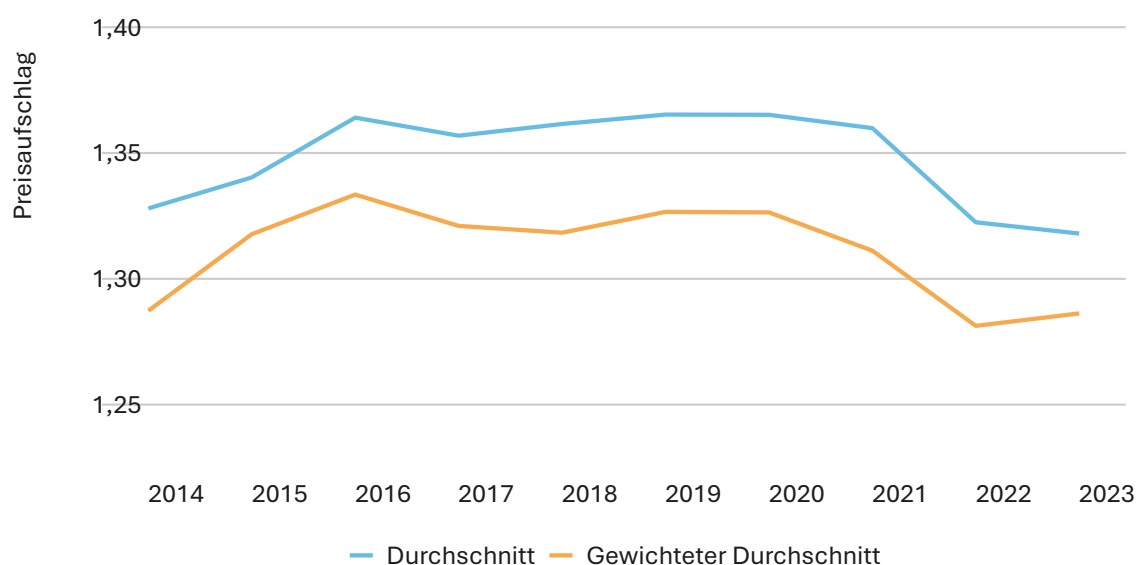
1.2.1 Declining price mark-ups since 2021

59 ↗ **Figure 1.9** shows the trend in average price mark-ups in the manufacturing sector over the period from 2014 to 2023. Both the simple average (blue line) and the weighted average (orange line) are shown.

60 The simple average of price mark-ups rose steadily from around 1.33 in 2014 to a peak of approximately 1.37 in 2016. It then remained relatively stable until 2021, hovering between 1.36 and 1.37. From 2021 onwards, a marked decline can be observed, which continued in 2022 and 2023. By 2022, the simple average had fallen to around 1.32.

61 The weighted average followed a similar, though overall lower, trend. It rose from around 1.29 in 2014 to a peak of around 1.33 in 2016 and then remained largely stable between 1.32 and 1.33 until 2020. From 2020 onwards, the weighted average also fell noticeably. This decline accelerated in 2022 and 2023, with the weighted average reaching a value of around 1.29 in 2023.

Figure 1.9: Aggregate price mark-ups in the manufacturing sector



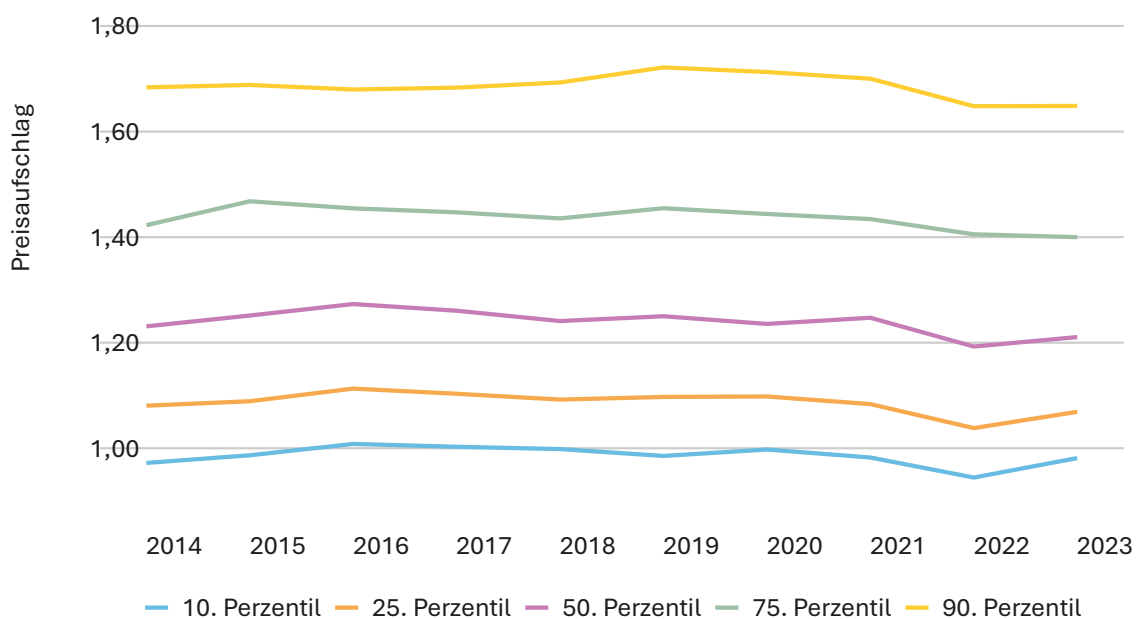
Note: The figure shows estimated price mark-ups in the manufacturing sector. The price mark-ups are calculated on the basis of an ACF production function estimate (Akerberg et al., 2015; De Loecker/Warzynski, 2012) using a gross output translog specification. The weighted average uses firm turnover as the weight.

Source: Own calculations based on Orbis data from Moody's.

62 ↗ **Figure 1.10** shows the trend over time in the distribution of price mark-ups. It provides an indication of whether the level of price mark-ups has an impact on how a company performs during the energy crisis. The figure shows that this is a systematic

shock affecting companies to a similar extent. This is evident from the fact that the percentiles of the distribution show a drop of around 5 percentage points. A supplementary illustration of the cumulative distributions of price mark-ups in 2019 and 2022 can be found in the [↗Online Appendix 1.2](#). It confirms that, across the entire distribution, price mark-ups in 2022 are lower than in 2019 and that the dispersion of price mark-ups has decreased following the cost shock.

Figure 1.10: Trend in the weighted quantiles of price mark-ups



Note: The chart shows turnover-weighted quantiles of the estimated price mark-ups in the manufacturing sector. The weighting is based on company turnover. The price mark-ups are calculated on the basis of an ACF production function estimate with a gross output translog specification.

Source: Own calculations based on Orbis data from Moody's.

1.2.2 Germany has a cost and productivity problem

63 [↗Figure 1.11](#) shows the growth rates of mark-ups, prices and approximate marginal costs in the manufacturing sector, with 2019 as the reference year. The figure shows the mark-up (blue line), prices (green line) and marginal costs (yellow line).

64 Up to 2019, prices and the approximated marginal costs rose moderately and largely in parallel.² Both figures remained virtually unchanged in 2020 as well. From

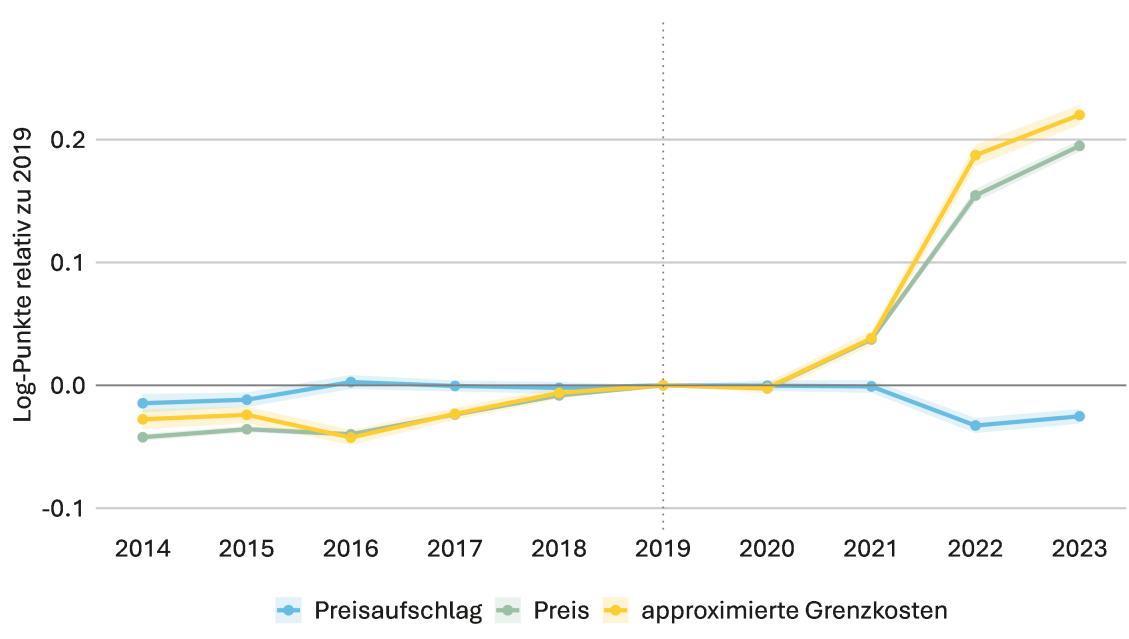
² Technical explanation of approximated marginal costs: The price trends shown are based on a firm-level fixed-effects regression of the logarithmic price indices against annual indicators, with 2019 as the reference year. The annual coefficients indicate the estimated, observation-weighted average price trend relative to 2019 within the sample of companies used. As the price mark-up is interpreted as the ratio of price to marginal cost, the following approximation applies in logarithms: $\log(\text{marginal cost}) = \log(\text{price}) - \log(\text{price mark-up})$. We therefore first estimate how prices and mark-ups change relative to the reference year 2019. The corresponding effect on the approximated marginal costs is

2021 onwards, prices and marginal costs then rose sharply. Marginal costs showed a steeper rise than prices. By 2023, prices had risen by a cumulative total of just under 20 per cent, whilst the approximated marginal costs had increased by over 22 per cent. Price mark-ups, by contrast, remained relatively stable until 2020 and showed a significant decline from 2021 onwards. In 2023, they were around three per cent below the 2019 level. Consistent with the high cost shock observed, a supplementary analysis of the cost-pass-through rate in the [↗Online Appendix 1.2](#) shows that the marginal cost-pass-through rate rose significantly in 2022 and 2023 compared with previous years. Whilst it stood at around 77 per cent prior to 2022, it rose to around 93 per cent in 2022 and 2023. This suggests that, in the face of the severe cost shock, companies had increasingly less scope to absorb additional cost increases by reducing price mark-ups.³

65 The trend shown illustrates that the decline in price mark-ups from 2021 onwards is largely attributable to the sharp rise in marginal costs, which was only partially passed on to prices. This effect intensified in the wake of the war in Ukraine in 2022 and 2023. At the start of the pandemic in 2020, however, no significant changes in price mark-ups, prices or marginal costs can be observed.

then calculated as the difference between the price effect and the mark-up effect. Marginal costs are therefore not directly observed, but should be understood as a measure derived from price and mark-up trends.

³ The cost-pass-through rate should be understood as a marginal measure. It does not describe what proportion of the total cost shock accumulated since 2019 has been passed on, but rather what proportion of additional cost changes is passed on to prices. From an economic perspective, it is to be expected that marginal cost pass-through increases with the magnitude of the cost shock, as firms have less scope to absorb additional cost increases through lower mark-ups as the cost shock grows. As a theoretical limit case involving very high cost increases, full marginal cost pass-through is to be expected. In this case, prices and marginal costs converge in level. The price mark-up consequently approaches its lower bound of one.

Figure 1.11: Trends in price mark-ups, prices and estimated marginal costs

Note: Changes are shown relative to the reference year 2019. Price trends are based on industry-specific price indices normalised to 2019. Approximated marginal costs are derived from the relative ratio of prices to estimated price mark-ups. Formally, in logarithmic terms, approximated marginal costs equal prices minus price mark-ups. The trends shown are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's and Eurostat, industrial price indices, annual data, dataset sts_inpp_a.

66 ↗ **Figure 1.12** once again shows growth rates, with 2019 as the base year, for price mark-ups as well as for total factor productivity and labour productivity. The latter is measured as price-adjusted value added per employee. There is a marked decline in total factor productivity and a sharp fall in labour productivity following the years 2017/18. This decline accelerates in the subsequent years at the onset of the pandemic. Following a brief recovery in 2021, a more pronounced decline can be observed from 2022 onwards. Labour productivity falls by eight percentage points by 2023.

67 ↗ **Figure 1.13** shows how changes in labour productivity can be explained by shifts in the number of employees and deflated value added. The movements in labour productivity after 2019 are primarily driven by fluctuations in price-adjusted value added. This pattern is consistent with recent findings on German industry, according to which real value added has been declining since 2017 and the more recent crises should be interpreted as exacerbating a long-standing structural problem (Grömling, 2026).

68 The decline since 2017 cannot be attributed to a single trigger, but points to a structural weakness in German industry that had already begun to emerge before the

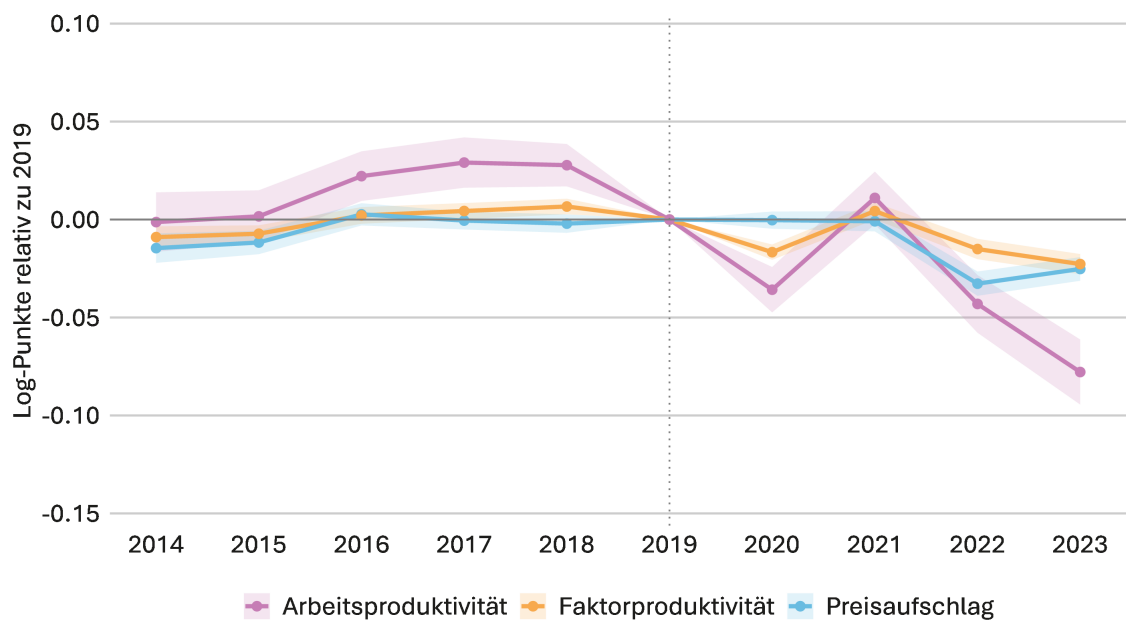
pandemic and the energy crisis. In particular, the factors cited include a slowdown in export growth, a deterioration in price competitiveness, high location and production costs, subdued investment, and insufficient momentum in productivity-enhancing and disruptive innovations (Bolwin et al., 2025; Falck/Pfaffl, 2026; Grömling, 2026).

69 The number of employees remains relatively stable in relation to value added during periods of high volatility. From 2022 onwards, it can also be observed that employment continues to rise, even though price-adjusted value added is declining significantly. This leads to a further decline in labour productivity. This illustrates that the adjustment to the cost shock does not take place immediately through falls in employment, but initially, and primarily, through lower real value added per employee. At the same time, the findings suggest that employment fluctuates less sharply in the short term than real value added, and that adjustment processes in the labour market are correspondingly sluggish. In addition, other adjustment mechanisms not observed in this analysis, such as short-time working and changes in working hours, may play a role.⁴

70 One possible explanation for stable employment alongside declining value added lies in the institutional framework of the German labour market. Labour law provisions and collectively agreed regulations may limit short-term adjustments to the number of employees. The OECD (OECD, 2025) notes that employment protection in Germany is slightly above average. A recent study (Coatanlem, 2026) supplements this assessment with findings on the adjustment costs incurred by large German companies during restructuring phases. Based on 55 restructuring programmes, the study documents the high costs of staff reductions, which are influenced, amongst other things, by severance pay arrangements, notice periods and other institutional framework conditions.

⁴ Short-time working is not observed in the Orbis data. Firms can therefore also adjust their demand for labour by reducing working hours without this having an immediate impact on the number of employees.

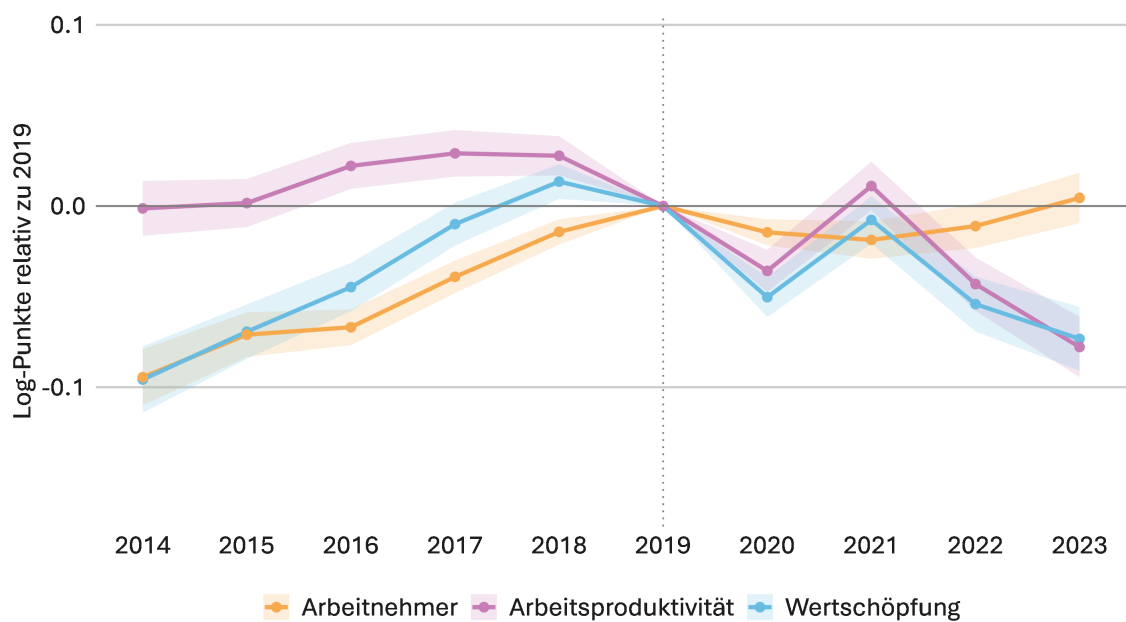
Figure 1.12: Trends in price premiums, factor and labour productivity



Note: Changes relative to the reference year 2019 are shown. Price mark-ups and total factor productivity are calculated on the basis of an ACF production function estimate using a gross output translog specification. Labour productivity is measured as price-adjusted value added per employee. The trends are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's. Eurostat price indices for manufacturing (annual data, dataset sts_inpp_a) are used to adjust value added for price changes.

Figure 1.13: Labour productivity – composition



Note: Changes relative to the reference year 2019 are shown. Labour productivity is broken down into price-adjusted value added and the number of employees. Value added is price-adjusted using price indices at the industrial level. Employment is measured as the number of employees. Working hours and short-time working are not tracked in the Orbis data.

Source: Own calculations based on Orbis data from Moody's. Eurostat price indices for industry (annual data, dataset sts_inpp_a) are used to adjust value added for price changes.

1.2.3 Conclusion

71 Overall, a widespread cost shock in the manufacturing sector has been evident since 2021, which is clearly reflected in price mark-ups and productivity. This finding is consistent with recent studies on German industry, according to which real industrial value added has been weakening since 2017 and the more recent crises should be interpreted as amplifying a long-standing structural problem.

72 Price mark-ups have declined significantly and systematically since 2021. The reason for this is that marginal costs rose more sharply than prices. Companies were therefore only able to pass on higher costs to customers to a limited extent. In this context, declining price mark-ups are therefore primarily a reflection of cost pressures and not an indication of the intensified competition desired under competition policy. At the same time, both total factor productivity and labour productivity declined. The fall in labour productivity is primarily attributable to a decline in real value added against a backdrop of comparatively stable employment. Overall, this paints a picture of an industry in which adaptation to the cost shock is taking place primarily through falling margins and productivity, whilst employment is reacting relatively sluggishly.

1.3 Energy intensity, the role of international trade and the high-tech boom

73 The aggregate analysis shows that the widespread cost shock is reflected in falling price premiums and declining productivity. These aggregate results provide important insights into macroeconomic developments, but leave open the question of the extent to which adjustment processes differ across various industries.

74 Against this background, the following chapter presents a disaggregated analysis of the sub-markets. The aim is to obtain a more nuanced picture of competitive dynamics. The focus is on the energy intensity of industries, as the observed cost shock has had a significant impact via rising energy prices and it is therefore to be expected that the effects will differ systematically between energy-intensive and non-energy-intensive industries.

75 The analysis is carried out in several sequential steps. First, in section **1.3.1**, a distinction is made between energy-intensive and non-energy-intensive industries in order to identify fundamental differences in how they are affected by the cost shock. Subsequently, in section **1.3.2**, the study examines how the import and export intensity of industries affects the development of price premiums after 2019. For non-

energy-intensive industries, Section 71.3.3 makes a further distinction between high-technology and non-high-technology sectors in order to identify possible differences in adaptability and competitive dynamics.

76 The results of the following sub-market analysis reveal marked differences. A key finding is that price mark-ups in energy-intensive industries have fallen much more sharply. At the same time, both the rise in prices and the increase in approximate marginal costs are more pronounced in these industries.

77 Clear differences between the two groups are also evident in productivity trends. Whilst a decline in productivity was already observable in non-energy-intensive industries during the pandemic, no such slump occurred in energy-intensive industries during this phase. From 2022 onwards, however, this pattern reverses. Energy-intensive industries then record a significantly sharper decline in both total factor productivity and labour productivity. The slump in labour productivity is particularly pronounced and is caused primarily by the decline in price-adjusted value added, whilst employment remains relatively stable.

78 It is striking that the difference in employment between energy-intensive and non-energy-intensive industries is significantly less pronounced than the difference in price-adjusted value added. Whilst real value added in energy-intensive industries declines much more sharply after 2021, employment trends remain comparatively stable. This suggests that, in the short term, the adjustment to the cost shock does not take place to the same extent through job losses. Consequently, labour productivity can fall particularly sharply when real value added declines but employment remains tied to the affected industries. This finding is also relevant for economic policy analysis, as it highlights the importance of a dynamic labour market that facilitates a shift towards more productive and growing sectors.

79 The trade analysis also shows that the international integration of industries is relevant to adjustment to the cost shock. A higher import intensity tends to be associated with more favourable developments in price mark-ups after 2019, particularly in non-energy-intensive industries. One possible explanation is that these industries were able to benefit more from cheaper imported intermediate inputs, whilst energy-intensive industries often produce intermediate goods themselves and are therefore also subject to greater additional competitive pressure from imports. Higher export intensity, by contrast, tends to be associated with a weaker trend in price mark-ups. This finding should be interpreted with caution, as it is likely that the focus here is less on a direct cost channel and more on the integration of export-oriented industries into international sales markets and price-setting processes.

80 Within non-energy-intensive industries, there are also significant differences between high-tech and other industries. During the pandemic, a marked upturn has been observed in the high-tech sector. In this segment, price mark-ups, as well as factor and labour productivity, are bucking the general trend and rising. At the same time, the rise in prices in the high-tech sector is more modest, suggesting that previously reduced marginal costs are dampening price pressures. Overall, it is evident that the high-tech sector has not been affected by the slump in productivity observed across the manufacturing sector as a whole; on the contrary, it is showing rising factor and labour productivity. However, this finding should be understood as a relative strength within Germany, as research-intensive industries in Germany have recently lost momentum and labour productivity in an international comparison (Danne/Schiersch, 2026).

81 Here, too, the sluggishness of the labour market is evident. Employment varies only slightly between industrial sectors, although real value added varies considerably. This applies both to energy-intensive industries with sharply falling value added and to high-tech industries with rising value added, as well as to industries in between. This finding underlines the importance of labour mobility between shrinking and growing industrial sectors.

1.3.1 Energy-intensive industries as drivers of aggregate development

82 The distinction between energy-intensive and non-energy-intensive industries is of central importance for understanding the developments identified in the previous section **71.2**. Energy-intensive industries play a key role within the manufacturing sector, as they account for a particularly high share of total industrial energy demand whilst simultaneously providing essential intermediate inputs for numerous downstream industries. In 2021, for example, energy-intensive industries accounted for around 77 per cent of industrial energy consumption, whilst they represented only around 17 per cent of gross value added in industry and around 15 per cent of the workforce (Federal Statistical Office, 2026). This structure illustrates that energy plays a significantly greater role as a factor of production in these industries than in other areas of the manufacturing sector.

83 Against this backdrop, it is to be expected that the cost shock identified in the previous chapter will have a greater impact in energy-intensive industries than in less energy-dependent sectors. Recent developments also show that energy-intensive sectors were particularly hard hit by declines in production in the years following 2021, a trend linked to a significant rise in energy prices. A disaggregated analysis based on energy intensity therefore helps to better contextualise the aggregate declines in price

premiums and productivity. It reveals in which industries the effects are particularly pronounced and what differences in cost structures, competitive dynamics and adjustment mechanisms lie behind the aggregate picture.⁵

84 The division into energy-intensive and non-energy-intensive industries is based on the NACE classification of economic activities at the two-digit level. Energy-intensive industries are defined as those economic sectors characterised by particularly high energy consumption in the production process. Specifically, this group comprises the manufacture of wood, wickerwork, basketry and cork products; the paper and paperboard industry; the manufacture of coking and refinery products; the chemical industry; the manufacture of rubber and plastic products; the glass and ceramics industry; and the manufacture of base metals, as shown in [↗Table 1.3](#).

85 These industries are characterised by the fact that energy is a key factor of production and accounts for a significant proportion of total costs. At the same time, they are predominantly basic industries that lie at the start of industrial value chains and supply important intermediate inputs to numerous other sectors. Given this structure, it is to be expected that changes in energy prices in these industries will have a particularly strong impact on cost structures, pricing processes and, ultimately, competitive dynamics. The chemical industry is presented below in an info box⁶ as a particularly relevant example of this group. It combines high energy intensity with a central role as a producer of intermediate goods and strong international trade links.

⁵ For the energy and industrial policy framework, as well as the economic policy options for energy-intensive industries, see [↗10](#) of this report.

⁶ The information in the info box is sourced from (BMW, n.d.; Federal Statistical Office, 2022; Federal Statistical Office, 2024; VCI Online, 2024). Own calculations based on data from the Federal Statistical Office, GENESIS-Online, Tables 51000-0001 and 51000-0005, GP2019 commodity classification (2-digit), category GP19-20 ‘Chemical products’, reporting year 2023.

Table 1.3: Energy-intensive industries

NACE code	Description	EU median share of energy costs	Share of gross value added in industry in Germany in 2021
16	Manufacture of wood, wickerwork, basketry and cork products (excluding furniture)	~1.4 %	not reported
17	Manufacture of paper, paperboard and articles made from them	~2.1 %	1.7 %
19	Manufacture of coking and refining products	~3.7%	1.2%
20	Manufacture of chemical products	~3.2%	7.5%
22	Manufacture of rubber and plastic products	~1.6%	not reported
23	Manufacture of glass and glassware, ceramics, and the processing of stone and earth (non-metallic mineral products)	~3.3 %	3.0 %
24	Manufacture of basic metals (base metals)	~3.1%	3.5

Note: The EU median for the share of energy costs refers to the median share of energy costs in production costs within the EU for the respective industry. The share of gross value added refers to gross industrial value added at factor cost in Germany in 2021.

Source: Own illustration based on (Dechezleprêtre et al., 2025) and (Federal Statistical Office, 2026).

Box1.2: The chemical industry as a key sector**CHEMICALS AS A KEY ENERGY-INTENSIVE SECTOR****Energy intensity**

- In 2021, the manufacture of chemical products accounted for around 29.8 per cent of industrial energy consumption in Germany.
- In terms of industrial gas consumption, the share attributable to the manufacture of chemical products stood at around 36.7 per cent.

Production

- The decline in production in the chemical industry was particularly marked following the onset of the energy crisis.
- In 2023, the production of chemical products fell by 10.6 per cent compared with the previous year.
- Production of chemical products thus reached its lowest level since 1995.

Trade intensity

- Chemical products accounted for around 9 per cent of German exports in 2023.
- On the import side, chemical products accounted for around 7.7 per cent of German imports.

Intermediate goods and innovations

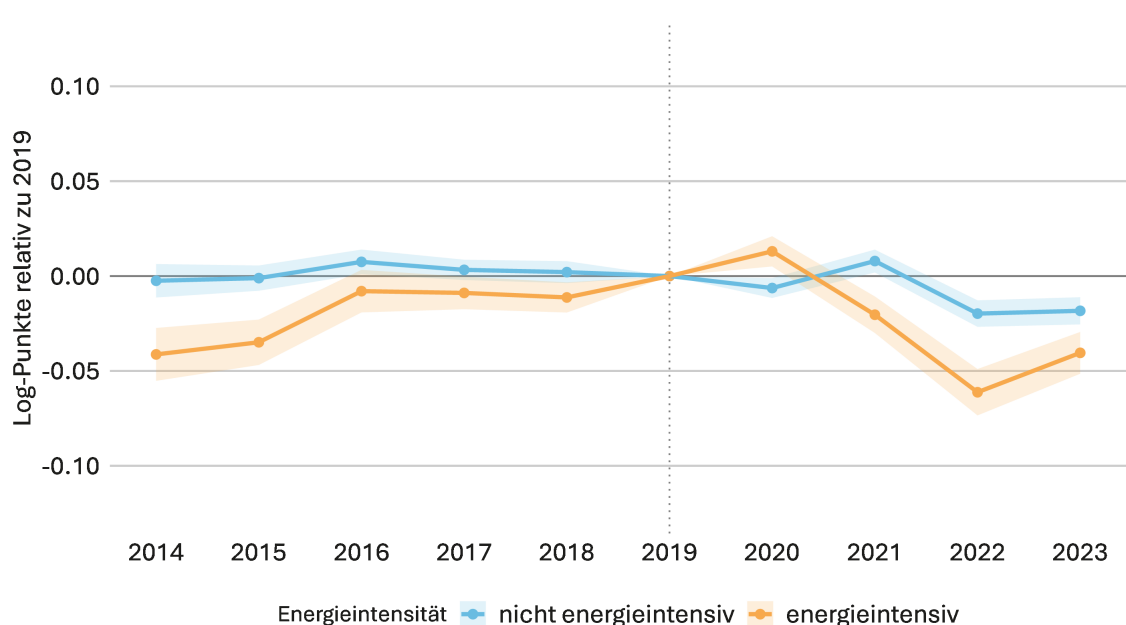
- 27 per cent of chemical products go directly to end consumers. Two-thirds are further processed within industry.
- The chemical industry supplies raw materials, materials and intermediate products to sectors including plastics processing, mechanical engineering, the automotive, packaging, construction and textile industries.
- Around 60 per cent of all R&D into materials technologies in Germany takes place in the chemical industry.

1.3.1.1 Energy-intensive industries with declining margins

86 ↗ **Figure 1.14** shows the trend in price premiums for energy-intensive and non-energy-intensive industries relative to the base year 2019. It is clear that, from 2021 onwards, price premiums in energy-intensive industries will fall more sharply than in non-energy-intensive industries. Whilst neither group shows any marked declines up to 2020, the slump in energy-intensive industries begins earlier and is significantly steeper as time goes on.

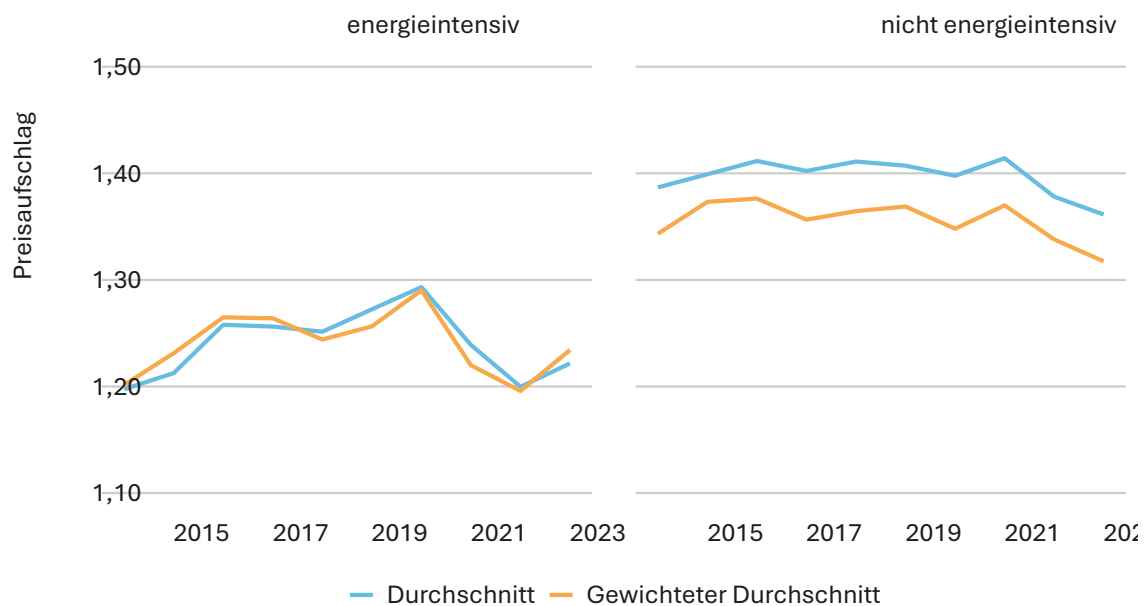
87 A comparison of the levels of price premiums is presented in ↗ **Figure 1.15**. This shows that energy-intensive industries already had lower price premiums prior to 2020, but recorded a slight upward trend until around 2020. By contrast, price premiums in non-energy-intensive industries remained largely stable at a higher level until 2020. From 2021 onwards, price premiums in both groups will decline, although the decline will be significantly greater in energy-intensive industries.

Figure 1.14: Energy – Trend in price premiums



Note: The figure shows changes in estimated price premiums relative to the reference year 2019 for energy-intensive and non-energy-intensive industries. The price premiums are calculated on the basis of an ACF production function estimate using a gross output translog specification. The trends shown are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

Figure 1.15: Energy – Price premiums

Note: The figure shows the levels of estimated price premiums for energy-intensive and non-energy-intensive industries. The price premiums are calculated on the basis of an ACF production function estimate using a gross output translog specification. The figure shows the simple average of the price premiums within each industry group.

Source: Own calculations based on Orbis data from Moody's. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

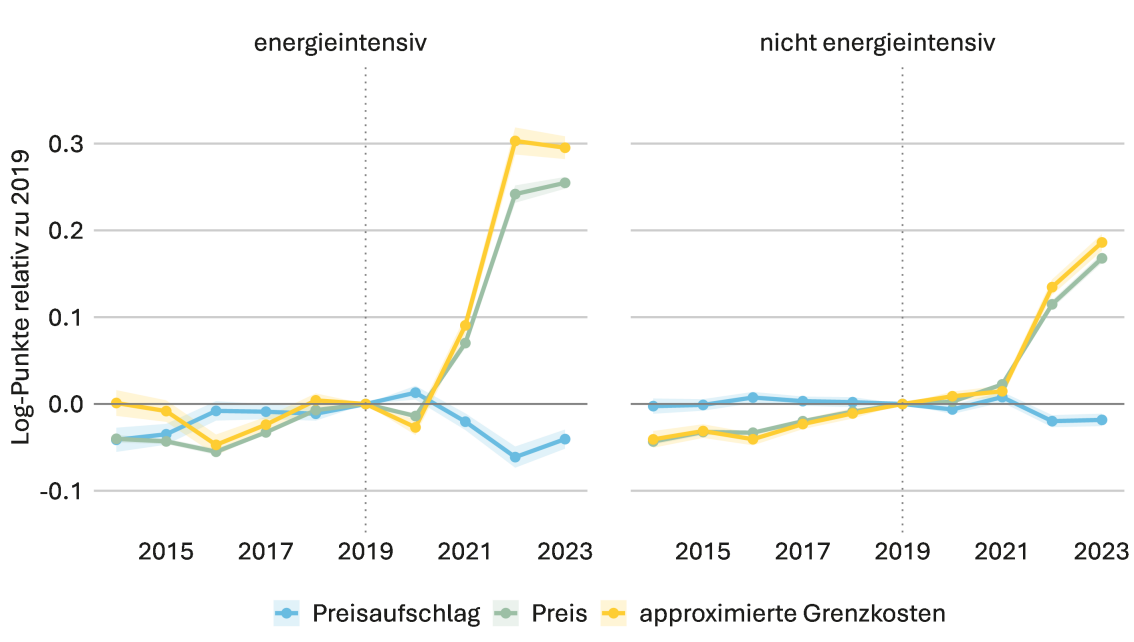
1.3.1.2 Energy-intensive industries suffer a massive slump in productivity

88 To put this development into context, **Figure 1.16** illustrates the trends in price mark-ups, prices and approximate marginal costs for energy-intensive and non-energy-intensive industries relative to the base year 2019. The aim is to gain a better understanding of the differing trends in price mark-ups between the two groups.

89 It is evident that both prices and marginal costs are rising significantly more sharply in energy-intensive industries than in non-energy-intensive industries. Prices in energy-intensive industries are set to rise by around 25 per cent by 2023, whilst the increase in non-energy-intensive industries stands at around 16 per cent. The difference is even more pronounced in the case of marginal costs. These are set to rise by around 30 per cent in energy-intensive industries, whilst the increase in non-energy-intensive industries remains below 20 per cent.

90 The sharper decline in price premiums in energy-intensive industries can therefore be attributed to the significantly higher rise in marginal costs, which is not offset to the same extent by rising prices.

Figure 1.16: Energy – Trends in price premiums, prices and estimated marginal costs



Note: The figures show changes relative to the reference year 2019 for energy-intensive and non-energy-intensive industries. Price trends are based on industry-level price indices normalised to 2019. Approximated marginal costs are derived from the relative ratio of prices to estimated price mark-ups. Formally, in logarithmic terms, approximated marginal costs equal prices minus price mark-ups. The trends shown are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's and Eurostat, industrial price indices, annual data, dataset sts_inpp_a. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025)

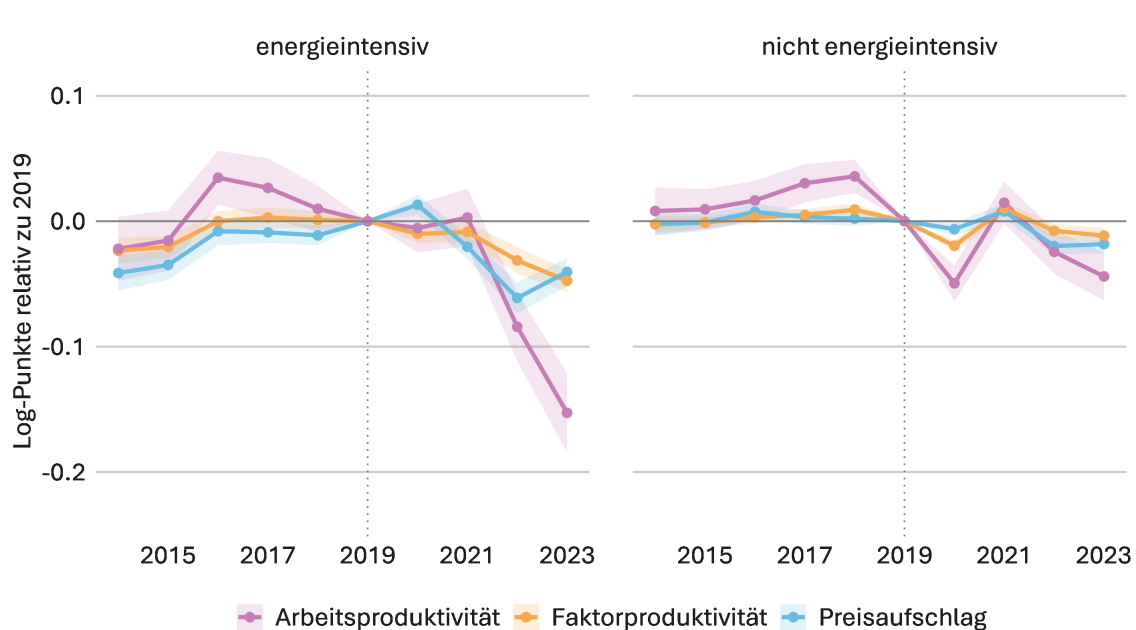
91 **Figure 1.17** shows the trend in total factor productivity and labour productivity for energy-intensive and non-energy-intensive industries relative to the base year 2019. Whilst total factor productivity remained comparatively stable prior to 2019, labour productivity began to decline as early as 2017. This early decline is consistent with recent findings on German industry, according to which real industrial value added has been weakening since 2017 and the more recent crises should be interpreted as exacerbating a long-standing structural problem (Bolwin et al., 2025; Falck/Pfaffl, 2026; Grömling, 2026).

92 The decline in labour productivity accelerated from 2020 onwards, though the timing differed between the two groups. Energy-intensive industries initially showed no slump in factor or labour productivity at the start of the pandemic in 2020. By contrast, non-energy-intensive industries show a decline in labour productivity of around 5 per

cent and in total factor productivity of just under 2 per cent during this period. However, this decline is offset by a significant recovery in 2021.

93 From 2022 onwards, the picture changes significantly. Energy-intensive industries recorded a sharp decline in productivity. By 2023, labour productivity had fallen by around 15 per cent and total factor productivity by around 5 per cent. In non-energy-intensive industries, the decline over the same period is considerably more moderate. Here, labour productivity falls by around 5 per cent and total factor productivity by around 1 per cent.

Figure 1.17: Energy – Trends in price premiums, factor and labour productivity



Note: The figure shows changes relative to the reference year 2019 for energy-intensive and non-energy-intensive industries. Price premiums and total factor productivity are calculated on the basis of an ACF production function estimate using a gross output translog specification. Labour productivity is measured as price-adjusted value added per employee. The trends are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's. Eurostat's industrial price indices (annual data, dataset sts_inpp_a) are used to price-adjust value added. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

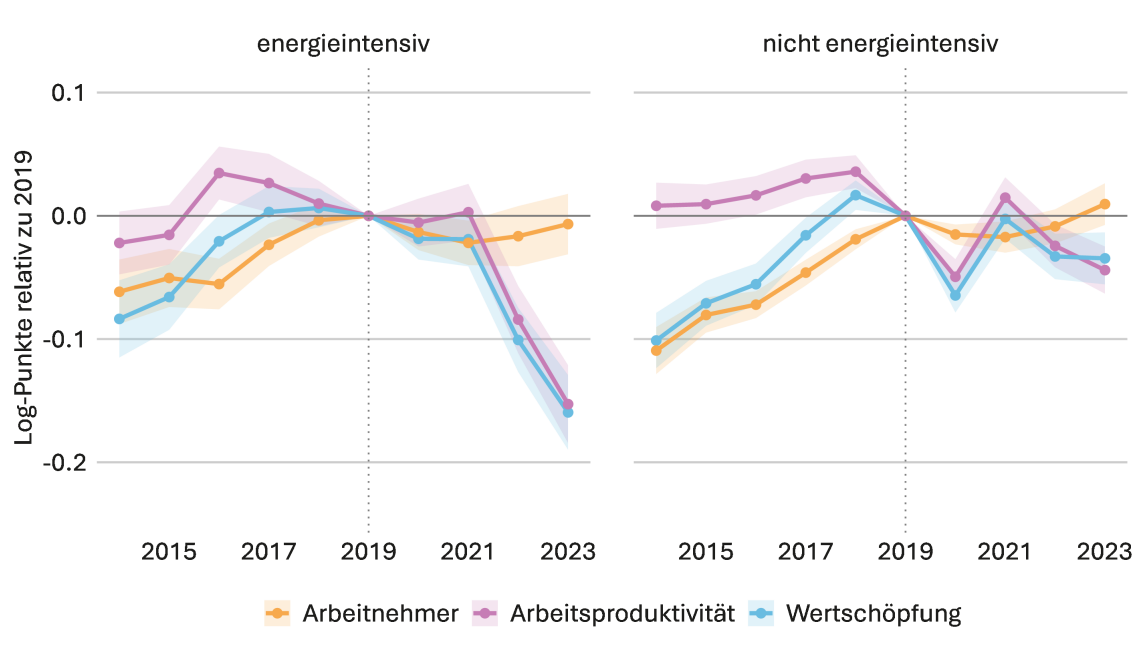
94 **Figure 1.18** shows the breakdown of labour productivity into price-adjusted value added and the number of employees for energy-intensive and non-energy-intensive industries. It is clear that the number of employees in both groups follows a relatively similar trend and therefore does not make a significant contribution to the differences in labour productivity. Rather, the trend in labour productivity is determined by price-adjusted value added.

95 At the start of the pandemic, a different pattern once again emerges between the two groups. Whilst energy-intensive industries do not record a slump in price-adjusted

value added, non-energy-intensive industries experience a decline of more than 5 per cent. From 2022 onwards, however, this picture reverses. Price-adjusted value added in energy-intensive industries falls by around 15 per cent by 2023, whilst the decline in non-energy-intensive industries is significantly smaller, at around 3 to 4 per cent.

96 The divergent trends in value added, coupled with similar trends in employment, suggest a sluggish adjustment in the labour market. Despite the sharp decline in price-adjusted value added in energy-intensive industries, employment there is not falling at a correspondingly faster rate than in non-energy-intensive industries. From a competition policy perspective, this finding is relevant because sluggish labour market dynamics can hinder the reallocation of workers to more productive or growing industrial sectors. Skilled workers are of central importance to firms and are becoming increasingly difficult to recruit on the labour market. If, despite significantly different trends in value added and productivity, they move between industrial sectors only to a limited extent, more productive or growing firms may expand more slowly. This can weaken allocative efficiency and impair long-term competitiveness.

97 In summary, the analysis shows that the sharper decline in labour productivity in energy-intensive industries is primarily attributable to trends in price-adjusted value added, whilst employment remains largely stable. Taken together with the developments in prices and marginal costs outlined above, this paints a consistent picture in which the greater strain on energy-intensive industries is reflected both in falling price premiums and in a significantly sharper decline in productivity.

Figure 1.18: Energy – Composition of labour productivity

Note: The figures show changes relative to the reference year 2019 for energy-intensive and non-energy-intensive industries. Labour productivity is broken down into price-adjusted value added and the number of employees. Value added is price-adjusted using industry-level price indices. Employment is measured as the number of employees. Working hours and short-time working are not tracked in the Orbis data.

Source: Own calculations based on Orbis data from Moody's. Eurostat's industrial price indices (annual data, dataset sts_inpp_a) are used to adjust value added for price changes. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

1.3.2 Imports stabilise non-energy-intensive industries

98 The previous section showed that price premiums and productivity in energy-intensive industries decline more sharply after 2021 than in other sectors of the manufacturing industry. The following section expands on the analysis of energy-intensive and non-energy-intensive industries from the previous chapter. It examines whether the slump in price premiums documented there is exacerbated or mitigated depending on an industry's import and export intensity. The results suggest that higher import intensity is associated with more favourable trends, particularly in non-energy-intensive industries, whilst higher export intensity tends to be accompanied by weaker developments.

99 German industry is heavily integrated into international value chains and trade relations. The energy price shock has also altered the relative costs between domestic production, imported intermediate inputs and international sales markets. This mechanism is particularly relevant for German industries because the energy price shock increased the costs of domestic production compared with many non-European trading partners. The European Commission points out that industrial gas and electricity

prices in the EU remained significantly higher than those of key trading partners even after the crisis had peaked (European Commission, 2025).

100 Exposure to international trade can have both a stabilising and a destabilising effect during a crisis. Imports can relieve pressure on firms if foreign intermediate goods are relatively cheaper than domestically produced energy-intensive inputs. This can cushion cost increases and stabilise the production of downstream goods. At the same time, imports can also replace domestic value added if intermediate goods are no longer manufactured domestically but sourced from abroad. Export exposure, by contrast, is more difficult to interpret unequivocally. Export-oriented industries have access to international markets. At the same time, they face greater competition there from producers in countries that have, in some cases, benefited from lower energy and production costs. Higher export exposure can therefore reflect both additional sales opportunities and greater international competitive pressure.

1.3.2.1 Import and export ratios occur in tandem

101 To measure trade exposure, the analysis uses Eurostat data on ‘Trade by Enterprise Characteristics’. The dataset allocates imports and exports to the enterprises trading in these goods and then classifies them according to the main economic sector of these enterprises. This makes it possible to measure the extent to which enterprises in a particular industry are involved in international trade in goods. As a result, import and export figures are available at the same NACE 2 level at which the rest of the industry analysis is carried out. For turnover data, Eurostat data from the Structural Business Statistics are used.⁷ These provide key business indicators such as turnover, employment and value added by economic sector.⁸

102 The import and export data are then linked to the turnover data for the respective NACE 2 industry. On this basis, an import ratio and an export ratio are calculated for each industry and each year. The import ratio expresses the value of goods imported from abroad as a proportion of the industry’s turnover. The export ratio, correspondingly, measures the value of goods exported abroad relative to the industry’s turnover.

103 The import and export measures derived in this way should be understood as an approximation of an industry’s international integration. They are not exact import or export ratios in the strict accounting sense, because trade figures and turnover data are drawn from different statistics and do not necessarily reflect the same population

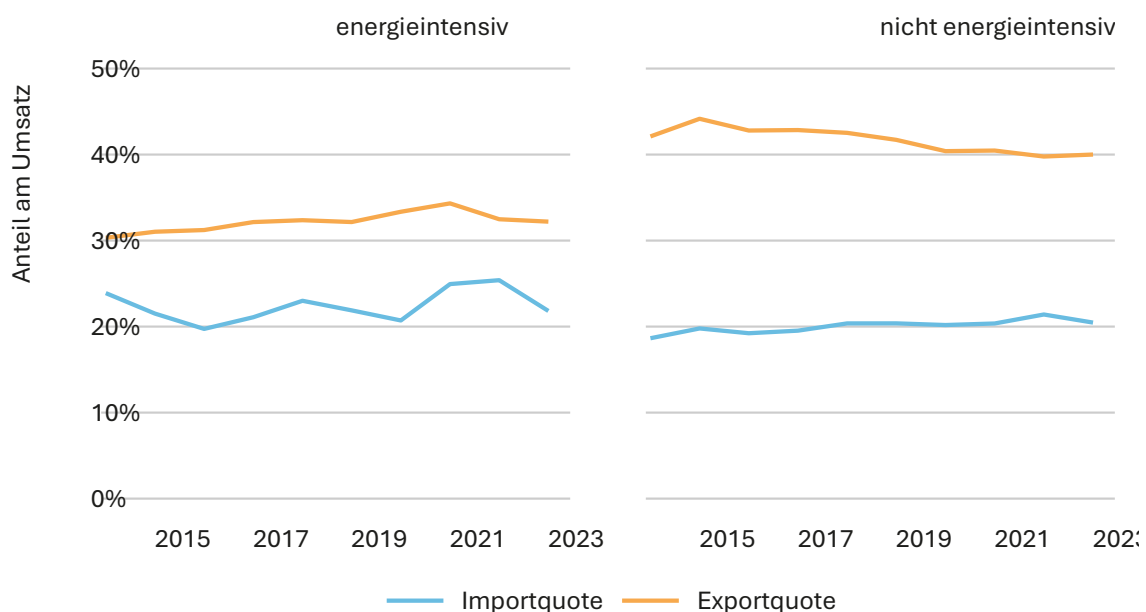
⁷ The trade data are taken from the Eurostat dataset ext_tec01. Turnover and value-added figures are supplemented using Eurostat’s structural business statistics. The dataset sbs_na_ind_r2 is used for the older data structure, whilst the dataset sbs_sc_ovw is used for the newer data structure.

⁸ A discussion of alternative data sources for measuring trade indicators can be found in Online Appendix 1.3.

of enterprises. Whilst trade figures are based on enterprises engaged in trade, the structural business statistics capture the total turnover of the respective sector as a whole. Furthermore, trade flows are allocated to the main economic sector of the trading company and not necessarily to the economic sector in which the traded good is produced or used. As a result, the measures may, in individual cases, be higher or lower than production-related import or export ratios. Nevertheless, they are suitable for the present analysis because they reflect the international integration of an industry at the same NACE 2 level at which the rest of the industry analysis is carried out.

104 ↗ **Figure 1.19** shows the aggregated import and export ratios by energy group, with import, export and turnover figures within each energy group being totalled and then expressed as a ratio. Both energy groups are significantly interlinked internationally. Over the entire period, the export ratio in non-energy-intensive industries is higher than in energy-intensive industries. The import ratio is lower than the export ratio in both groups and is of a similar magnitude. It is striking, however, that the import ratio in energy-intensive industries rises significantly in 2021 and 2022.

Figure 1.19: Import and export ratios



Note: The figure shows import and export ratios by energy group. The ratios are calculated by first totalling the import, export and turnover figures within the respective energy group and then expressing them as a ratio. The import ratio corresponds to the ratio of goods imports to turnover, whilst the export ratio corresponds to the ratio of goods exports to turnover. The classification into energy-intensive and non-energy-intensive industries is based on the NACE 2 classification.

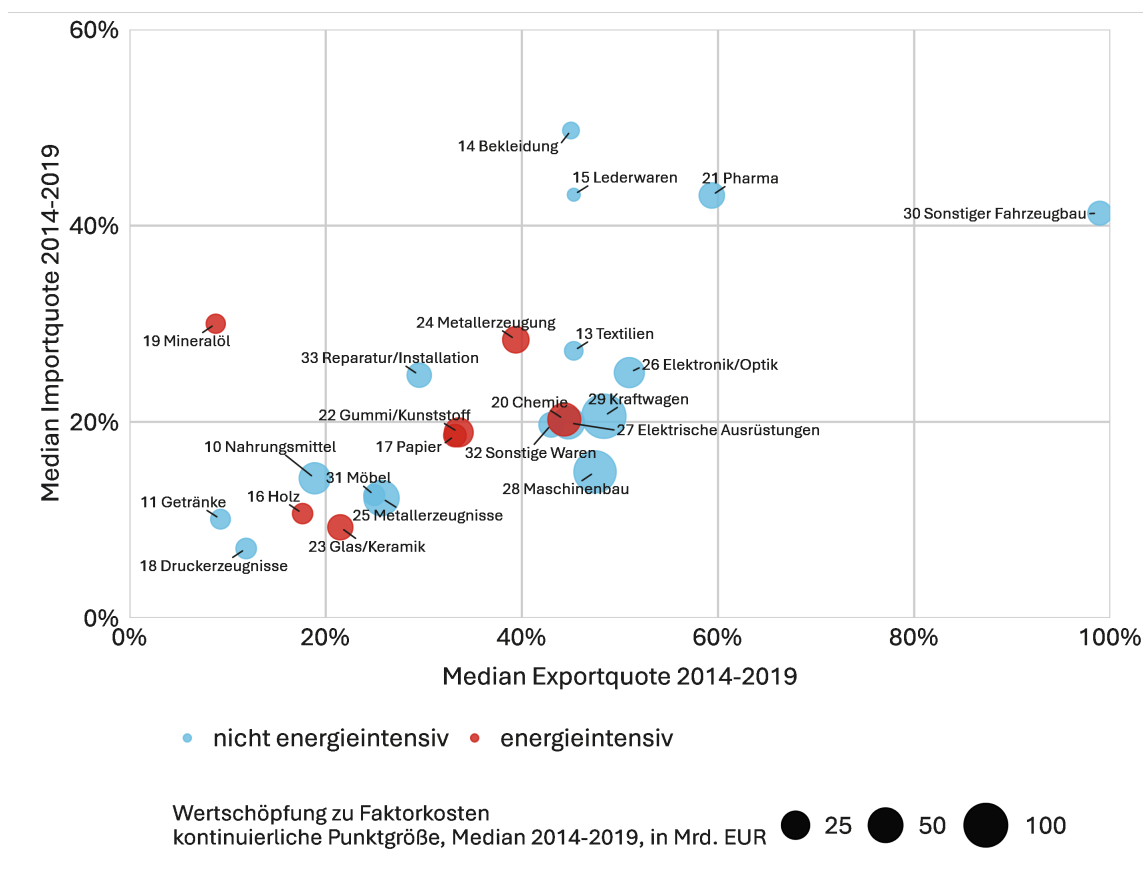
Source: Own calculations based on Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_oww. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025)

105 ↗ **Figure 1.20** plots NACE 2 industries on a coordinate system according to their import and export ratios. The horizontal axis shows the median export ratio for the years 2014 to 2019, whilst the vertical axis shows the corresponding median import ratio. The size of the points indicates the gross value added at factor cost for the respective industry, based on the median for the years 2014 to 2019. Energy-intensive industries are highlighted separately.

106 The diagram shows, first of all, that import and export ratios frequently occur together at sector level. Many industries with a high export ratio also have a high import ratio. A simple classification into purely import- or export-oriented industries would therefore fail to adequately reflect the trade interdependence between sectors. At the same time, it becomes apparent that higher trade intensity does not automatically go hand in hand with higher gross value added. Even smaller industries can be heavily integrated into international trade, whilst large industries do not necessarily have the highest import or export ratios.

107 Furthermore, it is clear that energy-intensive industries are not confined to a specific sector of the trade distribution. They are found both among more trade-intensive sectors, such as metal production and the chemical industry, and in sectors with lower or one-sided trade intensity, such as timber, glass and ceramics, or petroleum. Energy intensity and trade intensity are thus different structural characteristics of industry, which overlap to some extent but are not identical.

Figure 1.20: Trade exposure



Note: NACE 2 industries are shown according to their import and export ratios. The horizontal axis shows the median export ratio for the years 2014 to 2019, whilst the vertical axis shows the corresponding median import ratio. The size of the dots indicates the median gross value added at factor cost for the respective industry over the period 2014 to 2019. Energy-intensive industries are highlighted separately.

Source: Own calculations based on Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_oww. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025)

1.3.2.2 Price premiums by import and export intensity

108 The aim is to examine whether and how import and export intensity amplify or mitigate the previously documented differences between energy-intensive and non-energy-intensive industries. This estimation builds directly on the trends for energy-intensive and non-energy-intensive industries presented earlier. Those analyses showed how price premiums in both groups have developed relative to 2019. In a further step, we now examine whether this development within the two groups is systematically linked to an industry's trade intensity.

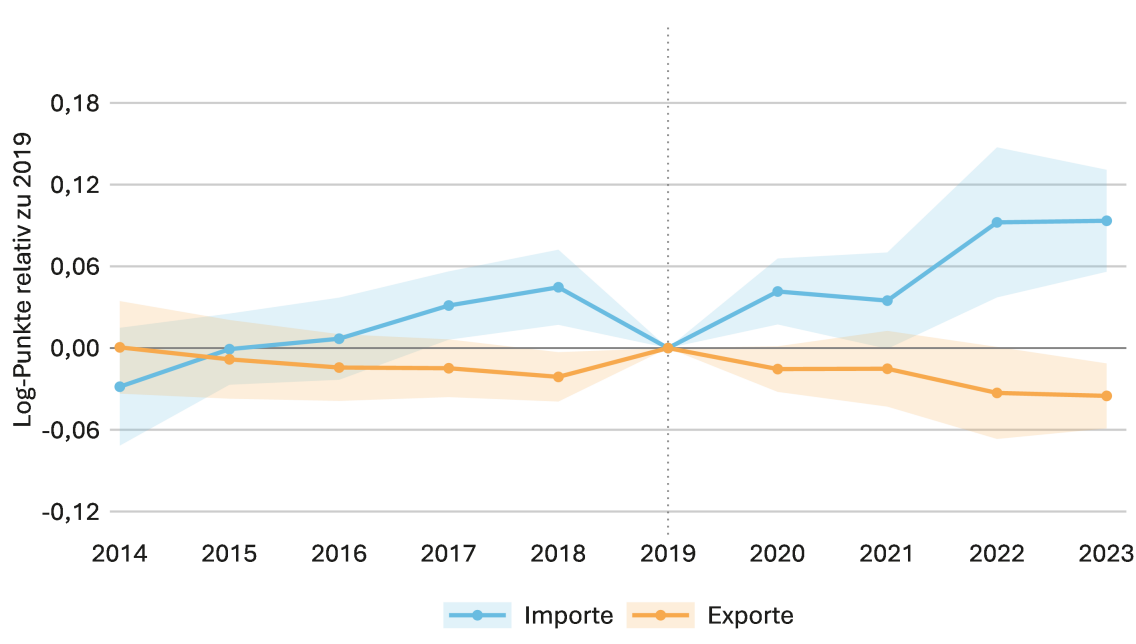
109 To this end, the annual trends in price premiums relative to the reference year 2019 are linked to the import and export intensity of the respective industry prior to the

energy crisis. This makes it possible to measure whether the documented decline is greater or smaller in industries that are more import- or export-intensive. The median of the import and export ratios at industry level for the years 2014 to 2019 is used as a measure of trade intensity. The estimation is carried out separately for energy-intensive and non-energy-intensive industries and takes account of both import and export intensity simultaneously. This makes it possible to examine whether the decline in price premiums already documented is more pronounced or less pronounced in more import- or export-oriented industries within the same energy group.

110 The estimated coefficients should therefore not be interpreted as separate trends in price premiums. Rather, they indicate whether, compared with 2019, the trend in more import- or export-intensive industries is more favourable or less favourable than in less trade-intensive industries within the same energy group. Positive values indicate that price premiums in more import- or export-oriented industries are developing more favourably than in less import- or export-oriented industries within the same energy group. Negative values indicate correspondingly weaker trends.

111 ↗ **Figure 1.21** initially shows the results of a specification that does not distinguish between energy groups. As both price premiums and import and export ratios are logarithmised, the coefficients can be interpreted as elasticities. They show whether the previously documented decline in price premiums in more import- or export-intensive industries is more pronounced or less pronounced relative to the reference year 2019.

112 After 2019, the relationship between the import and export ratios diverges significantly. From 2020 onwards, a higher import ratio is associated with more favourable trends in price mark-ups. The import coefficient stands at around 0.09 in 2022 and 2023. As these are elasticities, this means that a 1 per cent higher import ratio is associated with a 0.09 per cent higher price premium relative to 2019. Against the backdrop of overall falling price premiums, this means that the decline in price premiums in more import-intensive industries is smaller than in less import-intensive industries. For the export ratio, however, a negative relationship is evident. The export coefficients are below zero from 2020 onwards and fall to around -0.04 by 2023. A 1 per cent higher export ratio is therefore associated in 2023 with a 0.04 per cent lower price premium relative to 2019.

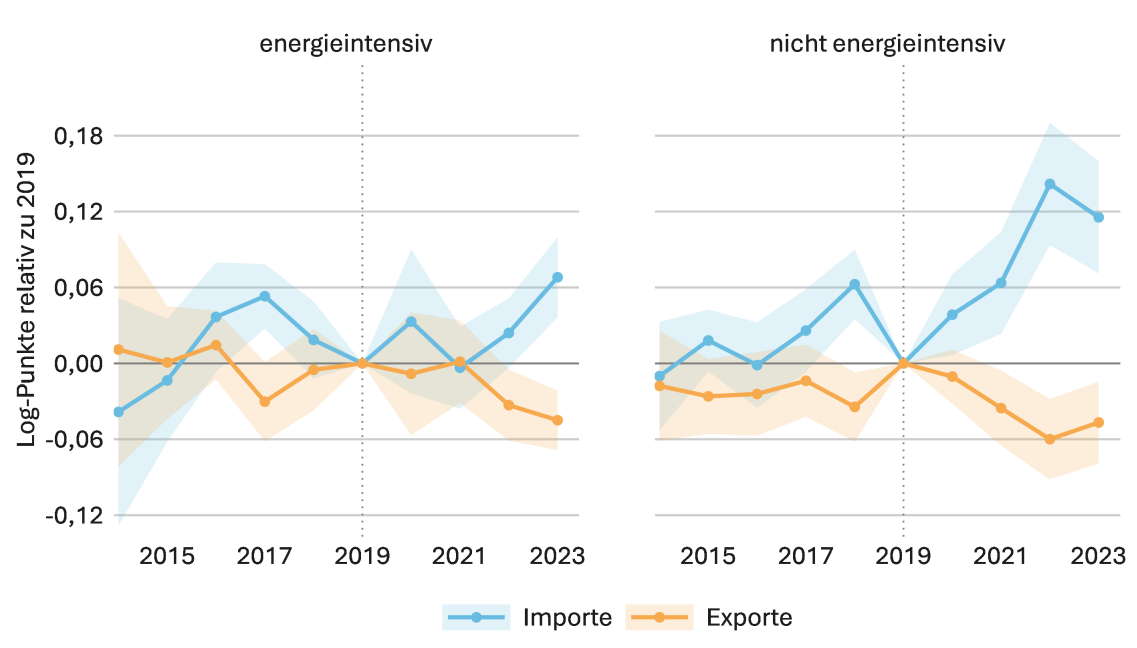
Figure 1.21: Price premiums and trade elasticities

Note: The figure shows estimated trade elasticities of price premiums relative to the reference year 2019. It is based on a firm-level fixed-effects estimation in which price premiums are regressed against annual indicators and their interaction with the import and export ratios of the respective NACE 2 industry. Import and export ratios are measured as the median for the years 2014 to 2019 and are taken into account jointly in the estimation. The coefficients shown indicate whether price premiums in more import- or export-intensive industries are developing more favourably or less favourably relative to 2019. The shaded areas show 95 per cent confidence intervals.

Source: Own calculations based on Orbis data from Moody's, as well as Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_oww.

113 ↗ **Figure 1.22** shows the corresponding trade elasticities of price premiums separately for energy-intensive and non-energy-intensive industries. The positive correlation between import intensity and the trend in price premiums shown previously is driven primarily by non-energy-intensive industries. In this group, the import coefficients rise steadily after 2019 and are significantly higher than in energy-intensive industries, particularly in 2022 and 2023. This means that the decline in price premiums is less pronounced in more import-intensive, non-energy-intensive industries. In energy-intensive industries, by contrast, this relationship remains weak at first. The import coefficients are close to zero between 2020 and 2022 and only become significantly positive in 2023.

114 Negative correlations are evident for export intensity in both groups. After 2019, the export coefficients are predominantly below zero in both energy-intensive and non-energy-intensive industries and are of a comparatively similar magnitude. It is striking, however, that the negative correlation in non-energy-intensive industries becomes more pronounced as early as 2021. Higher export intensity thus tends to be accompanied by a greater decline in price premiums in both groups.

Figure 1.22: Price premiums and trade elasticity by energy intensity

Note: The figure shows estimated trade elasticities of price premiums relative to the reference year 2019, broken down into energy-intensive and non-energy-intensive industries. The analysis is based on a firm-level fixed-effects estimation, in which price premiums are regressed against annual indicators and their interaction with the import and export ratios of the respective NACE 2 industry. The interactions are estimated separately for each energy group. Import and export ratios are measured as the median for the years 2014 to 2019 and are taken into account jointly in the estimation. The coefficients shown indicate whether price premiums in more import- or export-intensive industries within the respective energy group are developing more favourably or less favourably relative to 2019. The shaded areas show 95 per cent confidence intervals.

Source: Own calculations based on Orbis data from Moody's, as well as Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_oww. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025)

115 The differing findings on imports can be explained by the fact that imports can have two opposing effects during an energy crisis. On the one hand, imported intermediate inputs can cushion domestic cost increases. On the other hand, imports can replace domestic production if intermediate inputs or goods are no longer manufactured domestically but are sourced from abroad. In energy-intensive industries, the second channel is likely to be more significant. As has already outlined in section **71.3.1**, energy-intensive industries frequently produce raw materials, materials and intermediate goods for other industries. Whilst imports can also provide cost relief in these sectors, they simultaneously compete more strongly with domestic production and can replace domestic value added. Furthermore, in parts of energy-intensive industries, imported energy not only serves as an energy source in the production process but is itself a direct material input into production. This is another reason why the cost-reducing effect of imports is less clear-cut in energy-intensive industries than in non-energy-intensive industries. In non-energy-intensive industries, by contrast, the substitution effect is likely to be less relevant. This could explain why the import coefficients are higher there and are clearly positive.

116 This interpretation is consistent with findings by the European Central Bank (Chiacchio et al., 2023). The authors show for the euro area that imports are positively correlated with domestic production in most industries. However, this positive correlation becomes weaker the more energy-intensive an industry is. At the upper end of the energy-intensity distribution, the relationship even becomes negative. The authors interpret this as an indication that, whilst imports can generally support domestic production as intermediate inputs, in particularly energy-intensive industries they increasingly substitute for domestic production.

117 The present findings complement this observation for German industries. The positive relationship between the import share and the trend in price mark-ups is particularly pronounced in non-energy-intensive industries. In these sectors, the more favourable trend in price mark-ups suggests that imported intermediate inputs may have partially cushioned cost increases. In energy-intensive industries, this relationship is weaker. This is consistent with the structure of these industries described earlier. They often produce raw materials and intermediate goods themselves, meaning that imports not only provide relief but also replace domestic production. The descriptive trend in trade ratios also fits this picture. The import ratio of energy-intensive industries is rising more sharply in 2021 and 2022 than that of non-energy-intensive industries. (Chiacchio et al., 2023) show a similar pattern for the euro area. During the energy crisis, imports of energy-intensive goods increased relative to non-energy-intensive goods. This increase began even before the decline in domestic production of energy-intensive goods.

1.3.2.3 Prices and marginal costs underpin the trading channel

118 To further examine the trade channel described, the analysis is next extended to prices and approximated marginal costs. This breaks down the previously estimated effect on price mark-ups into its price and cost components.⁹ If the positive link between imports and non-energy-intensive industries does indeed operate via cheaper intermediate inputs, this should be reflected primarily in lower approximated marginal costs in these industries. For export intensity, however, such a marginal cost channel is less obvious. Exports primarily reflect international markets and international competition. It would therefore be more reasonable to expect, in non-energy-intensive industries, that higher export intensity is associated with smaller price increases. Furthermore, in non-energy-intensive industries, the effect of imports on prices should be

⁹ The decomposition follows the logic described in Section 1.2. For trade elasticities, we first estimate how prices and mark-ups change relative to the reference year 2019 with import and export intensity. The corresponding effect on the approximated marginal costs is then calculated as the difference between the price effect and the mark-up effect. Marginal costs are therefore not directly observed here either, but should be understood as a measure derived from developments in prices and mark-ups.

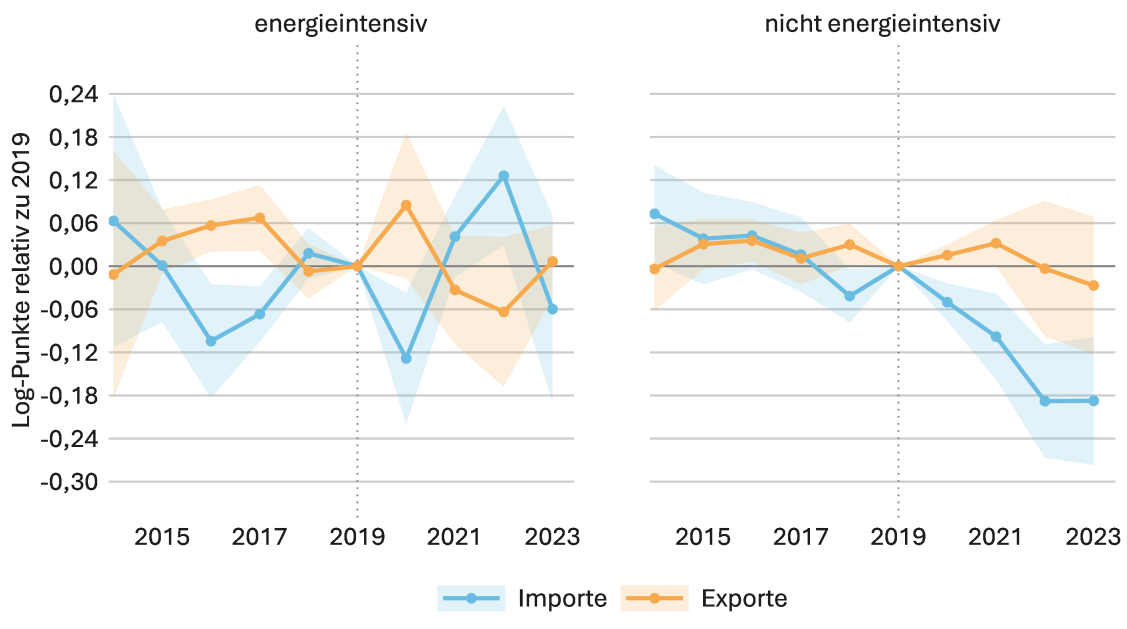
less relevant and smaller than the effect on estimated marginal costs, if imports primarily operate via the cost side. For energy-intensive industries, the relationship is less clear-cut, as the multiple opposing import effects described above may overlap in both prices and estimated marginal costs.

119 ↗ **Figure 1.23** supports this pattern for non-energy-intensive industries. Higher import intensity after 2019 is associated with significantly more favourable trends in approximate marginal costs. This suggests that imported intermediate inputs have partially cushioned the domestic cost shock in these industries. By contrast, no corresponding marginal cost channel is evident for export intensity. The export coefficients for approximate marginal costs are largely close to zero.

120 The price specification in ↗ **Figure 1.24** shows, however, that export intensity in non-energy-intensive industries is associated with weaker price trends. This is consistent with the interpretation that export-intensive industries are subject to greater international competitive pressure and were less able to raise prices. The negative relationship between exports and price mark-ups can thus be attributed primarily to the price side. As regards import intensity, a price effect during the crisis years is less clearly discernible as a distinct crisis effect. Rather, a longer-term trend is evident, with the import coefficient declining continuously since 2014. Whilst higher import intensity was still associated with stronger price trends prior to 2019, the relationship became negative after 2019. Industries with higher import intensity thus exhibit increasingly favourable price trends over time.

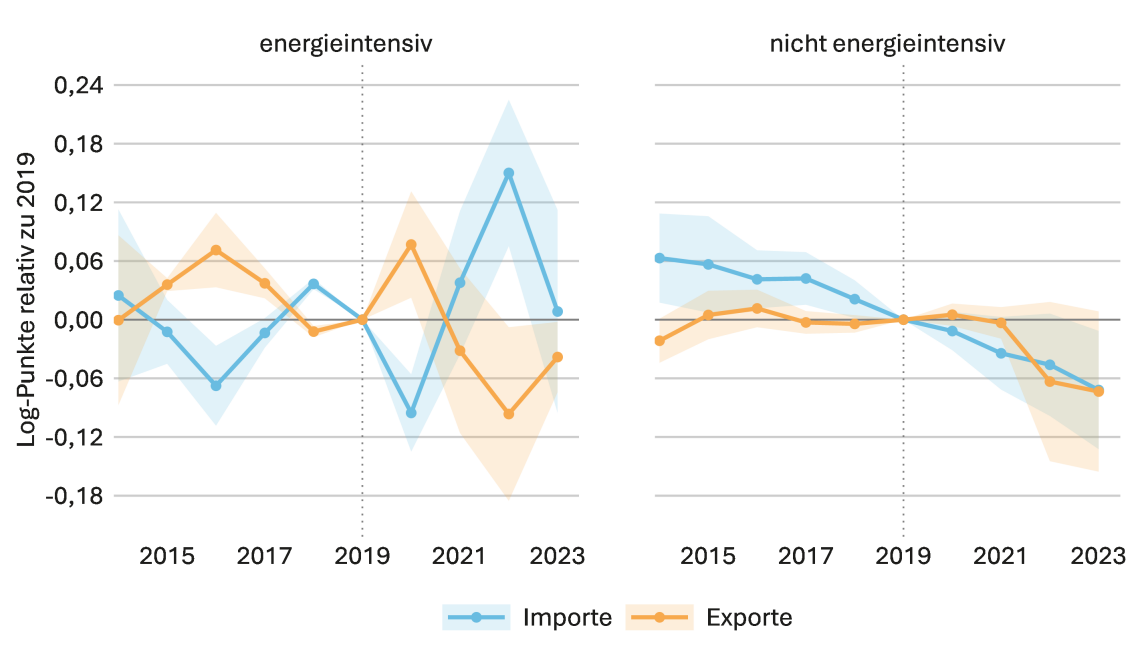
121 For energy-intensive industries, by contrast, no similarly clear pattern emerges, either in terms of approximated marginal costs or prices. The coefficients fluctuate more significantly over time and cannot be clearly attributed to a single channel. However, the dynamics between 2020 and 2022 are striking. During this period, the import coefficients rise significantly for both prices and approximated marginal costs. This suggests that imports in energy-intensive industries do not merely act as cost-reducing intermediate inputs. They may also comprise energy, raw materials or energy-intensive intermediate products, the prices of which rose sharply during the energy crisis itself. At the same time, imports can substitute for domestic production of intermediate inputs. Consequently, the relationship between trade intensity, prices and approximate marginal costs in this group is less straightforward to interpret.

Figure 1.23: Approximated marginal costs and trade elasticity by energy intensity



Note: The figure shows estimated trade elasticities of the approximated marginal costs relative to the reference year 2019, broken down into energy-intensive and non-energy-intensive industries. The breakdown follows the logic described in Section 1.2. For the trade elasticities, the first step is to estimate how prices and price mark-ups, relative to the reference year 2019, change with the import and export shares of the respective NACE 2 industry. The corresponding effect on the approximated marginal costs is then calculated as the difference between the price effect and the mark-up effect. Import and export ratios are measured as the median for the years 2014 to 2019 and are taken into account together in the estimation. The shaded areas show 95 per cent confidence intervals.

Source: Own calculations based on Orbis data from Moody's, Eurostat, industrial price indices, annual data, dataset sts_inpp_a, Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_owv. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

Figure 1.24: Prices and trade elasticity by energy intensity

Note: The figure shows estimated trade elasticities of prices relative to the reference year 2019, broken down into energy-intensive and non-energy-intensive industries. The analysis is based on a firm-level fixed-effects estimation in which logarithmic price indices are regressed against annual indicators and their interaction with the import and export shares of the respective NACE 2 industry. The interactions are estimated separately for each energy group. Import and export ratios are measured as the median for the years 2014 to 2019 and are considered jointly in the estimation. The coefficients shown indicate whether prices in more import- or export-intensive industries within the respective energy group are developing more favourably or less favourably relative to 2019. The shaded areas show 95 per cent confidence intervals.

Source: Own calculations based on Eurostat, industrial price indices, annual data, dataset sts_inpp_a, Eurostat, Trade by Enterprise Characteristics, dataset ext_tec01, and Eurostat, Structural Business Statistics, datasets sbs_na_ind_r2 and sbs_sc_oww. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025).

1.3.3 High-tech bucking the trend

122 Within non-energy-intensive industries, there are also significant structural differences which are not adequately reflected in an aggregated analysis. In particular, technology-intensive industries differ markedly from less technology-intensive sectors in terms of their production structures, innovation processes and demand conditions. Against this background, a disaggregated analysis based on technology intensity is required in order to systematically identify potential differences in competitive dynamics.

123 A key focus here is on high-tech industries¹⁰ in [Table 1.4](#). Since the start of the pandemic, the operating conditions for technology-intensive industries have changed

¹⁰ The definition of high-technology industries used here follows a sectoral classification within the manufacturing sector and is therefore not identical to the Federal Government's High-Tech Agenda. The latter is a broader innovation policy strategy and focuses on key technologies such as artificial

significantly. Accelerated digitalisation, the increasing spread of data-driven business models and the greater use of artificial intelligence applications have had a considerable impact on demand for technological goods and intermediate inputs.¹¹ For technology-intensive industries, additional demand is being driven by the increasing use of artificial intelligence and the growing need for server, network and storage capacities (Bitkom e.V, 2024).

124 In addition to these technology-driven developments, the pharmaceutical industry and the aerospace industry must also be considered as key high-tech sectors. Both sectors are characterised by a high level of research intensity, strong international interdependence and close integration into global value chains (BMW, 2022; VFA/Institut der deutschen Wirtschaft, 2024). At the same time, official production data at **Figure 1.25** show that the development of these industries since the start of the pandemic has differed significantly from traditional industrial trends. Whilst energy-intensive industries such as the chemical industry recorded significant slumps in production, output in high-technology sectors such as the pharmaceutical industry, the manufacture of electronic products and the aerospace sector remained comparatively stable overall or developed more dynamically. This suggests that technology-driven demand impulses and sector-specific characteristics play an important role in the development of these industries.

125 Against this backdrop, it is to be expected that high-tech industries will differ from other industries due to their specific structural characteristics and the demand drivers described above. The following analysis therefore examines the extent to which these differences are reflected in key competitiveness indicators such as price premiums, cost structures and productivity. The results show that, contrary to the general trend, high-technology industries are experiencing a marked upward trend. Whilst the remaining non-energy-intensive industries have seen declining price premiums and weaker productivity growth since 2019, price premiums and productivity are rising in the high-technology industries. The rise in labour productivity is attributable in particular to stronger growth in price-adjusted value added, whilst employment trends in both groups are comparatively similar. However, this finding should be understood as indicating relative strength within Germany. In an international comparison, research-intensive industries in Germany have recently lost momentum and labour productivity (Danne/Schiersch, 2026).

intelligence, microelectronics, quantum technologies, climate-neutral energy, fusion and new materials. Nevertheless, both perspectives overlap in that they regard technology- and research-intensive sectors as central to future competitiveness and industrial renewal (Federal Government, 2025).

¹¹ **70** examines the competitive implications of artificial intelligence in greater depth.

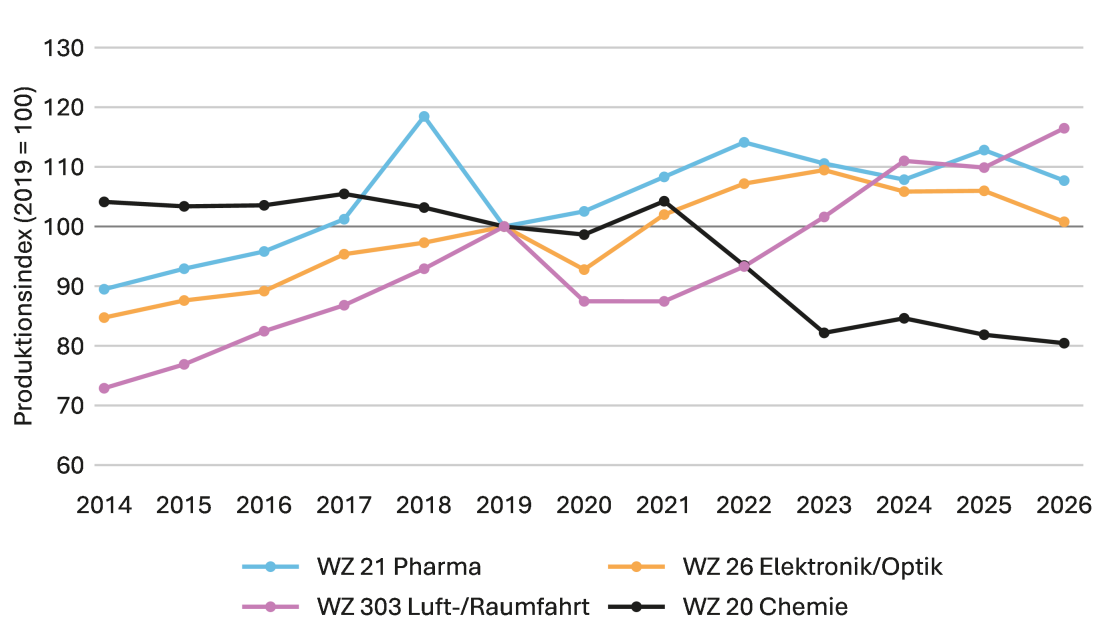
Table 1.4: High-tech sector

NACE code	Description
21	Manufacture of pharmaceutical products
26	Manufacture of computers, electronic and optical products
30.3	Manufacture of aircraft, spacecraft and military aircraft

Note: The definition of high-tech industries follows the OECD taxonomy of economic activities by R&D intensity and takes into account industries with particularly high R&D intensity. In substance, it largely corresponds to the DIW definition of cutting-edge technology.

Source: (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016)

Figure 1.25: Production index – high-tech and chemicals



Note: The chart shows annual averages of the seasonally adjusted production index for selected sectors of the manufacturing industry. The index values are standardised to the year 2019 (2019 = 100). The chart thus illustrates the relative trend in production compared with the reference year 2019. The production index serves to provide a descriptive overview of sectoral trends and is not part of the microeconomic estimates based on Orbis data.

Source: Own illustration based on data from the Federal Statistical Office (Destatis), GENESIS-Online, Table 42153-0002

1.3.3.1 Price mark-ups indicate an upward trend

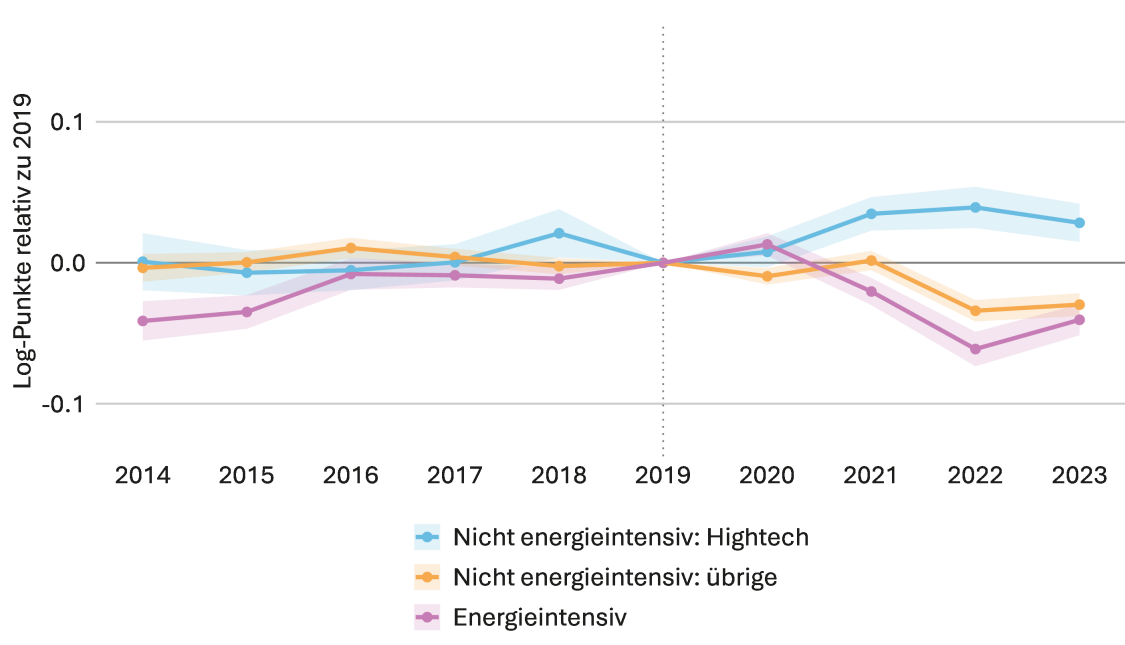
126 ↗ **Figure 1.26** shows the trend in price premiums for three industrial groups relative to the base year 2019. In addition to the energy-intensive industries already con-

sidered, the non-energy-intensive industries are further subdivided into high-technology industries and other industries. The figure thus represents an extension of the previous analysis, which distinguished only between energy-intensive and non-energy-intensive industries. At the same time, it serves as a starting point for the following analysis, which focuses on the differentiation within the non-energy-intensive industries.

127 It is evident that price premiums are developing very differently across the three groups. Whilst energy-intensive industries, as previously shown, are recording a sharp decline in price premiums of over five per cent, the picture for high-tech industries is the opposite. In these industries, price premiums are set to rise by around three to four per cent from 2021 onwards. The remaining non-energy-intensive industries, which are not classified as high-tech, occupy an intermediate position. In this group, price mark-ups are also observed to be falling, although the decline, at around three per cent, is significantly more moderate than in the energy-intensive industries.

128 Overall, the figure illustrates that there is a clear differentiation within the non-energy-intensive industries. The subsequent analysis builds on this and examines the differences between high-tech industries and other non-energy-intensive industries in detail.

Figure 1.26: High-tech – a comparison of price premiums



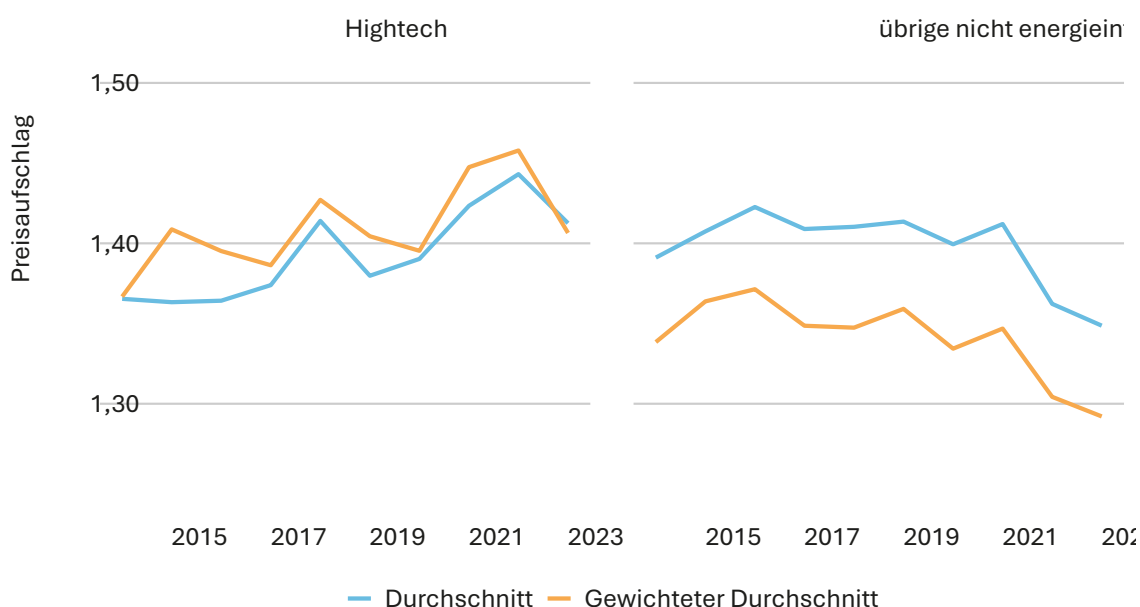
Note: The figure shows changes in the estimated price premiums relative to the reference year 2019 for energy-intensive industries, high-tech industries and other non-energy-intensive industries. The price premiums are calculated on the basis of an ACF production function estimate using a gross output translog specification. The trends shown are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's. The classification of energy-intensive industries is based on (Dechezleprêtre et al., 2025). The classification of high-tech industries follows (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016).

129 ↗ **Figure 1.27** shows the trend in price premiums for high-tech industries and other non-energy-intensive industries. It can be seen that, overall, price premiums in both groups remain at a similar level, but develop quite differently over time.

130 In high-tech industries, a continuous rise in price premiums can be observed. Starting from a value of around 1.37 in 2014, price premiums rose moderately until 2019 and recorded a further significant increase from 2021 onwards, reaching around 1.45 in 2022. By contrast, price mark-ups in the other non-energy-intensive industries remain largely constant until around 2019. Subsequently, however, a decline can be observed, which intensifies significantly from 2022 onwards in particular.

Figure 1.27: High-tech – price premiums



Note: The figure shows the levels of estimated price premiums for high-tech industries and other non-energy-intensive industries. The price premiums are calculated on the basis of an ACF production function estimate using a gross output translog specification. The figure shows simple and turnover-weighted averages within the respective industry group.

Source: Own calculations based on Orbis data from Moody's. The distinction between energy-intensive and non-energy-intensive industries is based on (Dechezleprêtre et al., 2025). The classification of high-tech industries follows (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016).

1.3.3.2 Productivity is also picking up in the high-tech sector

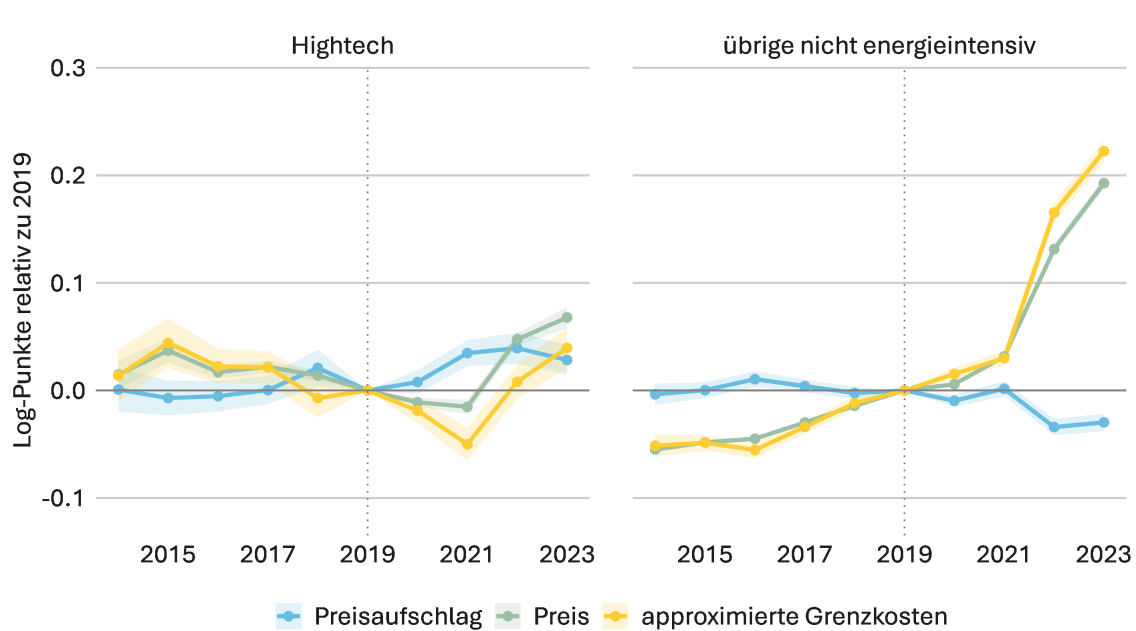
131 To contextualise the differing trends in price mark-ups, ↗ **Figure 1.28** shows the breakdown into prices and approximate marginal costs for high-tech industries and other non-energy-intensive industries relative to the base year 2019. The figure illustrates that the differences in the trends of price mark-ups are largely determined by differing trends in prices and costs.

132 In high-technology industries, prices initially fall until 2021. At the same time, approximate marginal costs fall significantly by around five per cent during this period. This decline in costs contributes significantly to the rise in price mark-ups during this phase.

133 From 2021 onwards, prices also rise in the high-technology industries. However, the increase is comparatively moderate, reaching around seven per cent relative to the base year 2019 by 2023. In contrast, the remaining non-energy-intensive industries show a significantly sharper rise in prices. As early as 2021, prices will rise noticeably, reaching an increase of just under 20 per cent by 2023 compared with 2019.

134 Overall, the breakdown illustrates that the differing trends in price mark-ups between the two groups are attributable to markedly divergent price and cost trends. In particular, the decline in marginal costs and the initially weaker price trend in the high-tech sector contribute to price mark-ups in this group developing differently from those in the other non-energy-intensive industries.

Figure 1.28: High-tech – Trends in price mark-ups, prices and estimated marginal costs



Note: The figure shows changes relative to the reference year 2019 for high-tech industries and other non-energy-intensive industries. The price trends are based on industry-level price indices normalised to 2019. Approximated marginal costs are derived from the relative ratio of prices to estimated price mark-ups. Formally, in logarithms, this is expressed as: approximated marginal costs equal prices minus price mark-ups. The trends shown are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's and Eurostat, industrial price indices, annual data, dataset sts_inpp_a. The distinction between energy-intensive and non-energy-intensive industries is based on (Dechezleprêtre et al., 2025). The classification of high-tech industries follows (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016).

135 ↗ **Figure 1.29** shows the trend in total factor productivity and labour productivity for high-tech industries and other non-energy-intensive industries relative to the base year 2019. Once again, significant differences between the two groups are evident. Initially, the high-tech industries also experienced the period of weakness observed in other industries prior to 2019. However, this trend did not continue after 2019. Instead, both measures of productivity in the high-tech industries rose significantly from 2020 onwards.

136 In high-technology industries, total factor productivity increases by around five per cent after 2020, whilst labour productivity rises by around six per cent. Labour productivity thus initially shows a slight downward trend after 2018, which is replaced by significant growth from 2020 onwards.

137 By contrast, the picture is different for the remaining non-energy-intensive industries. Here, too, a slowdown in productivity growth can be observed from 2018 onwards. Unlike in the high-technology industries, however, there is no sustained turnaround after 2019. Instead, the slowdown that was already evident is exacerbated by the crisis years from 2020 onwards. Although there is a temporary recovery in 2021, productivity weakens again from 2022 onwards. This pattern corresponds to the developments for non-energy-intensive industries as a whole, as described previously.

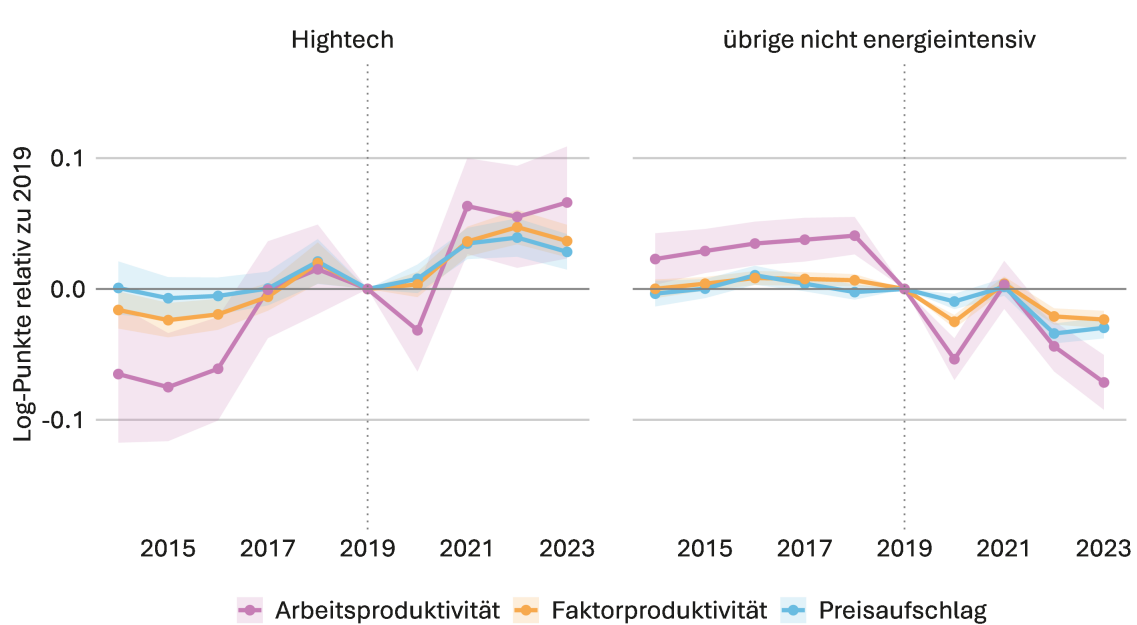
138 ↗ **Figure 1.30** breaks down the trend in labour productivity into price-adjusted value added and the number of employees for high-technology industries and other non-energy-intensive industries. This shows that differences in labour productivity are driven primarily by price-adjusted value added. Whilst the real value added of the two groups diverges significantly, the number of employees follows a comparatively similar trend.

139 This finding is particularly noteworthy. In high-tech industries, rising employment from 2021 onwards is accompanied by an increase in price-adjusted value added. In the other non-energy-intensive industries, by contrast, employment trends are similar, even though price-adjusted value added is declining. The labour market thus appears to be reacting little, if at all, to the differing real-term developments across the sectors. This suggests a certain inertia in employment adjustment.

140 There are arguments to suggest that such inertia, particularly in technology-intensive industries, hinders technological renewal. Investment in AI and other disruptive technologies is associated with a high degree of uncertainty and often requires the rapid adaptation of specialised teams. High expected restructuring costs can reduce the willingness to make such investments. At the same time, barriers to mobility can make it difficult for young and technologically dynamic companies to recruit skilled

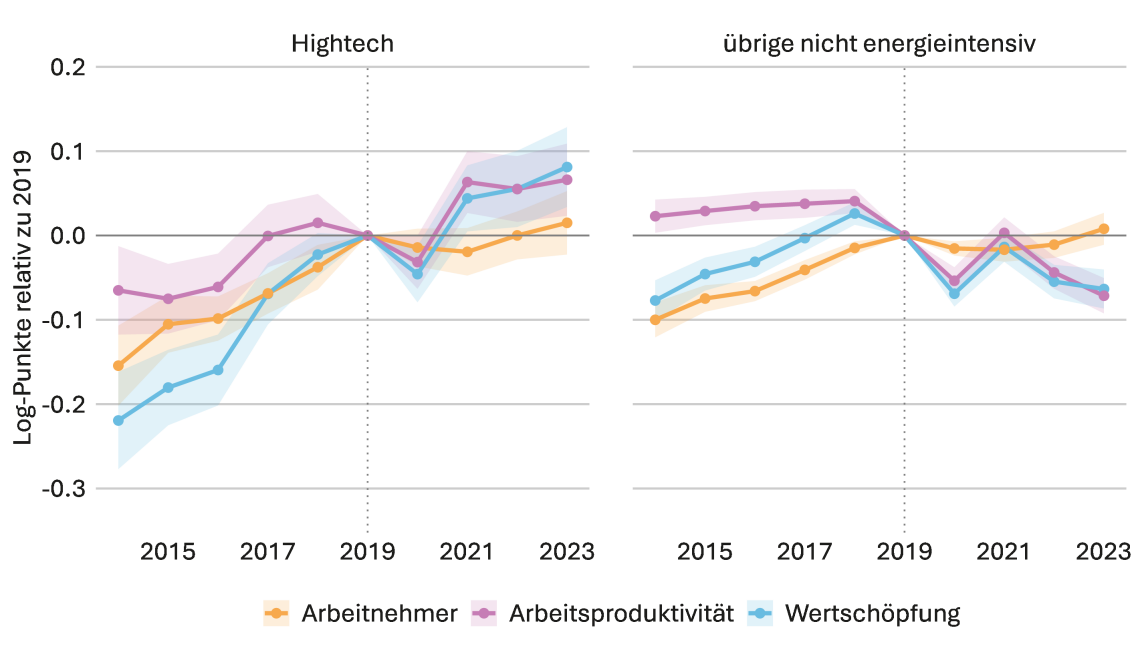
workers. This mechanism could contribute to Germany falling behind internationally in disruptive technologies and AI (Bartelsman et al., 2016; Coatanlem, 2026; Coatanlem/Coste, 2026).

Figure 1.29: High-tech – Trends in price premiums, factor and labour productivity



Note: The figure shows changes relative to the reference year 2019 for high-tech industries and other non-energy-intensive industries. Price premiums and total factor productivity are calculated on the basis of an ACF production function estimate using a gross output translog specification. Labour productivity is measured as price-adjusted value added per employee. The trends are based on firm-fixed-effects estimates.

Source: Own calculations based on Orbis data from Moody's. Eurostat's industrial price indices (annual data, dataset sts_inpp_a) are used to price-adjust value added. The distinction between energy-intensive and non-energy-intensive industries is based on (Dechezleprêtre et al., 2025). The classification of high-tech industries follows (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016).

Figure 1.30: High-tech – Labour productivity breakdown

Note: The figure shows changes relative to the reference year 2019 for high-tech industries and other non-energy-intensive industries. Labour productivity is broken down into price-adjusted value added and the number of employees. Value added is price-adjusted using industry-level price indices. Employment is measured as the number of employees. Working hours and short-time working are not tracked in the Orbis data.

Source: Own calculations based on Orbis data from Moody's. Eurostat's industrial price indices (annual data, dataset sts_inpp_a) are used to adjust value added for price changes. The distinction between energy-intensive and non-energy-intensive industries is based on (Dechezleprêtre et al., 2025). The classification of high-tech industries follows (Danne/Schiersch, 2026; Galindo-Rueda/Verger, 2016).

1.3.4 Conclusion

141 Section 71.3 shows that the energy price shock has affected manufacturing industries to very different degrees. The aggregate declines in price mark-ups and productivity are driven largely by energy-intensive industries. In these sectors, costs rose significantly more sharply than prices after 2019. As a result, price mark-ups fell more sharply than in non-energy-intensive industries. Productivity also performed weaker. The decline in labour productivity is primarily attributable to falling price-adjusted value added against a backdrop of comparatively stable employment.

142 International integration alters the impact of this cost shock. Import intensity is associated with more favourable trends in price mark-ups, particularly in non-energy-intensive industries. This suggests that imported intermediate inputs were able to cushion cost increases in these sectors. In energy-intensive industries, this channel is less clear-cut because, whilst imports can also provide relief, they simultaneously compete more strongly with domestic intermediate input production. Export intensity, by contrast, tends to be associated with weaker trends in price mark-ups. A direct cost channel is likely to play a less prominent role here. The findings suggest rather that

export-oriented industries are more exposed to international sales markets and price-setting processes and were only able to pass on higher domestic costs to a limited extent.

143 At the same time, the trend is not uniformly negative. Within non-energy-intensive industries, high-tech sectors fared significantly better than other industrial sectors. There, price mark-ups and productivity rose, bucking the general trend. However, this finding should be understood as relative strength within Germany. By international standards, research-intensive industries in Germany have recently lost momentum and labour productivity.

144 The findings on employment also show that there is only a limited difference in the number of employees between industrial groups with very different trends in value added. This is particularly evident when comparing energy-intensive industries with high-tech industries. Whilst price-adjusted value added in energy-intensive industries declines significantly after 2021 and rises in high-tech industries, employment figures in both groups develop in a comparatively similar manner. This finding can be interpreted as an indication that, in the short term, employment reacts less strongly to differing developments in the real economy than value added does. However, it should be interpreted with caution, as working hours and short-time working are not tracked in the Orbis data, and the present analysis does not replace an in-depth labour market study.

145 The potential inertia in employment adjustments forms part of a broader debate on labour market dynamics and barriers to mobility in Germany. The German Council of Economic Experts regards occupational mobility and further training as key prerequisites for coping with structural change, digitalisation and demographic change. The IAB emphasises that skills development during short-time working has so far been utilised only to a limited extent, even though it can prepare employees for changing requirements. The OECD also points to barriers to mobility and skills adaptation as relevant factors for the reallocation of labour in Germany (Fitzenberger et al., 2026; OECD, 2025; German Council of Economic Experts, 2025). Furthermore, low labour market dynamism can hinder technological renewal if high restructuring costs deter investment in uncertain innovation on projects and barriers to labour mobility impede the movement of skilled workers to technologically dynamic firms (Coatanlem, 2026; Coatanlem/Coste, 2026).

146 Overall, Section **71.3** thus shows that energy intensity, international integration, technological orientation and labour market dynamism are decisive factors in how manufacturing industries adapt to an energy price shock. The recommendations in

Section 71.5 take up these findings and derive economic policy implications for business conditions and labour market dynamism.

1.4 The shift of value added from large enterprises abroad

147 Large enterprises shape Germany as a business location not only through their size, but also through the question of where they generate their value added. It is therefore relevant for the German economy whether the growth of large German enterprises continues to take place to a significant extent in Germany, or whether value added is increasingly shifting abroad in relative terms. The focus here is on companies from the ‘Top 100’ list with a German parent company outside the finance and insurance sectors.

148 The following analysis examines how the domestic share of value added by large German companies has developed since 2008. A declining domestic value-added ratio does not necessarily mean that existing value added is being directly withdrawn from Germany. Rather, the findings below suggest that additional value added is being generated primarily abroad, and that global corporate growth is consequently becoming increasingly decoupled from Germany as a business location. Particular attention is paid to the manufacturing sector, as companies in this sector contribute significantly to the relative shift of value added abroad.

1.4.1 Methodology and Selection of Large Enterprises

149 The definition of large enterprises is based on their domestic value added and thus follows the selection of the ‘100 largest’ for a given year. The analysis for a specific year includes only those enterprises that were among the ‘100 largest’ in that year.

150 The following analysis also focuses on companies whose parent company is based in Germany. Companies with a foreign parent company are therefore excluded from the analysis. Furthermore, companies from the financial and insurance sectors are not taken into account. Further details on this can be found in Monopolies Commission (2024, para. 25 ff.).

151 The following analysis must therefore be viewed with the caveat that the underlying sample size is very limited due to the focus on the ‘Top 100’. Only the particularly large enterprises are analysed.

152 As individual companies may only develop into large enterprises or lose this status during the period under review, the composition of the large enterprises examined varies from year to year. The analyses are therefore carried out on the basis of an unbalanced panel data set. However, the trends presented can in principle also be observed in a balanced or ‘rolling’¹² data set.

1.4.2 The importance of the manufacturing sector

153 The following analysis essentially distinguishes the selected large enterprises into those from the ‘manufacturing sector’ and ‘other sectors’. The manufacturing sector includes all enterprises whose business activities, according to the NACE Rev. 2 classification, fall under Category C or sectors 10 to 33. These include manufacturers of motor vehicles, wood products, metal products, chemical and pharmaceutical products, and mechanical engineering. ↗**Online Appendix 1.4** provides an overview of the sectors belonging to the manufacturing sector.

154 When considering large enterprises, the manufacturing sector plays a central role, as shown in ↗**Table 1.5**. In 2024, 28 of the 66 selected large enterprises in Germany were from the manufacturing sector.

155 A comparison of the composition of the selected large enterprises in 2024 with that of the economy as a whole shows that the manufacturing sector is significantly over-represented within this group of companies. Thus, 51 per cent of the value added by the selected large enterprises is attributable to the manufacturing sector, whilst 41 per cent of employees work in this sector. By contrast, the manufacturing sector’s share of value added in the economy as a whole is 24 per cent and its share of the workforce is 23 per cent, in each case relative to the economy as a whole excluding the public sector.

156 The fact that the manufacturing sector is over-represented among the selected large enterprises is consistent with the results from previous years and is primarily attributable to the above-average prevalence of very large enterprises in this sector of the economy.

¹² ‘Rolling’ means that all companies that were already part of the ‘Top 100’ in the corresponding period of the previous year are taken into account. This approach follows the logic set out in Monopolies Commission 2024, para. 25 et seq.

Table 1.5: The importance of the manufacturing sector in 2024

	Large enterprises in the manufacturing sector	Selected large enterprises ¹	Manufacturing sector as a whole	Total economy excluding the public sector
Number of enterprises	28 (42.4%)	66		
Net value added (domestic, aggregated)	EUR 126 billion (51.3 per cent)	EUR 246 billion	EUR 652 billion (24.3 per cent)	EUR 2,678 billion
Employees (domestic, aggregated)	1.35 million (41.3 per cent)	3.26 million	7.21 million (23.2 per cent)	31.1 million
Average employee remuneration			EUR 70,808	EUR 55,625

¹ Companies that were among the 'Top 100' in 2024, excluding banks and insurance companies, as well as companies with a foreign parent company.

Source: Own surveys; Federal Employment Agency (2025); Federal Statistical Office.

157 The manufacturing sector, in particular, is typically subject to intense international competitive pressure and is considered to be particularly affected by structural competitive disadvantages such as high energy prices. Further details on this can be found in [Chapter 3](#).

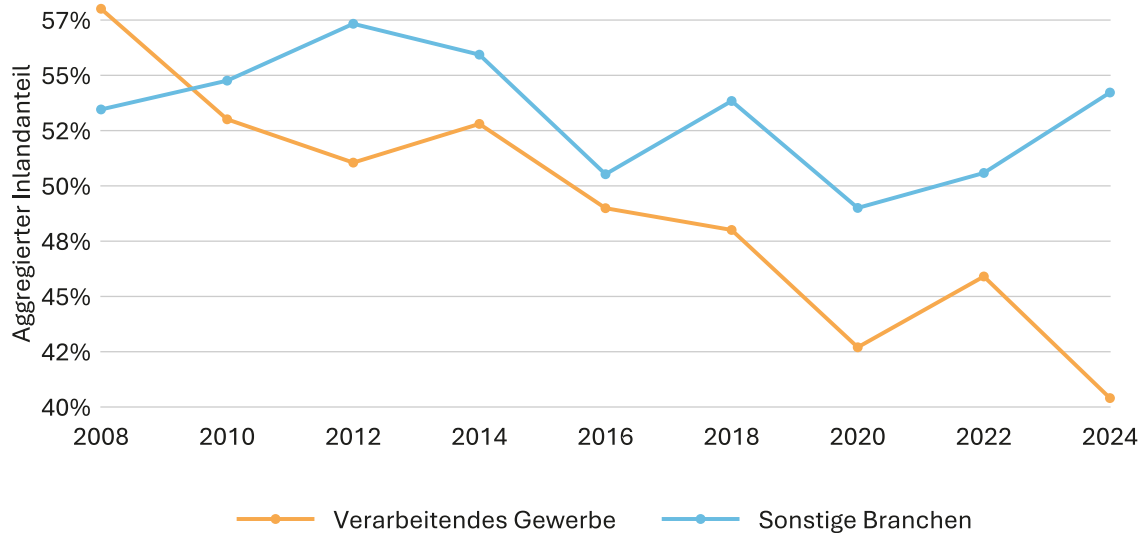
158 Nevertheless, the manufacturing sector continues to make a significant contribution to value added in 2024. Net value added per employee is above the average for the rest of the economy. Average remuneration per employee also exceeds the average for the economy as a whole by around 15,000 euros.¹³

1.4.3 Decline in the domestic share of value added by large German enterprises

159 [Figure 1.31](#) illustrates the trend in the domestic share of value added by large German enterprises from 2008 to 2024. The domestic share refers to the portion of value added generated by the sub-group based in Germany. In 2008, the average domestic share stood at just under 56 per cent; however, it has fallen almost continuously since then and stood at 46 per cent in 2024.

¹³ Conversely, however, this also means that per capita labour costs in the manufacturing sector are comparatively high.

Figure 1.31: Trend in the domestic share in the manufacturing sector and other industries



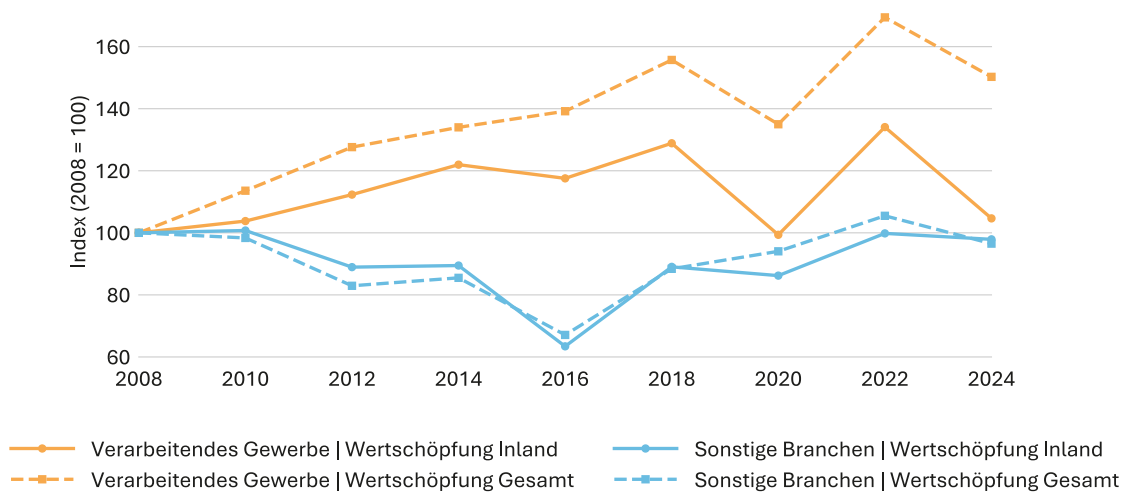
Source: Own surveys and calculations based on published annual reports.

160 It is particularly striking that large enterprises in the manufacturing sector and those in other sectors showed little difference in terms of their average domestic share in 2008, but have since developed differently. Whilst the domestic share in the manufacturing sector has once again declined significantly, particularly in 2024, and now stands at just 40 per cent, the average domestic share of the remaining large enterprises shows no clear trend. Most recently, it has even risen slightly, standing at 55 per cent in 2024. German large enterprises in the manufacturing sector, in particular, thus appear to be increasingly shifting their value added abroad.

161 Despite the decline in the domestic share, large enterprises in the manufacturing sector have at least managed to keep their domestic value added stable (see [↗Figure 1.32](#)). Indeed, average domestic growth was recently even slightly higher than that of large enterprises in other sectors. The decline in the domestic share is instead attributable to the fact that these enterprises have grown significantly more strongly abroad.

162 By contrast, the average growth of large German companies in other sectors was negative both in Germany and globally over a longer period, and has only begun to increase slightly again in recent years. Unlike in the manufacturing sector, global growth here has hardly decoupled from growth in Germany. Despite nominal growth across all sectors, it should be borne in mind that real growth has been significantly lower as a result of the comparatively high inflation in recent years, as shown in [↗Figure 1.32](#).

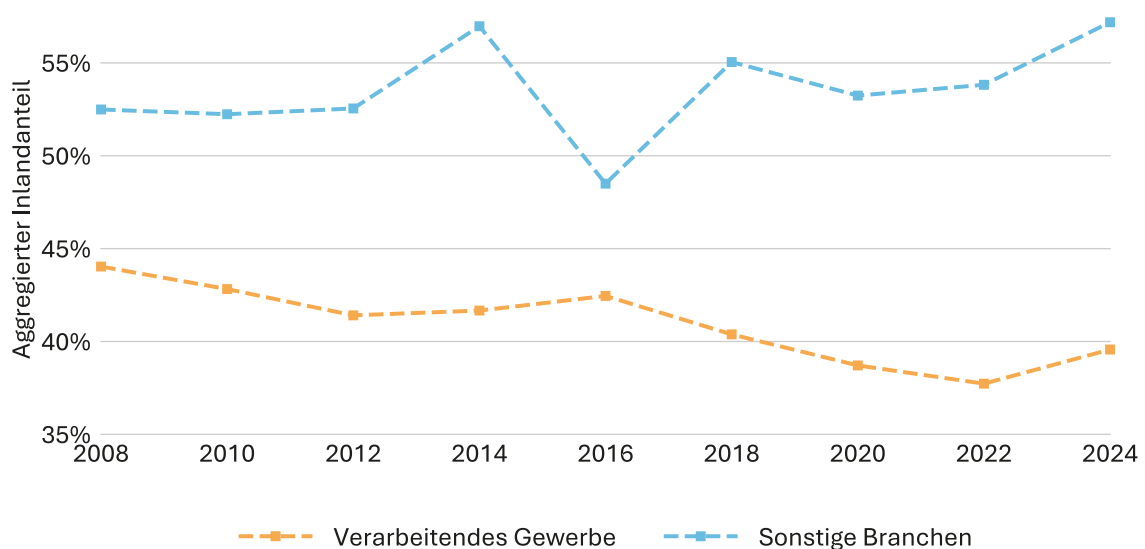
Figure 1.32: Domestic and global growth in value added



Source: Own surveys and calculations based on published annual reports.

163 **Figure 1.33** shows the trend in the proportion of domestic workers in terms of total employment figures. When viewed across all sectors as a whole, no clear trend emerges. The proportion of domestic workers fluctuates around 48 per cent throughout the entire period under review. It is striking, however, that the proportion of domestic workers in the manufacturing sector is significantly lower. In 2008, it stood at 44 per cent, whilst in other sectors it was 53 per cent. Whilst the proportion of domestic workers in other sectors has recently been rising, a downward trend can be observed in the manufacturing sector, from 44 per cent to below 40 per cent.

Figure 1.33: Domestic share of employment figures



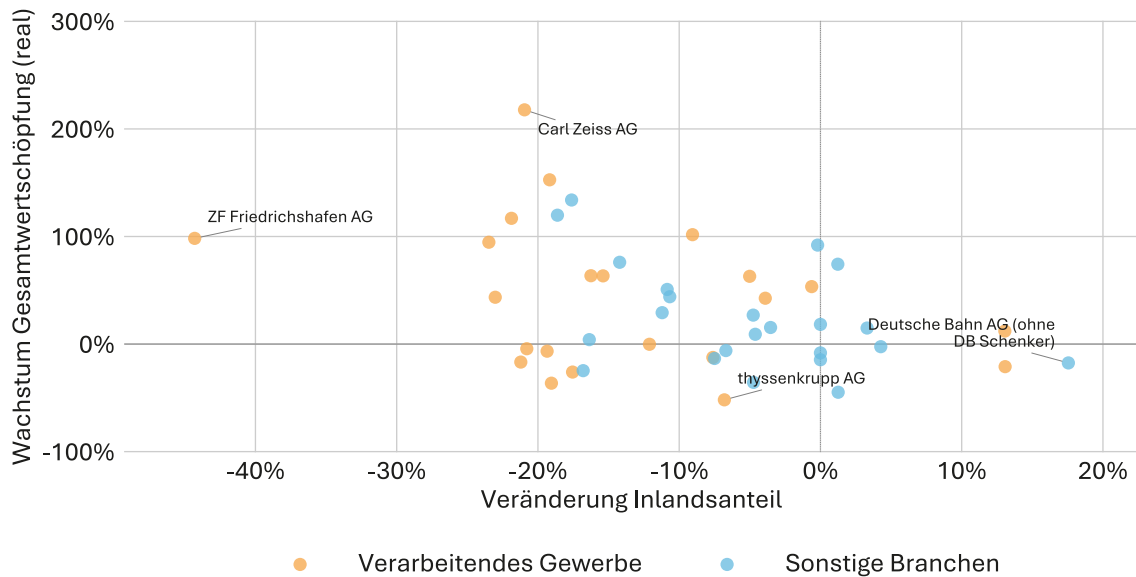
Source: Own surveys and calculations based on published annual reports.

1.4.4 A higher proportion of domestic employment is associated with lower growth

164 Apart from the sector-specific analysis, the question arises as to whether there is a correlation between the domestic share of large enterprises and their growth in recent years. To this end, the following section examines the extent to which large enterprises have grown since 2010. Only companies that were classified as large enterprises in both 2010 and 2024 are included in the analysis; this applies to 45 companies.

165 ↗ **Figure 1.34** first illustrates how the real global growth of the selected companies, measured in terms of their value added, and their domestic share have changed over the period from 2010 to 2024. A distinction is made between companies in the manufacturing sector (orange) and those in other sectors (blue).

Figure 1.34: Change in global growth and the domestic share of selected companies from 2010 to 2024



Source: Own surveys and calculations based on published annual reports.

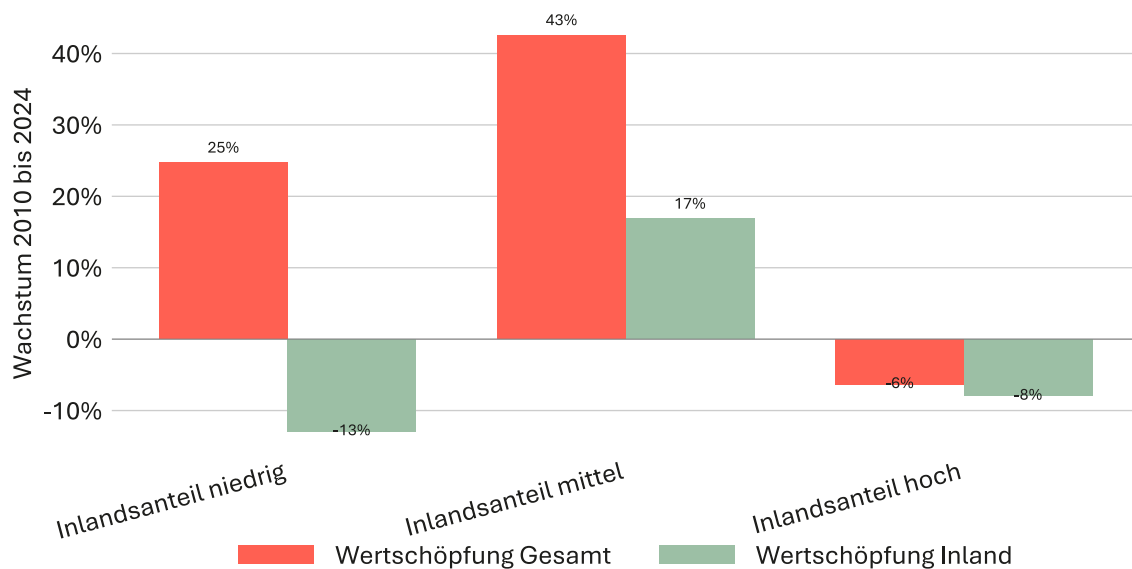
166 Two trends are immediately apparent. Firstly, the vast majority of the companies shown have reduced their domestic share, whilst significantly fewer have kept their domestic share constant or increased it. Furthermore, companies with a constant or increased domestic share are predominantly from other sectors, whilst those with a sharply reduced domestic share – i.e. a reduction of more than 20 per cent – consist exclusively of companies in the manufacturing sector. Secondly, the vast majority of

companies grew in real terms during the period under review. This is noteworthy insofar as the following charts illustrate that, contrary to the global trend, the domestic growth of these companies is in many cases stagnating or declining.

167 In the following, the companies examined are divided into three groups based on their average domestic share of value added in 2010 and 2024: ‘High domestic share’ (over 62 per cent), ‘Medium domestic share’ (between 43 and 63 per cent), and ‘Low domestic share’ (below 43 per cent).¹⁴ The categories were defined so that the three groups are of equal size, each comprising 15 companies.

168 ↗ **Figure 1.35** illustrates how the value added of selected large enterprises developed between 2010 and 2024. It distinguishes between the global growth of the parent groups (red) and the growth of the domestic subsidiaries (green).

Figure 1.35: Domestic and global growth in value added by companies’ domestic share



Source: Own surveys and calculations based on published annual reports.

169 With regard to global groups, it is apparent that companies with a high domestic share of their value added exhibit significantly lower real growth rates, which on average are even slightly negative. By contrast, groups with a low or medium domestic

¹⁴ For classification into the three groups, the average domestic share over the base and end years is used in order to group companies as accurately as possible according to their domestic share during the period under review (2010 to 2024). Due to the length of the period under review, the domestic share may change significantly over the course of this period; these changes can be understood, at least in part, as endogenous corporate decisions. Grouping by the base year or a period prior to the base year would fail to take these dynamics into account. Companies might then be assigned to a group that does not accurately reflect their domestic share for a large part of the study period.

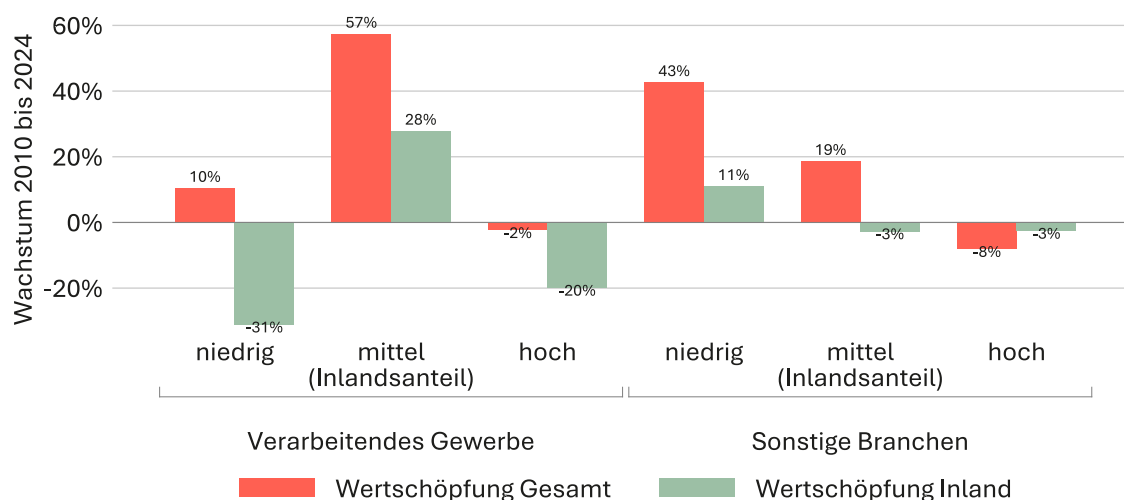
share record positive growth rates, with companies having a medium domestic share having grown more strongly.

170 By contrast, real domestic growth in value added was lower than global growth in all three groups, and was negative in the groups with a low or high domestic share. For companies with a high domestic share, a close correlation with global growth is to be expected, as the value added by these groups is generated predominantly in Germany. It is striking, however, that companies with a low domestic share, despite positive global growth of 25 per cent on average, show significantly negative domestic growth of minus 13 per cent. This suggests that value added in these groups has become strongly decoupled from that generated in Germany.

171 If, in addition to the domestic share, a breakdown is made into the sectors ‘manufacturing’ and ‘other’, it becomes apparent that the correlation between a high domestic share and, on average, lower global growth holds true in both sectors alike. The results are presented in **Figure 1.36**. In the non-manufacturing sector, too, it can be observed that companies with a high domestic share show, on average, negative growth in value added, whilst companies with a low or medium domestic share have grown globally.

172 However, it should be noted that the additional breakdown by sector results in very small sample sizes in some cases. In particular, in the manufacturing sector with a high domestic share, the sample comprises only three companies, whilst the other groups each contain at least six companies.

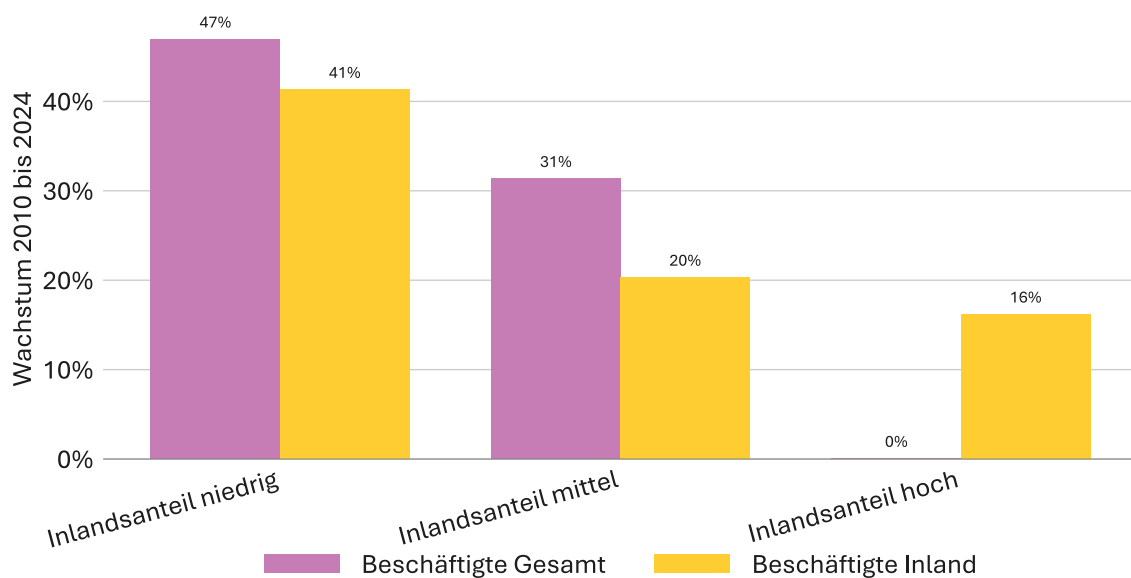
Figure 1.36: Growth in value added by domestic share for the manufacturing sector and other sectors



Source: Own surveys and calculations based on published annual reports.

173 ↗ **Figure 1.37**, by contrast, illustrates the growth in employee numbers, both within the global parent companies and within the domestic subsidiaries. It is immediately apparent that the groups with a low and medium domestic share have grown in terms of their workforce, both globally and domestically. It is evident that, viewed globally, these companies have grown more than domestically – meaning that the domestic employment ratio of these companies has therefore decreased. By contrast, companies with a high domestic share have reduced their workforce globally and, to a lesser extent, domestically as well. As a result, their domestic employment ratio has increased. Nevertheless, their domestic workforce has grown at a slower rate than that of companies with a lower domestic share.

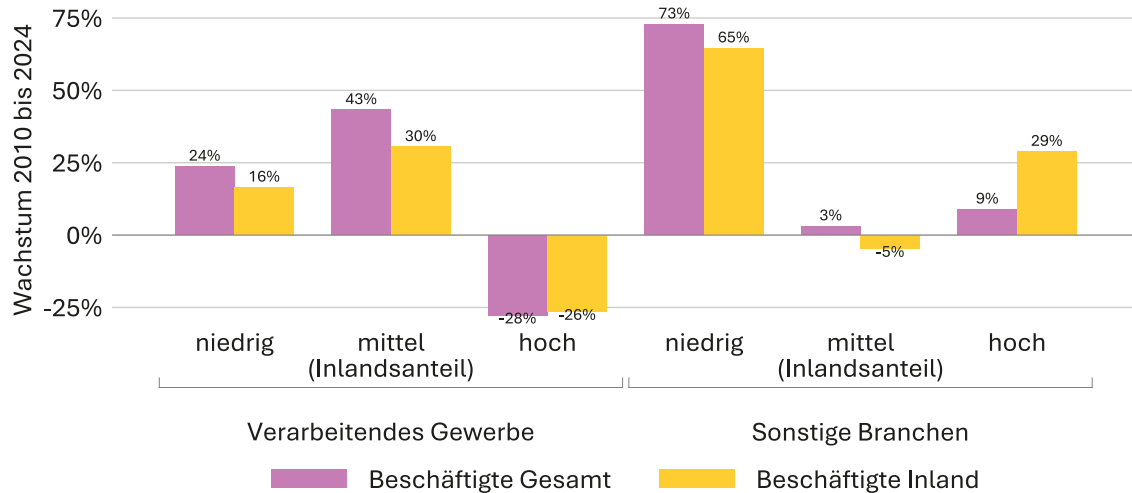
Figure 1.37: Growth in employee numbers by domestic share



Source: Own surveys and calculations based on published annual reports.

174 ↗ **Figure 1.38** breaks down the growth in employment figures by manufacturing and other sectors. This shows, on the one hand, that a reduction in the domestic employment ratio can be observed among groups with a low and medium domestic share, both in manufacturing and in other sectors. Furthermore, the group within the manufacturing sector with a high domestic share has reduced its employment figures both globally and domestically. In other sectors with a high domestic share, the domestic employment rate has increased.

Figure 1.38: Trends in employment figures by domestic share, broken down into the manufacturing sector and other sectors

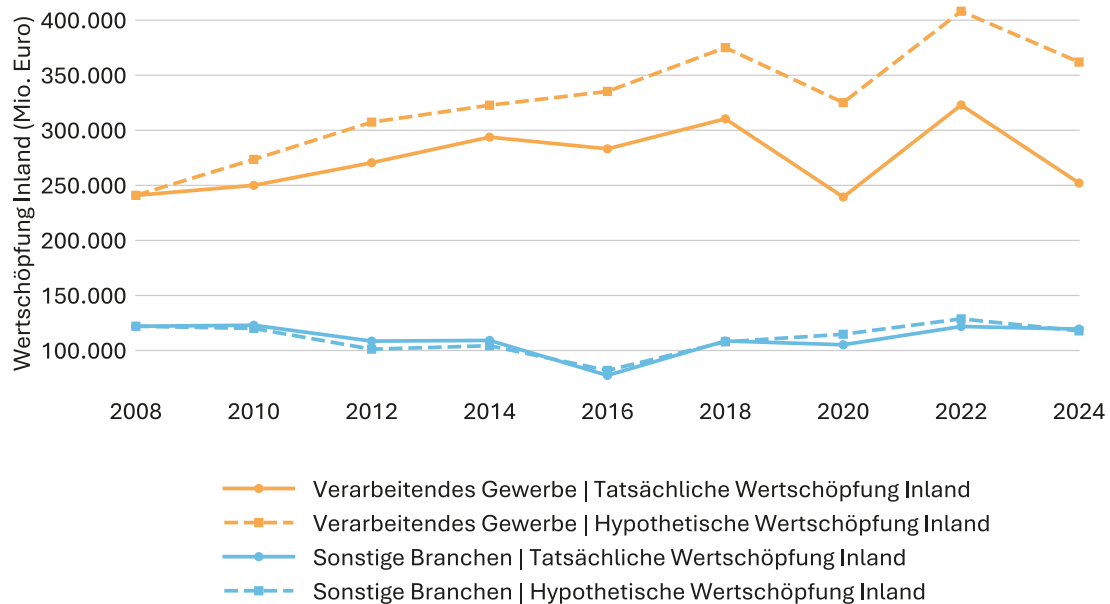


Source: Own surveys and calculations based on published annual reports.

1.4.5 Value added is shifting abroad, particularly in the manufacturing sector

175 In [Figure 1.39](#), the actual domestic value added observed is compared with a counterfactual reference value. This reference value is derived by keeping the domestic share of value added from the base year 2008 constant and applying it to the respective total value added in subsequent years. Formally, this corresponds to the hypothetical domestic value added that would have been achieved had the domestic share of value added since 2008 developed in proportion to the global growth in value added of the selected large enterprises. The figure therefore does not merely measure the overall trend in value added, but isolates the change in the domestic share of value added. If the actual domestic value added deviates downwards from the hypothetical series, the domestic share of value added has fallen compared with the base year 2008. If it lies above it, this share has risen.

Figure 1.39: Hypothetical and actual domestic value added in the manufacturing sector and other sectors



Note: This chart shows the trend in real value added, adjusted for purchasing power with 2020 as the base year.

Source: Own surveys and calculations based on published annual reports.

176 The results point to significant sectoral differences. In the manufacturing sector, actual domestic value added remains below the hypothetical reference level throughout the subsequent observation period. The gap widens over time and is particularly pronounced in 2024. This suggests that growth in total value added did not remain anchored domestically to the same extent as in the base year. In economic terms, this represents a decline in the domestic share of value added. Additional value added was generated to a relatively greater extent abroad. It is particularly striking that domestic value added in the manufacturing sector fell in real terms in 2024 compared with 2008. Had domestic growth kept pace with the global growth in value added of the large enterprises examined, real growth in value added would have resulted. The difference between hypothetical and actual domestic value-added growth in 2024, adjusted for purchasing power¹⁵, stood at around EUR 128 billion, when all the large enterprises in the manufacturing sector examined are considered together.

177 By contrast, the picture for other sectors is significantly more stable. Here, actual and hypothetical domestic value added are much closer to one another. This suggests that the international distribution of value added in these sectors has shifted less

¹⁵ EUR 128 billion refers to a value adjusted for purchasing power parity relative to the base year 2024. In this respect, this figure is higher than the value shown in Figure 1.39 at REF_Ref230017827 \h * MERGEFORMAT, as that figure depicts the trend adjusted for purchasing power parity relative to the base year 2020.

markedly since the base year. It is striking that value-added growth, both domestically and globally, had been declining for a time but has recovered in recent years. Compared with the base year of 2008, value-added growth for the selected large enterprises in 2024 in the other sectors has stagnated, both domestically and globally.

178 Overall, the trends suggest that the decline in domestic value-added retention is not a uniform macroeconomic phenomenon, but primarily affects the manufacturing sector. This shows that changes in domestic value-added are not solely attributable to the growth or weakness of overall economic activity, but also to structural shifts in the spatial organisation of value chains.

1.4.6 Conclusion

179 The analysis reveals a marked structural shift in the value added by large German companies. The domestic share has fallen from 56 per cent to 46 per cent since 2008; in the manufacturing sector, it stood at just 40 per cent in 2024. The decline is thus largely concentrated in the core industrial sector. At the same time, this development should not be interpreted as a sign of corporate weakness: the companies in question have grown globally. Rather, what can be observed is a strategic decoupling of global corporate growth from Germany as a business location.

180 The counterfactual gap of over EUR 128 billion does not represent a directly attributable loss, but it does illustrate the scale of the shift. It corresponds to around one-fifth of total German industrial value added and thus points to a structural phenomenon relevant to location policy.

181 From a competition policy perspective, such location decisions can be interpreted in two different ways. On the one hand, they could be attributable to locational disadvantages in Germany, which prompt companies to increasingly generate their value added abroad. On the other hand, it is conceivable that German companies are particularly adept at seizing opportunities abroad. However, the fact that relocations abroad are concentrated almost exclusively in the ‘ ’ manufacturing sector and are scarcely observed in other sectors suggests that they are driven by locational disadvantages that particularly affect the manufacturing sector.

182 Policy-makers should, above all, adopt horizontal measures to address such locational disadvantages. In the Monopolies Commission’s view, these include, in particular, regulatory components of energy prices and extensive bureaucratic requirements (see also ↗**Chapter 3**). The aim should be to strengthen competition as the basis for efficient location decisions.

183 Vertical support measures for individual industries should only be considered if they address market or transition failures, are designed to be open to competition and are time-limited. One example of this is the initial support for charging infrastructure, which was necessary to facilitate the increased shift towards electric mobility (Monopolies Commission, 2025, Chapter 4). Otherwise, vertical measures run the risk of primarily preserving existing structures and delaying necessary adjustment processes, as they do not address the structural causes. Furthermore, there is a risk of distortions of competition if, for example, large enterprises benefit disproportionately.

1.5 Recommendations at a glance

184 This chapter presents the development of domestic value added by large enterprises, as well as price mark-ups and labour productivity in the German economy, at both the aggregate and disaggregated levels. The disaggregated analysis, in particular, highlights sector-specific differences and points to problems in the manufacturing sector and energy-intensive industries, resulting in initial trends of relocation within the manufacturing sector. By contrast, productivity and price mark-ups in the high-tech sector within Germany have developed positively, bucking the trend. In an international comparison, however, research-intensive industries in Germany have recently lost momentum and labour productivity.

Taking sector-specific warning signs seriously

- 1** The weakness of large manufacturing firms is not a global phenomenon, but one specific to Germany – an indication that it is not the firms themselves that are faltering, but rather that the business environment is deteriorating. Growth abroad, often within the European single market, is initially a reflection of free entrepreneurial decisions and does not in itself constitute a competitive problem. It is only when avoidable regulatory burdens distort such decisions that relocation becomes a relevant issue. A competition-oriented economic policy should therefore prioritise examining the extent to which the relative shift in value creation is attributable to such burdens. These should be systematically reduced without hindering market-driven adjustment processes. **Section 71.4**
- 2** Within the manufacturing sector, energy-intensive industries are particularly hard hit by rising costs and falling productivity. At the same time, there are indications that imports are partly replacing domestic intermediate goods production. Furthermore, whilst Germany's high-tech sector is growing, it lags behind in international comparison. Moreover, similar employment trends despite differing developments in value added point to labour market rigidities. **Section 71.3**

 **Improving business conditions**

- 3** Where the state adjusts business conditions, it should prioritise measures with a horizontal impact rather than permanently protecting existing structures. **↗Chapter 3** sets out specific, horizontally oriented measures to this end. The aim is to ensure that businesses' location decisions are made on the basis of effective competition, without being distorted by avoidable disadvantages. Where this is achieved, industrial capacity is retained in locations where it is operated in a sustainable, productive and competitive manner. Furthermore, the substitution effect of imports is reduced. **Section 71.3, Section 71.4**
- 4** Labour market policy should support occupational mobility. The Monopolies Commission has not examined which measures are suitable for this purpose. In principle, however, barriers to mobility should be removed and competition for skilled workers facilitated. Starting points include labour market hubs, legally secure trial periods and the review of restrictions on the transfer of occupational pension schemes. Education and further training should strengthen digital skills and the productive use of AI-supported tools. An innovation-oriented mindset among both entrepreneurs and employees is essential – and can be fostered through training and in-house initiatives. Furthermore, consideration could be given to the extent to which regulations on protection against dismissal and non-wage labour costs hinder mobility and recruitment. **Section 71.3, Section 71.4, ↗Chapter 3, ↗Chapter 4**

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2

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Assessment of antitrust decision-making practice



Chapter 2

In brief	99
2 Assessment of antitrust decision-making practice	105
2.1 Specific issues in the application of competition law (here: competition law damages, armaments, fuels)	105
2.1.1 Effective enforcement of antitrust damages claims	105
2.1.1.1 Pooling of scattered damages through so-called class action recovery	107
2.1.1.2 Determining the amount of damages	118
2.1.1.3 Conclusion	141
2.1.2 Competition in the defence sector	145
2.1.2.1 Specific features of the defence sector and shortcomings in competitive tendering	146
2.1.2.2 Shortcomings in competitive tendering	147
2.1.2.3 Antitrust principles in the defence sector	154
2.1.2.4 Current competition law case law in the defence sector	157
2.1.2.5 Remaining competition concerns	159
2.1.2.6 Conclusion	160
2.1.3 The fuel measures package and the “petrol discount”	162
2.1.3.1 Antitrust measures	164
2.1.3.2 Short-term interventions in price formation	172
2.1.3.3 Conclusion	176
2.2 Overview of legislative developments	178
2.2.1 Draft bill for a 12th amendment to the Act against Restraints of Competition (GWB)	178
2.2.1.1 Changes to merger control	178
2.2.1.2 Introduction of a procurement screening	182
2.2.1.3 Abolition of a specific interest in a declaratory ruling	183
2.2.1.4 Extension of the right to a decision that there are no grounds for action	183
2.2.1.5 Changes to procedural rights	184
2.2.1.6 Greater digitalisation and comprehensive publication requirements	185
2.2.1.7 Limitation of the term of office of the President of the Federal Cartel Office	186
2.2.1.8 Introduction of appeals to the Federal Court of Justice without leave	186
2.2.1.9 Extension of sector-specific abuse supervision in the energy sector	187

2.2.1.10	Extension of the Fuel Market Transparency Unit	188
2.2.1.11	What is missing from the draft bill	188
2.2.1.12	What is rightly absent from the draft bill	188
2.2.2	Hospital Reform Adaptation Act	189
2.2.3	Draft of the new EU merger control guidelines	192
2.3	Overview of antitrust decision-making practice	195
2.3.1	Merger control	195
2.3.1.1	German merger control	195
2.3.1.2	European merger control	205
2.3.2	Antitrust supervision and enforcement of the DMA	208
2.3.2.1	German competition supervision	208
2.3.2.2	European antitrust supervision	212
2.3.2.3	Enforcement of the DMA	216
2.3.3	Horizontal and vertical restrictions	217
2.3.3.1	German competition authorities	217
2.3.3.2	European competition authorities	219
2.3.4	Antitrust damages	221
2.3.4.1	German case law	221
2.3.4.2	European case law	224
2.4	The EG Group/OMV merger and its implications for competition policy	226
2.4.1	Ex-post evaluations improve antitrust decision-making and legislation	226
2.4.2	The merger separates petrol stations from the OMV supply network	228
2.4.3	Comparator groups help to determine the price effects of the merger	229
2.4.4	Regional price increases arise primarily through refinery supply	230
2.4.5	The study broadens the scope of competition policy	236
2.4.5.1	Merger control should scrutinise vertical supply structures more closely	236
2.4.5.2	The study enhances our understanding of the fuel market and crises	237
2.5	Recommendations at a glance	239
	Bibliography	241
	Legal sources	252

In brief



With this chapter, the Monopolies Commission fulfils its statutory mandate to assess decision-making practice under competition law. This main report focuses on the topics of damages for breach of competition law, competition in the defence sector, the fuel measures package and ex-post evaluation, as these are currently of particular practical relevance.

1 – How can the enforcement of antitrust damages claims be made more effective in practice?

PROBLEM



The practical enforcement of antitrust damages claims remains difficult. It is often not economically viable to pursue smaller, scattered claims because the individual loss is minimal whilst the procedural costs are high, and companies have so far lacked a legally certain instrument for collective enforcement. Furthermore, quantifying the amount of loss is particularly challenging because the hypothetical competitive price in the absence of the cartel infringement cannot be observed, and econometric expert reports often lead to complex and protracted disputes in practice.

CONTEXT



Antitrust damages compensate for losses whilst simultaneously strengthening the enforcement of competition rules. Despite the legal framework set out in Sections 33a et seq. of the German Act against Restraints of Competition (GWB), however, its practical enforcement remains complex, fraught with legal uncertainty and protracted. At the same time, recent decisions by higher and supreme courts show that more practical approaches and legal certainty are gradually emerging on key legal issues such as the aggregation of claims and the assessment of damages.

RECOMMENDATIONS



Against this background, the enforcement of antitrust damages claims should be further improved. The Monopolies Commission recommends:

- 1** The courts should permit the use of existing instruments for the consolidated enforcement of scattered damages in the interests of effective enforcement of the law. Class action recovery, which has been available with legal certainty since the Federal Court of Justice’s decision, can help ensure that even smaller antitrust damages can be claimed and that victims do not remain structurally at a disadvantage compared to the infringing parties.
- 2** When assessing damages, the courts should, depending on the individual case, draw on econometric regressions or more flexible estimates based on a sound factual foundation. Regression analyses may be appropriate in suitable cases, but must not effectively become a prerequisite for claiming antitrust damages if the available data or the principles of procedural economy argue against it.
- 3** The procedural framework should be further developed to make antitrust damages proceedings more efficient, faster and more manageable. This can be achieved, in particular, by grouping similar cases more closely together, further concentrating jurisdiction and providing the courts with effective tools for dealing with voluminous case files.

2 – How can procurement and market structures in the defence sector be kept open to competition?

PROBLEM



Competition in the defence sector is structurally restricted. Outdated security and industrial policy considerations on the part of Member States hinder open competition. Joint ventures between established manufacturers and defence conglomerates can reinforce dependencies and further impede market access for smaller suppliers. This is without prejudice to the fact that cooperation between companies may be objectively justified for the necessary rearmament and is not, in principle, precluded under competition law.

CONTEXT



The defence sector has gained considerable importance in light of the changed security situation and rising defence expenditure – both in Germany and at European level. It is therefore particularly important, , to organise the necessary rearmament efficiently. Competition is essential for this.

RECOMMENDATIONS



Against this background, competition in the defence sector should be specifically strengthened and competitive risks should continue to be closely monitored:

- 1** Cooperation and mergers in the defence sector should be carefully assessed under competition law. This applies in particular to joint ventures between established manufacturers and diversified defence conglomerates, which can raise barriers to market entry and increase dependencies.
- 2** A more far-reaching sector-specific exemption for the defence sector under competition law should not be introduced. Current legislation does not fundamentally preclude necessary cooperation, whilst blanket relaxations can entrench inefficient structures and weaken incentives for innovation.
- 3** Defence procurement should become more competition-oriented and innovation-friendly. Joint procurement, greater interoperability, greater involvement of start-ups and SMEs, and simpler and faster procedures can better harness competitive potential.

3 – How should competition policy respond to rising fuel prices?

PROBLEM



Following the outbreak of the Iran War and the blockade of the Strait of Hormuz, the supply of crude oil and petroleum products became scarce, leading to a rise in fuel prices in Germany. However, the rise in prices in Germany – which has been above the European average and, above all, more rapid – is likely to be attributable not only to the cost shock but also to structural competition problems in the intermediate markets (refineries and fuel wholesalers).

CONTEXT



The legislature has responded to the rises in fuel prices with a series of measures designed to address the competition problems in the wholesale markets, which are also the subject of the ongoing Section 32f GWB proceedings before the Federal Cartel Office. In addition, measures such as the ‘12 o’clock rule’ and the ‘petrol station discount’ were introduced, which directly intervened in price formation on the fuel markets.

RECOMMENDATIONS



Against this background, the Monopolies Commission recommends, above all, resolving the structural competition problems in the wholesale markets and at the refinery level:

- 1** The Federal Cartel Office should vigorously pursue the proceedings initiated under Section 32f of the Act against Restraints of Competition (GWB) on the basis of the instruments and data at its disposal. In this regard, the new data collection in accordance with Section 47k(7) of the draft 12th Amendment to the GWB, as proposed in the draft bill, may improve the data basis. In principle, however, the necessary data should be collected in the respective proceedings.
- 2** Sustainable structural solutions are preferable to sector-specific market interventions and price controls that are questionable from a regulatory perspective. It is doubtful whether proceedings under the newly introduced Section 29a of the GWB are significantly faster and more effective than structural measures.
- 3** Interventions in free price formation, such as the ‘petrol discount’, should be avoided in future because they are costly, provide asymmetric relief and, above all, dampen price signals caused by scarcity. The petrol discount was not passed on in full to consumers. Regional differences in the passing-on of the discount point to competition problems. The ‘12 o’clock rule’ should be evaluated and, where appropriate, further developed.

4 – How can ex-post evaluations contribute to the evidence-based development of merger control and competition policy?

PROBLEM



Merger control is always a decision made under uncertainty, because the competitive effects of a merger can only be assessed prospectively before it is implemented. Without ex-post evaluations, it therefore often remains unclear whether the assessment tools used were appropriate and whether the underlying mechanisms of impact, as well as any remedial measures, accurately reflected actual market developments.

CONTEXT



The study on the merger of OMV and EG Group, summarised here as an example based on the ex-post evaluation, shows that price effects in the petrol station market cannot be explained solely by local competition between petrol stations. Rather, the results suggest that the observed price increases are primarily linked to changes in vertical supply structures and refinery supply. Ex-post evaluations bring such mechanisms to light and can thus help to better target merger control, market monitoring and crisis management policies.

RECOMMENDATIONS



Against this background, ex-post evaluations should be utilised more extensively as a tool for an adaptive and evidence-based competition policy:

- 1** Ex-post evaluations should be used systematically to draw lessons from past decisions for future proceedings and to further develop merger control on an evidence-based basis. They make it possible to test prognostic assumptions retrospectively against actual market developments, thereby promoting institutional learning.
- 2** Ex-post evaluations should be based on a transparent and robust empirical methodology. In particular, a comprehensible counterfactual design is required, one that discloses comparison groups, time periods and control variables, thereby enabling robust conclusions to be drawn about the effects of a merger.
- 3** The results of ex-post evaluations should be systematically incorporated into future merger control proceedings, assessment tools and remedial measures. The case study provided as an example shows that ex-post evaluations can

provide additional insights into the competition mechanisms that are actually effective.

2 Assessment of antitrust decision-making practice

2.1 Specific issues in the application of competition law (here: competition law damages, armaments, fuels)

2.1.1 Effective enforcement of antitrust damages claims

185 The effective enforcement of claims for damages arising from competition law infringements by other market participants (antitrust damages) is of great significance in two respects.¹⁶ On the one hand, it helps to compensate for losses suffered by competitors, customers or suppliers as a result of anti-competitive agreements or – albeit less frequently to date – the abuse of dominant market positions. On the other hand, antitrust damages are playing an increasingly important role within the system of antitrust sanctions. Alongside fines imposed by competition authorities and the recently tightened regulatory clawback of profits¹⁷, they constitute the entirety of the financial consequences of a cartel provided for by law (Monopolies Commission 2016, para. 41 et seq.; Monopolies Commission 2024, para. 327 et seq.).¹⁸ Claims for antitrust damages and their enforcement are therefore also intended to strengthen the enforcement of competition rules and deter undertakings from engaging in conduct that restricts or distorts competition. In this way, they contribute to the maintenance of effective competition (ECJ, C-453/99, 20 September 2001, *Courage and Crehan*, para. 27; C-724/17, 14 March 2019, *Skanska*, para. 25 et seq.; C-882/19, 6 October 2021, *Sumal*, para. 35 and the case-law cited therein; see also Federal Court of Justice (BGH), KZR 4/19, 23 September 2020, *Rail Cartel V*, para. 50; *Schweitzer/Woeste* 2022, p. 55; *Franck* 2024, para. 3 et seq.). The significance of this incentive function is illustrated by empirical evidence suggesting that, in the majority of cartels, the cartel profits exceed the fines (Smuda 2014).

186 Under the general rules governing the burden of proof and the presentation of evidence in civil proceedings, the claimants – in the case of cartel damages, i.e. the injured parties – must set out and prove the facts on which their claim is based. This

¹⁶ In addition to the enforcement of competition law claims, private enforcement of the Digital Markets Act (Regulation (EU) 2022/1925, DMA) is also gaining in importance; see also para. **7484**.

¹⁷ See Section 34(4) of the German Act against Restraints of Competition (GWB); see also Monopolies Commission 2024, para. 160; for an initial case of application, see para. **7473**.

¹⁸ Further consequences would include, for example, remedial measures under Section 32(2) of the GWB, the reversal of proceeds under Section 32(2a) of the GWB, and criminal sanctions in the event of bid-rigging (Section 298 of the StGB).

includes, first and foremost, proving that a competition infringement has in fact taken place. However, if this has already been the subject of a decision by a competition authority, the courts are bound by that authority's findings and it is no longer necessary to adduce evidence in this respect (so-called 'follow-on' action; see Article 16(1) of Regulation 1/2003, Article 9 of the Antitrust Damages Directive 2014/104/EU (Antitrust Damages Directive), Section 33b of the German Act against Restraints of Competition (GWB)).

187 On this basis, the claimant must prove the extent of the damage caused by the cartel. In support of this – at least in the case of more recent cartels – the provision in § 33a(2), fourth sentence, of the GWB, which was incorporated into the Act as part of the 10th amendment to the GWB, according to which it is rebuttably presumed that procurement transactions with undertakings involved in a cartel, which fall within the scope of the cartel in terms of subject matter, time and place, were covered by that cartel (however, case law has now largely dispensed with a separate examination of the element of cartel involvement; see Monopolies Commission 2020, para. 368). Nevertheless, the presentation and proof of the relevant procurement transactions represent one of the greatest challenges in cartel damages proceedings. The presumption rule does not exempt claimants from the obligation to set out and substantiate every single procurement transaction affected by the cartel. Compiling a list of procurement transactions and the customary submission of purchase documents, together with their examination, tie up considerable resources on the part of the claimant, the defendant and the court, particularly in cases involving a very large number of procurement transactions – running into the tens of thousands in the case of the round timber cartel, for example. The situation becomes even more challenging for the enforcement of the law when the procurement transactions are not concentrated among individual large-scale customers of the cartel members, but instead involve a large number of smaller customers who are not necessarily consumers (so-called 'scattered damages'). In such cases, due to the considerable effort and costs involved in legal proceedings – which must initially be advanced by the victims of the cartel and which, on an individual basis, are offset by only minor losses – those affected have a rational disinclination to pursue their claims, provided there is no possibility of asserting the damages collectively without major obstacles (see below, section **72.1.1.1**).

188 However, the greatest challenge in antitrust damages proceedings is the presentation and proof of the amount of the antitrust-induced price surcharges. The legal presumption under Section 33a(2), first sentence, of the German Act against Restraints of Competition (GWB) relates only to the existence of the damage itself, but not to its extent. In this respect, the burden of presentation and proof regarding the amount of damage rests with the claimants. As a rule, the claimants cannot rely on

the binding effect of competition authority decisions either, as these decisions do not usually contain any (explicit) information on the amount of damage.

189 European law, as set out in the Antitrust Damages Directive 2014/104/EU (Antitrust Damages Directive), not only provides that anyone may claim and obtain full compensation for damages resulting from an antitrust infringement (Article 3 of the Antitrust Damages Directive), but also obliges Member States to lay down procedural rules ensuring that this right can be effectively exercised (Recital 4 of the Antitrust Damages Directive). It is therefore incumbent upon the Member States – and thus also upon Germany – to establish a legally certain framework for the judicial enforcement of antitrust damages claims.

190 Despite the transposition of this Directive into Sections 33a et seq. of the German Act against Restraints of Competition (GWB), the enforcement of claims for damages arising from antitrust infringements remains challenging. The proceedings are often complex and extensive, and the legal and economic issues remain unresolved despite a large number of court decisions – including those of higher courts. As a result, the assertion of such claims continues to be characterised by a high degree of legal uncertainty, and the proceedings generally take a very long time.

191 Against this background, several recent decisions by higher regional and federal courts have been handed down which clarify the requirements for the presentation and investigation of procurement processes affected by antitrust infringements and the resulting price increases, and which facilitate the consolidation of claims for damages by various parties affected by such infringements. This has the potential to simplify the enforcement of antitrust damages claims to a not inconsiderable extent in the medium term, thereby strengthening competition law enforcement. Nevertheless, challenges remain which should be resolved by case law and, where necessary, by the legislature (see below, section **72.1.1.3**).

2.1.1.1 Pooling of scattered damages through so-called class action recovery

192 In order to fulfil the role of antitrust damages claims – compensating for damage caused by anti-competitive conduct and deterring such behaviour – it is essential that claims for damages can be effectively enforced in court, even in cases of scattered damages. However, given the significant hurdles and costs involved in pursuing antitrust claims, smaller claims are not usually brought. The Monopolies Commission has therefore previously highlighted the advantages of a mechanism for the collective assertion of these claims (Monopolies Commission 2016, para. 177 et seq.). This would help to spread the costs incurred across a larger number of cases and to diversify the

litigation risks. In the event of a legal claim, the parties involved also benefit from the limit on the value in dispute set at EUR 30 million under Section 39(2) of the German Court Costs Act (GKG), which means that the higher the total damages claimed, the lower the costs are in relation to the amount claimed.

193 Furthermore, cartel infringers enjoy structural advantages in disputes with victims over the amount of damages, particularly in cases of unbundled, scattered damages. These advantages arise from the fact that each individual claimant must, in principle, prepare their claim individually, whilst the defendant cartel member can handle the multitude of identical claims collectively (Morell 2019, p. 813; see also Schweitzer and Woeste 2022, p. 73). As a result, the costs incurred by the cartel member per claim or per set of proceedings are lower than those on the claimants' side. Furthermore, the cartel member generally enjoys an advantage, at least vis-à-vis some of the victims, because the offending company is larger and financially stronger, or because the victims are dependent on it due to existing supply relationships (see Makatsch and Kacholdt 2021, p. 486 with further references). Procedures that enable claims for damages to be consolidated and pursued jointly can partially offset these disadvantages and result in the victims being on a more equal footing with the cartel members. The mere existence of a functioning class action mechanism therefore has the effect of strengthening the out-of-court enforcement of such claims by increasing the victims' bargaining power.

194 In the context of the judicial enforcement of antitrust damages, efforts are therefore increasingly being made to find ways of asserting claims for scattered damages in court as well. For consumers and certain small businesses, such a mechanism was introduced in Germany in 2023 under the Consumer Rights Enforcement Act (VDuG) in the form of the 'action for redress'. Qualified consumer organisations are entitled to bring such actions on behalf of consumers and certain small businesses (Sections 4, 1(2) VDuG).

195 For the vast majority of businesses, however, the only option is to assert claims jointly with other businesses by way of subjective joinder, or to sell them to a debt purchaser, who then asserts them collectively ('genuine factoring'; see also below, para. **7196**). However, neither of these approaches has so far proved to be an effective instrument for collective enforcement in practice (see Hornkohl/Imgarten 2015,

p. 125; Klumpe 2022, p. 464). Furthermore, the courts may also consolidate several claims for damages relating to the same antitrust complex and hear them jointly.

Box2.1: Collective redress mechanisms



COLLECTIVE REDRESS MECHANISMS

Subjective joinder	Several claimants bring a joint action (see Sections 59, 60 of the Code of Civil Procedure (ZPO))	Disadvantage: The claims remain individual claims that are merely brought jointly. The litigation risk remains with the respective claimants.
Genuine factoring	Permanent sale of the receivable. The purchaser of the receivable may then assert it in a consolidated claim together with other receivables (objective joinder of claims, Section 260 of the German Code of Civil Procedure (ZPO)).	Disadvantage: The purchaser of the claim assumes the full risk of enforcement and therefore usually purchases the claim only at very substantial discounts.
Joinder of multiple proceedings	Courts may join several pending cases and hear and decide them jointly if there is a legal connection or if a joint action would also be possible.	Disadvantage: The claims remain individual claims. The litigation risk remains with the respective claimants. Whether the proceedings will actually be joined cannot be predicted and therefore cannot reduce the litigation risk in advance.

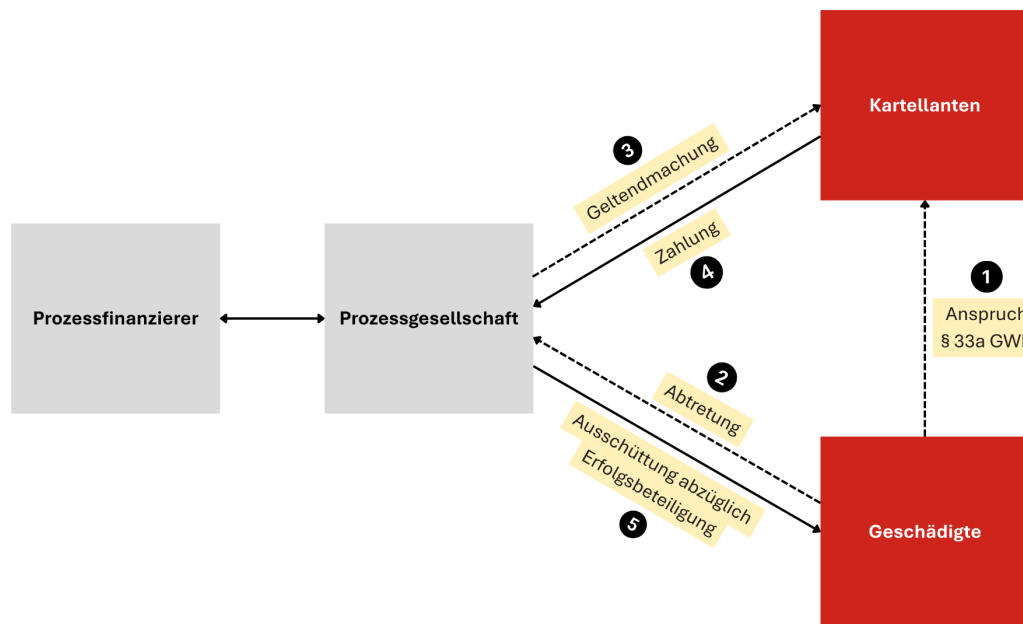
Action for relief under the VDuG

Consumer organisations can bring legal action on behalf of many consumers and very small businesses.

Disadvantage: Limited to consumers and very small businesses. Restrictions regarding reimbursement of costs (limit on the value of the claim) and litigation funding.

196 More recently, therefore, in cases involving widespread damage, companies have been attempting to make use of what is known as ‘class action debt collection’. Under this arrangement, the aggrieved companies assign their claims for damages to a debt collection agency or a litigation vehicle – usually established for this purpose – which then pursues them (in court) in its own name and at its own expense, but on behalf of the original claimants. This means that the victims of antitrust infringements only receive payment if the court case is successful; this is referred to as a fiduciary assignment or ‘non-recourse factoring’.¹⁹ The debt collection agency is usually remunerated on a success-based fee basis – that is, likewise only if the court case is successful. Behind the debt collection agencies are often litigation funders who finance the (legal) enforcement of the claims and cover the costs incurred in the event of failure.

¹⁹ In ‘genuine factoring’, by contrast, the receivable is sold outright. The purchaser therefore also assumes the risk of the receivable being irrecoverable and, in this case too, pays the purchase price.

Figure 2.1: Class action debt recovery

Source: Author's own illustration.

2.1.1.1.1 Legal concerns regarding class action debt recovery under competition law

197 The legal challenges associated with the collection of claims in class actions arise from the fact that, whilst the claims for damages are assigned to the debt collection agency, they remain economically separate from it. The debt collection agency thus provides a legal service in the form of a debt collection service (see Section 2(2)(1) of the Legal Services Act [RDG]). Several divisions of the Federal Court of Justice (BGH) had previously confirmed the fundamental compatibility of class action debt collection with the RDG in a number of decisions concerning largely homogeneous consumer claims.²⁰ However, no such decision had yet been made with regard to competition law.²¹

²⁰ See, inter alia, the judgments of the Federal Court of Justice (BGH) VIII ZR 285/18, 27 November 2019; II ZR 84/20, 13 July 2021; VIII ZR 123/21, 19 January 2022; VIa ZR 418/21, 13 June 2022; VIII ZR 373/21, 24 May 2023.

²¹ The judgment of the Federal Court of Justice (BGH), KZR 73/21, 26 September 2023, is based on a different set of facts; it concerned a trade association which undertook, on behalf of its members, to assert claims for damages arising from an antitrust cartel against parties involved in the sugar cartel and had had the claims assigned to it for this purpose. The association was able to rely on the exception provided for in Section 7(1), first sentence, No. 1 of the Legal Services Act (RDG), according to which interest groups may provide legal services for their members (see Monopolies Commission, 2024, para. 234). See, on a comparable case (albeit with a negative ruling due to the absence of a membership relationship), Munich Higher Regional Court, 29 U 4041/19 Kart, 6 June 2024.

198 The Regional Courts (Landgerichte), which have jurisdiction at first instance, have so far largely considered the assertion of claims for damages under competition law by way of collective action debt recovery to be incompatible with the RDG (see, for example, Regional Court (LG) of Munich I, 37 O 18934/17, 7 February 2020 ; Hanover Regional Court, 18 O 50/16, 4 May 2020 ; Hanover Regional Court, 18 O 34/17, 1 February 2021; Stuttgart Regional Court, 30 O 176/19, 20 January 2022; Stuttgart Regional Court, 30 O 17/18, 28 April 2022; Mainz Regional Court, 9 O 125/20, 7 October 2022). The background to this is that debt collection services may only be provided on the basis of specialist expertise, provided that the provider is registered in the Legal Services Register of the Federal Office of Justice (Section 10(1), first sentence, No. 1 of the Legal Services Act (RDG)).²² Furthermore, the legal service must comply with the limits set out in the RDG. For example, pursuant to Section 4, first sentence, of the RDG, it may not be provided if other obligations to perform services jeopardise the proper provision of the legal service.

199 The courts of first instance predominantly held that the collection of antitrust class action claims exceeded the limits of the authorisation to collect debts, in particular that antitrust claims for damages could not, as a matter of principle, be the subject of a permitted debt collection service because they exceeded the scope of the authorisation to collect debts (Hanover Regional Court, 18 O 50/16, 4 May 2020, para. 171 et seq.; Regional Court of Hanover, 18 O 34/17, 1 February 2021, para. 296 et seq.; Regional Court of Stuttgart, 30 O 176/19, 20 January 2022, para. 88 et seq.; Stuttgart Regional Court, 30 O 17/18, 28 April 2022, para. 74 et seq.; Mainz Regional Court, 9 O 125/20, 7 October 2022, para. 81 et seq.). Furthermore, conflicts of interest were identified between the groups of claimants themselves, as well as between the claimants and the litigation financier, which would be in breach of section 4, first sentence, of the Legal Disputes Act (RDG). (Munich I Regional Court, 37 O 18934/17, 7 February 2020, para. 137 et seq.; Hanover Regional Court, 18 O 34/17, 1 February 2021, para. 368 et seq.; Stuttgart Regional Court, 30 O 176/19, 20 January 2022, para. 97 et seq., 126 et seq., 131 et seq., 142 et seq.; Stuttgart Regional Court, 30 O 17/18, 28 April 2022, para. 81, 90 et seq.).

2.1.1.1.2 Wide scope under EU law

200 Following a reference from the Regional Court of Dortmund, the Court of Justice of the European Union (CJEU) has also examined the EU legal framework governing collective redress – in particular the Antitrust Damages Directive 2014/104/EU. The EU principle of effectiveness and the Antitrust Damages Directive merely impose an

²² Pursuant to Section 11(1) of the RDG, debt collection services require specialist knowledge in the areas of law relevant to the debt collection activity in question, in particular civil law, commercial law, securities law and company law, civil procedure law—including enforcement and insolvency law—and the law governing costs.

obligation to structure the procedure in such a way that it does not render the assertion of a claim for antitrust damages practically impossible or unduly onerous (Article 4, first sentence, of the Antitrust Damages Directive).²³ The question of whether a collective redress mechanism is to be introduced for this purpose forms part of the procedures for asserting claims for damages, the regulation of which the Directive leaves to the Member States. (ECJ, C-253/23, 28 January 2025, ASG 2, paras. 69, 75). In order to comply with the principle of effectiveness, the ECJ considers that the authorisation of collective redress is mandatory (only) where the law of the Member State provides for no other means of effectively pooling claims and where the individual enforcement of the respective claims for damages proves impossible or excessively difficult. (ECJ, C-253/23, 28 January 2025, ASG 2, para. 94).

201 Whether these conditions are met depends on the circumstances of the individual case. The ECJ does, however, emphasise the advantages of a consolidated assertion of antitrust damages claims. However, the complexity and procedural costs of individually enforcing individual claims for damages arising from antitrust infringements alone do not allow the conclusion that an individual action would be rendered impossible or unduly difficult, and that, therefore, the authorisation of collective redress would be necessary on the basis of EU law alone. (ECJ, C-253/23, 28 January 2025, ASG 2, para. 85 et seq.). However, even if a national court were to find that a collective recovery action constitutes the only viable procedural route, this finding, in the Court's view, '*does not affect the application of national provisions which, in the interests of the protection of the individual, regulate the activities of providers of such recovery services*' (ECJ, C-253/23, 28 January 2025, ASG 2, para. 87).

202 The framework provided by EU law therefore leaves German courts considerable scope for interpretation as to how the RDG is to be interpreted in the case of class action recovery under competition law. Rather, it merely sets the outer limits of Member States' procedural autonomy (Hornkoh/Imgarten 2025, p. 123; similarly Unseld 2025, p. 435; Uhlmann 2025, 71, 76; Weitbrecht 2025, p. 313).²⁴ Insofar as a court concludes, on the basis of an autonomous interpretation of the RDG alone, that collective action for the recovery of damages should also be permitted in the case of antitrust claims, these provisions play no role whatsoever.

²³ See above regarding the KSE Directive, para. 7189.

²⁴ The Regional Court of Stuttgart, 30 O 17/18, 28 April 2022, para. 84, and the Regional Court of Mainz, 9 O 125/20, 7 October 2022, para. 94, concluded that, in view of alternative collective redress options in Germany, the EU principle of effectiveness does not give rise to a necessity to permit the recovery of damages through a collective antitrust action; see also the Regional Court of Hanover, 18 O 34/17, 1 February 2021, para. 391 et seq.

2.1.1.1.3 Federal Court of Justice confirms the admissibility of collective redress under competition law

203 In a recent judgement – as previously held by several courts of appeal²⁵ – the Federal Court of Justice (BGH) considers collective action debt recovery to be admissible in principle, even in cases involving claims for damages under competition law. In particular, it held that collective action debt recovery under competition law does not differ from typical debt recovery services and is therefore not inadmissible under Section 3 of the RDG. In this context, the high complexity of the proceedings may, at most, play a role in relation to the expertise required to be demonstrated under Sections 10(1), first sentence, no. 1, and 11(1) of the Debt Collection Services Act (RDG), but does not in itself render the collection of claims through class actions inadmissible (Federal Court of Justice, KZR 6/24, 12 May 2026, para. 58 et seq.).

204 However, the Federal Court of Justice draws a line in this respect where the scope, structure and (unverified) assertion of the claims make proper judicial processing within a reasonable time practically impossible. This does not, however, render the action inadmissible in itself. Rather, the lower courts should, pursuant to Section 145 of the Code of Civil Procedure (ZPO), consider instructing the claimant debt collection service providers to divide the class action appropriately (Federal Court of Justice, KZR 6/24, 12 May 2026, para. 24 et seq.). The Senate proposes categorising the claims according to victims of the cartel who are affiliated within the same group and the countries of origin of the claims, and, where appropriate, also setting a maximum number of procurement transactions per partial claim (BGH, KZR 6/24, 12 May 2026, para. 90).

205 By contrast, the Federal Court of Justice does not recognise the conflicts of interest between the victims, which are frequently cited as grounds in first-instance proceedings. Rather, the enforcement interests of all parties involved are, in principle, aligned towards the highest possible satisfaction of as many claims as possible (Federal Court of Justice, KZR 6/24, 12 May 2026, para. 80). Differences in the evidence or even differences in the facts of the case²⁶ do not therefore result in claims being mutually exclusive (Federal Court of Justice, KZR 6/24, 12 May 2026, para. 72). Only victims at different market levels could give rise to problematic conflicts of interest, insofar as their claims might be mutually exclusive (BGH, KZR 6/24, 12 May 2026, para. 74).

²⁵ See Higher Regional Court of Stuttgart, 2 U 30/22, 15 August 2024; Higher Regional Court of Munich, 29 U 1319/20 Kart, 28 March 2024; Higher Regional Court of Koblenz, U 1721/22; 19 February 2026; similarly the Federal Court of Justice in other areas of law, see already para. 7197.

²⁶ Different factual circumstances arise, for example, where some of the claims are based on direct damage resulting from excessive pricing, whilst others are based on a price-capping effect.

206 The same applies in relation to the litigation financier, whose interests are also, in principle, aligned with those of the victims of the cartel. A potentially problematic conflict of interest can only be assumed if the interests of the victims of the cartel could conflict with the litigation financier's ability to exert influence. To this end, it is necessary to assess each individual case to determine whether the litigation financier has specific legal means of influencing the conduct of the proceedings beyond general rights to information. Theoretical or substantively insignificant means of influence are not a cause for concern (BGH, KZR 6/24, 12 May 2026, para. 80). In the specific case, the Federal Court of Justice had identified such a risk, as the claimant had argued that the litigation strategy was set out in the litigation funding agreement. The Court of Appeal was therefore obliged to order the production of the agreement in order to verify whether the litigation funder had the means to exert influence in breach of Section 4 of the Litigation Funding Act (RDG).

2.1.1.1.4 Outlook: More effective recovery of scattered damages

207 For a class action mechanism to be practicable, it is not enough merely for it to be available. Rather, it is also essential that it can be applied with legal certainty. In this respect, it is to be welcomed that the Federal Court of Justice has now ruled in favour of the admissibility of class action debt recovery, thereby creating legal certainty in principle. The case law of the regional courts described above had, in many legal issues, placed the specific structure of the collective claim debt recovery in individual cases at the centre of the decisions. This would have led to the specific contractual terms of the assignment and the litigation funding becoming relevant when assessing the admissibility of collective claim debt recovery (Hornkoh/Imgarten 2025, p. 120).

208 According to the case law of the court of appeal, a case-by-case approach remains applicable to the question of when conflicts of interest in breach of section 4, first sentence, of the Legal Services Act (RDG) exist. In the relationship between the victims of antitrust infringements and the litigation financier, the criterion of the 'theoretical and insignificant scope for influence on the part of the litigation financier' – already established by the Federal Court of Justice (BGH) (see BGH, VIa ZR 418/21, 13 June 2022, para. 56 et seq.), which provides a formula for structuring such a litigation funding agreement in a legally secure manner; this criterion has now been revisited by the BGH in the context of collective redress claims: the litigation funder must not be granted any rights under a (company) contract to have a final say in the conduct of the proceedings or the conclusion of a possible settlement. Purely informational rights and de facto influence, which may arise, for example, from a shareholder status in the debt collection company, are, by contrast, harmless.

209 When assessing litigation funding agreements, the courts of fact should also take into account the value of litigation funding, particularly in the context of collective antitrust claims, given that many claims for damages under antitrust law could not otherwise be pursued. This also puts into perspective concerns regarding the associated commercialisation of legal proceedings. It is true that litigation funders typically select cases selectively and focus on scenarios where there is a sufficiently high probability of success. This may mean that the compensatory effect of antitrust damages remains limited to the extent that some potential claims still go unenforced. Furthermore, individual compensation is reduced by the standard success fee paid to litigation funders. Nevertheless, even taking these limitations into account, litigation funding generally strengthens the enforcement situation compared with the absence of such funding models. Against this background, competition amongst litigation funders and class action collection agencies is of particular importance. Effective competition can help to limit the level of success fees and thus safeguard the remaining compensation for the victims.

210 However, the incentive effect of antitrust damages on the part of the infringers remains unaffected. The success fee paid to litigation funders affects only the distribution of the damages obtained, not their amount. The sum to be paid by the infringers is not reduced as a result, meaning that the general preventive effect of the damages regime is, in principle, preserved.

211 The Federal Court of Justice (BGH), however, does not see any conflicts of interest between the injured claimants themselves. A breach of Section 4 of the Legal Services Act (RDG) could arise only in the case of the bundled assertion of antitrust claims relating to different market levels. However, this was not relevant in the cases decided to date.²⁷ This thus provides future claimants with a clear criterion for structuring future collective recovery actions in a legally sound manner: claims from different market levels relating to the same product should not be asserted jointly. It should also be noted, however, that victims of antitrust infringements who join a collective recovery action are consciously asserting their claims jointly and thereby accepting the associated differences. Given that class action debt recovery is likely to be the only way in many cases to pursue claims in an economically viable manner, this decision must also be taken into account when assessing differences between the various claims asserted from the perspective of potential conflicts of interest. Differences re-

²⁷ In the case before the Higher Regional Court of Munich, the sale of the lorries in question – and thus a possible passing-on of the antitrust damage – was at issue. However, the sales took place solely within the group, and all potential claims had been assigned to the debt collection agency, which asserted them as an alternative.

garding the provability of claims, the effects of a settlement or issues of limitation periods should therefore not be regarded as conflicts of interest, even if they lead to judicial decisions having different effects on the individual claims.

212 With regard to the separation of claims asserted collectively into individual proceedings, the lower courts will in future be responsible for employing this instrument in a manner which, whilst increasing the manageability of the proceedings, at the same time takes account of the fact that it is precisely scattered damages that cannot be asserted outside the framework of a class action. In this regard, the Federal Court of Justice (BGH) also emphasises the advantages of collective redress in terms of overcoming rational disincentives, economies of scale and the limit on the value in dispute (BGH, KZR 6/24, 12 May 2026, paras. 47, 90). This must be taken into account when deciding on the apportionment of claims lawfully asserted by way of collective redress. In particular, claims seeking damages that could not otherwise be enforced may only be apportioned in exceptional cases.

213 The obligation on the court to split the claims – as interpreted by the Federal Court of Justice in this specific case as a reduction of its discretion to zero – is likely attributable to the particular circumstances of the case. The claimant had asserted over 70,000 claims, some of which were subject to foreign law, without these having been examined or organised. The BGH’s assessment based on this cannot therefore be readily applied to other cases of collective debt recovery.

214 The BGH’s line of argument, according to which one hour of a judge’s working time is required for each individual procurement transaction, resulting in a theoretical duration of proceedings totalling 38 years (BGH, KZR 6/24, 12 May 2026, para. 53), is, however, not convincing in this context. Whilst a division of the proceedings may contribute to a better, thematically coherent structuring of the individual claims, it does not alter the overall scope of the antitrust damages claims asserted in court. Even in the case of extensive class actions, the lower courts should therefore only require a division of the claim if it can contribute to a substantive structuring of the claim. The mere number of claims asserted, on the other hand, is unlikely to suffice as justification as a rule.

215 The Federal Court of Justice’s assessment does, however, highlight the need, in decisions concerning a large number of antitrust damages claims, to enable the effective enforcement of the claims as a whole through statistical methods and digital processing of procurement processes – supported, where appropriate, by artificial intelligence (see also section **2.1.1.3**)

216 Overall, the BGH’s decision represents a starting point for further developing the recovery of antitrust damages through class actions into a tool with which companies can more effectively claim scattered damages under antitrust law. In combination with other instruments – in particular the VDuG’s action for redress, which is geared towards consumers – a comprehensive set of tools is available for enforcing antitrust claims for damages.

2.1.1.2 Determining the amount of damages

217 Provided that the injured parties succeed in proving the existence of the cartel – usually by invoking the binding effect under Section 33b of the German Act against Restraints of Competition (GWB) – and the procurement processes affected by it, the real challenge lies in determining the specific loss caused by the cartel. The substantive legal basis for this assessment of damages is Section 249(1) of the German Civil Code (BGB), according to which the party affected by the cartel is to be placed in the position they would have been in had the cartel infringement not occurred. The amount of the loss is therefore determined by the difference between the price actually paid for the goods affected by the cartel and a hypothetical competitive price that would have prevailed had there been no breach of competition law (Federal Court of Justice [BGH], KZR 63/18, 10 February 2021, Rail Cartel VI, para. 34; Federal Court of Justice, KZR 98/20, 9 July 2024, LKW Cartel IV, para. 18).²⁸

218 The existence of the loss and its extent are facts giving rise to a claim. Accordingly, in accordance with general principles, the burden of presentation and proof in this regard rests with the claimant (see above, para. **2187 et seq.**). Uncertainties and doubts therefore generally fall to the claimant’s detriment. However, it will be virtually impossible to determine a hypothetical competitive price – and thus the specific extent of the loss – without uncertainty and room for discretion. If this uncertainty were to be borne entirely by the injured party, there would be a risk of systematic under-compensation of those affected by the cartel.

219 As this issue is not limited to claims for damages under competition law, civil procedure law provides for a general relaxation of the burden of proof in relation to the determination of damages in proceedings under Section 287(1) of the Code of Civil Procedure (ZPO), to which Section 33a (3), first sentence, of the Act against Restraints of Competition (GWB) also refers in the context of competition law damages. Accordingly, the court decides both whether (antitrust) damage has been incurred and the amount thereof ‘*after weighing up all the circumstances and acting in accordance with its free conviction*’ (see BGH, KZR 25/14, 12 July 2016, Lottoblock II, para. 42 et seq.).

²⁸ Compensation for loss of profit may also be claimed; see, in principle, ECJ, C-536/11, 6 June 2013, Donau Chemie, para. 24; on the relevant factual scenarios in this regard, see Ohlhoff 2024, para. 160 et seq.

In this context, the trial judges enjoy considerably greater discretion compared with the stricter requirements of Section 286 of the Code of Civil Procedure (ZPO) (Federal Court of Justice, KZR 24/17, 28 January 2020, Rail Cartel II, para. 47; KZR 8/18, 19 May 2020, Rail Cartel IV, para. 40; KZR 42/20, 29 November 2022, Schlecker, para. 40). They are authorised to decide on the basis of probabilistic considerations and, where necessary, to estimate the loss. For the court to reach a conclusion, it is sufficient that there is a clearly preponderant probability, based on sound grounds, that damage has been incurred (Federal Court of Justice, KZR 25/14, 12 July 2016, Lottoblock II, para. 41; KZR 8/18, 19 May 2020, Rail Cartel IV, para. 40).

220 Nevertheless, the court remains obliged to take all relevant circumstances of the individual case into account in an overall assessment. It must not contravene either the laws of logic or the principles of experience. What is decisive is an overall assessment that is economically plausible and guided by the criteria of Section 287 of the Code of Civil Procedure (ZPO), taking into account all circumstances that suggest how the market would probably have developed in the absence of the cartel (Federal Court of Justice, KZR 98/20, 9 July 2024, LKW-Kartell IV, para. 21; KZR 71/23, 8 April 2025, LKW-Kartell VI, para. 32;). There is no preference for specific methods when determining the basis for the estimate. The court must also take into account expert reports and statements submitted by the parties in its overall assessment; however, this does not replace the court's own overall assessment (Federal Court of Justice, KZR 24/17, 28 January 2020, Rail Cartel II, para. 48; KZR 60/23, 1 October 2024, LKW-Kartell V, para. 52; KZR 71/23, 8 April 2025, LKW-Kartell VI, para. 44).

221 In particular, the courts should not be too quick to assume that no loss has been incurred if it does not appear possible for them to quantify the loss precisely. Rather, the Federal Court of Justice (BGH) requires that the loss be estimated as realistically as possible in accordance with Section 287 of the Code of Civil Procedure (ZPO) and, where necessary, that it be examined whether at least a minimum loss can be estimated (BGH, KZR 39/21, 12 September 2023, Mattress Price Breaker, para. 35; KZR 98/20, 9 July 2024, LKW-Kartell IV, para. 15; KZR 71/23, 8 April 2025, LKW-Kartell VI, para. 47). The court may only refrain from doing so if there are no concrete points of reference whatsoever and an estimate would therefore be entirely unfounded (established case law; see BGH, III ZR 47/63, 16 December 1963, para. 17 with further references; regarding damages for cartel infringements, see, for example, Federal Court of Justice, KZR 39/21, 12 September 2023, 'Mattress Price Breaker', para. 35). In such a case, or if the court is satisfied that no loss has been incurred, it may dismiss the claim. If, on the other hand, it is unable to reach such a conclusion, this is in any event sufficient to establish liability for damages within the framework of a declaratory judgment (Federal Court of Justice, KZR 46/20, 28 June 2022, 'Stahl-Strahlmittel', para. 38).

222 Whether and to what extent a court, on this basis, takes evidence in order to ascertain further necessary points of reference for the estimate is at its discretion, in accordance with its duty of care (Section 287(1), second sentence, of the Code of Civil Procedure (ZPO)). It is not bound by formal applications for evidence from the parties.²⁹ However, if the court considers an econometric analysis to be necessary in the absence of an existing basis for estimation (see also para. **7226 et seq.**), it must take the expert evidence offered (Federal Court of Justice, KZR 42/20, 29 November 2022, Schlecker, para. 106 et seq.; KZR 98/20, 9 July 2024, LKW Cartel IV, para. 24). Conversely, the court is not obliged to refrain from obtaining an expert opinion merely because it appears, in principle, possible to make its own estimate.

223 According to the established case law of the Federal Court of Justice (BGH), when estimating damages arising from a cartel, there is a factual presumption that the prices achieved within the framework of the cartel are, on average, higher than those that would have prevailed without the restriction of competition (see, in particular, BGH, KZR 4/19, 23 September 2020, Rail Cartel V, para. 26; KZR 35/19, 23 September 2020, LKW-Kartell I, para. 40 and the case law cited therein; most recently KZR 71/23, 8 April 2025, LKW-Kartell VI, para. 32). This presumption must be taken into account as a significant piece of evidence in the context of the overall assessment and gains or loses persuasiveness depending on the nature, duration, stability and specific implementation of the cartel in question (Federal Court of Justice, KZR 24/17, 28 January 2020, Rail Cartel II, para. 40; KZR 4/19, 23 September 2020, Rail Cartel V, para. 26; KZR 98/20, 9 July 2024, Lorry Cartel IV, para. 11). The application must not contradict established economic findings (Federal Court of Justice KZR 35/19, 23 September 2020, Lorry Cartel I, para. 51).

224 If the comprehensive and consistent assessment required by section 287 of the Code of Civil Procedure (ZPO) is not carried out, or if it is carried out in breach of these principles, the assessment of damages is vitiated by an error of law. That said, the scope of review by the court of appeal of such a trial court's assessment of damages is, however, limited. Essentially, the review examines whether the trial court misinterpreted legal principles governing the assessment of damages, failed to take into account essential assessment factors, or based its assessment on incorrect criteria (Federal Court of Justice [BGH], KZR 25/14, 12 July 2016, Lottoblock II, para. 49; KZR

²⁹ It is true that a party must not be denied the opportunity to provide precise evidence of damage, provided such evidence is offered and can be obtained with reasonable effort (Federal Constitutional Court, 1 BvR 3041/06, 8 December 2009). In antitrust damages law, however, this is of practically no significance, as it is not possible to determine the exact amount of antitrust damage. Even a court-appointed expert can only assess the question of the amount of damages on the basis of the relevant facts and circumstantial evidence (Federal Court of Justice, KZR 24/17, 28 January 2020, Rail Cartel II, para. 37).

8/18, 19 May 2020, Rail Cartel IV, para. 40; KZR 98/20, 9 July 2024, Lorry Cartel IV, para. 13).

225 The relaxation of the burden of proof under Section 287 of the Code of Civil Procedure (ZPO) brings several advantages for the injured parties. In line with the court's discretion, their burden of proof is also reduced. In particular, the submission of a private expert report is not required for a substantiated submission regarding the amount of damages (Federal Court of Justice, KZR 98/20, 9 July 2024, Lorries Cartel IV, para. 21). It is sufficient merely to set out the relevant connecting facts (Federal Court of Justice [BGH], KZR 4/19, 23 September 2020, Rail Cartel V, para. 27; KZR 35/19, 23 September 2020, Lkw Cartel I, para. 58; Thiede 2020, p. 658). Any remaining gaps in the party's submission are inconsequential, provided that the court has sufficient evidence at its disposal to make a proper estimate of the damages. Furthermore, the possibility of the court estimating the damages serves to reduce the cost risks associated with legal proceedings. To constitute a sufficiently specific application to the court, it is sufficient to specify a minimum amount of damages. The exact amount of damages can then be left to the discretion of the court. Consequently, a different judicial assessment of damages does not result in a partial defeat, which would entail a proportionate obligation to bear costs.

2.1.1.2.1 Challenges in judicial damage assessment

226 The standard academic approach for determining cartel-induced price mark-ups is econometric regression. Estimating cartel-induced price mark-ups involves the hypothetical question of what price would have prevailed had the cartel not existed. As this price cannot be directly observed, regression analyses can be used to estimate it on the basis of suitable data. There are two different approaches to this (see [↗ Box 2.2](#)). Comparison-based approaches are more widely used in practice and estimate the harm caused by the cartel by comparing the observed cartel price with the most appropriate benchmark in the absence of the cartel, such as cartel-free markets, pre- or post-cartel periods, or a combination of these. Model-based approaches do not estimate the hypothetical price through a direct comparison, but rather via a model that captures price-determining factors such as costs, demand and market structure.

Box2.2: Loss estimation using regression analysis**DETERMINING DAMAGES USING REGRESSION ANALYSIS**

The difference-in-differences approach is regarded as the methodologically strongest **comparison-based approach**. It is based on a two-fold comparison logic. First, the market affected by the cartel is compared with one or more comparable markets that are as similar as possible but free of cartels. However, this comparison is not sufficient, as markets may also differ independently of the existence of a cartel. Therefore, additional consideration is given to how the price gap between the markets changes over time: during the cartel period on the one hand, and during a competitive period before and/or after the cartel on the other. Alternatively, a purely temporal comparison may be used, in which cartel prices are compared with pre- or post-cartel prices, or an approach that relies exclusively on comparison with markets free of cartels.

In **model-based approaches**, the hypothetical price is estimated using an economic model. The model simulates the price-setting process, taking into account the key factors influencing price, such as costs, demand, product characteristics or market structure. On this basis, the price that would have been expected in the absence of the cartel infringement is calculated. The damage caused by the cartel is then determined as the difference between the cartel price actually paid and the hypothetical competitive price estimated by the model.

227 A prerequisite for a plausible and transparent analysis is to justify the chosen counterfactual approach, to disclose the data sources used, and to make it clear which data were collected, adjusted or excluded, and for what reasons. An econometric damage estimate must also examine whether the data are suitable for the specific market and time period, whether data are missing randomly or systematically, and whether this could give rise to distortions. The regression model should take appropriate account of the key price-determining factors. The choice of variables should be objectively justified and adequately reflect the key factors influencing price, without

omitting relevant factors or unnecessarily overloading the model with too many variables, particularly those that are strongly correlated (Haucap/Heimeshoff 2022, p. 80 ff).³⁰

228 In judicial practice, estimating damages on the basis of econometric expert reports has so far proved challenging. Consequently, the various parties to antitrust damages proceedings frequently submit conflicting expert reports. This is because, even in the case of a regression analysis, the result is ultimately an estimate of the price mark-up. The counterfactual scenario – functioning competition without a breach of competition law – has never occurred and cannot therefore be measured (Federal Court of Justice, KZR 24/17, 28 January 2020, Rail Cartel II, para. 34; Thral/Dietrich/Lochner 2024, p. 487).

229 If – as is certainly relevant in practice – the claimant and the defendant have different data sets at their disposal, this can significantly influence the results of the respective expert reports (Thiede 2020, p. 658). Different data sets may also exist when selecting the explanatory variables. Furthermore, econometric experts may arrive at different results when assessing the relevant modelling assumptions, even where scientific standards exist that can be used to narrow down the selection of a robust model (Thral/Dietrich/Lochner 2024, p. 487 et seq.; in detail Heusel/Hildebrand/Mattes 2024, p. 382 et seq.; Klumpe/Paha 2024, p. 450 ff.).³¹ Furthermore, there appear to be differences in the quality of the econometric expert reports submitted in various proceedings (see, for example, Thiede 2020, p. 658; Paha/Lüke 2026, p. 186).

230 In practice, this scope for interpretation has led to veritable ‘battles of expert reports’ in antitrust damages proceedings, in which attempts have been made to cast technical doubt on the model chosen by the opposing party – or by a court-appointed expert (Heusel/Hildebrand/Mattes 2024, p. 386). This has led to criticism of the econometric tools and, in practice, has contributed to a significant increase in the duration of proceedings (for a general discussion of the criticism of regression-based expert reports in antitrust damages cases, see Thiede 2026, p. 186 with further references; for an example, see Kirchhoff 2024, p. 74; Klumpe 2024, p. 12 et seq.).

231 One example of this is the sugar cartel proceedings before the Mannheim Regional Court (Mannheim Regional Court, 14 O 103/18 Kart, 23 June 2023, para. 49).

³⁰ Further challenges include, for example, accurately delineating the relevant cartel period and taking into account possible strategic pricing or other special effects following the end of the cartel (Haucap/Heimeshoff 2022, p. 80 ff).

³¹ Modelling assumptions refer to the technical and methodological assumptions on which the econometric model is based. These include, for example, which variables are taken into account and how their relationships are modelled.

After both parties had submitted their own econometric expert reports, the court itself appointed an expert in November 2020, who submitted his report – following the relevant order for evidence issued in March 2021 – in October 2021. A supplementary report – based on two further orders for the taking of evidence dated February and March 2022 – was submitted in April 2022. The reports were subsequently discussed over seven days of hearings between June 2022 and January 2023.

232 The situation is currently similar at the Munich Regional Court, which has consolidated 36 cases relating to the lorry cartel and appointed a joint expert as early as 2019 (on this and the following, see Petrasincu 2026, p. 24). The expert report was submitted in 2022, supplemented in early 2025 and recently discussed in a high-profile oral hearing attended by over 110 representatives of the parties (lawyers and economists) (see Althaus 2026). No judgements have yet been handed down in these proceedings.

2.1.1.2.2 Damages assessment in judicial practice

233 The fact that courts estimate the amount of antitrust damages at all is a relatively recent development. Until the end of the 2010s, judgments were essentially declaratory or preliminary rulings, which clarified a wide range of legal issues concerning the elements of liability – including in appeals before the Federal Court of Justice (BGH) (Kühnen 2019, p. 516; Schweitzer/Woeste 2022, p. 49 with further references; for a more detailed discussion, see Roth/Weber 2025, para. 103 et seq.). Even in these types of proceedings, it must be assessed, in accordance with Section 287 of the German Code of Civil Procedure (ZPO), whether damages are even applicable.³² This is because, for a declaratory judgment to be issued, it is sufficient that all issues relating to the basis of the claim have been resolved and that, based on the facts and the state of the dispute, it is probable that the claim exists in some amount (BGH, VII ZR 168/15, 8 September 2016, para. 21). However, it is not necessary to quantify or estimate the exact amount of damages. Furthermore, the presumption of damages under Section 33a(2) of the German Act against Restraints of Competition (GWB) now applies (see also para. **7187 et seq.**).

234 In antitrust damages proceedings, plaintiffs and defendants generally submit econometric expert reports to substantiate or refute the claims (Kruse 2022, p. 142; Klumpe/Paha 2024, p. 447). The approach taken by the regional and higher regional courts, as courts of fact, to the assessment of damages varies considerably, however. Broadly speaking, three categories of cases can be distinguished: some courts base their damage estimates on econometric analyses – either expert reports submitted by

³² Section 287 of the German Code of Civil Procedure (ZPO) also applies to the substantive basis for the occurrence of the loss; see above, para. **7219**.

the claimant or the defendant, or those prepared by court-appointed experts. Methodologically, these reports predominantly employ econometric regression analyses using comparison-based approaches. In other cases, however, courts base their estimates on qualitative or quantitative characteristics of the cartel or on public price statistics. To support this approach, meta-studies on average levels of damages from past cartels are sometimes drawn upon. Most recently, some courts have referred to lump-sum damage clauses agreed between the parties (see [7 Table 2.1](#)). A similarly varied trend can also be observed in other EU Member States (Klumpe 2024, p. 12 ff.).

Table 2.1 : Selected approaches to the judicial assessment of damages

Court	Case No., date and antitrust case	Basis for the assessment
Dortmund Regional Court	13 O 55/02 1 April 2004 Vitamin cartel	The court's estimate was based on findings by the European Commission and a comparison of price trends before, during and after the cartel.
KG Berlin	2 U 10/03, 2 U 17/03, 1 October 2009 Ready-mixed concrete cartel	The court's own estimate based on price trends before, during and after the cartel, both at the national average and on the Berlin market. A request for an expert opinion was rejected.
Dortmund Regional Court	8 O 115/14, 30 September 2020 8 O 26/16 Kart, 4 November 2020 8 O 116/14, 3 February 2021 Rail cartel	Assessment based on (1) qualitative criteria relating to the cartel and (2) clauses providing for a flat-rate calculation of damages. The regression analysis submitted by the claimant is not taken into account. The appointment of a court-appointed expert is rejected.
Higher Regional Court of Celle	13 U 120/16 12 August 2021 Chipboard cartel	The court's own assessment of prices before, during and after the cartel, based on industry statistics. Expert evidence is rejected.
Berlin Regional Court	61 O 2/23 Kart 7 February 2023 Railway Cartel	Estimate based on the regression analysis submitted by the claimant (before-and-after comparison). Adjustment of the figures where they deviate significantly from empirical meta-studies.
Berlin Regional Court	16 O 21/19 2 March 2023 Electronic cash system	A temporal comparative market analysis in the form of a 'during-after' comparison, supplemented by a qualitative assessment of certain cartel characteristics. Regression analyses submitted by both the claimant and the defendant are not taken into account.
Berlin Regional Court	61 O 1/23 15 June 2023 Lorry cartel	Assessment based on an overall evaluation of all circumstances, including qualitative criteria and the expert reports submitted by the claimant.

Berlin Regional Court	16a O 1/20 19 June 2023 Lorry Cartel	Estimate based on the regression analysis submitted by the claimant (before-and-after comparison), supplemented by meta-analyses, decisions of other courts and qualitative considerations.
Mannheim Regional Court	14 O 103/18 and several parallel proceedings 23 June 2023 Sugar Cartel	Econometric report by a court-appointed expert
Berlin Regional Court	96b O 2/23 25 September 2023 Escalator Cartel	Regression analysis (time-series comparison method) and meta-analyses submitted by the claimant
Higher Regional Court of Schleswig-Holstein	20 U 1/24 21 October 2024 Drugstore cartel	Estimation of minimum damages based on qualitative criteria. The expert report submitted by the claimant is not taken into account due to methodological shortcomings. The appointment of a court-appointed expert is waived due to the expected delay in proceedings.
Stuttgart Regional Court	30 O 223/17 9 January 2025 Lorry Cartel	Econometric expert report by a court-appointed expert from another set of proceedings. Qualitative criteria are also taken into account. Various expert reports submitted by both the claimant and the defendant are not relied upon.
Stuttgart Regional Court	30 O 235/17 27 February 2025 Lorry Cartel	Overall assessment of expert reports submitted by the claimant (temporal analysis of the relevant market), meta-analyses and qualitative criteria. Expert reports submitted by the defendant are not taken into account because they disregard the Commission's binding findings.
Stuttgart Regional Court	30 O 239/17, 27 February 2025 Lorry cartel	Overall assessment of the econometric report submitted by the claimant, the report by the court-appointed expert, and qualitative evidence.
Higher Regional Court of Stuttgart	U 263/21 20 November 2025 Bathroom fittings	Judicial assessment based on a structured classification of qualitative criteria relating to the cartel (see below)

Source: Author's own presentation based on the court judgements cited.

2.1.1.2.3 The estimation model of the Higher Regional Court of Stuttgart

235 In a recently published decision on the bathroom fittings cartel (2 U 263/21, 20 November 2025), the Higher Regional Court of Stuttgart also refrained from using an econometric assessment to estimate damages. Instead, based on – a comprehensive review of economic studies – it developed a structured estimation model, which it

used to assess the characteristics of the cartel at issue and estimate the amount of the price surcharge. According to the grounds for the decision, this estimation model is also to be applied in future cases of a similar nature (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 406).

236 The claimant in the proceedings is the insolvency administrator of a DIY chain, ‘*Waldner*’, which had purchased bathroom fittings from the defendant between 1999 and 2005. The defendant was part of the bathroom fittings cartel comprising 17 corporate groups, which, according to the European Commission’s fine decision, had, amongst other things, jointly coordinated annual price increases. The claimant sought a total of EUR 2.2 million in damages for the cartel-induced overpricing of the products purchased during that period (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 2 et seq.).

Waiver of an econometric assessment

237 The competent division initially rejected the private expert report submitted by the claimant as an insufficient basis for estimation (Stuttgart Higher Regional Court, 2 U 263/21, 20 November 2025, para. 89 et seq.). The report carried out a comparative market analysis over time, comparing the prices paid to wholesalers during the cartel period with those in the post-cartel period. The Senate first criticised the data set used by the expert, which it had checked on a random basis and found to contain significant shortcomings in terms of the completeness and accuracy of the data. In addition, the regression analysis did not reflect the complex discount system, which had accounted for more than half of the final price.

238 The Senate also rejected a request for supplementary evidence regarding the regression analysis – presumably to be carried out by a court-appointed expert – in view of the poor quality of the data, the correction of which would entail an immense amount of work (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 94). The Federal Court of Justice (BGH) had also pointed out in the past that the validity of economic expert reports – and thus their admissibility in proceedings – depends to a large extent on the quality of the data used and the reliability of the comparable markets (BGH, KZR 24/17, 28 January 2020, Rail Cartel II, para. 48). Other courts, too, had in the past expressly refused to accept an expert report for various reasons (see [↗ Table 2.1](#)).

239 Furthermore, the Higher Regional Court of Stuttgart cast doubt on the practical suitability of regression analysis as a method for determining cartel damages in general (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 95 et seq.). The Senate does not consider the challenges involved in the acquisition and

processing of suitable data, as well as the methodological delineation of appropriate relevant markets and the selection of relevant variables, to be surmountable in adversarial court proceedings. Furthermore, the considerable effort and costs involved do not justify the result, which can at best be regarded as an indication of cartel-induced price changes. Obtaining a court-appointed expert report would therefore unduly impede the exercise of the right to damages under Article 17 of the KSE Directive. The Federal Court of Justice (BGH) had also emphasised in the past that, in view of methodological uncertainties, the results of regression analyses can likewise serve only as an approximation of the hypothetical competitive price and as a basis for estimation, without, however, casting general doubt on them (BGH, KZR 63/18, 10 February 2021, Rail Cartel VI, para. 34; KZR 98/20, 9 July 2024, LKW Cartel IV, para. 18).

Starting point: Assumptions regarding the price effect and the estimation range

240 The Stuttgart Higher Regional Court's assessment of damages is based on empirical principles regarding the occurrence and extent of damage. On this basis, the Court develops a model which, depending on the characteristics of the cartel, applies adjustments to the estimated amount of damage, thereby determining the damage at the first market level immediately downstream of the cartel participants. Where the claims asserted relate to procurement processes at a different market level, or where the loss may have been passed on to downstream market levels, corresponding adjustments are made.

241 Firstly, the Senate follows the aforementioned case law of the Federal Court of Justice (BGH), according to which there may be a factual presumption – in the sense of a rule of experience – that the prices achieved within the framework of the cartel are, on average, higher than those that would have been established without the anti-competitive agreement (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 111; cf. already para. **7223**). However, the Senate could not rely on the presumption of damage under Section 33a(2), first sentence, of the German Act against Restraints of Competition (GWB) (see already para. **7187 et seq.**), according to which it is rebuttably presumed that cartels, in principle, cause damage, because it was not yet in force at the time of the cartel. However, the conclusion which the Senate derives from the general considerations is consistent with the statutory presumption of damage (see also Weitbrecht 2026, p. 16 with regard to the case law of the Federal Court of Justice).

242 Furthermore, the Senate assumes that, insofar as a cartel-induced price increase can be assumed at all, it also exists to a specific extent (Higher Regional Court

of Stuttgart, 2 U 263/21, 20 November 2025, para. 113 et seq.). In this regard, the Senate distinguishes between three estimation ranges, the levels of which it derives from various empirical (meta-)studies (including Oxera 2009, Smuda 2014, Connor 2024) and their reception in the literature (Inderst/Thomas 2018, pp. 87 ff.; Copik/Heimeshoff 2020, p. 586).

243 Accordingly, the standard range within which a cartel-induced price mark-up typically falls is between 5 and 25 per cent. It can therefore be assumed that the cartel-induced mark-up at the first market stage³³ generally falls within this standard range. A price mark-up of 15 per cent serves as the benchmark for the further assessment of the cartel. Only in the presence of special circumstances should a classification within the other two estimation ranges—from 0 to 5 per cent or above 25 per cent—be assumed. The Senate also emphasises, however, that the standard range merely indicates a typical empirical range for the level of the price mark-up. The court must nevertheless take all the circumstances of the individual case into account in its assessment.

244 With this approach, the Higher Regional Court of Stuttgart goes beyond the approaches previously followed in case law. Whilst other courts have also drawn on (the same) empirical meta-studies in the context of damage assessment, they have tended to use them as confirmation or correction for estimates based on other grounds (see **Table 2.1**). The Federal Court of Justice (BGH) has likewise relied on these meta-studies in order to assess the validity of a clause providing for a flat-rate compensation for damages on the basis of section 307(1), first sentence, of the German Civil Code (BGB) (BGH, KZR 63/18, 10 February 2021, Rail Cartel VI, para. 42 et seq.). Furthermore, in view of the indications derived from the meta-studies, it takes the view that claimants cannot be required to submit an econometric expert report (Federal Court of Justice, KZR 98/20, 9 July 2024, LKW-Kartell IV). The Monopolies Commission has also, in the past, expressed openness to a statutory minimum estimate of 10 per cent, referring in this regard to the Oxera study (2009) (Monopolies Commission 2016, para. 150).

Clarification of the estimate

245 The real innovation in the Stuttgart Higher Regional Court's decision, however, lies in the way in which the bench quantifies the specific extent of the loss on the basis of assumptions regarding the occurrence and amount of the loss (see also Klein/Haller 2026, p. 80). To this end, it first develops a model, based on various economic

³³ For adjustments to further market tiers below, see para. **247 et seq.**

studies, which assesses the characteristics of cartels in abstract terms – either qualitatively or quantitatively – in terms of their price-driving or price-suppressing effects (Stuttgart Higher Regional Court, 2 U 263/21, 20 November 2025, para. 130 et seq.). To this end, he identifies four groups of characteristics, known as ‘areas of effect’, namely

- Agreement (content of the agreement [price-fixing, market structure agreement or exchange of information] and duration of the cartel)
- Organisation (degree of coordination, alignment of interests and cartel discipline)
- Market conditions (market power of the cartel members, market concentration, market dynamics)
- Demand response (market weight of non-cartel participants, price elasticity of demand, buyer power).

246 The Senate then applies these characteristics to the cartel case in question (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 278 et seq.). In substance, the Senate envisages a typical average cartel and compares this with the cartel forming the basis of the decision. The Higher Regional Court of Stuttgart assumes that, using these criteria and based on the previously established estimation range, it is possible to arrive at a sufficiently accurate estimate of the harm caused by the cartel. On this basis, it estimates the price mark-up in the case before it to be between 21 and 23 per cent at the first market level (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 355). Nevertheless, the Court emphasises that the criteria are not necessarily exhaustive and that further factors determining the loss must be taken into account in individual cases. By way of example, it refers to the risk of detection and sanctions, which must be taken into account if it is assessed by the cartel participants as being particularly high (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 207 et seq.).

Pass-through and passing-on of damages

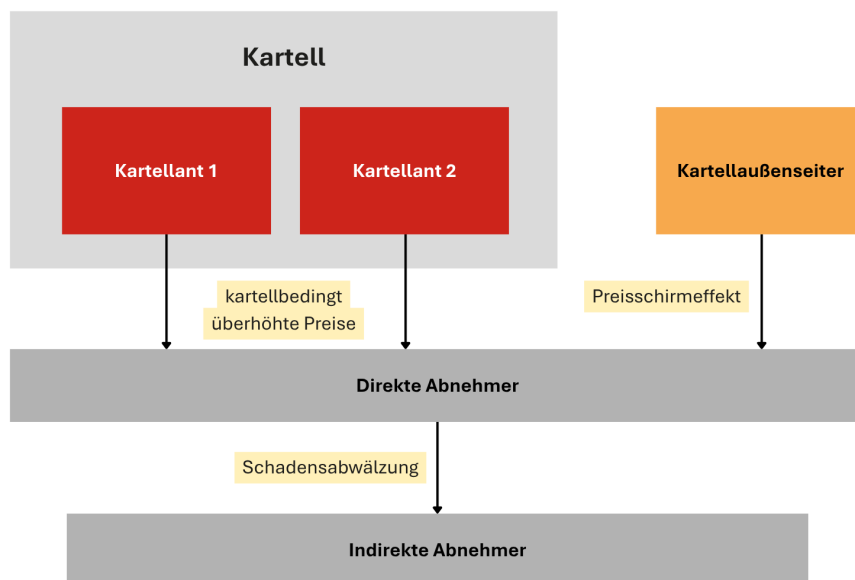
247 Where claims for damages by indirect purchasers at downstream market levels are asserted, the challenge lies not only in estimating the cartel-induced price mark-ups, but also in determining the extent to which these were passed on to the relevant market level. The price mark-ups determined at the first market level must therefore be adjusted in subsequent steps to reflect their pass-through along the supply chain. Under Section 33c(2) of the German Act against Restraints of Competition (GWB), there is also a statutory presumption in favour of the passing-on of damages—³⁴, but the amount must be estimated (Section 33c(5) GWB). The estimation becomes even

³⁴ However, this provision did not yet apply to the cartel case pending before the Higher Regional Court of Stuttgart.

more complex if, as a result of a cartel, non-participants in the cartel were also able to increase their prices (the so-called ‘price umbrella effect’; see, regarding the general recognition of such damages, ECJ, C-557/12, 5 June 2014, Kone).³⁵

248 In the case decided by the Higher Regional Court of Stuttgart, the claimant DIY store did not purchase the bathroom fittings directly from the manufacturers involved in the cartel, but via wholesalers. The Higher Regional Court of Stuttgart addressed the question of the extent to which these wholesalers passed on the cartel-induced inflated prices to downstream market levels by drawing on a Cournot competition model (see Bönisch and Tosini 2026 for a methodological classification of this approach). In the economic literature, it is recognised that, in the trade in end products, price increases at the upstream market stage are passed on to the subsequent stage all the more strongly the more intense the competitive pressure is at the downstream retail stage (Stuttgart Higher Regional Court, 2 U 263/21, 20 November 2025, para. 231). To determine the specific extent of the pass-through, the Senate draws on the Herfindahl-Hirschman Index (HHI) and the price elasticity of demand (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 234 et seq.).

Figure 2.2: Antitrust damage in the supply chain



Source: Author's own illustration.

³⁵ The Higher Regional Court of Stuttgart does not address the question of how price umbrella effects should be estimated, as this is not relevant to the decision; however, it regards price umbrella effects as one reason why cartels cause greater harm the longer they last (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 150).

249 In addition, there is the issue of the defence of passing-on of harm. Pursuant to Section 33c(1), second sentence, of the German Act against Restraints of Competition (GWB), the harm suffered by the purchaser is deemed to have been offset to the extent that the purchaser has in turn passed on the cartel-induced price surcharge to its own customers. To date, the courts have often resolved this issue by resorting to auxiliary constructions under the law of evidence, as the burden of proof for this defence lies with the cartel participants, which regularly presents them with considerable difficulties (Kersting 2025, para. 27). Furthermore, in the view of the Federal Court of Justice (BGH), the defence is also precluded as a matter of law if it threatens to result in an unfair exoneration of the cartel participants. This is particularly the case where the harm caused by the cartel manifests itself at the downstream level in the form of scattered losses suffered by consumers that are practically unely recoverable. This lack of enforceability is not intended to work in favour of the cartel participants, meaning that they are precluded from raising the defence of damage pass-through in this respect (Federal Court of Justice, KZR 4/19, 23 September 2020, Rail Cartel V, para. 50 et seq.). The Higher Regional Court of Stuttgart also relies on this case law: As a DIY store, the claimant had essentially sold to consumers who had suffered only unquantifiable scattered damages. There is therefore no risk of the cartel member being held liable twice (Stuttgart Higher Regional Court, 2 U 263/21, 20 November 2025, para. 265 et seq.).

250 Ultimately, however, this approach may mean that a company (in this case: the claimant) receives excessive compensation, as it was able to pass on the damage, at least in part, to its customers. The more successfully consumers are therefore granted access to damages for cartel infringements, the better the compensatory function of tort law can be fulfilled.

2.1.1.2.4 The future of judicial damage assessment

Expanding the toolkit for damage assessment

251 The Higher Regional Court of Stuttgart's approach builds on the trend observed in recent years, whereby courts are increasingly finding themselves in situations where they are better placed to quantify the amount of antitrust damages. This applies not only to the case law cited above on damages in antitrust cases (para. **7233 et seq.**, in particular **7Table 2.1**), but – as the Berlin Regional Court II recently demonstrated (16 O 195/19, 13 November 2025) – increasingly also in cases of abuse of a dominant market position (see also para. **7498** regarding this judgment).

252 The judgement of the Higher Regional Court of Stuttgart stands out from these decisions due to its use of the estimation corridor and its comprehensive and structured estimation model (Petrasincu 2026, p. 25). The approach is based largely on the contributions by Kühnen (2019, pp. 518 ff.) and Schweitzer and Woeste (2022), who had already proposed an estimation method based on estimation windows and qualitative criteria (also endorsed by Isikay 2020, pp. 183 ff.; Thiede 2020, p. 659 ff.). It is characterised by the fact that the Senate first develops, in abstract terms, a model to be used for estimating damages, and only subsequently applies it to the specific case. This approach thus differs from other decisions which, whilst also assessing the qualitative criteria of the cartel at issue to estimate the amount of damages, do not place this within a broader context (see [↗Table 2.1](#)). Furthermore, the Senate's detailed examination of economic studies and findings is worthy of note. Both factors contribute to the decision's high level of transparency and to legal certainty. It is this high level of transparency that makes a well-founded assessment and further development of the approach possible in the first place.

253 The ability to determine the loss without resorting to costly expert reports involving regression analyses also strengthens the enforcement of competition law in general. Victims of antitrust infringements can, when bringing an action, dispense with their own expert reports containing regression analyses and instead outline the damage in broad terms using qualitative elements, leaving the rest to the discretion of the court (see also Thiede 2026, p. 186). In any case, there is no legal requirement to support a claim with regression analyses, provided that sufficient evidence for determining the loss is presented (see BGH, KZR 98/20, 9 July 2024, LKW-Kartell IV, para. 21). In this respect, the estimation model helps to reduce the structural asymmetry between large cartel participants and – frequently – smaller injured cartel claimants (see, in this regard, para. [↗194](#)).

254 The Monopolies Commission considers the approach adopted by the Higher Regional Court of Stuttgart to be, based on current knowledge, a fundamentally sound approximation for enabling the courts to fulfil the task of estimating damages assigned to them by law under Section 287 of the Code of Civil Procedure (ZPO), even without recourse to regression analysis. Taken as a whole, the concept leads to the reasonable conclusion that tightly organised and long-term cartels, which possess significant market power and share coherent interests, are likely to realise higher price mark-ups than other cartels.

255 The quality of this approximation is ensured by the extensive incorporation of empirical studies (Paha/Lüke 2026, p. 184) and the application of assessment criteria that are, in principle, transparent. As a qualitative approach, this method is therefore

likely to be more suitable than the even more arbitrary estimates made by other courts.

256 The issue here is not whether such an estimation model can deliver results that are just as good or even more precise than a methodologically sound and robust econometric regression analysis – it is relatively undisputed that this is not the case. Rather, the point is that the courts must be able to estimate the loss reasonably even when a regression analysis is not available (see the reasons for this below, para. **7260 et seq.**)

257 This overlooks the criticism in the literature, which considers the approach fundamentally unsuitable and points to the superiority of econometric regressions (see also Hellmann/Schliffke 2022, pp. 85 ff.; Heusel/Hildebrand/Mattes 2024, pp. 380 f.). For example, Klein and Haller (2026) criticise the lack of an economic basis for individual criteria, difficulties in quantifying individual determinants of harm, and a lack of empirical evidence regarding the hypothetical average cartel used for comparison. Paha and Lüke (2026, pp. 183 ff.) criticise the fact that the interactions between the individual criteria applied are unclear. The economic studies relied upon by the Senate are regularly subject to the *ceteris paribus* assumption, meaning that their interaction with other characteristics of the cartel is not empirically substantiated. Furthermore, due to the large number of criteria relied upon by the Senate, there is a very high number of interactions, which further exacerbates the problem.

258 Both objections fail to take into account that it may well be the very task of the courts, in situations where no regression analysis is available, to derive a reasonable approximation of the actual damage from qualitative criteria. In such situations, the approach adopted by the Higher Regional Court of Stuttgart still offers the best approximation, given its comprehensive consideration of various cartel characteristics and its grounding in the economic literature. The Higher Regional Court of Stuttgart also acknowledges, for example, that it can only take insufficient account of the interactions between the individual determinants of damage (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 264). Nevertheless, in this situation, it falls back on the estimation model developed in the judgment. In the absence of the possibility of a quantitative assessment of the cartel-related loss, Section 287(1) of the German Code of Civil Procedure (ZPO) requires the courts to estimate it on the basis of qualitative characteristics.

259 There may be various reasons why a specific case is not suitable for a regression analysis. For instance, an expert report submitted by claimants or defendants may not be suitable for the court's assessment of damages simply because the regression analysis has not been carried out in accordance with scientific standards (see, in this regard, para. **7226 et seq.**). Provided these shortcomings cannot be remedied, there

is no need in such cases to call upon a court-appointed expert. This may be the case, for example, where there is a complete lack of a reliable data basis or where no non-antitrust-affected temporal, geographical or product-related comparable market is available that can be included in the analysis.

260 However, even a theoretically possible regression analysis may not be available for normative reasons – in particular, for reasons of procedural economy. This may be the case if carrying out a regression analysis would be disproportionately time-consuming or would incur disproportionately high costs in relation to the claim for damages asserted (see also Schweitzer/Woeste 2022, p. 57; Heusel/Hildebrand/Mattes 2024, p. 380; Klumpe/Paha 2024, p. 448). Section 287(2) of the German Code of Civil Procedure (ZPO) expressly provides, in this regard, that the estimation of damages is to be applied where the full clarification of all circumstances necessary for determining the amount of damages involves difficulties that are out of all proportion to the significance of the claim (for an application of Section 287(2) ZPO, see, for example, Kühnen 2019, p. 516). If, in such cases, a regression analysis were required for the assessment of damages, this would effectively amount to a restriction on the possibility of claiming antitrust damages in court, which would be incompatible with the purpose of antitrust damages and the requirements of EU law.

261 If, in cases where a regression analysis is ruled out – whether in practice or by law – it were not possible to resort to qualitative estimation methods, the court would have to dismiss the claim because the damage cannot be substantiated. The express incorporation of Section 287 of the Code of Civil Procedure (ZPO) by Section 33a(3), first sentence, of the Act against Restraints of Competition (GWB) is specifically intended to prevent victims from being disadvantaged vis-à-vis the perpetrators of the cartel in such situations and to ensure the effective enforcement of claims for damages arising from cartels. For the same reasons, Article 17(1), second sentence, of the KSE Directive also provides that courts must have the power to award damages where it is established that a claimant has suffered loss, but where it is practically impossible or excessively difficult to quantify the exact amount of the loss suffered on the basis of the available evidence (Konrads 2024, para. 1)

262 Under these circumstances, the application of a valuation model, such as that used by the Higher Regional Court of Stuttgart, also falls within the framework of the provisions of Section 287(1) of the Code of Civil Procedure (ZPO) and the relevant case law of the Federal Court of Justice (BGH) (see above, para. **7219 et seq.**). It carries out a comprehensive and consistent overall assessment of all relevant circumstances of the individual case on the basis of the evidence available to it. In particular, the judgment does not contradict established economic findings. Rather, the estimation criteria relied upon are – where available – underpinned by academic literature. It is in

the nature of things that this evidence may in some respects be patchy and incomplete. However, this does not relieve the court of its duty to estimate the loss using the information available to it.³⁶ It may only refrain from doing so if there is absolutely no evidence available or if, on the basis of the available evidence, it concludes that no loss has been incurred. Neither of these circumstances was evidently the case in the Stuttgart Higher Regional Court's ruling.

Starting points for further development of the estimation model

263 The decision of the Higher Regional Court of Stuttgart forms part of a process of further developing and clarifying the criteria for determining the amount of damages under competition law, which has taken place over the last decade before the courts of first instance and on appeal. Whilst many questions regarding the fundamental occurrence of damage have been clarified by the Federal Court of Justice (BGH) in recent years, a fruitful exchange of ideas is still taking place before the lower courts and in economic and legal literature on the question of how the specific amount of damage is to be determined by the courts. Within a model of evolving law³⁷, the approach adopted by the Higher Regional Court of Stuttgart represents a significant step forward. It combines the considerable discretionary powers provided for in Section 287 of the Code of Civil Procedure (ZPO) for the sake of effective enforcement of the law with the current state of economic scholarship.

264 However, the development of the doctrine of antitrust damages law has not yet reached its conclusion, even if the Federal Court of Justice (BGH) were to endorse the view of the Higher Regional Court of Stuttgart. Rather, several weaknesses in the model can be identified which should be addressed in the future application and further development of such approaches to estimating antitrust damages, in order to further refine the intended approximation of the actual damage incurred. On the one hand, this concerns the question of when such an estimation model can be applied at all. On the other hand, the weaknesses of the model highlighted in the literature should also be addressed; these stem from the lack of empirical calibration of the weights of the individual criteria, the overall lack of (empirical) grounding for individual criteria, and the unclear interactions between the individual determinants of damage.

³⁶ The Federal Court of Justice (BGH) itself has already pointed out that the findings in fine decisions or Commission decisions may constitute significant evidence of the occurrence of damage (see BGH, KZR 98/20, 9 July 2024, LKW-Kartell IV, para. 21). The Federal Court of Justice has not yet ruled on whether this also applies – as in the approach taken by the Higher Regional Court of Stuttgart – to the determination of the amount of damages.

³⁷ See Podszun 2019 on this approach.

265 Responsibility for further developing approaches to damage estimation lies both with the case law of the lower courts and with legal and economic research, which can help to close remaining gaps in the scientific basis of the model. A key academic starting point for further development lies in establishing an empirical basis for the estimation model. The Higher Regional Court of Stuttgart assesses various characteristics of a cartel, such as its duration, organisation, market structure and demand response. These criteria are economically plausible and are established in the literature. However, the model does not derive from empirical data the weighting that should be assigned to the individual criteria in the damage assessment. It therefore remains empirically unclear whether, for example, the duration of the cartel, market concentration or cartel discipline have a greater influence on the estimated price mark-up. Yet it is precisely this weighting that is crucial to the result, as shown in ‘’. In this respect, this is not merely a matter of potential for methodological improvement, but a structural weakness of the approach. The Stuttgart Higher Regional Court’s model classifies characteristics qualitatively without empirically calibrating their effects.

266 A more empirically grounded further development through econometric research could systematically analyse known cartel cases and derive a statistical predictive model from them. Data collections such as the database on cartel cases and cartel price mark-ups compiled by John Connor would be particularly suitable as a starting point.³⁸ Such a model could examine which characteristics have historically been associated with higher or lower price mark-ups. On this basis, calibrated weightings could be developed. Provided such empirical findings are available, a court could not only ask, in abstract terms, whether a particular characteristic has a price-driving effect, but could also assess how significantly this characteristic typically factors into the equation. At the same time, such an approach could provide not only a single estimate but also a range or a confidence interval. This would not replace the court’s assessment of damages, but would provide it with a more transparent empirical basis. Compared with the purely qualitative model of the Higher Regional Court of Stuttgart, such an approach would have the advantage that the weighting of the individual criteria would not be determined solely on the basis of judgement, but would be derived from observed cartel cases.

267 As a starting point for strengthening the Stuttgart Higher Regional Court’s model itself – specifically by way of example³⁹ – reference should be made to the criterion of the duration of the cartel, to which the Senate attributes a general price-driving effect,

³⁸ However, such data sets should not be adopted uncritically. The price mark-ups recorded therein may originate from different proceedings, markets, time periods and methodological approaches. Furthermore, individual observations may carry particular weight; selection and publication biases are also possible (Boyer and Kotchoni, 2015).

³⁹ See Klein/Haller (2026) for a more detailed examination of the empirical basis of the individual criteria.

since, in the Senate's view, the economic literature has observed that cartels lasting less than three years agree on lower price mark-ups than longer-lasting cartels (Stuttgart Higher Regional Court, 2 U 263/21, 20 November 2025, para. 145; see also Hellmann/Schliffke 2022, pp. 86 ff., 88, for a discussion of this issue). The Federal Court of Justice (BGH) argues similarly, assuming that, as the duration of the cartel increases, the probability of cartel-induced price increases generally rises (BGH, KRB 2/05, 28 June 2005, Berliner Transportbeton; see also, in this context, above, para. 7224).

268 However, studies other than those cited by the Higher Regional Court of Stuttgart cannot confirm this assumption. Smuda (2014) and Haucap et al. (2025) find no statistically significant correlation. Smuda further argues that cartels remain undetected for longer if they raise their prices less aggressively. This could even suggest the opposite effect, namely that long-lasting cartels are indicative of a lower price mark-up. Connor (2014) points out, in any case, that the evidence for the assumed relationship between the duration of the cartel and the cartel-induced price mark-up is weak. Should further evidence on this issue emerge from econometric research, the criterion of cartel duration should be refined where necessary.

269 However, it must also be noted that the very basis of the criteria used to assess the cartel – as set out in the empirical literature and relevant meta-studies – may itself lead to a weakness in the model developed by the Higher Regional Court of Stuttgart. Price mark-ups vary considerably between different sectors and markets. Accordingly, the magnitude of the price mark-ups caused by cartels is also likely to vary considerably, depending on the market to which the products involved in the cartel belong (Paha/Lüke, p. 185). Deriving price-driving characteristics for all markets and sectors from empirical (meta-)studies that examine different markets therefore carries the risk of neglecting these differences. This risk could be countered by further developing the model of the Higher Regional Court of Stuttgart to draw even more heavily, alongside the empirical research, on the extensive theoretical and experimental literature, which is not subject to such bias (see, for an earlier overview of this literature, e.g. Engel 2006). Furthermore, responsibility for this lies not only with the courts called upon to decide individual cases, but also with legal and economic research, which can help to make the findings of this branch of literature manageable for the courts.

270 The interplay of the criteria applied by the Senate also offers starting points for further development. This concerns not only the problem of the lack of empirical grounding for these interactions (see para. 7257). Rather, it should generally be ensured that individual characteristics of the cartel are not overvalued by being applied cumulatively within the framework of several damage determinants. One example of this effect is the allocation of market shares, which plays a significant role in both the

criterion of the ‘market power of the cartel members’ and that of the ‘market weight of non-cartel participants’, and whose effect could thereby be overestimated (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, paras. 181, 191; see also, however, Thiede 2020, p. 659; for further examples, see Klein/Haller 2026, p. 81).

271 The coherence of the proposed damage determinants should also be ensured in their practical application. For instance, the Senate acknowledges that the duration of the cartel has an above-average price-driving effect, even though it assesses the six-and-a-half-year duration of the cartel as merely average. It justifies this on the grounds that it assesses other damage determinants – namely the content of the agreement, coordination and cartel discipline – as having an above-average impact, which in turn reinforces the damage determinant ‘duration’ (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 334).

272 However, the Senate also generally takes the latter criteria into account when assessing damages, which carries the risk of these criteria being given undue weight. The Monopolies Commission therefore recommends that, in future cases, the individual factors determining damages should first be assessed on their own merits, without reference to other characteristics of the cartel. The assessment of the interplay between the individual factors determining the loss and the interactions between them should be reserved for a final overall assessment. This prevents individual characteristics of the cartel from being unintentionally and systematically overvalued.

273 In this context, however, it should also be noted that the aforementioned weaknesses and areas for further development in judicial damage assessment do not preclude qualitative estimation methods such as the approach adopted by the Higher Regional Court of Stuttgart. The courts of first instance are merely required to make full use of all the means of investigation available to them and, in doing so, not to contradict established economic findings. They are not required either to contribute to the further development of economic findings themselves or to improve inadequate expert reports submitted by the parties.

Selection of the basis for decision-making in individual cases

274 However, in order to exhaust all available sources of information, the court may in principle also consult econometric expert reports or appoint a court-appointed expert if it lacks the necessary expertise itself. Given the advantages in terms of precision offered by a well-founded and robust regression analysis, such an analysis may serve as a starting point for the assessment; however, it is only one of several tools available to the court.

275 Where the parties have already submitted a well-founded and robust econometric report, the court may take this into account when estimating damages. Furthermore, an expert report prepared in other proceedings concerning the same cartel may also be relied upon (Section 411a of the German Code of Civil Procedure (, ZPO)). A statement from the Federal Cartel Office pursuant to Section 90(5) of the German Act against Restraints of Competition (GWB), however, is unlikely to play a role in this context, as the Federal Cartel Office does not, as a rule, carry out its own regressions to determine the amount of damages (see, however, paragraph **277**).

276 If no econometric basis for estimation can be provided to the court in this way, the court also has the option of commissioning an expert opinion from a court-appointed expert. To this end, the courts must determine whether the factual requirements for carrying out an econometric analysis (reliable data, an available comparable market) as well as the requirements relating to procedural economy are met (see already para. **260**). If the procedural efficiency requirements are not met, consideration may be given to fulfilling them, for example by – as occurred before the Munich Regional Court – consolidating several proceedings relating to the same cartel complex and appointing a single expert.

277 If a regression analysis cannot be carried out in this way as a basis for estimation, a qualitative estimate must be used.⁴⁰ Where possible, preference should be given to a structured estimation model, such as that used by the Higher Regional Court of Stuttgart, over a completely free-form estimate based on a few arbitrarily selected criteria. Here too, however, the court must examine whether the necessary information is available. In the case of the Higher Regional Court of Stuttgart, an extremely detailed decision by the European Commission was available, on the basis of which the Higher Regional Court of Stuttgart was able to base its assessment of the many factors determining the loss. More recent decisions, however, are often handed down in settlement proceedings and are far less detailed (Weitbrecht 2026, p. 17). In this context, however, a statement by the Federal Cartel Office pursuant to Section 90(5), first sentence, of the Act against Restraints of Competition (GWB) regarding the amount of damages may play a role, as it allows information not contained in an administrative decision to be introduced into the proceedings (see, in this regard, Dortmund Regional Court, Decision, 8 O 34/22, 20 August 2025).

278 Ultimately, when making this decision, the courts must strike a balance between accuracy and efficiency in judicial decision-making (see also Paha/Lüke 2026, p. 183). In doing so, they must take into account the degree of precision and the effort required to carry out a regression analysis and a qualitative estimate, respectively. In doing so,

⁴⁰ The Higher Regional Court of Stuttgart also initially examined the expert report submitted by the claimant as well as the available data set and, on this basis, ruled out both the usability of the expert report submitted by the claimant and the procedural efficiency of appointing an expert.

the determination of the actual damage must remain the objective – even if it is unattainable (cf. Schweitzer/Woeste 2022, p. 56). However, it is of paramount importance to estimate the damage even in the absence of detailed data and price information. The risk of overcompensating the injured parties, which accompanies any loss of precision in a confident estimate made by the courts, must be accepted in view of the alternative of systematic undercompensation of those harmed by the cartel and a lack of deterrent effect of the competition rules. This is further supported by the fact that the cartel agreement, which is the cause of the damage, falls within the sphere of responsibility of the cartel participants.

279 An estimate of the damage – including its amount – may only be omitted if the court, applying the criteria of Section 287 of the Code of Civil Procedure (ZPO), reaches the conclusion that no damage has been suffered at all or that there are no tangible grounds whatsoever for estimating the damage, such that any estimate would be entirely unfounded.

2.1.1.3 Conclusion

280 Despite the developments in collective enforcement and the estimation of damages, which are generally to be welcomed, the judicial enforcement of antitrust damages claims continues to face considerable challenges. The proceedings remain very time-consuming and often take several years at each instance (see already para. **7230 et seq.**). Furthermore, to date, only in a few cases have judgments been handed down that award damages and specify the exact amount. However, if only a declaratory or preliminary judgment is initially issued, the time required increases even further, as all instances must be gone through again to determine the specific amount of damages (Schweitzer/Woeste 2022, p. 49).

Avoiding an econometric assessment would speed up proceedings in suitable cases. In such cases, the courts face the challenge of managing the case file, including the expert reports submitted by the parties, and paving the way for a damages assessment based on qualitative criteria. It is primarily the responsibility of the competent courts to ensure the efficient handling of the case file and to ensure that the advantages of a judicial estimate without regression analysis are not negated by time-consuming deliberations on a multitude of expert reports submitted by the parties. They should make use of the instruments of civil procedure law at their disposal to further streamline and accelerate the proceedings as a whole.

281 In doing so, they face the difficulty of having to handle cases involving tens of thousands of transactions using the traditional ZPO procedure, which prioritises justice in individual cases and is hardly suited to mass proceedings (Klumpe 2022, p. 464

ff.; Wurmnest 2025, p. 27; Thiede 2026a). However, decisions such as those discussed here show that even these challenges can be overcome. Examples of promising approaches to managing the volume of proceedings include the methods adopted by the Higher Regional Court of Stuttgart, which involve assessing the quality of the procurement procedures submitted using statistical approaches based on random sampling (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 58 et seq.). In the medium term, artificial intelligence could also be used to support such approaches.

282 Furthermore, options are already available to strengthen the organisation of court proceedings and improve the quality of damage assessment. One option, for example, is ‘case management conferences’, in which the aim is to structure the proceedings and identify the key economic issues of the case at an early stage with all parties involved – including, where appropriate, the appointed experts (see, for example, Klumpe 2024, p. 15 ff.; Kirchhoff 2024, p. 74). Furthermore, it is proposed that, in appropriate cases, an exchange between the parties’ experts – and, where necessary, the shared use of the data employed – should be facilitated in order to strengthen the basis and quality of the expert reports. Where possible, this could also result in a joint statement by the party-appointed experts, possibly involving a neutral court-appointed expert (see, for example, Kirchhoff 2024, p. 74; Klumpe/Paha 2024, p. 450; Heusel/Hildebrand/Mattes 2024, p. 384 ff.; on these and further proposals, see also Isikay 2020).

283 By contrast, it seems almost taken for granted that the Higher Regional Court of Stuttgart considered the organisation of the procurement processes (no fewer than 80,000) in Excel spreadsheets on a USB stick to be downright desirable (Higher Regional Court of Stuttgart, 2 U 263/21, 20 November 2025, para. 22 et seq.; see also Dortmund Regional Court, Decision 8 O 21/23 Kart, 4 February 2026). The lower court, however, had cited this, amongst other things, as grounds for declaring the action inadmissible, as the claimant had not identified the individual procurement transactions in writing in this manner.

284 Despite these options, the courts continue to face significant challenges in handling antitrust damages proceedings, particularly where a very large number of items of damage are claimed (in a bundled manner). The Monopolies Commission therefore also recommends a cautious further development of procedural law with the aim of enabling effective legal protection for scattered damages as well and of facilitating the courts’ handling of these proceedings.

285 To this end, in particular, a further concentration and consolidation of proceedings should be introduced (cf. Monopolies Commission, 2025a, p. 5; see also Loy

2022). The federal states are already able to assign antitrust proceedings to specific regional courts (, Section 89(1) GWB). Almost all the federal states have made use of this provision. Nevertheless, proceedings concerning all major cartels take place before various regional and higher regional courts. In addition, proceedings are frequently brought before foreign courts. Given the different approaches to damage assessment adopted by the courts, this carries the risk of divergent decisions if significantly differing amounts of damages are estimated for one and the same cartel. In the long term, this could also lead to strategic forum shopping.⁴¹ This could be remedied by a further concentration of jurisdiction, which could go so far as to ensure that only one regional court would have jurisdiction over follow-on actions concerning a specific cartel. Furthermore, particularly in the case of larger cartels, a centralised test case could be conducted in which the damages resulting from price overcharges are determined as comprehensively and precisely as possible. Other courts could then base their own damage assessments on this, without having to carry out a time-consuming assessment of the cartel themselves.

286 At the same time, it should be ensured that even small, scattered claims can be asserted in these proceedings. To this end, a genuine class action could be introduced, thereby avoiding the burden of complicating the proceedings – as is the case with class action debt collection – with further legal issues such as the valid assignment of claims and the power of representation of the assigning companies. Consideration could also be given to introducing an ‘opt-out’ class action. Depending on its design, this would mean that all victims of the cartel who do not actively opt out would benefit from a successful claim. However, such an instrument is as yet unknown in German procedural law. One possibility, for example, would be the introduction of a formalised (judicial) procedure following the regulatory antitrust proceedings. Provided that this also grants consumers effective access to the enforcement of antitrust claims for damages, it would also contribute to resolving the problem of cost pass-through (see para. **249 et seq.**). Its introduction would, however, need to be carefully weighed against the associated challenges regarding its design and the right to a fair hearing for all parties involved. Furthermore, this could weaken the out-of-court settlement of such claims (see also Monopolies Commission 2016, para. 177 et seq.). For the time being, it is therefore advisable to monitor further developments regarding the assertion of diffuse damages and, for the time being, to leave the recovery of any remaining cartel profits to the strengthened recovery of benefits.

⁴¹ In antitrust damages cases, however, there is no ‘flexible venue’. However, as the action may be brought both at the place where the tortious act was committed and at the place where the damage occurred (Section 32 of the German Code of Civil Procedure (ZPO)), and as judicial jurisdiction may, under certain circumstances, also arise from the consolidation of claims (cf. Section 36(1)(3) ZPO), there is a certain degree of flexibility when bringing the action.

287 Furthermore, in large-scale proceedings, the procedural efficiency requirements for a more precise assessment of damages would be easier to meet. To this end, the courts should be provided with tools that, in mass proceedings, do not focus on the individual fairness of each specific item of damage, but rather enable the total damage to be determined with legal certainty – where appropriate, using statistical methods. The overarching aim of such measures must always be to simplify access to justice for victims of antitrust infringements and to increase the efficiency and precision of proceedings.

288 The introduction of such procedural formats should be accompanied by a strengthening of the courts' staffing and material resources for mass litigation. In addition, powers granted to the courts to limit the scope of the proceedings and the parties' submissions could also enhance the manageability of the proceedings. This could, for example, be implemented through a shared electronic master document in which the claims of the claimant and the defendant are set out side by side. A power granted to the courts to limit the length of written submissions would serve a similar purpose.

289 The early clarification of relevant legal issues by the Federal Court of Justice (BGH) could also help to speed up proceedings. To this end, regional courts could be given the option of referring legal issues relevant to the decision to the BGH for clarification as early as the first instance. This could help to speed up proceedings and enable the courts to focus more closely on the assessment of damages. At present, the Federal Court of Justice (BGH) can only designate certain cases pending before it as test cases and clarify legal issues independently of the outcome of those cases. It cannot, however, rule on legal issues pending in lower courts.

Recommendations

- In the absence of a class action mechanism in Germany, collective recovery of damages represents an important means of pooling antitrust damages. In order to enable the enforcement of scattered damages in a legally certain manner, the courts should utilise the scope for discretion remaining following the Federal Court of Justice's decision to promote the effective and expeditious enforcement of claims for antitrust damages.
- When assessing damages, the courts should actively fulfil their responsibility to estimate the loss and, on the basis of the available information, estimate the loss – at least in the form of a minimum loss –. An estimate is also required even where the data is incomplete. The uncertainty inherent in damage assessment must not structurally disadvantage those harmed by antitrust infringements.

- In appropriate cases, econometric regressions may be useful for estimating damages. In addition, the courts should be able to rely on qualitative estimates. This estimation methodology should be continuously refined by the courts, legal scholarship and economic research. Regression analyses must not become a de facto prerequisite for claiming antitrust damages where the available data or procedural efficiency argue against their use.
- The legislature should adapt the procedural framework in such a way that antitrust damages proceedings become more efficient, faster and more manageable. In particular, this can be achieved by grouping similar cases more closely together, further concentrating jurisdiction and providing the courts with effective tools for dealing with voluminous case files.

2.1.2 Competition in the defence sector

290 Security developments in recent years have prompted many countries to make substantial investments in their defence capabilities. There is a particularly significant need to catch up in the procurement of defence equipment in Europe.⁴² Programmes such as ‘Readiness 2030’ aim to enhance the EU’s military readiness and its autonomy in foreign and security policy (European Commission, 2025a). At national level, this development is reflected in the Bundeswehr Special Fund, which comprises a separate borrowing authorisation of up to EUR 100 billion as a one-off measure (Article 87a(1a) of the Basic Law) and was adopted in response to Russia’s war of aggression against Ukraine in 2022.

291 As a result, the defence sector is experiencing a massive boom. On the one hand, this involves expanding the production of existing defence equipment. On the other hand, military innovation is required. However, even supposedly simple defence equipment often exhibits a high degree of complexity and requires considerable resources. The challenges involved in the (further) development of new weapon systems are therefore particularly great. In order to meet the demand for defence equipment, whether through mass production or innovation, many manufacturers are turning to mergers with competitors or companies from neighbouring markets.

292 This raises the question of whether cooperation between, or mergers of, defence companies is compatible with competition law. The European Commission and the German Federal Cartel Office have recently examined numerous cases but ultimately found no competition concerns. In practice, therefore, competition law has not, to

⁴² For a definition of armaments within the meaning of so-called defence technology, see Podszun/Wardelmann, 2025, p. 522 ff.

date, fundamentally stood in the way of rearmament. From the Monopolies Commission's perspective, it is important that the authorities scrutinise such matters carefully and set limits on any anti-competitive plans. The development of modern defence capabilities can only succeed through competition, not against it.

293 Developments in the defence sector exemplify a common misunderstanding in economic policy: industrial policy, security policy or other objectives are often seen as being at odds with the protection of competition. The rapid development of strategically important production capacities in the defence sector is then regarded as a state responsibility, in which competition law considerations appear to be an obstacle. Yet the opposite is true: markets and companies develop quickly, successfully and efficiently when they are open to competition and allow different companies the freedom to flourish. For a detailed discussion of the principles of a correspondingly competition-oriented industrial policy, see ↗**Chapter 3**.

2.1.2.1 Specific features of the defence sector and shortcomings in competitive tendering

294 The defence sector exhibits a number of structural characteristics that distinguish it from other sectors of the economy. Whilst intermediate inputs and components for defence equipment are also traded between companies, in the end-user market it is generally only state actors that act as buyers. State defence contracts frequently contain specific requirements for particular needs. As standard solutions are not considered sufficient in such cases, products must first undergo extensive (further) development. For companies, this means that, as a rule, considerable financial and human resources, as well as specialised technical expertise, are required to fulfil a defence contract. Only a few manufacturers have the capacity or expertise to carry out large-scale contracts independently.

295 It should also be borne in mind that states hold minority stakes in national defence companies; Germany, for example, holds a stake in Hensoldt and will in future – as France already does – hold a stake in KNDS (Federal Government, 2026). There is therefore potential for unequal treatment in the awarding of defence contracts. Where, as noted in, individual services for the military are provided entirely 'in-house' by state-owned enterprises, there is no free competition at all (Podszun/Wardelmann, 2025, p. 523).

296 It is true that standardised procurement processes also exist in the defence sector, for example in the field of protective clothing and personal equipment. In recent years, alongside established suppliers – thanks to increased venture capital and grow-

ing digitalisation – numerous start-ups have also emerged, for instance in the development and manufacture of drones (Gürtler, 2026; Schimroszik, 2026). In the wake of the current economic crisis, other companies appear to be considering shifting part of their production from civilian to military goods (Koenen, 2026; Ramthun, 2026).

297 It is questionable, however, whether the resulting competitive potential is being fully exploited. This is because security and/or industrial policy considerations on the part of buyers often lead to a preference for established national suppliers. Added to this are administrative hurdles (such as security certifications), close ties between companies and the state, and long contract terms (Bernhardt/Dewenter, 2026, pp. 4 ff., 18 ff.; Podszun/Wardelmann, 2025, pp. 58–6). This creates barriers to market entry. Admittedly, there are increasing efforts to coordinate and pool national procurement projects at European level, for example in the procurement of ammunition (European Defence Agency, 2023). Nevertheless, defence procurement in the EU remains largely fragmented. Most recently – and the trend is rising – more than 60 per cent of German defence procurement was accounted for by national suppliers, whilst hardly any defence products were sourced from suppliers in other European countries (Wolff et al., 2026, p. 12).

298 At the same time, the state is unable to make full use of the purchasing power it actually possesses. Although it acts as the sole buyer in many areas of defence procurement and thus, in principle, wields considerable purchasing power, however, so many bodies with differing incentives are involved in government procurement that any strategic and economic use of this position is fragmented. Buying power can only have a disciplining effect if alternative options are actually available. It is precisely this that could be lacking in future if the number of competing system suppliers continues to decline due to high barriers to market entry and increasing consolidation. This is exacerbated by information asymmetries and differing incentive structures, as defence companies are generally better able to assess costs and technical feasibility, whilst government demand is primarily guided by military requirements. The state's strong position as a monopsonist therefore does not automatically counterbalance the market power of the few suppliers. Rather, a close, reciprocal dependency can develop between the state and defence companies (see Bernhardt/Dewenter, 2026, p. 20; Podszun/Wardelmann, p. 586).

2.1.2.2 Shortcomings in competitive tendering

299 The Monopolies Commission drew attention to the shortcomings in competitive tendering within the defence sector at an early stage in its statement 'Why Competition Matters for Defence Spending' of April 2025. In that statement, it made specific recommendations for a competition-friendly procurement policy based on three key

requirements (Monopolies Commission, 2025; see also Bernhardt/Dewenter, 2026, pp. 24 ff.; Kapstein et al., 2026, pp. 13 ff., with a focus on innovation; Lange et al., 2025):

- greater European coordination and interoperability,
- Simplifying and speeding up procurement procedures and
- striking a balance between urgency and innovation.

The Monopolies Commission's opinion is reproduced in full below in German translation. In the Commission's view, it has become even more pressing since its publication.

2.1.2.2.1 Why competition is crucial for defence spending

300 Both the European Union and Germany are currently preparing extensive, publicly funded investment programmes, particularly in the defence sector. These offer significant opportunities for the European economy. The primary objective of defence spending must be to ensure that the security requirements and defence capabilities of the Member States and the Union are met. However, procurement policy should also be designed in such a way that it helps to promote other policy objectives, in particular innovation and competitiveness.

301 To fully exploit the potential of this historically significant yet challenging situation, a clear commitment to a new, competition-oriented European regulatory framework is required.

302 In the past, public procurement for major infrastructure projects has often been fraught with problems: excessive bureaucracy, cost overruns, perverse incentives and unreliable demand and cost forecasts. Large companies often have structural advantages when it comes to accessing public contracts, whilst small and medium-sized enterprises (SMEs) and start-ups are disadvantaged by financial and administrative hurdles. This imbalance stifles innovation and reduces the diversity of market participants. These risks are particularly significant in the defence sector. Procurement projects here are typically long-term in nature and characterised by complex contractual structures. This increases the risk of a lasting concentration of market power and the emergence of long-term dependencies. Furthermore, an increase in government spending can exacerbate existing bottlenecks in intermediate inputs or cause cost increases that place a particular burden on smaller and less established companies.

303 As the state's presence in the economy grows, these risks will intensify further. It is therefore essential to incorporate competition considerations into the design of defence spending from the outset. Competition helps to reduce costs and limit the influence of dominant market players. It prevents the entrenchment of long-term dependencies, which would pose significant risks both from an economic perspective and for democratic decision-making processes. Above all, however, competition promotes technological innovation at a time when it is urgently needed.

2.1.2.2.2 Key prerequisites for a competition-promoting approach to defence spending

304 A consistently competition-oriented approach to defence spending requires a new framework based on three key prerequisites: 1) a European approach; 2) a significant simplification and acceleration of procurement procedures; and 3) a balance between short-term operational capability and long-term promotion of innovation.

A European approach

305 The White Paper rightly points out that the current fragmentation of defence procurement within the EU – with a multitude of different weapons and defence systems – leads to inefficiencies and undermines economies of scale in research, production and maintenance. Greater European coordination, combined with a more consistent focus on European technologies, could boost efficiency and competitiveness whilst safeguarding national security interests. A more integrated approach would generate economies of scale and encourage industrial consolidation without restricting competition. On the contrary, European companies would compete with one another in a larger market, thereby contributing to greater dynamism.

Harmonisation, simplification and acceleration

306 Europe must harmonise the legal and technological framework for defence spending. Simplification is an essential prerequisite for fully realising the potential of defence procurement. The European Commission's 2025 Work Programme emphasises the need to become 'bolder, simpler and faster'. This is a matter of particular urgency in the defence sector. Procurement rules and institutional structures must be streamlined accordingly or – where necessary – fundamentally redesigned. Tender documents should be significantly shorter and limited to requirements that are truly essential. At the same time, the duration of procedures must be considerably reduced.

A balance between urgency and innovation

307 Europe needs a common strategy to define future procurement priorities in the defence sector. Given the rapidly deteriorating security situation, there is an undeniable need to be able to act in the short term and to strengthen defence readiness immediately. However, this urgency must not come at the expense of long-term investment in new weapons and defence technologies. A balanced approach is therefore required: Short-term procurement should focus on tried-and-tested suppliers of established weapons and defence systems in order to rapidly expand capabilities. At the same time, however, an independent innovation pathway must be created to foster future technologies. This requires specific funding and procurement instruments that support open competition, dual-sourcing strategies and targeted investment in start-ups and SMEs. Key technologies such as AI, quantum technologies, cyber security, unmanned systems, communications solutions and advanced defence platforms can become strategic drivers of European innovation – provided their importance is given due consideration and the available funds are deployed in a targeted manner.

2.1.2.2.3 Proposals for safeguarding competition and innovation in defence spending

308 In order to put the three key prerequisites mentioned above into practice, we put forward the following proposals to strengthen competition and innovation in the field of defence spending. The proposals are intended to contribute to the debate on appropriate guiding principles. The focus is on laying the foundations for sustainable defence procurement. The three key prerequisites described above, together with the following proposals, form a starting point for the development of a more dynamic and innovation-oriented framework. They should not be regarded as a definitive concept.

Creating competition at European level

309 A procurement system with a consistently European focus would enable the pooling of Member States' demand, thereby generating greater economies of scale. Within such a framework, dual sourcing – where possible – can be an effective tool for avoiding dependencies and promoting competition. Dual sourcing can take various forms: from the parallel procurement of functionally equivalent technologies to the involvement of a second supplier for the same system. Each of these variants has different advantages and disadvantages in terms of costs, economies of scale and strategic flexibility. At the same time, such an approach could encourage the formation of competitive consortia. This would not only intensify competition but also strengthen the interoperability and standardisation of systems, thereby helping to reduce the fragmentation of the European defence market.

310 The procurement of urgently needed and technologically mature defence equipment should be geared more towards market solutions that are already available, rather than continually overburdening projects with additional requirements. This would speed up procedures whilst creating more scope for competition.

311 Further strengthening common security and compliance standards could make it easier for companies to compete successfully. A Europe-focused procurement strategy could draw on pre-qualified supplier registers and a list of trusted suppliers at EU level. Authorisations and certifications should be mutually recognised within the European Union. This would reduce barriers to market entry and improve opportunities for competition.

312 Wherever possible, interoperability within Europe should become the norm. A clear commitment to interoperable systems would promote the development of more coherent and cost-effective defence solutions, thereby strengthening the resilience and performance of the sector as a whole. At the same time, this would make it easier for a greater number of companies to participate in the procurement processes. Interoperability also fosters technological spillover effects and supports dual-use innovations that can promote economic growth beyond the defence sector. Security concerns relating to interoperability are legitimate. Whilst concerns regarding interoperability in relation to security risks are justified, careful design at various levels can ensure that the integrity of sensitive systems is not compromised.

Strengthening the involvement of start-ups and SMEs

313 A significant proportion of the funding will undoubtedly be required for complex projects involving established manufacturers. Nevertheless, a substantial share of the funding should be earmarked specifically for start-ups and SMEs – in line with existing European funding programmes such as ‘Horizon Europe’ or the European Defence Fund. Furthermore, leading defence contractors could be required to award a fixed percentage of large EU defence projects to SMEs. Alternatively, calls for tenders should provide for direct contracting opportunities for SMEs, as well as incentives for joint research and development projects between large contractors and SMEs. This would ensure that smaller companies gain access to the market and can contribute to the innovation ecosystem as a whole.

314 In areas where start-ups and specialised SMEs have particular strengths, separate tenders exclusively for SMEs could be established. This would provide smaller, innovative companies with a level playing field and prevent cutting-edge technological developments from being produced exclusively by large, established companies.

Such SME-specific projects could be carried out via fast-track procurement procedures with limited budgets. This would help to establish best practices. However, to limit compliance risks and cybersecurity vulnerabilities, the fast-track procedure should be restricted to technologies with lower risk profiles, in order to ensure both innovation and security.

315 Furthermore, co-financing instruments should be expanded. One possible approach would be a venture capital-style funding model, in which public and private investors jointly invest in particularly promising defence start-ups. This could provide a decisive impetus for the development of new technologies.

316 Procurement bodies should actively encourage start-ups to participate both in planning processes (by contributing their ideas and expertise) and in production. At the same time, the relevant bodies must develop the necessary expertise to better understand the contributions that start-ups and SMEs can make.

Promoting innovation

317 The planned increase in defence spending should be specifically targeted at strengthening innovative capacity. This requires an open procurement system that creates incentives for innovation. Procurement procedures should, as a matter of principle, be open in nature and involve stakeholders from research and industry – including smaller, innovative companies – from the early planning stages onwards. Instead of rigid and detailed pre-defined specifications, procurement should rely more heavily on open ideas competitions and a problem- and solution-oriented definition of requirements. The approach should be more ‘bottom-up’: companies – including SMEs and start-ups – should be able to demonstrate which technological options are already available or feasible. This is preferable to a ‘top-down’ approach, in which the required innovations are dictated. Pilot programmes could help to demonstrate the practical viability of a more market-driven, idea-oriented and slightly more experimental approach.

318 The high costs and lengthy duration of public procurement procedures often deter smaller companies from participating, thereby limiting the number of innovative solutions. To address this problem, financial support mechanisms could be introduced. For example, companies that come second or third in tenders could be reimbursed for part of their tender costs. This would reduce the financial risks of participation, particularly for start-ups and SMEs.

319 Europe should also create so-called defence innovation sandboxes – practical test environments in which companies can trial new technologies under realistic conditions and integrate them into larger defence systems. Such controlled development environments would facilitate iterative innovation processes, reduce risks and ensure that new solutions are compatible with existing military infrastructure.

320 Furthermore, Europe should establish an independent body for defence innovation, modelled on the US Defence Advanced Research Projects Agency (DARPA). A corresponding European programme should promote particularly promising dual-use technologies such as AI, quantum computing and robotics, placing a special emphasis on SMEs and start-ups. Research institutions should be systematically involved in these processes.

Reducing bureaucracy and ensuring competition

321 To boost innovation and efficiency in defence procurement, Europe must establish a harmonised European procurement framework. This should gradually replace the currently highly fragmented national systems. A uniform framework would facilitate cross-border procurement processes and eliminate the need for multiple certification and authorisation procedures. This requires Member States to pool existing resources at European level and to cooperate more closely within a common system. In our view, the proposed European Defence Mechanism represents a step in this direction. Such an intergovernmental body could develop targeted solutions to existing coordination shortcomings and the varying levels of commitment among individual Member States.

322 Europe should also introduce fast-track decision-making procedures for defence procurement. This includes, in particular, the extension of simplified direct awards for smaller projects without lengthy tendering procedures. However, such simplifications must go hand in hand with improved transparency and ex-post scrutiny.

323 The legal framework governing procurement requires a fundamental overhaul. A far-reaching simplification does not appear achievable within the existing structures. New organisational and procedural structures should therefore be established in parallel to gradually replace the current system. The aim of this new system must be to reduce bureaucracy, ensure competition and, at the same time, remain sufficiently flexible to accommodate future developments. Far-reaching simplification will only succeed if clear priorities are set, digital administrative processes are established and data-driven monitoring systems are utilised. Germany has already set a remarkable example with the state-funded Federal Agency for Breakthrough Innovations

(SPRIND). SPRIND demonstrates how disruptive innovations can be specifically promoted and accelerated, and could serve as a model for faster and less bureaucratic procurement procedures.

324 The introduction of standardised procedures with clearly defined timeframes, as well as uniform Europe-wide security standards and tender templates, would help create a more efficient and predictable procurement environment. In addition, the establishment of a central clearing house could help to further simplify procedures and ensure consistent application of the rules across all Member States.

325 In addition to simplifying procurement procedures, Europe must continuously develop digital solutions to increase speed and transparency. These include, in particular, electronic procurement platforms, AI-supported tools for tender evaluation, and project monitoring.

326 The allocation of public funds must be carried out in accordance with the principles of the rule of law and ensure accountability and competition. Procurement and state aid law should be simplified, but not abandoned. Institutions responsible for detecting anti-competitive behaviour, corruption and bid-rigging must be adequately resourced so that they are able to monitor compliance with the rules effectively without hindering innovation. At the same time, legal redress procedures should be expedited.

2.1.2.3 Antitrust principles in the defence sector

327 As noted at the outset, there has recently been an increase in cooperation and mergers involving defence companies. In this respect, competition law applies, in particular the prohibition of cartels (Article 101 TFEU and Section 1 of the German Act against Restraints of Competition (GWB)) and merger control (the EU Merger Regulation and Sections 35 et seq. of the GWB).

2.1.2.3.1 Significance of Article 346(1)(b) TFEU

328 EU competition law does not apply without restriction to the defence sector. Article 346(1)(b) TFEU stipulates that each Member State may take such measures as are necessary to safeguard its essential security interests, in so far as they concern the production of, or trade in, arms, munitions and war material. This provision is not, however, a classic sectoral exemption. Rather, it ‘merely’ offers Member States the possibility of taking measures on grounds of national security that are not in accordance with the other fundamental principles of the EU. However, as national security, pursuant to Article 4(2), third sentence, TEU, falls within the sole responsibility of the Member States, they are granted a discretionary prerogative in determining their security interests and selecting the measures to be taken (Scientific Services of the German

Bundestag, 2011, p. 7; Jaeckel, 2011, para. 3; von Graevenitz, 2026, p. 44). National security interests are frequently invoked by Member States in the context of defence procurement (Eisenhut, 2022, p. 3271; Hindelang/Eisentraut, 2019, p. 150). Under national law, Section 107(2)(2) of the German Act against Restraints of Competition (GWB) contains an explicit, albeit merely declaratory, exception to the general procurement rules, which contributes to the preferential treatment of established national suppliers.

329 In the field of competition law, too, Member States may, in accordance with Article 346(1)(b) TFEU, invoke essential security interests. Given its exceptional nature, the provision must be interpreted strictly, and Member States must demonstrate that its conditions are met (ECJ, C-615/10, 7 June 2012, *Insinööritoimisto InsTiiimi*, para. 44 et seq.; C-414/97, 16 September 1999, *Commission v Spain*, para. 21 et seq.). This is also in line with the European Commission’s practice in merger control, particularly with regard to the separation of military and civilian components in mixed mergers (Körber, 2025, para. 42, with further references). Provided that the conditions of Article 346(1)(b) TFEU are met in a specific case, EU competition law does not apply and only national law is relevant. The undertakings involved in a concentration may therefore be instructed by a Member State not to notify the concentration to the European Commission, either in full or – where civilian goods are also involved – in part (Körber, 2025, para. 41; Westermann, 2025, para. 12a; see also European Commission, M.528, 24 November 1994, *British Aerospace/VSEL*, para. 9 et seq.; critical view. Dittert, 2025, para. 30).⁴³

330 It is difficult to ascertain how many notifications at EU level are blocked by Member States on the grounds of national security interests (for examples from case law, see Jungermann, 2013, para. 37 et seq.; Birmanns, 2023, para. 44 et seq.). In any event, the European Commission is examining a large number of mergers in the defence sector (see also section **72.1.2.4.1**).

2.1.2.3.2 Specific features of market definition for defence equipment

331 Market definition is regarded in competition law as a key step in identifying the relevant competitive forces within a sector. The primary consideration here is whether, from the perspective of consumers, a product or service meets the same need and is therefore interchangeable (the so-called ‘needs-based market’ concept). In the case of defence equipment, the high degree of technical and functional specialisation of individual projects, as described in paragraph **7294**, might suggest that each contract

⁴³ Unlike Article 346(1)(b) TFEU, Article 21(4), first and second subparagraphs, of Regulation 139/2004 permits Member States to take appropriate measures to protect their security interests in addition to the competition law assessment carried out by the European Commission; see Birmanns, 2023, para. 41 .

constitutes a separate product market. This is because, given the often highly detailed specifications for various defence equipment, there are, from the contracting authority's perspective, hardly any interchangeable products (see, for example – in relation to avionics products – European Commission, M.3735, 14 March 2005, Finmeccanica/AMS, para. 9).

332 However, when defining the market, the supply side must be taken into account in addition to the perspective of the buyers. Of significance, therefore, is the ability of companies to switch their production to other products at short notice and with minimal effort (so-called supply-side flexibility). In the defence sector, focusing solely on the perspective of the demand side (= government contracting authorities) and their specific requirements for various projects would overlook the fact that individual (large) companies have the ability to adapt their production to different requirements. Competitive pressure therefore arises from the fact that these defence companies can utilise their capacities to fulfil various contracts – at least within a specific product area. A factual market definition based solely on the specific requirements for a defence good, and without taking into account the production conversion capacities of potential suppliers, would therefore be insufficient (Podszun/Wardelmann, 2025, p. 582).

333 Another distinctive feature of the definition of the relevant product market in the defence sector is that individual products are sometimes grouped together to form 'complete systems'. Both the European Commission and the German Federal Cartel Office assume the existence of a single relevant product market for complete systems for armoured military vehicles (European Commission, M.3159, 25 July 2003, Rheinmetall/STN Atlas, para. 11; German Federal Cartel Office, B4-169/99, 23 March 2000, Rheinmetall/Kuka, para. 18). This is because government procurers award contracts for the development, manufacture and supply of such defence equipment to system integrators. These companies ensure the integration of individual subsystems or components and, as prime contractors, bear responsibility for the complete system. Below the level of system integrators, the markets for subsystems and components tend to be defined more narrowly – as is customary in the context of market definition under competition law (see also, on this subject, Podszun/Wardelmann, 2025, pp. 523, 583).

334 When defining the geographical market, it must be borne in mind that public procurement is often still characterised by national considerations due to security and/or industrial policy factors (see the critical discussion in para. **7297 et seq.**). According to the 'market of demand' concept, it is generally assumed that there are national – rather than European or even global – markets for defence equipment. This applies in particular to the aforementioned integrated systems (BKartA, B4-169/99, 23 March

2000, Rheinmetall/Kuka, para. 16; see also Podszun/Wardelmann, 2025, p. 584). That said, it is clear that, as a result of European efforts, military cooperation between Member States has become closer. It therefore does not appear justified to define security interests at national level. Should defence procurement in future take place primarily at European level, the market definition under competition law would follow suit.

2.1.2.4 Current competition law case law in the defence sector

335 In recent years, there has been extensive case law from the European Commission and the German Federal Cartel Office in the defence sector, albeit more in the area of merger control than in antitrust enforcement. In 2023, the European Commission imposed sanctions for an antitrust infringement in the market for the manufacture of hand grenades (European Commission, AT.40760, 21 September 2023, Hand grenades). The most recent decision by the Federal Cartel Office imposing a prohibition order and a fine for anti-competitive agreements relating to defence equipment – specifically recoil pads and vibration dampers for tracked vehicles – was issued in 2015 (Federal Cartel Office, 2015). Furthermore, little is publicly known about ‘simple’ collaborations which are not subject to the notification requirement under merger control law but are assessed solely on the basis of the prohibition of cartels. The European Commission has, however, recently clarified that it is available to provide companies with guidance on competition law in relation to defence collaborations (European Commission, 2025b, p. 9).

2.1.2.4.1 Overview of the European Commission’s merger control practice

336 Under merger control law, the European Commission has recently examined several mergers in the defence sector. It has not identified any serious competition concerns in any of these cases. The mergers were each cleared in the preliminary assessment procedure without any conditions. The following cases are cited by way of example:

- Establishment of a joint venture by BAE Systems, Japan Aircraft Industrial Enhancement and Leonardo (European Commission, M.11800, 16 June 2025). The purpose of the joint venture is to develop a sixth-generation fighter aircraft. The European Commission found that the existing horizontal overlaps between BAE Systems and Leonardo in the field of multi-role fighter aircraft on the Italian market were not exacerbated.
- Acquisition of Iveco Defence Vehicles and Astra Veicoli Industriali by Leonardo (European Commission, M.12158, 16 March 2026; grounds for the decision not yet published). The merger primarily concerns armoured combat vehicles and military lorries.

- Acquisition of the naval division Naval Vessels Lürssen by Rheinmetall (European Commission, 17 February 2026, M.12244). The stated objectives of the transaction are, in particular, the expansion of Rheinmetall’s maritime activities and the strengthening of the European defence industry. In contrast to the two cases mentioned above, this merger was notified to the European Commission under the simplified procedure rather than the standard procedure.⁴⁴

337 The European Commission has also cleared two mergers – which, whilst not primarily focused on the defence sector, do at least have links to it – under the preliminary assessment procedure, subject only to ancillary conditions (European Commission, M.11578, 14 October 2025, Boeing/Spirit; M. 11253, 17 June 2025, Safran/Coltins Aerospace).

2.1.2.4.2 Overview of the Federal Cartel Office’s merger control practice

338 The Federal Cartel Office has recently examined a large number of mergers in the defence sector. These often involved the establishment of joint ventures to meet the requirements set by the contracting authority for the respective defence project. With regard to the products, it is striking that numerous mergers continue to relate to armoured military vehicles (see also Podszun/Wardelmann, 2025, p. 526). The Federal Cartel Office approved the mergers in each case under the preliminary review procedure. In two cases, the notification was withdrawn (B4-131/23, Krauss-Maffei-Wegmann/Rheinmetall Landsysteme; re-notified and cleared: B11-83/25, 15 December 2025, Rheinmetall Landsysteme/KNDS; B4-105/24, Rheinmetall/Prime Holdings). However, the withdrawals were not due to competition concerns raised by the Federal Cartel Office.

339 The Monopolies Commission had before it the majority of the Federal Cartel Office’s merger control decisions, in particular those relating to cases from 2024 and 2025. Despite the swift approvals, the Federal Cartel Office scrutinised the mergers with a comparatively high degree of rigour. The following cases are illustrative of the Federal Cartel Office’s recent merger control practice in the defence sector:

- Acquisition or increase of a minority stake in Renk by KNDS (BKartA, B4-40/25, 17 April 2025). Renk holds a strong market position in gearboxes for military vehicles, whilst KNDS operates as a systems supplier for such vehicles. The Federal Cartel Office found that Renk had no incentive to disadvantage other manufacturers of military vehicles when supplying gearboxes.
- Establishment of a joint venture by KNDS, Rheinmetall and Thales (BKartA, B4-33/25, 4 April 2025). The joint venture is to develop a new main battle tank as part

⁴⁴ In the simplified procedure, the level of scrutiny is lower. More than three-quarters of the mergers notified to the European Commission are decided under the simplified procedure.

of a German-French cooperation. According to the Federal Cartel Office, the companies are unable to carry out the project on their own. Furthermore, the companies' activities overlap only in certain areas, or there is sufficient competition from other companies.

- Establishment of a joint venture by Nammo Raufoss and Diehl Defence (BKartA, B11-28/26, 10 March 2026). The joint venture was established for the purpose of carrying out a contract for the manufacture and supply of artillery ammunition for the Bundeswehr, which had been awarded to the two parent companies acting as a consortium.

2.1.2.5 Remaining competition concerns

340 Irrespective of the aforementioned cases and their assessment by the European Commission and the Federal Cartel Office respectively, the Monopolies Commission considers that fundamental competition concerns remain in two respects. Firstly, this concerns the formation of joint ventures between established undertakings, particularly those from different Member States. Such mergers sometimes fulfil industrial policy objectives (Podszun/Wardelmann, 2025, p. 527). If cooperation with a national manufacturer results in foreign companies gaining access – albeit still limited – to a national market in the first place, this is generally to be welcomed. Another positive aspect is that the establishment of joint ventures appears to be frequently aimed at fulfilling a specific defence contract (Bundeskartellamt, 2025b; 2026). Once the contract has been completed, the joint venture could be dissolved, and the risk of lasting, and potentially negative, effects on the market structure would, in theory, be lower.

341 However, the link via a joint venture may also lead to the parent companies potentially competing less intensively with one another in the long term within their respective national 'home markets'. It is recognised that the establishment of a joint venture or participation therein may result in the parent companies coordinating their behaviour – beyond the concentrative effect of the merger. This applies in particular, though not exclusively, where the parent companies and the joint venture operate in the same market. In addition to the rules on merger control, the prohibition of cartels may then also be relevant (for a detailed discussion of the control of joint ventures, see Bien, 2014).

342 On the other hand, competition concerns are warranted due to the risk of the formation of defence conglomerates. Conglomerate mergers, in which the companies involved do not compete with one another, or do so only in peripheral areas, and are not active in upstream or downstream markets, are generally viewed less critically from a competition policy perspective than horizontal and vertical mergers. They lead neither to an immediate increase in market concentration within the same market nor

to a direct foreclosure of upstream or downstream markets. Although the majority of conglomerate mergers are therefore unobjectionable from a competition perspective, they may be viewed critically insofar as such companies could use their size and financial strength, as well as their presence in various markets, to drive out competitors and raise barriers to market entry. Possible theories of harm arising from conglomerate mergers include, amongst others, leveraging, portfolio and spillover effects (Montag/von Bonin, 2023, para. 466 et seq.; Thomas, 2025, para. 434 et seq.). Such effects, in turn, are often the result of tying and bundling practices.

343 Individual defence companies, too, can diversify their product portfolios through acquisitions as a result of the current defence boom and expand into numerous markets. Whilst tying and bundling practices by defence conglomerates are generally unlikely to serve to drive out competitors, they are likely to be justified by security and/or interoperability interests. System contracts, such as the development, manufacture and supply of armoured military vehicles as complete systems (see already para. **7333**), are frequently requested by contracting authorities. Nevertheless, this may result in smaller manufacturers being effectively excluded from participating in tenders and contracting authorities becoming (even) more dependent on large companies (see also Sommer, 2026). Furthermore, there is a risk that suppliers of subsystems and components in numerous markets will have to conform to the specifications of a handful of system providers, for example when providing interfaces for modern weapon systems. This would be all the more serious given that defence contracts usually have long durations, meaning that decisions once taken have a lasting impact. In this regard, however, it should also be borne in mind that government contracting authorities frequently impose detailed specifications on manufacturers during the development of defence equipment (see paras. **7294**, **7331**). This could counteract any dependencies between companies.

2.1.2.6 Conclusion

344 Whilst competition in the defence sector is largely deficient, competition authority oversight is proving to be functional overall. Both the European Commission and the Federal Cartel Office examine mergers in this sector efficiently and – as far as can be seen – with the due diligence required by the German Competition Act. Even against the backdrop of the changed security policy framework, there are no signs that the existing competition assessment criteria are structurally overwhelmed.

345 Nevertheless, competition concerns regarding the establishment of joint ventures by large defence companies, as well as the formation of broadly diversified defence conglomerates, are justified. Such structures can restrict competition by raising barriers to market entry and increasing dependencies. Such risks also exist because

defence procurement – despite increasing efforts towards cooperation among Member States – remains largely national in character. A stronger European approach would ensure greater economies of scale and, at the same time, more competition (Monopolies Commission, 2025).

346 It is undisputed that increased cooperation between companies plays an important role in the necessary rearmament process. Collaboration and mergers can help to pool technological expertise, accelerate innovation processes and make better use of scarce resources (Bernhardt/Dewenter, 2026, p. 10). Competition law does not, in principle, preclude such forms of cooperation. On the contrary: efficient rearmament requires effective competition. This is because competition reduces costs and promotes innovation and quality. A blanket relaxation of competition standards, by contrast, would carry the risk of entrenching inefficient structures and weakening incentives for innovation.

347 Cooperation and mergers should therefore be subject to careful scrutiny by the competition authorities. Such scrutiny is also possible under current law. The defence sector is not generally granted preferential treatment under EU competition law. Article 346(1)(b) TFEU does not establish a comprehensive sectoral exemption, but merely permits measures to protect national security interests. It is true that Member States' invocation of essential security interests has an impact on the procurement of defence equipment and, consequently, on competition in the defence sector. However, this provision does not generally appear to prevent scrutiny by competition authorities.

348 As a purely precautionary measure, the Monopolies Commission points out that a sector-specific provision in German competition law going beyond Article 346(1)(b) TFEU is neither necessary nor appropriate. The introduction of any kind of exemption for the defence sector should be rejected. It is true that the Act against Restraints of Competition (GWB) already contains various sector-specific exemptions, for example for certain agreements in the agriculture sector (Section 28) and the press sector (Section 30), or for mergers involving hospitals (Sections 186a, 187(9)). However, sector-specific provisions – particularly exemptions – are questionable from a regulatory policy perspective. On the one hand, they lead to a fragmentation of the competition framework and undermine the coherence and predictability of the application of the law. On the other hand, there is a risk of regulatory misincentives, as privileged sectors are subject to less competitive pressure and potential efficiency gains remain untapped. With specific regard to the defence sector, it should be noted that the requirements of competition law do not stand in the way of either the functioning of the markets or the pursuit of national security interests.

349 However, the greatest risks to competition in the defence sector are the continuing shortcomings in procurement. The procurement of defence equipment remains largely national in character, despite increasing efforts towards cooperation between Member States. The Monopolies Commission has already pointed out that tenders in the defence sector should be designed in such a way as to enable competition rather than prevent it. In concrete terms, this means that procurement should be coordinated more closely at European level in order to exploit economies of scale and overcome national fragmentation. At the same time, the procedures should be open to innovation and provide genuine access to smaller suppliers and start-ups, for example in the growing drone and digital sectors. This can be achieved, for instance, through modular lot sizes, tailored certification requirements and shorter contract terms (Monopolies Commission, 2025; see Section **72.1.2.2** for further details).

Recommendations

- Collaborations and mergers in the defence sector should be subject to careful scrutiny by the competition authorities in order to counteract the creation of cross-market monopolies through the formation of large defence companies.
- The introduction of a sector-specific exemption in German competition law for the defence sector should be rejected.
- Defence procurement should become more competition-oriented and innovation-friendly – through joint European procurement, greater interoperability, greater involvement of start-ups and SMEs, and simpler and faster procedures.

2.1.3 The fuel measures package and the “petrol discount”

350 With the outbreak of the war in Iran and the blockade of the Strait of Hormuz, fuel prices have risen sharply. The war led to a shortage in the supply of crude oil and petroleum products. The immediate consequences were a tight supply situation and higher prices. Initially, this price rise follows a comprehensible logic, whereby a tighter supply coupled with sustained demand leads to higher prices. In principle, this market logic should also be able to take effect, because prices fulfil an important regulatory function in a situation of scarcity and provide incentives to save and to adjust supply and demand.

351 However, the Federal Cartel Office’s sector inquiry into refineries and fuel wholesalers suggests that the market structure at the upstream stages could also play a role in hindering competition. Among the possible critical market structural features, the Federal Cartel Office identifies, in particular, a high degree of concentration, vertical

integration, high barriers to market entry and insufficient alternatives on the demand side. As a result, price increases in the upstream markets could be implemented more easily and on a broader scale. The high level of market transparency resulting from price quotation systems could further exacerbate this effect, as it makes it easier to draw conclusions about the behaviour of individual suppliers and could stabilise collusive behaviour (Federal Cartel Office 2025). One indicator that the war in Iran was not solely responsible for the sharp rise in prices is an international comparison of price trends. This shows that, by European standards, fuel prices in Germany rose particularly rapidly and sharply following the outbreak of the war in Iran (Duso/Oschmann, 2026). It follows that part of the sharp price rise could, in any case, also be attributable to competition problems in the upstream market stages. Findings relating to the war in Ukraine point in a similar direction, during which refineries were able to increase their mark-ups substantially (Gregor/Haucap, 2026).

352 Hardly any other price has such an immediate political impact as the price of fuel. If petrol and diesel prices rise noticeably within a short period, the pressure on politicians to provide swift and visible responses increases. The most recent price rise has thus also triggered a flurry of legislative activity, ranging from interventions under competition law to short-term relief measures.

353 The competition law measures are designed to tackle structural competition problems in the refining and wholesale markets in a more targeted manner and to enable the Federal Cartel Office to intervene more swiftly and effectively. These include, in particular, simplifications regarding measures following sector inquiries, as well as new instruments for monitoring potential price abuses at upstream market levels. In doing so, the legislator is focusing precisely on those market structures from which the potentially avoidable part of the exceptionally sharp price rise could originate. This policy response therefore addresses the suspected and remediable causes, rather than merely the symptoms.

354 In addition, the measures also provide for interventions designed to ease the situation in the short term. These include the ‘12 o’clock rule’ and the so-called ‘petrol discount’ in the form of a temporary reduction in energy duty. These measures are intended to alleviate the acute burden on businesses and consumers and provide short-term relief. However, they do not alter the structural problems in the upstream markets and therefore do not contribute to a long-term solution.

355 The Federal Cartel Office subsequently put in place the organisational framework for enforcing the new regulations (BKartA, 2026). To this end, the former Decision-Making Division V was reinforced with additional staff and, as the 13th Decision-

Making Division with future responsibility for this area, specialised in proceedings relating to the mineral oil and fuel sectors. Alongside the Market Transparency Unit for Fuels – which monitors price data from petrol stations and, in future, will in particular be responsible for ensuring compliance with the so-called ‘12 o’clock rule’ – it is tasked with enforcing the new competition law rules.

2.1.3.1 Antitrust measures

2.1.3.1.1 Simplification of sector inquiries (Section 32f(3) GWB)

356 By amending Section 32f(3) of the German Act against Restraints of Competition (GWB), the legislature has, as a first step, removed one procedural stage from the previously two-stage procedure for imposing remedial measures following a sector inquiry, thereby aiming to enable ongoing and future proceedings to be initiated more swiftly (German Bundestag 2026, pp. 2, 8, 15). Previously, following a sector inquiry, the Federal Cartel Office first had to establish, in separate proceedings, the existence of a significant and ongoing distortion of competition (Section 32f(3), first sentence, GWB (previous version)). This order was already to be addressed to specific undertakings that were eligible to be subject to remedial measures (p. 2, old version). Subsequently, the Federal Cartel Office could, in a further proceeding, impose remedial measures in accordance with Section 32f(3), sentences 6 and 7, of the GWB (old version).

357 The amendment introduced by the Fuel Measures Package now abolishes the separate procedure for establishing the distortion of competition. This requirement is to be assessed incidentally from now on when imposing remedial measures. A single decision is then issued on the existence of the distortion of competition and the remedial measures necessary. This, too, is intended to simplify the legal and administrative framework and speed up proceedings (German Bundestag 2026, pp. 9, 14). The Monopolies Commission welcomes this simplification. By combining the finding and the remedial measures in a single decision, a procedural step that could be challenged separately is eliminated. This is because the declaratory order was previously subject to separate appeal, albeit without suspensive effect (see Kühling/Engelbracht 2024, para. 76 et seq.). As the current proceedings (para. **7361**) demonstrate, individual court proceedings carry a significant risk of delay, even if they do not directly affect the progress of the proceedings as a whole. The new provisions strengthen the practical effectiveness of Section 32f of the German Act against Restraints of Competition (GWB) without unduly curtailing the legal protection of the undertakings concerned. The finding may still be reviewed by the courts in future – incidentally in the context of legal protection against the imposition of remedial measures.

358 Furthermore, the substantive requirement that undertakings eligible for the imposition of remedial measures must have contributed significantly to the distortion of competition through their conduct and their importance to the market structure has been removed. In view of the market-structural role of Section 32f GWB, the legislature considers this requirement to be counterproductive (German Bundestag 2026, p. 15). The legislator is thus, commendably, placing greater emphasis than before on the market-structural nature of the provision. This is in line with the actual purpose of Section 32f(3) GWB, which is not aimed at sanctioning individual misconduct but at remedying structural distortions of competition. It is thus aimed in particular at markets such as the refining and wholesale sectors, where the distortion arises from the market structure itself rather than from the behaviour of individual undertakings.

359 However, the amendment does not render the question of the extent to which an undertaking contributes to the distortion of competition entirely irrelevant. According to general principles, remedial measures imposed by the Federal Cartel Office must be suitable, necessary and proportionate to remedy the distortion of competition. Furthermore, some of the illustrative examples in Section 32f(5) of the GWB continue to refer to conduct (see Paffrath 2026, p. 227).

360 The revised version of Section 32f(3) of the GWB applies across all sectors and to both ongoing and future proceedings following a sector inquiry (Section 187(13) of the GWB). However, the background to this includes, amongst other things, the sector inquiry into refineries and wholesale fuel trade published by the Federal Cartel Office on 19 February 2025 (Federal Cartel Office 2025), to which the legislature expressly refers (e.g. German Bundestag 2026, p. 1). Following the sector inquiry, the Federal Cartel Office initiated proceedings for the first time in March 2025 under Section 32f(3), first sentence, of the GWB (previous version) to establish a significant and ongoing distortion of competition (Federal Cartel Office 2025a, p. 55), without, however, directing this investigation against specific undertakings.

361 The Higher Regional Court of Düsseldorf criticised this in two recent rulings and interpreted the Federal Cartel Office's investigative powers in proceedings under Section 32f(3) of the Act against Restraints of Competition (GWB) rather narrowly (VI-Kart 7/25 (V) and VI-Kart 8/25 (V), 22 April 2026). The subject of the interim relief proceedings was two orders for the provision of information that the Federal Cartel Office had issued against price information services. The competent senate had already expressed fundamental doubts as to whether the Federal Cartel Office could issue orders for the provision of information at all in proceedings under Section 32f(3) of the German Act against Restraints of Competition (GWB). In this respect, it argued that there was no legal basis such as that provided for in Section 32e(2) of the Act against Restrictive Practices (GWB) for sector inquiries. The general legal basis for orders to

provide information, set out in Section 59(1) of the GWB, did not apply to proceedings not directed against individual undertakings.

362 However, in the Monopolies Commission's view, there are doubts regarding these objections. Section 59(1) of the Act against Restraints of Competition (GWB) is likely, in principle, to apply also in proceedings under Section 32f(3) of the GWB and to authorise the Federal Cartel Office to issue corresponding orders for the provision of information. This is because, according to its wording, it applies insofar as the provision of information is necessary for the fulfilment of the tasks entrusted to the competition authorities. This also includes proceedings under Section 32f(3) of the GWB. Furthermore, the information requested in these proceedings does not constitute the exercise of a general 'right of inquiry' not covered by Section 59 of the GWB, but rather a specific procedure provided for in the GWB, leading to a decision directed at specific undertakings. Nor will the Federal Cartel Office always be in a position to gather all the information necessary to establish the distortion of competition and to select the appropriate remedial measures during the sector inquiry alone (see also Rohner 2026).

363 Another cause for concern is the lengthy duration of the interim relief proceedings before the Higher Regional Court of Düsseldorf, which lasted almost 10 months. Interim proceedings are intended to provide a swift, provisional resolution to matters requiring urgent attention. It is also incomprehensible that, in view of its many fundamental doubts, the Higher Regional Court did not grant leave to appeal to the Federal Court of Justice. As a result, the Federal Cartel Office must first lodge an appeal against non-admission and can only present its case on the merits if this is successful. This further procedural loop delays the clarification of fundamental issues concerning a new provision being applied for the first time. The legislature is drawing the correct conclusion by removing the requirement for leave to appeal in competition law cases under the new Act against Restraints of Competition (GWB) (see also para. **7425**)

364 In this specific case, the Higher Regional Court of Düsseldorf also expressed doubts about the Federal Cartel Office's investigative approach, as it was not conducting the proceedings against specific companies. Furthermore, the court had doubts as to whether the specific orders to provide information were compatible with freedom of the press. The decisions of the Higher Regional Court of Düsseldorf concerned only part of the questions raised by the Federal Cartel Office and, in particular, whether the price information services were required to disclose the sources of the prices reported to them. In view of the legal opinion of the Higher Regional Court of Düsseldorf, the Federal Cartel Office currently considers itself unable to continue the proceedings without this information (BKartA, 2026). It has lodged an appeal against the decisions.

2.1.3.1.2 Reversal of the burden of proof in abuse proceedings (Section 29a GWB)

365 Furthermore, the legislature has introduced Section 29a of the Act against Restraints of Competition (GWB) to simplify the supervision of abuse in the fuel sector. The provision introduces a new sector-specific ground for abuse, which prohibits fuel suppliers from abusively exploiting a dominant or relatively powerful market position in the markets upstream of petrol stations by charging fuel prices that exceed costs to an unreasonable extent (Section 29a(1), first sentence, GWB).

366 Section 29a GWB tightens the general prohibition on abuse under Section 19(2)(2) GWB⁴⁵ in the area of price abuse by reversing the burden of proof and presentation regarding cost control in favour of the competition authorities (Section 29a(1), second sentence, GWB). This is modelled in part on the existing Section 29, first sentence, No. 2 of the GWB, which, in proceedings concerning suppliers of electricity, district heating or piped gas, also provides for a cost control mechanism, but does not provide for a reversal of the burden of proof (German Bundestag 2026, p. 13). Apart from this, the two provisions differ in a number of key respects (see **Table 2.2**).

Table 2.2: Section 29 GWB and Section 29a GWB

	Section 29 GWB	Section 29a GWB
Relevant markets or undertakings	Suppliers of electricity, district heating or piped gas	All market stages upstream of the supply of fuels to end consumers (e.g. fuel wholesalers)
Degree of market power	Dominant undertakings	Dominant undertakings and those with significant market power
Abusive conduct	Charges or other terms and conditions that would not be acceptable in a competitive market Charges that exceed costs unreasonably	Fuel prices that unreasonably exceed costs
Determination of abuse	Comparative market analysis, cost control	Cost control
Reversal of the burden of proof	With regard to the comparative market analysis	With regard to cost control
Applicable in which proceedings	Administrative proceedings only	Administrative proceedings only

⁴⁵ In substance, Section 29a(1) of the German Act against Restraints of Competition (GWB) is likely to constitute a *lex specialis* in relation to Section 19(2)(2) GWB within its scope of application. However, Section 29a(3), second sentence, GWB stipulates that Sections 19 and 20 GWB remain unaffected. The provisions therefore apply concurrently.

Source: Own illustration.

367 The benchmark for the cost control provided for in Section 29a of the German Act against Restraints of Competition (GWB) is whether the fuel prices charged result in costs being unreasonably exceeded. The first step, therefore, is to compare the prices with the relevant costs attributable to the product in question, such as purchase or manufacturing costs. By contrast, costs that would not arise in a functioning competitive market are not taken into account (Section 29a(3), first sentence, GWB). In view of the reversal of the burden of proof under Section 29a(1), second sentence, GWB, it is incumbent upon the party subject to the investigation to set out and prove the costs underlying the price-setting, including their amount and allocation to the relevant product.

368 In a second step, it is incumbent upon the competition authority, on the basis of this information, to demonstrate and prove that the pricing unreasonably exceeds the costs (German Bundestag 2026, p. 13 ff.). In doing so, it must take into account the specific characteristics of the relevant market and imputed risk premiums (German Bundestag 2026, p. 14). The undertaking, in turn, bears the burden of proof regarding the reasonableness of the costs, insofar as their level ‘significantly exceeds the market norm’. The disproportionate nature of the costs may be determined both in absolute terms and relative to other undertakings. The restriction to a cost-based analysis therefore applies only to the determination of the relevant benchmark; when assessing disproportionateness, the competition authority may also draw on comparisons with other undertakings or markets.

369 This follows not only from the wording, which focuses on whether the excess is ‘in line with market practice’, but also from the legislative history of the provision: The legislator behind Section 29 of the German Act against Restraints of Competition (GWB) – on which Section 29a GWB is modelled – cited the judgment of the European Court of Justice in the United Brands case (Case 27/76, 14 February 1978; see Federal Government 2007, p. 11) as justification. The Court had also based its assessment of price abuse on the two-stage approach just described and, at the second stage, had examined whether the price imposed as a result of market power was absolutely or unreasonable in comparison with competing products. The unreasonableness of a price increase is likely to be rebuttable, in particular, where prices have been freely formed in markets with functioning competition.

370 Section 29a of the German Act against Restraints of Competition (GWB) has the potential to simplify, at least to some extent, the highly complex antitrust proceedings required to prove price gouging. By reversing the burden of presentation and proof, the competition authority may require a company against which there is an initial suspicion of unreasonably inflated prices to disclose its pricing and cost calculations. This

reversal of the burden of proof is intended to enable the competition authorities to examine companies' cost structures and the allocation of costs to the respective pricing, which they are often only able to do under difficult conditions in conventional abuse proceedings due to a lack of access to this information.

371 The reversal of the burden of proof applies only in administrative proceedings (Section 29a(1), second sentence, of the German Act against Restraints of Competition (GWB)). In fine proceedings, however, it is excluded in view of the principle of investigation.⁴⁶ Nor does it apply in civil proceedings, although a shift in the (secondary) burden of presentation and proof may arise there for reasons of civil procedure.

372 This provides the competition authorities with an effective lever for enforcing the prohibition of abuse in the fuel sector. In particular, the reversal of the burden of proof regarding the unreasonableness of grossly inflated prices, together with the strengthened recovery of profits (Section 34(4) GWB), could develop into an effective instrument.

373 Nevertheless, the expected impact of the amendment should not be overestimated. Proceedings concerning price abuse are complex, and many legal issues have not yet been clarified (in court).⁴⁷ Ultimately, the authority faces the challenge of identifying, on the basis of a cost analysis, operational inefficiencies arising from the fact that undertakings are not subject to effective competition (Monopolies Commission 2007, para. 21 et seq.). This is likely to pose particular difficulties in the case of price increases which – as is currently the case – are based, at least in part, on external shocks. It is not possible to draw on administrative practice regarding Section 29 of the Act against Restraints of Competition (GWB). In contrast to the comparable market analysis, the cost test provided for in Section 29, first sentence, No. 2 of the GWB has not yet been applied (see Baron 2024, para. 136). Furthermore, the conditions for ordering interim measures (Section 32a GWB) are unlikely to be met (for further details, see Halbach 2026, pp. 250 ff.).

374 In view of these hurdles and the discretion exercised by the competition authorities, Section 29a of the GWB is unlikely to lead, as some fear (see, for example, Benden/Lochner 2026), to general interference in free price formation in this sector, similar to price regulation. Whilst the cost-orientation approach is based on a criterion

⁴⁶ A breach of Section 29a of the GWB is, however, punishable by a fine; see Section 81(2)(1) of the GWB.

⁴⁷ By way of example, reference may be made to the question of how the relevant costs are to be determined. In this regard, the legislator of Section 29 GWB had referred to 'recognised economic theories' (Federal Government 2007, p. 11). The explanatory memorandum to Section 29a of the GWB does not address this question at all. Nor is the question of when costs would not arise in a competitive market (Section 29a(3), first sentence, of the GWB) likely to be anything but trivial to determine.

that is also applied in regulatory fee controls, given the limited scope of application to dominant undertakings and the administrative procedure, the provision is likely to have an effect primarily in individual cases where it is specifically applied by the authority.

375 In addition, Section 29a GWB also has a substantive legal dimension that goes beyond the reversal of the burden of proof. Abusively inflated prices constitute exploitative abuse under Section 19(1) in conjunction with Section 19(2)(2) GWB. Until now, exploitative abuse had not been included among the types of conduct prohibited under Section 20 of the GWB, even for undertakings with relative market power. Section 29a of the GWB now, however, also applies to undertakings with relative market power, thereby extending the prohibition on exploitative abuse on a sector-specific basis to include such undertakings.

376 In particular, the substantive legal implications of Section 29a of the GWB raise the regulatory question of why the supervision of abusive practices is structured differently in fuel markets than in other markets. The legislature justifies the sector-specific approach of Section 29a GWB, on the one hand, on the grounds that the fuel sector is of central importance to the economy as the basis for mobility, transport and logistics, and has a significant impact on consumer price trends; and, on the other hand, on the basis of the competition problems identified in the Federal Cartel Office's sector inquiry into refineries and fuel wholesale (German Bundestag 2026, p. 13 ff.). However, this does not mean that the fuel sector differs significantly from various other markets. In particular, there is no economic basis – such as a monopolistic infrastructure – that could justify such a sector-specific approach. Furthermore, from the Monopolies Commission's perspective, experience with sector-specific competition law instruments in other markets has so far proved no more convincing than the application of generally applicable competition rules.

2.1.3.1.3 12. Amendment to the Act against Restraints of Competition (GWB): Expansion of the Market Transparency Unit

377 As a further sector-specific measure, the Federal Ministry for Economic Affairs and Energy (BMWE) plans, as part of the 12th amendment to the Act against Restraints of Competition (GWB), to expand the investigative powers of the Market Transparency Unit for Fuels (MTS-K), thereby enabling it to focus in particular on the markets upstream of petrol stations (for further details on the GWB amendment, see below, section **72.2.1**). The MTS-K, which is based at the Federal Cartel Office, is tasked with monitoring the value chain in the trade in – and, since 2022, the production of – fuels, in order to facilitate the antitrust authorities' prosecution of competition infringements. The price data collected on the retail markets is also made available to providers of price comparison apps. In the retail markets, this task is served in particular by

the obligation on petrol station operators, as set out in Section 47k(2) of the German Act against Restraints of Competition (GWB), to report prices, price changes and quantities sold of the most important fuel types⁴⁸ to the MTS-K. No such obligation currently exists for markets upstream of petrol stations.

378 However, Section 47k(7) of the German Act against Restraints of Competition (GWB) allows recourse to the Federal Cartel Office's general investigative powers in individual cases. The MTS-K has therefore already been able, for the purposes of market monitoring, to request information from undertakings, examine documents and even carry out searches in the upstream markets. However, the exact scope of this provision has remained unclear. The Monopolies Commission has no information as to whether the provision has been applied to date.

379 The 12th Amendment to the GWB now aims to introduce a specific obligation to provide data at the wholesale level as well. The draft bill proposes to empower the MTS-K to require wholesale providers to submit, in future, a range of price and sales information (Section 47k(7), sentences 2–5 of the draft GWB). Providers would then be required to make this information available at regular intervals during a period determined by the MTS-K. However, the draft bill does not provide for a statutory, permanent obligation to supply data, as is the case for retail prices under Section 47k(2) of the GWB. A specific decision by the MTS-K would therefore always be a prerequisite. Unlike investigative measures in proceedings concerning specific cartel infringements or following a sector inquiry, however, data collection under Section 47k(7) GWB is intended to be possible regardless of any suspicion, solely for the purpose of market monitoring. Nevertheless, decisions in individual cases must be proportionate and justified in accordance with the principle of reasonableness. In this respect, legal remedies against such decisions are also available (Federal Ministry for Economic Affairs and Energy 2026, p. 44). The MTS-K will therefore have to explain in each individual case why it is subjecting the sector in question to market monitoring, although the fundamental decision taken by the legislature is likely to constitute a strong indication, and to what extent the data collected is intended to contribute to this market monitoring.

380 The extension of the MTS-K's investigative powers to the wholesale markets must also be viewed against the background of the decisions of the Higher Regional Court of Düsseldorf, which set limits on the investigative activities of the Federal Cartel Office in proceedings under Section 32f GWB following the sector inquiry into refineries and fuel wholesaling (see already para. **7361 et seq.**). The draft bill expressly contradicts these decisions (Federal Ministry for Economic Affairs and Energy 2026, pp. 43

⁴⁸ Super E5, Super E10 and diesel. The amendment to the GWB now provides for an extension of the obligation to include SuperPlus fuels.

et seq.), but refrains from providing legislative clarification in Section 32f of the Act against Restraints of Competition (GWB) and, in this respect, appears to be relying on the Federal Court of Justice (BGH) to overturn the decisions. Only in respect of the proceedings currently underway does the draft bill appear to be based on the idea of making the necessary price data from the wholesale fuel markets available to the Federal Cartel Office via MTS-K.

381 The new data collection power provided for in Section 47k(7) of the draft GWB may help to overcome difficulties in collecting the data required for the Federal Cartel Office’s proceedings. In principle, however, the issue of data availability should primarily be clarified within the respective proceedings themselves. The focus of the Federal Cartel Office’s activities should be on enforcing competition law to resolve specific competition problems. General market monitoring, by contrast, should remain the exception. Furthermore, limiting market monitoring to specific sectors raises regulatory policy issues. The Monopolies Commission therefore recommends that Section 47k(7) of the Act against Restraints of Competition (GWB) be drafted during the legislative process in such a way as to ensure that the focus and proportionality of data collection are maintained:

- Set binding parameters for content and timeframe: specify which data (prices, quantities, contract durations, contracting parties) is to be collected, in what form (machine-readable) and over what period;
- set a volume threshold so that the collection focuses on price-setting suppliers and smaller market participants are not unnecessarily burdened;
- Evaluate the data collection and provide scientific oversight, and to this end, enshrine in Section 47k(6) of the draft GWB not only the disclosure of data to the competition authorities but also access to the data for the Monopolies Commission, as is already the case for data collected at petrol station level.

2.1.3.2 Short-term interventions in price formation

2.1.3.2.1 The “12 o’clock rule”

382 The “12 o’clock rule” addresses the high frequency of price changes at many petrol stations, which is perceived as problematic and to which the Federal Cartel Office has already drawn attention in its sector inquiry (Federal Cartel Office 2025). According to the legislator, this leads to a situation where motorists who check prices via price comparison apps find that prices have already changed again by the time they reach the petrol station (German Bundestag 2026, pp. 1, 8, 11). In order to restore confidence in the reliability of the information provided via the MTS-K, price increases are now only permitted once a day at 12:00. Price reductions, on the other hand, remain possible without restriction.

383 This rule is laid down in Section 2(1) of the newly introduced “Fuel Price Adjustment Act” (KPA nG). It applies to operators of public petrol stations and companies that set the retail prices for fuels at public petrol stations, and thus to the same group of addressees that are obliged under Section 47k(2) of the German Act against Restraints of Competition (GWB) to report price changes to the MTS-K. The changes in retail prices for all petrol and diesel fuels are affected.⁴⁹ This means that the regulation covers not only standard fuel grades but also, for example, speciality and premium products such as Super Plus, B10 or HVO 100 (German Bundestag 2026a, pp. 7, 12). However, detecting infringements in the latter case has so far been more difficult, as price changes have not previously been required to be reported to the MTSK (see Section 4(2) MTSKraftV⁵⁰). Under the amendment to the GWB, however, the reporting obligation is now to be extended to Super Plus as well (see Section 47k(2), first sentence, GWB-E).

384 Breaches of the 12 o’clock rule may be punishable by a fine. The authorities of the federal states are responsible for enforcement. If reports from petrol stations to the MTS-K indicate a breach of the 12 o’clock rule, the MTS-K informs the competent authority and refers the case to it, together with all necessary information and data (Section 47k(4), sentences 1 and 2, GWB). In such cases, the competent state authority also prosecutes breaches of the reporting obligation, which are committed as a single offence together with a breach of the 12 o’clock rule (Section 82(1a) GWB). Whilst the Federal Cartel Office can readily detect breaches through the automated reports to the MTS-K, enforcement by the state authorities is still in its early stages.

385 It is not yet possible to conclusively assess the extent to which the 12 o’clock rule has or will have an impact on fuel prices. An initial study shows that, in the short term, it has led to a moderate reduction in fuel prices of around one to two cents per litre. At the same time, the results point to regionally varying effects, which are linked in particular to local supply structures, proximity to borders and the intensity of competition, whilst it is not yet possible to make reliable statements about long-term effects due to the short observation period (Breiderhoff/Dewenter, 2026). Data from the Monopolies Commission show that fuel prices rose in Germany following the introduction of the 12 o’clock rule; however, this may also be linked to the Easter holidays beginning at the same time (more on the Monopolies Commission’s investigations shortly, in the section [72.1.3.2.2](#)). No concrete link, let alone a causal relationship, between the 12 o’clock rule and fuel prices can be inferred from this. Other studies point to an increase in margins in the fuel sector (Jung et al. 2026). Austria introduced

⁴⁹ Not affected, for example, are aviation and marine fuels; see German Bundestag 2026, p. 14.

⁵⁰ MTS Fuel Ordinance of 22 March 2013 (Federal Law Gazette I, pp. 595, 3245; 2013 I, p. 3304), as amended by Article 27 of the Act of 6 May 2024 (Federal Law Gazette 2024 I No. 149).

a comparable regulation in 2009, under which petrol stations were generally only permitted to increase their prices once a day, with the permitted time initially varying depending on the type of business⁵¹, before the regulation was standardised in 2011 and price increases were only permitted at 12:00 noon. The introduction of the original regulation in 2009 had no empirically statistically significant effect on fuel prices. By contrast, the revision in 2011 suggests a moderate price-reducing effect (Bernhardt et al., 2025).

386 The regulatory approach of the KPAnG acknowledges this uncertainty (see also German Bundestag 2026, p. 12). It therefore provides that the Act is to be evaluated after just one year (Section 4 KPAnG). Furthermore, the BMW group plans to enter into a dialogue with market participants regarding the effects of the KPAnG after just six months (German Bundestag 2026, p. 13). In addition, the Federal Government may amend or even suspend the 12 o'clock rule at short notice by statutory order with the consent of the Bundestag and the Bundesrat (see Section 2(2) KPAnG).

387 If the 12 o'clock rule is to be continued, the timing of the price increase should also be reviewed as part of this evaluation. An earlier daily cut-off time could better synchronise the price drop with consumers' commuting times and increase the benefits of the scheme. It would also be useful to conduct a controlled experiment in which different times — such as 10.00, 12.00 and 21.00 — are tested in different regions over a defined period, with the effects on prices being scientifically evaluated. Furthermore, a controlled experiment could investigate how a limit on price changes — including price reductions — to once a day, following the Western Australian model, affects price levels and competition between petrol stations. Based on this evidence, a permanent decision can then be made regarding the design or abolition of the scheme.

388 Beyond the timing of the rule, the evaluation should also take MTS-K into account. Following the Austrian model, it could be examined whether price comparison apps should only display the cheapest petrol stations in the vicinity, rather than the prices of all providers. Martin (2024) demonstrates empirically that the full publication of all prices can have an anti-competitive effect under certain market conditions, whilst the selective display of the cheapest petrol stations reduces consumers' search costs without facilitating coordination among firms through mutual price monitoring. This effect, too, could be reliably quantified within the framework of a controlled experiment.

⁵¹ For 24-hour petrol stations, midnight was taken as the time for setting the daily maximum price; for petrol stations with restricted opening hours, it was the time they opened; and for self-service petrol stations, it was no later than 8.30 am.

2.1.3.2.2 The “fuel discount”

389 The so-called ‘fuel discount’ directly addresses the level of fuel prices. To this end, the energy duty rates for diesel and petrol, and their tax-equivalent substitutes, were temporarily reduced by 14.04 cents per litre for May and June 2026. Including the corresponding share of value added tax, this results in a gross reduction of around 17 cents per litre. As an excise duty, the energy tax is, by definition, borne by end consumers but paid by the oil companies.

390 The rationale behind reducing the energy tax (only) in the fuel sector was the consideration that high fuel prices not only place a direct burden on consumers and businesses, but also indirectly drive up general consumer prices (German Bundestag 2026b, p. 1). The tax cut was intended to cushion these rising costs in the short term. The legislature had hoped that the tax cut would be passed on to customers as fully as possible by reducing prices accordingly. The Federal Government forecasts a total relief – and corresponding costs for the public purse – of around EUR 1.6 billion (German Bundestag, 2026b, pp. 1, 8, 10).

391 The Monopolies Commission has conducted an empirical study to determine the extent to which the energy tax cut was passed on to consumers (Monopolies Commission, 2026). To this end, it compares the daily trend in fuel prices in Germany with that in France, where no comparable fuel rebate was in place. France thus serves as a control group for the hypothetical price trend in Germany without the tax cut. The price effect is estimated using a difference-in-differences approach based on the change in the price gap between the two countries before and after the introduction of the fuel rebate.⁵² French TotalEnergies and motorway service station outlets are excluded from the comparison group due to a voluntary price cap in force there.

392 The results show that the tax cut of around 17 cents per litre was passed on to a large extent, but not in full. On average, German prices fell by around 15 to 16 cents per litre relative to those in France, depending on the type of fuel. As a result, an estimated 100 to 200 million euros of the total relief package of around 1.6 billion euros did not reach consumers. At the same time, the extent to which the reduction was passed on varies significantly depending on the regional supply structure. In the north-west, the estimated price reduction was 16.7 to 17.3 cents per litre, whereas in the south it was only 13.3 to 14.9 cents. The differences were particularly pronounced for diesel, where there was a gap of 3.4 cents per litre between the north-west and the south, whereas for E5 and E10 the difference was only around 2.4 cents in each case.

⁵² This approach corresponds to the difference-in-differences approach explained in **Box 2.2**. Unlike in that case, however, the focus here is not on estimating a cartel mark-up, but on determining the extent to which prices at petrol stations fell following the introduction of the energy tax cut.

The regional patterns suggest that competitive conditions at the refinery and wholesale levels have influenced the pass-through of the tax cut.

393 The fact that the upstream supply structure has a decisive influence on fuel prices is confirmed by the ex-post evaluation of the merger between EG Group and OMV, as set out in section 72.4. There, the regionally varying price effects cannot be explained by local competition between petrol stations, but rather by the refining and supply structure. Both analyses thus point to the same problem: price levels and the passing on of cost changes are determined less by competition at the petrol station than by competition at the upstream refinery and wholesale levels.

2.1.3.3 Conclusion

394 With the fuel measures package, the legislator has provided the competition authorities with further investigative tools – some of which are specifically tailored to the fuel sector – designed to facilitate and enhance the effectiveness of competition supervision in the fuel sector. The draft bill for a 12th amendment to the Act against Restraints of Competition (GWB) provides for further measures. However, the impact of the two legislative packages – particularly on the ongoing proceedings under Section 32f of the GWB – should not be overestimated. It is of greater importance to apply the existing instruments swiftly and effectively in order to resolve the structural market problems in the markets upstream of petrol stations. Only functioning competition (including) at the level of refineries and the fuel wholesale sector can ensure that cost reductions and cuts in government levies are passed on to consumers.

395 The key instrument for this is the provision in Section 32f(3) of the German Act against Restraints of Competition (GWB), which allows remedial measures to be imposed on undertakings even without a finding of a competition infringement, provided that there is a significant distortion of competition. From the Monopolies Commission's perspective, a suspension or even a termination of the current proceedings would be highly regrettable. The competition distortion identified is structural in nature and calls for a structural solution, for which Section 32f of the GWB was specifically created. The Monopolies Commission would welcome it if the Federal Court of Justice were to allow the appeal and clarify the outstanding issues swiftly. Irrespective of this, the Federal Cartel Office should press for a structural solution to the competition problems as far as possible. In this context, it must be recognised that access to the necessary company data is of great importance for proceedings under Section 32f(3) of the GWB. In the specific proceedings currently underway, the planned power to collect data under Section 47k(7) of the GWB may also contribute to this. The Monopolies Commission is also confident that specific legal issues in this context – in particular regarding the application of Section 59 of the GWB – can be clarified swiftly

in future without causing any delays to the proceedings in the meantime. The expedited procedure under Section 32f(3) of the GWB, as provided for by the fuel measures package, can contribute to this, as can the abolition of the requirement for leave to appeal, as provided for in the amendment to the GWB. Despite these legislative measures, however, responsibility for ensuring a swift procedure will continue to lie primarily with the Federal Cartel Office and the courts.

396 Measures designed to tighten the prohibition on the abuse of a dominant market position on a sector-specific basis can only tackle the symptoms of a lack of competition. However, they cannot contribute to structurally functional competition and also entail regulatory risks. They are not suitable for financing other policy measures – as the legislature apparently envisages in the context of the fuel rebate (see German Bundestag 2026b, p. 10). The aim of competition law measures should be to protect competition and to sanction anti-competitive behaviour.

397 Interventions in free price formation, such as the fuel rebate, which aim to artificially lower price spikes caused by external shocks, cannot influence the extent to which structural market problems contribute to these price developments. Furthermore, the fuel rebate ties up considerable public resources and distorts the price signal triggered by the crude oil shortage. This price signal is intended to encourage businesses and consumers to reduce their consumption. There is also a distributional dimension to this, as the fuel rebate primarily benefits frequent drivers and vehicles with high fuel consumption. The Monopolies Commission therefore welcomes the Federal Government's decision not to extend the fuel rebate. In future, short-term interventions in free price formation should be avoided, and the focus should instead be on resolving structural competition problems.

Recommendations

- The Federal Cartel Office should vigorously pursue the proceedings it has initiated under Section 32f of the Act against Restraints of Competition (GWB), using the instruments and data at its disposal.
- Sustainable structural solutions are preferable to sector-specific market interventions and price controls that are questionable from a regulatory perspective.
- Interventions in free price formation, such as the 'petrol discount', should be avoided in future because they are costly, provide asymmetric relief and, above all, dampen price signals caused by scarcity. The 12 o'clock rule should be evaluated and, if necessary, further developed.

2.2 Overview of legislative developments

398 In this section, the Monopolies Commission provides an overview of selected legislative developments in Germany and at EU level. These include the draft bill for a 12th amendment to the Act against Restraints of Competition (GWB) (see section [72.2.1](#)), the Hospital Reform Adjustment Act (see section [72.2.2](#)) and the draft of the new Merger Control Guidelines (see section [72.2.3](#)). The fuel measures package has already been discussed in a separate section (see section [72.1.3](#)).

2.2.1 Draft bill for a 12th amendment to the Act against Restraints of Competition (GWB)

399 On 5 June 2026, the BMWV presented a draft bill for the 12th amendment to the GWB (status as at 4 June 2026, 14:00; RefE) and, at the same time, launched the consultation process with the federal states and trade associations. The draft bill focuses on changes in the area of merger control, new investigative powers in connection with public procurement procedures, and various adjustments to antitrust authority and court proceedings. The Monopolies Commission welcomes the streamlined structure of the draft, which is geared towards reducing bureaucracy and ensuring a more efficient use of resources, and assesses it positively overall. It expressly shares this objective, but points out that certain measures do not bring about any real relief or go beyond the objective; it views these proposals critically. Furthermore, some points which it considers important are missing. On other points, however, it is to be welcomed that they are not to be included in the Act. In detail:

2.2.1.1 Changes to merger control

2.2.1.1.1 Raising the turnover thresholds

400 The draft initially provides for a significant increase in the turnover thresholds. The global turnover threshold is to be raised from the current EUR 500 million to EUR 750 million, and the two domestic turnover thresholds are to be raised from EUR 50 million to EUR 75 million and from EUR 17.5 million to EUR 20 million respectively, Section 35(1)(1) and (2)(a) of the draft GWB. The adjustments are justified by the need to further ease the burden on the economy and to utilise regulatory resources more efficiently (Federal Ministry for Economic Affairs and Energy, 2026, p. 33).

401 The Monopolies Commission had previously spoken out against a further increase in the thresholds (Monopolies Commission, 2024, para. 258). The 10th Amendment to the GWB in 2021 had already significantly raised the two domestic turnover thresholds, from EUR 25 million to EUR 50 million and from EUR 5 million to

EUR 17.5 million respectively. Following this reform, the number of notifications fell by almost a third, before rising again – albeit only slightly – in 2024/2025. The thresholds had previously remained unchanged for a long period, even though German merger control continued to have comparatively low turnover thresholds by international standards. A further substantial increase in the turnover thresholds so soon afterwards, however – viewed in isolation – poses the risk of undermining the effectiveness of merger control.

402 Merger control serves to prevent the emergence of economic power. Positions of power are often unrelated to high turnover. Thus, particularly within the scope of national merger control, the scrutiny of relatively small regional mergers is important. Raising the thresholds could mean that such mergers are increasingly exempt from merger control requirements. The BMW itself anticipates a reduction of approximately 13–14 per cent, i.e. 120 merger control proceedings per year, including one main investigation (Federal Ministry for Economic Affairs and Energy, 2026, p. 24). Added to this is a certain deterrent effect of merger control. Consequently, individual merger proposals are not even notified to in the first place in anticipation of an expected regulatory veto. Merger control is, of course, intended to apply only to mergers of macroeconomic significance. Furthermore, inflation has been comparatively high in recent years. Nevertheless, an increase in the thresholds by 50 or 14 per cent seems hardly justified. The desire to reduce bureaucracy is, in essence, understandable. However, it must be borne in mind that the Federal Cartel Office’s merger control procedures are considered to be relatively streamlined and do not, as a rule, entail a particularly heavy administrative burden. By contrast, abuse proceedings, which are intended to remedy the negative consequences of market power retrospectively, are resource-intensive and less efficient. In the Monopolies Commission’s view, a significant increase in the turnover thresholds is not warranted.

2.2.1.1.2 Extension of the scope of the transaction value threshold

403 Taking a holistic view of merger control, it is positive that the draft bill does not stop at raising the turnover thresholds, but also provides for an adjustment to the transaction value threshold, which tends to lead to a higher level of scrutiny. The new provisions on the transaction value threshold in Section 35(1)(2)(b) of the draft GWB initially provide that this threshold is no longer subsidiary to the turnover thresholds. This increases legal certainty regarding the question of whether the transaction value threshold applies only to mergers in so-called mature markets, which is not the case (see Federal Ministry for Economic Affairs and Energy, 2026, p. 34). Furthermore, the transaction value threshold would in future also apply in cases where the target undertaking has not yet engaged in domestic activities on a significant scale, but such activities are to be expected in the future.

404 The Monopolies Commission welcomes the extension of the scope of the transaction value threshold to include anticipated future domestic activities on a significant scale. It has repeatedly advocated for such a provision (Monopolies Commission, 2022, para. 241 et seq.; Monopolies Commission, 2024, para. 259). The regulatory gap associated with relying exclusively on current domestic activity has recently become clearly apparent in the case law of the Federal Cartel Office, in particular in the Microsoft/Inflection and Edwards Lifesciences/JenaValve mergers, which were not subject to merger control. It must be acknowledged that the domestic connection is becoming weaker and that the limits of the applicability of German law under international law are being stretched to the full. This will lead to a certain degree of legal uncertainty regarding decisions based on projections as to what constitutes significant future domestic activity. However, predictive elements are not alien to merger control. The Federal Cartel Office could set out its view on which cases are relevant here in the – already planned – revision of the guidelines on transaction value thresholds, following consultations with practitioners (see BKartA/BWB, Guidelines on Transaction Value Thresholds for the Notification Requirement of Proposed Mergers (Section 35(1a) GWB and Section 9(4) KartG, 2022, note from August 2025 on p. I).

2.2.1.1.3 Introduction of a notification procedure for the transaction value threshold

405 For mergers that meet only the criteria of the transaction value threshold, the draft bill provides for a shift from a notification requirement to a mere reporting obligation, Section 39(1), second sentence, of the draft GWB. In such cases, undertakings are to inform the Federal Cartel Office of the proposed merger in the future, initially in accordance with Section 39(7) of the draft GWB. The Federal Cartel Office then has the option, within two weeks, to require a full notification ('call-in') if an in-depth examination of the merger cannot be dispensed with, Section 39(8), first sentence, of the draft GWB. Such a notification by the Federal Cartel Office is to be made in accordance with Section 39(8), second sentence, of the GWB-E if the initiation of a main review procedure is not manifestly ruled out. During the two-week waiting period, the merger may not be implemented – as is customary in cases where notification is mandatory – Section 41(1), first sentence, of the GWB-E.

406 By switching from a notification system to a reporting system, the draft bill pursues the legitimate aim of relieving companies of bureaucratic burdens and making the use of resources in merger control more effective (Federal Ministry for Economic Affairs and Energy, 2026, p. 39). The reporting obligation also reflects the uncertainties to be expected. However, it seems doubtful whether the objective of reducing the administrative burden compared with the notification system will actually be achieved. On the one hand, the administrative burden associated with a notification is unlikely to be significantly less than that of a notification. First, the notification requirement

itself must be established, i.e. in particular the fulfilment of the conditions set out in Section 35(1)(2)(b) of the GWB. Furthermore, the notification to the Federal Cartel Office must contain comprehensive information on the corporate groups involved, their current and future activities, and the strategic and economic motives behind the merger, in accordance with Section 39(7) of the draft GWB. To date, the disclosure of motives has not even been required in the context of a notification under Section 39(3) of the GWB. Furthermore, Section 39(3)(4) of the GWB only requires details of the relevant markets and the market position of the undertakings involved for a notification if market shares of at least 20 per cent are reached. The information is therefore not always required to be provided even in the context of a notification, meaning that the difference from a notification is less significant in this respect than the draft bill suggests (Federal Ministry for Economic Affairs and Energy, 2026, p. 39).

407 Secondly, the procedure creates additional legal uncertainty. The conditions under which the Federal Cartel Office may intervene are formulated in relatively broad terms. Undertakings must therefore first wait to see whether a request is made to notify the merger in question. In the event of such a ‘call-in’, the duration of the proceedings is actually extended compared with the current system, as the notification phase is followed by a regular merger control procedure. From the authority’s perspective, it is also questionable whether the hoped-for efficiency gains can actually be realised. The Federal Cartel Office will already have to subject incoming notifications to an initial review. The broad statutory criteria could then lead the authority to require notification as a precautionary measure in a larger number of cases. It should also be borne in mind that the sector-specific expertise of individual decision-making departments could tend to diminish as a result of the overall decline in the number of merger control proceedings (see section 1.1 above). Overall, there is therefore a risk that the new procedure will generate additional procedural burdens without significantly reducing the workload involved in the assessment.

408 From the Monopolies Commission’s perspective, the notification system is an interesting innovation; however, in its current form, it does not yet deliver the desired relief. For it to be effective, the volume of information that companies are required to provide when notifying a merger should be reduced. If this cannot be achieved, there is a stronger case for retaining the standard notification system.

2.2.1.1.4 Strengthening third-party rights in relation to ministerial authorisation

409 The draft bill provides for the removal of the restriction on third-party rights in relation to ministerial authorisation. Since the 9th Amendment to the Act against Restraints of Competition (GWB) in 2017, third parties have only been entitled to lodge a complaint against such a decision if their own rights have been infringed, Section

73(2), second sentence, GWB. The Monopolies Commission welcomes the deletion of this provision as proposed in the draft bill. It recommended at an early stage that the restriction on third parties' right to bring legal action against a ministerial authorisation be reversed (Monopolies Commission, 2018, para. 914 et seq.). From a competition policy perspective, effective access to judicial review of such decisions, which are subject to only a few substantive requirements, is particularly desirable.

2.2.1.2 Introduction of a procurement screening

410 The draft bill provides for the introduction of a procurement screening mechanism. Under Section 114(4) of the draft GWB, public contracting authorities in procurement procedures above the EU thresholds will in future be required to centrally report not only the successful tenderer but all applicants and bidders. The data to be reported includes the name and address, the VAT identification number and, where available, the nationally standardised business identification number, as well as the price or cost of the tender, where one has been submitted. The data will be stored with the Public Procurement Data Service, which is based at the Procurement Office of the Federal Ministry of the Interior. Under Section 32h(1) of the draft GWB, the Federal Cartel Office is to be granted access to the data and authorised to analyse it systematically and without any specific suspicion, with a view to identifying possible breaches of the prohibition on cartels. The provision thus creates a legal basis for data-driven screening of public procurement procedures in Germany. Similar powers already exist in other countries; the explanatory memorandum to the draft bill explicitly mentions Greece and Denmark (Federal Ministry for Economic Affairs and Energy, 2026, p. 32). Academic literature and discussion on indicators and possible approaches are also already well advanced (see, for example, Kruse, 2023; OECD, 2022). Recent research also shows that public corporate communications can be analysed for signs of collusion using natural language processing. This approach was already incorporated into the European Commission's investigations in the car tyre sector in 2024 (Duso et al., 2026a).

411 The Monopolies Commission welcomes the introduction of a procurement screening mechanism as provided for in the draft bill. The centralised availability of procurement data and the Federal Cartel Office's access to this data are likely to significantly increase the likelihood of detecting anti-competitive agreements in public tenders. Procurement screening thus represents a sensible step towards strengthening the enforcement of competition law in the public procurement sector. The Monopolies Commission also hopes that, with the introduction of procurement screening, data-driven analyses will play a greater role overall in the enforcement of competition law in future ('computational antitrust').

2.2.1.3 Abolition of a specific interest in a declaratory ruling

412 In future, no specific interest in a finding will be required for the competition authority to establish an infringement of competition law, even after the infringement has ceased. To this end, the words ‘in so far as there is a legitimate interest’ are to be deleted from Section 32(3) of the German Act against Restraints of Competition (GWB). The draft bill regards this amendment as a clarification, as the existing provision is already to be interpreted in accordance with Directive (EU) 2019/1, Article 10(1), second subparagraph (Federal Ministry for Economic Affairs and Energy, 2026, p. 30). The Monopolies Commission welcomes the proposed amendment. Facilitating the retrospective determination of an infringement is desirable, particularly with regard to private enforcement and the binding effect of the competition authority’s decision on judicial proceedings for damages under Section 33b GWB (see also OLG Düsseldorf, VI-Kart 4/22 (V), 28 August 2024, Stihl).

2.2.1.4 Extension of the right to a decision that there are no grounds for action

413 In future, undertakings are to have a right to a decision by the Federal Cartel Office that there are no grounds for action (Section 32c(1) GWB) not only in the case of horizontal cooperation but also in the case of vertical or conglomerate cooperation. To this end, the words ‘with competitors’ are to be deleted from Section 32c(4), first sentence, GWB. From the Monopolies Commission’s perspective, this deletion is understandable. Cooperation between non-competitors is likely to grow in significance; the draft bill cites data pools as an example (Federal Ministry for Economic Affairs and Energy, 2026, p. 31). Even in the case of such cooperation, the creation of additional legal certainty may be necessary in individual cases. At the same time, the right under Section 32c(4), first sentence, of the GWB appears to have been invoked less frequently to date than originally expected, meaning that the resources of the Federal Cartel Office are not being unduly strained (Federal Ministry for Economic Affairs and Energy, 2026, p. 31).

414 The other conditions for applying for a decision from the Federal Cartel Office should also be amended. Under current law, there must be ‘a substantial legal and economic interest’ in a decision by the Federal Cartel Office. The Monopolies Commission recommends deleting the word ‘substantial’. This would make it even easier for undertakings to assert their claim under Section 32c(4), first sentence, of the Act against Restraints of Competition (GWB), without any capacity constraints being anticipated at the Federal Cartel Office.

2.2.1.5 Changes to procedural rights

415 The draft bill provides for a revision of the rights to a hearing and access to files. The current Section 56 GWB is to be split into three provisions – Sections 56, 56a and 56b GWB E. This not only makes the provision(s) clearer, but is also accompanied by substantive changes designed, amongst other things, to speed up proceedings. This objective is fundamentally sound; competition proceedings must become faster and more efficient.

416 However, the draft bill also contains proposed amendments which give rise to concerns. For instance, Section 56(1), second sentence, of the GWB-E provides that the antitrust authority has discretion regarding access to the file by third parties who are not involved in the disputed legal relationship to such an extent that the decision can only be issued uniformly in their regard as well. The draft bill refers here to case law of the Federal Court of Justice (BGH) and describes this as a statutory clarification (Federal Ministry for Economic Affairs and Energy, 2026, p. 49; cf. BGH, KVB 69/23, 20 February 2024, Google Disclosure). One argument in favour of the proposed adjustment regarding access to files for simple interveners is that granting procedural rights by the competition authority can be time-consuming, particularly due to the need to redact trade and business secrets of other undertakings. Nevertheless, it does not seem appropriate to restrict the participation rights of third parties. Third parties often initiate competition authority proceedings in the first place and contribute significantly to their progress. Their procedural position should be strengthened rather than weakened.

417 The same applies to the amendment to Section 73(1), second sentence, of the draft GWB, according to which certain procedural acts by the parties may only be challenged in court together with the final decision on the merits. The proposal is, however, of a rather declaratory nature, as the relevant legal position already follows from Section 44a of the VwGO. Against the background of the divergent view taken by the Higher Regional Court of Düsseldorf (VI-Kart 5/22 (V), 21 December 2022, Stihl intervention), the draft bill saw fit to expressly enshrine this legal consequence in the GWB (Federal Ministry for Economic Affairs and Energy, 2026, p. 53). However, this proposal too ultimately reflects a restrictive approach to the procedural rights of the parties involved.

418 In its policy brief on EU competition law, the Monopolies Commission has already proposed introducing procedural deadlines with milestones and structuring proceedings before the European Commission at an early stage around a few, clearly structured rounds of written submissions and oral hearings. This would lead to faster

proceedings and shorter decisions that would focus on the essentials (Monopolies Commission, 2025b, p. 2 ff.).

419 The Monopolies Commission welcomes the clearer version of the procedural rules. Antitrust proceedings must be expedited. The tension between swift and efficient proceedings, appropriate rights of defence for those affected and the rights of third parties will be explored in further detail in a special report by the Monopolies Commission.

2.2.1.6 Greater digitalisation and comprehensive publication requirements

420 The draft bill contains provisions in several places for greater digitalisation of administrative procedures and for the comprehensive publication of information by the Federal Cartel Office. With regard to digitalisation, it is particularly worth noting that, from 2028, merger control notifications are to be submitted to the Federal Cartel Office exclusively in electronic form (Section 39(1), third sentence, in conjunction with Section 187(15) of the draft GWB). Furthermore, formal requests for information from the competition authorities are to be served electronically in future (Section 59(5), third and fourth sentences, of the Draft GWB).

421 The new publication requirements in Section 43(4) and Section 61(3), second sentence, of the draft GWB provide that the Federal Cartel Office is to publish numerous decisions in administrative proceedings on its website. To date, there have only been certain notification obligations in respect of decisions imposing fines (Section 53(5) of the GWB). In future, administrative decisions must be published in full, unless there are compelling reasons within the meaning of Section 56(2), first sentence, of the GWB-E (to ensure the proper fulfilment of the authority's tasks, to safeguard confidentiality or trade or business secrets, or to protect other legitimate interests of the party concerned). The draft bill clarifies that publication is to take place regardless of any pending appeal proceedings and that any exceptions may be accommodated by redacting relevant sections (Federal Ministry for Economic Affairs and Energy, 2026, p. 51).

422 The Monopolies Commission welcomes the proposed amendments. Greater digitalisation can lead to faster and more efficient administrative procedures. The publication requirements increase the transparency of the Federal Cartel Office's actions and improve the scrutiny of the decisions taken. The Monopolies Commission has for years been advocating for stronger ex-post scrutiny, particularly in the area of merger control (see Monopolies Commission, 2024, para. 352 et seq.). It is true that the Federal Cartel Office already publishes the majority of its decisions. However, the

statutory requirement is likely to result in this practice being significantly expanded. The added value of these publications will also depend on them being made available in a timely manner. Therefore, § 43(4) and § 61(3), second sentence, of the draft GWB should be amended to stipulate that the Federal Cartel Office shall ‘publish the full text of the decision on its website without delay after it has been issued’.

2.2.1.7 Limitation of the term of office of the President of the Federal Cartel Office

423 The draft bill provides for the term of office of the President of the Federal Cartel Office to be limited to eight years, Section 51a(1), second sentence, of the GWB-E. A fixed-term civil service appointment is to be established for this period. As part of the preparation of a special report, the Monopolies Commission is currently examining the Federal Cartel Office as an institution. Such issues are also being addressed in this context.

424 From the Monopolies Commission’s perspective, too, there are strong arguments in favour of limiting the term of office, and a duration of eight years appears appropriate. The draft bill rightly points out that a fixed term of office is standard practice at all other competition authorities in the European Union, as well as at comparable German authorities (Federal Ministry for Economic Affairs and Energy, 2026, p. 45). However, the provision itself should make it clear that there is no possibility of reappointment; in other words, the term of office of the President of the Federal Cartel Office is limited to a single term of eight years. At present, a corresponding statement is found exclusively – and rather hidden – in the explanatory memorandum to the bill (Federal Ministry for Economic Affairs and Energy, 2026, p. 22).

2.2.1.8 Introduction of appeals to the Federal Court of Justice without leave

425 Appeals against decisions of the Higher Regional Court of Düsseldorf to the Federal Court of Justice are to be without leave in future, Section 77, second sentence, of the draft GWB. The Monopolies Commission welcomes the introduction of appeals without leave. Antitrust proceedings are always of great significance. Moreover, judicial review of such proceedings is so rare that the Federal Court of Justice’s ability to rule on relevant legal issues should not be artificially impeded. It is not expected that the Federal Court of Justice will be overburdened with such proceedings. The remedy provided for in the draft bill is to be viewed particularly favourably.

2.2.1.9 Extension of sector-specific abuse supervision in the energy sector

426 The draft bill provides for an extension of the special abuse supervision for the energy sector, as enshrined in Section 29 of the Act against Restraints of Competition (GWB), until 31 December 2032 (Section 187(1) of the draft GWB). The provision was originally introduced in 2007 and was limited to five years; however, its scope of application has been extended on several occasions – most recently until 31 December 2027. The provision, which was intended as a temporary exception, would then apply for a total of 25 years.

427 The Monopolies Commission has repeatedly criticised Section 29 of the GWB in view of regulatory and competition-theoretical risks, as well as practical problems (see, for example, Monopolies Commission, 2011, para. 710 et seq.; Monopolies Commission, 2012, para. 92 et seq.). The draft bill justifies this further extension on the grounds that, given monopolistic market positions, utility companies may continue to engage in abusive conduct in the future (Federal Ministry for Economic Affairs and Energy, 2026, pp. 60 ff.). Such concerns cannot, however, in themselves justify the maintenance of a sector-specific special rule. Special supervision against abusive practices, which subjects individual sectors to a different regulatory regime from the rest of the economy, would require a sound justification to the effect that such supervision can only be effectively enforced in those sectors in this way. No such justification is apparent here.

428 The concept of a comparable market under competition law, which forms the basis of Section 29 GWB, regularly cannot do without an additional examination of costs, particularly in cases of price-gouging, because the cost structures of the comparable undertakings differ structurally and this cannot be ignored. At the same time, however, there is as yet no clear framework for how costs can be allocated structurally, leaving companies with – in some cases considerable – leeway, which has so far made proceedings significantly more difficult. Furthermore, even with this renewed extension of the provision, it is not clear from the explanatory memorandum to what extent the specific simplifications provided for in Section 29 GWB have facilitated the enforcement of abuse control as compared with general abuse control.

429 The electricity and gas markets (in particular electricity for heating and basic supply tariffs, to which Section 29 of the Act against Restraints of Competition (GWB) has applied in the past) are now characterised by intense competition. The assumption that these markets would be left defenceless without Section 29 GWB is incorrect. There are no structural or even natural monopolies. Any dominant positions that may exist in individual cases can be addressed through the general prohibition on the

abuse of a dominant position. The Monopolies Commission recommends that Section 29 of the GWB should not be extended to cover gas and electricity. For competition authority proceedings currently underway or initiated by 31 December 2027, a transitional provision should be introduced clarifying that these proceedings may be brought to a conclusion under Section 29 of the GWB.

2.2.1.10 Extension of the Fuel Market Transparency Unit

430 The draft bill proposes extending the data collection powers of the Fuel Market Transparency Unit (MTS-K) to the value-added stage upstream of petrol stations (Section 47k(7) of the draft GWB). The Monopolies Commission examines this proposal and other measures specifically targeting the fuel sector in detail in the section [72.1.3.1.3](#).

2.2.1.11 What is missing from the draft bill

2.2.1.11.1 Addition: Making antitrust damages proceedings more effective

431 Despite welcome developments in court proceedings, the assertion of antitrust damages continues to face significant hurdles. The Monopolies Commission therefore recommends taking selected measures to make the proceedings more effective. These should include, amongst other things, the measures proposed in section [72.1.1](#).

2.2.1.11.2 Delete: Exemption from merger control for hospital mergers

432 In section [72.2.2](#), the Monopolies Commission examines in greater depth the legislative developments regarding merger control for hospital mergers. In its view, the sectoral exemption provided for there is misguided and should be removed from the Act.

2.2.1.12 What is rightly absent from the draft bill

2.2.1.12.1 No exemption for the defence sector

433 In section [72.1.2](#), the Monopolies Commission addresses competition in the defence sector. As a purely precautionary measure, it points out there that a sector-specific provision in German competition law going beyond Article 346(1)(b) TFEU is neither necessary nor sensible. The introduction of any kind of exemption for the defence sector should be rejected.

2.2.1.12.2 No concessions for media companies

434 The draft bill contains no further concessions for media companies governed by private or public law. The coalition agreement for the Federal Government had provided for the following in this regard:

“Competition law must be further developed at all levels and integrated with the media concentration laws of the federal states, not least to examine mergers between media companies and providers of media-related infrastructure. Following the current reforms by the federal states, cooperation within public service broadcasting is to become the norm. We are therefore creating a sectoral exemption under competition law; cooperation between private media companies is also to be facilitated.” (Federal Government, 2025a, p. 123)

435 Exemptions from competition law for entire economic sectors are highly problematic from a regulatory perspective. They require specific justification, which is not apparent here. No genuine need for collaborations, with suitable examples that have so far been blocked by competition law, has been demonstrated. Section 30 of the German Act against Restraints of Competition (GWB) already contains exemptions from the prohibition on cartels for press companies, which should not be extended further – not least in view of the importance of media diversity for democracy. An extension of the press restructuring clause under merger control law (Section 36(1), second sentence, No. 3 of the GWB) would likewise be inappropriate. The same applies to an increase in the turnover multiplier of the press calculation clause (Section 38(3) of the GWB), which already applies to broadcasting as well as to the press.

436 The Monopolies Commission welcomes the fact that the BMW Group has refrained from introducing competition law concessions for media companies. The difficult situation facing media companies in the digital age – which the Monopolies Commission also regards as devastating from a social and democratic perspective – did not arise as a result of competition law restrictions on media companies. The crisis cannot be overcome by relaxing competition law obligations. The Monopolies Commission sees a need for action in two other areas: firstly, competition law and the Digital Markets Act must be enforced much more vigorously against digital gatekeepers. Secondly, the problem must be resolved whereby – particularly in the case of AI applications – the producers of original and journalistically prepared content are not involved.

2.2.2 Hospital Reform Adaptation Act

437 The possibility of exempting hospital mergers from German merger control has been clarified under the Hospital Reform Adaptation Act (KHAG). The KHAG came into

force on 15 April 2026. The exemption for hospital mergers has essentially existed since the 10th Amendment to the Act against Restraints of Competition (GWB), but was significantly expanded by the Hospital Care Improvement Act (KHVVG) of December 2024. The grounds for exemption previously set out in Section 187(10) of the GWB (old version) are now contained in Section 186a of the GWB. According to the explanatory memorandum to the Act, the aim of the new provisions introduced by the KHAG is, in particular, to remove legal uncertainties, to delineate competences more clearly and to avoid parallel proceedings by the state hospital planning authorities and the Federal Cartel Office (Federal Government, 2025, p. 82).

438 The regulations introduced in 2024 had already significantly curtailed merger control in the hospital sector. Since the KHVVG came into force on 12 December 2024, hospital mergers may be exempted from the suspension of enforcement under competition law until the end of 2030, provided that the competent state authority confirms that the merger is deemed necessary to improve hospital care. The original requirement linking such exemptions to specific funding criteria was thus abandoned; however, pursuant to Section 187(9) of the German Act against Restraints of Competition (GWB), it will be reinstated for the period from January 2031 to December 2038. Several federal states have already made use of the exemption introduced by the KHVVG. These are said to have included cases that would have warranted a more detailed competition assessment (Bangard, 2026, p. 29). The most prominent example of this development is the state authority's approval of the merger between the University Hospitals of Heidelberg and Mannheim, which had previously been prohibited by the Federal Cartel Office (see also para. **7441**).

439 The new Section 186a of the German Act against Restraints of Competition (GWB) largely continues the previous provision, but reorganises it in part. A key change is that the criterion of 'cross-site concentration' has been removed. Previously, it was unclear whether the exemption applied only if sites or specialist departments were closed as a result of the merger. It is now sufficient for at least two hospitals or individual medical departments to be merged in whole or in part. Furthermore, it has been clarified that the exemption applies only to hospital services, i.e. inpatient services provided by hospitals within the meaning of Section 107(1) of the Social Code, Book V (SGB V) (Section 186a(1), second sentence, of the GWB). Preventive care and rehabilitation facilities, as well as outpatient services – in particular the activities of medical care centres – continue, however, to be subject to the merger control provisions of Sections 35 et seq. of the German Act against Restraints of Competition (GWB). In 'mixed cases', notification to the Federal Cartel Office is therefore generally required for non-inpatient activities, provided that the notification thresholds are exceeded.

440 Another key focus of the reform is the reorganisation of procedural law and the delineation of competences between state authorities and the Federal Cartel Office. Under Section 186a of the GWB, hospital operators must first, as a matter of obligation, undergo a confirmation procedure with the competent state hospital planning authorities. Only if the state authority rejects the application or fails to reach a decision may a merger control procedure be considered by the Federal Cartel Office (Section 186a(3) of the Act against Restraints of Competition). The duration of the confirmation procedure is now three months instead of two and may be extended with the consent of the parties to the merger (Section 186a(2), third and fourth sentences, of the Act against Restraints of Competition). The legislature's aim in introducing the new provisions was to avoid 'cumbersome parallel reviews' and to reduce uncertainties regarding competences and procedural flows (Federal Government, 2025, p. 123). However, the academic literature also points out that this results in the ' ' procedure losing flexibility. For instance, the clearance of mergers that do not raise competition concerns – which were previously approved by the Federal Cartel Office within one month – could be delayed in future because the state authority procedure must now be completed first (Bangard, 2026, p. 28; Janssen/Sehy, 2025, pp. 785, 787).

441 From the Monopolies Commission's perspective, the exemption from German merger control for hospital mergers is fundamentally flawed. The provision encourages significant concentration trends and weakens competition between hospitals. This increases the risk of regional monopolies, with negative effects on the quality of care. Furthermore, in the hospital sector, the federal states themselves sometimes act as operators of hospitals, meaning that conflicts of interest cannot be ruled out. The obligation on the part of the state authorities – taken over from Section 187(10) of the previous version of the Act against Restraints of Competition (GWB) – to merely consult with the Federal Cartel Office before issuing a certificate of necessity (Section 186a(2), second sentence, GWB) does practically nothing to alter the loss of a competition assessment. The Monopolies Commission is well aware that synergy effects and, in particular, higher patient volumes can improve the quality of care. However, this cannot be assumed across the board, as demonstrated by the merger of the Heidelberg/Mannheim University Hospitals. In that case, the Federal Cartel Office identified significant impediments to competition but found hardly any relevant efficiencies. The Monopolies Commission has therefore proposed that the balancing of competition-induced changes in quality against improvements in the quality of care resulting from synergy effects in the hospital sector be explicitly incorporated into merger control (Monopolies Commission, 2020, para. 158 et seq., in particular 165; Monopolies Commission, 2024, para. 171 et seq.).

2.2.3 Draft of the new EU merger control guidelines

442 On 30 April 2026, the European Commission published a draft of new merger control guidelines for consultation (European Commission, 2026). The new guidelines are intended to consolidate and, above all, modernise the previous Horizontal Guidelines of 2004 and Non-Horizontal Guidelines of 2008. The guidelines cannot amend the law and are not directly binding on third parties. The EU Merger Regulation and the case law of the EU courts remain authoritative. However, the guidelines serve as an aid to interpretation and make the application of the applicable law more transparent and predictable. At the same time, they can provide impetus for the further development of regulatory practice.

443 The new guidelines come at a time when economic and industrial policy considerations are of great importance. The European Commission emphasises, for instance, that mergers could, under certain conditions, generate competition-enhancing economies of scale and that European companies face global competition in many markets. Whilst the previous guidelines focused primarily on traditional competition parameters such as prices, market shares and market structure, the new draft places greater emphasis on dynamic competition parameters. According to this approach, competition takes place not only through prices, but also through innovation, investment, quality, supply chain resilience, technological capabilities and security of supply.

444 The European Commission emphasises in several places in the draft that mergers could help to strengthen the international competitiveness of the European economy and European companies. Whilst industrial policy considerations played no role in the previous guidelines, geopolitical developments, global supply chain dependencies and international competitive pressure are now explicitly mentioned (European Commission, 2026, para. 10 et seq.). The European Commission points out that – particularly in capital- and innovation-intensive industries – size and economies of scale may be necessary to survive in global competition. Nevertheless, a distinction is drawn between competitive scale and anti-competitive market power. The draft makes it clear that international competitiveness or industrial policy objectives do not constitute an independent justification for mergers that restrict competition, and that even large European companies remain fully subject to the SIEC test.

445 The draft of the new guidelines does not introduce a standalone ‘innovation defence’ that would justify mergers simply because companies pool their resources and are better able to compete globally. However, the European Commission expressly recognises that mergers could generate efficiency gains relating to innovation, invest-

ment and economies of scale, for example through the pooling of complementary capabilities, the sharing of research and development capacities, or easier access to critical resources (European Commission, 2026, para. 15). At the same time, the new draft devotes a separate section to the ‘loss of innovation competition’ (European Commission, 2026, para. 175 et seq.) and distinguishes there between the loss of specific innovation competition (‘specific innovation competition’) and the loss of general innovation pressure (‘general innovation competition’).⁵³

446 Overall, the draft focuses merger control more strongly on future competitive processes and, against this backdrop, significantly further develops dynamic harm theories, thereby moving away from a primarily static analysis of existing market structures. In particular, the European Commission treats the loss of innovation competition, as well as the loss of investment and potential competition, as distinct competitive risks arising from a merger. In doing so, the draft takes account of the fact that, particularly in technology- and innovation-intensive markets, competitive disadvantages often only become apparent in future developments (European Commission, 2026, para. 180 et seq.).

447 The draft of the new guidelines takes ecosystem-based harm theories into account for the first time (European Commission, 2026, para. 252 et seq.) and thus adapts the assessment framework specifically to the competitive realities of digital markets. Restrictions on competition are increasingly arising from the combination of a core service with strong market power with complementary services. The European Commission no longer wishes to assess market power solely in individual markets, but rather in the context of the entire ecosystem in which a company can secure and expand its market position through a bundle of interlinked services (‘entrenchment’). In this regard, all conduct that serves to transfer market power from a core market to neighbouring markets is relevant, such as self-preferencing, bundling and tying strategies. The draft also clarifies that a merger may be problematic even if it eliminates a potential competitor in a related market who possesses scarce or specialised capabilities (European Commission, 2026, para. 257).

448 The treatment of efficiencies also features some new aspects. The previous guidelines already recognised efficiency gains in principle as a possible justification for mergers that restrict competition. In practice, however, the European Commission imposed such high requirements in this regard that such defences have so far played only a very limited role. Under the draft of the new guidelines, too, efficiency gains that can be taken into account must be (1) verifiable, (2) specific to the merger, and (3)

⁵³ The former refers to the loss of innovation-driven competition between two firms that are already working on similar technologies, products or research projects; the latter refers to the loss of incentives for innovation in the market as a whole, for example where a merger results in the loss of an innovative competitor or a significant reduction in incentives for research and development.

benefit consumers in the relevant markets (European Commission, 2026, para. 304 et seq.). Particularly with regard to the creation or strengthening of significant market power, the European Commission also remains cautious about the possibility that efficiency gains might actually offset the competitive disadvantages of a merger (European Commission, 2026, para. 35).

449 Nevertheless, the European Commission appears to be endeavouring to attach greater weight to the efficiency defence, both in substantive and procedural terms. It now expressly distinguishes between direct efficiencies and dynamic efficiencies. In addition to traditional cost synergies, factors such as incentives for innovation and investment, economies of scale, sustainability aspects and access to essential inputs are therefore taken into account (European Commission, 2026, para. 291 et seq.). Certain mergers may be necessary to finance large-scale research and development projects, secure critical supply chains or strengthen the international competitiveness of European companies. In addition, the procedural requirements for demonstrating efficiencies are clarified. The parties to the merger, who bear the burden of proving the efficiencies, are required to put forward a coherent theory that clearly sets out how the merger will lead to lower costs, higher quality, greater innovation or other competitive advantages, and how these benefits will accrue to consumers ('theory of benefit'; European Commission, 2026, para. 25). The European Commission also highlights the importance of an early efficiency submission, which could take place as early as the pre-notification procedure (European Commission, 2026, para. 36).

450 The draft guidelines demonstrate how industrial policy and competition policy can work together. Mergers can facilitate innovation, investment and economies of scale, but must not be justified solely on the grounds of the international competitiveness of European companies. The draft thus essentially follows the approach to a competition-oriented industrial policy described in [↗Chapter 3](#).

451 It remains to be seen how the aforementioned points will play out in case law following the publication of the final guidelines. To a large extent, they are already covered by the European Commission's merger control regime. The Monopolies Commission addressed the merger control guidelines in a policy brief published in October 2025 (Monopolies Commission, 2025b). In that brief – in line with the draft now presented – it emphasised that the pursuit of international competitiveness must not come at the expense of competition in the internal market and at the expense of consumers in Europe. Furthermore, the Monopolies Commission's recommendations in its Policy Brief – namely (1) to further develop dynamic harm theories, (2) to refrain from applying a 'defence of innovation' and (3) to supplement the analytical framework for digital ecosystems – are largely in line with the European Commission's approach in the draft guidelines.

2.3 Overview of antitrust decision-making practice

452 In this section, the Monopolies Commission provides an overview of selected decisions by competition authorities and courts at both German and EU level. The cases relate to merger control (see section [72.3.1](#)), the supervision of abusive practices, including the enforcement of the DMA (see section [72.3.2](#)), antitrust supervision (see section [72.3.3](#)) and antitrust damages (see section [72.3.4](#)). The key criteria for case selection were, in particular, whether the Monopolies Commission had already dealt with a specific issue, the relevance of the respective decision to the reporting period, and whether any significant developments had arisen in this regard.

2.3.1 Merger control

2.3.1.1 German merger control

453 In 2024/2025, a total of 1,750 mergers were notified to the Federal Cartel Office, of which 870 were in 2024 and 880 in 2025. This means the number of notifications is slightly higher than in 2022/2023 (1,642), having previously fallen significantly due to the raising of the notification thresholds following the 10th Amendment to the Act against Restraints of Competition (GWB), which came into force in January 2021. The vast majority of the notified merger proposals were cleared during the preliminary review procedure. The Federal Cartel Office concluded a total of eleven main review proceedings – as in 2022/2023 – but only three of these were in 2025. In both years, one merger was prohibited in each case.⁵⁴ In addition, there were five cases – four in 2024 and one in 2025 – in which the notifications were withdrawn during the main review proceedings.⁵⁵ The Federal Cartel Office discontinued one main review procedure after investigations revealed that, due to a lack of sufficient domestic impact, there was no obligation to notify under the transaction value threshold.⁵⁶ Furthermore, three mergers were cleared in the main review procedure without conditions.⁵⁷ It is striking that there were no clearances subject to conditions in 2024/2025; in 2022/2023, the

⁵⁴ BKartA, B3-37/24, 24 July 2024, Heidelberg/Mannheim University Hospitals; B4-100/24, 11 June 2025, Tönnies/Vion.

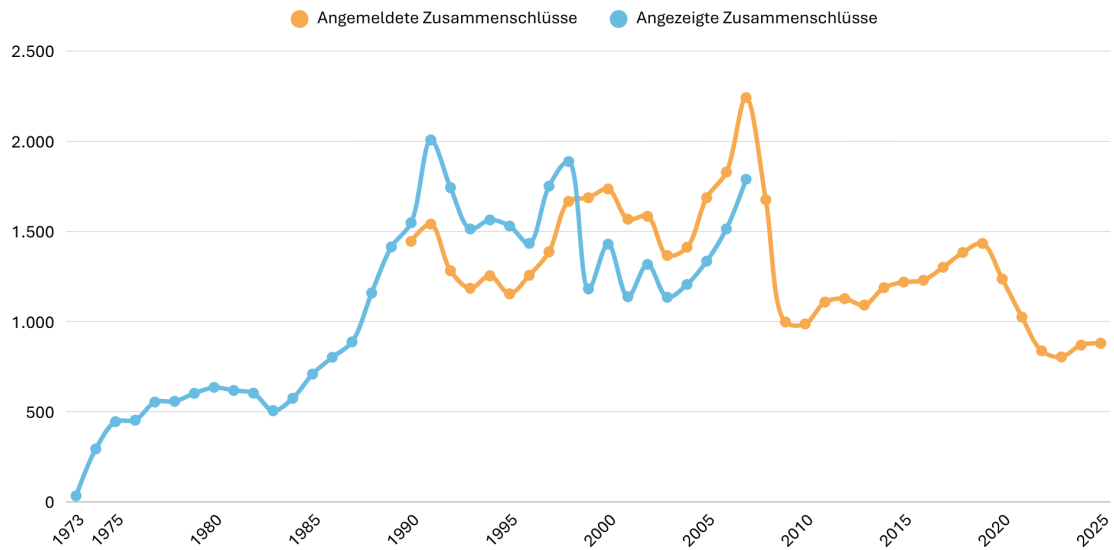
⁵⁵ In four cases, the withdrawals were made due to competition concerns raised by the Federal Cartel Office: B5-75/23, 11 April 2024, Hunter Douglas/Erfal; B7-24/24, 19 July 2024, Ansys/Safe Parent; B6-32/24, 13 September 2024, Super RTL/Nickelodeon; B5-26/25, 30 April 2025, Vanderlande/Siemens. In one case, the notification was initially withdrawn (B5-68/24, 4 November 2024, Remondis/Biowerk Walldorf), before the merger was cleared following a resubmission during the preliminary assessment procedure (B5-111/24, 6 November 2024).

⁵⁶ BKartA, B3-109/24, 20 February 2025, Edwards Lifesciences/JenaValve.

⁵⁷ BKartA, B3-25/24, 17 June 2024, Thermo Fischer/Olink; B5-53/24, 29 November 2024, Schüco/Stemeseder; B5-47/24, 3 December 2024, KME/Sundwiger Messingwerk.

Federal Cartel Office had issued a total of four such decisions. Details of the merger control statistics can be found in the following figures and tables:

Figure 2.3: Number of notified and completed mergers



Note: No reliable figures on the completion of mergers have been available since 2008. Consequently, the mergers shown are only presented up to 2007.

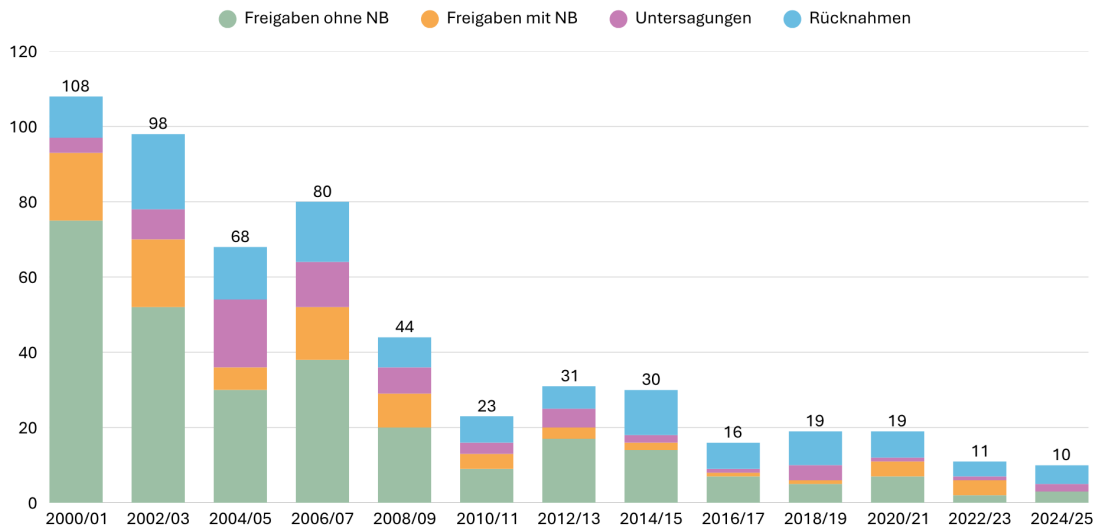
Source: own compilation based on data from the Federal Cartel Office.

Table 2.3: Overview of the number of notified and completed mergers, as well as prohibitions imposed by the Federal Cartel Office, broken down by the Monopolies Commission's reporting periods

Year	Notifications of completed mergers	Notified mergers	Prohibitions
1973/1975	773		5
1976/1977	1,007		7
1978/1979	1,160		13
1980/1981	1,253		21
1982/1983	1,109		10
1984/1985	1,284		13
1986/1987	1,689		5
1988/1989	2,573		16
1990/1991	3,555	2,986	8
1992/1993	3,257	2,467	6
1994/1995	3,094	2,408	8
1996/1997	3,185	2,644	9
1998/1999	3,070	3,354	8
2000/2001	2,567	3,303	4
2002/2003	2,452	2,950	8
2004/2005	2,541	3,099	18
2006/2007	3,303	4,071	12
2008/2009	-	2,673	7
2010/2011	-	2,095	3
2012/2013	-	2,218	5
2014/2015	-	2,407	2
2016/2017	-	2,530	1
2018/2019	-	2,816	4
2020/2021	-	2,261	1
2022/2023	-	1,642	1
2024/2025	-	1,750	2
Of which in 2024	-	870	1
Of which in 2025	-	880	1
Total	(up to 2007) 37,872	47,674	197

Note: No reliable figures on the implementation of mergers have been available since 2008. Consequently, the mergers shown are only presented up to 2007. Source: Federal Cartel Office.

Figure 2.4: Number of main investigation proceedings and the decisions and withdrawals arising from them (since 2000)



Note: NB = ancillary conditions

Source: own compilation based on data from the Federal Cartel Office.

Table 2.4: Overview of the state of German merger control in 2024 and 2025 (compared with 2023)

	Type	2023	2024	2025
I. Merger control proceedings in general	Notification received pursuant to Section 39 of the German Act against Restraints of Competition (GWB)	804	870	880
	Preliminary cases	13	11	7
II. Preliminary examination procedure (first-phase cases)	Approval	765	811	836
	No obligation to file an application	24	22	10
	Withdrawal of registration	10	33	30
III. Main examination procedure (second-phase cases)	Total number of decisions	4	4	1

	Type	2023	2024	2025
	Approval without conditions	2	3	0
	Approval with conditions	2	0	0
	Prohibition	0	1	1
	Withdrawal of application	2	4	1

Note: The figures relate to all decisions or other dispositions issued in the respective years, irrespective of the date of notification; for this reason, the figures for notified and concluded cases may differ. Pre-notification cases are proposed mergers which, due to competition concerns raised by the Federal Cartel Office, were either not notified, notified in a modified form, or withdrawn. In such cases, a significant impediment to effective competition can be prevented even without a final decision. Recording these cases is, by its very nature, difficult, meaning that the figures given can only be approximate. According to the Federal Cartel Office, only a small proportion of withdrawals of merger control notifications are due to concerns raised by the Federal Cartel Office. The figures for 2023 were taken from the XXVth Main Report, Table II.2. The Federal Cartel Office has since published figures that differ slightly; see Federal Cartel Office, 2025c, pp. 28 ff., 176.

Source: Federal Cartel Office.

454 In German merger control, there have been several decisions relating to the transaction value threshold. In the Meta/Kustomer merger case, the Federal Court of Justice (BGH) set aside the decision of the Higher Regional Court of Düsseldorf and clarified the requirements for the notification obligation based on the transaction value threshold under Section 35(1a) of the German Act against Restraints of Competition (GWB) (BGH, KVR 77/22, 17 June 2025; Higher Regional Court of Düsseldorf, VI-Kart 11/21 (V), 23 November 2022). The subject of the legal dispute was a cost notice issued by the Federal Cartel Office in relation to the merger control review. Ultimately, the issue at stake was whether Meta’s acquisition of Kustomer was subject to notification in the absence of significant domestic activity within the meaning of Section 35(1a)(4) of the German Act against Restraints of Competition (GWB) (in the affirmative: the Federal Cartel Office and now also the Federal Court of Justice; in the negative: the Higher Regional Court of Düsseldorf). According to the Federal Court of Justice, a discretionary overall assessment is decisive, in which one must not rely solely on direct market relationships with domestic customers. Rather, indirect market links, in particular access to data from end-users resident in Germany, may also constitute a significant domestic activity. In doing so, the BGH broadens the relevant connecting factor beyond traditional turnover and sales relationships. At the same time, it emphasises the specific function of the transaction value threshold, which is intended to capture precisely those mergers whose competitive significance is not (yet) reflected in the target company’s turnover. Rather, it is sufficient that the target company’s activities have a domestic connection which is generally capable of giving rise to competitive risks for domestic markets. With regard to the intensity of this connection, the BGH requires only a certain minimum level of detectability and makes it clear that no high standards need to be applied in this respect. Furthermore, the BGH specifies that

the criterion of ‘market maturity’ relied upon by the Higher Regional Court of Düsseldorf is only suitable, in exceptional cases, for excluding the application of the transaction value threshold. The BGH rejects a general restriction of the provision to mergers in early market phases. Similarly, it does not attach decisive importance to the ratio between domestic and foreign activities when assessing the significance of domestic activity.

455 Even before the BGH’s ruling, the Higher Regional Court of Düsseldorf had handed down further decisions in the Adobe/Magento and Adobe/Marketo cases on the question of the notification requirement under the transaction value threshold (VI-Kart 2/24 (V) and VI-Kart 3/24 (V), 26 February 2025). In those cases too, the Higher Regional Court of Düsseldorf set aside the Federal Cartel Office’s cost orders relating to the merger control investigations that had taken place because – according to the court – the mergers were not subject to notification. The reasoning largely corresponded to that in the Meta/Kustomer merger case. In particular, the merger concerned ‘market-ready’ products, and there was no sufficient domestic connection. A decision by the Federal Court of Justice (BGH) on this matter is still pending.

456 Furthermore, the following cases handled by the Federal Cartel Office are worth mentioning in connection with the transaction value threshold. In the Microsoft/ Inflection case, the Federal Cartel Office ruled that there was no obligation to notify, as there were no significant domestic activities at the time of the merger (Federal Cartel Office, 2024). The Federal Cartel Office examined two acquisition transactions. In the first transaction, the authority found that a merger within the meaning of Section 37 of the German Act against Restraints of Competition (GWB) had taken place. This concerned the takeover of almost all of Inflection’s employees, as well as the right to use intellectual property rights. The case attracted attention because, unlike in the CTS Eventim/Four Artists case, for example, the Federal Cartel Office classified the takeover of staff (so-called ‘acqui-hires’) as a merger. In the CTS Eventim/Four Artists case, the previous prohibition of the merger (BKartA, B6-132/14-2, 4 December 2017; BGH, KVR 34/20, 12 January 2021) was effectively circumvented by the original acquirer, CTS Eventim, setting up an agency to employ staff who had previously resigned from the original target company, Four Artists. In the first acquisition in the Microsoft/Inflection case, however, the Federal Cartel Office found that the target company still lacked significant domestic activity. In the second acquisition, whilst the Federal Cartel Office acknowledged a sufficient domestic connection, it did not regard this form of consolidating the corporate relationship as constituting a merger. Accordingly, the Microsoft/Inflection case was not subject to merger control in Germany. Nor was there a – primary – obligation to submit to merger control at EU level: Although the European Commission classified the case as a concentration within the meaning of Article 3 of Regulation 139/2004, the turnover thresholds set out in Article 1 of the Regulation

were not met, and ultimately no (sub-threshold) referral by a Member State was considered (European Commission, 2024).

457 Similarly, the Edwards Lifesciences/JenaValve merger was ultimately not subject to notification in Germany due to the lack of significant domestic activity on the part of the target company. Following the findings of its investigation, the Federal Cartel Office only discontinued the proceedings during the main review phase (B3-109/24, 20 February 2025). In the Thermo Fisher/Olink case, by contrast, the Federal Cartel Office determined that the merger was subject to notification in accordance with the transaction value threshold and, following a thorough examination during the main review proceedings, cleared the merger without imposing any conditions (B3-25/24, 17 June 2024). This case is the only merger to date that was subject to a notification requirement on the basis of the transaction value threshold and was only cleared during the main review procedure. The Monopolies Commission has repeatedly proposed in the past that the scope of application of the German transaction value threshold be extended. Accordingly, the criterion that the business of the undertaking to be acquired must be carried out to a significant extent within Germany should be abolished or, at any rate, initially amended so that anticipated future domestic activities of the undertaking to be acquired may also trigger a notification requirement (Monopolies Commission, 2022, para. 241 et seq.; Monopolies Commission, 2024, para. 259).

458 In the Glasfaser Nordwest case, the Federal Court of Justice (BGH) set aside a ruling by the Higher Regional Court of Düsseldorf and referred the proceedings back to that court (BGH, KVZ 64/21, 25 February 2025). The Higher Regional Court of Düsseldorf had declared the Federal Cartel Office's approval, under merger control law, of the establishment of a joint venture between Deutsche Telekom and EWE TEL to be unlawful (Higher Regional Court of Düsseldorf VI-Kart 5/20 (V), 22 September 2021). The focus of the legal dispute was the question of whether behavioural commitments arising from parallel antitrust administrative proceedings could be taken into account in the assessment under merger control law. The Higher Regional Court of Düsseldorf had ruled that this was not the case. In the Federal Court of Justice's view, when assessing whether a merger significantly impedes effective competition within the meaning of Section 36(1), first sentence, of the German Act against Restraints of Competition (GWB), the facts of the case must be taken as they stand following the conclusion of the antitrust administrative proceedings, taking into account the commitments. If the proposed merger is amended in the antitrust administrative proceedings prior to its clearance by a decision on commitments issued by the Federal Cartel Office pursuant to Section 32b of the German Act against Restraints of Competition (GWB), these amendments must be taken into account in the merger control proceedings. This applies even where, due to their behavioural nature, such commitments

could not have been issued as ancillary conditions to a merger control clearance decision pursuant to Section 40(3) of the German Act against Restraints of Competition (GWB). In this respect, the Federal Court of Justice (BGH) does not consider this to constitute an impermissible circumvention of the requirements under merger control law. The decisive factor is that the commitments declared binding are time-limited and relate to a reversible, cooperative joint venture serving a specific function, which is intended to establish and expand network infrastructure. The Monopolies Commission had already dealt with the Glasfaser Nordwest case in its XXIIIrd Main Report and had concluded that the commitments declared binding were, in principle, suitable for counteracting the restrictions on competition associated with the establishment of the joint venture. However, it had advocated that, in similar cases in future, commitments should be secured to the effect that areas in which network expansion is economically feasible even without cooperation should be excluded from the cooperation (Monopolies Commission, 2020, para. 445 et seq.).

459 The Federal Cartel Office has, by order pursuant to Section 32f(2) of the Act against Restraints of Competition (GWB), obliged the Rethmann Group – to which Remondis in particular belongs – to notify future mergers in specific sectors of the waste management industry (B5-31/24, 21 November 2025). As a result, mergers below the general turnover thresholds for German merger control under Section 35 of the German Act against Restraints of Competition (GWB) are also covered. According to the Federal Cartel Office's order, the prerequisite for a notification obligation in individual cases – in addition to meeting the turnover thresholds set out in Section 32f(2), second sentence, of the GWB – is that the target undertaking must have generated domestic turnover of at least EUR 100,000 in one or both of the relevant areas of activity. The decision is based on the sector inquiry into waste disposal, which was concluded in December 2023. The Federal Cartel Office sees objectively verifiable indications that future mergers involving the Rethmann Group could significantly impede competition. In support of its decision, the authority refers in particular to the group's exceptional access to regional sales and procurement markets, its strong financial position and significant barriers to market entry. Furthermore, it notes a decline in the number of participants in local authority tenders. The obligation to notify future mergers applies for a period of three years. This is the first decision based on the Federal Cartel Office's extended merger control powers, originally introduced in Section 39a of the previous version of the German Act against Restraints of Competition (GWB), which were amended as part of the 11th amendment to the GWB and transferred to Section 32f(2) GWB. The Monopolies Commission had proposed introducing a turnover multiplier in place of Section 39a of the GWB (old version) in order to achieve more targeted control of mergers in regional markets (Monopolies Commission, 2020a, p. 6 ff.).

460 The Federal Cartel Office has prohibited Heidelberg University Hospital from acquiring a stake in Mannheim University Hospital (B3-37/24, 24 July 2024). Heidelberg University Hospital is run by the State of Baden-Württemberg, whilst Mannheim University Hospital is run by the City of Mannheim. In the view of the Federal Cartel Office (), the merger would have led to significant restrictions on competition in the markets for acute inpatient hospital services in and around Mannheim, Heidelberg and Heppenheim. In Heidelberg, the existing dominant position of Heidelberg University Hospital would have been strengthened; in Mannheim and Heppenheim, the merged entity would have become dominant for the first time. There were also significant competition concerns in the fields of paediatrics and cutting-edge medicine, although this area could not be clearly defined. The Federal Cartel Office examined the claimed efficiency gains in detail, in particular so-called ‘volume-outcome effects’, whereby higher case numbers can lead to improvements in the quality of medical care. Ultimately, however, only limited significance was attached to the efficiency gains. The Federal Cartel Office pointed out that both hospitals were already comprehensive care providers operating independently of one another. Furthermore, the claimed efficiency gains were not specific to the merger, as the hospitals’ existing medical and scientific collaborations could be deepened even without a legal merger. The parties to the merger initially considered applying for ministerial authorisation (Section 42 GWB), but instead applied to the Baden-Württemberg Ministry of Social Affairs for confirmation that the merger was deemed necessary to improve healthcare provision and that no other competition law provisions precluded the merger (now Section 186a GWB). The Ministry of Social Affairs granted the exemption in May 2025 (Ministry of Social Affairs, Health and Integration of Baden-Württemberg, 2025). The Monopolies Commission takes a very critical view of the statutory exemption from merger control scrutiny by the Federal Cartel Office for hospital mergers (see section **72.2.1.11.2**).

461 Furthermore, the Federal Cartel Office has prohibited Tönnies from acquiring several German Vion sites (B4-100/24, 11 June 2025). The proposed transaction specifically concerned the takeover of the abattoirs operated by Vion in Buchloe, Crailsheim and Waldkraiburg. The background to the merger was Vion’s strategic decision to withdraw largely from the German market. In this context, the European Commission and the Federal Cartel Office had previously approved several mergers, including the takeover of individual Vion sites by Tönnies (European Commission, M.11446, 4 April 2024, Tönnies Holding/Certain Vion Businesses). In the present case, however, the Federal Cartel Office identified significant restrictions on competition. On the supply side, the authority assumed that the merger would result in Tönnies holding regional dominant positions in the collection and slaughter of cattle. In the collection and slaughter of pigs, an already existing regional dominant position, would be strengthened. In this respect, according to the Federal Cartel Office, regionally de-

fined procurement markets with catchment areas of approximately 200 to 300 kilometres' driving distance around the respective slaughterhouse locations were decisive. On the sales side, Tönnies would acquire a dominant position in the marketing of beef. Vion had previously been the market leader in this sector. In the marketing of pigs and pig carcasses, Tönnies' existing dominant position would be further strengthened. The Federal Cartel Office defined the sales markets as covering (at least) the whole of Germany. The Federal Cartel Office did not consider the commitments offered by the parties to the merger – to sell or lease out individual sites – to be sufficient to allay its competition concerns. The Federal Cartel Office has cleared the acquisition of the Vion site in Crailsheim by an alternative purchaser in the preliminary assessment procedure (2 June 2026, B4-43/26, Boeser/Vion Crailsheim). Another proposed merger is currently still under review – as at 19 June 2026 – (B4-45/26, ABP/Vion Buchloe).

462 With the acquisition of The Family Butchers, the Federal Cartel Office has cleared a further merger involving Tönnies in the preliminary review procedure (B4-75/25, 18 September 2025). Both companies are major producers of sausage and ham products in Germany. However, despite the companies' combined market shares being high in some cases, the Federal Cartel Office did not find that there was any significant impediment to effective competition.

463 The food retail sector has also been, and remains, a focus of the Federal Cartel Office's merger control activities. The Federal Cartel Office approved several takeovers of smaller retailers by acquirers from among the four major food retail groups during the preliminary review procedure, despite isolated competition concerns in each case (B4-26/24, 15 May 2024, Edeka/Konsum Leipzig; B4-116/24, 18 November 2024, Kaufland/Globus; B4-81/24, 1 December 2024, Edeka/Konsum Dresden). In addition, an initial clearance decision was issued in connection with the sale of Tegut Group sites to various food retailers (B4-49/26, 11 June 2026, Tante Enso/Tegut). The Federal Cartel Office is currently examining two further mergers – as at 19 June 2026 – under the main investigation procedure (B4-32/26, Edeka/Tegut; B4-40/26, Rewe/Tegut).

464 In its Special Report No. 84 on competition in the food supply chain, the Monopolies Commission noted that the gap between producer and consumer prices is widening ever further. This could also be exacerbated by the ongoing process of concentration in the food retail sector and at the processing level, which is accompanied by rising mark-ups at these stages of the value chain. Slaughtering and meat processing, in particular, are already highly concentrated. The Monopolies Commission has therefore recommended that future mergers in the food supply chain be scrutinised closely and that greater attention be paid to assessing their impact on the entire supply chain.

It sees a risk that merger control may not take adequate account of the cross-market effects of mergers (Monopolies Commission 2025c, para. 284 ff.).

2.3.1.2 European merger control

465 The number of merger control cases at the European Commission has recently risen slightly.⁵⁸ A total of 776 mergers were notified there in 2024/2025, compared with 727 cases in 2022/2023 and 766 cases in 2020/2021. The proportion of cases cleared under the simplified procedure has risen again – by around 10 percentage points – to 87 per cent. The European Commission initiated the full investigation procedure in just seven cases: three times in 2024 and four times in 2025. In 2022/2023, there were 13 cases – more than twice as many full-scale proceedings – and even then there had already been a decline compared with previous years. Under the full-scale procedure, three mergers were cleared with conditions and two without conditions. Under the preliminary review procedure, 14 clearances were granted with conditions; which was exactly the same number of cases as in 2022/2023. The European Commission did not prohibit any mergers in 2024/2025, whereas there had been three prohibitions in 2022/2023. However, no mergers were prohibited in 2020/2021 either. In total, 14 notifications were withdrawn by the parties to the merger in 2024/2025, twelve during the preliminary assessment phase and two during the main assessment phase. In 25 cases, the European Commission referred proceedings in full to a Member State at the request of the parties to the merger, and in one case referred them in part (2022/2023: 17). 36 cases were referred to the European Commission at the request of the parties to the merger (2022/2023: 26). In three cases, a merger without Union-wide significance was successfully referred by a Member State to the European Commission for review (2022/2023: five). In two cases, a Member State requested that the proceedings be referred to a national competition authority (2022/2023: four). The European Commission did not refer the proceedings, either in full or in part, to a Member State's competition authority in any case, but rejected such a referral in one instance.

466 In the *Illumina/Grail* merger case, the Court of Justice of the European Union (CJEU) set aside the judgment of the General Court of the European Union (GCEU) and declared the European Commission's decisions on the acceptance of referral requests pursuant to Article 22(1) of Regulation 139/2004 to be void (C-611/22 P and C-625/22 P, 3 September 2024). The European Commission had previously called on the Member States, on the basis of a new interpretation of the provision, to refer the merger to it for examination despite the absence of a national notification requirement. The ECJ, however, found that the European Commission did not have jurisdic-

⁵⁸ The European Commission's statistical data on its merger control practice is available on the Authority's website at https://competition-policy.ec.europa.eu/mergers/statistics_en.

tion to examine such cases. In its reasoning, the ECJ stated that Article 22 of Regulation No 139/2004 must be interpreted within the framework of the European merger control system, which is characterised by *ex ante* scrutiny and a clear division of competences based on turnover thresholds. The provision presupposes that the referring Member States are authorised to examine the merger under national merger control law. A referral of concentrations that are not subject to notification either at EU level or at national level is not covered by this provision. The ECJ emphasised that a contrary interpretation would undermine the requirements of predictability and legal certainty, as undertakings would not be able to ascertain with sufficient clarity whether a concentration is subject to *ex post* scrutiny. The broad interpretation of Article 22 of Regulation 139/2004 advocated by the European Commission is not supported by the wording, the structure or the legislative history of the provision. Following the ECJ's judgment, the European Commission annulled its previous decisions concerning the Illumina/Grail merger, including the prohibition of the merger and the imposition of a fine for premature implementation (M.10188, M.10483.AP, M.10493.AP, M.10938.AP, M.10939.AP, 6 September 2024). The Monopolies Commission had criticised the European Commission's interim practice of implicit references and their confirmation by the General Court at an early stage, emphasising – as the ECJ has now also done – the lack of legal certainty for undertakings (Monopolies Commission, 2022, para. 226 et seq.; Monopolies Commission, 2024, para. 251 et seq.).

467 In a further case, the General Court clarified the conditions for referrals under Article 22 of Regulation 139/2004 (T-289/24, 2 July 2025, *Brasserie Nationale and Munhoven*; not yet final, C-572/25 P). The issue in dispute was whether the time limit for a request for a referral under Article 22(1), second subparagraph, of Regulation 139/2004 is triggered merely by an undertaking being informed of a proposed concentration. The General Court ruled that this was not the case and clarified that 'knowledge' within the meaning of the provision requires the active transmission of sufficient information by the undertakings concerned. It is necessary for the national competition authorities to be placed in a position to carry out a preliminary competitive assessment of the proposed concentration. A mere, unsubstantiated notification is not sufficient for this purpose. Against this background, the Court concluded that the time limit for submitting a referral request had not expired in the specific case. The referral of the merger between *Brasserie Nationale* and *Boissons Heintz* by Luxembourg to the European Commission pursuant to Article 22 of Regulation 139/2004 was therefore valid. This applied notwithstanding the fact that the merger was not subject to a notification requirement at national level, as Luxembourg does not have its own merger control regime. The General Court confirmed that, in this respect, an implicit referral is permissible by way of exception – and in contrast to the *Illumina/Grail* case. With regard to the substantive conditions for referral, the Court emphasised the Commission's wide discretion in assessing whether a concentration affects trade between

Member States and threatens to significantly impede competition within the territory of the applicant Member State(s), cf. Article 22(1), first subparagraph, of Regulation 139/2004. The European Commission has since cleared the merger between Brasserie Nationale and Boissons Heintz, subject to conditions, under the preliminary assessment procedure (M.11485, 17 July 2025). The companies in question are the leading beverage wholesalers in Luxembourg. To address its competition concerns, the European Commission accepted commitments which, in particular, involved the divestiture of substantial parts of the target company's wholesale business.

468 The European Commission has cleared the acquisition of joint control over the Italian airline ITA Airways by Deutsche Lufthansa and the Italian Ministry of Economy and Finance in the main review procedure, subject to conditions (M.11071, 3 July 2024). The European Commission anticipated significant restrictions on competition (1) on numerous short-haul routes between Italian and Central European airports, as well as (2) on certain long-haul routes between Italian and North American airports. On short-haul routes, Lufthansa and ITA are already close competitors, and in many cases even the closest competitors. For long-haul routes, the activities of Lufthansa's joint venture partners, Air Canada and United Airlines, were attributed to the merging parties. Furthermore, the European Commission (3) expressed concerns about the exclusion of competitors from access to infrastructure at Milan-Linate Airport. Overall, the European Commission identified, in some cases, very high combined market shares held by Lufthansa and ITA, as well as several barriers to market entry and expansion. To address the competition concerns, the merging parties made commitments, but had to revise these twice before they were accepted by the European Commission. On short-haul routes, competitors will be granted access to airport slots and traffic rights to launch independent services between Rome or Milan, on the one hand, and Central European airports, on the other. On long-haul routes, cooperation agreements such as interlining or slot-swap arrangements are intended to strengthen the competitiveness of rival carriers. At Milan-Linate Airport, take-off and landing rights are to be transferred to competitors to facilitate market entry or expansion. The European Commission has now approved EasyJet, IAG and Air France-KLM as suitable competitors to take over routes or slots (M.11071, 9 November 2024). Condor (T-320/25) and Luxair (T-274/25) have brought actions for annulment before the EU courts against the conditional clearance; Luxair (T-522/25) has also brought an action against the decision approving the acquirers.

469 The European Commission cleared Google's acquisition of Wiz without imposing any conditions following a preliminary assessment (M.11964, 10 February 2026; see European Commission, 2026a). The merger was not subject to direct merger control by the European Commission. However, it was subject to notification in at least three

Member States (Cyprus, Ireland, Sweden) and was referred to the European Commission pursuant to Article 4(5) of Regulation 139/2004. The merger concerns the cloud services sector, in particular cloud security. Wiz offers security solutions for multi-cloud environments, whilst Google operates in the field of cloud infrastructure and, to a lesser extent – but primarily for users of its own cloud – in cloud security services. The competition assessment focused on conglomerate effects, namely the risks of bundling cloud infrastructure and security services, as well as potential foreclosure effects vis-à-vis competing cloud providers. The European Commission found that, in the field of cloud infrastructure, Google faces two competitors – Amazon and Microsoft – which hold very strong market positions. Consequently, customers have sufficient alternatives. Furthermore, the acquisition of Wiz would not give Google access to sensitive business data held by other cloud providers.

2.3.2 Antitrust supervision and enforcement of the DMA

2.3.2.1 German competition supervision

470 The Federal Court of Justice (BGH) has dismissed Apple’s appeal against the Federal Cartel Office’s finding of overriding cross-market significance for competition pursuant to Section 19a(1) of the German Act against Restraints of Competition (GWB) (KVB 61/23, 18 March 2025). The Federal Court of Justice clarifies that the term ‘multi-sided markets’ within the meaning of Section 18(3a) of the German Act against Restraints of Competition (GWB) encompasses not only intermediation platforms aimed at facilitating transactions between different user groups, but also attention platforms. It is sufficient that the platform directs the attention of one user group towards another or technically enables interaction between different user groups. Furthermore, the Federal Court of Justice examines individual criteria from the list set out in Section 19a(1), second sentence, of the GWB, which serve in particular to specify the definition of ‘addressee’. The criterion of a dominant market position under Section 19a(1), second sentence, No. 1 of the GWB is – contrary to the assumption of the Federal Cartel Office – limited to market dominance and does not encompass other forms of market power (see, however, para. **7476** regarding the Federal Cartel Office’s decision against Microsoft). Regarding the criterion of access to competition-relevant data under Section 19a(1), second sentence, No. 4 of the GWB, the Federal Court of Justice (BGH) states that the factual and legal possibility of collecting and using data is required; mere potential access is not sufficient. Nevertheless, the BGH ultimately affirmed that this criterion was met. Furthermore, the BGH focused in particular on the high degree of vertical integration within the Apple ecosystem, the company’s considerable financial strength, and the heavy dependence of app developers and other third-party companies on access to Apple’s infrastructure and user base. The Monopolies Commission has recommended that Section 19a(1) of the German Act against

Restraints of Competition (GWB) be explicitly tailored to digital ecosystems and that the list of criteria set out in the second sentence of that provision be revised (Monopolies Commission, 2024, Chapter III).

471 The Regional Court of Düsseldorf dismissed a claim brought by the coffee roaster Tchibo against Aldi Süd for the abuse of dominant market power (14d O 14/24, 16 January 2025). The Higher Regional Court of Düsseldorf upheld the first-instance decision (VI-6 U 1/25 (Kart), 10 February 2026; not yet final, KZR 21/26). In its action, Tchibo sought an order requiring Aldi Süd to refrain from offering roasted coffee below cost price. Aldi Süd has the coffee produced in-house by a group affiliate. The central issue in the case is the interpretation of the prohibition on selling below cost price under Section 20(3), second sentence, No. 1 of the German Act against Restraints of Competition (GWB), according to which undertakings with dominant market power may not unfairly hinder competitors by offering foodstuffs below cost price. The cost price is defined in Section 20(3), third sentence, of the German Act against Restraints of Competition (GWB) as the price agreed between the undertaking with dominant market power and its supplier for the procurement of the goods or services. The Regional Court and the Higher Regional Court of Düsseldorf clarified that, according to the aforementioned legal definition, a cost price applies only to goods that are sourced from third parties and resold in an unaltered state. In the case of goods manufactured in-house, however, the illustrative example in Section 20(3), second sentence, No. 1 of the GWB does not apply. Nor does selling below one's own production costs constitute an unreasonable obstruction within the meaning of the general clause in Section 20(3), first sentence, of the GWB. In particular, the general clause should not be modified on the basis of the assessments set out in the illustrative example in Section 20(3), second sentence, No. 1 of the GWB. Furthermore, neither an intention to drive competitors out of the market nor a risk of lasting impairment to the structural conditions for effective competition in the market for coffee products could be established. The mixed cost calculation applied by Aldi Süd is commercially reasonable, and the ' offer was of limited duration. The Monopolies Commission has repeatedly recommended the abolition of the ban on selling below cost price, which it regards as misguided from a regulatory perspective (Monopolies Commission, 2025c, para. 357). The provision restricts price competition, provides additional incentives for food retailers to pay particularly low prices to suppliers and, as the present case demonstrates, favours vertically integrated groups.

472 As early as 2022, the Federal Cartel Office found that Lufthansa had breached the prohibition on abuse in its dealings with Condor (B9-21/21, 29 August 2022). Condor sought access to the feeder flights offered by Lufthansa in order to transport passengers to its own long-haul flights. By refusing access, Lufthansa had unfairly impeded competition in the downstream market (see Monopolies Commission, 2024,

para. 203). After the Higher Regional Court of Düsseldorf, by way of interim relief, had granted Lufthansa's application against the Federal Cartel Office's decision, and the Federal Court of Justice had dismissed the appeal and the application for leave to appeal against it (Federal Court of Justice, KVR 8/24, 3 December 2024; Higher Regional Court of Düsseldorf, VI-Kart 8/22 (V), 10 May 2024), the Higher Regional Court of Düsseldorf finally set aside the administrative order in the main proceedings (VI-Kart 7/22 (V), 20 August 2025). The Federal Cartel Office's decision was held to be unlawful, as there were grounds for concern regarding the impartiality of the members of the competent decision-making department involved in the decision. This was prompted by insufficiently documented contacts between the decision-making department and the (then) Federal Ministry for Economic Affairs and Climate Action. Whilst discussions between the Federal Cartel Office and the Ministry might be necessary insofar as they served the exchange of information or the investigation of the facts, such contacts were subject to specific requirements regarding documentation and transparency. The Higher Regional Court criticised the fact that, during the inspection of the case file, Lufthansa had been granted access only to an abridged version of the meeting minutes. The provision of a version of the meeting minutes that did not correspond to the original constituted a serious procedural error, which was capable of giving rise to mistrust in the impartiality and objectivity of the members of the decision-making department.

473 The Federal Cartel Office has prohibited Amazon from using certain price control mechanisms on its online marketplace and has recouped an economic advantage of EUR 59 million from the company as a result of the infringement (B2-73/20, 4 February 2026). Amazon excluded offers from third-party sellers, which it deemed to be overpriced, from the so-called 'Buy Box' or removed them entirely from the platform. The Federal Cartel Office regards the mechanisms in question as a threat to sellers' freedom to set prices, as well as a potential crowding-out effect to the detriment of third-party sellers who rely on the visibility and reach of the Amazon platform. In the authority's view, through the design of the Buy Box and the visibility of listings, Amazon significantly influences retailers' access to customers and thus the conditions of competition on the marketplace. Given the Amazon platform's significant market position, the pricing requirements are also likely to impair the ability of other online retailers to compete with Amazon. Amazon has therefore infringed both the provisions on abusive conduct by undertakings of outstanding cross-market significance for competition (in this case: Section 19a(2), first sentence, No. 2 of the German Act against Restraints of Competition (GWB)) and the prohibition on abuse by dominant undertakings (in this case: Section 19(2), No. 1 of the GWB and Article 102 of the Treaty on the Functioning of the European Union (TFEU)). This decision marks the Federal Cartel Office's first prohibition order issued on the basis of Section 19a of the GWB, which was newly introduced by the 10th Amendment to the GWB. At the same time, the authority ordered

the recovery of economic benefits under Section 34 of the GWB for the first time. In determining the amount of the economic benefit, it relied on the presumption rule introduced by the 11th Amendment to the GWB, according to which, in the case of antitrust infringements, an economic benefit amounting to at least one per cent of domestic turnover is presumed (Section 34(4), fourth sentence, GWB). Amazon has lodged an appeal against the Federal Cartel Office's decision with the Federal Court of Justice (BGH). In 2022, the European Commission had already accepted commitments from Amazon aimed at ensuring equal access to the Buy Box (AT.40462 and AT.40703, 20 December 2022).

474 The Federal Cartel Office has concluded the proceedings concerning Google Automotive Services and Google Maps Platform, conducted on the basis of Section 19a(2) of the German Act against Restraints of Competition (GWB), by issuing a decision requiring Google to enter into commitments in each case (B7-22/25-GAS and B7-22/25-GMP, 9 April 2025). Google Automotive Services is a package of digital services for use in in-vehicle infotainment systems, comprising Google Maps, Google Play and Google Assistant. Google does not allow the various services to be purchased individually. According to the Federal Cartel Office's preliminary assessment, this constitutes, in particular, an unlawful bundling of services and is incompatible with several prohibited practices or illustrative examples set out in Section 19a(2), first sentence, of the German Act against Restraints of Competition (GWB). Google has undertaken to (1) create the technical conditions to ensure that Google Maps, Google Play and Google Assistant are fully interoperable with corresponding services from other providers; (2) to offer standalone versions of the three services that can be licensed individually by vehicle manufacturers; and (3) to remove contractual restrictions which, through shares in advertising revenue or by imposing default settings, had created incentives for the exclusive use of Google services.

475 In the Google Maps Platform case, the Federal Cartel Office's competition concerns centred on the fact that Google's terms of service prohibit the integration of Google content – such as points of interest – into other providers' mapping services. According to the Federal Cartel Office's preliminary assessment, this hinders the interoperability of Google content with other services and effectively ties Google services to a Google map (Section 19a(2), first sentence, No. 3(b) and No. 5 of the German Act against Restraints of Competition (GWB)). Google has undertaken to remove the relevant clauses from its terms of use. Consequently, vehicle manufacturers and suppliers will in future be able to combine individual Google services with mapping services from other providers or with their own in-house developments. With regard to the Google Maps Platform, the commitments apply to all customers with a billing address in the EEA. With regard to Google Automotive Services, the commitments relate directly to in-vehicle infotainment systems in passenger cars that are registered in

Germany or will be registered in the future. However, the Federal Cartel Office points out that, due to uniform EU-wide registration conditions, the commitments apply to the entire European market and, given development practices in the automotive industry, effectively also cover in-vehicle infotainment systems in other countries (Federal Cartel Office 2025d).

476 The Federal Cartel Office has determined that Microsoft has an overriding cross-market significance for competition within the meaning of Section 19a(1) of the German Act against Restraints of Competition (GWB) (B6-26/23, 27 September 2024). The key factors in this regard are, in particular, the company's dominant position in the market for PC operating systems, as well as its strong, established market positions in server operating systems (Windows Server), productivity software (Microsoft 365) and, more recently, cloud computing (Azure). Furthermore, the Federal Cartel Office highlighted Microsoft's considerable financial strength, its access to competition-relevant data, and the strong vertical and conglomerate interdependence of its various products and services. The comprehensive technical integration of its offerings – even beyond the company's core markets – enables Microsoft to ensure the seamless interplay of the various elements and thus to retain users within its own ecosystem in the long term. Following Alphabet/Google, Meta/Facebook, Amazon and Apple, Microsoft is the fifth company against which the Federal Cartel Office has established a status as an addressee pursuant to Section 19a(1) of the German Act against Restraints of Competition (GWB). All findings are now final. Microsoft has not lodged an appeal against the decision.

2.3.2.2 European antitrust supervision

477 In the Google Shopping case, the Court of Justice of the European Union (CJEU) upheld the judgment of the General Court, which had largely dismissed Google's action against the European Commission's 2017 decision (CJEU, C-48/22 P, 10 September 2024, Google and Alphabet; see Monopolies Commission, 2022, para. 213, regarding the General Court's decision). Google had abused its dominant position as a search engine provider under Article 102 TFEU by giving preferential treatment to its price comparison service, Google Shopping, on the search results page over those of its competitors. The Court of Justice emphasises that, in this case, the strict so-called Bronner criteria – which have been developed in case law for access to an essential facility – are not applicable. This is because Google did not deny competing undertakings access to its platform. The focus of the abusive conduct lies in the unequal treatment. As the European Commission and the General Court have already pointed out, this constitutes an 'autonomous form of abuse by leverage'.

478 In response to a request for a preliminary ruling from an Italian court, the ECJ examined the question of the conditions under which the refusal of interoperability by a dominant digital platform company may constitute an abuse (C-233/23, 25 February 2025, *Alphabet and others*). Google had refused to grant an app from a provider of electric vehicle charging points access to its Android Auto platform. The ECJ clarified that such conduct may constitute an abuse even if access is not essential to the third-party provider's economic activity, but merely makes the use of the app more attractive or convenient. The decisive factor is that the platform is capable of influencing the competitive position of third-party providers and facilitating their access to users. The Bronner criteria, developed for traditional cases of denial of access, do not apply in this respect. This is because Android Auto was not developed exclusively for Google's own services, but is, in principle, open to third-party providers. Furthermore, granting interoperability does not lead to a fundamental change in the platform's business model or economic structure. With regard to the competitive effects, the ECJ states that the potential to restrict competition may still exist even if the third-party app in question was able to expand its market position despite being denied access. The ECJ does, however, recognise that a refusal to grant interoperability may be objectively justified. This applies in particular where no suitable technical 'template' yet exists for the app in question and where access could jeopardise the security or integrity of the platform. In such cases, however, the dominant undertaking may be obliged to develop a suitable template within a reasonable period of time and in return for a reasonable fee.

479 In the *Google AdSense* case, the General Court annulled the European Commission's 2019 decision but upheld the majority of the Commission's findings (T-334/19, 18 September 2024, not yet final, C-826/24 P). Through its AdSense for Search service, Google acts as an intermediary between website operators who offer a search function and wish to place adverts alongside the search results, and advertisers. According to the European Commission's findings, Google abused its dominant market position by initially prohibiting website operators, through exclusivity agreements, from placing adverts brokered by Google's competitors alongside search results. Later, Google instead obliged website operators to reserve the most profitable advertising spaces, as well as a minimum number of such spaces, for placement by Google. This hindered Google's current and potential competitors in the field of search engine advertising placement (see *Monopolies Commission*, 2020, para. 347). The General Court expressed doubts on this point. Whilst Google is dominant on the market for the placement of online search engine advertising in the EEA, exclusivity agreements – such as the contractual clauses used by Google, which prevent website operators from using competing advertising intermediaries – could be abusive. However, it was questionable whether the clauses at issue had the exclusionary effect identified in the contested decision. According to the General Court, the European Commission had

not taken all relevant circumstances into account when assessing the contractual clauses it had classified as abusive. For instance, it had not been proven that the clauses in question, despite their short duration, were capable of deterring website operators from meeting their needs through advertising intermediaries competing with Google. Furthermore, it had not been proven that the clauses were capable of denying competitors access to a substantial part of the market for the intermediation of online search engine advertising within the EEA.

480 The European Commission has imposed a fine of EUR 2.95 billion on Google for abuse of a dominant position under Article 102 TFEU in the online advertising sector (AT.40670, 5 September 2025, Google Adtech and Data-related practices). The proceedings concerned conduct relating to Google’s adtech ecosystem, which encompasses various stages of the programmatic advertising market: services for the purchase of online advertising by advertisers (Google Ads and DV360), an ad server for content providers (DoubleClick for Publishers, DFP, now Google Ad Manager) and the AdX advertising exchange. The European Commission found that Google held a dominant position in the EEA-wide markets for tools for the programmatic purchase of advertising space (Google Ads and DV360) and for ad servers for content providers (DFP). Google had abused this dominant position since at least 2014 by giving preferential treatment to its in-house advertising exchange, AdX. For instance, in auctions conducted by Google’s ad server for content providers, DFP, AdX was provided with the highest competing bid in advance. Furthermore, Google’s services for the purchase of online advertising — Google Ads and DV360 — primarily used AdX to the detriment of competing ad exchanges. The European Commission ordered Google to remedy the infringements identified. In doing so, it emphasised the conflicts of interest arising from Google’s dominant position at several market levels in the online advertising sector, which posed a risk of repeated competition infringements. Effective remedies that would eliminate both Google’s ability and its incentive to favour AdX could presumably only be achieved through the divestiture of individual advertising services. The remedies proposed by Google in the meantime are still being examined by the European Commission (European Commission, 2026b).

481 The European Commission has issued a further fine against Meta for the abuse of a dominant position in the digital sector (AT.40684, 14 November 2024, Facebook Marketplace). The fine amounted to EUR 797.72 million and related to a classifieds service operated by Meta on its social network, Facebook. The European Commission found that Meta held a dominant position on the market for social networks in the EEA, as well as on the national markets for online display advertising services on social media. Two specific practices were criticised. Firstly, Meta had linked the online classifieds service Facebook Marketplace to the social network Facebook in a manner that

restricted competition. Marketplace is automatically made available to Facebook users and integrated into the existing ecosystem, thereby giving Marketplace a distribution advantage over competing online classifieds services. Secondly, Meta imposed unfair trading conditions on competing classifieds services that place adverts on Facebook or Instagram. According to the European Commission's findings, Meta was able to use data from the advertising activities of such competitors for its own purposes, in particular to improve and optimise its own Facebook Marketplace service. Among other things, Meta was required either to separate Facebook Marketplace organisationally from the social network or to offer users a choice between different classifieds services. With regard to the unauthorised use of data, the European Commission also demanded measures to neutralise the advantages gained through such data use, in particular by 're-training' the data models concerned.

482 The European Commission has made the commitments offered by Apple regarding contactless payments binding and has closed its proceedings concerning possible infringements of the prohibition of abuse under Article 102 TFEU (AT.40452, 11 July 2024, Apple Mobile Payments). The subject of the proceedings was the access to the NFC ('Near Field Communication') interface on iPhones for contactless payments ('tap and go'). The Commission had provisionally found that Apple held a dominant position in the market for mobile wallets on iOS devices and was disadvantaging competitors by reserving the use of the NFC function exclusively for Apple Pay. Third-party mobile wallet providers had not been granted equivalent access to the NFC interface and had consequently been excluded from contactless payments on iPhones. The commitments specifically oblige Apple to grant third-party providers free access to the NFC interface on iOS devices. Furthermore, Apple must allow competing wallet providers access to key iPhone functions such as Face ID/Touch ID and the double-tap function. Users should also be able to set alternative wallet apps as the default application for contactless payments.

483 The European Commission has also issued a commitment decision against Microsoft regarding the possible abuse of a dominant market position (AT.40721 and AT.40873, 12 September 2025, Microsoft Teams I and II). Essentially, the European Commission accused Microsoft of abusively tying its cloud-based communication and collaboration software, Teams, to its established Office 365 and Microsoft 365 suites, or rather to the software applications contained therein (Word, Excel, PowerPoint and Outlook). According to the European Commission's preliminary findings, by integrating Teams into the Office suites by default, whilst simultaneously refusing to allow interoperability between competing communication and collaboration software and the Office applications, Microsoft was giving Teams an unjustified competitive advantage. Finally, Microsoft undertook to make it easier to use Office suites without

Teams and to improve interoperability and data sharing with competing communication and collaboration services.

2.3.2.3 Enforcement of the DMA

484 The Regional Court of Mainz has largely upheld a claim brought by 1&1 against Google for a breach of Article 5(8) of the DMA (12 HK O 32/24, 12 August 2025; not yet final). Following an interim order by the Higher Regional Court of Cologne against Meta (15 UKl 2/25, 23 May 2025), this is the second ruling by a German court on private enforcement of the DMA. The Regulation came into force in September 2022, and the obligations have been required to be implemented since March 2024. Whilst the proceedings before the Higher Regional Court of Cologne focused on data protection issues, the proceedings before the Regional Court of Mainz primarily concerned competition law aspects. The Mainz Regional Court prohibited Google from giving preferential treatment to its Gmail platform service when setting up Android smartphones. It ruled that the automatic generation of a Gmail address when creating a Google account was in ly incompatible with the prohibition on tying arrangements under Article 5(8) of the DMA. Under this provision, a gatekeeper may not, amongst other things, require users to register with another central platform service in order to use a central platform service. However, the claim was dismissed insofar as the claimant objected that alternative email addresses are only accepted following two-device authentication via a confirmation code, whilst this is not required for Gmail addresses. The decision of the Mainz Regional Court was handed down ten months after the action was brought and demonstrates that national courts are able to apply the DMA effectively. The Mainz Regional Court points out that the decision has EU-wide effect in order to prevent fragmentation of the DMA’s obligations within the Member States.

485 The European Commission has initiated its first enforcement proceedings regarding the obligations under the DMA. Two decisions against Apple and Meta, respectively, are particularly noteworthy in this context. The European Commission issued a so-called non-compliance decision against Apple and imposed a fine of EUR 500 million for a breach of Article 5(4) of the DMA (DMA.100109, 23 April 2025, Apple Online Intermediation Services). Accordingly, gatekeepers within the meaning of Article 2(1) of the DMA are obliged to enable business users to inform end-users free of charge about alternative offers outside the platform, to direct them there, and to conclude contracts outside the platform (the so-called ‘anti-steering’ prohibition). The European Commission found in this regard that Apple had prevented app developers, through technical and economic restrictions, from effectively directing end users to alternative offers outside Apple’s App Store. In particular, Apple prohibited references to alternative purchasing options within the app, imposed unfounded security and

data protection warnings, and levied unlawful charges in the form of sales commissions.

486 The European Commission also found that Meta had infringed Article 5(2)(b) of the DMA and imposed a fine of EUR 200 million (DMA.100055, 23 April 2025, Meta). Under this provision, gatekeepers are generally prohibited from combining personal data from different core platform services or other services without the valid consent of end users. The European Commission made it clear that end users who do not consent to such data combination must be offered a less personalised but functionally equivalent alternative. The ‘consent-or-pay’ model initially used by Meta – under which end users of Facebook and Instagram in the EU had to either consent to the combination of personal data for the purposes of personalised advertising or take out a paid subscription for an ad-free service – did not, in the European Commission’s view, meet the requirements of the DMA. In November 2024, Meta launched a new version of Facebook and Instagram which, according to the company, processes less personal data for advertising purposes. This model is still being examined by the European Commission. The infringement that was identified and penalised relates to the period from March 2024 to November 2024.

2.3.3 Horizontal and vertical restrictions

2.3.3.1 German competition authorities

487 Even after examining the more recent ECJ case law on sports antitrust law from December 2023, the Federal Cartel Office remains of the view that the so-called 50+1 rule is, in principle, compatible with the prohibition on cartels, but that it must be applied uniformly (Federal Cartel Office, 2025d; see Monopolies Commission, 2024, para. 261 et seq., for a detailed discussion of the ECJ judgements). In the Federal Cartel Office’s view, the 50+1 rule does not constitute an intended restriction of competition, as the objective of preserving the club’s identity is, in principle, capable of justifying an exception to competition law. To this end, however, it must be ensured that, firstly, all clubs offer their fans the opportunity to be admitted as full new members with voting rights, and secondly, that the parent club’s right to issue instructions to the legal entity involved in match operations is actually exercised. In its press release, the Federal Cartel Office states that it will give the parties to the proceedings the opportunity to comment on its “recommendations” and its preliminary legal assessment, and has already announced its intention to finalise the recommendations thereafter and ultimately discontinue the proceedings. The proceedings concerning the 50+1 rule have been ongoing since 2018. In July 2023, the Federal Cartel Office had still held out the prospect of declaring the commitments offered by the DFL at that time to be binding (see Monopolies Commission, 2024, para. 226).

488 In response to an enquiry from RTL and RTL 2, the Federal Cartel Office expressed “significant competition law concerns” regarding a planned marketing cooperation (B6-46/23, 17 December 2024; see Federal Cartel Office, 2024a and 2025f). The proposed arrangement concerned the joint marketing of television advertising by the two broadcasting groups. RTL2 is not a subsidiary of RTL or Bertelsmann, but a joint venture between RTL and other media companies. The Federal Cartel Office essentially assumed that there was a separate TV advertising market. Whilst advertising on streaming platforms is gaining in importance, the competitive pressure they exert has so far been limited, as streaming services are predominantly not ad-supported. Nor did the Federal Cartel Office consider video advertising on social media platforms, including YouTube, to be sufficiently interchangeable with traditional television advertising. Linear television therefore remains of central importance to advertisers. In the Federal Cartel Office’s view, the cooperation would have led to a significant reduction in competition in the market for TV advertising slots. RTL2 represents an important alternative to the two leading marketing groups, RTL and ProSiebenSat.1, for advertisers and media agencies; this applies even within a broader ‘big screen advertising market’. Joint marketing would have largely eliminated competition on price and terms between RTL and RTL2. The Federal Cartel Office was particularly concerned about rising advertising prices. Any efficiency gains, in particular the claimed cost savings, were not deemed sufficient to offset the identified competitive disadvantages. The planned marketing cooperation had already been submitted to the Federal Cartel Office by RTL and RTL2 in the summer of 2023 and had been modified following the authority’s initial competition concerns. According to its own statements, the Federal Cartel Office carried out extensive market tests both before and after the modifications. As the Federal Cartel Office’s concerns persisted, the companies abandoned their plans. In its XXIInd Main Report, the Monopolies Commission dealt in detail with market and competition developments in the audiovisual media sector (Monopolies Commission, 2018, Chapter IV).

489 In a so-called ‘Chairman’s letter’, the Federal Cartel Office has announced that it will tolerate the planned reorganisation of the press wholesale system (V-54/22, 10 February 2026). The antitrust administrative proceedings were discontinued without a formal decision. The existing distribution system, comprising 13 regional exclusive press wholesalers, is to be converted to a model featuring a single, central, nationwide wholesaler. The proposal was drawn up by the ‘Fit for Future’ project group, which consists of eleven press publishers and four press wholesalers that account for the majority of turnover. The press wholesale system is traditionally based on industry-wide agreements between press publishers and wholesalers, particularly regarding supply obligations, terms and conditions, territorial divisions and returns policies. Whilst these structures are not without competition concerns, they are granted a privileged status under competition law pursuant to Section 30(2a) of the German Act

against Restraints of Competition (GWB).⁵⁹ The antitrust assessment focused on the effects of the planned centralisation on the non-discriminatory supply to the retail sector and on publishers' equal access to the distribution system. The Federal Cartel Office emphasises that the coordinated termination of existing contractual relationships with wholesalers by the publishers might, exceptionally, not constitute an intended restriction of competition. In this regard, account must be taken of the existing regional distribution monopolies and the expected passing on of cost increases by the wholesalers. According to the Federal Cartel Office, the proposed measure therefore 'at least comes close' to meeting the conditions for an exemption under Section 30(2a) of the German Act against Restraints of Competition (GWB). Despite the lengthy proceedings, the Federal Cartel Office ultimately did not reach a decision on the compatibility of the agreements with the prohibition on cartels. Instead, the authority exercised its discretion in such a way as to refrain from taking further action (see Section 32c(2) of the German Act against Restraints of Competition (GWB)). It remains to be seen whether the closer links between individual publishers and wholesalers can actually ensure non-discriminatory press distribution. In any case, the Federal Cartel Office points out that a majority of publishers are neutral towards the reorganisation of the press wholesale system or – although this presumably applies only to the publishers involved in the project group – view it positively. Meanwhile, several wholesalers have applied to the Higher Regional Court of Düsseldorf to compel the Federal Cartel Office to take action against the publishers and wholesalers involved in the 'Fit for Future' project group. They have already been unsuccessful in civil summary proceedings before the Regional Court of Dortmund and the Regional Court of Munich.

2.3.3.2 European competition authorities

490 The European Court of Justice (ECJ) has ruled that FIFA's transfer rules restricting player transfers during the term of existing contracts could, amongst other things, infringe the prohibition on cartels under Article 101 of the TFEU (C-650/22, 4 October 2024, FIFA). The case arose from a request for a preliminary ruling from a Belgian court regarding the consequences of a professional footballer terminating his contract prematurely. The ECJ first confirmed that sports-related regulations fall within the scope of EU competition law insofar as they concern economic activities and are not exclusively of a sporting nature. The transfer rules at issue directly affect the labour

⁵⁹ Under Section 30(2a), first sentence, of the German Act against Restraints of Competition (GWB), the prohibition on cartels set out in Section 1 of the GWB does not apply to sectoral agreements between publishers and wholesalers, in so far as they regulate the comprehensive and non-discriminatory distribution of press products. To avoid a conflict with EU competition law, Section 30(2), second sentence, of the GWB also provides for the entrustment of services of general economic interest within the meaning of Article 106(2) TFEU (Federal Court of Justice, KZR 17/14, 6 October 2015; crit. Emmerich, 2024, para. 151, with further references).

and transfer market for professional footballers and thus constitute an economic activity. In particular, the ECJ took issue with provisions that could deter clubs from signing players whose existing contracts had been terminated prematurely. These included financial and sporting sanctions that the receiving clubs risked facing under the transfer rules. The transfer rules are to be classified as restrictions on competition by object, as they are designed to restrict competition between clubs for players. In this respect, they bear similarities to so-called ‘no-poach agreements’. The ECJ points out that, in the case of restrictions on competition by object, an exemption from the prohibition laid down in Article 101(1) TFEU is, from the outset, out of the question under the principles of the Meca-Medina case law. An exemption is therefore only possible in accordance with Article 101(3) TFEU. In a recent judgment, the ECJ held that non-solicitation clauses between football clubs, under certain circumstances, did not constitute intended restrictions on competition but merely incidental ones, and could therefore be justified (C-133/24, 30 April 2026, CD Tondela). However, the case was based on a crisis situation – the COVID-19 pandemic – in which the transfer ban was intended to help Portuguese clubs ensure the stability of their squads. The Monopolies Commission has repeatedly proposed that the European Commission publish guidelines on the enforcement of competition law in the sports sector (Monopolies Commission, 2020, para. 444; Monopolies Commission, 2024, para. 292).

491 The ECJ has dealt with so-called best-price clauses on hotel booking platforms (C-264/23, 19 September 2024, Booking.com). The subject of the request for a preliminary ruling from a Dutch court was both so-called ‘narrow best-price clauses’, which prevent hotels from offering more favourable terms on their own websites, and so-called ‘broad best-price clauses’, which also prohibit more favourable offers on competing platforms. In the CJEU’s view, the clauses used by Booking do not constitute necessary ancillary restraints to the hotel agency agreements, which are neutral under competition law; consequently, the prohibition on restrictive practices applies in principle. Best-price clauses could reduce competition between hotel booking platforms, restrict competition from smaller platforms and prevent new entrants from entering the market. This also applies to narrow best-price clauses, which, whilst less harmful to competition and designed to counter the risk of so-called ‘free riding’, are nevertheless neither objectively necessary for the implementation of the platform’s business model nor proportionate. In particular, the provision of services by Booking is not at risk, even though both broad and narrow best-price clauses have now been prohibited in several Member States. The ECJ also commented on the definition of the relevant market for the purposes of the applicability of the former Vertical Block Exemption Regulation 330/2010, which was in force until 31 May 2022 and has since been replaced by Regulation 2022/720. When determining whether a separate market for online hotel booking platforms exists, it must be assessed whether there is suffi-

cient substitutability with other distribution channels. In its judgment, the ECJ ultimately confirms the case law of the Federal Court of Justice (BGH), which did not regard best-price clauses – even narrow ones – as necessary ancillary agreements, but had refused to refer the matter to the ECJ (KVR 54/20, 18 May 2021; see also Monopolies Commission, 2022, para. 217). The Federal Court of Justice (BGH) also defined a separate market for online hotel booking platforms. Article 5 (3) of the Digital Markets Act (DMA) prohibits designated gatekeepers from using both narrow and broad best-price clauses.

492 The European Commission has imposed fines totalling EUR 329 million on Delivery Hero and Glovo for breaching antitrust rules (AT.40795, 2 June 2025, Food delivery services). The proceedings concerned anti-competitive agreements in the online food delivery services sector during the period from July 2018 to July 2022. According to the European Commission’s findings, a minority stake held by Delivery Hero in Glovo was used to facilitate anti-competitive contacts between the companies. The Commission took particular issue with three sets of conduct: (1) agreements not to poach each other’s staff (‘no poach agreements’), (2) the exchange of competitively sensitive information, and (3) market sharing. Delivery Hero’s minority stake in Glovo was not in itself unlawful, but its specific structure enabled close coordination of business strategies between the competitors. In particular, according to the European Commission, the stake facilitated Delivery Hero’s access to confidential business information and enabled it to influence decision-making processes at Glovo. Delivery Hero had initially acquired a minority stake in Glovo in July 2018 and gained sole control of the company in July 2022.

2.3.4 Antitrust damages

2.3.4.1 German case law

493 The Federal Court of Justice (BGH) is currently considering whether legal entities can claim damages from members of their governing bodies – board members or managing directors – pursuant to section 43(2) of the Limited Liability Companies Act (GmbHG) or section 93(2), first sentence, of the Public Limited Companies Act (AktG) for antitrust fines for which those members are responsible. It is considering interpreting these provisions restrictively in light of the purpose of corporate fines, but finds itself unable to do so on the basis of national law, which does not provide for such a restriction. In this respect, however, according to the BGH, Article 101 TFEU might require a different interpretation, as corporate liability could limit the effectiveness of the fine. It has therefore stayed the proceedings and referred this question to the Court of Justice of the European Union (CJEU) for a ruling (Federal Court of Justice, KZR 74/23, 11 February 2025). The Monopolies Commission has already pointed out in its

XXVth Main Report that, in this respect, both the general preventive and the asset-skimming effects of the fines should be taken into account. A complete exclusion of recourse against the persons who acted and are personally liable is therefore not justified. However, it should be restricted to the extent that the fine is offset by the undertaking's anti-competitive profits (Monopolies Commission 2024, para. 312 et seq.)

494 Furthermore, in several rulings on the lorry cartel, the Federal Court of Justice (BGH) has further clarified the requirements for antitrust damages. It emphasised that no high standards should be applied to the presentation of evidence for the assessment of damages pursuant to Section 287 of the German Code of Civil Procedure (ZPO); in particular, the submission of expert reports by the parties is not required. When assessing damages, the loss must be estimated as realistically as possible. What is decisive is an overall assessment that is economically plausible and guided by the criteria of Section 287 of the German Code of Civil Procedure (ZPO), taking into account all circumstances that suggest how market developments would likely have unfolded in the absence of the cartel. Where appropriate, it must be examined whether at least a minimum amount of damage can be estimated (KZR 98/20, 9 July 2024, LKW-Kartell IV; KZR 71/23, 8 April 2025, LKW-Kartell VI; see, in detail, para. **7219 et seq.**).

495 Furthermore, the trend already identified in the previous main report – namely that the lower courts increasingly consider themselves able to estimate the amount of antitrust damages – continued (see Monopolies Commission 2024, para. 235). For instance, the Higher Regional Court of Schleswig-Holstein estimated the price mark-up resulting from the drugstore cartel at 0.5 per cent, basing its assessment largely on qualitative criteria (20 U 1/24, 21 October 2024). In three judgments, the Stuttgart Regional Court estimated the price increase caused by the lorry cartel at 5 per cent, drawing on various bases for its estimate (30 O 223/17, 9 January 2025; 30 O 235/17, 27 February 2025; 30 O 239/17, 27 February 2025). The Higher Regional Court of Stuttgart estimated the damage caused by the bathroom fittings cartel at 21–23 per cent using a structured qualitative estimation model (2 U 263/21, 20 November 2025). In this report, the Monopolies Commission examines the court's damage assessment in detail (see section **72.1.1.2**).

496 The Higher Regional Court of Koblenz upheld the merits of an action for damages relating to the round timber cartel (U 1721/22 Kart, 19 February 2026). The court initially considered the collective claim collection on which the action was based – through which claims from sawmills were bundled – to be compatible with the RDG (see para. **7203 et seq.**). The Senate classified the action as a stand-alone action. It held that the Federal Cartel Office's decision on commitments pursuant to Section

32b(1) of the German Act against Restraints of Competition (GWB) did not have binding effect. However, the joint marketing of round timber underlying the round timber cartel constituted an intended restriction of competition and infringed Article 101 of the Treaty on the Functioning of the European Union (TFEU). The defendant federal state and the other forest owners had acted in a commercial capacity and not in an official capacity. The inter-State clause in Article 101(1) TFEU does not require an actual impairment of trade between Member States. The state cannot invoke the exception for services of general economic interest (SGEI) in Article 106(2), first sentence, TFEU, as this must be linked to specific public interest obligations. However, a federal state's assistance in the marketing of round timber primarily serves the economic interests of the forest owners. Furthermore, the necessary act of entrustment is lacking. In finding that the claim for damages is well-founded, the Senate relies on the power to assess damages under Section 287(1) of the Code of Civil Procedure (ZPO) and, in particular, on the rule of experience that the prices achieved within the framework of a cartel exceed those that would have been established without the anti-competitive agreement (see, on this point, para. 7223). The defendant State has not been able to rebut this rule of experience.

497 The Berlin Regional Court II has ruled that Booking.com is obliged to compensate 1,099 accommodation providers for the losses incurred as a result of the use of best-price clauses in breach of competition law since 1 January 2013 (61 O 60/24 Kart, 16 December 2025⁶⁰). The court deemed the action for a declaratory judgement admissible in so far as it sought a declaration of liability for damages arising from the use of the best-price clauses. Despite the principle giving priority to actions for specific performance, the action for a declaratory judgement was, exceptionally, admissible, as potential knock-on effects resulting from market foreclosure and oligopolisation made it plausible that the claimants were suffering ongoing harm. In the court's view, both the so-called 'broad' and 'narrow' best-price clauses had the effect of restricting competition, as they in any event restricted accommodation providers' freedom to set prices and thereby restricted competition in the distribution of accommodation. Accommodation providers are deprived of the opportunity to use the commission saved on direct sales as a competitive advantage and to pass on the price benefits to consumers. The judgement is not yet final.

498 In two further decisions, the Berlin Regional Court II (LG Berlin II) dealt with the issue of damages arising from Google's abuse of a dominant market position by favouring the group's own comparison services in internet searches (16 O 195/19 Kart, 14 November 2025). With regard to the finding of an infringement of Article 102 TFEU,

⁶⁰ The grounds for the judgment have not yet been published. The press release from the Berlin Regional Court II is available at the following link: <https://www.berlin.de/gerichte/presse/pressemitteilungen-der-ordentlichen-gerichtsbarkeit/2025/pressemitteilung.1626886.php>, accessed on 22 May 2026.

the Chamber was initially bound, pursuant to Section 33b of the German Act against Restraints of Competition (GWB), by the European Commission's decision and the subsequent rulings of European courts. Insofar as the duration of the infringement extended beyond that established in the Commission's decision, the Chamber determined it itself, whilst also adopting the Commission's reasoning. In determining the amount of damage, the Chamber first pointed out that the binding effect under Section 33b of the German Act against Restraints of Competition (GWB) did not apply to the occurrence, extent and causality of the damage. Furthermore, the Chamber relied neither on the statutory presumption (Section 33a(2), first sentence, of the GWB) – which in any case applies only to cartels – nor on a factual presumption. In the Chamber's view, however, it was to be assumed that the claimant had suffered damage even without the presumption rule, a finding based in particular on the loss of traffic suffered by the claimant – which operates a price comparison website. Furthermore, Google's abusive conduct was clearly aimed at gaining an economic advantage. Google was unable to rebut this evidence. The Chamber did not rely on an econometric expert report submitted by Google, as it was not consistent with the Commission's findings. The Berlin Regional Court II estimated the amount of damages at around EUR 374 million. To this end, it employed a form of comparative market analysis over time, taking the claimant's most recent actual traffic prior to the infringement as the starting point and extrapolating on the basis of e-commerce turnover growth rates to determine the claimant's hypothetical traffic. On this basis, it calculated the loss of turnover and profit. A similar decision was handed down in another legal dispute (16 O 275/19 Kart (2), 14 November 2025⁶¹).

2.3.4.2 European case law

499 During the reporting period, the ECJ dealt with the limitation period for antitrust damages claims, the impact of group-related circumstances on both the claimant and defendant sides in antitrust damages proceedings, and class action mechanisms (see, on the latter, para. **7200 et seq.**).

500 In the Nissan Iberia case (C-21/24, 4 September 2025), the ECJ continued the line of case law established in the Volvo and DAF Trucks decisions (C-267/20, 22 June 2022) and Heureka (C-605/21, 18 April 2024). It emphasised that the limitation rules set out in Article 10 of the Antitrust Damages Directive (ADD) apply to all cases which had not yet become time-barred by the time the deadline for transposing the Directive (27 December 2016) expired. It ruled out retroactive application (see Article 22 of the ADD). Until then, however, the limitation rules of the Member States apply, which must be interpreted in the light of Articles 101 and 102 TFEU and, in particular, the

⁶¹ As far as can be ascertained, the full text of this decision has not yet been published.

principles of equivalence and effectiveness. They must not, therefore, render the assertion of antitrust damages claims under EU law practically impossible or unduly difficult.

501 In the case of a follow-on action based on a decision by a national competition authority, the limitation period must therefore not commence before the decision becomes binding on the national courts. Unlike decisions of the European Commission (see Article 16(1) of Regulation 1/2003), this is only the case once such decisions have become final.⁶² Following on from this case law, the Regional Court of Dortmund, in a preliminary ruling of 19 June 2024 (8 O 34/22), interprets Section 199(3), first sentence, of the German Civil Code (BGB), which applies to old cases, in a manner consistent with European law. Under this provision, claims for damages generally become time-barred ten years after they arise, irrespective of whether the injured party was aware of them or was grossly negligent in failing to be aware of them. The Chamber considers it necessary to apply this provision to antitrust damages cases in such a way that the limitation period only begins to run once the antitrust infringement has ceased in its entirety. For new cases, this applies in any event pursuant to Section 33(2)(3) and (3)(2) of the German Act against Restraints of Competition (GWB).

502 In its judgment of 13 February 2025 (C-393/23, Athenian Brewery and Heineken), the ECJ ruled that a parent company and a subsidiary, which have their registered offices in different Member States, may be sued jointly at the parent company's registered office for the subsidiary's conduct in breach of competition law. This also applies where only the subsidiary has engaged in anti-competitive conduct and that conduct has had an impact only in the Member State in which it is established. The basis for this is Article 8(1) of Regulation No 1215/2012, according to which several persons may be sued jointly at the registered office of one of the defendants if there is such a 'close relationship' between them that it appears appropriate to hear and determine the case jointly. The Court of Justice interprets this in the light of the concept of an undertaking under competition law and, in particular, the 'economic unit', which, in the context of claims for damages for breach of competition law, cannot have a different meaning from that in the rest of competition law. Provided that it is not ruled out from the outset that the parent company exercises a decisive influence over the subsidiary, the two companies may therefore be sued jointly. According to the Court of Justice's established case-law, a presumption in favour of this exists where the parent company holds all or virtually all of the subsidiary's capital. However, the defendants must have the right to adduce evidence in individual cases that can rebut this presumption. The Court of Justice reached a similar conclusion in the Energy Cables Cartel case (C-672/23 and C-673/23, 16 April 2026).

⁶² Section 33b of the German Act against Restraints of Competition (GWB) also requires a final decision in this respect.

503 On the question of which group company the claim should be served upon, however, the ECJ did not extend the concept of an undertaking (C-632/22, 11 June 2024, Volvo). In this respect, the claim must be served on each defendant company at its registered office. Service of the claim on the subsidiary based in Spain, as occurred in that case, is not sufficient to bring proceedings against the parent company based in Sweden as well. This would be contrary to Article 47 of the Charter of Fundamental Rights of the European Union, which guarantees every company the right to a fair trial. In this regard, the Court refers claimants seeking damages for antitrust infringements to the options for international service of process created by the European legislator.

504 In the CJEU's view, a similar principle applies to the question of in which Member State antitrust damage has arisen (C-425/22, 4 July 2024, MOL). Pursuant to Article 7(2) of Regulation 1215/2012, actions for damages arising from antitrust infringements may, in principle, be brought in the place where the infringing act was committed or in the place where the harmful consequences occurred. In the context of anti-competitive conduct, the place where the harmful consequences occurred is, in each case, the Member State in which the market affected by the anti-competitive conduct is situated. By contrast, a purely indirect consequence of the harmful event is not sufficient. The Court therefore ruled out international jurisdiction in a Member State where only the parent company – which has not suffered antitrust damage – has its registered office, whilst the subsidiaries – which are the sole victims of the antitrust infringement – are established in another Member State. The concept of an economic unit does not suggest otherwise.

2.4 The EG Group/OMV merger and its implications for competition policy

2.4.1 Ex-post evaluations improve antitrust decision-making and legislation

505 In merger control, decisions are always made under conditions of uncertainty. The Federal Cartel Office must assess the competitive effects of a merger before it is completed. Even after a thorough examination, it remains unclear at first whether the decision, the analytical tools used and any ancillary conditions will accurately reflect actual market developments. Ex-post evaluations close this gap. They demonstrate retrospectively what effects have actually occurred and are therefore relevant for future decisions.

506 Having discussed the potential applications of ex-post evaluations, including their general advantages, in its last main report, the Monopolies Commission now aims to demonstrate their utility in this main report by means of a specific case study.

To this end, this section draws on the study by Oschmann (2025) on the merger between EG Group and OMV. This case is particularly well-suited for this purpose: firstly, it concerns the fuel market, which is economically significant and (currently) highly relevant politically (see section 72.1.3). Secondly, price effects in the petrol station market can be examined with a comparatively high degree of specificity. Thirdly, the case shows that the most obvious explanation is not always the most important one. The study shows that the observed price increases following the merger cannot be attributed to declining local competition between petrol stations, which was the primary focus of merger control. The merger separated the acquired OMV petrol stations from an integrated supply network, leading to noticeable price increases in Bavaria.

507 This finding in particular illustrates the value of this study. At first glance, it concerns a merger in the petrol station market. On closer inspection, however, the value chain comes to the fore. Petrol station prices depend not only on the distance to the nearest petrol station, but also on refineries, wholesalers, logistics, supply contracts and vertical integration. The study thus not only shows what happened in a specific case; it also improves our understanding of how competition actually works in this market.

508 A similar gain in insight can be seen in US merger control relating to hospital mergers. There, ex-post analyses by the FTC had shown that earlier assumptions regarding the spatial definition of the market were, in some cases, flawed. It was demonstrated that patient flows between rural and urban hospitals cannot automatically be interpreted as an indication of intense competition. Many patients did not switch to urban hospitals because these were close substitutes for local hospitals, but because they offered different services. Ex-post analyses of completed hospital mergers also revealed significant merger-induced price increases and helped to further develop the FTC's review practice (Haas-Wilson and Garmon, 2011; Farrell et al., 2009). This example illustrates that ex-post evaluations not only scrutinise individual decisions but can also refine fundamental assumptions about market mechanisms and market definitions. Against the backdrop of the recent scaling back of merger control in the German hospital sector (see section 72.2.2), this example also highlights the evidence-based insights that may be lost if competitive scrutiny and ex-post evaluation are not carried out.

509 Such findings are of direct relevance to the Federal Cartel Office, as they help to tailor future merger reviews, assessment tools and remedial measures more effectively. They are important for the Federal Ministry for Economic Affairs and Energy (BMWE) because they provide a better basis for competition policy decisions and potential legislative amendments. Ex-post evaluations can reveal where competition law should intervene and where a measure may fail to address the actual competitive

mechanism. They are therefore not limited to merger control but can also scrutinise other competition authority or legislative measures.

510 In summary, ex-post evaluations strengthen evidence-based competition policy. They generate institutional knowledge from past decisions and thereby enhance the quality of future decisions. The conclusion of this chapter revisits this fundamental theme by highlighting the specific insights the study provides for merger control, market monitoring and crisis management.

2.4.2 The merger separates petrol stations from the OMV supply network

511 Prior to the merger, OMV operated 293 petrol stations in Germany. Of these, 226 were in Bavaria and 61 in Baden-Württemberg. EG Group operated the Esso petrol station network in Germany, which comprised 1,068 petrol stations prior to the merger. In Bavaria and Baden-Württemberg, there were 373 petrol stations.

512 The market shares, measured by the number of petrol stations, highlight the significance of the merger. In the two federal states concerned, 7.9 per cent of petrol stations belonged to Esso. OMV accounted for 6.0 per cent of all petrol stations. Following the takeover, the combined network of petrol stations in the two federal states would have been roughly the same size as that of Aral, the largest provider with 14.0 per cent of all petrol stations. Shell's share stood at 10.5 per cent. AVIA's share stood at 9.5 per cent. In Bavaria, following the merger, EG Group would have held the strongest market position with 15.3 per cent. In Baden-Württemberg, EG Group would have been behind Aral with 12.2 per cent and roughly on a par with Shell.

513 However, for the purposes of merger control, it is not sufficient to look solely at market shares at the federal state level. Competition between petrol stations often takes place at a local level. Consequently, a merger can be problematic even if the state-wide market shares appear low. It is therefore also crucial to consider whether key competitors would be eliminated in individual towns, postcode areas or other defined catchment areas. Overall, around a third of OMV's petrol stations were located in towns where EG Group also operated Esso petrol stations. At postcode level, around a quarter of OMV's petrol stations were still situated in areas where Esso was present. The Federal Cartel Office therefore examined the case primarily as a horizontal merger. It required remedies in regions particularly affected. EG Group and OMV each had to sell 24 petrol stations. AVIA took over these petrol stations.

514 An important starting point for the study is OMV's vertical structure prior to the takeover. The petrol stations affected by the merger were part of a vertically integrated

company. OMV therefore not only operated petrol stations but also used (at least in part) its own refineries to supply them. The OMV petrol stations were supplied primarily by the Austrian refinery in Schwechat and the German refinery in Burghausen. Whilst the refinery in Schwechat produced, amongst other things, petrol and diesel, the refinery in Burghausen mainly produced diesel.

2.4.3 Comparator groups help to determine the price effects of the merger

515 The study in question uses data covering the period from January 2020 to December 2024. The data includes all price changes for E5, E10 and diesel at around 15,000 petrol stations in Germany. It also includes the brand, address, geographical coordinates and information on when a petrol station opened. For the analysis, the study uses petrol station-level prices for E5 and diesel. It considers weekdays and the price at 5 pm on each occasion, a time when many consumers fill up. Motorway service stations are excluded because they serve a specific customer group and often have a different price level. Petrol stations that open or close during the study period are also excluded. This is to ensure that the comparison is not distorted by new entrants to or exits from the market.

516 The study employs a difference-in-differences approach. It compares price trends in a treatment group affected by the merger with those in an unaffected control group.⁶³ This approach considers not only price differences between the two groups, but above all how these differences change after the takeover compared with the period before it. In the study, the groups in the various specifications each consist of petrol stations in specific regions or areas. In the treatment group, the takeover may have influenced prices. The control group reflects how prices would presumably have developed without the takeover. The central assumption here is that the treatment and control groups would likely have developed similarly had the merger not taken place. The control group therefore serves as an approximation of the development that would have been expected in the treatment group had the merger not occurred.

517 The study controls for constant differences between individual petrol stations. In doing so, it takes into account that some petrol stations are permanently more expensive or cheaper than others, for example due to their location, their customer base or local cost differences. Furthermore, the study controls for price trends by brand, fuel type and time. It therefore also takes into account that prices for certain brands or fuel

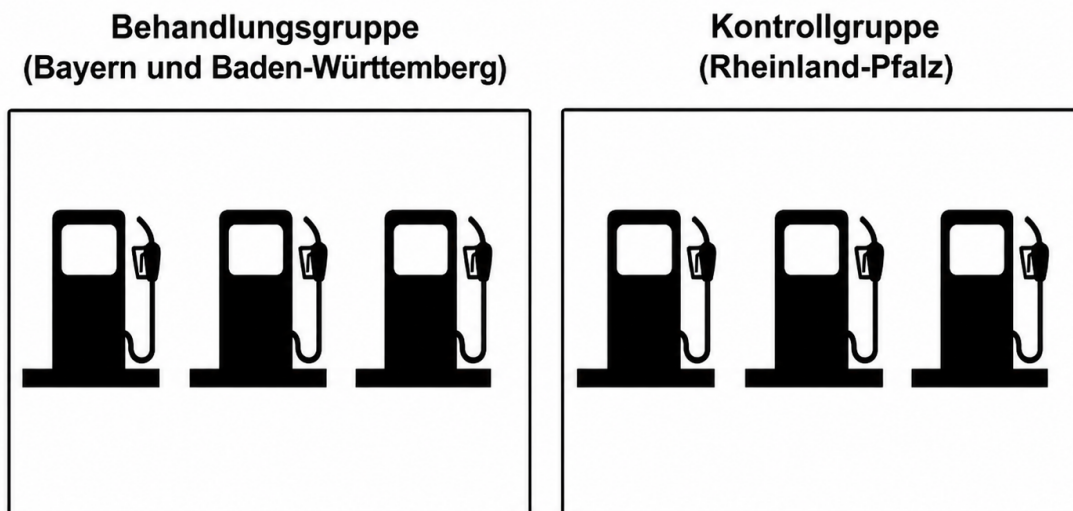
⁶³ This approach corresponds to the difference-in-differences approach explained in **Box 2.2 of the '7Box2.2'**. Unlike in that context, however, the focus here is not on estimating a cartel mark-up, but on the question of whether the merging undertaking systematically changes its prices following the merger.

types may change generally at specific points in time. If a brand adjusts its prices nationwide, or if diesel and petrol react differently to crude oil prices, this is not automatically counted as an effect of the merger. In this way, the study better distinguishes general market movements from price changes that could actually be linked to the merger.

2.4.4 Regional price increases arise primarily through refinery supply

518 In the first specification, all petrol stations in Bavaria and Baden-Württemberg form the treatment group.⁶⁴ The petrol stations in Rhineland-Palatinate form the control group (↗**Figure 2.5**). Rhineland-Palatinate is suitable as a comparison group due to its geographical proximity. Furthermore, the supply situation in parts of the region is particularly similar to that of Baden-Württemberg. This allows general cost trends to be represented in a comparable manner.

Figure 2.5: Allocation of petrol stations for the broad regional comparison



Source: Author's own illustration.

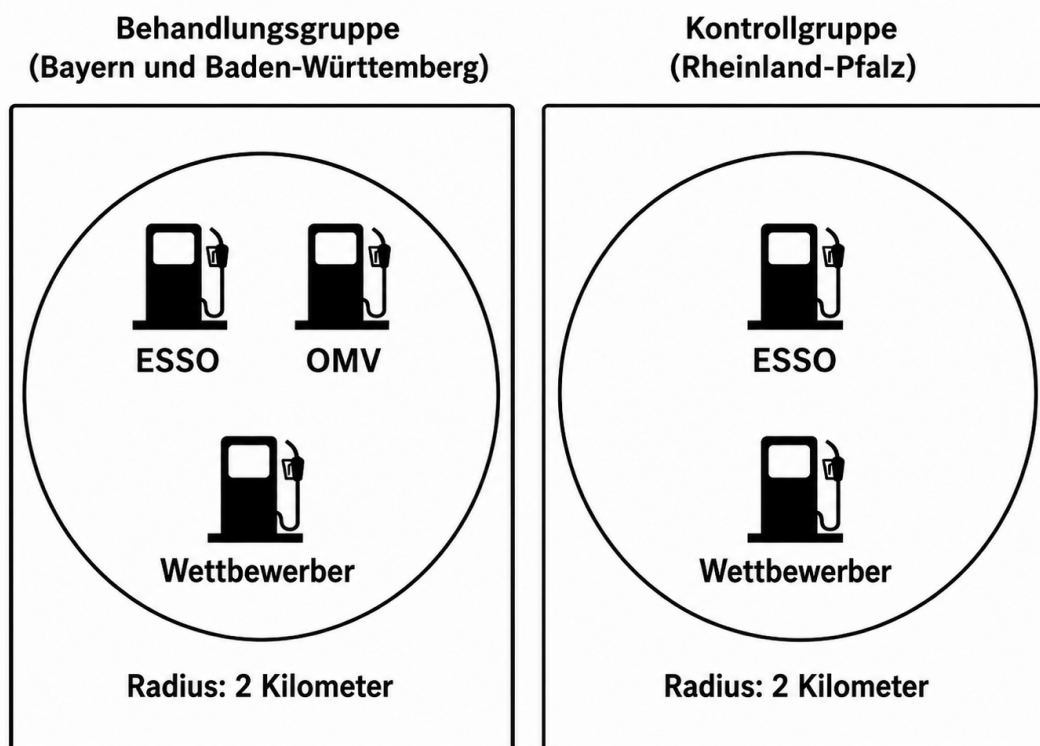
519 This broad comparison examines whether the takeover is associated with price changes at regional level. It can thus capture effects that extend beyond individual local markets. On the other hand, the effects in individual local markets may be mitigated by this broad analysis. The results show that, following the takeover, prices in the affected regions rise by an average of 1.5 cents per litre compared with Rhineland-

⁶⁴ All petrol stations following the data cleaning process briefly outlined above.

Palatinate.⁶⁵ The observed price effects are also clear when compared with the literature. The effect varies greatly from region to region. In Bavaria, prices rise by 2.6 cents per litre. In Baden-Württemberg, they rise by only 0.4 cents per litre. The observed price effects are also evident when compared with the literature. Fischer et al. (2023) find price reductions of 0.5 cents per litre on average amongst competitors following local market entries, whilst Assad et al. (2024) identify price increases of 1.2 cents per litre as a result of the introduction of algorithmic pricing. The key finding from this initial specification is therefore that the average price effect is driven primarily by Bavaria, whilst only a significantly weaker effect is evident for Baden-Württemberg.

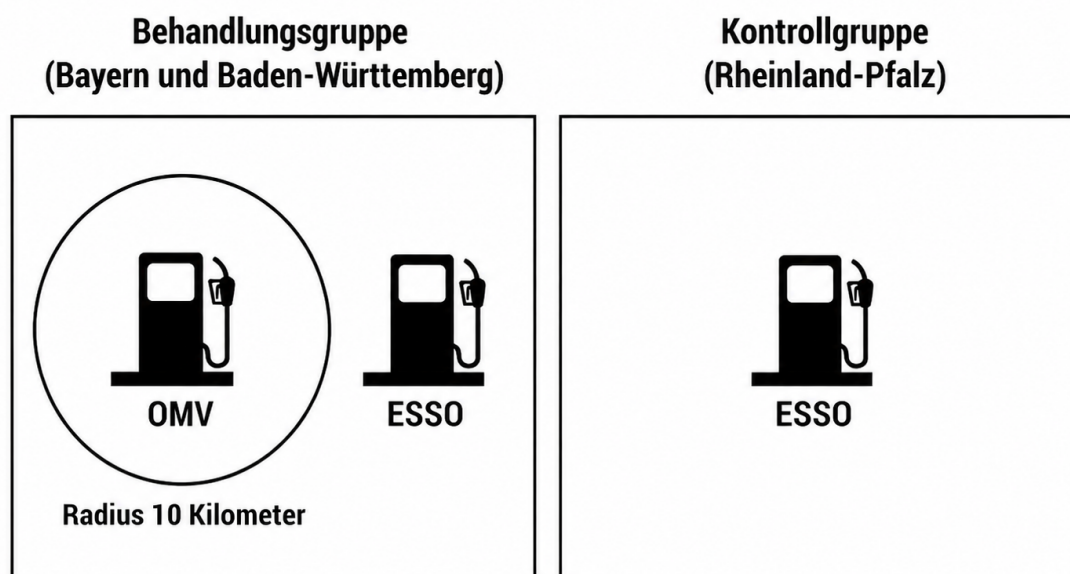
520 In the second step, the treatment group no longer comprises all petrol stations in Bavaria and Baden-Württemberg, but only petrol stations (competitors) in the immediate vicinity of OMV petrol stations and Esso petrol stations (↗**Figure 2.6**). The radius used is two kilometres as the crow flies. Consequently, these are exclusively local markets in which concentration has increased as a result of the merger. The control group consists of petrol stations in Rhineland-Palatinate that are located in the immediate vicinity of Esso petrol stations. If the strong price effects in Bavaria were primarily due to local market power, the effect in these local overlapping markets would have to be particularly pronounced. Furthermore, the regional difference between Bavaria and Baden-Württemberg would have to disappear if only these markets were considered. However, the results show that the price effects in both federal states are very similar to those observed in the broader comparison. Consequently, local changes in concentration neither drive the average effects nor explain the regional differences. The study therefore finds no evidence that classic horizontal effects are the main driver.

⁶⁵ Prior to the takeover, prices in both groups follow a similar trend. This strengthens the validity of the comparison.

Figure 2.6: Petrol station allocation for the identification of horizontal effects

Source: Author's own illustration.

521 In the third step, the study examines potential efficiency gains. To this end, both the treatment and control groups consist exclusively of Esso petrol stations. The treatment group comprises Esso petrol stations in Bavaria and Baden-Württemberg that are at least ten kilometres away from the nearest OMV petrol station (↗**Figure 2.7**). These petrol stations are therefore not located in markets where OMV and Esso were in direct competition. If, for example, the takeover were to improve procurement or logistics, prices at these Esso petrol stations could fall. The study can therefore examine whether efficiency gains emerge without potential changes in local market power overshadowing them. Esso petrol stations in Rhineland-Palatinate serve as a control group. The results show no evidence of such price-reducing efficiency gains. Price reactions remain similar to those observed in the broader regional comparison. Bavaria continues to show strong price increases. Baden-Württemberg shows significantly smaller effects.

Figure 2.7: Allocation of petrol stations to identify efficiency gains

Source: Author's own illustration.

522 In the fourth step, the study examines whether the price effects depend on refinery supply. Petrol stations in Baden-Württemberg are predominantly supplied by the MiRO refinery in Karlsruhe. Bavarian petrol stations are supplied to a greater extent, though not exclusively, by the German refineries in Neustadt/Vohburg, Ingolstadt and Burghausen. The study uses a petrol station's distance from the relevant refinery as an indicator of its likely supply source. For Bavarian petrol stations, the price effect decreases with greater distance from the Bavarian reference refinery. In Baden-Württemberg, the opposite pattern is evident. There, the effects increase with greater distance from Karlsruhe. It follows that the magnitude of the price effects appears to depend heavily on which refinery a petrol station is likely to be supplied by. The effects are strongest where petrol stations are highly likely to be supplied by Bavarian refineries. They are weakest where supplies are highly likely to come from the MiRO refinery in Karlsruhe. There is therefore strong evidence to suggest that it is not local competition between petrol stations, but the upstream supply chain, that explains the decisive difference.⁶⁶

523 The study then examines why Bavarian refineries in particular are coming under greater pressure. To this end, it analyses the supply structure before and after the takeover. Prior to the merger, OMV petrol stations in Bavaria were, at least in part, integrated into the OMV supply network. Petrol was supplied from, amongst other

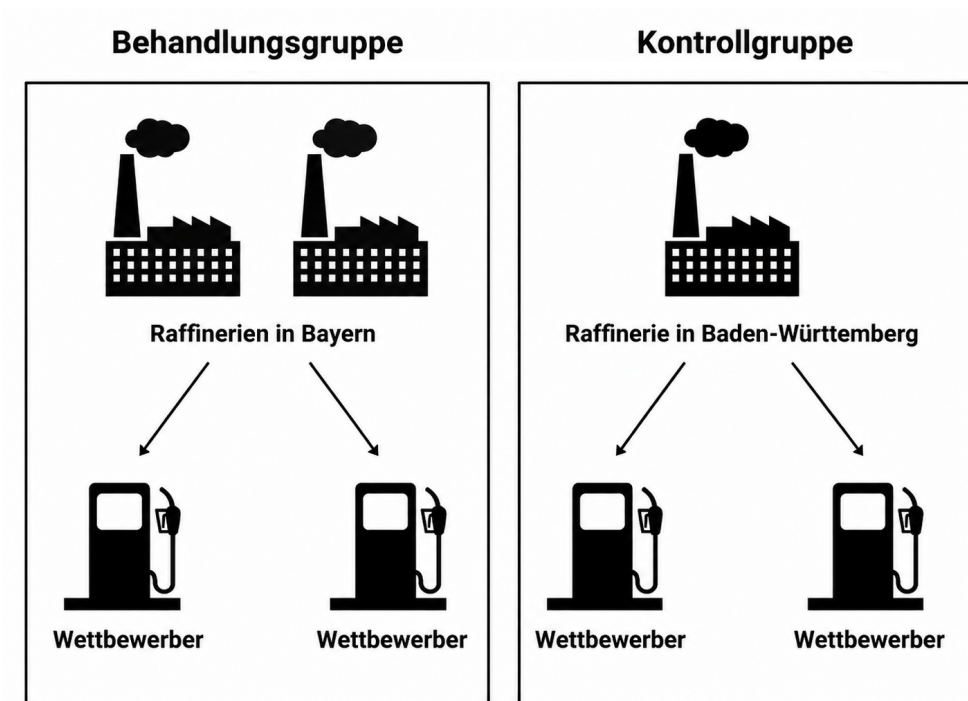
⁶⁶ Additional tests carried out near the national border cast doubt on simple country-specific explanations.

places, Schwechat, whilst diesel was supplied, at least in part, from both Schwechat and Burghausen. Once the merger was complete, these volumes had to be replaced by local Bavarian refineries. In contrast, there was less change in Baden-Württemberg, as many petrol stations were already supplied locally from Karlsruhe. Consequently, the takeover did not trigger a comparable demand shock for the refineries there.

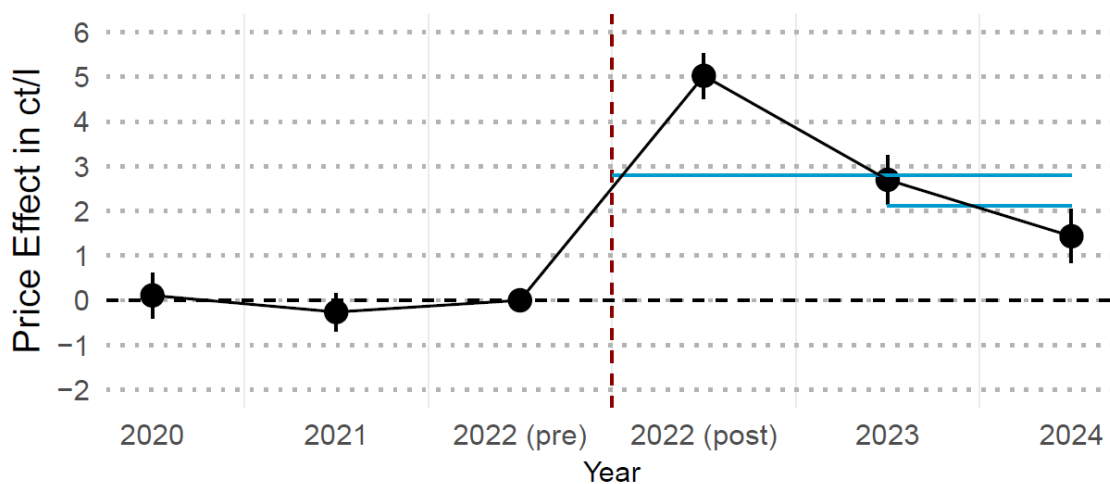
524 The study supports this explanation with several observations. Firstly, following the sale of the petrol stations, the volume of OMV fuel sold through its own network of petrol stations declined. Secondly, following the sale of the petrol stations, OMV lost significance as a petrol importer in Germany. Thirdly, following the sale of the petrol stations, fuel imports from Austria to Bavaria fell significantly. No comparable decline is evident for Baden-Württemberg. This is consistent with the geographical location: Bavaria is closer to Austria and had stronger links to Schwechat.

525 Finally, the study estimates the price effects for petrol stations likely supplied by Bavarian refineries, compared with those closer to Karlsruhe ([↗Figure 2.8](#)). Immediately following the takeover, prices at the more heavily affected petrol stations rise by around 5.1 cents per litre ([↗Figure 2.9](#)). Thereafter, the effect diminishes but remains visible. In 2023, it stands at around 2.8 cents per litre. In 2024, it stands at around 1.5 cents per litre. Excluding the merger year of 2022, the average effect is still 2.1 cents per litre.⁶⁷

⁶⁷ Caution is advised when interpreting the results for 2022. In June 2022, an accident caused damage to the OMV refinery in Schwechat. This may have put additional pressure on supply. However, this one-off event does not explain the persistent price differences in 2023 and 2024.

Figure 2.8: Petrol station allocation for identifying vertical effects

Source: Author's own illustration.

Figure 2.9: Vertical effects as an event study

Notes: The figure shows the event-study results for the DiD estimates for petrol stations in the vicinity of the Ingolstadt refinery in Bavaria. Point estimates and 95% confidence intervals are shown. The dependent variable is the fuel prices for E5 and diesel, measured in cents per litre. The treatment period begins after May 2022, when the EG Group took over the OMV petrol station network. The baseline period covers the months from January to May 2022. The control group consists of petrol stations in Bavaria and Baden-Württemberg that are closer to the Karlsruhe refinery than to the Ingolstadt refinery. Petrol stations whose distance from the two refineries differs by less than 50 kilometres are excluded.

Source: Oschmann (2025).

2.4.5 The study broadens the scope of competition policy

2.4.5.1 Merger control should scrutinise vertical supply structures more closely

526 The study's findings show that potential local concentration effects in the petrol station market should not necessarily be treated as the sole and most significant cause of price increases. No link could be established between the reduction in local competition between petrol stations resulting from the merger and higher prices. At the same time, no efficiency gains resulting from the merger can be identified.

527 In the case under investigation, the vertical market structure explains the price increases following the takeover. The takeover removes former OMV petrol stations from the OMV network. Some of these petrol stations were previously supplied by OMV's own refineries. These petrol stations subsequently demand more fuel from regional refineries. As refineries primarily supply regionally and capacity is limited, pressure on wholesale prices increases. These higher costs are then passed on to prices at the petrol stations. Consequently, the vertical supply structure explains the strong price effects in Bavaria better than a consideration of local market shares alone. For merger control purposes, this implies that the authority should in future systematically examine whether a merger alters supply conditions or bargaining power, and what the consequences are when companies are active at several levels of a market or control access to key intermediate products.

528 This finding fits in with the picture already painted by the analysis of petrol station rebates (section **72.1.3.2.2**). There, the pass-through of the tax cut varied significantly by region, which also points to the refinery and wholesale levels as the decisive factors. Independently of one another, both cases show that competitive conditions at the upstream supply level determine fuel prices – a finding that points in the same direction for the application of Section 32f of the German Act against Restraints of Competition (GWB) as for merger control, namely towards the upstream market structure.

529 Against the backdrop of the study's findings, the question arises as to whether the divestiture conditions addressed the relevant competitive mechanism or whether alternative conditions would have been more appropriate. The conditions focused on local horizontal overlaps and concerned markets in which the merger would have led to a particularly sharp increase in local market concentration. The study cannot show how prices would have developed in the local markets corresponding to the ' ' without these divestments. It is therefore not possible to conclude from the results that the remedies were unnecessary. At the same time, the results suggest that the observed

price increases were primarily attributable to changes in supply relationships and refinery supply. This vertical mechanism was not addressed by the divestiture conditions.

2.4.5.2 The study enhances our understanding of the fuel market and crises

530 The study not only provides insights into a single merger; it also contributes to a better understanding of the fuel market as a value chain. Petrol station prices do not depend solely on the distance to the nearest petrol station; they are also shaped by refineries, wholesalers, logistics, supply contracts, brand relationships and vertical integration. It is precisely for this reason that the findings are valuable for market monitoring. Changes in vertical structures and potential supply relationships appear to play a greater role in this case than local changes in concentration among petrol stations. This is consistent with the current findings in the literature on the German fuel market. Fischer et al. (2023) find moderate price effects from local market entries. Assad et al. (2024) show that algorithmic pricing can increase prices, although the magnitude is significantly lower than the Bavarian effects estimated here. In contrast, Gregor and Haucap (2026) show that upstream market structures, refinery margins and regional market power at the refinery level can have a significant impact on fuel prices. The study brings these findings together in a broader context.

531 Furthermore, the study highlights where policy measures might be most effectively targeted in times of crisis. When fuel prices rise sharply as a result of geopolitical shocks or rising crude oil prices, political attention often focuses first on prices at the petrol station. However, the current literature suggests that petrol station margins are not necessarily conspicuous in such situations (Gregor/Haucap 2026). Potential competition issues are more likely to lie at the wholesale and refinery levels (Duso/Oschmann, 2026). The study's contribution lies in illustrating this mechanism using a specific merger as an example. It shows that significant price effects are not necessarily explained primarily by local changes in concentration among petrol stations, but rather by changes in the vertical supply structure. In times of crisis, this means that measures should focus primarily on areas where market power, tight capacity, regional supply structures and rising wholesale prices interact. This argues in favour of closer monitoring of refinery margins, wholesale prices and supply relationships. A focus solely on local petrol station markets, on the other hand, would only capture part of the relevant competitive mechanism. In summary, it can be stated that ex-post

evaluations reveal which mechanisms actually come into play following a merger control decision. In doing so, they provide a more sound basis for future merger control and competition policy.

Recommendations

- Ex-post evaluations should be used more systematically to retrospectively assess the actual effects of merger control decisions. This will enable competition authorities and legislators to build up institutional knowledge and to base future investigations, remedies and competition policy decisions more firmly on evidence.
- Merger control should take greater account of vertical supply structures, potential capacity constraints and supply relationships in retail mergers. A sole focus on local overlaps between competitors falls short when price effects arise predominantly from upstream market stages.

2.5 Recommendations at a glance

532 The following recommendations summarise the key recommendations for action in this chapter in a concise form. For ease of reference, they are organised by topic and numbered consecutively. The detailed reasoning and context can be found in the relevant sections of the report.

Antitrust damages

- 1** In the absence of a class action mechanism in Germany, collective recovery of damages represents an important means of pooling antitrust damages. In order to enable the enforcement of claims for scattered damages in a legally certain manner, the courts should make use of the discretion remaining following the Federal Court of Justice’s decision, with a view to promoting the effective and expeditious enforcement of claims for antitrust damages. **Section 72.1.1.1**
- 2** When assessing damages, the courts should actively fulfil their responsibility to estimate the loss and, on the basis of the available information, estimate the loss – at least in the form of a minimum loss. An estimate is required even where the data is incomplete. The uncertainty inherent in the assessment of damages must not structurally disadvantage the victims of antitrust infringements. **Section 72.1.1.2.4**
- 3** In appropriate cases, econometric regressions may be useful for estimating damages. In addition, courts should be able to rely on qualitative estimates. This estimation methodology should be continuously refined by the courts, legal scholarship and economic research. Regression analyses must not become a de facto prerequisite for antitrust damages claims where the available data or procedural efficiency argue against their use. **Section 72.1.1.2.4**
- 4** The legislature should adapt the procedural framework so that antitrust damages proceedings become more efficient, faster and more manageable. In particular, this can be achieved by grouping similar cases more closely together, further concentrating jurisdiction and providing the courts with effective tools for dealing with voluminous case files. **Section 72.1.1.3**

➤ Armament

- 5** Cooperation and mergers in the defence sector should be subject to careful scrutiny by the competition authorities in order to counteract the creation of cross-market dominance through the formation of large defence companies. **Section 72.1.2**
- 6** The introduction of a sector-specific exemption in German competition law for the defence sector should be rejected. **Section 72.1.2**
- 7** Defence procurement should become more competition-oriented and innovation-friendly – through joint procurement, greater interoperability, greater involvement of start-ups and SMEs, and simpler and faster procedures. **Section 72.1.2**

➤ Fuel measures package and fuel discount

- 8** The Federal Cartel Office should vigorously continue the proceedings it has initiated under Section 32f(3) of the Act against Restraints of Competition (GWB), using the instruments and data at its disposal. **Section 72.1.3**
- 9** Sustainable structural solutions are preferable to sector-specific market interventions and price controls that are questionable from a regulatory perspective. **Section 72.1.3**
- 10** Interventions in free price formation, such as the ‘petrol discount’, should be avoided in future. The ‘12 o’clock rule’ should be evaluated and, if necessary, further developed. **Section 72.1.3**

➤ Ex-post evaluation

- 11** Ex-post evaluations should be used more systematically to retrospectively assess the actual effects of merger control decisions. This will enable competition authorities and legislators to build up institutional knowledge and to base future investigations, remedial measures and competition policy decisions more firmly on evidence. **Section 72.4**
- 12** Merger control should take greater account of vertical supply structures, potential capacity constraints and supply relationships in retail mergers. A sole focus on local overlaps between competitors falls short when price effects arise predominantly from upstream market stages. **Section 72.4**

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3

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**Industrial electricity prices as a
means of industrial policy**



Chapter 3

In brief _____	256
3 Industrial electricity prices as a tool of industrial policy _____	259
3.1 Shaping industrial policy to be competition-oriented _____	264
3.1.1 Challenges: Global uncertainties, lack of innovation, transformation _____	264
3.1.2 Definitions _____	267
3.1.3 Arguments for and against industrial policy _____	269
3.1.3.1 Reasons for vertical industrial policy _____	270
3.1.3.2 Arguments against vertical industrial policy _____	274
3.1.4 Competition-oriented industrial policy _____	276
3.1.4.1 Utilising horizontal instruments: completing the single market, strengthening competition policy, taking a coordinated approach _____	276
3.1.4.2 Industrial policy should be clearly geared towards addressing market and transition failures _____	279
3.1.4.3 Aligning policy instruments with competition principles _____	282
3.2 Electricity prices as a special case in industrial policy _____	287
3.2.1 An overview of the electricity market for industry _____	290
3.2.1.1 Consumers benefiting from preferential prices remain at a higher price level for longer _____	291
3.2.1.2 Direct and indirect interdependencies of electricity consumption in industry _____	295
3.2.1.3 Electricity trading and electricity prices in an international comparison _____	298
3.2.1.4 Energy-intensive industries – higher energy consumption and a sharper decline in production _____	301
3.2.2 Subsidy framework poses risks to competition _____	307
3.2.2.1 Designing vertical measures to be competition-neutral _____	317
3.2.2.2 Bureaucratic support structures and their competitive risks _____	319
3.2.3 Simulation of the effects of an electricity price subsidy _____	323
3.2.4 Conclusion _____	329
3.3 Recommendations at a glance _____	331
Bibliography _____	333
Legal sources _____	342
Data sources _____	343

In brief



Industrial policy is back at the centre of the economic policy debate. The political debate is no longer about whether industrial policy makes sense, but solely about how it should be structured. In this chapter, the Monopolies Commission demonstrates that industrial policy should not stifle competition, but rather strengthen it. This applies both to the general industrial policy strategy and to the approach to high electricity prices as a major cost factor for industry.

1 – How can industrial policy and competition policy work together to strengthen the competitiveness of the European single market?

PROBLEM



The European single market and Germany as an industrial location are under considerable pressure to adapt. Geopolitical tensions, dependencies in critical supply chains, rising energy costs and the need for decarbonisation are increasing the pressure to act. Added to this are structural weaknesses such as a growing innovation gap compared with the US and China, a shortage of skilled workers, as well as high regulatory burdens and protracted approval procedures.

CONTEXT



Industrial policy is intended to influence economic development in a targeted manner and is currently understood, above all, as a response to a lack of innovation, transformation and geopolitical vulnerability. A distinction must be made between horizontal measures, which improve the framework conditions for many companies, and vertical interventions, which specifically promote individual sectors, technologies or companies. From the Monopolies Commission's perspective, this distinction is crucial: horizontal measures tend to strengthen the single market, whilst vertical interventions interfere more heavily with market processes and pose greater risks to competition, innovation and the allocation of resources. However, the latter should not be ruled out – provided they address a clearly diagnosed market or transformation failure and remain open to competition, transparent and time-limited.

RECOMMENDATIONS



The Monopolies Commission regards competition as an indispensable part of a successful industrial policy. This gives rise to three policy priorities:

- 1** Industrial policy measures should focus on clearly justified cases of market or transition failure and be primarily geared towards future-oriented and strategically important key technologies.
- 2** Measures to complete the European single market should take priority, as it is precisely there that better framework conditions for innovation, scaling and competition can be created for all businesses.
- 3** Where support is provided to individual sectors or technologies, the instruments should be open to competition, transparent, coordinated at European level and, where possible, of limited duration.

2 – How can the competitive conditions for German industry be improved with regard to the cost of electricity?

PROBLEM



High electricity prices are a burden on German industry in international competition. In 2024, Germany's average price of around 14 ct/kWh was above the EU-27 average of 12 ct/kWh and significantly higher than that of the USA at 8 ct/kWh. This is particularly relevant for electricity-intensive sectors such as aluminium production. If electricity, as a key factor of production, is permanently more expensive than in key competitor regions, investment and value creation could increasingly be shifted abroad.

CONTEXT



Electricity is a major cost factor for industry, but its significance varies greatly between sectors. On average across all 163 sectors examined, the direct share of electricity in intermediate inputs is only 2.29 per cent. In many sectors, it is below 5 per cent, whilst in individual sectors such as aluminium or pulp it exceeds 15 per cent. At the same time, there is already a dense network of vertical relief measures such as electricity price compensation, the industrial electricity tariff, reductions in electricity tax and subsidies for grid charges. These measures are applied according to varying criteria, create red tape, sometimes disadvantage

smaller companies and pose risks to competition. The simulation in this chapter also shows that the overall price effects of various subsidy scenarios differ only slightly.

RECOMMENDATIONS



To improve the competitive conditions for German industry with regard to the cost factor of electricity, the Monopolies Commission derives the following policy priorities:

- 1** Where relief on electricity prices is sought, priority should be given to horizontal, simple and competition-friendly measures. These include, above all, broad-based relief on non-market-determined components of electricity prices.
- 2** Sector-specific or company-specific relief measures – such as electricity price compensation, an industrial electricity tariff or subsidies towards grid charges – should only be used in a targeted and strictly limited manner. They should be clearly justified on objective grounds, designed as simply as possible and structured in such a way that they do not distort competition.
- 3** The electricity market design should be reformed so that electricity can be supplied in a structurally cheaper and more reliable manner. As high prices also result from systemic weaknesses such as grid bottlenecks, inadequate price signals and high redispatch and grid costs, state aid is no substitute for reforming the system. In particular, grid charges should be reformed, incentives for grid-friendly behaviour strengthened and the grids further digitised.

3 Industrial electricity prices as a tool of industrial policy

533 German industry is currently under considerable pressure to adapt and faces a number of structural problems. Growth in German industrial production has steadily slowed in recent years. Since 2017, the production index for the manufacturing sector in Germany has shown a sustained downward trend. Whilst the seasonally and calendar-adjusted production index stood at 108.5 points in November 2017, it had fallen to 91.2 points by February 2026 (Federal Statistical Office, 2026c). Yet industry is of paramount importance to the German economy, as it accounts for around a quarter of gross domestic product (Statista Research Department, 2026). The section **71.4** also shows that this weakness (at least with regard to very large industrial groups) is specific to certain locations in Germany, but does not occur globally.

534 A similar picture of German industry – and of energy-intensive companies in particular – is painted, for example, by the Federation of German Industries (BDI) in its industry report, or in the 2025 Business Location Outlook study (Simon-Kucher, 2025). According to the BDI's Industry Report, the sharp rise in energy prices in 2022, in particular, placed a significantly greater burden on German industry than on other EU Member States. Analyses by the Monopolies Commission confirm that energy-intensive industries are disproportionately affected by falling labour productivity and value added (see section **71.3**). Furthermore, the 'Location Perspectives' study shows that around 73 per cent of energy-intensive companies are shifting their investments abroad – 42 per cent to other European countries and 31 per cent to other continents (Simon-Kucher, 2025).

535 Global economic, technological and geopolitical shifts have increasingly exacerbated the structural challenges facing Germany as a business location. International comparisons show that Germany is lagging behind in various strategic technology sectors. For instance, China has caught up significantly in key future technologies such as batteries, solar power and, most recently, e-mobility in particular (see, for example, Alonso, 2024; Greitemeier et al., 2025). In 2024, for instance, almost 65 per cent of all electric vehicles sold worldwide originated from China (International Energy Agency, 2025). Numerous analyses, including the Draghi Report, also highlight Europe's growing innovation gap compared with countries such as the US and China (Draghi, 2024).

536 Added to this are significant dependencies in critical supply chains, which further increase the vulnerability of German industry in times of geopolitical tension. This ap-

plies in particular to key trading partners such as China and the US. In its 2025/26 Annual Report, the German Council of Economic Experts notes that China is increasingly emerging as a direct competitor for German industrial products and is benefiting from lower export prices, which have recently been significantly below the European level (German Council of Economic Experts, 2025). This dependence is not limited to physical intermediate goods. It is increasingly extending to digital and technological infrastructure as well: as the analysis in shows, Germany is heavily dependent on a small number of, predominantly US-based, suppliers for key AI infrastructures – in particular computing capacity, semiconductors and basic AI models. This dual dependence – on China for physical intermediate goods and on the US for digital infrastructure – creates a structural vulnerability that goes far beyond traditional trade risks.

537 Germany's dependence has also been very clearly demonstrated recently by developments on the global energy markets. For instance, the conflicts in the Middle East and the associated uncertainties in transport and supply chains have led to sharp rises in crude oil and petrol prices. Such price shocks have a direct impact on the cost structures of industry and illustrate how quickly external events along international value chains can affect the competitiveness of industry (see, for example, IEA Bioenergy, 2024; Federal Statistical Office, 2026d).

538 In addition to these geopolitical challenges, Germany faces further challenges relating to industrial policy. Among the areas frequently cited by affected companies are, in particular, the labour market and bureaucratic requirements.

539 With regard to the labour market, structural problems are frequently highlighted, which can be attributed to demographic change. Access to skilled workers is becoming increasingly difficult, meaning that vacancies cannot be filled, or at least not to a sufficient extent (Peichl et al., 2022). Furthermore, demographic change is leading to rising healthcare and pension costs per worker. Consequently, non-wage labour costs are rising, which, amongst other things, further undermines competitiveness in the international race for skilled workers (Holtemöller et al., 2024; Sieberichs, 2024; Töpfer et al., 2025).

540 Furthermore, there are challenges associated with extensive regulatory requirements. In this context, for example, reference is often made to employment protection legislation, which is perceived as too rigid. This can contribute to a reluctance to hire new staff, as doing so carries the risk of being unable to dismiss employees in the event of unexpected adverse developments (Coatanlem/Coste, 2026; Schoefer et al., 2026, FAZ, 2026).

541 In addition, there is a steadily growing bureaucratic burden, which hinders investment, transformation processes and, consequently, long-term economic growth. Despite political efforts to reduce the bureaucratic burden in Germany, success in this regard has so far been very limited. The Federal Statistical Office's bureaucracy cost index, which measures the bureaucratic burden on businesses, has recorded only a slight reduction in bureaucracy costs of around 4 percentage points since 2012 (Federal Statistical Office, 2026a). The costs of national reporting obligations are estimated at EUR 66.5 billion for the year 2024 (Gönner, 2024). This burden arises in particular as a result of extensive documentation requirements, authorisation procedures and reporting obligations. The compliance costs for new legal requirements adopted in 2024 alone amounted to around EUR 16 billion (Jäkel et al., 2025). Furthermore, high regulatory complexity is accompanied by considerable uncertainty regarding the correct application of regulations. Studies show that direct bureaucratic costs amount to around 1 to 3 per cent of companies' turnover, with the relative proportion increasing as company size decreases (Icks/Weicht, 2022).

542 Although many of these bureaucratic costs relate, at first glance, to sensible initiatives, the disproportionate burden placed on small and medium-sized enterprises in particular by extensive regulatory requirements can constitute a competitive disadvantage. Lengthy approval procedures can also place a greater burden on smaller firms, as their dependence on individual procedures may be greater and it may be more difficult for them to bridge the period until approval is granted. Nevertheless, bureaucratic requirements also cause a noticeable burden for larger firms, even if this is proportionally less significant.

Box3.1: Examples of competition disadvantages caused by bureaucracy**EXAMPLES OF BUREAUCRATIC COMPETITIVE DISADVANTAGES**

Reporting and documentation requirements: Tie up staff and management time. This burden is particularly heavy for SMEs, as they often have to fulfil the same obligations as large companies but have fewer administrative and compliance resources.

Lengthy approval procedures: These can delay investments and increase planning costs. Smaller companies are more severely affected by this, as they are often less able to cope with project delays and ongoing pre-financing costs.

Regulatory location disadvantages: Energy-intensive industries face additional burdens on top of high energy prices, in the form of CO_2 pricing, emissions reporting and complex environmental regulations. Competitors in countries with less stringent climate and environmental regulations can thus gain a cost advantage.

Growth in the civil service: The number of public sector employees rose from 4.59 million in 2010 to 5.38 million in 2024. As a result, their share of the total workforce in Germany increased from around 11.2 per cent to around 11.7 per cent. However, more staff do not automatically lead to faster procedures if responsibilities, checks and reporting requirements increase in parallel.

Sources: Federal Statistical Office (2025; 2026b).

543 Bureaucratic complexity affects not only businesses but also the legislative process itself. The final report “Initiative for an Effective State” states in this regard: “The requirements of the legislative process [have] now reached a level of complexity that can scarcely be managed by the ministerial bureaucracy” (Jäkel et al., 2025). The resulting implications for the legislature can lead to planning and approval procedures being slowed down or not carried out at all. Furthermore, relief measures or simplifications for the business community may be delayed.

544 Energy-intensive industry provides a significant example of how a multitude of bureaucratic requirements can create challenges. On the one hand, energy-intensive industry is frequently confronted with complex subsidy and relief mechanisms, some of which are linked to a multitude of requirements or are mutually exclusive (see section **73.2.2.2.1**). In the context of global competition, onerous requirements and regulatory complexity represent a further significant competitive disadvantage, alongside higher energy prices.

545 Furthermore, the effects of protracted planning and approval procedures are clearly evident here. Approval procedures, for example for grid expansion, industrial plants or renewable energy facilities, often take many years. This sometimes leads to bottlenecks in terms of grid connection capacity. As a result, grid operators sometimes postpone the grid connection or expansion for energy-intensive facilities by several years. This significantly delays or completely prevents the electrification of these facilities.

546 Last but not least, German industry and the country as a business location are faced with rising energy costs (see also the section **71.3** for the implications). Energy is of particular importance to industry because it is required as a factor of production at all stages of industrial value creation. At the heart of the political debate is electrical energy in particular, the relevance of which for competitiveness and industrial development was recently emphasised by the Draghi Report (2024). Electricity prices are not only relevant from a cost perspective; they also have a significant influence on international competitiveness, the willingness to invest and companies' commitment to their location. Owing to the cross-sectoral importance of electrical energy as an input factor, the electricity market is of paramount importance to German industry.

547 Electricity prices are particularly relevant for energy-intensive industries. At the same time, it should be noted that even the five most energy-intensive industrial sectors, which account for over 80 per cent of industrial energy consumption (see **7Figure3.10**), currently spend only a small proportion of their input costs on electricity, whilst the majority of energy expenditure is accounted for by other energy sources (Duso et al., 2025). However, given the trend towards greater electrification, a significant increase in electricity demand is to be expected in future, accompanied by a higher proportion of electricity costs within total input costs (Just et al., 2025). A resilient and efficient electricity sector is therefore of central importance in meeting the expected rise in demand (Monopolies Commission, 2025a). Otherwise, there is a high risk— that energy-intensive companies in particular will increasingly relocate their investments, or even their entire headquarters and production, abroad in future. Ensuring competitive and reliable electricity costs is therefore essential for retaining companies in Germany.

548 The problem areas outlined for German industry may be indicative of structural deficits in competitiveness, affecting both the industry’s technological capabilities and the pace of transformation processes. Against this backdrop, the adoption of industrial policy measures may be an appropriate means for policymakers to address the challenges identified. However, this applies only insofar as competition is clearly at the heart of such an industrial policy. The Monopolies Commission therefore wishes to contribute to this discussion in the following chapter by first addressing the dimensions of industrial policy in general and examining in more detail the extent to which it can be designed to be competition-oriented (section **73.1**). The focus will then shift to industrial policy measures in the electricity market and electricity prices as a specific case within industrial policy (section **73.2**). Alternative measures, for example in the labour market, will not be discussed further here, but can nevertheless make highly relevant contributions.

3.1 Shaping industrial policy to be competition-oriented

3.1.1 Challenges: Global uncertainties, lack of innovation, transformation

549 Several studies – including the Draghi Report (Draghi, 2024), the EU Industrial Policy Report (Luiss Hub for New Industrial Policy and Economic Governance (LUHNIP), 2024) and the Annual Single Market and Competitiveness Report (European Commission, 2025b) – see the European and German economic models as being threatened by geopolitical instability, dependencies in critical supply chains and, not least, rising energy costs. A common finding of these studies is that Europe is falling significantly behind in strategic technology sectors. The innovation gap with the US and China is widening.

550 Corresponding calls for action aim to ensure that Europe and its Member States make greater efforts to promote competitiveness, security and resilience. According to the Draghi Report (2024), key measures to achieve this should include a reorientation of industrial policy and an adjustment of competition policy to strengthen the competitiveness of the European single market. In his report to the Council of the European Union, ‘Much More Than a Market’, Letta also advocates strengthening industrial policy at European level (Letta, 2024). He emphasises that competition policy can better address ‘European priorities’ (MLex, 2026).

551 The Monopolies Commission is contributing to this debate with this expert report. The Monopolies Commission recommends strengthening the competitiveness

of European industry through effective competition in the single market and makes corresponding proposals for a competition-oriented industrial policy. It recommends that industrial policy measures be clearly and, as far as possible, verifiably geared towards resolving market and transition failures. In doing so, it is important to keep markets open to competition (see also Duso/Peitz, 2025; Schnitzer/Weber, 2025). The regulatory principle of competition should remain clearly at the centre of attention.

552 Interventions in industrial policy have increased in many OECD countries in recent years, including in Germany (Federal Ministry for Economic Affairs and Energy, 2025; Juhász et al., 2024). However, empirical studies on the effectiveness of these interventions have long been rather limited, primarily due to a lack of available data and definitional problems. Currently, the evaluation of industrial policy is receiving increased attention due to more systematic data collection and the availability of new empirical methods. The literature focuses, amongst other things, on the effects of industrial policy interventions on productivity growth and on the role of industrial policy in promoting competition and market dynamics. Empirical research highlights that the effects depend heavily on the context, implementation and institutional framework (Juhász et al., 2024). Corporate structures can also play a decisive role, as demonstrated by the empirical study by Parente et al. (2025) (Parente et al., 2025). Specifically, Parente et al. show that support programmes are particularly effective for young and financially constrained firms, leading to short-term improvements in value added, productivity and total wages, whilst established firms exhibit smaller additional effects.

553 A recent study by the CMA concludes that industrial policy can boost regional and sector-specific productivity as well as regional employment, although these effects are, on average, modest. The study finds that high-growth sectors are generally more productive, dynamic and competitive than the average for the economy as a whole. Therefore, according to the CMA (CMA Microeconomics Unit, 2025), careful consideration of the respective dynamics within the sectors and monitoring of competitive conditions are required to enable new firms to enter and compete in these sectors. Aghion et al. (2015) had already shown that the intensity of competition within sectors is a key determinant of the effectiveness of industrial policy measures. Using the example of Chinese subsidy policy, they demonstrated that subsidies led to greater productivity gains when they were allocated to a highly competitive sector or helped to strengthen competition within a sector. At the same time, the recent Chinese debate on ‘anti-involution’ shows that high levels of competition should not be equated with ruinous price competition. In view of overcapacity and price competition in sectors such as electric mobility, the Chinese government has been attempting since 2025 to curb ‘involution-style competition’ and to focus more strongly on qual-

ity, innovation and orderly market conditions (Stucke/Ezrachi, 2020; Xiong, 2025). Accordingly, Juhász/Steinwender (2024) also emphasise that industrial policy measures tend to be more effective when used in conjunction with other instruments. For example, they argue that protecting nascent sectors strengthens their long-term development if, at the same time, access to new technologies is promoted.

554 The Draghi Report provides an in-depth analysis of the European Union’s structural competitiveness deficits, particularly in comparison with China and the US: “Europe is stuck in a static industrial structure with few companies emerging to disrupt existing industries or develop new growth engines.” (Draghi, 2024). Large sections of industry are caught in what is known as a ‘mid-tech trap’ (Elspeß et al., 2025). Industrial firms are now focusing solely on incremental improvements to established technologies, such as in mechanical engineering or the automotive sector, rather than developing disruptive technologies. Consequently, the potential for future productivity growth is limited.

555 The US, by contrast, has long promoted innovative technologies, and investment has followed suit, meaning that resources have been redirected towards sectors with high potential for productivity growth, according to Draghi. One example of this is DARPA (Defense Advanced Research Projects Agency). This US research agency specialises in developing groundbreaking technologies for national security and funds high-risk projects in areas such as artificial intelligence, robotics, cybersecurity and biotechnology. Among DARPA’s greatest successes are the foundations of the internet, GPS technology and drone technology. Modelled on DARPA, Germany also established its own innovation agency in 2019. The Federal Agency for Breakthrough Innovations (SprinD) is intended to promote the development of groundbreaking technologies and innovations that will advance Germany in key future-oriented sectors such as climate protection, health, mobility and security.

556 At present, however, there remains an innovation gap between the US and European economies. Europe is lagging significantly behind, particularly in forward-looking digital technologies. In 2021, EU companies spent around half as much on research and development (R&D) as US companies. Furthermore, regulatory and legal hurdles, as well as the fragmentation of funding resulting from the still incomplete harmonisation of capital markets within the European Single Market, are hindering the development of companies in Europe, with the result that many European start-ups prefer to grow in the US, as they find better funding opportunities there.

557 Pioneering technologies, particularly in the fields of artificial intelligence and cloud computing, are increasingly being developed outside Europe (Draghi, 2024; Stanford University HAI, 2026). This is cementing the already significant dependence

on dominant US tech companies. A large proportion of European companies and public administrations rely on hardware, software and cloud services provided by US companies and would be at risk, for example, if these companies were to discontinue important security updates (see also ↗ **Chapter 4**). The US is increasingly using this dependence on key digital technologies as a lever of power in its relations with other states (Voelsen, 2025).

558 China, too, has built up strategically important sectors through a targeted industrial policy, including the ‘Made in China 2025’ strategy, and has been able to achieve technological leadership in key technologies, such as solar panels, batteries and rare earths. Since 2013, the Chinese government has increasingly focused on competition and independent innovation. The promotion of competition is an important part of the ‘Made in China 2025’ strategy. In particular, the deregulation of price controls and the ‘Anti-Monopoly Law’ have fostered competition in the Chinese market, opened up markets and encouraged companies to innovate, even though there have recently been countervailing trends in the sense of the ‘anti-involution’ described above (Fu et al., 2026; Zhang, 2026).

559 Against this backdrop, industrial policy can be a suitable means of addressing these challenges, but only provided that competition is clearly at the heart of such a policy. Horizontal measures that improve the framework conditions for all firms and promote market entry by new firms are therefore preferable. In addition, vertical market interventions that favour individual sectors may also be justified if they are clearly focused on resolving a market or transformation failure. Favouring individual sectors or even ‘national’ or ‘European champions’ is to be rejected, as the Monopolies Commission has emphasised on several occasions in the past (Monopolies Commission, 2004; Monopolies Commission, 2020). On the one hand, this would lead to increased market concentration at national level, which in turn could result in greater market power, higher price mark-ups and, potentially, increased political influence (see also section ↗ **1.1**). Section ↗ **3.2.3** also shows that horizontal measures can be more efficient in macroeconomic terms than targeted, vertical support measures. There are also considerable problems in the practical implementation of industrial policy, which are addressed in this report. Among other things, it is doubtful whether policymakers are sufficiently capable of selecting the appropriate sectors for industrial policy measures.

3.1.2 Definitions

560 To contextualise the debate on a reorientation of industrial policy, it is first necessary to define the terms. The debate suffers in part from conceptual ambiguities. Even the term ‘industrial policy’ is somewhat misleading. It generally does not refer

solely to policy measures designed to support industry, but also to measures in other sectors, such as artificial intelligence. Furthermore, it is often unclear which specific policy measures fall under the term ‘industrial policy’ and which measures are better classified under other areas of economic policy, such as regional policy or trade policy.

561 In academic circles, there is no single, universally accepted definition of the term ‘industrial policy’. According to the work of Rodrik (2004) and Stiglitz et al. (2013), industrial policy encompasses the design of framework conditions and policy measures that influence the nature of certain economic activities, facilitate the structural change associated with economic growth, or are intended to bring about targeted changes to the economic structure. Criscuolo et al. (2022) use an even broader definition, defining industrial policy as measures aimed at structurally improving the performance of the domestic economy. It encompasses a wide range of instruments, ranging from the protection of intellectual property through to public procurement, incentives for research and development, public funding and the provision of skills.

562 A distinction is also frequently made between horizontal and vertical industrial policy (Owen, 2012; Pelkmans, 2006) (see [↗ Box 3.2](#)). Horizontal industrial policy sets out the framework conditions for all enterprises across all sectors. These include, amongst other things, the creation of a uniform tax system, the maintenance of effective competition, and the integration of the European single market. It is more supply-side oriented, and the boundaries with regulatory policy are fluid.

563 Vertical industrial policy, by contrast, refers to targeted government measures in individual sectors or even specific companies. Typical measures include government support for companies in the form of financial assistance to help them achieve specified objectives. A broad distinction can be made between demand-side instruments, such as purchase incentives or targeted public procurement, and supply-side measures to promote specific technologies or production processes.

564 In some cases, however, the boundaries between horizontal and vertical industrial policy are not clearly defined, for example when start-ups receive cross-sector financial support. Such measures contain both horizontal and vertical aspects.

Box3.2: Definition of industrial policy**HORIZONTAL AND VERTICAL INDUSTRIAL POLICY**

One of several definitions: industrial policy is understood to mean all economic policy measures aimed at influencing the structure and development of the economy (Criscuolo et al., 2022).

Horizontal industrial policy

Horizontal industrial policy refers to measures that affect many or all sectors and companies. It aims to improve the general framework conditions for the economy. Instruments used for this purpose include, for example:

- Competition rules
- Regulatory provisions
- Infrastructure investment

Vertical industrial policy

Vertical industrial policy (or ‘targeted industrial policy’) describes measures in specific sectors or companies. It often aims to strengthen the competitiveness or innovative capacity of companies in selected areas. Instruments used for this purpose include, for example:

- subsidies
- Tax relief for specific companies

3.1.3 Arguments for and against industrial policy

565 The current public debate on industrial policy is less about the ‘whether’ and more about the ‘how’. Indeed, industrial policy interventions can also be justified from a regulatory perspective. However, the interference with free competition that accompanies industrial policy measures requires justification. From the Monopolies Commission’s perspective, interventions should primarily be based on strengthening the long-term viability of the business location and supporting the transformation. In doing so, a clear and verifiable link should be established to remedy a market or trans-

formation failure. Interventions, on the other hand, which are primarily aimed at preserving economic structures, should be rejected.⁶⁸ This is discussed in more detail in section [73.2](#).

566 From a competition perspective, horizontal industrial policy measures are largely uncontroversial and to be welcomed. Consistent enforcement of competition rules, simplification of regulatory requirements and the removal of bureaucratic barriers benefit all businesses and strengthen the business location. The primary focus here should be on promoting innovation in future-oriented sectors and facilitating market entry. This is because the analysis in section [71.3](#) in [Chapter 1](#) of this main report shows that the high-tech industry in particular is recording significant productivity gains and is able to hold its own in international competition.

567 From a competition perspective, vertical measures are more problematic. They interfere more heavily in individual markets, serve to promote individual sectors or even specific companies, and thus carry the risk of distorting competition. However, effective competition is the foundation of a high-performing and innovation-friendly economy. Vertical interventions can reduce incentives for efficiency and innovation. In certain situations involving market or transition failures, however, such measures may also be justified. This is outlined below. In section [73.1.4.3](#), the Monopolies Commission makes recommendations on how vertical industrial policy and competition policy can be used in a complementary manner.

3.1.3.1 Reasons for vertical industrial policy

568 The following section identifies reasons that contribute to addressing the challenges outlined above – global uncertainties, a lack of innovation, and transformation – and which can be drawn upon to justify vertical industrial policy measure. Economic reasons lie primarily in the areas of externalities and transformation failure (see [Box 3.3](#)). Furthermore, vertical measures may aim to achieve other policy objectives, such as strengthening the resilience of supply chains or enhancing defence capabilities (Federal Ministry for Economic Affairs and Energy, 2025). Such measures are briefly discussed in section [73.1.4.3](#). They are not examined in greater depth in this report, although links to economic reasons can also be identified here.

569 Externalities can have both positive and negative effects. Positive externalities are particularly relevant within the innovation system. If, for example, the respective Member States only take into account the national impacts of innovation activities, these activities may be insufficient from a pan-European perspective (see [Box 3.3](#)).

⁶⁸ See also, in this regard, Article 173 TFEU, which places measures taken by the EU and the Member States to promote competitiveness within the context of competitive markets.

Cross-border or pan-European funding programmes such as the ‘Important Projects of Common European Interest’ (IPCEI) may therefore be useful in closing the innovation gap identified by Draghi. These are projects that are in the strategic interest of the European Union and can be funded on a cross-border basis, as is currently the case, for example, in the fields of hydrogen or battery production.

Box3.3: Externalities and Transformation Failures**EXAMPLES OF EXTERNAL EFFECTS AND TRANSFORMATION FAILURES****Externalities and knowledge spillovers**

- Externalities arise when market participants do not take sufficient account of the impact of their actions on third parties. They therefore represent a form of market failure.
- Innovation stakeholders are sometimes unable to capture the full macroeconomic returns from their product or process developments if third parties can adopt parts of the innovations at no cost (knowledge spillovers), and consequently engage in R&D activities that are insufficient for society as a whole.
- Industrial policy measures can then aim to achieve a level of R&D activity that is desirable for society as a whole.

Transformation failure

- Transformation failure refers to market, institutional, technological or co-ordinative barriers that arise from the interplay of several market failure processes at the meso-economic level and cannot be overcome by market adjustment mechanisms or decentralised innovation processes. At the same time, they prevent transformative change from taking place or accelerating to a sufficient extent, at a sufficient speed or in the desired direction.
- Possible reasons include a lack of, or unclear articulation of, demand for innovative products or services, as well as technological or regulatory uncertainty.
- Furthermore, due to network and lock-in effects, as well as path dependencies, stakeholders may not be sufficiently able to change direction – for example, if they have specialised in certain technologies in the past or if complementary infrastructure or expertise is lacking.
- Industrial policy measures can aim to enable the state to pool demand, support coordination processes, create spaces for experimentation, or overcome network and lock-in effects.

570 Negative externalities play a major role, particularly in the field of sustainability. Negative externalities occur when the costs of one's own actions, which are borne by third parties, are not adequately taken into account. One example of this is CO_2 emissions from production. Without appropriate policy instruments, firms take only their own costs into account when making production decisions. However, the macroeconomic costs are higher due to externalities – in this case, CO_2 emissions. As a result, from the perspective of social welfare, too much is produced for the market.

571 There are a number of market-based instruments designed to internalise these external effects. This means that these instruments are intended to ensure that social costs and benefits are factored into decision-making. These include, amongst others, a tax on CO_2 emissions and the EU Emissions Trading Scheme (ETS).

572 Acemoglu (2023) also shows that market forces can steer innovation in socially undesirable directions if the results of innovation are accompanied by externalities. As an example, he cites negative externalities in the energy and transport sectors, where fossil fuels cause CO_2 emissions and environmental damage, whilst renewable energies avoid such emissions. If the market fails to price in this damage, innovation will be disproportionately focused on fossil fuel technologies. Conversely, if the market fails to adequately price in positive externalities, there may be insufficient innovation, for example in the healthcare sector. Accordingly, it is no longer sufficient to boost innovation through industrial policy support measures. The state must also steer the economy in the right direction (Acemoglu, 2023; Mazzucato, 2013).

573 In addition to these and other instances of market failure, a 'transformation failure' may also justify vertical industrial policy interventions. As already mentioned above, many industrial companies are caught in the so-called 'mid-tech trap'. Investment is therefore concentrated predominantly on mature technologies and sectors and, by international standards, too little on future technologies and growing high-tech sectors (Elspaß et al., 2025; Fuest et al., 2024). Path dependencies and specialisation can lead to a failure to transform by making it difficult for companies and sectors to adapt to changing market conditions. Such lock-in effects make it difficult for companies to embark on a different path towards socially desirable transformation goals. In this case, it may make sense to provide transitional support for certain technologies.

574 Even if companies or sectors lack the necessary infrastructure to develop and produce new products or services, it can be difficult to adapt to changing market conditions. Here, too, it may be necessary for the state to provide financial support for the development of the infrastructure. The Draghi Report, for example, recommends promoting infrastructure to decarbonise the economy.

3.1.3.2 Arguments against vertical industrial policy

575 However, vertical industrial policy measures can also entail macroeconomic disadvantages. This is particularly true when they lead to distortions of competition and thereby weaken long-term innovation dynamics. Effective competition is, after all, the guarantor of competitiveness. It is the driver of productivity and innovation dynamics in the markets (Monopolies Commission, 2025b).

576 One example of competition-distorting measures is support schemes designed to assist individual companies designated as ‘national’ or ‘European champions’. However, even measures with a broader scope can lead to distortions of competition, for example when specific sectors are promoted or when, due to the design of the subsidy scheme, only certain companies benefit from the support measures. A typical problem here is that state subsidies and other support measures tend to favour large companies over small ones. This can lead to distortions of competition and thus dampen the dynamics of productivity and innovation in the markets.

577 According to the Federal Government’s 30th Subsidy Report, the total amount of all state financial aid is set to rise to EUR 77.8 billion annually by 2026 – an increase of 33 billion compared with 2023 (Federal Ministry of Finance, 2025). The Monopolies Commission has, on several occasions in the past, expressed criticism of subsidies, particularly those for individual companies (Monopolies Commission, 2020, para. 761). Above all, it sees the risk of misallocation of resources and an impediment to structural change. Furthermore, industrial policy measures entail governance problems.

578 Supporting individual sectors or technologies carries the risk of misallocation through a ‘presumption of knowledge’ (Hayek, 1996). This can lead to support being given to technologies that subsequently prove to be inferior, or to companies whose business model is not sustainable. The state faces a significant information problem in this regard. It does not possess all the information needed to foresee how supply and demand will coordinate, which technologies will prevail and which will fail. Fundamentally, the market processes all this information and determines the success or failure of companies or technologies. Competition acts as a selection mechanism here. Efficient firms offering products or technologies in demand on the market drive out inefficient firms. The result is an increase in overall economic productivity (Ahn, 2002).

579 If this selection mechanism is hindered by government support measures, unproductive firms that are essentially unviable may remain in the market. In economic

research, the term ‘zombie firms’ has become established to describe this phenomenon (Caballero et al., 2008). These firms tie up economic resources – including labour and capital – that could be put to more productive use elsewhere. The OECD sees a link between weak productivity growth in OECD countries and the continued existence of ‘zombie firms’ (Fontoura Gouveia/Osterhold, 2018).

580 Competition for new ideas or technologies requires the destruction of old structures in order to create something new (so-called ‘creative destruction’ according to Schumpeter). It should therefore be possible to exit the market at any time in order to redirect economic resources towards new, innovative firms (Podszun, 2023). According to the OECD, the continued existence of zombie firms hampers the growth of other firms, particularly the most productive ones, and impedes the reallocation of resources within the sector.

581 Where support measures are on the table, it is worthwhile for companies and business associations to devote resources to benefiting from these measures. However, this ‘rent-seeking’ is generally unproductive (del Río, 2021). Furthermore, large companies have correspondingly greater resources to invest in rent-seeking, for example by employing entire lobbying departments. Smaller firms, by contrast, often lack these capacities. This can result in large firms ultimately benefiting disproportionately from vertical measures, thereby further distorting competition.

582 Furthermore, industrial policy measures are influenced by political realities. The implementation and effectiveness of industrial policy are subject to several governance constraints (Juhász et al., 2024). The choice of industrial policy instruments is the result of a political process that is compromised by the fact that policymakers are often primarily concerned with their re-election. This can lead to measures being geared towards interests which, whilst increasing the likelihood of re-election in the short term, result in inefficient outcomes in the long term. The consequences of such misguided decisions – such as reduced innovation momentum in the long term – are far-reaching and lie in the future. Those who bear the brunt of such measures – primarily taxpayers – are typically less able to organise themselves than the short-term beneficiaries, who, as mentioned above, have incentives to invest in rent-seeking. Furthermore, as the negative consequences lie in the future, current decision-makers do not bear the risk of making poor decisions. Furthermore, the consequences of poor decisions in the future can rarely be clearly attributed to specific poor decisions made in the past.

583 Policymakers may therefore have an incentive to grant subsidies to maintain existing structures rather than to support as yet uncertain future sectors. Even if some undesirable developments are recognised in hindsight, subsidies that have already

been granted are difficult to withdraw, as those benefiting from them are often well organised. Industrial policy measures in the field of energy-intensive industries are a prime example of these developments, as discussed in section 7.3.2.

584 Consequently, industrial policy places high demands on governance (Bartleska/Englmaier, 2025). It faces specific political challenges that can undermine its effectiveness. Measuring success is often difficult, which can lead to programmes being continued inefficiently. Furthermore, the termination of programmes frequently meets with even greater resistance from lobbyists than the introduction of new ones, meaning that subsidies are often politically entrenched.

585 Coordination and information problems within government departments can result in funding being awarded more readily to companies that have, in the authorities' view, successfully lobbied, rather than to those that would be better suited to achieving the policy objectives. Bureaucratic application procedures can deter such better-suited companies from applying for funding.

3.1.4 Competition-oriented industrial policy

3.1.4.1 Utilising horizontal instruments: completing the single market, strengthening competition policy, taking a coordinated approach

586 A large proportion of the challenges described above stem from the European Single Market, which remains too fragmented in many areas, as Letta (2024) clearly emphasises. The Monopolies Commission recommends that the Federal Government play an active role in completing the Single Market within the European Union, so that the positive effects of competition in these and other areas can be fully realised.

587 Various studies show that the innovation gap stems primarily from the fact that research projects are not sufficiently integrated at European level, funding channels are fragmented, and the Europe-wide scaling up of innovation outcomes is often hampered by differing regulations (European Commission, 2025c; Schiersch, 2025). In the 'Compass for Competitiveness', the European Commission has announced a 'European Innovation Act', which, as a horizontal, cross-sectoral legal framework, is intended to address these and other structural weaknesses in the European innovation system (European Commission, 2025a). As a cross-cutting regulatory instrument, it is intended, for example, to harmonise the regulatory framework for innovation and to facilitate the Europe-wide commercialisation of results. Consultations on specific measures took place last year and are currently being evaluated by the European

Commission. Such horizontal instruments, which create better framework conditions for all businesses, are to be welcomed.

588 As the Scientific Advisory Board to the Federal Ministry for Economic Affairs and Energy has already emphasised, the transformation of the economy towards climate neutrality and the reduction of dependencies can also be achieved more cost-effectively through European coordination than through unilateral national action (Federal Ministry for Economic Affairs and Energy, 2025).

3.1.4.1.1 Strengthening competition policy as an indispensable part of industrial policy

589 The Monopolies Commission regards competition policy as an indispensable component of industrial policy. Empirical studies show that transparent and reliable enforcement of competition rules safeguards competitiveness and innovation capacity in the long term. The more effectively the market power of firms is curbed, the stronger the growth in productivity in the respective sectors (Buccirossi et al., 2013). Empirical research also shows that industrial policy is most successful when it is designed in accordance with competition principles (Aghion et al., 2015; Carballa-Smichowsk/Lianos, 2025; Piechucka et al., 2024). A competition-compliant approach keeps markets open, safeguards the momentum of innovation and is also an effective means of addressing governance issues and the influence of lobby groups (so-called ‘regulatory capture’).

590 At the same time, competition policy within the single market is constantly facing new challenges. The growing dominance of digital conglomerates or the increasing subsidies for companies in third countries mean that adjustments to competition policy must also be considered. The Monopolies Commission is actively involved in these discussions and, most recently, set out recommendations for stronger enforcement of European competition law in its 14th Policy Brief (Monopolies Commission, 2025b).

591 The debate on the relationship between competition policy and industrial policy often centres on subsidies for companies from third countries. The European Commission has already responded with instruments such as the EU Third-Country Subsidies Regulation (Regulation (EU) 2022/2560 of the European Parliament and of the Council of 14 December 2022 on third-country subsidies distorting the internal market. Official Journal of the European Union L 330/1 of 23 December 2022, 2022), which aim to eliminate distortions of competition caused by third countries (Monopolies Commission, 2020). However, there are still gaps in protection in this context, for example for companies exporting from Europe. These companies are at a disadvantage when competing with subsidised companies from third countries (Federal Ministry for

Economic Affairs and Energy, 2025). Consequently, there are occasional calls to relax state aid controls for European companies in order to facilitate subsidies for them as a countermeasure to third-country programmes.

592 The Monopolies Commission rejects such plans to expand vertical industrial policy measures. Strict control of state aid at EU level should be maintained. Improving international competitiveness cannot be achieved by weakening domestic competition, for example by relaxing state aid controls. The Monopolies Commission considers horizontal measures, which aim to create a level playing field and equal competitive conditions for all undertakings, to be clearly preferable. Vertical measures, which are intended solely to compensate for shortcomings in the general framework and competitive conditions, should be rejected. Vertical measures should only be used where they address a clear market or transition failure.

3.1.4.1.2 Embedding measures within a whole-of-government approach

593 Industrial policy measures should be coordinated across all relevant policy areas. Policy should therefore pursue a so-called ‘whole-of-government’ approach, in which all relevant authorities work together to pursue a common strategy and objectives and to ensure that all aspects of a policy or programme are covered (Bräuer, 2026).

594 For example, industrial, competition and trade policies should be coordinated with one another. If distortions of competition arise in relation to third countries, it may be more advantageous to conclude preferential trade agreements with these third countries in order to establish fair competitive conditions, rather than using vertical industrial policy instruments to offset the distortions of competition. The trade policy of the EU Member States falls within the competence of the European Union (Article 207(1) of the Treaty on the Functioning of the European Union (TFEU) in conjunction with Article 3(1)(e) TFEU), which is thus better placed to coordinate this at a pan-European level. By contrast, the use of vertical industrial policy instruments carries the risk of further distortions of competition within the single market, misallocations and perverse incentives, and also leads to increased fiscal burdens. Furthermore, responsibility for industrial policy often lies with the Member States, creating the risk of inefficient duplication of structures.

595 Such a ‘whole-of-government’ approach by the EU therefore enables better coordination of resources and expertise, whilst at the same time preventing fragmentation of the single market. However, there are considerable challenges in terms of practical implementation. One of the greatest challenges is coordination between the various government departments and ministries, which often have differing interests and

priorities. In the field of industrial policy in particular, responsibilities are frequently fragmented across several departments. Accordingly, in its coalition agreement, the Federal Government has agreed on ‘cross-departmental strategies’ in the field of industrial policy (CDU, CSU and SPD, 2025, p. 57).

596 In this context, Barteska and Englmaier (2025) point to conflicts over jurisdictional boundaries and friction between ministries, which cannot be overcome by organisational restructuring alone. The establishment of a more strongly coordinating institution appears necessary here. An example of this was provided by the US government with Executive Order 14036 of 9 July 2021, through which President Biden launched a cross-departmental strategy to strengthen competition in the US domestic market. The order requires more than a dozen federal agencies to take concrete measures to combat anti-competitive practices and promote open markets, and coordinates these efforts through a specially established White House Competition Council (Duso/Peitz, 2025). Accordingly, the ‘Compass for Competitiveness’ envisages a more coordinating role for the European Union, which is to be welcomed.⁶⁹ It remains to be seen how this will be put into practice.

3.1.4.2 Industrial policy should be clearly geared towards addressing market and transition failures

597 As outlined above, the use of vertical industrial policy instruments may be justified to achieve certain policy objectives. The Monopolies Commission recommends that, as a first step, these objectives be defined in advance within a broader industrial strategy. The objectives should clearly address the rectification of any market and transition failures in strategically important sectors. Other objectives may also be legitimate. These should be negotiated through the political process. A second step should then involve selecting the sectors or companies that are to benefit from vertical industrial policy measures. The Monopolies Commission recommends selecting sectors that provide a strong impetus for macroeconomic efficiency, particularly those that generate significant spillover effects. Finally, in a third step, suitable measures must be identified. The Monopolies Commission recommends clearly prioritising the principle of competition in this regard and awarding subsidies largely on a competitive basis.

⁶⁹ Spain provides a European example: under Article 5(2) of Law 3/2013, the competition authority, the CNMC, is legally integrated into regulatory processes as an advisory body on matters of effective competition and may issue opinions on proposed legislation. In addition, it may carry out competition studies and produce reports, as well as challenge subordinate legislation that hinders competition in court. The Spanish model thus demonstrates how competition-related review and advisory functions can be institutionally enshrined. Against this backdrop, the EU’s enhanced coordinating role envisaged in the ‘Compass for Competitiveness’ is to be welcomed; however, its practical implementation remains crucial (OECD, 2025).

598 A clear formulation of objectives is a prerequisite for enabling the administration to achieve the objectives and the sub-objectives derived from them, and to monitor and evaluate the achievement of these objectives, as discussed in section 73.1.4.3. In this context, some also speak of visions or missions (Mazzucato, 2013) and, accordingly, of a mission-oriented industrial policy.

599 Industrial policy measures should focus on strengthening economic efficiency. Industrial policy interventions should therefore be assessed on the basis of whether they are suitable for increasing economic efficiency (Piechucka et al., 2024). If, for example, there are significant knowledge spillovers or substantial path dependencies, industrial policy interventions may be appropriate to rectify market and transformation failures and thereby increase economic efficiency. Ideally, clear and, as far as possible, verifiable evidence should be presented to demonstrate that such a failure exists. A mere assertion should under no circumstances suffice to justify the need for an industrial policy measure.

600 Economic research has thus developed approaches to determine knowledge spillovers empirically. In many cases, inferences about knowledge spillovers are drawn from the number of cited patents (Jaffe et al., 2000). More recent methods also rely increasingly on AI-based analyses, which apply AI models to publication or patent texts to determine the semantic similarity between the documents under consideration and draw conclusions about knowledge spillover from this (Liu et al. 2025). Accordingly, in the view of the Monopolies Commission, industrial policy measures should be directed primarily at research-intensive sectors (Expert Commission on Research and Innovation, 2025).

601 The European Commission’s Framework for State Aid for Research, Development and Innovation (RDI Framework) can provide guidance in this regard. In the RDI Framework, the European Commission has identified a range of R&D measures for which state aid support may, under certain conditions, be considered compatible with the internal market (European Commission, 2022).

602 The ‘New Mission-Oriented Approach’ policy framework takes a different approach and focuses on the major challenges (Expert Commission on Research and Innovation, 2025). To this end, so-called ‘missions’ are formulated and specific transformation targets are set out. Industrial policy or innovation policy measures are then intended to help implement these missions within an appropriate framework.

603 One example of a mission-oriented approach at European level is the European Union’s ‘Horizon Europe’ research and innovation programmes. The EU missions are large-scale initiatives in which clear, time-bound objectives are set to drive targeted

efforts to tackle some of the greatest challenges, such as climate change, cancer and the restoration of the oceans. The programmes pool resources to drive innovation and deliver concrete solutions for the benefit of society (European Commission, 2026).

604 At national level, the Federal Government has set out a mission in the High-Tech Agenda 2025 to make Germany a leading hub for innovation and high-tech industries. One tool for the successful implementation of these missions is to be the selection of ‘key industries’. The Federal Government has set out to strengthen six key industries “that are important for the future”. These include: artificial intelligence, quantum technology, microelectronics, biotechnology, fusion and climate-neutral energy generation, as well as technologies for climate-neutral mobility. In addition, further “strategic research fields” are to be supported, including aerospace.

605 The Monopolies Commission is unable to assess whether these or other industries are ‘important for the future’ or which projects are in the pan-European interest. It can be assumed, however, that the selected industries exhibit greater knowledge spillovers and are capable of making a greater contribution to sustainable transformation than other industries. However, to the best of the Monopolies Commission’s knowledge, the selection does not appear to be based on verifiable and transparent criteria. It therefore remains unclear on what basis individual industries are prioritised and to what extent further political considerations, alongside economic efficiency and transformation objectives, have played a role. As noted above, there is therefore a risk that the sectors selected will not be those that make the most economic sense, but rather those with the greatest lobbying influence. The Monopolies Commission therefore recommends that the Federal Government define clear and transparent criteria for identifying key technologies. At present, such criteria are, at best, applied *ex post* to legitimise the selection, but not *ex ante* to determine which sectors to support.

606 In any case, the selection of sectors or technologies to be supported should be coordinated at European level in order to harness the synergies of the single market. According to EU Research Commissioner Sachariewa, the High-Tech Agenda follows this approach and “is closely linked to the EU’s key priorities” (Representation in Germany, 2025). Another example of this is the Important Projects of Common European Interest (IPCEI). These enable several EU Member States to provide funding for technologies and value chains of strategic importance to Europe.

607 However, new technologies are, by their very nature, fraught with uncertainty. Policy-makers are also unlikely to possess any greater insight (see para. **7578**). They must therefore seek advice from industry and experts when deciding on a course of action. In doing so, however, they must not run the risk of overemphasising the interests of individual companies. The business interest in certain technologies may differ

from the broader economic interest. As noted above, established companies also often have greater opportunities to exert influence (see para. 7581). There is therefore a risk that measures will tend to focus on sectors in which established companies play a greater role. Companies not yet present on the market cannot, by their very nature, be heard. Not least for this reason, the selection process should be designed to be transparent and open to competition.

608 Even if measures already taken do not explicitly aim, in practice, to remedy a market or transition failure, there is often a market or transition failure at the root of industrial policy objectives. Even in a mission-oriented approach, policymakers should identify the economic reasons for the industries' need for support. Firstly, one might conclude that the economic problem does not exist at all, or exists only to a very limited extent. Secondly, if the problem does in fact exist, the affected companies or sectors in which the problem is most likely to occur can be identified. And thirdly, once the problem has been identified, policymakers can find a suitable solution to address it (Piechucka et al., 2023).

3.1.4.3 Aligning policy instruments with competition principles

609 The Monopolies Commission recommends resolving the problems in the selected industries through a competition-oriented, transparent and non-discriminatory process, as outlined below (see also the Expert Commission on Research and Innovation, 2025). To this end, it makes recommendations regarding criteria for the competition-oriented design of industrial policy instruments. Among other things, funding measures should preferably be awarded through competitive procedures.

610 Some of the challenges addressed can be tackled through demand-side instruments. These tend to interfere less with competition than targeted supply-side support for individual companies. Industry, particularly energy-intensive sectors, is undergoing transformation processes towards decarbonisation that remain uncertain. Added to this are further geopolitical uncertainties, such as those arising from fluctuating tariff policies. Securing demand through public procurement can, during the transition phase, be a means of reducing these uncertainties and incentivising investment in sustainable processes (Andreoni, 2016; Chang/Zach, 2018). Public procurement is also a key focus, particularly in the sectors of infrastructure, technology and defence. When aligned with strategic objectives, it can provide a decisive impetus for the creation of new markets (Schnitzer/Weber, 2025; Duso, 2025).

611 Public procurement is thus at the heart of the legislation aimed at accelerating the decarbonisation of industry, the Industrial Accelerator Act (COM(2026)100 – Pro-

posal for a Regulation on establishing a framework of measures for accelerating industrial capacity and decarbonisation in strategic sectors). The Industrial Accelerator Act is a legislative proposal from the European Commission which aims, in particular through public procurement and funding instruments, to boost demand for industrial products manufactured in the European Union. The Industrial Accelerator Act focuses on industries of strategic importance to the European Union's economy that are currently facing intense competition and structural pressure: energy-intensive industries, net-zero technologies (batteries, battery storage systems, photovoltaics, heat pumps, wind power, electrolyzers, nuclear technologies) and the manufacture of automotive components. In public procurement, climate-friendly European goods are to be given priority over products from third countries by means of 'Made in Europe' requirements, whilst companies from third countries with which the European Union has concluded free trade agreements are to be treated on an equal footing with EU companies.

612 The Monopolies Commission expressly points out that such and other demand-side measures must not lead to protectionism (see also section **74.3.3**). Protectionism distorts competition, restricts freedom of choice and ultimately leads to higher prices for consumers. Shutting out international competition will not close the technology gap in the long term. Rather, there is a risk that the gap will widen further if technological competition is weakened.

613 Such programmes, and others like them, should therefore be restricted to strategically important sectors. They should be time-limited and specifically designed to strengthen resilience, for example by enabling companies to build up strategic capacities during the transition phase. Demand-side instruments should also be designed in a way that promotes competition and continue to be subject to European state aid rules (see also Hinz et al., 2025).

614 Supply-side support programmes tend to interfere more significantly with competition. It is therefore all the more important to ensure that the relevant instruments are designed in a competition-oriented manner. The 'balancing test' used in European state aid control can serve as a model for this (Duso/Peitz, 2025). It serves to assess the effectiveness of state aid and to determine whether it distorts competition in the market. A cost-benefit analysis is carried out, weighing up the objectives of the measure – such as supporting the transition – against its potential negative effects on competition. Until the European Commission has declared a subsidy to be permissible, it is unlawful and any implementing measures are void (Article 108(3) TFEU).

615 Specifically, three key questions are examined:

- Is the aid measure necessary to remedy a clearly defined market failure or to achieve a policy objective?
- Is it proportionate, i.e. limited to what is necessary to achieve the objective?
- Do the positive effects of the aid outweigh the distortions of competition it may cause?

616 In the Monopolies Commission’s view, industrial policy measures should be forward-looking. They should be suitable for mitigating or remedying a verifiable market or transition failure. To this end, policymakers should develop criteria (see section [73.1.4.2](#)). Vertical measures should be assessed ex ante for potential competitive consequences. This ‘competition check’ should be carried out by independent external institutions. As with regulatory impact assessments, an assessment should be carried out to evaluate the competitive implications of the proposed measures (see also Duso/Peitz, 2025).

617 Furthermore, both supply-side and demand-side measures should preferably be awarded through competitive procedures. There should be competition to find the best solutions. In the context of the awarding of defence projects, for example, there are doubts as to the effectiveness of competitive tendering (section [72.1.2.2](#)). The procedures should be as unbureaucratic as possible so that start-ups and small and medium-sized enterprises (SMEs) can also participate with minimal barriers to entry. Radical changes to tackle societal challenges are often driven by young companies, which are subject to fewer path dependencies than firms already established in the market. However, a high level of red tape tends to result in large companies being favoured when it comes to funding, as only they have the necessary resources to, for example, submit funding applications. In general, the administrative burden should always be proportionate to the projected efficiency gains.

618 These gains can be substantial. The open innovation competitions run by the Federal Agency for Breakthrough Innovations (SprinD) could serve as a model here. Breakthrough innovations are innovative technologies or products that represent significant progress in a specific field and have the potential to bring about lasting change to society and the economy. In 2024, SPRIND had a total budget of approximately EUR 220 million and focuses on so-called ‘challenges’ – that is, innovation competitions addressing the most pressing societal challenges. More than 230 projects in various fields have already been funded by SPRIND, including in the areas of sustainable energy, cancer research and artificial intelligence.

Box3.4: Competition-oriented industrial policy**CRITERIA FOR COMPETITION-ORIENTED INDUSTRIAL POLICY MEASURES**

- The measure is demonstrably forward-looking and is suitable for increasing economic efficiency.
- The measure is designed in accordance with competition rules; funding is awarded through competitive, transparent and non-discriminatory procedures.
- The measure is as simple and low-bureaucratic as possible, so that SMEs and start-ups can also participate with minimal barriers.
- Binding milestones are defined to evaluate the measure and to terminate it in the event of a negative assessment.

619 The SPRIND Freedom Act, which came into force on 30 December 2023, has given the agency greater flexibility and autonomy. It can now provide funding and invest more agilely without the need for federal intervention, as the legal and financial framework has been relaxed. Furthermore, it can now utilise private-sector funding to promote innovation and take equity stakes in companies and start-ups. There are also exemplary initiatives at international level, such as the US ‘Defence Advanced Research Projects Agency’ (DARPA), the ‘Israel Innovation Authority’ (IIA) and the Japanese programme ‘Impulsgebender Paradigmenwechsel durch disruptive Technologien’ (Im-PACT) (Hansmeier/Koschatzky, 2021).

620 The implementation of industrial policy measures requires not only clear objectives, but also ‘state capacity’ and the ability of the administration to implement the objectives effectively (Barteska/Englmaier, 2025; Juhász et al., 2024). If the administration lacks sufficient expertise in this area, there is a risk that industrial policy will lead to inefficient outcomes, for example due to a lack of resources, a lack of coordination between different authorities and institutions, a lack of specialist knowledge, and the influence of interest groups mentioned above. Accordingly, it is necessary to structure the administration independently of the influence of interest groups in order to avoid one-sided favouritism towards certain companies at the expense of competition. To this end, the size of the administration does not necessarily need to be increased. What is required are effective and efficient processes, implemented by expert staff, so that an assessment can be made of which companies are, in principle, eligible for support and how the support programmes should be tailored.

621 The effectiveness of industrial policy instruments cannot be reliably predicted. This is particularly true when the paths of transformation are still uncertain. Accordingly, instruments should be developed that allow for controlled experimentation. So-called ‘real-world laboratories’ are a welcome approach.

Box3.5: Real-world laboratories



REAL-WORLD LABORATORIES: A SPACE FOR INNOVATION

A real-world laboratory is an experimental space in which innovative ideas and technologies are tested and developed in real-world situations under the supervision of the authorities. It serves to test the practical viability of new concepts and technologies and to improve the regulatory framework.

Examples:

- Real-world laboratory for the energy transition: Innovative technologies in the energy sector
- Lower Saxony Test Bed: Automated and connected mobility
- Smart City Hamburg: Digital tools to enhance citizen participation in

622 Given these uncertainties, time limits (‘sunset clauses’) and milestones for reviewing effectiveness should also be built in from the outset. On the one hand, this creates clearly defined opportunities to adjust or terminate measures if the cost-benefit analysis proves unfavourable. On the other hand, it prevents measures from becoming permanent subsidies.

623 Assessing the effectiveness of industrial policy measures involves considerable methodological difficulties. The causal links between the industrial policy instrument and the observed outcome are highly complex, particularly when several instruments are deployed in parallel (Barteska/Englmaier, 2025). Industrial policy should therefore be closely monitored and evaluated using scientific methods. The findings can be used to inform the implementation of future measures.

➤ Recommendations

- Industrial policy measures should primarily aim to improve the general framework conditions, in particular by completing the single market, strengthening competition policy and ensuring European coordination. Unilateral national actions and vertical retaliatory measures in response to international subsidies should be avoided, provided that horizontal instruments can more effectively establish a level playing field.
- The selection of sectors, technologies or companies to receive funding should be based on transparent, ex ante defined criteria and verifiably linked to knowledge spillovers, path dependencies, transformation failures or other clearly defined objectives. Vertical funding should be coordinated at European level and should not serve to safeguard existing structures or individual ‘champions’.
- Funding measures should be awarded simply and efficiently through transparent, non-discriminatory and, as far as possible, competitive procedures, so that SMEs and start-ups can also realistically participate. A competitive impact assessment, cost-benefit analyses, clear milestones, time limits and scientific evaluations are required to avoid permanent subsidies and misallocations. To this end, clear objectives and milestones should be set out in a binding manner, with progress towards them subject to verification.

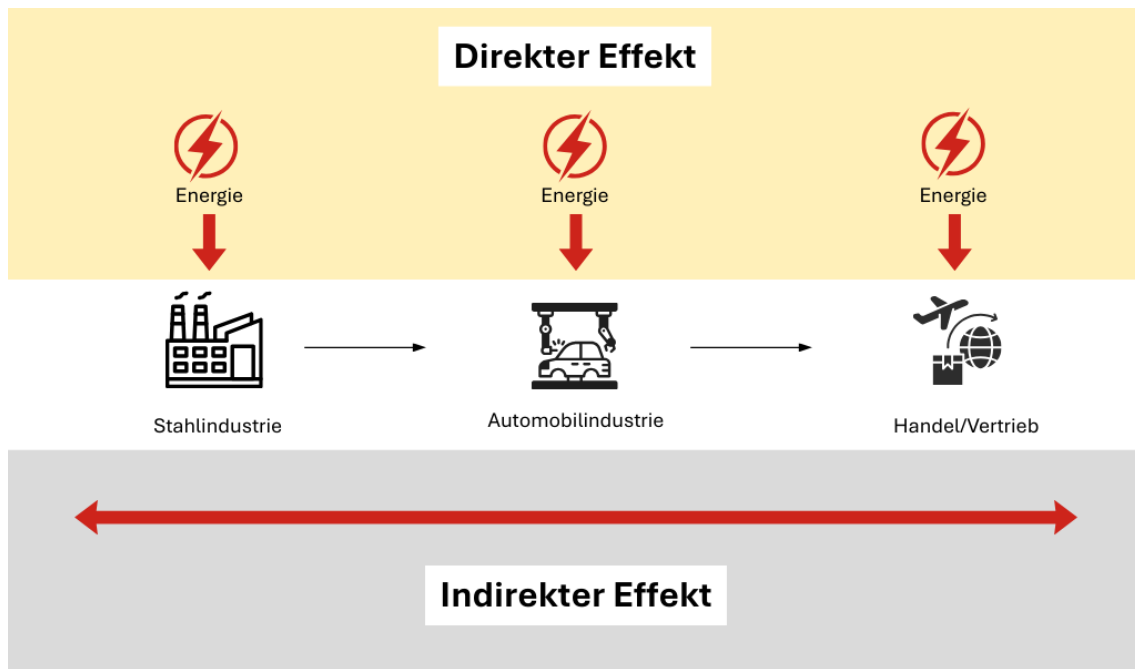
3.2 Electricity prices as a special case in industrial policy

624 Industrial policy interventions in the electricity market, both horizontal and vertical, have both direct and indirect effects on market participants. Direct effects occur when a market participant’s production changes as a result of industrial policy interventions in electricity pricing. Indirect effects arise when a market participant’s production changes because 1) the supply from upstream industries changes in response to industrial policy interventions, or 2) the demand from downstream industries or from consumers changes as a result of industrial policy interventions.

625 The extent of these effects depends, on the one hand, on the specific measure and, on the other, on the pass-through of price changes along the respective value chain (see section [3.2.3](#)). The key relationships are illustrated in [Figure 3.1](#) for horizontal interventions and in [Figure 3.2](#) for vertical interventions. The difference between the interventions is illustrated using a schematic value chain comprising three stages: the steel industry, the automotive industry, and the downstream retail and dis-

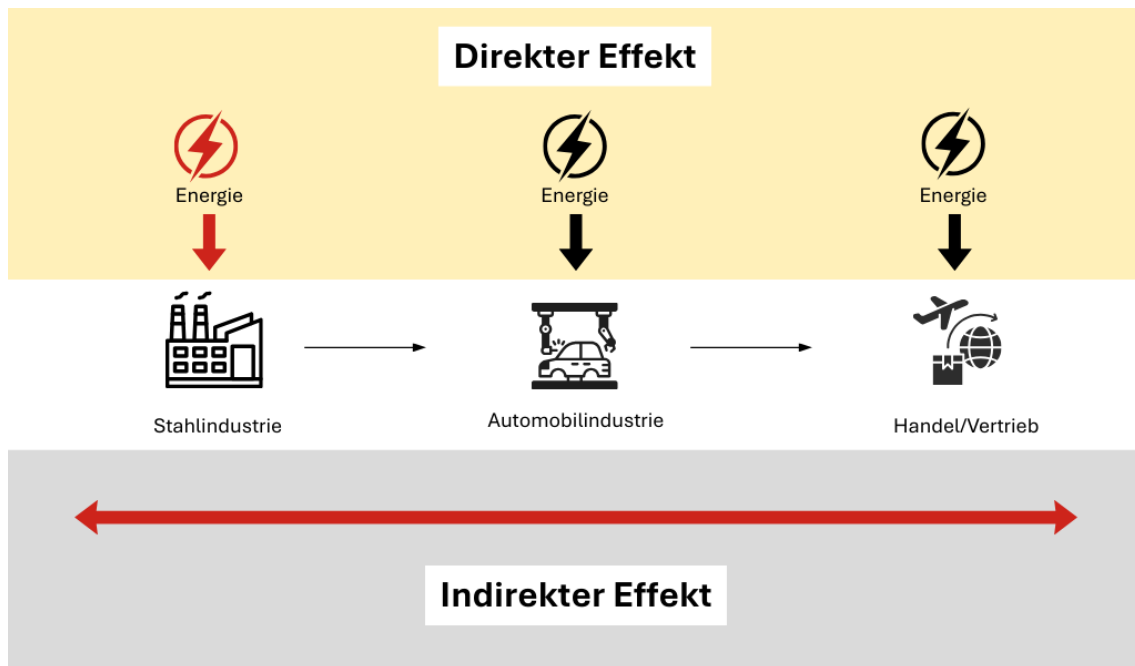
tribution sectors. It should be emphasised here that the value chain shown is representative of various value chains. When assessing the specific direct and indirect effects of a value chain, the specific framework conditions and interactions within the respective industries should always be taken into account.

626 Horizontal industrial policy in energy markets has a direct effect on all stages of the value chain, as all industries use energy as an input factor. In addition to the direct effects, indirect effects may arise which are amplified along the value chain under certain competitive conditions. For example, improved and, where applicable, more cost-effective access to electricity at the steel industry level can influence the prices of steel, which the automotive industry procures as an intermediate input. In this example, the automotive industry is thus affected in two ways: through the direct effect of improved access to electricity and through the indirect effect mediated by changes in the prices of intermediate inputs. The same applies to trade and distribution: in addition to the direct effect of improved access to electricity, indirect effects may arise from the pass-through of price changes, initially from the energy price to the steel price and subsequently from the steel price to the car price. Consequently, horizontal measures may have different indirect effects despite the direct impact being fundamentally the same. The extent to which these effects accumulate at downstream stages depends on the intensity of competition at the various stages and the resulting price pass-through. The more upstream stages an industry has, the greater the multiplier effect of an industrial policy measure may be. This is because, at each upstream stage, changes in electricity costs are factored into the respective prices and passed on to the next stage, so that the original effect can gradually intensify along the value chain.

Figure 3.1: Horizontal industrial policy – electricity markets

Source: Author's own illustration.

627 Vertical industrial policy in the energy market can trigger uneven direct effects. With regard to the steel industry, examples of such measures include instruments designed to benefit energy-intensive industries specifically. Such a measure has a direct impact on the steel industry's production decisions by reducing its imputed electricity costs and, consequently, its production costs. For the automotive industry, as well as for trade and distribution, this measure results in only indirect effects.

Figure 3.2: Vertical industrial policy – the steel industry as an example

Source: Author's own illustration.

628 This example illustrates the complexity of the impact of industrial policy interventions in the electricity market, as all industries use electrical energy as an input factor and are simultaneously organised within value chains. At present, numerous vertical and some horizontal instruments are in operation simultaneously (see section **73.2.2**). Against this background, it is only possible to a limited extent in practice to make an isolated, clear-cut distinction between the direct and indirect effects of individual measures, because the effects of the existing portfolio of measures can overlap and influence one another.

3.2.1 An overview of the electricity market for industry

629 Industry is the largest consumer of electricity, even ahead of private households. In 2025, industry accounted for around a quarter of Germany's total electricity demand. Against this backdrop, industrial companies – particularly energy-intensive manufacturers – are particularly affected by fluctuations in electricity prices. Electricity costs are therefore of crucial importance for decisions on business locations and for companies to achieve their operational objectives. For this reason, this chapter examines the framework conditions and the development of electricity prices for industry.

630 The structure of the following sections is as follows: first, the trend in electricity prices for industrial consumers is presented, and the individual price components are analysed in detail to contextualise the price dynamics (73.2.1.1). Building on this, German electricity prices are assessed as an input factor in an international comparison (73.2.1.3). Finally, an in-depth examination of selected, particularly energy-intensive industrial sectors follows, in order to illustrate the distributional and competitive effects of electricity costs (73.2.1.4).

631 The results highlight the significant steering effect of industrial policy measures: through targeted interventions in price components, relief and support mechanisms, the cost burden on industry can be influenced directly and in the short term. This has corresponding implications for competitiveness, investment and location decisions.

3.2.1.1 Consumers benefiting from preferential prices remain at a higher price level for longer

632 First, the development of electricity prices for industry is examined, differentiated between industries that receive concessions and those that do not. 7Figure3.3 shows the Federal Network Agency’s annual industrial electricity price index, with (blue line) and without (orange line) concessions taken into account.⁷⁰ This index comprises the following components: 1) levies, taxes, network charges and duties, 2) distribution costs and margin, and 3) procurement costs.⁷¹ The index thus serves as an indicator of the average trend in electricity prices for industry.

633 The electricity price indices shown here are not price indices for the same electricity consumers, where discounts are simply added or subtracted on a mathematical basis, but rather two modelled reference cases: ‘without concessions’ represents an industrial consumer not claiming statutory relief, whilst ‘with concessions’ represents a consumer receiving the maximum possible concessions (e.g. on grid charges, electricity tax, concession fees and levies).

634 Against this background, it is firstly apparent that the ‘with concessions’ index rises significantly more sharply than the ‘without concessions’ index up to August 2022 (by around 300 index points). This does not mean that companies benefiting from concessions pay higher electricity prices in absolute terms, but rather that their

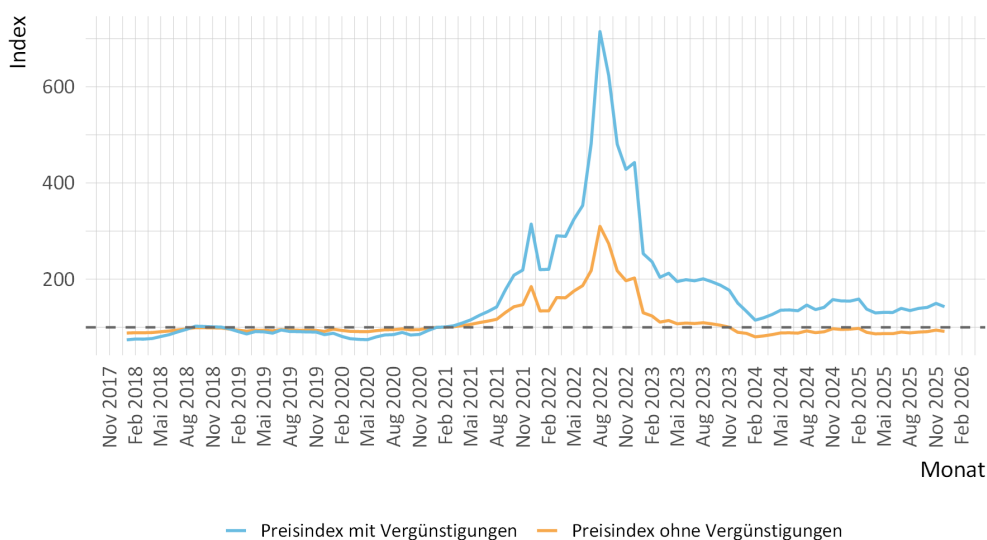
⁷⁰ Concessions include grid access charges, electricity tax, concession fees, the levy under the Renewable Energy Sources Act (KWKG), the offshore grid levy and the levy under Section 19 of the Electricity Supply Ordinance (StromNEV).

⁷¹ Distribution costs and margins are set at 5 per cent of the price. Procurement costs are determined on the basis of the electricity suppliers’ procurement strategies. The prices for various electricity products are weighted in proportion to their share of total procurement.

electricity costs have risen more sharply relative to the base period. One plausible reason is that, for beneficiaries, a larger proportion of the total costs is attributable to the (volatile) procurement component, whilst relief from levies and surcharges has a smaller additional dampening effect.

635 Secondly, the difference between the two reference scenarios has persisted since the series began to diverge in February 2021: whilst the ‘without concessions’ index moves closer to the baseline level (August 2021) again from February 2023 onwards, the ‘with concessions’ index remains above it. Overall, **Figure 3.3** illustrates that even in the reference case of a subsidised, typically energy-intensive industrial consumer, electricity costs remain at a persistently elevated level. In summary, it can be noted that the high level of electricity prices has levelled off significantly since August 2022. However, the level of electricity prices in the reference scenario for subsidised industrial consumers remains above that for non-subsidised consumers.

Figure 3.3: Industrial electricity price indices



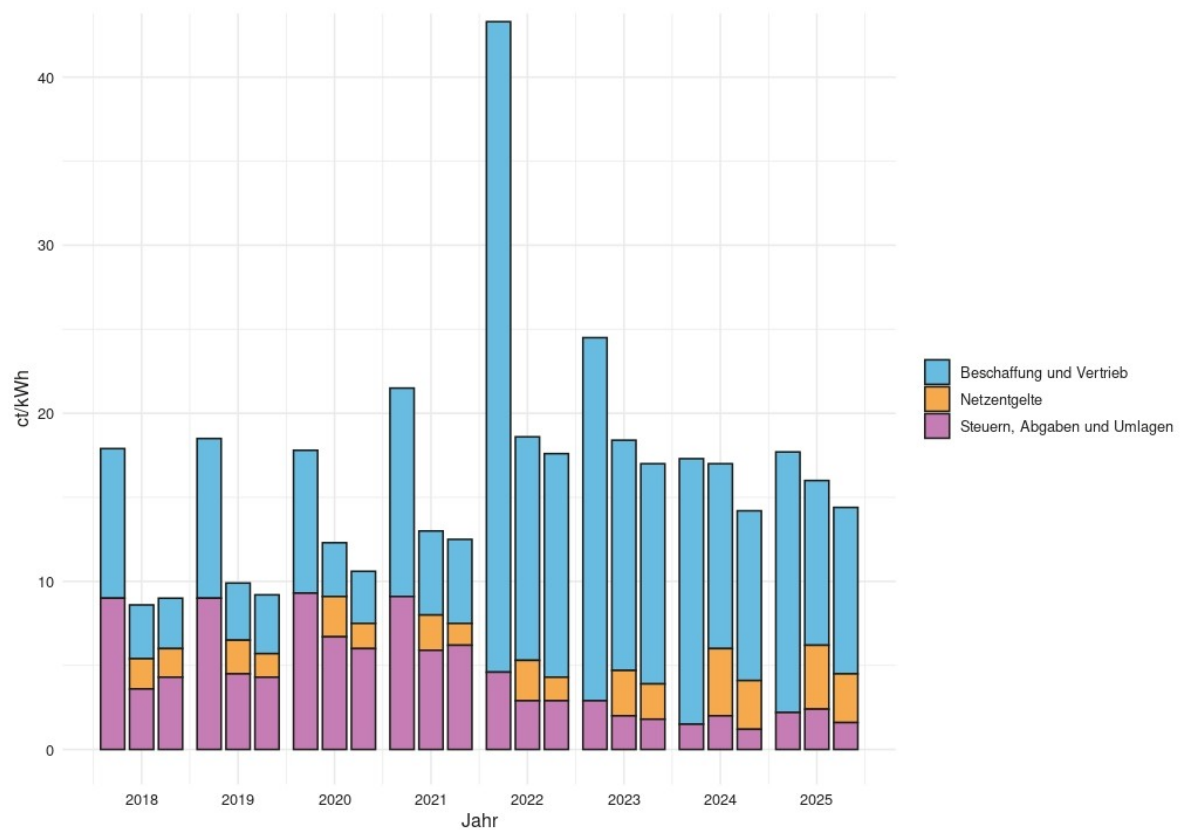
Source: Industrial electricity price index from SMARD (Electricity and Gas Market Data for Germany), Federal Network Agency, 2026. The index value is calculated using January 2021 as the base month.

636 Both indices show a relatively stable price level between January 2018 and February 2021. The enormous price variation over the following two years, between February 2021 and February 2023, is attributable to the volatility of gas prices and gas availability. Events such as the start of Russia’s war of aggression against Ukraine in February 2022 and, above all, the halt in gas supplies from Russia from August 2022 onwards led to a massive rise in the price of electricity as an input factor. In the merit order, gas-fired power stations – typically used as peak-load plants – are frequently deployed to meet the final unit of demand, as they are highly flexible but have high

marginal costs compared to other electricity producers. Gas-fired power stations thus often play a price-setting role; a rising gas price therefore leads to a general increase in the electricity market price.

637 At the same time, a similarly steep decline in both price indices can be observed after August 2022. To assess this development, the composition of electricity prices from **Figure 3.4** and the proportionate composition of taxes and levies from **Figure 3.5** are examined.

Figure 3.4: Electricity prices by consumption bracket



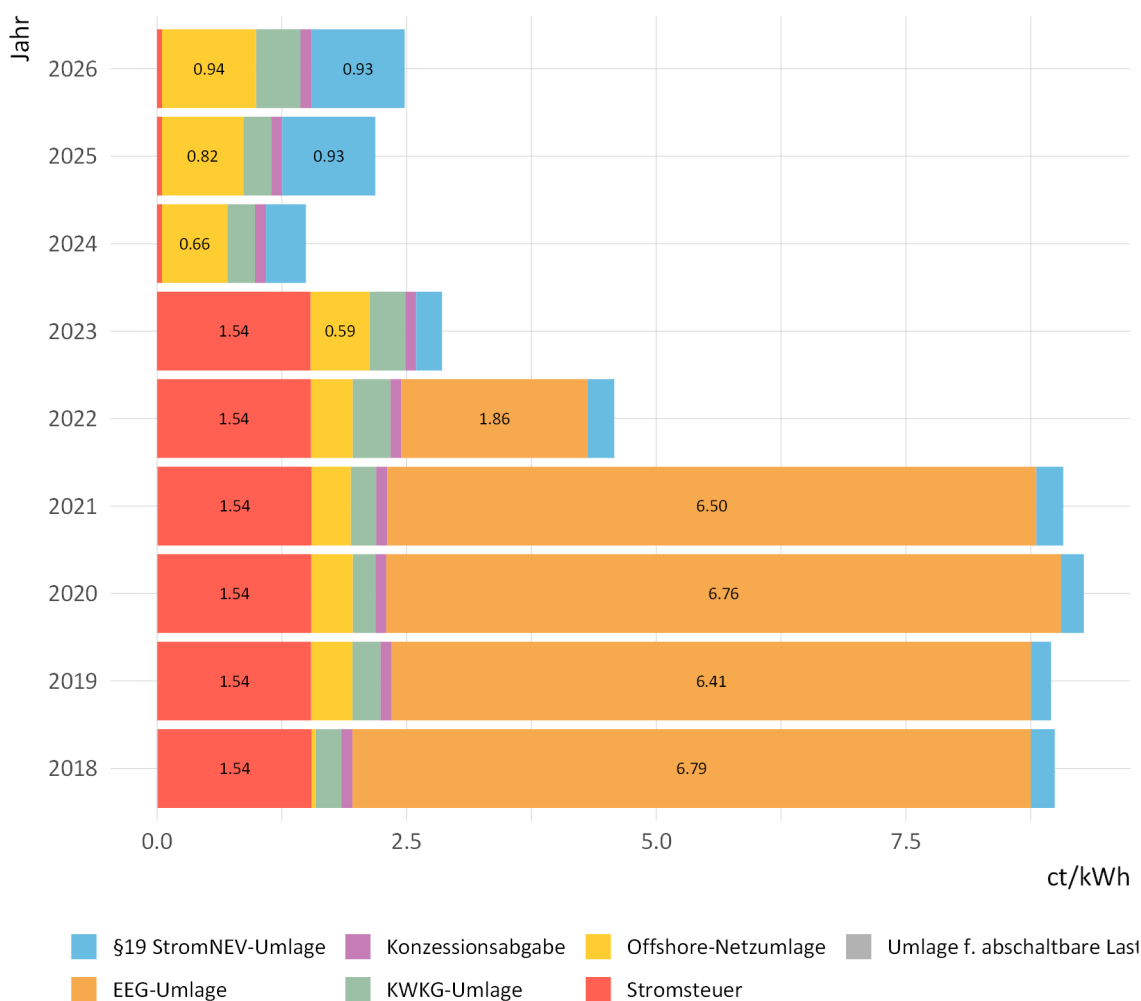
Source: BDEW, 2026. The bars for each individual year show, from left to right, the price for businesses with consumption of: 160,000 to 20 million kWh; 20 million to 70 million kWh; 70 million to 150 million kWh. For the consumption category 160,000 to 20 million kWh, grid charges are included in the 'Procurement and Distribution' price component. Electricity prices calculated for new contracts, including reduced electricity duty. Industries with an annual consumption of between 160,000 and 150 million kWh and supplied via the medium-voltage grid. Supply in the base year.

638 **Figure 3.4** shows the trend in average electricity prices for new contracts taken out by businesses between 2018 and 2025, for different consumption categories with annual consumption ranging from 160,000 to 150 million kWh. In 2025, the average electricity price ranged between 14.4 and 17.7 ct/kWh, depending on the consump-

tion category. The sharp rise in electricity prices in 2022, particularly for the consumption category below 20 million kWh, was due to the gas crisis. Since then, prices have been falling, partly as a result of a reduction in taxes, levies and surcharges.

639 To put the decline in expenditure on taxes, levies and surcharges (purple bars) observed since 2021 into context, these are broken down into their individual components in **7Figure3.5**. The levy burden on businesses had already fallen significantly in 2022 due to the reduction in the EEG levy. In 2023, the EEG levy was abolished entirely. Furthermore, in 2024, the electricity tax was reduced, which was offset by a simultaneous slight increase in the StromNEV levy and the offshore grid levy.

640 The interplay between the various taxes, levies and charges, as illustrated, and their composition over time, directly influence the level of electricity prices. In conjunction with changes in the cost shares arising from procurement and grid charges (**7Figure3.4**), it becomes clear that electricity prices are largely determined by components that vary over time.

Figure 3.5: Taxes and levies (small to medium-sized enterprises)

Source: BDEW, 2026. Taxes and levies calculated for new contracts, including the reduced electricity tax. Industries with an annual consumption of between 160,000 and 20 million kWh and medium-voltage supply. Supply in the base year.

3.2.1.2 Direct and indirect interdependencies of electricity consumption in industry

641 Modern economies produce a wide variety of goods, some of which involve long and highly complex production chains comprising raw materials, intermediate and final products. There are numerous interdependencies and linkages between individual products and sectors. Changes in the cost of production inputs, such as electricity, in individual sectors can therefore cause unexpected effects that impact the production processes and outputs of sectors that appear unaffected, and ultimately affect the economy as a whole.

642 By analysing these interdependencies, it is possible to determine which sectors, overall, consume particularly large amounts of electricity. The proportion of indirect electricity consumption is particularly significant in this regard. Many sectors not only use electricity directly in their production processes, but also utilise intermediate products that were themselves produced using electricity. Sectors can therefore engage in energy-intensive production even if they have little electricity in their own input mix, provided they use electricity-intensive intermediate products.

643 Data from the EXIOBASE 3 database was used to analyse these interdependencies (Stadler et al., 2018). **Table 3.1** shows the direct and indirect shares of electricity purchases in the total purchases of intermediate inputs by selected sectors in 2022. The ten sectors of the manufacturing industry with the highest output in 2022 were selected for this analysis. The calculations take into account imports and exports of intermediate inputs and outputs.

Table 3.1: Direct and indirect electricity purchases by selected sectors

Sector	Intermediate inputs in € million	Direct electricity as a %	Indirect electricity as a %	Total electricity as a %	Output in € million
Manufacture of motor vehicles and motor vehicle parts	444,730	0.81%	2.53%	3.33%	539,902
Mechanical engineering	199,873	1.06%	2.89%	3.95%	440,171
Manufacture of metal products	108,245	2.02%	3.55%	5.57%	223,098
Manufacture of plastics in primary forms	77,591	3.98%	2.19%	6.17%	160,254
Manufacture of other food products	127,846	0.45%	2.33%	2.78%	152,805
Manufacture of rubber and plastic products	97,130	2.13%	2.87%	5.00%	149,402
Other vehicle manufacturing	49,928	0.91%	2.56%	3.48%	98,697
Manufacture of other chemical products	61,345	3.76%	2.01%	5.77%	84,775
Petroleum processing	76,128	2.60%	2.10%	4.70%	81,446

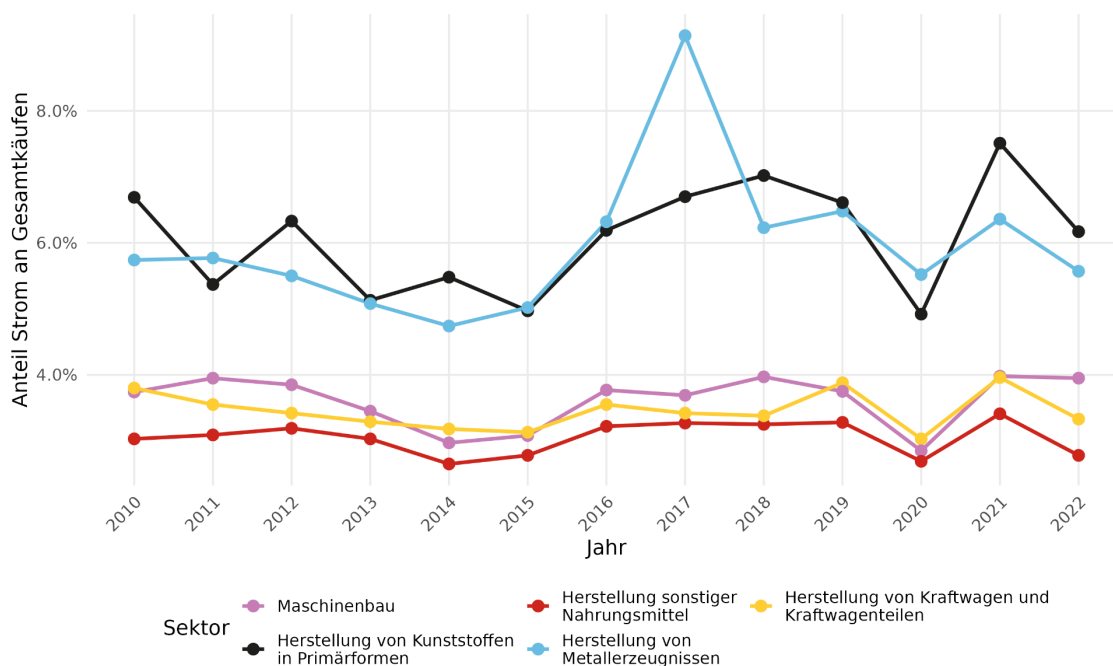
Production of pig iron, steel and ferroalloys	44,442	4.56%	3.23%	7.78%	68,618
Total for all sectors	3,523,632	2.29%	2.28%	4.56%	7,395,355

Source: Author's own table based on EXIOBASE 3 (2018).

644 As the table shows, the share of electricity in total inputs is relatively low in many sectors and is usually well below 5 per cent. Furthermore, the indirect electricity shares – that is, the electricity costs incorporated into the various intermediate products – are similarly high or higher than the direct shares in many sectors. The weighted average across all 163 sectors listed in the data yields a direct electricity share of 2.29 per cent. For the vast majority of sectors, electricity costs are therefore not a significant cost factor compared with other input costs. However, some sectors exhibit significantly higher shares of electricity costs. For example, in 2022, the share of direct electricity costs in total inputs was 15.94 per cent in aluminium production and 15.32 per cent in pulp production.

645 Various factors, such as fluctuating electricity prices and technological developments, can lead to significant shifts in electricity cost intensity over time. **Figure 3.6** shows the trend in the total share of electricity costs in intermediate input costs for the five largest sectors by output between 2010 and 2022. Despite a few outliers, such as in 2020, the cost shares show a largely stable trend.

Figure 3.6: Electricity shares in selected sectors 2010–2022



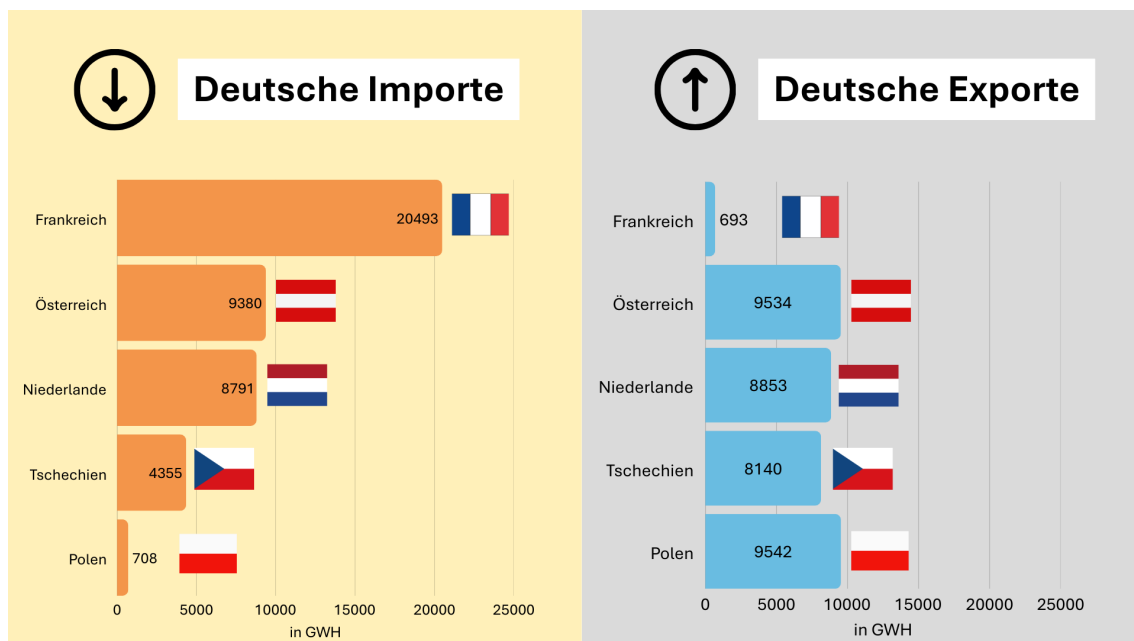
Source: Author's own illustration based on EXIOBASE 3 (2018).

3.2.1.3 Electricity trading and electricity prices in an international comparison

646 Despite the relatively low electricity cost intensity in many sectors, electricity prices and costs are relevant from an economic perspective: on the one hand, as shown in the previous section, there are some sectors with significantly higher electricity cost shares; on the other hand, particularly for industries facing high international competitive pressure, a high electricity price can lead to competitive disadvantages even when the share is relatively low.

647 The development of the industrial electricity price index illustrates that a combination of various influencing factors, such as supply bottlenecks, changes in demand and specific government measures (e.g. the abolition of the EEG surcharge), affect the price level of electrical energy as an input factor. The price level, in turn, has a direct impact on cross-border electricity trading and is also a key factor in international competitiveness.

648 German electricity trade is predominantly concentrated on its immediate neighbouring countries. The five most important trading partners include France, Austria, the Netherlands, the Czech Republic and Poland (see [Figure 3.7](#)). The structure of imports and exports varies significantly depending on the bilateral trade relationship. For instance, in 2024 Germany imported large volumes of electricity from France in particular (20,493 GWh), whilst exports to France were comparatively low among the top five partners (693 GWh). A contrasting pattern is evident in trade with Poland: in 2024, Germany imported the smallest volume of electricity from Poland amongst its top five partners (708 GWh), whilst at the same time Poland was the most important recipient of German electricity exports (9,542 GWh).

Figure 3.7: Germany's trading partners in 2024

Source: vbw Bayern, 2025. Own illustration

649 The composition of electricity prices as an input factor varies between countries, primarily due to national energy policy, different energy sources, varying grid structures and regulation. **Figure 3.8** shows the average electricity price in 2024 for large-scale consumers (load profile 70–150 GWh; these include, for example, steel, paper or chemical companies).⁷² The prices shown do not include VAT or any recoverable taxes. Price levels across Europe vary considerably. The price differences are primarily due to the respective combination of energy procurement and distribution, grid charges, and taxes, levies and surcharges.

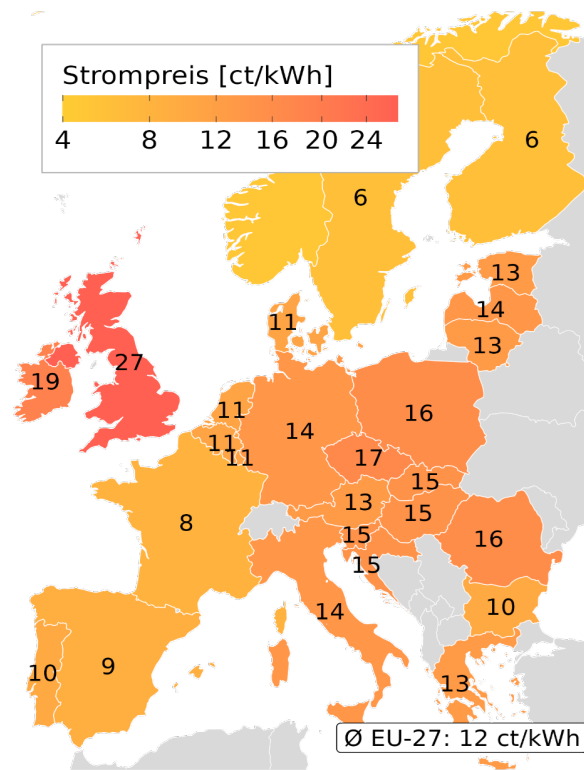
650 The EU-27 average stands at around 12 ct/kWh. Particularly low prices are observed in the Scandinavian countries.⁷³ Larger continental European industrial nations show considerable differences in electricity prices. At 14 ct/kWh, Germany lies slightly

⁷² Direct international comparability of electricity prices is only possible to a limited extent, as reporting formats and survey methods vary between countries, and the transparency of electricity pricing and the definition of load cases differ internationally. The comparison therefore serves solely as an indicative assessment of the price level.

⁷³ Norway, for example, has a price of approximately 5 ct/kWh, whilst Sweden and Finland have prices of approximately 6 ct/kWh. These low prices are primarily attributable to low-cost hydroelectric power and centralised grid systems. Particularly high prices are observed in the United Kingdom (approx. 27 ct/kWh) and Ireland (approx. 19 ct/kWh). Here, a high proportion of gas in the electricity mix, as well as geographically constrained access to the continental European electricity grid, are driving up prices.

above the EU-27 average. Italy and the Baltic states are in a similar range. France, Spain, Portugal and Bulgaria are below the EU-27 average.

Figure3.8: Electricity prices in a European comparison (70–150 GWh)



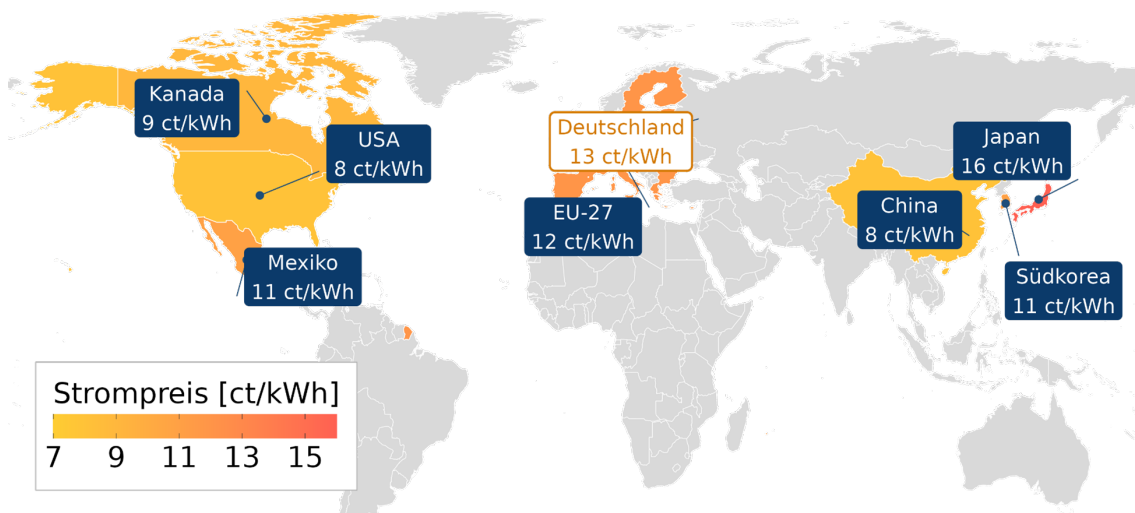
Source: vbw Bayern, 2025. Electricity prices for the 70–150 GWh consumption scenario in 2024.

651 ↗ **Figure3.9** presents an international comparison of prices. For Germany and the EU-27, the top two load cases (70–150 GWh and >150 GWh) are averaged. In this comparison, Germany has an above-average price level. There are also regional price differences within the USA. With an average price level for the US as a whole of approximately 8 ct/kWh, the electricity price in California, for example, stood at around 20 ct/kWh, which is attributable, amongst other things, to an outdated grid structure.⁷⁴ For China, an average electricity price of around 8 ct/kWh is projected for 2024. Compared with the US and Europe, regional price differentiation is less pronounced. Within China, there is relatively little price variation, ranging from 6 to 10 ct/kWh. In China, the electricity mix consists largely of conventional energy sources such as coal, which, combined with low CO_2 prices, keeps the price down.

⁷⁴ In 2024, the US states of Hawaii (32 ct/kWh) and Alaska (18 ct/kWh) also recorded particularly high electricity prices.

652 An international comparison shows that electricity prices vary considerably in some countries. In addition to pure procurement costs, key drivers include, in particular, components influenced by energy and industrial policy, such as taxes, levies and charges, grid fees, support and relief mechanisms, as well as the energy source and generation structure. These price differences have a direct impact on cross-border electricity trade flows.

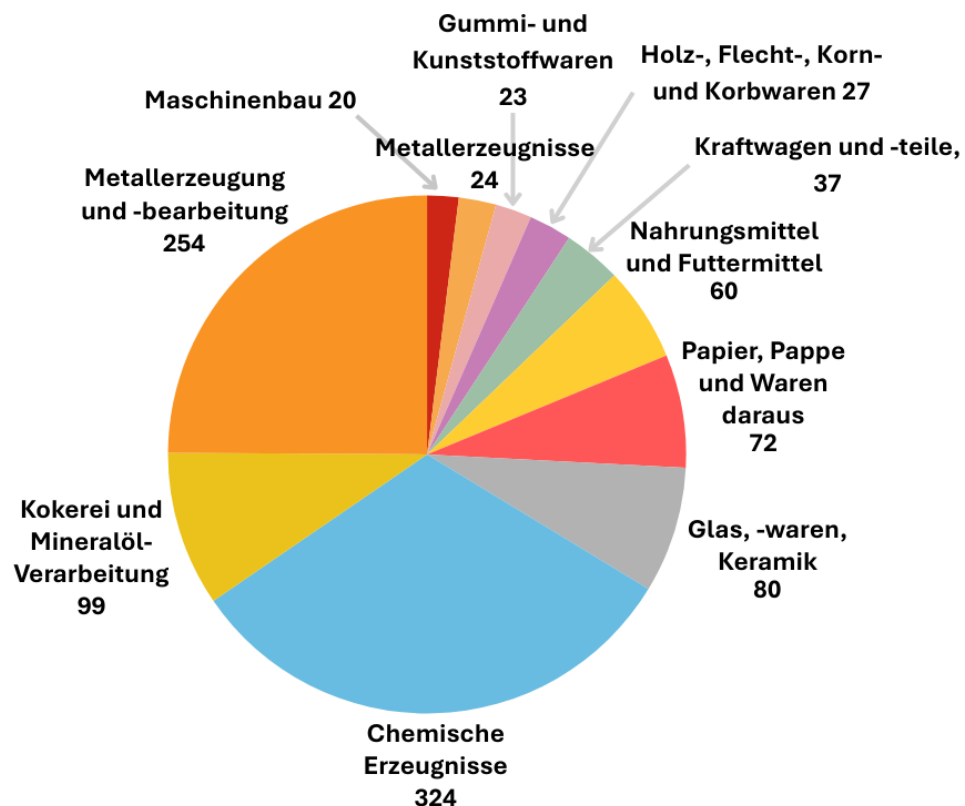
Figure3.9: International comparison of electricity prices in 2024



Source: vbw Bayern, 2025. Average electricity prices in Germany and the EU-27 are averaged across the top two load cases (70–150 GWh and >150 GWh). Figures for the year 2024.

3.2.1.4 Energy-intensive industries – higher energy consumption and a sharper decline in production

653 Within German industry, a particularly high proportion of energy consumption is accounted for by just a few sectors. The manufacture of chemical products is particularly energy-intensive (324 TWh) and is thus on a scale equivalent to the combined consumption of several other industrial sectors (7Figure3.10). This is followed by metal production and processing (254 TWh). Next come coking and petroleum processing (98.7 TWh). The manufacture of glass and glassware, ceramics, and the production of paper, paperboard and products made from them (72.1 TWh) are also energy-intensive.

Figure 3.10: Energy consumption by industry in 2021

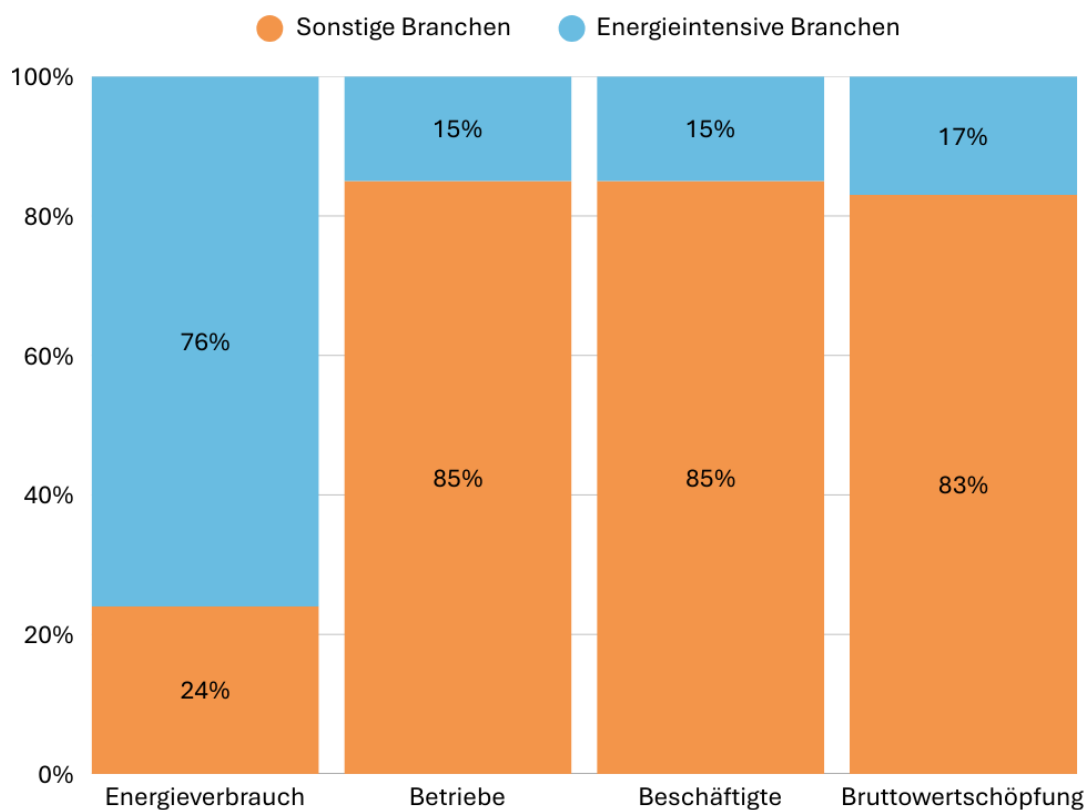
Source: Destatis, 2026a. Author's own illustration. Energy consumption for 2021 in TWh. The chart only includes industries with an energy consumption of at least 19 TWh.

654 Energy-intensive sectors are particularly relevant from the perspective of electricity market and industrial policy for two reasons: firstly, because of the significant concentration of electricity consumption, with around 76 per cent of industrial energy being consumed by just a few sectors. All other sectors combined thus account for only 24 per cent of energy consumption (see **Figure 3.11**). Secondly, it is expected that electricity consumption – and thus the importance of the electricity market within the industrial energy mix – will continue to rise in the future. Dynamic developments on both the supply and demand sides should be taken into account when considering industrial policy measures in the electricity market.

655 Despite accounting for a high share of 76 per cent of energy consumption, energy-intensive sectors currently represent only around 15 per cent of businesses and 15 per cent of the workforce, and generate just under 17 per cent of gross value added in industry. The discrepancy between an industry's energy consumption and its share of total value added is central to the assessment of electricity market-related measures. Price components and relief mechanisms can have a significant impact on

load, production and international competitiveness in a few sectors, whilst the overall economic impact on employment would mainly be indirect, via the value chains.

Figure 3.11: Energy-intensive sectors and other sectors in 2021



Source: Destatis, 2026a. Data for the year 2021. Data are based on the Annual Report on Enterprises in the Manufacturing Sector and in Mining and Quarrying (EVAS No. 42271).

656 It should be noted here that, although energy-intensive sectors account for the majority of energy demand, their total expenditure on electricity within the input mix remains relatively low. In 2022, direct electricity purchases by the five most energy-intensive sectors accounted for only around 3–6 per cent of their total input expenditure.⁷⁵

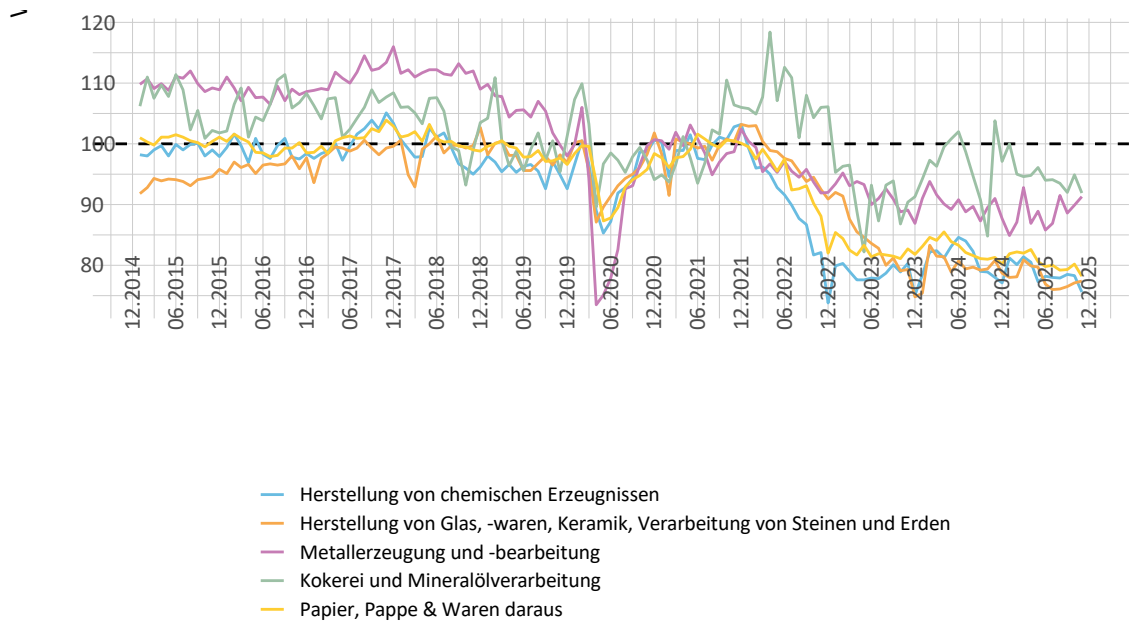
657 A comparison of trends in production and electricity prices shows that the sharp rise in industrial electricity prices from 2021 onwards coincides with a significant and

⁷⁵ The exact percentages for the share of direct electricity purchases in input expenditure for 2020 are: Manufacture of basic metals and fabricated metal products (NACE C24): 6.21 per cent; Manufacture of glass, ceramics, stone and earth products (NACE C23): 2.52 per cent; Manufacture of chemical products (NACE C20): 3.88 per cent, coking and petroleum refining (NACE C19): 2.60 per cent; and manufacture of paper, paperboard and related products (NACE C17): 5.79 per cent. The calculations are based on the Exiobase database, which forms the basis for the analysis in sections [3.2.1.2](#) and [3.2.3](#).

sustained decline in production in energy-intensive industries, with no sign of a corresponding recovery even as electricity prices subsequently fall. **Figure 3.13** shows the production index as the price-adjusted trend in the value of production for energy-intensive industries (blue) and for the manufacturing and mining sectors as a whole (orange).⁷⁶ Both series show a marked slump in spring 2020, at the start of the COVID-19 pandemic, and subsequently tend to recover until summer 2022. Since then, production in energy-intensive industries has been falling steadily again. From December 2021 to December 2025, the decline amounts to around 20 index points. The overall industrial production index also falls over the same period, though only by about half as much, and remains relatively stable during the sharp decline in energy-intensive industries from December 2021 to December 2022. In relation to the electricity price index considered earlier, it is striking that the significant decline in production in energy-intensive industries coincides with the sharp rise in the industrial electricity price index.

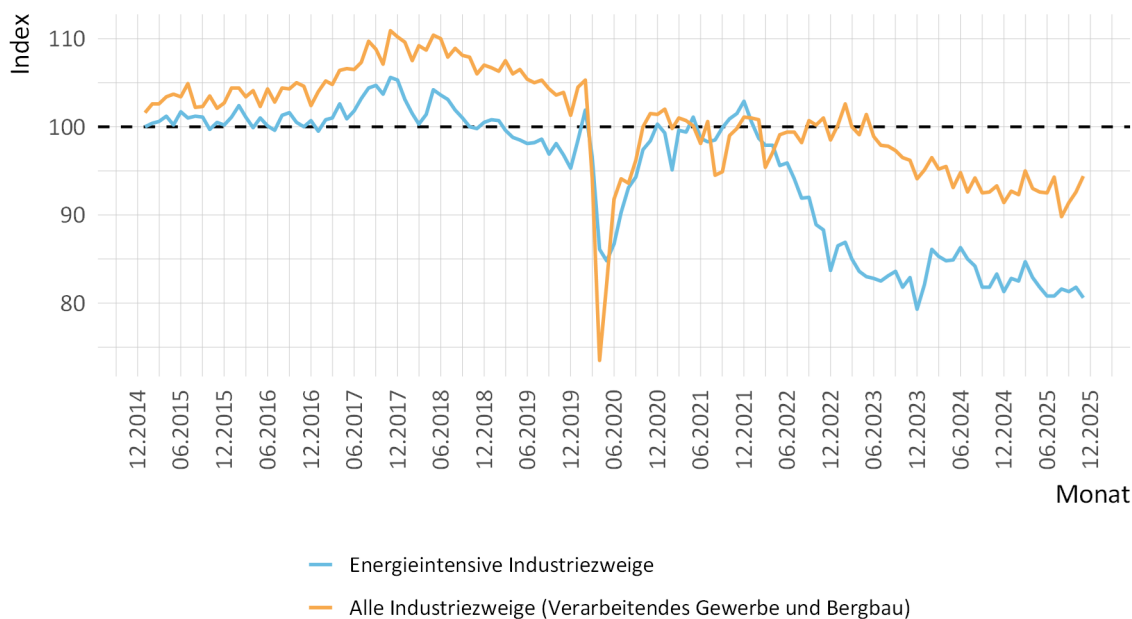
658 However, no symmetrical recovery in the production index is evident, not even during periods of falling electricity prices or in the context of the abolition of the EEG surcharge. This finding is consistent with the micro-econometric analysis in Chapter 1 (section **1.3.1**): there, margins and productivity in energy-intensive sectors fell significantly, whilst employment remained largely stable – a pattern that points to structural adjustment costs rather than a mere cyclical dip, and explains why a recovery has not materialised.

⁷⁶ Energy-intensive industries in this context are: metal production and processing (NACE C24), manufacture of glass, ceramics, stone and earth products (NACE C23), manufacture of chemical products (NACE C20), coking and petroleum processing (NACE C19) and manufacture of paper, paperboard and related products (NACE C17).

Figure3.12: Production index by industry

Source: Federal Statistical Office (2026b). Author's own illustration. The index value is calculated using 2021 as the base year. The index is seasonally adjusted.

659 ↗ **Figure3.12** shows a separate production index for the five most energy-intensive industries, which are summarised in the blue line in ↗ **Figure3.13**. A detailed analysis of the various most energy-intensive industries also reveals a decline in production across all sectors, with the decline being particularly pronounced in the manufacture of chemical products, the manufacture of glass, glassware and ceramics, the processing of stone and earth, and the manufacture of paper, paperboard and articles made from them. The decline in production in coking and petroleum processing, and in metal production and processing, is comparatively small.

Figure 3.13: Production index for various industrial sectors

Source: Federal Statistical Office (2026b). The index value is calculated using 2021 as the base year. The index is seasonally adjusted.

660 A greater reliance on imports may be another factor explaining the decline in production in energy-intensive industries. This correlation is not clearly evident in the data (Figure 3.11). In addition to electricity prices, numerous other factors influence trade and production trends, meaning there is no clear correlation between the sharp rise in industrial electricity prices from 2022 onwards (see Figure 3.3) and rising imports: since 2022, imports have been falling in four of the five sectors. Exports are also falling, with the exception of metal production and processing (Eurostat, 2022). It is striking that the price shock of 2022 coincides with significant shifts in the trade balance, particularly in coking and petroleum processing (-43.18 per cent) and metal production and processing (+45.34 per cent). The drivers differ in their impact: in coking and petroleum processing, the balance is primarily influenced by sharply changing export and import figures, whilst in metal production and processing it rises mainly due to exports growing more strongly than imports.

661 620 A more nuanced analysis of this relationship can be found in Chapter 1 (Section 1.3.2): This shows that higher import intensity in non-energy-intensive industries was associated with more favourable trends, whilst the data for energy-intensive sectors point to possible substitution effects relative to domestic intermediate goods production. This explains why, at the level aggregated on, no clear correlation between electricity prices and imports is evident.

662 The results show that electricity, as a key factor of production in industry, is shaped not only by market prices but also, to a large extent, by price components that can be influenced by industrial policy. The industrial electricity price index rises sharply in 2021–2022 (driven primarily by the gas crisis) and falls again from 2022 onwards, but remains at an elevated level. At the same time, the breakdown of prices demonstrates the effectiveness of government intervention: changes to levies, taxes and network charges have a direct and immediate impact on industrial cost burdens.

663 In an international comparison, electricity pricing thus emerges as the result of various regulatory measures. This has implications for electricity trade and competitiveness. Germany's trade flows respond to price and supply advantages (e.g. when there is a high level of renewable feed-in), whilst European prices vary widely overall and are higher than those in the US or China. Energy-intensive sectors are particularly relevant because they account for a large proportion of industrial energy consumption and are therefore the most sensitive to electricity costs. Since the end of 2021, the production index for energy-intensive industries has fallen much more sharply than that for industry as a whole and is not recovering at the same rate. This suggests that, in addition to price-related factors, persistent cost disadvantages and structural adjustments are also at play.

3.2.2 Subsidy framework poses risks to competition

664 Although electricity prices have stabilised in recent years, Germany remains a location with relatively high electricity costs by EU and international standards (see [7Figure3.8](#) and [7Figure3.9](#)). Combined with similarly high costs for other input factors, such as wages, this exacerbates the structural competitive disadvantage. To strengthen the long-term viability of Germany as a business location, as well as its capacity for innovation and competitiveness, financial support for energy-intensive industrial sectors and trades has therefore long been regarded as an appropriate instrument of industrial policy. This is currently reflected in the debate surrounding the so-called 'industrial electricity price', a subsidy recently introduced by the Federal Government for sectors facing a particularly high 'relocation risk'. This refers to the risk that production facilities may relocate away from Germany and Europe in the face of high energy prices.

665 Various financial relief measures for energy-intensive sectors have been in place since 1999. For example, in 1999, comprehensive relief from energy and electricity taxes was introduced in Germany for the manufacturing sector (pursuant to Section 2(3) of the Electricity Tax Act [StromStG]) to improve competitiveness. This was followed, for instance, by the introduction of the EEG surcharge in April 2000 and the

peak-load privilege for grid charges in 2011. The European Commission has also recognised the need for such relief measures and, as part of its ‘Clean Industrial Deal’ (European Commission, 2025d), has established principles within a new state aid framework (Clean Industry State Aid Framework (CISAF)) designed to simplify the assessment of the compatibility of such measures by Member States under state aid law. In light of the war in Iran and the blockade of the Strait of Hormuz, these regulations were temporarily supplemented by a further instrument (the Middle East Crisis Temporary State Aid Framework (METSAF)), which primarily provides for a temporary extension of certain forms of state aid.

666 European state aid law is an important lever for safeguarding competition within the European single market and also for preventing a subsidy race between Member States. It thus plays a key role in the completion of the European single market (the significance of which has already been discussed in section **73.1.4.1**). Conversely, relaxations in favour of measures to support energy-intensive industries, such as those provided for in the CISAF and now, on a temporary basis, in the METSAF, carry the risk that Member States will no longer compete on the basis of economic locational advantages, but will instead engage in a race to offer the highest level of subsidies.

Box3.6: Industrial Electricity Price**INDUSTRIAL ELECTRICITY PRICE**

The industrial electricity price is a state-subsidised electricity price introduced for energy-intensive companies. It is a short-term measure until long-term structural reforms can bring about a permanent reduction in electricity prices (Federal Ministry for Economic Affairs and Energy, 2026).

Beneficiaries:	<p>Sectors of the economy facing a significant risk of relocation:</p> <ul style="list-style-type: none"> ■ electricity-intensive companies that face international competition and are at risk of relocating to third countries ■ These include 91 sectors, e.g. the metal industry or glass and ceramics manufacturing
Extent of the reduction:	<ul style="list-style-type: none"> ■ Reduction in the electricity price to up to 5 ct/kWh ■ The aid is granted as a non-repayable grant
Eligibility criteria / conditions:	<ul style="list-style-type: none"> ■ Various obligations on the part of the companies: e.g. reinvestment of at least 50 per cent of the aid amount in new and modern facilities to reduce electricity system costs and contribute to decarbonisation ■ Application procedure at the Federal Office for Economic Affairs and Export Control
Total annual costs:	<p>According to estimates, annual costs could amount to between approximately EUR 1.5 billion and EUR 3.1 billion (Matondo, 2025; Energie & Management, 2025)</p>
Timeframe:	<ul style="list-style-type: none"> ■ In force since 1 January 2026 ■ The measure is limited to three years, until 2028
Legal basis:	<ul style="list-style-type: none"> ■ Framework for State Aid in Support of the Clean Industry Deal (CISAF) of 25 June 2026, C(2025) 7600 final ■ Guidelines on the Industrial Electricity Price of 6 May 2026

667 The term ‘financial instruments to support energy-intensive sectors’ is used below to refer to government measures that reduce the price of electricity from the perspective of industrial companies. These include direct subsidies to companies, the amount of which is directly linked to electricity consumption or which are granted on the basis of (perceived) energy intensity. Examples of this include the ‘electricity price compensation’ scheme, which has been in place since 2013, and the industrial electricity price. Furthermore, the state directly influences the level of the electricity price by setting the amounts of the levies, charges and taxes applicable to it, as well as the grid access charges.⁷⁷ Exemptions from these price components, established by the state, also reduce the electricity price in this sense, particularly when they are restricted to certain (energy-intensive) industries. Examples of this include exemptions from the electricity tax for certain sectors (Section 9a of the Electricity Tax Act) and the reduction in the electricity tax rate (Section 9b of the Electricity Tax Act), as well as the capping of various levies and surcharges imposed on the electricity price (see [↗ Box 3.10](#)). In addition, there are government-provided reductions in grid charges, particularly for energy-intensive industries, such as the so-called ‘band load privilege’ (Section 19(2) of the Electricity Grid Regulation (StromNEV)), or direct subsidies to transmission system operators. For a substantive overview of the currently key support instruments, see [↗ Box 3.6](#) to [↗ Box 3.11](#).

⁷⁷ Although grid tariffs are set by the grid operators and thus not directly by the state, the regulatory framework governing them is so strict that grid operators have very little leeway in setting them. The state is already using these rules to provide relief to energy-intensive companies; see below [↗ Box 3.10](#).

Box3.7: Electricity price compensation**ELECTRICITY PRICE COMPENSATION**

Electricity price compensation is a form of state aid. It relieves companies in particularly energy-intensive sectors of the indirect CO_2 costs arising in connection with the European Emissions Trading Scheme. These costs arise because electricity generators purchase CO_2 allowances in the emissions trading scheme and pass on the costs to consumers. Electricity price compensation thus reduces the costs of greenhouse gas emissions passed on to the price of electricity.

Beneficiaries:	<ul style="list-style-type: none"> ■ Manufacturing sector, and in particular energy-intensive industries (Annex 1 to Directive 2003/87/EC) ■ Around 340 beneficiary companies in Germany (Federal Ministry for Economic Affairs and Energy, 2024)
Extent of the reduction:	<ul style="list-style-type: none"> ■ The amount of aid is calculated on a case-by-case basis and takes various factors into account, e.g.: <ul style="list-style-type: none"> • CO_2 emission factor (CO_2 per MWh of electricity) • Price of emission allowances • Production volume
Eligibility criteria / requirements:	<ul style="list-style-type: none"> ■ Requirements for companies: an energy management system and various climate protection and energy measures ■ Application procedure with the German Emissions Trading Authority at the Federal Environment Agency
Total annual costs:	Funding of EUR 4 billion is earmarked for the Climate and Transformation Fund for the year 2026 (German Bundestag, 2025)
Timeframe:	Funding applies to the accounting years 2023 to 2030
Legal basis:	<ul style="list-style-type: none"> ■ Article 10a(6) of Directive 2003/87/EC ■ Electricity Price Compensation Funding Guidelines of 13 March 2024

Box3.8: Reduction in electricity tax**ELECTRICITY TAX REDUCTION**

The electricity tax reduction refers to the reduction of the statutory tax rate on electricity for certain businesses to the EU minimum tax rate. This reduces the non-market components of electricity costs and eases the financial burden on businesses.

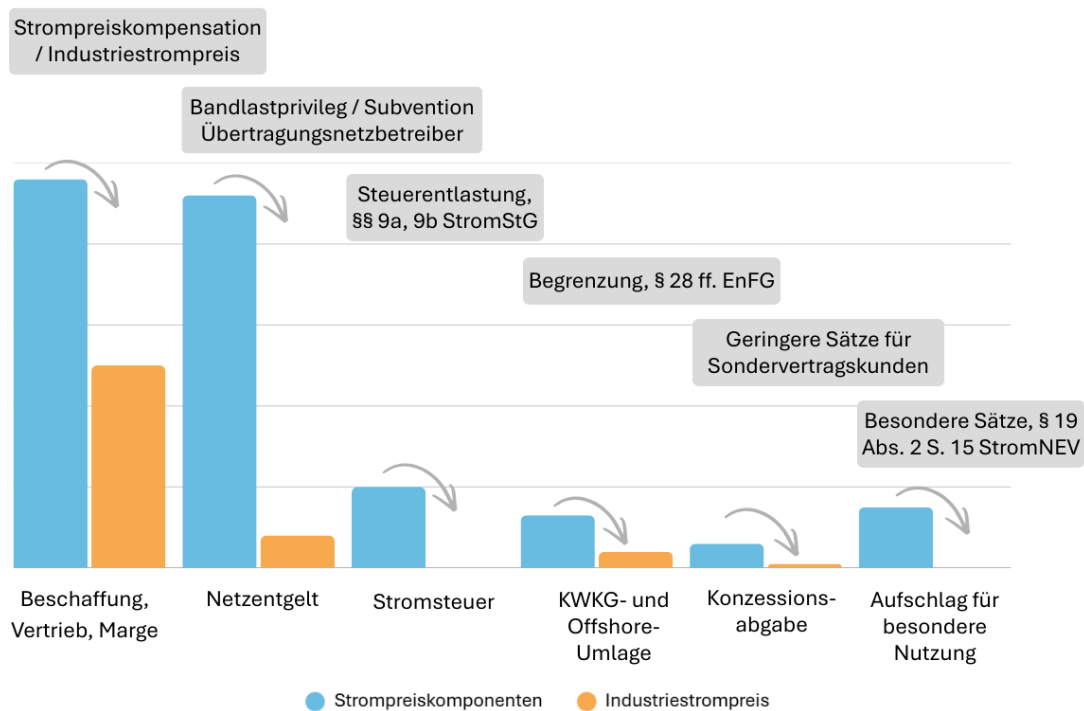
Eligible sectors:	<ul style="list-style-type: none"> ■ Manufacturing industry, as well as agriculture and forestry ■ Around 600,000 affected businesses in Germany (Press and Information Office of the Federal Government, 2026)
Extent of the reduction:	Reduction of the electricity tax rate from the previous 2.05 ct/kWh to the EU minimum tax rate of 0.05 ct/kWh
Eligibility criteria / Conditions:	<ul style="list-style-type: none"> ■ Minimum annual electricity consumption of 12.5 MWh ■ Reduced tax rate applies only to electricity used for business purposes in eligible activities ■ Application procedure at the Main Customs Office
Total annual costs:	Estimated tax revenue shortfall of EUR 1.5 billion in 2026; EUR 3 billion annually from 2027 onwards (BfF, 2025)
Timeframe:	The reduction in electricity tax has been in permanent effect since 1 January 2026
Legal basis:	Sections 3, 9 et seq. of the Electricity Tax Act (StromStG) and Section 54 of the Energy Tax Act (EnergieStG)

Source: Press and Information Office of the Federal Government (2026)

668 Overall, mechanisms exist for almost all price components that reduce them for certain electricity consumers (see, for example, **7Figure3.14**). As a result, the average electricity price paid by industry is less than half that paid by end consumers (see

BDEW 2025, pp. 30 ff.). These mechanisms are, on the whole, very complex and generally operate in parallel, provided the respective conditions are met. The sole exception to this is the new ‘industrial electricity price’, which applies only to electricity consumption for which a company has not applied for electricity price compensation (Funding Guidelines for the Industrial Electricity Price, Section 5.2.2).⁷⁸ As the industrial electricity price applies to more sectors than the electricity price compensation scheme, it essentially serves to extend state support for electricity consumption to further sectors. However, this instrument does not currently provide support for particularly energy-intensive companies, as they generally already benefit from the electricity price compensation scheme.

Figure 3.14: Electricity prices for energy-intensive companies



Source: Author's own illustration, 2026.

669 The regulatory framework governing electricity generation, transmission and consumption is not taken into account, even though it can also represent a significant cost factor for energy-intensive companies. The same applies to supply-side support for electricity generation and transmission, such as (financial) support for the construction of certain generation facilities as part of the promotion of renewable energy,

⁷⁸ For the year 2026, the European Commission has permitted a combination of the industrial electricity price and electricity price compensation. The German government plans to make use of this flexibility accordingly, so that in that year it would be possible for a single company to utilise both support schemes.

or the subsidies currently under discussion for base-load-capable gas-fired power stations.

Box3.9: Subsidy for transmission network charges



Source: German Bundestag (2025)

SUBSIDY FOR TRANSMISSION GRID CHARGES

The subsidy for transmission network charges is a federal subsidy paid to the four German transmission system operators. The aim is to reduce the costs of using the transmission networks and thereby lower electricity prices for all end consumers.

Beneficiaries:	All electricity consumers
Extent of the reduction:	<ul style="list-style-type: none"> ■ Transmission system operators receive a direct subsidy ■ The subsidy is taken into account in the annual calculation of regulated transmission system charges ■ Passing on the reduced transmission network charges to consumers
Eligibility criteria / Conditions:	<ul style="list-style-type: none"> ■ No application procedure ■ No conditions attached
Total annual costs:	EUR 6.5 billion has been earmarked in the Climate and Transformation Fund for the subsidy towards transmission network charges (German Bundestag, 2025)
Timeframe:	The federal subsidy is (currently) limited in time to 2026
Legal basis:	Sections 24c and 118(5a) of the Energy Industry Act (EnWG)

Box3.10: Special compensation scheme

SPECIAL COMPENSATION SCHEME AND OTHER EXEMPTIONS FROM LEVIES

There are exemptions from the levies imposed on the electricity price for certain energy-intensive companies. The most important example is the ‘special compensation scheme’, which provides for exemptions from the KWKG levy, the offshore levy and the – now abolished – EEG levy. Similar arrangements apply to concession fees and the levy for special grid use, which finances, amongst other things, the peak load privilege.

Beneficiaries:	Energy-intensive companies (annual consumption exceeding 1 GWh and belonging to a sector on the KUEBLL list)
Extent of the reduction:	<ul style="list-style-type: none"> ■ Reduction of the KWKG levy and offshore levy to 15 per cent and at least 0.05 ct/kWh respectively
Eligibility criteria / Conditions:	<ul style="list-style-type: none"> ■ Application to the BAFA ■ ‘Green conditionality’, e.g. through improved energy efficiency, a high proportion of green electricity procurement or investment in decarbonisation
Total annual costs:	<ul style="list-style-type: none"> ■ Approx. EUR 700 million for the offshore levy ■ Approx. EUR 200 million for the KWKG levy <p>(Own calculation based on forecasts by the transmission system operators [TSOs, 2024]; the preferential treatment of electricity storage systems, charging points, heat pumps and electrolyzers is not taken into account)</p>
Time horizon:	indefinite
Legal basis:	Sections 28 et seq., 31 et seq. of the Energy Promotion Act (EnFG)

670 In general, measures to support and provide relief to energy-intensive companies face the challenge of, on the one hand, achieving the industrial policy objectives defined by policymakers and, on the other hand, avoiding undesirable side effects such as distortions of competition. They should therefore, in principle, be designed in such a way that they primarily contribute to strengthening the long-term viability of the business location and the innovative capacity of energy-intensive companies, without permanently distorting existing market mechanisms and competition.

Box3.11: State aid law in the energy sector



STATE AID LAW IN THE ENERGY SECTOR

- In principle, state aid that distorts competition is prohibited in the EU (Article 107(1) TFEU)
- **Exceptions** apply, for example, to aid intended to promote the development of certain economic sectors or regions (Article 107(3)(c) TFEU)
- Even aid permitted on an exceptional basis must be approved by the Commission (Article 108(2) TFEU)

The Commission regularly publishes guidelines on its (planned) enforcement practice; often as part of broader policy initiatives, e.g.

- Guidelines on Climate, Environment and Energy Aid (**KUEBLL**), in the context of the ‘European Green Deal’
- Clean Industry State Aid Framework (**CISAF**), in the context of the ‘Clean Industry Deal’

In addition, temporary frameworks are frequently published in crisis situations, enabling Member States to respond to the respective challenges with state aid, e.g.

- Temporary Crisis and Transition Framework (**TCTF**) in response to the war in Ukraine (no longer in force)
- Middle East Temporary State Aid Framework (**METSAF**) in response to the war in Iran and the blockade of the Strait of Hormuz

671 In this respect, a balance must be struck between supporting energy-intensive companies in their transition and safeguarding effective competition. Furthermore, it must be ensured that the support measures do not create perverse incentives for the companies concerned, for example by providing an incentive to maintain inefficient

structures or to delay or even prevent necessary investments aimed at reducing electricity demand. This is particularly important in the context of overarching objectives such as the intended transformation and decarbonisation of the electricity system. Formally, some of these requirements are assessed as part of the European Commission's state aid review, to which most of the instruments mentioned above are subject.

3.2.2.1 Designing vertical measures to be competition-neutral

672 Many of the current support measures apply, directly or indirectly, only to specific sectors or companies with particular consumption profiles. For example, the (full) exemption from the electricity tax under Section 9a(1) of the Electricity Tax Act (StromStG) applies only to electricity consumed for specific industrial processes and procedures that are deemed by the legislator to be particularly energy-intensive. Similarly, the general reduction in the electricity tax rate from 2.05 ct/kWh to 0.05 ct/kWh applies only to undertakings in the manufacturing sector, agriculture and forestry, but not to the retail and services sectors (see Section 9b(1), first sentence, of the Electricity Tax Act (StromStG)). This becomes even clearer in the case of the exemptions from the KWKG levy and the offshore levy, the electricity price compensation and the industrial electricity price, each of which applies only to sectors listed exhaustively. As already explained in detail in section **73.1.3.2**, such vertical support measures may pose a significant risk to competition. A further problem is that, due to value chains, vertical measures can also have horizontal effects, which are often not taken into account – or not explicitly so – in the design of the support measures. In this respect, they may be accompanied by further distortions of competition.

673 Furthermore, most support mechanisms not only depend on the volume of electricity consumed, but are only applicable in the first place under certain conditions, such as a minimum electricity consumption threshold. This approach is evident, for example, in the band load privilege, which only applies if at least 10 GWh is consumed annually at a consumption point (Section 19(2), second sentence, of the Electricity Regulation (StromNEV)).⁷⁹ The same applies to the electricity tax reduction, for which eligible companies must have a minimum annual consumption of 12.5 MWh (Section 9b(2) of the Electricity Tax Act (StromStG)).⁸⁰ Due to the payment threshold, the electricity tax reduction therefore effectively does not apply to very small businesses. This

⁷⁹ In addition, there are requirements under energy sector legislation, such as the number of operating hours exceeding a certain threshold ('base load'). This requirement is currently being reviewed by the Federal Network Agency and is set to be replaced by the requirement to make flexibility capacity available.

⁸⁰ Under Section 9b(2) of the Electricity Tax Act (StromStG), the tax relief is only granted if the relief amount exceeds EUR 250 per year. As the tax relief amounts to EUR 20 per MWh, companies must consume at least 12.5 MWh per year in order to receive the relief amount of EUR 250.

clearly demonstrates that many support schemes not only differentiate between different sectors, with only selected sectors receiving financial support, but that discrimination and distortions of competition can also arise within a single sector, as under certain circumstances only a select group of businesses may benefit from relief. In the worst-case scenario, these thresholds may even incentivise companies to keep their electricity consumption above certain limits rather than reducing it.

674 For example, it is primarily large companies with high electricity consumption that benefit from the electricity price compensation scheme ([↗Box 3.7](#)) – and this trend is on the rise. In 2024, 97.4 per cent of the total aid paid out under the electricity price compensation scheme went to large companies. The remainder went to medium-sized companies. Small enterprises played virtually no role (German Emissions Trading Authority, 2025, p. 14). The applications submitted also came predominantly from large enterprises (288 compared with 78 from small and medium-sized enterprises). A similar pattern can be observed with regard to the special compensation rule ([↗Box 3.10](#)): 80 per cent of the privileged electricity volume was consumed in the years 2021–2024 by just 20 per cent of the beneficiary companies. The top 10 per cent of companies in terms of electricity consumption still accounted for 70–75 per cent of the preferential electricity volume (Federal Office for Economic Affairs and Export Control, 2025, p. 17 ff.).

675 Even the subsidy granted to transmission system operators – which, through the deduction from the transmission system operators’ revenue cap (see Section 24a of the Energy Industry Act), was actually intended to benefit all electricity customers equally in proportion to the energy they consumed – has varying effects in practice. This is because the proportion of electricity costs accounted for by network charges can vary between different companies, for example due to the chosen network level or the use of the band load privilege.

676 Overall, it can be observed that the current support measures are primarily structured vertically. From a competition perspective, this must be viewed critically. Such arrangements should only be used to the extent that they are justified by externalities, market failures or other policy objectives. This, in turn, highlights the central importance of a clear and transparent definition of industrial policy objectives by policy-makers, as it is only on this basis that various support measures can be designed in an efficient and effective manner.

677 At the very least, in the case of levies and tax reductions, a more horizontal approach should therefore be considered, which would also significantly simplify implementation. This could be achieved by replacing the existing exemptions entirely with a degressive structure for these charges. Such a degressive tax rate would relieve the

burden on energy-intensive companies without entirely relieving them of their financial responsibility. Provided such a tariff were applied regardless of sector, this horizontal structure would also give rise to significantly fewer concerns regarding potential distortions of competition. At the same time, it would be considerably easier to implement, as the tax rate would depend solely on the volume of electricity consumption. It could therefore be calculated directly by the network operator or energy supplier.

678 Such a degressive structure for the tax rate is also consistent with the purpose of at least those levies intended to contribute to infrastructure financing (e.g. grid charges or the offshore levy). The responsibility for financing the required grid infrastructure depends not only on (rising) electricity consumption, but also heavily on the required grid capacity. This, in turn, rises primarily with the expected peak load, but not with the volume of consumption per se. Furthermore, a degressive structure for the levies – unlike exemptions for certain companies – would no longer fall under the definition of state aid under European law, thereby removing the requirement for a cap and the need for environmental conditions.⁸¹

3.2.2.2 Bureaucratic support structures and their competitive risks

679 The multitude of individual support instruments leads to a comparatively high implementation burden for both businesses and the public sector. Furthermore, in the Monopolies Commission's view, the existing funding framework is unnecessarily bureaucratic. This not only results in considerable costs for the companies concerned and the economy as a whole – which put them at a disadvantage compared with foreign competitors – but may also distort competition between companies in Germany. Smaller, innovative companies in particular often lack the human and financial resources to overcome the bureaucratic challenges involved in submitting applications. This can shift the balance of competition in favour of market-dominant, established companies.

3.2.2.2.1 The funding structures are heavily burdened by bureaucracy

680 The highly bureaucratic nature of the funding framework stems not only from the administrative procedures and the associated information requirements (bureaucratic costs in the strict sense, cf. Section 2(2) of the Normenkontrollratsgesetz, NKRG). The design of the support measures themselves also leads to avoidable administrative burdens. One contributing factor is that most of the aforementioned subsidies do not reduce the electricity price per se, but are merely linked to the amount of

⁸¹ In this respect, the scheme does not favour certain companies or sectors of production (so-called selectivity); see also point 6 of the CISAF.

electricity consumed when determining the level of support. In order to receive the subsidy, not only in the case of direct subsidies such as electricity price compensation and the industrial electricity price is there a prior administrative procedure in which the eligibility criteria are checked.

681 Even for instruments designed to directly reduce certain price components, such as taxes or levies, an application to the authorities is sometimes a prerequisite. This applies in particular to the special compensation scheme under the Energy Act (EnFG), which leads to a reduction in the CHP and offshore levies. This reduction is not implemented by the grid operator or electricity supplier, but must be applied for at the BAFA, which verifies the eligibility criteria and the corresponding obligations. The situation is different, however, for the reduction in concession fees and the levy for special grid use, as well as the peak load privilege, which are implemented directly by the grid operator.

682 These application procedures often mean that subsidies are only paid out retrospectively, once it is clear how much electricity has been consumed and the amount of the subsidy can therefore be determined. This applies, for example, to electricity price compensation or the industrial electricity price. This creates a need for appropriate interim financing for companies, which in turn incurs (interest) costs.

683 Furthermore, some subsidies are conditional on companies making specific contributions or providing specific services designed to help achieve the objectives associated with the respective subsidy. For example, the industrial electricity price aims to promote the transition to a climate-neutral, decarbonised industry. The Industrial Electricity Price is intended to enable companies to invest in decarbonisation and efficiency improvements. The subsidy is therefore linked to specific conditions that companies must fulfil. For instance, it is often a prerequisite that measures be taken to improve energy efficiency or that electricity be sourced from renewable energy sources. Under the electricity price compensation scheme, for example, companies eligible for aid must operate an energy management system and implement various climate protection and energy efficiency measures, such as sourcing at least 30 per cent of their electricity from renewable energy sources (Electricity Price Compensation Funding Guidelines, sections 4.1 and 4.2.2). The industrial electricity price scheme, by contrast, requires companies to invest at least 50 per cent of the aid received in new and modernised plant within 48 months, in order to make a measurable contribution to reducing the electricity cost system (Funding Guidelines for the Industrial Electricity Price Scheme, Section 4.3).

684 Linking state subsidies to the provision of specific quid pro quos is, in principle, suitable for achieving the industrial policy objectives pursued by the support instruments; however, it also carries the risk of fixing these objectives in a long-term and static manner. At the same time, this approach raises key questions regarding monitoring and enforcement: for example, who monitors compliance with the required reciprocal obligations, and what consequences are envisaged in the event of non-compliance? The establishment and implementation of appropriate monitoring, audit and sanction mechanisms entail a considerable administrative burden as well as significant costs for the public sector.

685 An overview of the various requirements shows that they vary considerably. For example, the efficiency calculations differ between electricity price compensation and the Energy Efficiency Act (EnFG). The green electricity requirements are also inconsistent. As a result, companies which – as is likely to be the norm – claim state subsidies for several different price components cannot apply for these under the same conditions, but must instead meet different efficiency calculations and green electricity requirements.

686 The high degree of heterogeneity in these requirements must be viewed critically: the multitude of different forms of reciprocal obligations results in a complex and difficult-to-navigate set of requirements, which initially demands considerable human and financial resources from companies to identify and implement these obligations. Furthermore, companies are regularly required to provide detailed evidence of their compliance with these obligations⁸², which is likely to further increase the bureaucratic burden on businesses. This may also entail significant risks to competition. In particular, smaller companies may be unable to muster the necessary resources to keep track of the multitude of funding schemes and the complexity of the individual eligibility criteria.

687 It should also be noted that different authorities are responsible for the various support schemes and that there is no uniform administrative structure. Whilst, for example, the Federal Office for Economic Affairs and Export Control (BAFA) is the approving authority for the industrial electricity price, the German Emissions Trading Authority within the Federal Environment Agency is responsible for electricity price compensation, and the Main Customs Office for the electricity tax reduction. On the one hand, this fragmented administrative structure carries the risk that the requirements for receiving a subsidy – which are in any case already highly varied in some respects – will be interpreted differently by the authorities in practice. On the other hand, the bureaucratic burden on companies is further increased, as they must, for example,

⁸² For electricity price compensation, see, for example, the Electricity Price Compensation Funding Guidelines, section 4.3.

complete applications and forms multiple times for the individual authorities. At this stage, it cannot be assumed that the authorities transparently disclose and exchange the respective application forms and assessments of eligibility criteria amongst themselves. In this respect, there is a lack of a uniform implementation strategy for the respective support measures. The creation of digital and efficient administrative structures based on a uniform principle of data management could significantly reduce administrative costs for both businesses and the public sector.

688 These requirements are based on the provisions of European state aid law, which fundamentally presupposes them. However, the EU regulations do not require the heterogeneity of the rules described above, but merely lay down minimum requirements that could also be implemented through more uniform national regulations. Rather, the differences in the German regulations stem from the partial over-compliance with the requirements of European law (so-called ‘gold-plating’). This is evident, for example, in the case of electricity price compensation. Whilst the EU requirements also oblige eligible companies to implement energy efficiency measures, these requirements are, in comparison with the German funding guidelines, formulated in rather general and flexible terms. In particular, they do not require any further detailed, specific conditions or strict obligations to provide evidence. The additional national requirements can lead to increased bureaucratic burdens and competitive disadvantages for German industry (see also Panknin, 2025).

3.2.2.2 Further developing the funding framework to be more competition-friendly

689 The Monopolies Commission therefore recommends further developing the fragmented funding rules into a more uniform and consistent funding landscape. This would reduce the bureaucratic burden on companies and the associated risks to competition. State supervision would also be simplified. To this end, the requirements for ‘environmental conditions’ and the necessary evidence should, in particular, be standardised. This should also go hand in hand with the creation of efficient, uniform administrative structures, such as the standardisation of regulatory responsibilities or the digitisation of data management.

690 In the medium term, the current link between subsidies and ‘ecological conditionality’ should be made more competition-friendly. To this end, the Monopolies Commission recommends reversing the relationship between subsidies and ‘ecological conditionality’. Subsidies should no longer be granted as sector-specific lump sums, provided that a ‘quid pro quo’ verified by the authorities is delivered by the companies. Rather, the aim should be to put these ‘quid pro quos’ out to tender in future and to support those companies and sectors that can deliver them most efficiently.

691 For example, investments in energy efficiency or the procurement of electricity from renewable energy sources could in future be financially supported by putting such investments out to tender. Subsidies would then be awarded to those companies that can deliver the service most efficiently, i.e. at the lowest cost. This would have the advantage that the most efficient technologies would benefit from state support, whilst at the same time minimising the negative impact on competition.

3.2.3 Simulation of the effects of an electricity price subsidy

692 The following section aims to illustrate the effect of a potential electricity price subsidy for various combinations of economic sectors. To this end, an input-output analysis is carried out. Input-output analyses are widely used in economic research and have been an established tool for economic analysis for more than 70 years (Miller/Blair, 2021).

693 An input-output table is a system of equations that specifies how many of their products the individual sectors of an economy have sold to the other sectors in a given time period. This is not usually measured in physical units, such as tonnes of steel or the number of motor vehicles. Instead, to allow for better comparability, the goods are converted into monetary amounts. Many systems cover several countries or regions in order to account for imports and exports. Input-output models are generally based on observed data, which usually comes from official sources, such as the statistical offices of the respective countries. In addition, several groups of end customers and their purchases from the various sectors are usually taken into account, in particular private households and government bodies. However, in the input-output framework, these typically appear only as buyers and not as sellers, whilst most sectors both produce goods and purchase intermediate inputs.

694 The analyses in this chapter are based on the EXIOBASE 3 database (Stadler et al., 2018). This is maintained by a consortium of researchers and is based mainly on data from the Statistical Office of the European Union (Eurostat), supplemented by the researchers' own surveys. The EXIOBASE 3 data cover a total of 163 sectors and are therefore considerably more detailed than other data sources, such as the OECD's Inter-Country Input-Output Tables (ICIO) or Eurostat's own input-output tables. In particular, the EXIOBASE 3 dataset reports electricity production within separate sectors, which is a necessary prerequisite for the analyses carried out in this chapter. The tables in EXIOBASE 3 cover 44 countries and five aggregated regions representing the rest of the world. This means that international trade flows can also be taken into account.

695 Within the logic of the input-output system, a price shock can be simulated by hypothetically altering the cost of an intermediate input. If, for example, electricity procurement for certain sectors were subsidised by 20 per cent, these sectors could produce the same output at a lower cost. Assuming sufficiently high competitive pressure, this saving should be passed on in the form of lower output prices. As the output of many sectors simultaneously serves as an input for other sectors, these sectors would also benefit indirectly from the subsidy, even if their own electricity consumption is not directly subsidised. Since goods and services for private households are offered at the end of many production chains, the price reductions would ultimately be passed on in part to consumers in the form of lower prices for individual goods. Electricity generation and distribution are modelled as separate sectors in the EXIOBASE 3 dataset. A hypothetical reduction in the output prices of these sectors therefore corresponds exactly to a subsidy on electricity purchases for the other sectors that use electricity in their production. It should be noted that only the price effects can be examined within the modelling. The effects of price and cost changes on the relocation of production to other countries and the associated potential carbon leakage effects cannot be considered within this model.

696 As part of the analysis, several scenarios were developed which differ in terms of the level of subsidies and the sectors receiving them. The initial focus is on the manufacturing sectors. Specifically, this includes agriculture, mining and the manufacturing industry. The sectors subsidised in Scenario 1 are based on the European Commission's Guidelines on State Aid for Climate, Environmental Protection and Energy (KUEBLL). Annex 1 of these guidelines lists sectors which, in the view of the European Commission, are subject to a significant risk of relocation to areas outside the EU due to their high electricity intensity and international trade flows (KUEBLL). As the sectoral breakdown in this list differs in some respects from that in the EXIOBASE database, the sectors have been aligned as far as possible.

697 Actual electricity prices can vary significantly between individual companies and, consequently, between sectors. Consequently, it is difficult to determine precisely the percentage reduction in costs resulting from a subsidy without the relevant contract and consumption data for individual companies. The percentage reduction has therefore been approximated. A cost reduction of 12 per cent was assumed as the base case, which was then scaled for individual sectors. This is based on consumption data from the Federal Statistical Office (GENESIS code: 43531-002). The electricity consumption figures listed there were combined with the electricity costs from the EXIOBASE 3 dataset to determine the implicit electricity price for this sector. As this consumption data is only available for individual sectors of the manufacturing industry, the assumed subsidy level of 12 per cent applies to the remaining sectors.

698 Scenario 2 considers an alternative scenario in which all sectors, without exception, receive relief, including all sectors in the services and transport sectors. This corresponds to a horizontal approach, in which electricity costs for all economic sectors are reduced, for example through greater efficiency in the electricity system or the reduction of taxes and levies. In Scenario 3, the most closely interlinked sectors were determined algorithmically. The Hypothetical Extraction Method was used for this purpose. This method is well-established within input-output analysis for identifying particularly relevant sectors (Dietzenbacher et al., 1993). This results in a list of 73 sectors. The percentage subsidy rate was adjusted for Scenarios 2 and 3 so that the absolute costs of the subsidy in euros are identical for all scenarios. This enables a meaningful comparison of the effects of the various scenarios. [↗ Table3.2](#) provides an overview of the three scenarios described.

Table3.2: Description of the scenarios

Scenario	Name	Number of sectors	Subsidy as a %	Subsidy in € million
1	Vertical	41	12.76	3,974
2	Horizontal	126	6.75	3,974
3	Hypothetical Extraction	73	46.47	3,974

Source: Author's own table.

Table3.3: Price effects of the simulation

Sector	Scenario 1	Scenario 2	Scenario 3	Scenario 1	Scenario 2	Scenario 3
Manufacture of motor vehicles and motor vehicle parts	-0.18%	-0.12%	-0.02%	€953 million	€670 million	€124 million
Mechanical engineering	-0.11%	-0.07%	-0.01%	€471 million	€299 million	€46 million
Manufacture of metal products	-0.18%	-0.11%	-0.02%	€399 million	€234 million	€36 million
Manufacture of plastics in primary forms	-0.17%	-0.10%	-0.08%	€266 million	€164 million	€130 million
Manufacture of other food products	-0.10%	-0.11%	-0.20%	€160 million	€161 million	€310 million

Manufacture of rubber and plastic products	-0.25%	-0.14%	-0.06%	€370 million	€212 million	€80 million
Other vehicle manufacturing	-0.12%	-0.08%	-0.02%	€116 million	€79 million	€19 million
Manufacture of other chemical products	-0.10%	-0.09%	-0.05%	€87 million	€75 million	€38 million
Petroleum processing	-0.48%	-0.28%	-0.04%	€393 million	€225 million	€27 million
Production of pig iron, steel and ferroalloys	-0.17%	-0.13%	-0.03%	€112 million	€86 million	€21 million

Source: Own calculations. Note: Directly subsidised sectors in each scenario are highlighted in bold.

699 **Table 3.3** shows the price effects on selected sectors via two channels: the direct reduction in the cost of electricity for subsidised sectors and the indirect effect via cheaper intermediate inputs. A comparison of the scenarios reveals a clear pattern. The extent of the relief is almost entirely determined by direct subsidisation, and hardly at all by a sector's position within the network of interdependencies. Sectors that are not directly subsidised in a given scenario experience only a slight reduction in costs, even if they are closely interlinked with subsidised sectors – mechanical engineering, for example, falls from -0.11 per cent (Scenario 1) to -0.01 per cent (Scenario 3). The strongest effects occur where direct electricity intensity is high, as in the case of petroleum processing (-0.48 per cent in Scenario 1), rather than where a sector is particularly centrally interconnected. One exception is the food industry, which is the only sector to benefit more under the interdependence-based selection (Scenario 3) than under the vertical approach – an indication that interdependence-based targeting only reaches consumer-related sectors in isolated cases. Overall, this confirms that the indirect relief via intermediate goods is too weak to justify a targeted sector selection from a macroeconomic perspective. The effects are stated in per cent of output prices and in millions of euros. It is striking that the price effect is also minimal in electricity-intensive sectors. For many sectors, it is well below one per cent; depending on the scenario, it is often as low as around 0.1 per cent. This is primarily because, for most sectors, electricity costs account for only a relatively small proportion of input costs compared with other raw materials and intermediate goods.

Table 3.4 : Aggregated price effects of the scenarios

Scenario	Weighted price effect on input prices	Weighted price effect on household demand	Weighted price effect on government demand
Vertical	-0.09%	-0.05%	-0.02%

Horizontal	-0.09%	-0.08%	-0.05%
Hypothetical Extraction	-0.11%	-0.09%	-0.02%

Source: Author's own presentation.

700 The aggregated effects in [Table 3.4](#) show only minor differences between the scenarios in terms of the weighted average price effects across all sectors. The hypothesis that targeted subsidisation of certain key industries can achieve multiplier effects that reduce prices throughout the entire value chain cannot be confirmed in the present analysis. Horizontal relief across all sectors achieves, on average, a similar price effect to vertical subsidisation of specific sectors. In terms of prices for end consumers, the price effect in the horizontal scenario is even greater than in the vertical scenario.

701 A key factor in the simulation results is the pass-through of cost reductions resulting from the subsidy across the individual production chains. Until now, it has been implicitly assumed that the cost reductions are passed on in full at every stage. In perfectly competitive markets, this assumption is valid, as the high level of competitive pressure leaves no scope for retaining profits. However, it is more realistic to assume incomplete pass-through. Based on our own calculations, further scenarios therefore assume a pass-through rate of 93 per cent and 77 per cent (see the section [1.2](#) at [Chapter 1](#)). Otherwise, the scenarios correspond to scenarios 1, 2 and 3 respectively (see [Table 3.2](#)). In the case of incomplete pass-through, it is to be expected that the aggregate price effects will be mitigated by the subsidy.

Table 3.5: Results with varying pass-through

Scenario, pass-through	Weighted price effect on input prices	Weighted price effect on household demand	Weighted price effect on government demand
Vertical, 100%	-0.09%	-0.05%	-0.02%
Vertical, 93%	-0.08%	-0.04%	-0.02%
Vertical, 77%	-0.07%	-0.04%	-0.02%
Horizontal, 100%	-0.09%	-0.08%	-0.05%
Horizontal, 93%	-0.08%	-0.08%	-0.05%
Horizontal, 77%	-0.07%	-0.06%	-0.04%

Hypothetical extraction, 100%	-0.11%	-0.09%	-0.02%
Hypothetical extraction, 93%	-0.10%	-0.08%	-0.02%
Hypothetical extraction, 77%	-0.09%	-0.07%	-0.02%

Source: Author's own presentation.

702 ↗**Table 3.5** shows the results of the simulation using different pass-through rates. As expected, the impact on prices is weaker the lower the assumed pass-through rate. This can be explained by the fact that only part of the cost reduction is passed on. In the scenarios with a 93 per cent pass-through rate, only around EUR 3.6 billion of the total subsidies of EUR 4.0 billion are passed on; with a pass-through rate of 77 per cent, the figure is around EUR 3.1 billion.

703 The simulation allows for a political-economic analysis that goes beyond the mere price effect. As the aggregate effects of the scenarios differ only marginally, the choice between vertical and horizontal relief is, at its core, not a decision about efficiency but one about distribution. Both variants distribute an almost identical total volume and differ mainly in terms of who benefits. This is precisely the logic described in section ↗**3.1.3.2**: vertical measures concentrate their benefits on a few, easily identifiable and organised recipients, whilst the costs are spread widely amongst taxpayers. ↗**Table 3.3** illustrates this. In the vertical scenario, around EUR 953 million is attributable to motor vehicle manufacturing alone and around EUR 393 million to mineral oil processing. In the horizontal variant, such concentrated benefits are offset by such a broad distribution that there is hardly any political pressure to organise around them. This helps explain why vertical instruments appear more politically attractive, even though they offer no added value to the economy as a whole compared with horizontal measures.

704 From a competition perspective, this distributional effect is problematic in two respects. Firstly, the concentrated benefits flow disproportionately to energy-intensive sectors, which are simultaneously characterised by declining margins and productivity (see section ↗**1.3**). Vertical relief therefore risks promoting the preservation of existing structures rather than transformation. Secondly, these sectors are often characterised by high market concentration. If the cost savings are not passed on in full – which is to be expected in the event of incomplete pass-through and corresponding market power – the subsidy remains as a rent with the producer, rather than reaching downstream stages or consumers. The subsidy may thus further consolidate the position of companies with significant market power rather than strengthening competition. This highlights the link to the control of abuse under Article 102 TFEU and Sections 19 et seq. of the German Act against Restraints of Competition (GWB), and

underlines that the competitive assessment of a subsidy cannot be separated from the market structure of the beneficiary sectors.

705 The estimated aggregate price effects appear relatively minor given a total subsidy amount of approximately EUR 4.0 billion. It does not necessarily follow from this that relief from electricity prices for companies in Germany cannot be sensible or necessary. Furthermore, the analysis carried out here does not take into account the prevention of potential carbon leakage effects through support measures such as electricity price compensation. However, based on the results of the simulation presented here, the benefits of primarily vertical measures must be questioned. The same sum of money could potentially have a significantly greater welfare-enhancing effect if it were used for other, horizontally effective measures.

3.2.4 Conclusion

706 The analysis in this chapter highlights the importance of a rational integration of energy and industrial policy to maintain the competitiveness of industry in Germany and Europe. On the one hand, the share of electricity costs in total production costs is relatively low for many sectors, which limits the potential for increasing competitiveness by reducing electricity costs. On the other hand, electricity is a factor of production that plays a role in almost every sector and every company. Furthermore, the importance of electrical energy is set to increase further in future as part of the energy transition, as fossil fuels are replaced by electricity. Lower electricity costs make electricity a more attractive energy source and can thus accelerate this substitution process.

707 In this context, and given Germany's high electricity prices compared with other countries, measures to limit rising electricity costs appear sensible. It is important to strike a balance between broad (horizontal) relief measures and sector- or company-specific (vertical) measures. In practice, it is inevitable that measures with horizontal and vertical effects will coexist. The Monopolies Commission recommends focusing on creating favourable framework conditions for industry, rather than supporting individual sectors in a piecemeal manner involving a high level of bureaucratic effort. Subsidising individual sectors should only be used to a very limited extent, where electricity costs actually account for a significant proportion of production costs.

708 Overall, focusing on horizontal measures appears to be more cost-effective, more incentive-compatible and more competition-neutral. Vertical measures, by contrast, can disproportionately benefit large consumers, for example where minimum consumption levels are required to qualify for support, or where the bureaucratic requirements for support are difficult for small and medium-sized enterprises

to meet. P , possible measures with a horizontal impact include reducing taxes and levies, as well as lowering grid charges by increasing the efficiency of the overall system – for example, by dividing the single bidding zone and creating incentives for flexibility (see also Monopolies Commission, 2025a, Chapter 2). The proposed measures could be implemented within the existing market environment without increasing the bureaucratic burden.

709 Aspects of security of supply and resilience should not be ignored either. For instance, in the context of European defence capabilities, it may make sense to retain certain production capacities in Europe, even if this would not be cost-effective. Ultimately, these are political considerations that go beyond energy policy and must be discussed in the context of security and industrial policy.

Recommendations

- With regard to the cost factor of electricity, broad-based, cross-sectoral relief measures for state-influenced price components should take precedence over piecemeal special rules. In particular, reductions in levies, charges and taxes could be structured in a more degressive and consumption-based manner, so that energy-intensive companies are relieved of some of the burden without being completely exempted from their financial responsibilities.
- The fragmented subsidy rules should be further developed into a more uniform subsidy landscape with harmonised documentation requirements, digital data management and clear responsibilities. In the medium term, environmental performance requirements should not only be assessed as a condition for receiving subsidies, but should also be put out to competitive tender, so that those companies which deliver efficiency improvements, decarbonisation measures or green electricity at the lowest cost are supported.

3.3 Recommendations at a glance

710 This chapter examines possible approaches to a competition-oriented industrial policy, with a focus on the future structure of industrial electricity prices. The measures are discussed against the backdrop of considerable pressure for adjustment on the German and European industrial sectors, resulting from geopolitical uncertainties, innovation gaps, transformation requirements, bureaucracy and high energy costs. The Monopolies Commission takes the view that industrial policy is only viable if it strengthens rather than replaces competition. Priority must be given to improving horizontal framework conditions. Vertical interventions should only be considered in cases of clearly demonstrated market failure or transformation failure, with transparent objectives and a design that minimises harm to competition.

Competition-oriented industrial policy

- 1** Industrial policy measures should primarily aim to improve the general framework conditions, in particular by completing the single market, strengthening competition policy and ensuring European coordination. Unilateral national action and vertical countermeasures in response to international subsidies should be avoided, provided that horizontal instruments can more effectively establish a level playing field. **Section 73.1.4.1**
- 2** The selection of sectors, technologies or companies to receive support should be based on transparent, pre-defined criteria and be verifiably linked to knowledge spillovers, path dependencies, transformation failures or other clearly defined objectives. Vertical support should be coordinated at European level and should not serve to safeguard existing structures or individual ‘champions’. **Section 73.1.4.2**
- 3** Funding should be allocated simply and efficiently through transparent, non-discriminatory and, as far as possible, competitive procedures, so that SMEs and start-ups can also realistically participate. A competitive impact assessment, cost-benefit analyses, clear milestones, time limits and scientific evaluations are required to avoid permanent subsidies and misallocations. To this end, clear targets and milestones should be set as binding requirements, the achievement of which can be verified. **Section 73.1.4.3**

Electricity pricing and support mechanisms

- 4** With regard to the cost factor of electricity, broad-based, cross-sectoral relief on state-influenced price components should take precedence over piecemeal special rules. In particular, reductions in levies, charges and taxes could be structured in a more degressive and consumption-based manner, so that energy-intensive companies are relieved of some of the burden without being completely exempted from their financial responsibilities. **Section 73.2.2.1**
- 5** The fragmented support schemes should be further developed into a more uniform support landscape with harmonised documentation requirements, digital data management and clear responsibilities. In the medium term, environmental counter-performance should not only be assessed as a condition for support, but also put out to competitive tender, so that support is granted to those companies that deliver efficiency, decarbonisation or green electricity at the lowest cost. **Section 73.2.2.2**

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4

Three horizontal lines of varying lengths and colors (light orange and dark orange) are positioned below the number 4.

A competition-oriented economic policy for the AI transformation



4.3.3.1	Strengthening basic research and knowledge transfer	415
4.3.3.2	Competition and qualification should strengthen the framework conditions for AI adoption	419
4.3.3.3	Strategically utilised public demand can create markets for AI at an early stage	423
4.4	Recommendations at a glance	428
	Bibliography	431
	Legal sources	438

In brief



The industrial use of artificial intelligence (AI) deserves particular attention because it serves as a prime example of how the companies that form the backbone of the German economy are responding to these upheavals. Germany and the EU can support European companies in adapting to these changes through a competition-oriented AI economic policy that breaks down dependencies, establishes a legally secure framework for the use of AI and promotes AI across the board. In addition to the academic literature, this chapter is based on numerous discussions with representatives of trade associations and companies of various sizes and from different sectors, which have provided a broad picture of the actual obstacles and areas where action is needed.

How can Germany accelerate the AI transformation of industry in a way that promotes competitiveness?

PROBLEM



The AI transformation of German industry is not progressing on the necessary scale. Three factors in particular are holding back the AI transformation of German industrial companies: significant business and legal uncertainty, risk aversion regarding long-term investments, and sluggish organisational processes within the companies themselves. If these obstacles persist, there is cause for concern that German industry will fall further behind in terms of productivity, competitiveness and value creation.

CONTEXT



The AI transformation is taking place against a backdrop of weak growth, geopolitical tensions and existing locational disadvantages in Germany and Europe. AI is a cross-cutting technology with considerable potential for innovation, efficiency and new competitive advantages. However, this potential is not freely available: the core layers of the AI stack are dominated by a small number of providers, most of whom are based outside Europe. This creates dependencies. At the same time, adoption is progressing too slowly and on too narrow a scale. As market forces alone have so far failed to generate this pace and breadth, there is considerable pressure for economic policy action. It is therefore crucial to take action at the right point. The real competitive advantage of German industry lies not in the stack, but at

the application level: in specialist knowledge built up over decades and valuable data from its own production processes. Harnessing and protecting this advantage is the central task of economic policy.

RECOMMENDATIONS



The AI transformation requires a competition-oriented economic policy that makes targeted use of government intervention without undermining competition. To this end, three pillars should be consistently coordinated: competition policy, regulation and industrial policy.

- 1 Competition policy:** The Digital Markets Act (DMA) should be adapted to address new competition risks across the AI stack and enforced resolutely. This involves, in particular, focusing on AI services and further developing behavioural obligations in such a way as to ensure open and contestable markets, whilst limiting tendencies towards market foreclosure through vertical integration, self-preferencing and exclusive access to key AI resources. In areas where the DMA does not apply, Section 19a of the German Act against Restraints of Competition (GWB) provides the Federal Cartel Office with the flexibility and scope to intervene.
- 2 Regulation:** The EU AI Act is, in principle, the right approach and an important step as a uniform European legal framework. However, it should be implemented and further developed in such a way as to avoid unnecessary burdens on innovation and diffusion. In general, a paradigm shift in government regulation should be initiated – moving away from attempts at early and comprehensive regulation of new technologies towards regulation that only comes into effect once experience has been gained in the markets. Particularly for small and medium-sized enterprises, disproportionate compliance burdens, double regulation and uncertainties regarding risk classification should be mitigated, so that the AI Act creates legal certainty without hindering the widespread use of AI.
- 3 Industrial policy:** Industrial policy should not promote individual national or European ‘champions’, but rather enhance the widespread use of AI. Where high risks, dependencies or coordination problems exist, the state should act in a targeted manner as an anchor customer for European and German AI solutions, thereby supporting demand, testing and scaling. To ensure the widespread adoption of AI, IP transfer processes from research institutions should be accelerated and AI-related skills development strengthened.

4 A competition-oriented economic policy for the AI transformation

4.1 Focusing on European strengths

711 Amidst a challenging economic and geopolitical situation, Germany and Europe are simultaneously facing a profound technological transformation. Artificial intelligence (AI) has gained rapid momentum in recent years and is already regarded as a technological revolution of historic significance. As a cross-cutting technology, AI will impact almost all sectors and processes, including research and innovation. It opens up new potential for growth and innovation (Calvino et al., 2025), but at the same time creates considerable pressure for the region to adapt. The need for Germany to deal with technological upheavals more agilely remains valid even if it turns out that some of the promises made about AI are overambitious.

712 This milestone in technological development comes at a time when the economic situation in Germany and Europe is already strained. Economic growth is slowing down. Industrial companies in Germany are suffering from locational disadvantages in international competition, such as bureaucratic inertia or structurally higher energy prices (see [↗ Chapter 3](#)). Consequently, there are clear signs of a trend towards the relocation of value creation abroad, particularly in the industrial sector (see section [↗1.1.4](#)). Between 2008 and 2021, just under a third of European ‘unicorn’ companies left the region (European Commission, 2025a). In 2024, the European Union lost almost 15 per cent of its global market share in export goods compared with 2019 (European Commission, 2025b). Germany is at the heart of this problem: gross domestic product has been stagnating for five years (SVR, 2024), private-sector investment is around a quarter below 2019 levels (Bardt/Grömling, 2025), and German exports fell for the third consecutive year in 2025 (Federal Statistical Office, 2026). Business value added in Germany was recently at its lowest level since 2014 (section [↗1.1.5](#)). Added to this are low start-up rates, low survival rates for start-ups and a growing shortage of skilled workers (dpa, 2026; European Investment Bank, 2026).

713 This structural weakness coincides with a changed geopolitical landscape. In a less stable and less rule-bound international order, technological dependencies are becoming increasingly visible as strategic vulnerabilities. Europe finds itself caught between the US’s protectionist trade policy and a China that is advancing rapidly in technological terms. The pressure to remain capable of acting sovereignly in this environment is mounting. This is leading to global adjustments to economic processes, which are associated with losses in efficiency and adjustment costs. As a result, governments – even in liberal democracies – are coming under considerable pressure to

act and to justify their actions. Patterns of industrial policy response are a reaction to this and are discussed in detail in [7 Chapter 3](#). Artificial intelligence represents a special case here, as it marks the emergence of a disruptive, cross-cutting technology into economic processes that has the potential to trigger enormous efficiency gains.

714 In key areas of recent technological development, Europe and Germany have already fallen significantly behind. Only four of the world's 50 leading technology companies are European: ASML, SAP, Seagate Technology and Schneider Electric (CompaniesMarketcap.com, 2026). The cloud market is dominated by US providers, which account for more than 90 per cent of the European market (Fratini et al., 2026). The European Union is reliant on non-EU countries for over 80 per cent of its digital products, services and infrastructure (Timmers, 2022). German investment in information technology, measured as a proportion of GDP, is less than half that of the US and France (The Economist, 2023). These dependencies relate to key AI inputs: cloud services, data and chips. The fact that Europe's productivity lags behind that of the US is largely attributable to the technology sector and the, as yet, slower uptake of artificial intelligence (European Commission, 2025a). A recent example illustrates that access to key AI inputs can be restricted by sovereign decisions taken by third countries. Citing national security powers, the US government prohibited foreign nationals from accessing the two latest and most powerful Anthropic models, whereupon Anthropic blocked access to the models for all users (Anthropic, 2026).

715 When considering whether and how Germany should address its technological lag, it is worth first taking a look at the actual state of development. Europe cannot replicate the entire AI stack – from chips and the cloud to the leading foundation models – in the short term. This would require, all at once, manufacturing capacity for chips, GPU supply chains, hyperscaler clouds, gigawatt-scale data centres and frontier model developers. This would have to take place in markets where TSMC holds around 72 per cent of the chip manufacturing market (Counterpoint, 2026), European cloud providers have small market shares, the energy infrastructure required for gigawatt data centres is lacking in Germany, and, in particular, US companies have already brought a multitude of highly developed AI models to . Such an endeavour would be economically unfeasible and, given the current industrial and institutional conditions, technologically unachievable.

716 However, for a forward-looking, competition-oriented economic policy, this acknowledgement should not be equated with resignation. Rather, it is a prerequisite for responding in the right direction in terms of economic policy, rather than pouring resources into an attempt to catch up that does not significantly alter the structural situation. In the short term, Europe cannot succeed by catching up completely across

the entire AI stack. However, it can achieve success through specialisation, application and the establishment of a forward-looking economic policy framework (European Commission, 2024; Commission on Competition and Artificial Intelligence, 2026, p. 159).

717 These strengths lie less in the upstream, capital- and scale-intensive levels of the AI stack – chips, the cloud and foundation models – than in the application-oriented levels: in proprietary industrial data, in application knowledge accumulated over decades, in industrial capacity and in a high-performing SME sector. Targeted, specialisation-driven investment in individual segments of the stack can be effective, for example in open and sector-specific models, resource-efficient algorithms or sovereign computing infrastructures in which German and European strengths can be integrated. The comparative advantage, however, lies in the productive combination of industrial know-how, data and AI applications.

718 It is precisely this form of AI transformation, which is now required, that has so far not been achieved to a sufficient extent. German industry is showing marked reluctance to adopt AI. Small and medium-sized enterprises are adopting a wait-and-see approach, partly due to their limited capacities; some large companies have structures that hinder rapid change; and management practices are often not geared towards disruptive technological change. Added to this are limited financial resources, a shortage of skilled workers, inadequate data management, legal uncertainty and over-regulation (Federal Network Agency, 2025).

719 This observation is functionally similar to a market failure, but cannot be readily diagnosed in microeconomic terms. What becomes apparent is a shortfall that the market should, in principle, be able to remedy through its own mechanisms: the rapid diffusion of a key new technology into productive applications. This necessary development is hampered by numerous diffuse cultural and institutional rigidities, which have so far prevented market forces from triggering a targeted transformation on a sufficiently broad scale. Added to this is a competition policy dimension. In the ‘ ’ of the digital economy, massive dependencies have arisen in key areas, which are particularly evident in AI and may even be exacerbated by it. Continued hesitation on the part of European companies regarding AI transformation could further exacerbate this distortion of competition. This gives rise to the fundamental economic policy question that has prompted the Monopolies Commission to examine the issue of AI economic policy in greater detail and to explore the framework the state must establish to overcome this inertia without weakening competition.

720 The Monopolies Commission sets out its recommendations from a clear perspective: the overarching objective is the protection of competition. It recognises,

however, that there are other legitimate objectives alongside this. The handling of AI in particular demonstrates how closely competition policy, regulatory policy and industrial policy must interact (Duso/Peitz, 2025). From the Monopolies Commission’s perspective, the protection of competition is therefore not merely at odds with industrial policy; the two can also go hand in hand. This is particularly true in light of geopolitical changes.

721 It is therefore necessary to develop a new, competition-oriented AI economic policy, the principles of which must be further refined in future and pursued with political determination. A key element of such an approach to the AI transformation is, on the one hand, the realisation that traditional industrial policy instruments – which have always been controversial from a competition policy perspective, such as subsidies for national champions, support for individual companies and protected markets (Monopolies Commission, 2004) – do not work in the case of a cross-cutting technology such as AI. They create inertia rather than dynamism and jeopardise competition, which is the real driving force behind innovation, competitiveness and economic growth.

722 Another key element of a new, competition-oriented AI economic policy is the acknowledgement that it cannot be guided solely by addressing a single market failure that is clearly identifiable and verifiable in microeconomic terms, but must go beyond this as a strategy. It remains true, of course, that the need for economic policy intervention can be justified by identifying market failures. However, in the case of German industry’s difficulties in adapting to the colossal task of AI transformation, the market failure is concealed behind numerous clusters of individual market structures, institutional rigidity, coordination problems across the AI stack and second-best issues – which are only recognisable in their combined effect as a ‘transformation failure’ (**7Box3.3** in **710**). A clear link to a single microeconomically identifiable problem is therefore not always meaningful. This makes the question of a new, effective economic policy response particularly challenging. Whilst market failure remains the central point of reference for state intervention in an individual market, it is also necessary to establish guidelines for a new economic policy strategy.

723 This failure of transformation has an impact across the entire AI value chain, which can be broadly divided into three groups of actors. At the base of the value chain are the (US-dominated) technology companies, whose market power is secured by economies of scale, access to data and financial strength within digital ecosystems. The second group comprises European AI providers, including many start-ups. The third group consists of German industrial companies acting as AI users. The relationship between these groups is crucial. Without a competitive European provider landscape, AI users are dependent on US-dominated players. It is precisely here that a

failure of coordination along the AI stack becomes apparent: as long as users stick with the established stack for lack of alternatives, European providers lack the demand needed to become competitive. And as long as these providers are not competitive, users have no incentive to switch. Each group behaves rationally in its own right, but the state of affairs that would be more beneficial for all – a viable European alternative – does not arise of its own accord. Market forces alone cannot resolve this impasse. This is precisely where a competition-oriented economic policy can come into play.

724 This chapter explores the key question of what a competition-oriented AI economic policy should look like in three stages. The diagnostic section (74.2) analyses the competitive landscape within the AI stack, the dynamics of adoption in Germany, and long-term risks to competition and innovation. In section 74.3, initial approaches are developed as to what a competition-oriented economic policy response might look like: firstly, clarifications under competition law for AI markets; secondly, a competition-friendly overhaul of AI regulation; and thirdly, industrial policy in the narrower sense, guided by competition principles. The recommendations in section 74.4 summarise the key conclusions.

725 In this analysis, the Monopolies Commission draws in particular on two sources: a dozen interviews and roundtable discussions with companies, business associations and experts – including German start-ups, small, medium-sized and large industrial firms, as well as international players – which were conducted on the Monopolies Commission’s initiative; and a systematic review of the academic literature. This analysis deliberately adopts the perspective of companies – both industrial users and providers of AI – as the chapter focuses on the competitive conditions for the industrial AI transformation. Accordingly, the selection of interview partners was aimed at representing different company sizes and market positions, validating the results of the literature review and gaining a better understanding of specific issues. Other legitimate concerns – such as consumer protection or the protection of fundamental rights – are therefore not the focus of this chapter. These are addressed in particular by the AI Regulation, the objectives of which the Monopolies Commission expressly endorses (see section 74.3.2). The interviews were initially conducted in an open-ended manner and, at a later stage, using a structured questionnaire. The interviews covered the current state of AI deployment within companies, experiences with implementation and scaling, key barriers to adoption, interdependencies within the AI stack, as well as the competitive landscape and market structure. The results of the discussions are presented separately in the relevant sections and are not subject to any substantive assessment, as the aim is to convey as unfiltered an impression as possible of the discussions. The Monopolies Commission would like to thank the interviewees for their

openness and the many insights they provided. The findings from these discussions are summarised in particular in the ‘Insights from Practice’ info boxes.

4.2 Industrial companies and the AI transformation

726 The AI transformation presents industrial companies with structural challenges. Whilst AI has the potential to overcome productivity stagnation, alleviate the shortage of skilled workers and fundamentally reconfigure industrial value chains, there appears to be a marked discrepancy in Germany between strategic awareness and actual implementation. Three key findings characterise the following analysis. Firstly, industrial companies are becoming structurally dependent on key AI inputs. Secondly, the widespread adoption of AI — historically a key driver of productivity growth — will determine whether Germany can keep pace with the leading technological nations. Thirdly, disruptive technologies such as AI can be dominated by established players through first-mover advantages.

4.2.1 The AI stack is characterised by US dominance – the application layer remains the domain of German industry

727 Artificial intelligence is neither a single product nor a standalone service, but a multi-layered system comprising technologically and economically intertwined levels. Whoever controls one or more of these levels has a decisive say in which dependencies arise and what scope remains for independent economic action. A competition-oriented assessment of the AI markets therefore begins with the stack.

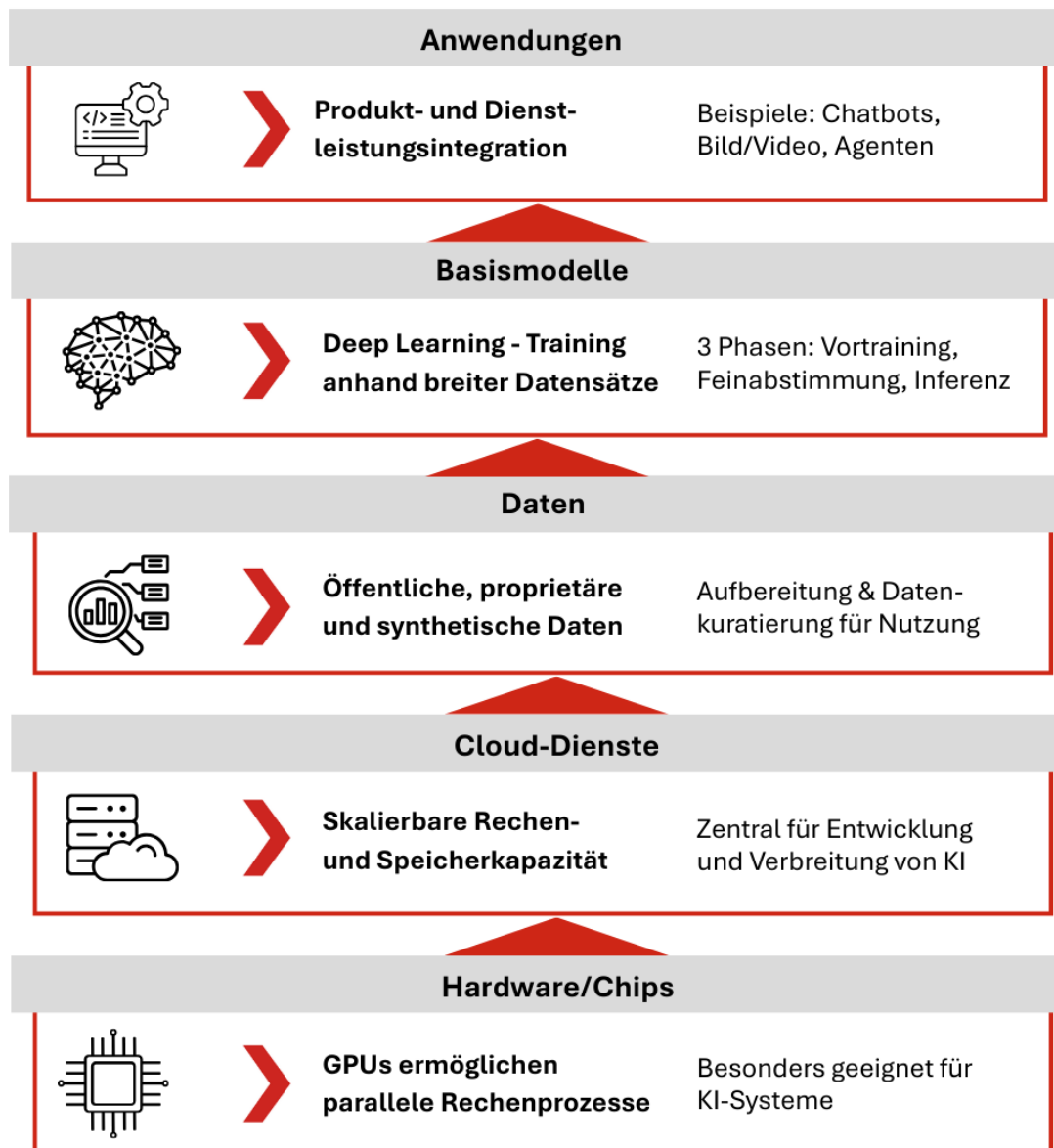
728 In the following, the vertical AI stack is first broken down into its layers, and the interaction between these layers is explained. Subsequently, the upstream layers — hardware and cloud computing, data and foundation models — are examined for their competitive implications. This reveals the pronounced dominance of a small number of, predominantly US-based, technology companies, whose vertical integration and market power restrict competition in key areas. Against this backdrop, the focus then turns to the application layer: this is the layer at which German and European industrial companies can leverage their proprietary data and in-depth application expertise as a comparative advantage.

4.2.1.1 AI as a multi-layered system

729 An AI system is enabled by various layers of technologies and components that are vertically interrelated and interdependent (Hagiu/Wright, 2025). The following **Figure 4.1** illustrates the so-called vertical AI stack.

730 At the hardware layer, specialised chips – known as Graphics Processing Units (GPUs) – are produced; these are particularly well-suited to AI systems because they can perform multiple tasks and carry out numerous calculations simultaneously. At the cloud layer, high-performance computing and storage capacities are provided. These are adaptable and scalable to meet any requirement and are central to the widespread adoption of AI. At the data layer, publicly available data is utilised, such as datasets collected via web crawling/scraping or otherwise available datasets, proprietary data (from third parties) and synthetic data. Web crawling/scraping refers to the automated extraction of data from websites by software programmes for the purpose of collecting, categorising and further processing data. Synthetic data is algorithmically generated data that simulates real-world datasets. The raw data must be processed and organised into suitable datasets – i.e. converted, cleaned, enhanced, formatted and catalogued – to make it consistent and usable (known as data curation). At the foundation model layer (so-called base models), advanced deep learning systems are used for AI development. They are trained on a broad dataset and subsequently optimised for a wide range of downstream tasks. Once a finely tuned AI model has been developed, companies at the application layer seek to identify a commercially promising business case for their products or services. Monetisation strategies are currently still in the exploratory phase in both the B2B and B2C sectors. It remains to be seen in which areas AI will prove to be economically viable.

Figure 4.1 : Vertical AI stack



Source: Author's own illustration, 2026.

731 AI offers industrial companies significant potential for cost savings and productivity gains, particularly in production planning, energy management, product development, maintenance, quality control, as well as in service and sales. AI is thus set to become a key source of future competitive advantages. However, this requires several key resources. For example, AI requires scalable computing power and intelligent algorithms, high-quality and well-processed data, substantial financial resources and significant amounts of energy. Furthermore, AI resources such as data and talent are widely dispersed.

732 Control over individual or even all levels or layers by one or a few technology companies can lead to bottlenecks in key inputs for industrial firms and create incentives for anti-competitive behaviour.

4.2.1.2 Hardware and cloud computing – concentrated markets and bundling practices

733 In order for AI systems to be developed and used, specialised chips are required first and foremost. So-called Graphics Processing Units (GPUs) and Tensor Processing Units (TPUs), for example, are particularly well-suited to AI because they can perform multiple tasks simultaneously. The US company Nvidia currently dominates this global market (Perrone, 2025). Nvidia handles the design and distribution of AI-specific chips, whilst manufacturing is predominantly carried out by the Taiwanese company TSMC and the South Korean company Samsung. A prerequisite for the production of state-of-the-art chips is the lithography technology provided by the Dutch company ASML, which is the world's sole supplier of the machinery required for this purpose. Furthermore, Nvidia also provides the most popular framework for GPU usage – that is, for training, coding and running AI models. This is called the Compute Unified Device Architecture (CUDA)⁸³ and currently represents the de facto standard for AI developers. CUDA brings together hundreds of optimised libraries and tools that are closely integrated with Nvidia's GPUs. A large developer ecosystem has formed around them. In fact, switching away from CUDA to another development environment involves significant costs for reprogramming.

734 The rise in demand for generative AI, as well as the market's preference for certain chip developers, has led to a shortage of these chips. This makes it difficult for new companies to enter the market. Consequently, developers of foundation models (see below) and major cloud computing companies (see below) are looking for ways to manufacture their own chips or enter into partnerships. In this way, they aim to drive forward the development of specialised chips for specific AI tasks and reduce their dependence on external suppliers. Despite these efforts by major technology companies to develop bespoke chips for internal use, no significant shift in demand has been observed to date. This means that the market structure and dynamics in this sector are unlikely to change significantly in the medium term. Innovations in new chips may also reinforce their bundled use with cloud services.

735 At the next level, cloud computing services are crucial for the development and deployment of AI. They are dominated by the three major players – Amazon Web Services, Microsoft Azure and Google Cloud – although there are also numerous smaller competitors. European providers such as OVHcloud, Deutsche Telekom (T-Systems)

⁸³ CUDA is comparable to an end-user operating system.

and Scaleway and IONOS – which specialise in AI computing power – collectively hold only a small, albeit growing, share of the European market. In the context of AI, cloud providers offer a range of services:

- Infrastructure-as-a-Service (IaaS): Scalable GPU-based computing resources for training and running large AI models;
- Platform-as-a-Service (PaaS): Ready-to-use tools and environments for working with AI, including data preparation, model training and deployment;
- Software-as-a-Service (SaaS): Pre-trained AI models and programming interfaces that businesses can integrate into their applications without having to develop models from scratch.

736 Cloud services are aimed at a wide variety of businesses. These range from AI providers developing foundation models to traditional companies seeking to integrate AI solutions into their operational processes. The offerings from the three major cloud providers enable industrial companies to access high-performance AI computing power and storage capacity as and when required, without having to make significant upfront investments in their own hardware and software infrastructure. However, to operate these services, cloud providers require vast quantities of AI chips and energy.⁸⁴ Cloud computing services often provide developers and users of foundation models (see below) with essential computing capacity and integrated services. For start-ups or smaller AI developers, these providers are of crucial importance, as they supply resources that go beyond mere cloud computing, such as specialised hardware and software for the development and deployment of foundation models.

737 Potential restrictions on competition may arise if such providers introduce clauses or practices that result in tying or bundling, thereby raising the barriers to switching providers or limiting the commercially available options (Meyers/Bourreau, 2025). Such arrangements may prompt customers to consolidate the majority or all of their cloud requirements with a single provider, even if other providers offer better services in specific areas. Such practices include egress fees, i.e. charges incurred by users when they transfer their data from one cloud provider to another. Further examples include cloud credits (so-called ‘cloud credits’), i.e. allocations of cloud services that are accessible free of charge for a specific period, as well as discounts and minimum turnover requirements, and technical barriers to the interoperability or portability of data and applications.⁸⁵ Some cloud providers are also AI developers, and their vertical integration can lead them to restrict access for other companies that they regard as direct competitors to their own AI solutions.

⁸⁴ The enormous energy and water consumption of data centres raises questions about the sustainability of AI business models, which cannot be explored in depth here.

⁸⁵ Some of these aspects are already addressed by provisions of the Data Act (Regulation (EU) 2023/285), which, for example, provides for the phased abolition of switching fees in Article 29.

Box4.1: Practical insights into cloud computing and dependencies**INSIGHTS FROM PRACTICE**

During the Monopolies Commission's hearings, the companies expressed particular concern regarding their dependence on a small number of large US cloud providers, which together held significant market shares. These providers were said to have considerably greater capabilities than their European competitors, such as the ability to rapidly provision large amounts of additional capacity. Furthermore, companies are tied to these providers by longer contract terms and high switching costs due to technical constraints, which exist regardless of whether switching fees are charged or not.

Other companies, however, point to the efforts of cloud providers to establish infrastructure in Europe as well, in order to address concerns regarding European sovereignty. This expansion requires infrastructure (e.g. good internet connectivity, such as at internet exchange points), access to energy and qualified staff. Furthermore, the market is highly competitive, as there are several providers and switching fees are currently being abolished as a result of the Data Act.

Initiatives to expand AI (giga) factories are welcomed, but are seen, at best, as a medium-term solution that is unlikely to come close to matching the enormous capacities available, particularly in the US.

738 Without partnerships with cloud providers, there are hardly any viable alternatives for industrial companies if they have multiple business locations spread across the globe. The shortage of chips, as well as the lack of sufficient computing in , can drive up costs and increase dependence on cloud providers, particularly for new entrants and smaller developers of foundation models. Exclusive cloud partnerships or unfair and discriminatory access conditions can further exacerbate this problem. Small, specialised companies may struggle to find reliable resources outside of cloud solutions, and their access to users as well as their choice of foundation models may depend on their cloud providers' distribution platforms. Exclusive partnerships between cloud providers and developers of foundation models can distort competition between different foundation models, thereby potentially limiting innovation and diversity in AI markets.

4.2.1.3 Data – leveraging as a strategic advantage

739 Data is of crucial importance to industrial companies intending to develop or implement AI. It serves as a strategic resource that enables informed decision-making and data-driven innovation. Data can boost operational efficiency and innovation, highlight market trends and insights, and facilitate a better customer experience. Many more traditional companies in the industrial sector are facing a fundamental transformation, as the provision of data-driven services and products becomes increasingly important. Industrial companies must collect, gather, prepare and process data, and have robust data management practices and data infrastructures in place to gain competitive advantages through AI and ensure sustainable growth (Xu et al., 2024). In this context, the comprehensive collection, processing, integration and utilisation of diverse data sets from various sources can lead to economies of scale (Carballa-Smichowski et al., 2025), synergies (Schaefer/Sapi, 2023) and, ultimately, competitive advantages in AI (Mihet et al., 2025).

740 A key factor lies in what are known as data feedback loops: these arise when more customer-related data, processed by AI, leads to a better product, which consequently attracts more customers, which in turn leads to more customer-related data, and so on. There are two fundamentally different types of learning that can lead to data feedback loops (Hagiu, A./Wright, 2023):

- Cross-user learning occurs when more users generate more data, enabling the product to be improved for all users. In this way, the product improves for everyone as user numbers rise.
- User-internal learning means that more data from a specific user is utilised, enabling the product to improve specifically for that individual. Smart sensors used by customers of industrial companies are an example of user-internal learning processes, in which the device learns individual preferences through repeated use, thereby increasing the likelihood of continued and expanded use.

741 Distinguishing between these two types of learning is important because the associated feedback loops have different economic implications. Feedback loops based on cross-user learning mean that the value of the product increases as more users join, as additional insights are gained from additional user data. Consequently, all other things being equal, industrial firms that utilise cross-user learning are more likely to pursue a more successful strategy. In contrast, data feedback loops based on intra-user learning exhibit rising switching costs. The longer a product is used, the more it is tailored to users' needs, thereby reducing the inclination to switch to a competitor. Industrial firms that benefit from user-internal learning can thus strengthen the loyalty of their existing customer base, whilst remaining vulnerable to competition for

new customers; consequently, there is less reason to expect a ‘winner-takes-all’ dynamic. If the relevant markets are mature – i.e. with few new customers entering the market – such industrial firms can hold a strong market position, even if the market is not particularly concentrated.

742 Consequently, the type of data, the trajectory of the learning curve, and the duration and strength of feedback signals are key determinants of the economic viability of data utilisation. It is therefore particularly important for industrial companies to establish in-house data collection and processing processes and to tailor these to their AI applications (i.e. ensuring the consistency of proprietary data, known as data curation) and, where appropriate, to enter into data partnerships with third-party companies that enable further exploitation of the data pool required for the specific industrial AI application (see section **74.3.1.2**).

743 Access to high-quality processed data can be facilitated through protocols and interfaces (Application Programming Interfaces, APIs), open-source models, shared technology layers and data markets. At the same time, there is a risk that large companies may attempt, to the detriment of smaller firms, to conclude exclusive agreements or carry out data-driven acquisitions in order to gain access to unique (proprietary) data or to deny such access to competitors (Monopolies Commission, 2024a).

Box4.2: Practical insights on data**INSIGHTS FROM PRACTICE**

During the discussions, the high value of Europe's industrial and process expertise and the proprietary data available in this regard was emphasised. Care must be taken to ensure that this data advantage is not lost to the outside world.

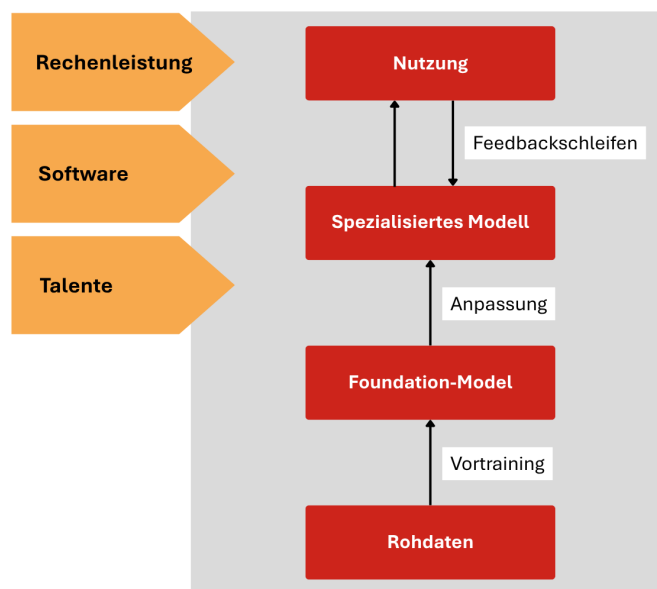
However, some companies report that, despite data sovereignty, they find it very difficult to actually utilise the data they already hold. This data first needs to be classified and, for example, checked to see whether it contains personal data. This involves a great deal of effort. Many older machines also do not record all the necessary data. Better access to data would be desirable for some companies; the user-centred approach of the Data Act is of little help in this regard. Regarding the question of whether competition law would preclude the sharing of data, the Monopolies Commission received conflicting information.

4.2.1.4 Foundation models – closed systems alongside open models

744 The now widespread use of AI is based on the success of foundation models (Hagiu, Andrei/Wright, 2025). These are large deep learning neural networks designed to generate a broad and general variety of outputs and to handle a range of tasks and applications. As foundation models are trained using numerous datasets for a wide range of application scenarios, they can be adapted to specific applications. Data used to train foundation models includes, for example, data obtained through web crawling or scraping, publicly available datasets such as C4, The Pile, LAION, the Project Gutenberg Corpus, GitHub, PubMed, the Internet Archive and Stack Exchange, as well as personal data or data that can be linked to individuals, proprietary data (from third parties) and synthetic data (CMA, 2024). Consequently, industrial companies can draw on existing foundation models and adapt them as necessary, or develop AI from scratch themselves for their production facilities and/or industrial products and applications.

745 The popular large language models can be standalone systems or serve as a basis for other applications. Despite all the advantages of language models, there are currently inherent limitations (e.g. hallucinations), particularly when working with specific, up-to-date or specialised information. Consequently, numerous efforts are being made to overcome these limitations. Furthermore, not only text data but increasingly also image, audio and video data are being used, leading to so-called multimodal foundation models. The next step currently being worked on involves so-called world models, which can understand and simulate real-world environments by predicting how objects and scenes interact with one another over time (Bechard, 2026). World models are intended to enhance AI’s ability to make decisions and generate realistic content, thereby going beyond the capabilities of language models.

Figure 4.2: Foundation model layers



Source: Author’s own illustration, 2026.

746 Collaboration between multiple companies to jointly develop and fine-tune foundation models represents a promising, yet as yet underutilised, approach. The exchange of data to train a shared model can unlock the potential of data collaboration, but requires trust, data sovereignty and appropriate tools to ensure compliance and mutual benefit.

747 Access to foundation models can be crucial for the deployment of downstream AI applications for industrial companies. The number and variety of foundation models are increasing worldwide, with differences in size, input data, resource requirements, performance levels and specialisation. The ties between major technology

companies and developers of foundation models take various forms: long-term partnerships with exclusive cloud procurement commitments; large-scale equity investments which, whilst formally representing minority stakes, confer quasi-merger-like influence through board seats, IP rights or special profit-sharing structures – as in the case of Microsoft and OpenAI; investments in the form of cloud credits and computing capacity, which reinforce the bundling logic at the cloud level; and ‘acqui-hire’ and licensing arrangements, in which an AI developer’s key personnel and technology are acquired without a formal equity stake (as in the cases of Microsoft/Inflection AI, Amazon/Adept and Google/Character.AI). The coverage of these arrangements under merger control has been the subject of intense debate at EU, UK and US level since 2024.

748 The development of larger, more powerful foundation models continues, but requires substantial amounts of data, computing resources and high training costs. Consequently, efforts are being made to develop and deploy smaller models with extensive capabilities but lower resource requirements, such as DeepSeek. Industrial companies regularly require significantly smaller, specialised AI models for their purposes. The development of smaller foundation models is likely to facilitate their deployment on various end devices and reduce dependence on cloud infrastructures. We are already seeing a reduction in the size of foundation models and the increasing availability of specialised AI chips for end devices. European providers are particularly prominent in the field of smaller, application-specific or open AI models; examples include Mistral AI from France in the field of language models and Black Forest Labs from Germany in the field of image generation. This shift bypasses the compute-scale race at the upstream levels and opens up opportunities where European specialisation can find a niche.

749 Foundation models are frequently published on various platforms, which are often hosted by large technology companies. These platforms support different access methods to foundation models and offer AI users a wide selection of models. Although they are still at an early stage, these platforms may exert a certain influence on the dissemination of foundation models in the future.

Box4.3: Practical insights into foundation models and in-house industrial AI**INSIGHTS FROM THE FIELD**

Companies reported that the requirements for AI in the industrial sector are often very different from those in the consumer sector. For example, large language models do not understand the ‘language of industry’ (e.g. industrial designs, machine behaviour, physical processes, etc.). It is therefore necessary to develop bespoke foundation models depending on the area of application.

It was also reported that the differences between individual foundation models are currently still relatively small, meaning that it is still possible to catch up with those in the lead, and that there are a great many different foundation models and options available for various areas of application.

Opinions differed on the question of the cost of accessing foundation models. Whilst one company spoke of ‘democratisation’, other companies assessed the costs as rather high and, in some cases, prohibitively high, with a tendency to rise.

4.2.1.5 Application level – scope for German industry and new competitive risks

750 At individual sites or in industrial production, dependence tends to be local and low; in globally distributed corporate structures, however, it tends to be high. In the software sector, industrial companies have a great deal of control over matters themselves, as industrial AI applications are often plant-based or technology-dependent and therefore do not need to be moved to the cloud. Cloud dependency is low in industrial production and automation, for example, as the AI models here mostly run locally and the data is also stored locally – data sovereignty lies with the industrial companies anyway. Data aggregation at factory level can also take place within the company. A large proportion of industrial AI models – which are generally significantly smaller than well-known language models such as Anthropic’s Claude or OpenAI’s ChatGPT – must be developed on-site anyway, for example for individual robotics applications and specialised production facilities.

751 At the application level, data requirements become more specific and demanding. Proprietary, high-quality, industrial and specialised data can become a decisive competitive advantage if industrial companies operate professional data management and their own data infrastructures capable of realising the potential of industrial AI. Companies with access to proprietary or exclusive data can gain an advantage in the development and deployment of specialised AI applications (Chen/Keppo, 2025).

752 Leading companies in upstream markets (e.g. chips, cloud, data) or vertically integrated companies can use their market power through practices that deny access to limit competition in the deployment of foundation models at the application level (CMA, 2024). For example, the developer of a foundation model could grant its own downstream AI services exclusive access to the best version of the model, or the rights holder of key applications could tie downstream users to specific models and specific cloud solutions. Licensing restrictions, such as limitations imposed by APIs or restrictions on licensees' commercial applications, can also have a negative impact on innovation, influence users' preferences and limit their choice. Such strategies can increase dependence on specific foundation models in the development of downstream AI applications. As foundation model technology is integrated into an ever-increasing number of applications, services and products, control over it can give major players a strong negotiating position and enable them to influence technological development and innovation in downstream markets.

753 AI applications that are commercially and technically integrated in such a way that they are tied to a specific foundation model may create further dependencies. This is particularly the case when a foundation model is integrated into a digital ecosystem, for example into an operating system, thereby restricting users' ability to use alternative models outside that ecosystem (Monopolies Commission, 2024b). Such integrations may be either structural in nature, whereby a single company develops and provides both the foundation model and the operating system, or commercial in nature, involving certain forms of exclusive agreements between operating systems and foundation model developers. , operating system providers prioritise their own foundation models through seamless integration, preferential access and improved compatibility – for example, Microsoft with the integration of Copilot into the Windows operating system, the Office software suite and the Azure cloud solution, or Google with the integration of Gemini into the Android operating system and its own search engine. This could potentially limit users' choices and create barriers that make it difficult to switch to AI applications based on alternative foundation models.

754 Whilst cloud computing plays a crucial role as an upstream input for training foundation models, it simultaneously serves as an important distribution channel at the AI application level. Cloud providers act as intermediaries between developers of

foundation models, users of these models and end-users, facilitating both the provision of foundation models and the AI application itself. For example, Microsoft offers OpenAI's foundation models via the Azure OpenAI Service as well as within its existing enterprise cloud solutions. Google provides access to foundation models via its Google Cloud Platform. Amazon's Bedrock offers access to leading foundation models from, amongst others, Anthropic, Meta, Mistral AI, Stability AI and DeepSeek. At present, such cloud platforms act as marketplaces and offer a wide choice, thereby reducing transaction costs and promoting the diversity of AI models. In these environments, however, strategies of self-preferencing on the part of major cloud providers can lead to significant restrictions on competition.

Interim conclusion: on closer inspection, the AI stack presents a nuanced picture

755 On closer inspection, the vertical AI stack presents a nuanced picture. Whilst there is a high degree of heterogeneity amongst the players in the foundation models and data sectors, the hardware and cloud layers are clearly dominated by a small number of, predominantly US-based, technology companies. These companies are in an advantageous position, as they are often active across multiple layers and continue to drive forward their vertical integration within the AI stack through enormous investment. Alphabet/Google is already active across the entire vertical AI stack: Google designs its own chips (TPUs), operates its own cloud infrastructures, provides computing and storage capacity to third parties, has collected a wide variety of data from its digital ecosystem over many years, and, with Gemini, possesses one of the leading foundation models. The dominance of the so-called 'Big Tech' companies is to be assumed as a given in the medium term; catching up from a German or European perspective does not appear realistic.

756 Competition issues within the AI ecosystem can arise in a variety of ways – for example, through exclusive agreements, data-driven acquisitions, tie-in and bundling practices, the raising of barriers to market entry, M&A activities aimed at poaching scarce AI specialists in conjunction with technology licensing, unequal access to proprietary resources, or vertical integration in closely interlinked markets. AI is both a driving force behind technological disruption and an opportunity for new players to enter markets, create new markets and exert long-term competitive pressure on established companies.

757 For German industrial companies, this paints a clear picture: in the field of physical hardware, dependencies are dictated by global supply chains and can hardly be influenced. In the field of software, however – and particularly at the application level

– industrial companies have a great deal of control over their own destiny. The application level is the layer at which German industrial companies can capitalise on their strengths – proprietary industrial data and in-depth application expertise. It is therefore the key area that a competition-oriented AI economic policy should protect and further develop.

4.2.2 The uptake of AI is stalling – the core problem lies in organisational inertia, exacerbated by regulatory burdens

758 The key question for a competition-oriented AI economic policy is whether Germany will succeed in tapping into the full potential of AI applications across the board. Whilst the AI Stack findings highlight structural dependencies and areas of flexibility, the economic impact of the technology is only realised where companies actually put it into practice. It is precisely at this point that development is stalling. AI adoption in Germany — when compared with the US and other OECD countries — falls short of what is possible, and there is marked heterogeneity across sectors and company sizes.

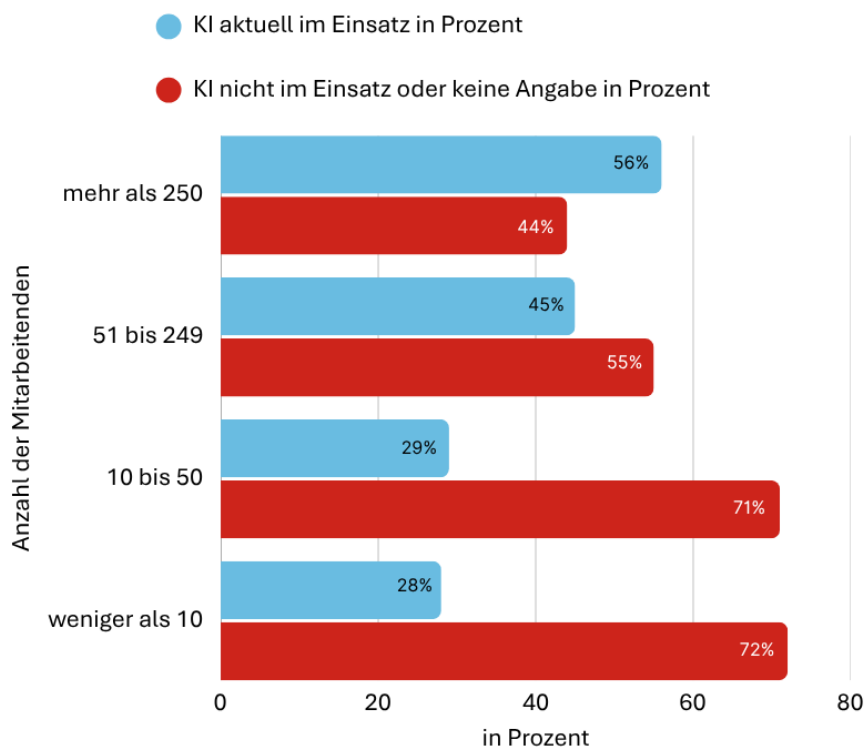
759 This diffusion gap is not a random phenomenon, but the result of an interplay of several factors, which the following section analyses in three steps. First, an empirical picture of AI adoption in Germany is drawn up in an international comparison. Next, the business and cultural causes of this inertia are examined. Finally, it will be shown how the existing regulatory framework acts as an additional burden and reinforces this inertia rather than overcoming it. The diffusion gap thus points to an economic phenomenon that cannot be pinpointed to a single microeconomic market failure, but only becomes apparent in a combination of market structures, organisational patterns and institutional frameworks.

4.2.2.1 Empirical evidence points to slow penetration into the economy and weak knowledge transfer from research

760 Despite the great potential that AI can offer, the overall picture regarding the use of AI in German businesses is mixed. Whilst individual companies and sectors have already made significant progress in implementing AI applications, widespread adoption remains limited to date. This is evident from a survey conducted by the Federal Network Agency in 2024 (Federal Network Agency, 2025). 26 per cent of micro-enterprises (fewer than 10 employees) and 29 per cent of small enterprises (20 to 49 employees) use AI. Among medium-sized enterprises (50 to 249 employees) and large enterprises (≥ 250 employees), the proportion stood at 45 per cent and 56 per cent

respectively in 2024. A more recent study shows that by the end of 2025 and the beginning of 2026, 65 per cent of companies in Germany were already using AI (Yotzov et al., 2026). When comparing OECD countries, the average rate of technology adoption⁸⁶ by companies across the OECD stood at just over 10 per cent in 2024. AI adoption by small and medium-sized enterprises in Germany stood at just under 40 per cent in 2024 (OECD, 2025b).

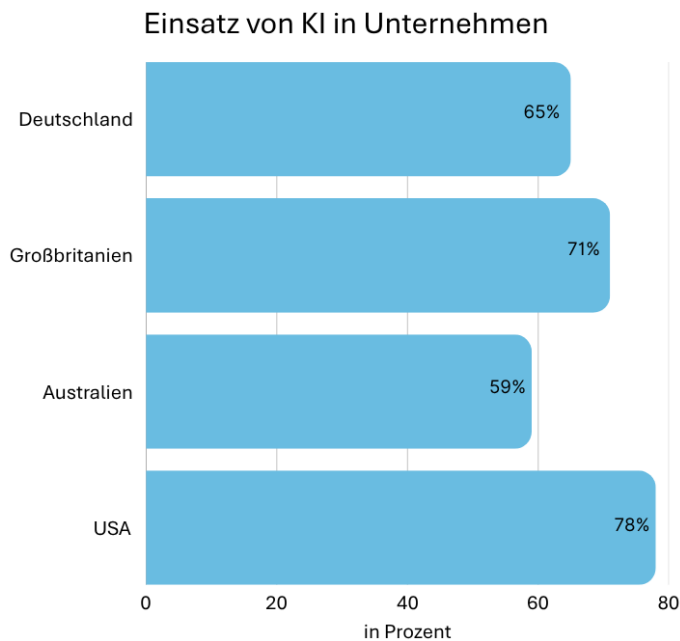
Figure 4.3: Use of AI in German companies



Source: Federal Network Agency 2025.

761 Yotzov et al. (2026) examine AI adoption by companies, comparing Germany, the UK, Australia and the USA. During the survey period from November 2025 to January 2026, AI adoption was highest in the USA, at 78 per cent of companies. In the UK, the figure stands at 71 per cent, whilst in Germany 65 per cent and in Australia 59 per cent of companies use AI. Across all the countries considered, it is also evident that larger companies are more likely to use AI. Furthermore, more productive and higher-paying companies are more likely to use AI. AI usage is particularly high in sectors such as financial services and science.

⁸⁶ Measured as a binary variable.

Figure 4.4: Use of AI in companies: an international comparison

Source: Yotzov et al., (2026)

762 Furthermore, there are marked differences between sectors. Companies in the knowledge-intensive services sector use AI at a rate of around 50 per cent – roughly twice as often as companies in other sectors. These other sectors include, amongst others, retail, energy and water supply, manufacturing, other services and the construction industry. Here, adoption rates are projected to range between 16 and 26 per cent in 2024 (Federal Network Agency, 2025). Other surveys from the same year arrive at similar findings (Federal Statistical Office, 2024).

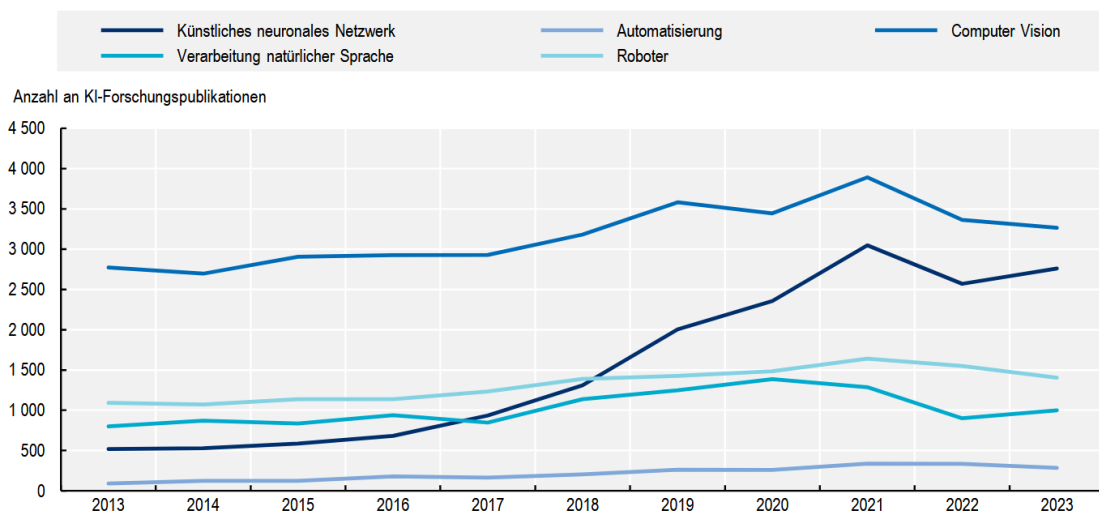
763 Where AI is used, generative applications dominate. Three-quarters of the companies using it employ it to generate text, speech, images or programming code, whilst just under 58 per cent use it to analyse text, speech or audio signals. Around one-third use AI to support decision-making processes or to develop recommendations. More advanced applications are significantly less common: only around 15 per cent in each case use AI to predict events or to automate control and robotic processes, with a further 10 per cent using it for image and person recognition. There are no discernible differences based on company size or sector (Federal Network Agency, 2025).

764 In the field of knowledge transfer, too, the picture reveals challenges in the adoption of AI. Germany ranks among the world's leading centres for AI research – in both

basic and applied research. Accordingly, scientific publications by German researchers are regularly among the world’s leading ones (OECD, 2024). Since 2018, there has been a marked increase in AI-related research publications from German institutes and universities. In an international comparison, Germany thus ranks fifth in terms of quantity and fourth in terms of quality – measured by the number of citations, particularly in the fields of robotics and computer vision, i.e. the interpretation of visual information from images, videos and other inputs (OECD, 2024). Whilst research activity is high overall, knowledge transfer into practice, however, shows considerable shortcomings.

765 Patent applications filed by universities serve as an indicator of knowledge transfer into practice. The proportion of academic patents⁸⁷ out of the total number of patent applications is comparatively low in Germany within the same comparison group for the period 2010 to 2020. Germany ranks second from last in this respect (Wörter et al., 2024). An international comparison also shows that strong research performance in academia is not reflected in commercial implementation. For example, only four of the world’s 50 leading technology companies are European.

Figure 4.5: Publication topics of German institutions



Source: OECD (2024).

766 This dual diffusion gap — both in terms of adoption by businesses and the transfer of technology from research — raises the question of its causes. The following section analyses the business and cultural factors that explain the slow adoption of AI by German companies.

⁸⁷ An academic patent requires at least the involvement of one person from the academic community or the filing of the patent by an academic institution.

4.2.2.2 Organisational and cultural factors make inertia a structural barrier

767 Technologies only realise their full potential once they are deployed across the board and embedded within the organisation. In Germany, numerous established and new companies are currently still in the phase of making AI applicable to their business processes. However, these companies often encounter resistance in the process. Established companies, in particular, attempt to manage the disruption associated with the technology within the framework of familiar processes and procedures. The resistance encountered here is partly universal, but is also particularly pronounced in Germany and Europe. Taken as a whole, the Monopolies Commission's findings reveal a combination of market structures, institutional inertia, culturally influenced risk appetite and 'second-best' problems, which cannot be attributed to a single market failure but must be addressed in their entirety from an economic policy perspective.

768 Generally speaking, the literature shows that companies often encounter problems with established structures when adapting to new technologies. Henderson and Clark (1990) attribute this to the fact that managers have built their organisations around existing technologies. This increases the switching costs for companies when transitioning to new technologies. Furthermore, management practices play an important role, as they are crucial to realising productivity gains from the introduction of new information technologies (Bloom/Van Reenen, 2007). Managers may also have incentives to avoid the risks associated with innovation. If innovation projects fail or the expected productivity gains fail to materialise, there is a risk that negative outcomes will be attributed to their personal performance, without taking sufficient account of the fact that the success of innovations also depends on uncertainties and random factors. This can entail reputational risks for managers. An open culture of error acceptance can help to reduce such forms of risk aversion.

769 Organisational inertia thus becomes a structural barrier to AI transformation. It is no coincidence that this corporate inertia is particularly pronounced in the German economy. It is closely linked to the country's historical success story: over decades, German industrial companies have consolidated their position in international competition through superiority in systems, expertise and processes. This was made possible by well-established supplier relationships, highly specialised value chains, regulatory safeguards and balanced co-determination structures. It is precisely this success that is now being fundamentally challenged by AI, because the technology demands not incremental improvement but structural adaptation. In economic theory, this mechanism is described as a 'competency trap': organisations become so proficient in their successful routines that they cling to them, even when environmental

conditions change fundamentally (Levinthal/March, 1993; Levitt/March, 1988). What long appeared to be a strength thus becomes an obstacle during the transformation phase (Christensen, 1997).

Box4.4: Practical insights into organisational inertia



INSIGHTS FROM PRACTICE

The discussions at the Monopolies Commission revealed a mixed picture.

On the one hand, it was pointed out that there is a cultural divide regarding the use of AI within companies. For instance, AI is very well received, particularly in North and South America as well as Asia, and acceptance is also high in Eastern Europe. In Western Europe, however, scepticism is greater, which is linked to a stronger culture of fear. In some cases, staff fear being replaced by AI.

On the other hand, however, it is also reported that AI projects are often initiated by the workforce itself, through individual, particularly motivated employees ('grassroots movement').

770 Added to this is a specifically German factor that exacerbates the situation: a comparatively strong legal caution in business decision-making. This manifests itself in a pronounced compliance culture, a higher proportion of legal roles on management bodies than in comparable economies, and a tendency towards a more restrictive application of data protection and privacy regimes compared with the rest of the EU. This aspect was also raised on several occasions during the discussions held by the Monopolies Commission: the discussions gave the impression that legal risks and regulatory frameworks are heightening caution in AI investment decisions, with the result that economic opportunities are sometimes pushed into the background. What appears to be prudent risk management in stable industrial environments can act as an additional hurdle in a rapid technological transformation characterised by uncertainty.

771 Alongside this core structural and cultural cause, there is a second strand that explains why companies are hesitant about AI investment and adoption: economically

rational reasons for waiting. These must be distinguished analytically from organisational inertia, as they do not stem from a tendency towards business complacency, but from comprehensible investment calculations. Taken together, however, they lead to the same conclusion — a delayed diffusion across the board. Specifically, two mechanisms are evident. Firstly, a clear trend towards continuous improvements in AI models is discernible. This gives companies an incentive to delay the introduction of a technology in order to benefit from later, more powerful and mature versions (Hoppe, 2002). Secondly, uncertainties regarding the success of AI adoption – for example, concerning the actual increase in productivity and its economic value – may also provide companies with incentives to delay adoption until other companies have gained initial experience with the technology. As the availability of information increases, expectations regarding the technology’s benefits can be better assessed (Hoppe, 2002).

772 The results of a survey show that, in the majority of cases, the intended objectives were achieved. Specifically, expectations were exceeded by 20 per cent of companies. For 55 per cent of companies, expectations were largely met, whilst for 18 per cent they were only partially met. For a further 4 per cent of companies, expectations were hardly met at all. For the remaining 3 per cent, an assessment is not yet possible. Nevertheless, the majority of companies that are already using AI or are generally open to its use see considerable potential in the use of AI (Federal Network Agency, 2025).

773 This positive picture does not mitigate the inertia, but rather confirms it. The survey targeted companies that have already invested and thus represent a self-selection: they have overcome their reservations, presumably also because their projects offered promising prospects of success. The real finding lies, conversely, with that large majority of companies that have not yet invested, or have done so only hesitantly. Combined with a pronounced aversion to risk, this can lead companies to postpone AI investments despite the potential for long-term benefits. For individual companies, a late entry may appear rational; however, from a macroeconomic perspective, this behaviour slows down the widespread diffusion of AI. The hurdle to widespread roll-out can therefore hardly be overcome by market forces alone.

Box4.5: Practical insights into measuring impact**INSIGHTS FROM PRACTICE**

Some companies reported that the use of AI is often not implemented because the return on investment (ROI) materialises too late. If success is not expected within a year, the investment does not go ahead. Smaller companies also tended to adopt a wait-and-see approach initially, until they could identify clear advantages – as their competitors had done – and would only implement AI once the technology appeared to be fully mature (second-mover advantage). In some cases, a company's own use of AI would only begin once clear cost advantages were evident at a competitor's and the company was no longer competitive.

One company reported that AI applications were only continued in around 10 per cent of cases following proof-of-concept tests.

In an industrial context, AI must also sometimes deliver much better results than in the consumer sector in order to generate any return on investment at all, as even a low error rate could lead to catastrophic and therefore unacceptable outcomes (e.g. personal injury).

774 In addition to structural and cultural inertia and rational reasons for waiting, there is a third factor that also hinders AI adoption: factors that do not lie in the behaviour of companies, but in the conditions under which they operate. These include the intensity of competition in the respective markets and the availability of skilled workers. Both act as amplifiers — they either create or hinder the incentives and prerequisites for adopting a new technology.

Box4.6: Practical insights into AI adoption in Germany and company size**INSIGHTS FROM PRACTICE**

With regard to the influence of company size on the use of AI, companies expressed differing views. On the one hand, it was reported that company size was less of a determining factor in the use of AI. Smaller companies were said to have shorter decision-making processes. On the other hand, it was reported that the use of AI in corporate administration, for example, posed a problem for small and medium-sized enterprises (SMEs) and those with a decentralised structure, as they had little scope for scaling up and its use was therefore hardly worthwhile.

This contrasts with the empirical literature, which paints a different picture. Large companies use AI significantly more frequently than small and medium-sized enterprises (OECD, 2025c).

775 The intensity of competition in a market has a significant influence on how quickly companies adopt new technologies. In highly competitive markets, companies have stronger incentives to invest in new technologies in order to increase their productivity and differentiate themselves from competitors. Here, technology adoption acts as a strategic tool for securing one's own market position. Empirical evidence supports a monotonically positive relationship: Bloom et al. (2016) show that the competitive shock caused by Chinese imports has increased the adoption of information technologies and innovation activity in European firms. Babina et al. (2024) find a similar result for AI investments, with stronger effects in more competitive sectors. For the German economy, this implies that in sectors with lower competitive pressure – such as those protected by regulation or in market niches with a high degree of location lock-in – the incentives for adoption are systematically weaker than in internationally competitive sectors such as the financial services sector or the field of knowledge-intensive services. This structural condition reinforces the organisational inertia described in the preceding sections and further hinders the widespread diffusion of AI.

776 Another key factor affecting the adoption of AI in Germany and Europe is the availability of AI specialists. The introduction and use of AI systems require specific skills that go beyond general IT knowledge. Without the right staff, companies are often unable to identify suitable AI use cases and develop AI systems efficiently. The shortage of AI specialists poses a major obstacle to the innovation process. In particular, the shortage of skilled workers represents a significant barrier to innovation for highly productive companies. In the literature, productivity is often measured in terms of turnover per employee. Coad et al. (2016) show that highly productive companies are more frequently confronted with demand for innovative products and find themselves at the cutting edge of technological progress. As a result, these companies have a particularly high demand for skilled workers with the relevant technological expertise. However, quantifying the shortage of AI specialists empirically – rather than merely anecdotally – presents a challenge. Job advertisements serve as an indicator of the skills shortage. Between 2019 and 2024, an average of one per cent of all online job advertisements were for AI developers, with a slight increase over time (Weeke, 2025).

Box 4.7: Practical insights into the shortage of skilled workers



INSIGHTS FROM PRACTICE

Some companies also reported to the Monopolies Commission that they were struggling to recruit suitable staff. They also noted that such staff were barely affordable. In some cases, the training provided at German universities was criticised. In some instances, recruitment took place not in Germany but only abroad. High labour costs in Germany were cited as a key factor in this decision.

777 In an OECD comparison, the shortage of skilled workers emerges as a significant limiting factor: ICT specialists and further education are strongly positively correlated with AI adoption (Calvino et al., 2026). Companies are responding to this shortage, amongst other things, by recruiting skilled workers from abroad — as evidenced by the significantly higher number of English-language job advertisements compared with positions of a comparable skill level within the same company (Grillo, 2024). Furthermore, upskilling existing staff — the targeted acquisition of additional skills — represents another strategy. However, given the acute shortage, this measure remains only a partial solution: companies report a lack of willingness amongst their workforce to

undertake further training, and there are also additional hurdles when recruiting international skilled workers, such as language requirements in the public sector or restrictions under immigration law.

778 Finally, the adaptability of the labour market acts as a key determinant for the adoption of AI. The productive use of AI often requires the reorganisation of work processes, a redistribution of tasks, and the further development or redeployment of staff. Where such adjustments are associated with high restructuring costs and employment protection that is perceived as rigid, the expected net return on implementation falls, leading companies to hesitate as they can only realise productivity gains to a limited extent (Bartelsman et al., 2016). At the same time, barriers to labour mobility hinder the reallocation of skilled workers to technologically dynamic firms, thereby slowing the diffusion of AI via the labour market as well. This finding is consistent with the observation documented in **70**), namely that value added in the manufacturing sector is declining whilst employment remains largely stable – an indication of high adjustment costs – and supports the recommendation made there to facilitate labour mobility and to examine the impact of employment protection and non-wage labour costs on mobility and recruitment.

779 Overall, it is evident that organisational and cultural inertia, rational reasons for a wait-and-see approach, and the constraints arising from market structure and labour market rigidity interact and reinforce one another. They largely explain the empirical finding of the slow diffusion of AI in Germany from within the economy itself. Added to this is a fourth factor, which operates from outside and further complicates the situation: the existing legal framework.

4.2.2.3 Legal uncertainty and over-regulation exacerbate inertia

780 Alongside the factors within the economy that inhibit AI adoption, the existing legal framework acts as an additional burden. It does not act independently as a cause of inertia, but reinforces it in two respects: legal uncertainty raises the threshold for investment decisions, as companies cannot reliably assess the regulatory consequences of their AI applications. High compliance requirements — particularly those imposed by the EU’s AI Regulation — place a disproportionate burden on companies with fewer resources. Taken together, these factors provide companies that are already inclined to adopt a wait-and-see approach with seemingly rational reasons to continue waiting.

781 In business surveys, legal uncertainty is consistently identified as a significant barrier. In the survey conducted by the Federal Network Agency, 54 per cent of the companies surveyed cited legal uncertainty as a challenge (Federal Network Agency,

2025, p. 23), whilst in the DIHK digitalisation survey, legal uncertainties were named as the greatest challenge regarding data use (DIHK, 2026). A representative Bitkom survey reaches a similar conclusion: 53 per cent of companies cite legal uncertainty as the most significant barrier, whilst 48 per cent point to stringent data protection requirements (Bitkom, 2026, p. 30). However, the surveys do not provide a more detailed breakdown by type of legal uncertainty.

782 The Bitkom study also addresses details regarding the AI Regulation. This is viewed rather critically, with 56 per cent of the companies surveyed seeing more disadvantages than advantages in it (Bitkom, 2026, p. 45). Accordingly, the second most common demand made by companies to the Federal Government – cited by 46 per cent of respondents – is to reform the AI Regulation (Bitkom, 2026, p. 47). Specifically, 93 per cent of companies that are likely to fall within the scope of the AI Regulation expect the implementation effort to be high or very high (Bitkom, 2026, p. 45). At the same time, 30 per cent of the companies surveyed were still in the process of assessing whether their company is affected by the AI Regulation at all (Bitkom, 2026, p. 44).

783 In a non-representative survey of 152 tech start-ups conducted by Bitkom (“Start-up Report 2025”), 63 per cent of the companies surveyed stated that excessive regulation was the reason why products such as OpenAI’s ChatGPT were not being developed in the EU. 45 per cent stated that the AI Regulation would restrict their start-up’s use or development of AI, and 43 per cent said that the AI Regulation would put their start-up at a competitive disadvantage compared with companies from, for example, the US or China (Bitkom, 2025, p. 33). Consequently, the existing regulatory framework acts not only as a barrier to adoption by established companies, but also as a locational disadvantage for young companies seeking to develop AI applications.

Box4.8: Practical insights on regulation



INSIGHTS FROM PRACTICE

In discussions with the Monopolies Commission, the AI Regulation was generally not criticised in principle, but rather in its specific formulation. In particular, existing legal uncertainties were cited, as well as a level of regulation perceived as too high, which puts smaller companies at a disadvantage compared to larger ones.

784 In detail, those interviewed by the Monopolies Commission cited several aspects of a lack of legal certainty. Firstly, the AI Regulation is not sufficiently consistent with

other sector-specific regulations, such as the Machinery Regulation. For example, the very important legal concept of a ‘safety component’ is defined differently in the AI Regulation and the Machinery Regulation. Secondly, there is a lack of clarity as to the extent to which collaborations in the AI sector are covered by the prohibition on cartels. In this regard, however, the information provided to the Monopolies Commission was contradictory. Thirdly, the drafting of technical specifications — the so-called harmonised standards — is complex and has not been completed in time, which complicates the application of the Regulation and therefore makes a postponement of its date of entry into force absolutely necessary.

785 With regard to the substance of the regulation, several points were criticised in discussions with the Monopolies Commission. The requirements of relevant legislation — in particular the AI Regulation — were deemed too onerous for small and medium-sized enterprises. Furthermore, they had in some cases been thoughtlessly transposed from the B2C sector to B2B contexts, even though industrial applications impose entirely different requirements, for example in terms of fault tolerance. Added to this are overlapping horizontal and vertical responsibilities between individual ministries and between the federal government and the Länder. The data quality requirements for high-risk AI systems are said to be too onerous for open-source solutions. Unlike larger firms, smaller companies are barely able to cope with the regulatory burden; lengthy compliance checks in sales processes are financially unsustainable for them. Offers from large companies in the AI sector are more attractive simply because they can guarantee legal compliance to their customers.

4.2.3 In the long term, there is a risk of market concentration becoming entrenched, which calls for competition-oriented economic policy responses

786 Taken as a whole, a complex picture of the diffusion gap emerges: empirically, AI adoption by German companies lags behind in international comparisons, and the transfer of knowledge from Germany’s strong AI research sector into business applications is also proving insufficient. This gap is explained by a combination of corporate inertia, culturally ingrained risk aversion, rationally justifiable reasons for a wait-and-see approach, structural market conditions and resource constraints — exacerbated by a regulatory framework that creates legal uncertainty and places a disproportionate burden on smaller companies. The diffusion gap cannot be attributed to a single market failure, but rather points to a bundle of structural factors that must be addressed in their entirety through economic policy.

787 Diagnosing the diffusion gap among German companies first allows for an assessment of the current situation. However, the economic impact of a cross-cutting

technology such as AI unfolds over extended periods, and during these periods market structures, competitive conditions and innovation dynamics undergo lasting changes. A competition-oriented AI economic policy must therefore take into account not only the current finding of slow adoption, but also the long-term structural consequences of the AI transformation.

788 Since Schumpeter (1942), economic theory has described the impact of disruptive technologies as a process of creative destruction: new, innovative companies or business models displace established structures; less productive companies lose market share or exit the market; and opportunities arise for new players. The driving force behind this process is companies that generate temporary monopoly rents through innovation before imitators erode these through competition. Without the prospect of monopoly rents, no risky investments in innovation would be made. Accordingly, the relevant competition takes place not through prices, but through products, processes and business models. Thus, this dynamic competition leads to established firms that are no longer innovative being forced out of the market. He therefore sees underinvestment in innovation as a market failure.

789 Aghion and Howitt (1992) incorporated this idea into endogenous growth theory and demonstrated that long-term economic growth is largely based on such innovation dynamics. They highlight a tension between private incentives for innovation and the social welfare optimum. Since the innovator does not internalise the negative externalities generated by the devaluation of existing technologies, the equilibrium research and development (R&D) intensity may lie either above or below the social optimum. Thus, the process of creative destruction promotes growth but is not necessarily welfare-optimal. Acemoglu and Restrepo (2018) further illustrate how technological change transforms labour markets, capital structures and value chains. Ideally, creative destruction proceeds in two phases: it opens up markets to innovative players, whilst simultaneously phasing out obsolete business models.

790 In the case of AI, however, it is questionable whether the ideal-typical dynamics of creative destruction actually promote market entry and competition. Rather, the structural characteristics of the technology suggest that high concentration and intense innovation activity can occur simultaneously. This then carries the risk that market entry and follow-on innovations may be strategically blocked by established players (Autor et al., 2020; Cunningham et al., 2021).

791 Three mechanisms already identified in the analysis across the stack – economies of scale (sections [74.2.1.2](#) and [74.2.1.4](#)), network externalities in digital ecosystems (section [74.2.1.5](#)) and data feedback loops (section [74.2.1.3](#)) – act collectively as long-term drivers of concentration

792 The implications for firms and markets are therefore complex. Successful innovators gain market share and grow, whilst less productive firms lose ground or exit the market. At the same time, product innovation is often highly concentrated, with a small proportion of firms accounting for a large share of new products (Berlingieri et al., 2025). This can lead to intensified competition and increased market concentration. Furthermore, smaller firms have a lower probability of survival; however, when they do succeed, they grow faster than larger firms, whilst exhibiting greater variation in growth rates (Klette/Kortum, 2004). Firms seeking to catch up face particular challenges in this regard. As the complexity of new technologies such as AI increases, so do the demands on a company's ability to absorb and process external knowledge. Companies with lower technological capabilities therefore find it more difficult to catch up with market leaders (Berlingieri et al., 2025).

793 Added to this is the phenomenon of so-called 'killer acquisitions', in which established firms buy out young competitors at an early stage in order to remove their follow-on innovations from the market. In AI markets, this risk is particularly pronounced, because leading technology firms have the financial resources and strategic incentives to specifically acquire those start-ups whose technologies could threaten their own market position.

794 For Germany and Europe, the combination of the findings to date points to a particularly vulnerable situation. The slow adoption of AI by German companies not only delays short-term productivity gains but also exacerbates the long-term risk that market concentration at the upstream stack levels will become entrenched — without German or European players emerging as serious competitors. Added to this is comparatively weak exit dynamics: by international standards, less productive companies in Germany exit the market less frequently than, for example, in the USA. Strict employment protection regulations and government support measures can act as implicit subsidies for the continued existence of less productive companies — which slows down the reallocation of capital and labour to more dynamic sectors. Consequently, Germany and Europe lack key prerequisites for making productive use of the dynamics of creative destruction. As shown in the section [↗1.3.3](#), high-tech companies in particular are growing faster and generating more prosperity than the old industries.

795 The analysis thus reveals a two-fold picture: in the short term, a diffusion gap attributable to entrepreneurial inertia, cultural risk aversion, market structures, a lack of resources and a burdensome regulatory framework; in the long term, the risk that market concentrations will become entrenched without German and European players making use of their scope for action at the operational level. This failure to transform

cannot be resolved by market forces alone. What is required is a coordinated economic policy response that brings together competition law, regulatory and industrial policy instruments. The following sections set out recommendations to this end.

4.3 Three instruments of a competition-oriented AI economic policy

796 This analysis points to a two-stage economic policy task: the primary aim is to facilitate the widespread diffusion of AI across the German and European economies and to keep AI markets open. The secondary aim is to preserve the opportunity to catch up at the European level in specific areas of the AI stack. Both require government impetus, as the structurally entrenched inertia cannot be overcome by market forces alone. Here, the state should establish innovation-friendly framework conditions. It is to be expected that technological development will continue at a rapid pace. Europe should create the conditions necessary to lead the next wave of AI innovations. This requires a radical innovation programme aimed at ‘leapfrogging’.

797 A strategic and competition-oriented AI economic policy means recognising this fundamental problem and addressing it on several fronts simultaneously. It operates on three levels. At the first level, measures should be geared towards promoting the primary objective of broad diffusion and the secondary objective of European interoperability within the stack. At the second level, a consistent guiding principle must be observed: all measures must keep the strengthening of competition in mind and must under no circumstances jeopardise competition. At the third level – that is, at the level of individual markets – measures can finally be assessed and adjusted using the classic tool of market failure diagnosis.

4.3.1 Sharpening competition law specifically for AI

798 Competition law is the key instrument for keeping markets open and preventing anti-competitive behaviour. However, it is under particular pressure in the context of the concentration of digital power: it is said to have significant shortcomings in terms of enforcement, the pace of proceedings and the ability to prevent the concentration of digital power before it becomes irreversible (Podszun, 2025). This has allowed a few large technology companies to emerge that dominate numerous markets, create dependencies and can undermine democratic control mechanisms.

799 The crucial question, however, is not whether the principle of competition still applies. It does. AI will be a litmus test that reveals whether the state is willing and able to enforce competition law with the necessary rigour. This rigour is essential to ensure

that the dependencies described in the analysis do not solidify into permanent positions of power at the upstream stack levels.

800 The following section sets out three approaches to safeguarding competition in the field of AI. Firstly, the Digital Markets Act (DMA, Regulation (EU) 2022/1925) should be specifically extended to cover AI services, cloud services should be designated, and the DMA and competition law should be rigorously enforced in order to preserve the openness of the key value-creation layers. Secondly, greater legal certainty should be created for industrial data collaborations so that European industrial companies can fully exploit their comparative advantage in proprietary data. Thirdly, competition authorities should utilise the ‘checkpoint analysis’ as a tool to identify concentration dynamics in AI markets at an early stage.

4.3.1.1 Expand the Digital Markets Act’s list of key platform services to include AI services, adapt the behavioural obligations for cloud and AI services and vigorously enforce the DMA and competition law

801 The analysis has shown that the upstream layers of the AI stack – in particular chips and cloud services, and, to a limited extent, foundation models – are dominated by a small number of large technology companies, and that their vertical integration jeopardises the openness of downstream AI markets. This is precisely where the Digital Markets Act (DMA) comes in. It is the instrument for opening up competition that can be used to address these dependencies without the need to prove anti-competitive behaviour in individual cases. The DMA establishes the regulatory framework to ensure that AI strategies of small and medium-sized enterprises do not fail because of companies holding bottleneck positions and the associated control powers.

802 The DMA is intended to ensure fair and contestable markets in the digital sector and is based on the legislative competence set out in Article 114 TFEU (harmonisation, a functioning internal market). In particular, it aims to ensure contestable and fair markets in the digital sector where gatekeepers operate, i.e. companies that provide core platform services. Recital 33 sets out that unfairness within the meaning of the DMA should refer to an imbalance between the rights and obligations of business users where a gatekeeper gains a disproportionate advantage. It is irrelevant whether the gatekeeper gains this advantage through anti-competitive behaviour or whether it is linked to the characteristics of the market. With regard to contestability, Recital 32 states that this should relate to the ability of undertakings to effectively overcome barriers to market entry and expansion and to challenge the gatekeeper on the merits of their products and services. According to Recital 34, fairness and contestability are regarded as intertwined, as a lack of or limited contestability in a particular service

may enable a gatekeeper to engage in unfair practices. Similarly, unfair practices by a gatekeeper may restrict the ability of business users or third parties to challenge the gatekeeper's position.

803 The DMA is designed to promote competition and should be seen as a complement to the existing competition law framework. It does not require anti-competitive behaviour to trigger measures and is intended to redress power imbalances between large and small undertakings by applying it asymmetrically to undertakings (Podszun, 2023). To this end, the DMA classifies very large undertakings as gatekeepers if they meet the quantitative thresholds set out in Article 3 of the DMA or if they are designated as gatekeepers by the European Commission on the basis of a qualitative assessment in accordance with Article 3(8) and Article 17 of the DMA.

804 In 2025, a public consultation was held on the revision of the DMA. According to the European Commission, this consultation revealed that there is currently no need for legislative amendments (European Commission, 2026). Rather, targeted measures are needed to enforce the DMA, as well as measures relating to cloud and AI services to ensure greater transparency. In November 2025, the European Commission launched three market investigations into cloud computing services. Two of these investigations focus on whether Microsoft Azure and Amazon Web Services should be classified as gatekeepers for cloud computing services, whilst the third market investigation examines whether the DMA can effectively tackle practices that could restrict contestability and fairness in cloud computing services.

805 With regard to AI services, the European Commission has focused its regulatory dialogue with gatekeeper companies in particular on the question of how default settings can be easily changed and how it can be ensured that AI services are granted equal access to operating systems. In January 2026, two specification procedures were launched in relation to Alphabet/Google, which also have an AI dimension, namely interoperability and access to search engine data. It also conducted a regulatory dialogue concerning the prohibition on combining personal data without consent when training foundation models. Finally, it is already monitoring the use of AI applications within certain core platform services to verify compliance with the DMA. It intends to continue monitoring developments in AI as a high priority, whilst ensuring that the DMA is fully complied with, whether AI becomes an integral part of services designated as core platform services or constitutes a standalone service. It intends to do so as part of its ongoing regulatory dialogue with gatekeeper companies regarding their evolving business models and the implications for compliance with the DMA.

806 In the Monopolies Commission's view, the DMA applies to AI services such as AI agents as soon as they are listed as core platform services and designated as such. AI

services are not currently included in the list of core platform services in Article 2(2) of the DMA. As the DMA is structured as platform regulation, but AI services do not necessarily constitute platforms, their inclusion within the DMA is a challenging task. Where AI is used by gatekeeper companies in core platform services, for example in search or in operating systems, the DMA is already applicable.

807 As previously explained, within the vertical AI stack, the cloud services layer is essentially dominated by three providers – Amazon Web Services (AWS), Microsoft Azure and Google Cloud. As this vertical integration poses risks to the openness of (new) AI markets, the cloud services category should be identified through a market investigation under the DMA, and the relevant companies designated as gatekeepers in order to effectively limit their scope for action as quickly as possible. This is because, to date, no cloud service offered by gatekeeper companies has been designated under the DMA – even though cloud services are listed as a category among the core platform services in Article 2(2) of the DMA.

808 The inclusion of AI services in the DMA already follows as a logical consequence of the instrument’s very purpose. The DMA is intended to apply wherever gatekeeper positions arise, contestability is jeopardised and fairness can be structurally undermined. This should apply to any form of AI, regardless of whether it is an AI chatbot, an AI agent or similar. The definition should also be as independent as possible of how various AI services develop in the future. Whilst it is currently unclear whether AI services will meet the quantitative thresholds for gatekeeper designation under Article 3 of the DMA, individual AI services could meet these thresholds within a relatively short period of time. To be prepared, key AI services should already be subject to an in-depth market investigation in accordance with Article 19 of the DMA, which is in any case a prerequisite for expanding the list of key platform services under Article 2(2) of the DMA to include one or more categories of AI services.

809 Furthermore, the category of ‘virtual assistants’ under Article 2(12) of the DMA should be reviewed with a view to making AI-related adjustments. Virtual assistants are currently explicitly addressed in Article 6(3) of the DMA. The term covers ‘*software that can process commands, tasks or questions, including those based on inputs in audio, visual or written form, gestures or movements, and which, on the basis of these commands, tasks or questions, enables access to other services or controls connected physical devices*’. This definition covers not only voice assistants such as Amazon’s Alexa or Apple’s Siri, but also – possibly with minor adjustments – generative AI chatbots and AI agents.

810 The designation of specific providers and services under the DMA primarily triggers the behavioural obligations set out in Articles 5 and 6, as well as the obligation to

notify mergers under Article 14. The application of these provisions would ensure greater contestability and fairness. The Monopolies Commission further recommends the following amendments to the behavioural obligations in Articles 5 and 6 of the DMA with regard to AI and cloud services:

- The prohibition on tying to other services provided by the gatekeeper, as set out in Article 5(7) of the DMA, should be extended to virtual assistants and AI services in order to prevent structural discrimination against third-party providers and to ensure freedom of choice.
- The prohibition on self-preferencing set out in Article 6(5) of the DMA should also extend to AI services provided by gatekeeper companies, for example in the case of AI agents.
- The interoperability obligation set out in Article 6(7) of the DMA should be extended to AI services.
- The data-sharing obligation under Article 6(11) of the DMA should be extended to virtual assistants and AI services. This is because user feedback data is essential for training AI, and without such access to data, competitors cannot catch up.
- The FRAND access obligation set out in Article 6(12) of the DMA should be extended to core cloud services, as cloud resources are key infrastructure for AI services and AI developers must not be discriminated against in this regard.

811 Transactions that entrench bottlenecks in access to the AI stack should be assessed under merger control law and, where appropriate, prevented. This requires the detection of circumventions of merger control (e.g. ‘acqui-hires’) and corresponding theories of harm (Commission on Competition & Artificial Intelligence, 2026). In areas where the DMA does not apply, Section 19a of the German Act against Restraints of Competition (GWB) provides the Federal Cartel Office with the flexibility and scope to intervene. Alphabet, Amazon, Apple, Meta and Microsoft have already been legally designated as undertakings of overriding cross-market significance for competition under Section 19a(1) of the GWB.

812 It is crucial that the DMA and competition law are consistently enforced. A key problem is the length of proceedings: whilst digital business models scale within months, the European Commission’s antitrust proceedings in the Google Shopping case, for example, took more than six years. Added to this is the growing complexity of proceedings, which arises from strategic ‘spamming the regulator’ and increasingly stringent evidential requirements set by the courts, turning every case into a mammoth task. Significant difficulties are also caused by strategies to circumvent sanctions, as well as the question of which remedial measures are actually effective. All of this is exacerbated by the existing asymmetries in resources and information between companies and competition authorities.

813 In the case of AI, these shortcomings are compounded (Podszun, 2025). Legislative priority should therefore be given to reforming procedural law – for example, by introducing statutory time limits modelled on the DMA, prioritising cases based on their macroeconomic significance, and lowering the standard of proof, operationalised through rules of presumption (Monopolies Commission, 2025). The DMA already operates with tight deadlines for conducting proceedings and, in many respects, mitigates the weaknesses of competition law from a procedural perspective. However, enforcement also requires the necessary political will, a corresponding prioritisation of cases and adequate resources (Commission on Competition & Artificial Intelligence, 2026). In the Monopolies Commission’s view, this also includes increased use of interim measures under Article 24 of the DMA, which have so far been scarcely utilised in practice. Given the overwhelming interdependencies in the digital economy and their consolidation through AI, competition authorities must fulfil their constitutional mandate with commitment and conduct proceedings consistently, swiftly and with a strong focus on effective remedies. This includes more robust, structural measures.

Recommendations

- The European Commission should examine AI services and include them in the list of key platform services under Article 2(2) of the DMA, so that they can be addressed within the framework of the behavioural obligations set out in Articles 5 and 6 of the DMA, which should be amended accordingly. Furthermore, key cloud services should also be designated by gatekeeper companies. Rapid and effective enforcement is crucial, both under the DMA and within the framework of competition law. Competition law and the DMA already offer numerous points of reference for AI.

4.3.1.2 Creating legal certainty for industrial data collaborations through the low-threshold provision of ex ante review procedures by competition authorities

814 Whilst the Digital Markets Act addresses dependencies at the upstream stack levels, the application level concerns the comparative advantage of German industry. The analysis has shown that this advantage lies in the proprietary industrial data and the in-depth application expertise of German companies. For this advantage to be realised, companies must be able to share their data. This is necessary because a single industrial company rarely possesses the complete dataset required for trainable AI

models, industry-wide benchmarks or interoperable platform solutions. However, it is precisely these data collaborations that are subject to competition law, which creates considerable legal uncertainty in practice.

815 German industry is characterised by the extensive interconnection of production facilities, supply chains and service processes through digital technologies. Sensors, embedded systems and IoT infrastructures continuously generate machine data, process data and quality data on a scale never seen before. This data is a strategic production factor: it enables predictive maintenance, autonomous process optimisation, data-driven service models and closer integration into value-added networks. To realise the full economic potential of this data, collaboration between industrial companies is often unavoidable. Small and medium-sized enterprises, in particular, do not have the necessary volume of datasets on their own to train AI applications effectively. However, this applies even to larger companies. The greater the volume and quality of the data, the better the AI applications become. Data collaborations – whether in the form of data-pooling agreements, shared data infrastructures or standardised data rooms – therefore offer considerable potential for efficiency gains.

816 However, collaborations aimed at the exchange of data are subject to competition law. The prohibition on agreements restricting competition under Article 101 TFEU and Section 1 of the German Act against Restraints of Competition (GWB) also applies to the exchange and sharing of data. In particular, data collaborations between competitors can facilitate the exchange of information on competition-relevant parameters, erect barriers to market entry and encourage collusion. Weighing up the competitive implications here is no trivial matter: on the one hand, economies of scale in data generation (i.e. greater model accuracy with larger training datasets), network effects (i.e. increasing benefits as the number of participants grows) and the breaking down of data silos – which would otherwise block innovation potential – all boost ‘ ’ efficiency. On the other hand, there is a risk of transparency that is harmful to competition: if, through data exchange, companies gain insights into competitors’ cost structures, capacities or sales strategies, this may also facilitate (tacit) collusion regarding the market behaviour of other market participants. A three-stage assessment can be carried out for the competition law evaluation of data collaborations: (1) is the exchanged data competitively sensitive, i.e. does it allow conclusions to be drawn about future market behaviour; (2) what is the market structure, i.e. in concentrated, oligopolistic markets the risk of coordination is higher; (3) what is the specific mechanism of the data exchange, i.e. direct transmission between competitors is more problematic than anonymised aggregation via an independent data trustee.

817 Industrial data differs from traditional factors of production in several respects. Its most important characteristics are its non-rivalry in consumption – i.e. a dataset

can be used by several actors simultaneously without being depleted –, its potential non-excludability, and its marginal reproduction costs. In industrial networks, various categories of data can be distinguished: (1) machine data (operating parameters, status data, error codes), (2) process data (production processes, quality measurements), (3) logistics and supply chain data, and (4) customer data and usage profiles. Whilst categories (1) and (2) are predominantly non-personal data and fall primarily under the remit of the EU Data Act and competition law, categories (3) and (4) are subject not only to the aforementioned legal regimes but also to the General Data Protection Regulation. From a competition economics perspective, the key question is whether competitors can generate the same data independently or obtain it from alternative sources. If this is possible without disproportionate effort, the cooperation is generally not relevant under competition law. If, on the other hand, data is inherently unique – for example, because it reflects specific operating environments, rare events or proprietary processes – which is often the case with industrial data in particular – the risk increases that its joint use will create barriers to market entry.

818 In industry, innovation and value creation are increasingly taking place jointly within the framework of industrial value creation networks. This means that different actors contribute to the creation of industrial products and services through a division of labour. Modern industrial production is characterised by horizontal, vertical and diagonal relationships between a multitude of autonomous actors who can cooperate and compete simultaneously. Value creation no longer usually takes place within a single company or along a linear chain, but rather through the interaction of many actors within a complex value-creation network.

819 However, data collaborations within industrial value-creation networks face a complex legal dilemma: on the one hand, the collaborative use of industrial data promises significant efficiency gains and innovation potential, which are crucial to Germany's competitiveness as an industrial location. On the other hand, whilst competition law does provide for exemptions (e.g. the Block Exemption Regulation for research and development agreements (R&D BER) or under the conditions set out in Article 101(3) TFEU / Section 2 of the German Act against Restraints of Competition (GWB)), it otherwise subjects data collaborations to strict case-by-case scrutiny. Under Section 32c(1) of the German Act against Restraints of Competition (GWB), the Federal Cartel Office may issue a decision stating that there are no grounds for taking action in respect of a particular conduct. Article 5(2) of Regulation (EC) No 1/2003 expressly provides for such decisions by a national competition authority. In substance, however, this does not constitute an 'exemption' from the prohibition on cartels in the substantive sense, but merely an assurance to the undertakings concerned that the authority – subject to new findings – will not exercise its decision-making powers under Sections 32 and 32a of the GWB, Section 32c(1), second and third sentences, of

the GWB. The order provides legal certainty insofar as it is binding on the Federal Cartel Office, but not on courts or other competition authorities.

820 Furthermore, the issuance of an order pursuant to Section 32c(1) of the GWB is at the discretion of the Federal Cartel Office. Companies therefore have no general right to such a decision. An exception to this principle applies under the conditions set out in Section 32c(4) of the GWB. According to the first sentence of that provision, undertakings may apply to the Federal Cartel Office for a decision under Section 32c(1) of the GWB if, with regard to cooperation with competitors, there is a substantial legal and economic interest in such a decision. According to the second sentence, the Federal Cartel Office must decide on the application within six months in such cases. In this respect, therefore, undertakings have a right to a decision.

821 In addition, the Federal Cartel Office may provide undertakings with informal advice and – now on the basis of Section 32c(2) of the GWB – issue so-called ‘Chairman’s letters’. These are non-binding assessments by the competent decision-making department, which are used in particular in the case of selected cooperation projects. Unlike the decisions under paragraph 1, Chair’s Letters do not constitute formal orders. Whilst they do provide a certain degree of legal certainty, they are not binding on third parties. Their issuance is at the discretion of the Federal Cartel Office.

822 At EU level, there is the possibility of a so-called ‘positive clearance’ under Article 10 of Regulation (EC) No 1/2003. Accordingly, the European Commission may, by means of a formal decision, determine that a course of conduct is compatible with the prohibition on cartels under Article 101 TFEU, either because the conditions set out in paragraph 1 are not met or because the conditions set out in paragraph 3 are satisfied. This is an exemption decision which is available only to the European Commission, but not to national competition authorities. In addition, the European Commission has the option of issuing informal advisory letters. However, the European Commission has so far made virtually no use of these courses of action.

823 Despite all the efforts of the legislature and the authorities, the competition law assessment of industrial data collaborations therefore remains complex and uncertain on a case-by-case basis. Given the rapid pace of technological development in AI, greater legal certainty for industry is essential. The Federal Cartel Office should therefore be able to offer a low-threshold preliminary assessment procedure for industrial data collaborations. To this end, there is already the option of conducting informal consultations under Section 32c of the Act against Restraints of Competition (GWB) with a view to obtaining a negative clearance. The Monopolies Commission welcomes the extension to vertical data collaborations planned in the draft 12th

Amendment to the GWB (Section 72.2.1). However, Section 32c(4) of the GWB requires that there be a ‘*substantial legal and economic interest*’ in a decision. In practice, this leads to considerable reluctance on the part of industrial companies to make use of this provision. In the Monopolies Commission’s view, this high threshold should be lowered by deleting the term ‘significant’ from paragraph 4. To create greater legal certainty in the markets, the Federal Cartel Office should make its activities in this area, as well as its Chair’s letters, transparent.

Recommendations

- The high level of complexity surrounding permissible data cooperation creates significant legal uncertainty for many industrial companies, which hinders investment. The Monopolies Commission therefore recommends introducing a low-threshold pre-clearance procedure for industrial data collaborations at the Federal Cartel Office. To this end, the high threshold requiring a ‘substantial’ legal and economic interest in a decision under Section 32c(4) of the Act against Restraints of Competition (GWB) should be lowered.

4.3.1.3 Addressing the centralisation of control through control point analysis in the context of market and sector investigations

824 The two approaches taken so far – the extension of the DMA and greater legal certainty for industrial data collaborations – address known competition issues. However, AI markets are developing so dynamically that dominant market positions may arise before competition law instruments take effect. Industrial companies are integrating AI applications into their products, whilst large technology companies are embedding AI into their digital ecosystems, e.g. the integration of Microsoft’s Copilot into the Windows operating system and Office 365 software. As outlined in the analysis, this can result in dependencies and competition issues. Since a significant proportion of current AI investment is monetised at the AI application level, it is essential to keep these markets open.

825 From a competition policy perspective, an early-warning mechanism is therefore required. If competitive alternatives are lacking in specific AI markets, this may give rise to a risk to market structure. In the Monopolies Commission’s view, the so-called ‘checkpoint analysis’ is suitable for the early identification of such developments. It can be applied in the context of sector inquiries by the Federal Cartel Office pursuant to Section 32e of the Act against Restraints of Competition (GWB) and in the context of market investigations by the European Commission pursuant to Articles 16–19 of

the Digital Markets Act (DMA), thereby helping to identify dangerous ‘winner-takes-all’ developments at an early stage and address them in a targeted manner.

Box4.9: Technical, strategic and generic control points



THE CONCEPT OF CHECKPOINT ANALYSIS

The concept of control points was originally developed to examine the architecture of the internet (Clark, 2012). Before a website can be accessed, a device, an operating system, a network operator and a web browser must be selected – steps that already involve control points, as the device is usually supplied with an operating system that uses a specific browser by default. Applied to AI, the concept is useful for understanding who benefits from innovations in digital ecosystems (Bohnsack et al., 2024; Pagani, 2013; Pujadas et al., 2024).

The concept is based on a layered modular architecture (Yoo et al., 2010). In the context of industrial AI, five layers can be distinguished: hardware or physical devices (e.g. chips, machines), digital infrastructure (e.g. cloud-based computing and storage capacities), data or data-generating devices (e.g. sensors, drones), connectivity and analytics (e.g. APIs, SDKs, data standards, foundation models) and applications and digital services (e.g. AI applications, decision support systems). Control points are positioned between these layers. Those who hold control points across multiple layers can steer value creation throughout the entire ecosystem.

A distinction is made between three types:

- **Technical control points** primarily create value creation potential. These include data (those who possess unique, high-quality data sets can create dependencies), APIs (those who control the interface definition determine participation in the ecosystem) and digital infrastructure (platform operators with their own infrastructure set the conditions for access).
- **Strategic control points** primarily create potential for value extraction. These include orchestration (the ability to aggregate a market and determine the rules of the ecosystem), networking, customer access, in-depth industry knowledge, agility and financial resources.

- **Generic control points** define the conditions for market entry: every player must offer scalable and modular solutions to ensure compatibility, integration and interoperability. Market design and the regulatory framework act as institutional boundaries that can undermine existing control points or create new ones.

Technical and strategic control points are complementary and interdependent. To benefit fully from innovations, a player always needs a combination of both types. For example, a new market entrant can leverage the technical control point ‘data’ via an established provider’s strategic control point ‘customer access’ by cooperating with that provider; conversely, data gains value when it is integrated into broader networks via interfaces.

The distribution of control points shifts over time. In what was originally a linear value chain, strategic control points (brand, know-how, customer access of established providers) dominate. As digital ecosystems emerge, digital infrastructure and data gain in importance, and value creation shifts to the digital layers. With the further expansion of AI, IoT and cloud computing, the upper digital layers – digital infrastructure, orchestration, customer access and data – eventually become dominant, whilst the traditional machine becomes a means to an end and added value is generated in the data layer. Established industrial companies enter the market with strong strategic control points and must build up digital expertise in order to establish technical control points; start-ups enter the market with focused technical control points and must build up strategic control points or form partnerships. The key to a sustainable competitive position is therefore not merely the possession of control points, but the continuous acquisition of component and sector-specific knowledge.

826 Control point analysis can be used to examine how a technical system confers power on individual actors through control over key components (Clark, 2012). Control points act as power multipliers: if a competitor cannot participate without access via such a control point, structurally superior positions of power and dependencies arise. Unlike the concept of bottlenecks familiar from traditional industries – which refers to one-off, often purely technical, static bottlenecks in a linear value chain – control points, by contrast, are permanent, multi-layered and dynamic (Rukanova et al., 2020). Precisely for this reason – unlike market delineation and the allocation of market shares – they are less susceptible to the rapid changes brought about by digital

technologies such as AI. A more detailed description of control point analysis can be found in [Table 4.1](#).

827 For the application of competition policy, it is crucial that remedial measures specifically target the most influential control points in order to limit economic power, rather than taking a general approach. The following table illustrates how the control point analysis can be applied step by step to enforce competition law in a targeted manner.

Table 4.1: Control point analysis – integration by competition authorities

Step	Description
Sector inquiry under Section 32e of the German Act against Restraints of Competition (GWB)	Systematic mapping of all players in a sector, their contractual relationships, data and cash flows, and technical dependencies. The investigative powers here are very extensive, as the authority can compel the provision of information and search premises.
Identification and classification of control points	In the case of AI, for example, a distinction can be made as follows: <ul style="list-style-type: none"> ■ Infrastructural control points such as cloud back-ends, data centres and physical networks ■ Data control points such as exclusive training or sensor pools ■ Interface control points such as APIs, app stores or authentication services ■ Normative control points such as standards, certifications or default settings (determining which theory of harm applies)
Allocation of economic power and theory of harm	For each identified control point, the authority examines who controls it and what specific harm to competition is at risk.
Legal classification	The findings of the control point analysis are related to specific legal provisions. Typical abuses of control points include, for example, favouring one's own offers over those of competitors, hindering competitors through tying or bundling offers, erecting or raising barriers to market entry through competition-relevant data, and refusing or impeding the interoperability of products or services or the portability of data.
Remedial measures	The Authority selects the remedial measures that specifically target an identified, influential control point. A targeted approach may, for example, take the form of commitments.
Monitoring and dynamic adjustment	As control points can shift dynamically, the authority should continue its monitoring over an extended period.

Recommendations

- From the Monopolies Commission’s perspective, competition authorities must recognise the dynamic nature of the development of disruptive AI technologies in order to respond effectively to the associated competition risks. The control point analysis can make a significant contribution to identifying economic power in the AI sector and making it transparent where upstream market power and dependencies on large technology companies should be addressed. This will strengthen competition protection in the AI sector by enabling ‘winner-takes-all’ developments to be identified at an early stage and curbed in a targeted manner. This can be achieved both through sector inquiries by the Federal Cartel Office and through DMA market investigations by the European Commission.

4.3.2 Streamlining AI regulation and opening up opportunities

828 Competition law and the Digital Markets Act ensure open and contestable AI markets. However, this addresses only one aspect. It is equally important that AI regulation itself is designed in such a way that it achieves its protective objectives without unnecessarily hindering competition and innovation.

829 From a competition policy perspective, this is not a marginal issue. As the analysis has shown, the existing legal framework acts as an additional burden that further slows down the already hesitant adoption of AI. Furthermore, it places a disproportionate burden on smaller businesses. Where compliance costs and legal uncertainty are higher for small and medium-sized enterprises⁸⁸ than for large, established providers, regulation itself acts as a barrier to market entry and entrenches existing market positions. A competition-oriented AI economic policy must therefore further develop regulation in such a way that it safeguards concerns such as health, safety and fundamental rights without distorting competition between companies of different sizes. Apart from the issue of the asymmetric burden on small and medium-sized enterprises, the generally higher regulatory burden in Europe also means that larger companies suffer in terms of their competitiveness vis-à-vis non-European rivals. The European approach of first seeking to address all potential risks through regulation before a new technology is deployed should therefore be fundamentally reconsidered

⁸⁸ Unless otherwise specified, this refers to small and medium-sized enterprises as defined in European Commission Recommendation 2003/361.

and replaced by a more reactive approach. Furthermore, the overall regulatory burden must be significantly reduced.

830 At the heart of the legal policy debate regarding the regulation of AI lies the AI Regulation. It is intended to promote trustworthy AI, protect health, safety and fundamental rights, whilst at the same time supporting innovation (Article 1(1) of the AI Regulation). The Monopolies Commission advocates a uniform EU-wide framework for the regulation of AI, as this avoids national countries acting unilaterally and the resulting fragmentation of the legal framework. This risk was also identified by the Commission on Competition and Artificial Intelligence of the Federal Ministry for Economic Affairs (2026, p. 134). The AI Regulation should therefore, in principle, be retained.

831 However, AI regulation in particular is a prime example of how legislators are often overtaken by reality. For instance, the European Commission had already presented a draft of the AI Regulation as early as April 2021. At that time, the boom in AI – which was driven in particular by the release of ChatGPT at the end of 2022 – was not yet foreseeable. Consequently, the EU legislative bodies incorporated provisions for generative AI systems such as ChatGPT and GPT-4 into the regulatory framework at the last minute (Hacker, 2023). And although the AI Regulation was not adopted by the Council of the European Union and the European Parliament until spring 2024, the European Commission had already proposed a draft reform in December 2025, partly because the necessary implementation steps had not been taken in time.

832 This serves as a prime example of how regulatory approaches based on ex-ante regulation are increasingly reaching their limits when it comes to fast-evolving technologies. A paradigm shift is required here, moving towards ex-post regulation. Admittedly, this paradigm shift cannot take place overnight in all areas. Nevertheless, the following section will outline approaches that enable initial steps to be taken in this direction. In the meantime, at the very least, the compliance burden associated with ex-ante regulation should be reduced and certain inconsistencies eliminated. Three key areas are highlighted: firstly, the avoidance of double regulation; secondly, the reduction of the regulatory burden on small and medium-sized enterprises; and thirdly, a more realistic assessment of implementation deadlines and the timely development of technical specifications.

833 These aspects are discussed in more detail in the following sections. Firstly, the high administrative burden on all businesses should be reduced, in particular by avoiding double regulation, which incurs high compliance costs and thus acts as a barrier to market entry (see section **74.3.2.1**). Secondly, the regulatory burden on small and medium-sized enterprises, which is comparatively very high and therefore

has an asymmetrical effect, should be alleviated (see section 74.3.2.2). Large technology companies should not be effectively favoured by this complexity. Finally, care should be taken in future to ensure that implementation deadlines are not set unrealistically short, so as to enable the necessary preparations – such as the timely development of technical specifications – to take place in the first place. When drawing up these specifications, care should also be taken to ensure that small and medium-sized enterprises, start-ups and academic stakeholders are not structurally under-represented compared to large providers with their own standards teams, and thus suffer competitive disadvantages (see section 74.3.2.1).

4.3.2.1 Avoiding double regulation of high-risk AI systems and other product safety legislation

834 Many companies surveyed by the Monopolies Commission complained of legal uncertainty and over-regulation caused by the AI Regulation, which confirms the findings of other studies (see section 74.2.2.3). Whilst this is not to deny the burden placed on larger companies, it does place an asymmetrical burden on small and medium-sized enterprises and start-ups, as they tend to find it more difficult to cope with the high compliance costs. In this way, legal uncertainty and over-regulation act as a barrier to market entry and tend to favour the very large technology companies. These barriers to market entry must be removed or at least mitigated. In addition to reducing legal uncertainty and over-regulation for small and medium-sized enterprises and start-ups, it is therefore also appropriate to tighten regulation of particularly dominant players in the AI stack (see section 74.3.1.1).

835 Both legal uncertainty and over-regulation stem in particular from the structure and integration of the AI Regulation into the existing legal framework, which lead to overlaps and ambiguities, as outlined below. In substantive terms, the AI Regulation covers general-purpose AI systems and AI models and primarily imposes obligations on their providers or operators, i.e. – to put it simply – the developers or users. Article 3(8) of the AI Regulation identifies product manufacturers, authorised representatives, importers and distributors as further stakeholders. However, these play only a subsidiary role within the regulatory framework of the Regulation (Borges, 2024a, p. 505).

Box 4.10: Material scope of the AI Regulation**AI SYSTEMS AND MODELS**

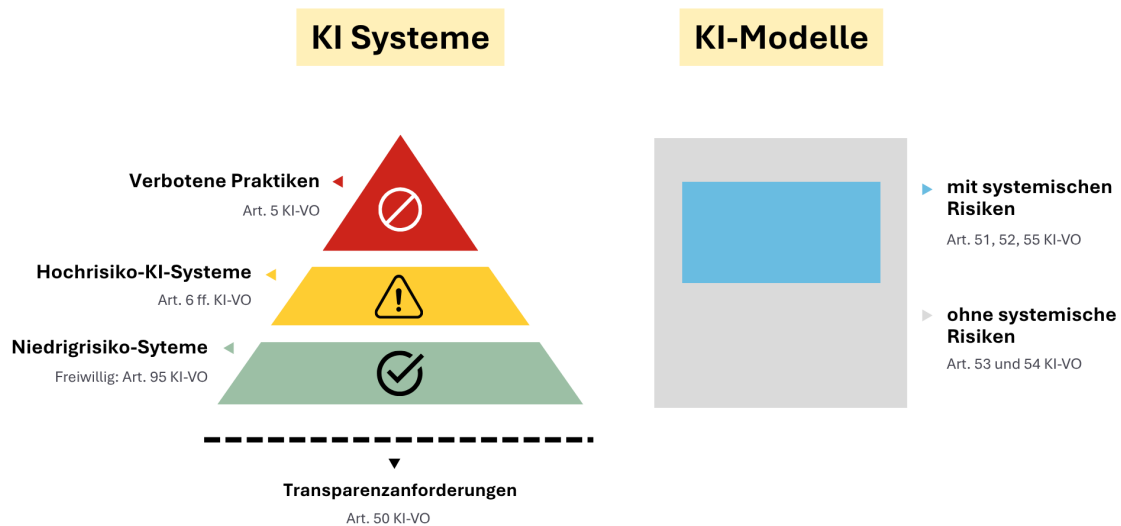
AI system: a machine-based system designed for autonomous operation which, once it has started operating, is capable of adapting and deriving objectives from the inputs it receives, and which can generate outputs such as predictions, content, recommendations or decisions that may affect physical or virtual environments (Article 3(1) of the AI Regulation)

General-purpose AI model: an AI model that has significant general applicability and is capable of performing a wide range of different tasks, and which can be integrated into a variety of downstream systems or applications, excluding AI models intended for research and development activities or for prototypes (Article 3(63) of the AI Regulation)

836 The scope of the obligations follows – in simple terms – a risk-based approach: AI systems – unlike AI models – are generally classified into three categories (Engel, 2024, p. 445 ff.):

- Systems posing no or minimal risk, for which only voluntary codes of conduct may be drawn up
- High-risk AI systems subject to a comprehensive set of obligations
- AI systems posing an unacceptable risk, which are prohibited (e.g. AI-based social scoring)

837 Irrespective of this classification, transparency requirements under Article 50 of the AI Regulation apply to certain AI systems (e.g. those capable of generating deep-fakes). For general-purpose AI models, i.e. those that have significant general applicability and are capable of performing a wide range of different tasks (Article 3(63) of the AI Regulation), the provisions of Chapter V (Articles 51 et seq. of the AI Regulation) apply. These distinguish between systems with and without systemic risk within the meaning of Article 3(65) of the AI Regulation. This risk category must not be confused with high-risk AI systems, as illustrated in the diagram below, and is assessed on the basis of Article 51(1) of the AI Regulation.

Figure 4.6: Risk model of the AI Regulation

Source: Engel, 2024, p. 446.

838 Classification as a high-risk AI system has far-reaching consequences, as the regulations governing these systems form the ‘core’ of the AI Regulation and impose comprehensive requirements on data controllers and data processors (Chibanguza/Stege, 2024, p. 1772). Classification as a high-risk AI system can arise in two entirely different ways. Firstly, it may result from a reference to European product safety law.⁸⁹ This concerns, for example, safety requirements relating to the design and construction of machinery. Secondly, classification as a high-risk AI system may be based on the intended use of the results generated by the AI system in areas associated with particular risks to personal rights.⁹⁰ These include, for example, the fields of biometrics and critical infrastructure. This second aspect extends beyond the typical scope of European product safety law (Borges, 2024b, p. 567). Thus, the AI Regulation firstly represents a cross-sectoral extension of established EU product safety law and, secondly, supplements this framework with aspects relating to personal rights. Overall, this regulatory framework leads to some overlaps between sector-specific regulations and the AI Regulation.

839 The first type of classification, i.e. the coverage of AI systems under product safety law, is governed by Article 6(1) of the AI Regulation. These provisions apply to systems which, either on their own or as a safety component of another product, fall

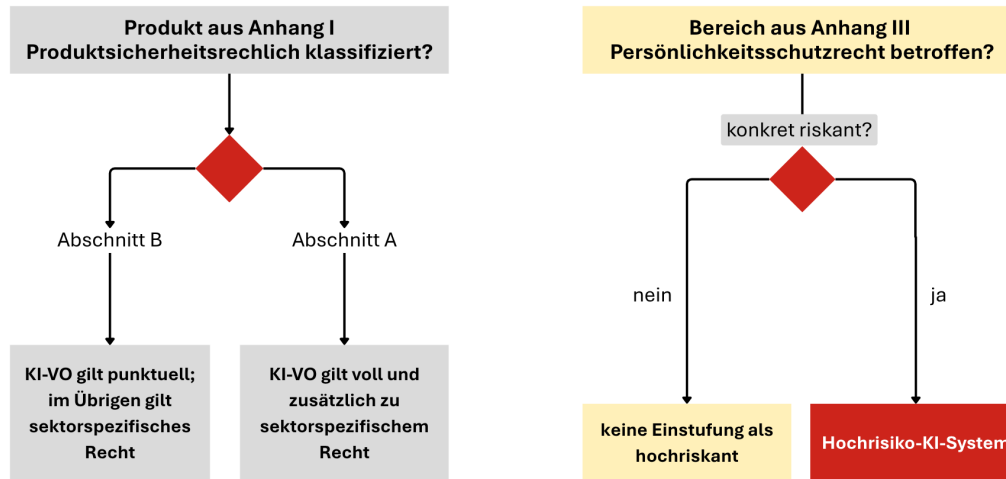
⁸⁹ The legal basis for this is Article 6(1) in conjunction with Annex I to the AI Regulation.

⁹⁰ The legal basis for this is Article 6(2) and (3) in conjunction with Annex III to the AI Regulation.

within the scope of European product safety law as listed in Annex I to the AI Regulation. Of paramount importance here is whether the regulatory regime in question is listed in Section A or Section B of Annex I. With regard to the regulatory regimes listed in Section B, the AI Regulation applies only to a very limited extent.⁹¹ The legislator's underlying rationale for Section B was that AI-specific requirements should be enshrined in future amendments to these sector-specific regulations rather than in the AI Regulation (Recital 49 of the AI Regulation). This section mentions, for example, safety in civil aviation and the type-approval and market surveillance of motor vehicles and motor vehicle trailers. With regard to the regimes mentioned in Section A, however, the AI Regulation applies in full and in addition to the sector-specific product safety regulations. These include, for example, the regulations on safety requirements for the design and construction of machinery, toys, lifts and medical devices. In order to alleviate the regulatory burden on the businesses concerned and to avoid double regulation, it has therefore been widely proposed that some or even all of the areas listed in Section A be transferred to Section B (see Hacker et al., 2025, p. 40 ff.)

840 The second type of classification as a high-risk AI system is carried out in accordance with Article 6(2) and (3) of the AI Regulation for AI systems in areas associated with specific risks to personal rights (Borges, 2024b, p. 567). Annex III lists the following areas for this purpose: biometrics, critical infrastructure, education, employment, public services, law enforcement, migration, the administration of justice and democratic processes. The classification is carried out in two stages: First, an 'abstract risk assessment' is carried out, i.e. to determine whether any of the areas are affected (Article 6(2) in conjunction with Annex III of the AI Regulation), followed by a specific risk assessment (Article 6(3) of the AI Regulation) (Borges, 2024b, p. 567). In the specific risk assessment, the AI system is not classified as high-risk if it does not pose a substantial risk of harm to the health, safety or fundamental rights of natural persons. With regard to the areas listed in Annex III, it is also proposed that regulation be transferred from the AI Regulation to the sector-specific legal regimes: This is proposed in the literature, for example, for the areas of employment, human resources management and access to self-employment (Annex III, Area No. 4 of the AI Regulation) as well as creditworthiness assessments and insurance (Annex III, Area No. 5(b) and (c) of the AI Regulation) (Hacker et al., 2025, p. 38 ff.).

⁹¹ See Article 2(2) of the AI Regulation.

Figure 4.7: Structure of the AI Regulation (greatly simplified)

Source: Author's own illustration.

841 With regard to this legislative framework, the affected companies complain that this amounts to double regulation. For instance, some provisions of the AI Regulation are already covered by other areas of regulation (e.g. data protection and data security, financial products, medical devices), and it would have made more sense to incorporate the AI aspects into these areas of regulation in order to reduce the documentation burden and increase coherence (Hacker et al., 2025, p. 19 ff.). In the final report of the Competition & Artificial Intelligence Commission at the Federal Ministry for Economic Affairs and Energy, business representatives also criticise dual regulation (Competition & Artificial Intelligence Commission, 2026, p. 141). Examples of dual regulation can be found at Table 1.2. Duplicate regulation under the AI Regulation concerns, for example, the General Data Protection Regulation (GDPR, 2016), the Data Act (DA, 2023), the Data Governance Act (DGA, 2022), the NIS2 Directive (NIS2-RL, 2022), the Platform Work Directive (Platform Work Directive, 2024), the Medical Devices Regulation (Medical Devices Regulation, 2017) and the Machinery Regulation (Machinery Regulation, 2023). The following discussion therefore focuses primarily on areas that appear to be particularly relevant to the subject of this study – namely, industrial applications.

Table 4.2: Examples of dual regulation under the AI Regulation

Regulations concerned	Description
Art. 27 AI Regulation and Art. 35 GDPR	Impact assessments on fundamental rights and data protection are triggered by the same projects, but have different thresholds, differ in scope and procedure, and are monitored by different authorities.
Article 74(12)–(14), Article 75 of the AI Regulation and Chapter V of the Data Act	The Data Act permits the state to access data as an exceptional measure, whilst the AI Regulation permits conformity assessments. Simultaneous requests (from different bodies) may lead to duplicated or conflicting obligations.
Article 65 of the AI Regulation and Article 29 of the DGA	The AI Regulation establishes the AI Board and the Office for Artificial Intelligence as competent bodies at EU level, whilst the Data Governance Act establishes the European Data Innovation Council. The remit of these bodies is not currently harmonised, which allows for overlapping responsibilities.
Article 9 of the AI Regulation and Article 21 of the NIS2 Directive	Both the AI Regulation and the NIS2 Directive provide for the establishment of a risk management system. This would need to be set up twice if essential and important organisations within the meaning of the NIS2 Directive operate or offer high-risk AI systems within the meaning of the AI Regulation.
Article 5(1)(a) of the AI Regulation and Article 7(1)(a) of the Platform Work Directive	The AI Regulation prohibits emotion recognition in the workplace, but provides for an exception on health and safety grounds. This exception is not provided for in the Platform Work Directive.
In particular, Article 15(1) of the AI Regulation and Article 61 of the Medical Devices Regulation	The AI Regulation requires that an appropriate level of accuracy be demonstrated for AI systems. However, with regard to medical devices, this is already better addressed by the requirement for rigorous clinical trials, which necessitate a comprehensive risk-benefit analysis.
AI Regulation and Machinery Regulation	The Machinery Regulation already contains safety requirements regarding autonomous and AI-controlled machines and addresses specific risks relating to industrial applications through established conformity assessment mechanisms. Additional requirements under the AI Regulation are potentially contradictory, and it is unclear which requirements take precedence.

Sources: Graux et al. (2025, p. 93 ff.); Hacker et al. (2025, p. 38 ff.)

842 In this regard, the Digital Omnibus Regulation on AI is already bringing about changes; however, these could not be fully taken into account in the present study, as the final text of the Regulation was only made available very shortly before the publication of this report and had not yet been finally adopted. In particular, they comprise the following measures (European Commission, 2026a; Council of the European Union, 2026): The provisions for high-risk AI systems are now to apply only from 2 December 2027, or from 2 August 2028 if they are embedded in products. Thus, the difference in the effective dates appears to depend on whether AI systems are subject to product safety law (i.e. Article 6(1) in conjunction with Annex I to the AI Regulation, in which case from 2 August 2028) or specific risk areas (i.e. Article 6(2) and (3) in conjunction with Annex III to the AI Regulation, in which case the deadline is 2 August 2027) (see the European Commission’s press release listing the ‘ ’ areas (European

Commission, 2026a)). Finally, the amendments to provisions concerning industrial AI and its interaction with sector-specific regulations are particularly relevant. In future, duplicate regulation is to be avoided by allowing the European Commission to restrict the applicability of the AI Regulation by means of implementing acts if – as in the case of the Machinery Regulation, for example – the sector-specific legislation already contains provisions on AI comparable to those in the AI Regulation.

843 The Monopolies Commission welcomes the fact that the agreement reached in the trilogue will see measures taken to avoid double regulation. It is questionable whether it is better to remove provisions on AI from sector-specific regulations or – as apparently envisaged in the trilogue – to limit the horizontal effect of the AI Regulation on sector-specific legal frameworks that already contain provisions on AI. Ultimately, both approaches have advantages and disadvantages. The inclusion of AI provisions in sector-specific regulations could result in these provisions being less stable across sectors, as changes to the individual regulatory areas occur more frequently. It could also lead to a restriction of the level playing field if two related sectors are ultimately treated unequally, even though they are in competition with one another. Conversely, sector-specific (co-)regulation of AI issues would allow the specific characteristics of the sector in question to be better taken into account when drafting the regulations. For example, legal definitions would then need to be formulated in a less broad and vague manner, as the scope of the respective sector-specific legislation is narrower in any case. Furthermore, it is likely to be easier, particularly for small and medium-sized enterprises, to comply with just one set of sector-specific regulations rather than having to keep track of several overlapping sets of rules.

844 Looking at the product safety regimes listed in Annex I to the AI Regulation, which are incorporated into the AI Regulation, it is striking that some of them concern very specific areas: machinery, toys, recreational craft, lifts, equipment for potentially explosive atmospheres, radio equipment, pressure equipment, cableways, personal protective equipment, etc. With regard to these areas, the protection of democracy, the rule of law and fundamental rights – as envisaged by the AI Regulation – generally appears to be less relevant. Rather, the focus here is likely, as a rule, to be on the protection of health and safety in particular – an objective which, whilst also pursued by the AI Regulation, is primarily already regulated by specific legislation under the relevant product safety laws with regard to the specific hazards posed by the products in question. An additional horizontal regulatory approach in the form of the AI Regulation, which also deals with matters such as the protection of personal rights, is likely to be dispensable in many cases whilst at the same time significantly increasing the regulatory burden.

845 Excluding very specific regulatory matters from the AI Regulation also offers the opportunity to introduce far-reaching exemptions for small and medium-sized enterprises and start-ups in the relevant product safety regulations, where appropriate, without significantly reducing the level of protection. The protection gaps feared by stakeholders in relation to exemptions for AI (see Hacker et al., 2025, p. 59 ff.) would then, where applicable, remain strictly limited to individual sectors which, moreover, tend to pose less of a particular risk from the perspective of the protection of personal rights. At the same time, there is no need to transpose the comprehensive list of obligations set out in the AI Regulation into sector-specific legislation. Here, depending on the risk, a ‘wait-and-see’ approach to regulation should be adopted in cases of doubt; in other words, there should be a shift from ex-ante to ex-post regulation.

846 The priority given to sector-specific regulation also applies to the areas listed in Annex III, which are already subject to extensive regulation. This applies in particular to the financial sector referred to in point 5, covering creditworthiness assessments and life and health insurance (subparagraphs (b) and (c)). Additional regulation of these matters from the perspective of the use of AI systems would appear to be better placed within sector-specific regulation by the competent authorities.

847 The Monopolies Commission fundamentally doubts whether early regulation of AI in a separate regulation was appropriate. Regulation can promote innovation. However, in the case of new technologies, it runs the risk – particularly during the development phase – of creating compliance burdens that stifle the necessary spirit of experimentation.

848 In any case, the Monopolies Commission ultimately takes the view that regulation is generally better carried out through sector-specific provisions rather than additionally on a horizontal basis via the AI Regulation. The Monopolies Commission therefore welcomes the fact that, in the AI Omnibus, the area of the Machinery Regulation – which is important for industry – is to be moved from Annex I A to Annex I B. It is important that, going forward, not all legal acts contained in Annex I B are supplemented with comprehensive regulations on AI. Here, we should first wait and see what problems actually arise in practice with regard to AI-supported systems. The Commission on Competition and Artificial Intelligence at the Federal Ministry for Economic Affairs, for example, advocates a general regulatory moratorium (2026, p. 132 ff.).

849 If, however, the legislator does not wish to refrain from regulation, care must be taken to ensure far-reaching exemptions for small and medium-sized enterprises and start-ups, particularly for competition-related reasons. Furthermore, at the latest during the next review of the AI Regulation or the relevant sector-specific regulations, par-

ticular attention should be paid to determining whether the application of the AI Regulation can be largely exempted in further areas. This means that, whenever new legal provisions are introduced under the AI Regulation and the relevant sector-specific regulations, consideration should be given to how duplicate regulation can be reduced.

850 The regulation of AI is just one example of a ‘machine’ that seems to churn out ever more laws, regulations and directives ceaselessly. The frequent complaints about over-regulation have so far failed to trigger any discernible fundamental shift towards less regulation. This remains a problem for Europe’s competitiveness, not only because it imposes high compliance costs on businesses. Furthermore, being constrained by a complex legal framework can stifle entrepreneurial spirit, innovation and a willingness to take risks. The Monopolies Commission recommends an investigation into the incentives that exist for individuals within the institutions involved in law-making. It may be that only a fundamental change to such incentives can limit ever-increasing regulation.

Recommendations

- The AI Regulation should, in principle, be retained, as it establishes a uniform EU-wide legal framework for AI and prevents legal fragmentation between Member States.
- Decisive measures must be taken to reduce duplication and over-regulation. The Monopolies Commission welcomes the AI Omnibus as a first step in the right direction. Furthermore, a paradigm shift should be initiated – away from attempts at early and comprehensive regulation of new technologies. The existing legal framework already covers numerous risks and provides for liability in all cases. Regulation should only be introduced once experience has been gained in the markets. The Monopolies Commission recommends examining the incentives for those involved in the legislative process in order to identify the causes of persistent regulation.
- Areas that concern very specific use cases or are already subject to intensive sector-specific regulation should not (also) be regulated by the AI Regulation, but should be excluded from its scope. Before comprehensive regulations on AI are incorporated into this sector-specific legislation, a regulatory moratorium should first be implemented to assess whether there is, in fact, any actual need for regulation. Where sector-specific regulation appears necessary, far-reaching exemptions should be provided for small and medium-sized enterprises and start-ups.

4.3.2.2 Strict regulatory requirements must not act as a barrier to market entry for small and medium-sized enterprises

851 From a competition policy perspective, it appears problematic that the high regulatory burden cited by companies may be relatively more onerous for small and medium-sized enterprises than for large companies, which are more likely to be able to afford their own legal departments or to procure (legal) advice and are therefore better placed to guarantee legal compliance for their customers (Hacker et al., 2025, p. 25 ff.). The high regulatory burden, which also arises in conjunction with many other legal provisions (e.g. the Data Act, the Cyber Resilience Act, the Digital Operational Resilience Act, the NIS 2 Directive, the Digital Services Act, the Data Governance Act, etc.), has an asymmetrical effect: It can thus distort competition in favour of larger, foreign companies which – unlike smaller, locally based companies – face fewer difficulties in strengthening their compliance departments and exploiting loopholes in the law, insofar as they have any ambition at all to operate in compliance with EU law (Commission on Competition & Artificial Intelligence, 2026, p. 130). This can further consolidate the existing dominant market positions of large technology companies and act as a barrier to market entry. Nevertheless, the compliance burden is also becoming increasingly problematic for large companies that have fewer resources at their disposal. Furthermore, the expenditure incurred on internal and external legal advice and certifications does not contribute to value creation within the AI value chain (Hacker et al., 2025, p. 28) and leads to a reduction in the competitiveness of European companies.

852 Legislators at national and EU level do, in principle, take into account that small and medium-sized enterprises are affected asymmetrically by (digital) regulation. They address this problem in particular through two approaches, which will be discussed below: on the one hand, small and medium-sized enterprises and start-ups in particular are supported in implementing the requirements through advisory services, real-world laboratories, etc. On the other hand, the regulatory burden in the AI Regulation is reduced for these entities by easing formal documentation requirements and substantive legal requirements.

853 In principle, all approaches that make it easier for small and medium-sized enterprises to better understand and implement the requirements of the AI Regulation are to be welcomed. The AI Regulation already provides for measures to this end, which are summarised under the heading ‘Promotion of Innovation’ in Chapter VI and essentially consist of a comprehensive framework for AI real-world laboratories (‘regulatory sandbox’) (Borges, 2024a, p. 500). Regulatory sandboxes are a controlled framework established by a competent authority, which providers of AI systems can use for a limited period and under regulatory supervision to develop, train, validate

and — where appropriate, under real-world conditions — test an AI system (Art. 3(55) AI Regulation). Although real-world labs are not aimed exclusively at small and medium-sized enterprises, the EU legislator takes the view that, with regard to real-world labs, particular attention should be paid to their accessibility for small and medium-sized enterprises, including start-ups (Recital 139, sentence 3 of the AI Regulation).

854 Changes to real-world labs are also envisaged in the trilogue on the EU’s AI Omnibus: for instance, more innovators are to be granted access to real-world labs, including a real-world lab at EU level (European Commission, 2026a). The deadline for national authorities to establish AI real-world labs is to be extended to 2 August 2027 (Council of the European Union, 2026).

855 The provisions on real-world labs in Chapter VI of the AI Regulation are to be implemented in Germany in accordance with the proposals set out in the government draft of the AI Market Surveillance and Innovation Promotion Act (KI-MIG-RegE), whereby the Federal Network Agency is to establish and operate at least one AI real-world lab, Section 13 KI-MIG-RegE.⁹² Details regarding the real-world laboratories are currently being drawn up in a separate bill, which is also still going through the legislative process (Real-World Laboratories Act or, according to an amendment tabled during the legislative process: Federal Testing Act; for the current status, see Federal Ministry for Economic Affairs and Energy (2026)). The planned establishment of AI real-world laboratories has been criticised on the grounds that their set-up is being delayed (Göhsl, 2026, p. 240 ff.). Another problem is that, given the horizontal impact of the AI Regulation, the real-world laboratory approach – which originates from the financial sector – now faces a much broader scope of application, and AI real-world laboratories must maintain specialist staff for a wide range of application areas, which may push them to their capacity limits (Göhsl, 2026, p. 241).

856 The Monopolies Commission welcomes the use of real-world laboratories to make it easier for companies to test AI systems, as well as the expansion of the scope for utilising real-world laboratories agreed in the trilogue. Real-world laboratories are not only a testing aid but also a competition policy instrument. They lower the compliance barriers that systematically disadvantage small and medium-sized enterprises and start-ups compared with established providers. For them to actually fulfil this function, three things are crucial. Firstly, they must be ready for use swiftly – the deadline extension agreed in the trilogue should not be fully utilised at national level. Secondly, access must be low-threshold in practice: short preparation times, transparent costs and expert support. In view of the foreseeable capacity constraints, sector-specific specialisation should be pursued rather than simply setting up a single real-world

⁹² On 11 June 2026, the German Bundestag adopted the draft bill as amended by the Digital Affairs Committee.

laboratory. In addition, several small and medium-sized enterprises should be able to participate jointly in a real-world laboratory in order to share any participation costs that may arise.

857 Furthermore, any other low-threshold advisory services for businesses should, in principle, be viewed positively. At EU level, examples of publicly funded initiatives include the European Digital Innovation Hubs, which, as ‘one-stop shops’ supported by the European Commission, are designed to help small and medium-sized enterprises across all regions of the EU to adopt AI (European Commission, n.d.a). Also worth mentioning here are the Test and Experimentation Facilities (TEF), which are jointly funded by the European Commission and the EU Member States, in particular to support AI developers in bringing trustworthy AI to market more efficiently and to facilitate its adoption in Europe (European Commission, n.d.a). At national level, mention should be made of the AI Service Desk already set up by the Federal Network Agency, which is intended to support businesses, public authorities and organisations in implementing the AI Regulation in Germany (Federal Network Agency, n.d.), and the ‘Mittelstand-Digital’ centres run by the Federal Ministry for Economic Affairs and Energy, which are designed to support small and medium-sized enterprises and the skilled trades sector in particular – as well as start-ups – in their digital transformation (Federal Ministry for Economic Affairs and Energy, n.d.).

Box4.11 : Practical insights into advisory services



INSIGHTS FROM PRACTICE

In the discussions held by the Monopolies Commission, it was reported in some cases that smaller companies in particular were unaware of the advisory and support services available. Some larger companies, on the other hand, stated that they did not need these services and would even offer advisory services themselves.

858 Low-threshold advisory structures such as the Federal Network Agency’s AI Service Desk or the European Digital Innovation Hubs are important complementary measures that should be operationally integrated with the real-world laboratories. In practice, however, it appears that such support services are not yet being utilised everywhere. This suggests that, rather than initially expanding the services that exist alongside the real-world laboratories, the focus should instead be on raising awareness of existing programmes or streamlining them through consolidation to make

them more visible. Ultimately, however, all support services are of no use if the target audience has not yet made a serious enough effort to introduce AI.

859 Despite certain exemptions for small and medium-sized enterprises, the AI Regulation does not provide for any systematic relief for them and thus places them at a disadvantage in dynamic competition with larger companies (Göhsl, 2026, p. 258 and *passim*). Rather, the individual provisions providing for exemptions for small and medium-sized enterprises are scattered throughout the AI Regulation and primarily concern procedural simplifications (e.g. regarding the scope of technical documentation) without reducing the actual substantive legal burden of implementation (Göhsl, 2026, pp. 231, 237). The AI Omnibus provides for simplifications for businesses by extending certain special provisions for small and medium-sized enterprises to small mid-cap companies (European Commission, 2026a).

860 From a competition policy perspective, relief for small and medium-sized enterprises is, in principle, a matter of course. This is because they cannot cope with the same level of effort as a large corporation with its own compliance department. Rather than merely reducing documentation requirements, it should also be possible to lower substantive legal requirements for small and medium-sized enterprises and start-ups. However, to avoid undermining the AI Regulation, obligations should be tiered according to scope and actual risk: an AI system used solely for internal production purposes in a small business should not be subject to the same requirements as a mass-market product affecting many users. It therefore makes sense to establish less stringent rules for specific regulatory areas that affect only a small group of people.

861 Therefore, insofar as specific areas of regulation – such as the Machinery Regulation – are excluded from the scope of the AI Regulation, significantly more far-reaching exemptions for small and medium-sized enterprises could be provided for here than in the horizontally applicable AI Regulation, which covers a much wider range of circumstances. Further relief for small and medium-sized enterprises comes in the form of options to share or standardise compliance, for example through certified third-party solutions, industry codes or technical standards, compliance with which is deemed to satisfy the requirements (see section **74.3.2.3**). Finally, small and medium-sized enterprises should be granted more realistic implementation deadlines rather than being subject to the same deadlines as large providers. This ensures that the level of protection is maintained and, in practice, becomes even more effective because the rules can actually be followed.

➤ Recommendations

- In addition to the relief measures already provided for small and medium-sized enterprises, further measures are necessary.
- The extension of the deadline agreed in the trilogue regarding the establishment of real-world laboratories should not be fully utilised at national level.
- Access to real-world laboratories must be low-threshold, with short preparation times, transparent costs and expert support. In view of the foreseeable capacity constraints, sector-specific specialisation should be pursued rather than simply setting up a single real-world laboratory.
- Additional advisory structures are important complementary measures that should be operationally integrated with the real-world laboratories. Before expanding existing programmes, their profile should first be raised or their activities focused through consolidation.
- Rather than merely reducing documentation requirements, substantive legal requirements for small and medium-sized enterprises and start-ups should also be lowered. In doing so, obligations should be tiered according to scope and actual risk.
- Further relief for small and medium-sized enterprises can be provided through opportunities to share or standardise compliance, for example via certified third-party solutions, industry codes or technical standards, compliance with which is deemed to satisfy regulatory requirements.
- Finally, small and medium-sized enterprises and start-ups should be granted more realistic implementation deadlines rather than being subject to the same deadlines as large providers.

4.3.2.3 Accelerate the implementation of harmonised standards as a key means of ensuring corporate compliance

862 Harmonised standards are a crucial means of ensuring companies' compliance with the AI Regulation. These are technical specifications drawn up by recognised standardisation organisations (e.g. ISO, DIN⁹³) on the basis of a mandate from the European Commission.⁹⁴ With regard to the requirements for high-risk AI systems and general-purpose AI models, Article 40(1) of the AI Regulation provides for a presumption of conformity with the requirements of the AI Regulation if the technical specifications have been complied with. This means that companies have legal certainty if

⁹³ International Organisation for Standardisation or German Institute for Standardisation;

⁹⁴ See the definition in Article 2(1)(c) of Regulation (EU) No 1025/2012, referred to in Article 3(27) of the AI Regulation.

they comply with the technical specifications. This is particularly important for small and medium-sized enterprises, which generally have less legal expertise and more technical expertise. Although compliance with the standards leads to a presumption of conformity, it is otherwise voluntary (Hilgendorf/Härtlein, 2025, Art. 40, para. 2), so the competitive discovery procedure remains in place.

863 However, the standardisation process proved to be very protracted (see Kilian et al. (2025)): for instance, standardisation mandates were issued as early as May 2023 to the European standardisation bodies CEN and CENELEC⁹⁵ with the stipulation that these should be completed by April 2025; however, this deadline had to be postponed several times and has still not been met (Hacker et al., 2025, pp. 56 ff.). Consequently, there is (was) a risk of a regulatory vacuum when the high-risk AI regulations come into force, particularly as the delays affect not only the adoption of technical standards (in particular Article 40 of the AI Regulation) but also guidelines⁹⁶, leading to a lack of practical guidance (Hacker et al., 2025, p. 29).

864 These delays were a key reason for the European Commission to postpone the date of application of the AI Regulation via the AI Omnibus (Recital 22 of the Commission's proposal). Given the massive delays in drawing up the harmonised standards, postponing the scope of application of the AI Regulation ultimately appeared to be virtually the only option. It is conceivable that the complexity of the specifications to be drawn up was underestimated during the legislative process, meaning that the implementation deadlines were set too tightly from the outset. However, some have also suggested that the implementation process is being deliberately delayed by the companies themselves, for example by raising concerns at the last minute in order to then call for an extension of the implementation deadlines, in the hope of having the AI Regulation revised further in line with their interests (Hacker et al., 2025, p. 30).

865 It is difficult for the Monopolies Commission to assess which factors are primarily responsible for the delays. In any case, the current situation is unsatisfactory for all parties involved. The delays are not only an administrative problem but also a competition issue. This is because those who participate in standardisation bodies – typically large providers with their own standardisation teams – help shape the presumption of conformity, whilst small and medium-sized enterprises, start-ups and academic stakeholders are structurally under-represented. As a result, the most important compliance requirement is established under unequal conditions, and so too is the barrier

⁹⁵ Comité Européen de Normalisation (European Committee for Standardisation) or Comité Européen de Normalisation Électrotechnique (European Committee for Electrotechnical Standardisation).

⁹⁶ In May/June 2026, a public consultation took place on the European Commission's draft guidelines for the classification of high-risk AI systems, European Commission (2026b).

to market entry. It is therefore crucial to adapt the institutional framework. The European Commission also recognises the importance of the participation of small and medium-sized enterprises and civil society organisations in the standardisation process and intends to strengthen their involvement as part of the revision of the Standardisation Regulation (European Commission, 2025, p. 68).

866 The Monopolies Commission recommends three corrective measures: Firstly, mandates issued to standardisation bodies should provide for clear consequences in the event of missed deadlines, namely more decisive recourse to the Commission's common specifications under Article 41 of the AI Regulation as a transitional regime. This would remove the incentives for delay. Secondly, the participation of small and medium-sized enterprises, start-ups and academic representatives in standardisation bodies could be financially supported to mitigate the asymmetry. Thirdly, competition authorities could be granted observer status in the relevant bodies so that the competitive dimension of the emerging standards becomes apparent at an early stage. Furthermore, efforts should be made in future to reduce complexity as far as possible, including with regard to technical specifications. At the same time, it seems preferable, in cases of doubt, to set slightly longer deadlines, but then to enforce them consistently – if necessary via Article 41 of the AI Regulation – rather than extending them repeatedly and at very short notice before they come into force. This is the only way to ensure legal certainty and planning security for all parties involved.

Recommendations

- When in doubt, it is preferable to set longer deadlines for the development of technical specifications; however, these should also be consistently enforced – notably through common specifications issued by the European Commission pursuant to Article 41 of the AI Regulation – as a transitional regime.
- Financial support should be provided to enable small and medium-sized enterprises, start-ups and representatives from academia to participate in standardisation bodies. In addition, competition authorities could be granted observer status in the relevant bodies.

4.3.3 Aligning industrial policy to boost competitiveness

867 868 Competition law keeps AI markets open, whilst streamlined regulation creates scope for innovation. However, neither of these measures alone can overcome the inertia that has been identified as the core of the diffusion problem. For AI to take hold across the German and European economies, a forward-looking industrial policy framework is also required. This framework must focus on what the state can actually

influence, whilst refraining from what it should not undertake. This third lever of a competition-oriented AI economic policy is elaborated upon below.

868 A tension can be observed here. Organisational inertia is primarily a corporate problem. Whether a company transforms its own organisation, makes investment decisions and demonstrates the necessary willingness to take risks ultimately lies with the company itself – and thus falls outside the scope of the state’s remit. The actual pressure to adapt stems from open competition in national and international markets, which forces companies to transform. Economic policy cannot replace this decision, but it can improve the conditions under which companies make it. It is crucial that government action takes a horizontal approach, i.e. focuses on the framework conditions that apply to all companies across all sectors. Vertical interventions targeting individual sectors or technologies should only be considered where there is a clearly identified market or transformation failure – and even then, only in a manner that is open to competition, transparent and time-limited (**↗Box3.3** in **↗Chapter 3**).

869 The following recommendations address the problem identified in section **↗4.2.2**. Section **↗4.3.3.1** deals with the need to strengthen the scientific knowledge base and its transfer into practice. This is a horizontal measure from which all market participants benefit equally. Section **↗4.3.3.2** tackles the very heart of the diffusion problem: the organisational inertia of existing industrial companies, which cannot be resolved through government intervention, but which the state can help to overcome by creating a competitive framework and providing training opportunities. Section **↗4.3.3.3** addresses the supply side and thus the development of a competitive European AI provider landscape, without which German and European user companies would have no real alternatives to the US-dominated technology firms.

870 The Monopolies Commission advises against a traditional industrial policy that attempts to address the problem of inertia through extensive funding programmes or new planning units at the various federal levels. Such approaches fail to tackle the actual problem; instead, they generate additional transaction costs without making any discernible contribution to overcoming corporate inertia. However, the three approaches differ from one another in terms of their scope. Strengthening basic research and knowledge transfer (section **↗4.3.3.1**) and improving conditions for competition and skills development (section **↗4.3.3.2**) have a horizontal effect, i.e. they benefit all companies across all sectors. The strategic use of public demand (section **↗4.3.3.3**), by contrast, has a more far-reaching effect. In its basic, open form – an open-to-competition pooling of demand without geographical preference – it remains competition-neutral. However, as soon as preference is given to European suppliers, this constitutes a selective, vertical intervention. Such an intervention may only be considered

where there is a clearly identified failure of transformation. It must be designed to minimise the impact on competition as far as possible through open competitive tendering and time limits (section 74.3.3.3).

4.3.3.1 Strengthening basic research and knowledge transfer

871 A strong public research base is a key prerequisite for helping to shape future technological breakthroughs and tapping into new potential for innovation. As outlined in the section 74.2.1.2, Germany and Europe have a strong public research landscape. Government funding should therefore focus in particular on areas where it generates scientific insights upon which technological developments, downstream applications and spin-offs can build. A competitive landscape of AI providers developing AI solutions is essential if German and European companies are to have a genuine chance of competing with US-dominated players. Strengthening the scientific knowledge base and its transfer into practice thus has an impact on two levels simultaneously. It addresses the lack of innovation momentum and lays the foundations for a European AI provider landscape.

872 In this context, government funding should primarily strengthen basic research. It should focus on areas where research findings open up broad application possibilities. Government funding thus addresses a key barrier to innovation: given high knowledge spillover⁹⁷, long time horizons and uncertain returns, private actors invest to a lesser extent than would be desirable for the economy as a whole. The aim of government funding should therefore be to close this funding gap, to stimulate private R&D investment, and to enable start-ups and venture-capital-backed companies to build on publicly funded knowledge. In such an innovation ecosystem, innovations that are publicly funded but commercially exploited by the private sector can become a key channel through which basic research is translated into new applications, business start-ups and long-term productivity growth. Gazzani et al. (2026) demonstrate a positive effect of collaborative R&D on product innovations; however, this effect was only detectable in publicly funded collaborations; for other channels such as contract research, IP licensing or staff transfers, they found no comparable effect within their research design. This supports targeted funding for collaborative R&D, but should not be interpreted as general evidence against the other transfer channels. Staff transfers, in particular, often elude such impact assessments because their effects are diffuse and long-term; the broader literature on knowledge diffusion classifies researcher mobility as one of the key transfer pathways precisely for this reason. However, promoting the knowledge base alone is not sufficient. It is crucial that the knowledge generated is also reliably and swiftly channelled into business applications – and it is precisely

⁹⁷ Knowledge spillover refers to the diffusion of knowledge from one actor to another. This often occurs unintentionally, for example through the exchange of skilled personnel or cooperation.

here, in the transfer of research into practice, that the real bottleneck lies in Germany (section 74.2.2.1). The following two levers therefore address this transfer directly.

Recommendations

- The Monopolies Commission recommends that state research funding be directed primarily towards basic research and high-risk research with significant knowledge spillover. This will strengthen the knowledge base upon which downstream innovations, spin-offs and new technological applications can build.

873 Close integration with industry, in the form of research collaborations that link fundamental knowledge with industrial application prospects, should also be supported. The complementarities between the public and private sectors should be utilised. Effective innovations can emerge when the state funds basic research and private actors translate this into practical applications. In addition to spin-offs, knowledge transfer also takes place through joint R&D between academia and industry. Programmes that involve small and medium-sized enterprises should be supported. Joint R&D projects between academia and industry are particularly relevant to the question of how new companies can gain access to scientific knowledge and use it to develop marketable AI applications. Carioli et al. (2024) demonstrate a positive effect of joint R&D on product innovation, although this effect was only demonstrable in publicly funded collaborations. The authors found no comparable effects for other transfer channels such as R&D services/contract research, IP licensing and staff transfers.

Recommendations

- In addition, government research funding should be geared more strongly towards joint R&D projects between academia and industry. Funding programmes should therefore specifically strengthen forms of collaboration that translate research results into marketable AI applications and also involve start-ups and small and medium-sized enterprises.

874 In addition to strengthening basic research and collaboration models, a third lever is crucial. As outlined in section 74.2.2.1, Germany and Europe have a strong public research landscape; however, in Germany at least, this is not sufficiently translated into entrepreneurial activity. Improved knowledge transfer is a key starting point

for addressing the described weak innovation dynamics and subdued growth in Germany and Europe. Measures to improve this transfer were already announced in the 2025 coalition agreement between the CDU, CSU and SPD. A major weakness in the transfer of scientific findings into practice lies in the transfer of intellectual property (IP) for spin-offs that are based on property rights, software, data or specific know-how from universities and research institutions. In the field of AI in particular, scientific findings are often linked to software, data sets and technical expertise. A protracted or uncertain IP transfer can therefore significantly delay the creation of new companies, thereby weakening precisely those European AI providers whose emergence is desirable from a competition policy perspective.

875 Overall, the IP transfer process is frequently perceived as too complex and time-consuming. The Competition and Artificial Intelligence Commission (2026) had already highlighted the importance of standardised IP transfer processes in this context. The duration of the process is by far the most significant factor influencing satisfaction with the conduct of patent negotiations (Kulicke, 2024). Where only intellectual property rights, in particular patents, are transferred, the average duration of the spin-off process is 16.3 months. Where patents are combined with software, data or know-how – as is frequently the case in the AI sector – this period extends to almost 20 months (Kulicke, 2024). Furthermore, for almost all aspects examined, there is a statistically significant correlation between the evaluation of the process and the overall duration of the negotiations. The longer the process takes, the lower the level of satisfaction (Kulicke, 2024). The speed of commercialisation is therefore a relevant factor in the transfer of technologies to new companies (Markman et al., 2005).

Source: ETH Zurich (2025)

Box4.12: ETH Zurich as an example of accelerated IP transfer processes



THE PROCESS IN BRIEF

ETH Zurich uses standardised rules, published guidelines and pre-defined contract options to accelerate spin-off processes.

- For patents, founders can choose from a pre-structured menu of contracts via the express procedure.
- Deviations from standard terms remain possible.
- The key contractual terms are published. This increases transparency and makes it easier to assess which contractual options are suitable for the start-up project in question.
- Under the express procedure, licensing can be finalised within around one month, provided the standardised terms are accepted without amendment.

876 However, the ETH model cannot be directly applied to the German higher education system. Compared with ETH Zurich and the Swiss system, the German higher education system is characterised by the cultural autonomy of the federal states and is correspondingly fragmented: higher education laws, IP exploitation practices and equity participation models vary. Effective standardisation therefore requires a coordinated framework that overcomes this fragmentation.

877 In addition to the duration of IP transfer, the financial terms of the rights transfer can also constitute a significant barrier. Universities may require equity stakes in spin-offs in return for the transfer or use of intellectual property rights. The size of these stakes varies on a case-by-case basis. However, there is no comprehensive evidence on equity participation practices (Kulicke, 2024). This can be particularly problematic for start-ups. In the early stages of development, they are regularly reliant on venture capital. High levels of university equity stakes can reduce the company's attractiveness to external investors. Hellmann et al. (2025) show that high levels of university equity participation weaken the incentives for founders and the ability to raise venture capital, and can thus act as a barrier to academic start-ups. The design of equity participation models therefore affects more than just the distribution of future returns; it can also influence whether start-ups achieve the necessary financing and growth dynamics.

Recommendations

- A national framework of model regulations for IP transfer and equity models in spin-offs should be developed — for example, as part of cooperation between the federal and state governments or an initiative similar to the Excellence Strategy. Such a framework should serve as a reference for universities, from which deviations should only be made in justified individual cases.
- Faster market entry for spin-offs requires more standardised IP transfer processes. Standardised contract templates and pre-defined contract terms can lower transaction costs, reduce recurring negotiation issues and minimise the workload for founders and research institutions alike. Following the guidance set out in the 'University Spin-out Investment Terms' guide appears to be helpful in this regard (TenU, n.d.). The guide provides an overview of best-practice examples for structuring the IP transfer process.
- The transparency of the procedures should be increased. Clear criteria for the valuation of IP, published contract options and transparent decision- processes can reduce uncertainties during negotiations. This is particularly relevant in the field of AI, as it often involves not only patents but also software, data or specific know-how.

- IP transfer processes should be time-limited. It should generally be possible to complete the process, from IP valuation to the conclusion of a contract, within twelve weeks (Federal Agency for Breakthrough Innovations (SPRIND) et al., n.d.). A two-track model appears appropriate here. Standardised contract templates should be used for typical and less complex scenarios, whilst case-by-case solutions should remain an option for particularly complex cases. This would prevent all spin-offs from having to go through a protracted negotiation process, even though many cases could be resolved more efficiently through standardised arrangements.
- Equity models for spin-offs should be designed to be transparent, standardised and more start-up-friendly. University equity stakes should only be provided for to a limited extent, so as to safeguard the financial viability of young companies.

4.3.3.2 Competition and qualification should strengthen the framework conditions for AI adoption

878 As outlined in the section [74.2.2.2](#) on the basis of the discussions held, barriers to AI adoption also lie in the organisational structures governing management decisions. Organisational inertia, high switching costs, risk aversion amongst management and an insufficiently developed culture of learning from mistakes can result in companies being too slow to capitalise on technological breakthroughs. Existing companies should be supported, through appropriate framework conditions, to trial AI applications at an early stage, assess risks and opportunities appropriately, and integrate successful applications into products, processes and business models. The following section therefore discusses approaches through which the state can strengthen the framework conditions for broader AI adoption in existing companies, in particular through effective competition in end-user and AI input markets, as well as through training programmes.

879 The use of AI requires not only technical expertise but also management skills. These encompass a company's ability to translate technological changes into changes in processes, responsibilities and business models. In particular, this includes identifying suitable AI use cases, adapting workflows, involving and training employees, assessing technical and economic risks, and transferring successful pilot projects into regular business processes. For AI to lead to productivity gains, these complementary prerequisites should therefore be strengthened. These include management skills, human capital and digital infrastructure (OECD, 2024b).

880 Empirical studies show that better management practices are associated with higher productivity and that management shortcomings occur more frequently, particularly where competitive pressure is low (Bloom/Van Reenen, 2007). Competition thus acts as a disciplining mechanism: companies have stronger incentives to overcome inefficient organisational structures, trial new technologies and implement productivity-enhancing applications. This also highlights the role of the state in this matter. The state cannot directly instil such organisational capabilities in companies. However, it can influence the framework conditions under which companies have incentives to overcome inefficient structures and make productive use of new technologies. Industrial policy measures aimed primarily at shielding individual companies or at creating national or European ‘champions’ may run counter to this mechanism if they consolidate market power and weaken the pressure to innovate.

881 The protection of competition through consistent enforcement of competition law is the subject of Section **74.3.1**. Beyond competition law, however, there are levers that the state can use to structurally increase competitive pressure. For instance, the administrative burden involved in setting up a business in Germany is significantly higher than the OECD average. The main difference in the start-up process lies in the fact that Germany lacks a central digital one-stop shop that brings together all the start-up and registration procedures required to set up a business. Removing unnecessary barriers to market entry helps to ensure a level playing field for all businesses, thereby promoting dynamism, investment and innovation. Existing licensing and establishment regulations often protect established providers from competitive pressure. Germany stands out in terms of the proportion of employees and self-employed people subject to access restrictions for certain professions (OECD, 2025a).

882 The fragmentation of the European market narrows the effective scope for competition and reduces the potential for scaling up AI-based business models. According to estimates, the costs of intra-European borders are equivalent to an ad valorem tariff of 45 per cent () (Adilbish, 2025). Fragmented procurement processes can slow down the introduction of new technologies, make their use more difficult and raise barriers to market entry (Bauer et al., 2025). This creates a scaling problem for German and European companies. They are confronted with a multitude of different procedures, requirements and demand structures, rather than being able to access a larger, integrated market at an early stage. This makes it difficult for companies to pool demand and realise economies of scale. A high administrative burden is linked to complex regulations and administrative procedures that vary from federal state to federal state and from municipality to municipality, which hinders market entry and the growth of companies in many markets

883 As outlined above, management skills, human capital and digital infrastructure form the complementary prerequisites without which AI cannot be used productively. The focus is on training programmes that strengthen employees' technical and digital skills and support companies in upskilling their workforce. The need for skills development remains considerable. The Federal Ministry for Economic Affairs' Commission on Competition and Artificial Intelligence (2026) had already highlighted the need to strengthen AI and STEM skills. In Europe, only 56 per cent of citizens possess at least basic digital skills (Eurostat, 2025). Support structures for this already exist in Germany (Federal Government, 2026; Stifterverband für Künstliche Intelligenz, n.d.). However, it became clear during the discussions that many companies are largely unaware of these programmes ([↗Box4.11](#)). For this reason, the Monopolies Commission sees a need to consolidate the existing programmes and communicate them more effectively.

884 In addition to consolidating and raising the profile of existing programmes, three further approaches are worth considering. Firstly, AI skills should be systematically embedded in the dual vocational training system and in collective agreements on continuing professional development, in order to establish a broad base of digital skills amongst the workforce. Secondly, the recruitment of international skilled workers should be facilitated, in particular through English-language administrative procedures, accelerated residence and recognition procedures, and qualification profiles that are internationally compatible. Thirdly, targeted support programmes for management training in small and medium-sized enterprises are of particular importance. AI is also a management task. Particularly in small and medium-sized enterprises, but also in large companies, managerial competence determines whether and how consistently the transformation is initiated in the first place. Finally, the adaptability of the labour market is also one of the framework conditions for AI adoption. Because the productive use of AI often requires the reorganisation of work processes and the redeployment of staff, a labour market that allows for occupational mobility and the reallocation of skilled workers to technologically dynamic companies facilitates widespread adoption. In this regard, the Monopolies Commission refers to its recommendations in ['70](#) to strengthen labour mobility and to examine the impact of protection against dismissal and non-wage labour costs on mobility and recruitment.

885 With its federal structure, Germany offers a wide range of services and points of contact for AI. However, this also means that the provision is fragmented, in some cases little known and not particularly effective. To date, there is no central point of contact in Germany, nor is there a 'face of the AI transformation'. Yet AI, start-up development, scaling, raising capital, upskilling and other areas thrive on the pooling of

resources.⁹⁸ The Monopolies Commission recommends that the AI transformation must become a top priority. It recommends establishing a central point of contact within the Federal Government to which anyone can turn with questions and suggestions regarding AI. A small team would direct enquiries to the relevant contacts and promote the AI transformation. This unit could be placed directly under the Federal Minister for Digital Affairs to give the AI transformation the weight it already has in countries such as France or Canada. The small, independent unit should be led by a strong figure who acts as Germany's Commissioner for the Future of AI. In the long term, it would make sense to consolidate the many small government AI initiatives.

886 Particularly when compared with short-term relief measures, investment in AI-related skills training can make a lasting contribution to the productivity and adaptability of the economy. The promotion of AI skills should therefore be regarded as a key priority.

Recommendations

- Competitive pressure should be strengthened by removing administrative barriers to market entry. To this end, start-up procedures should be further digitised, a central digital one-stop shop for start-up and registration procedures should be created, and existing licensing and establishment regulations should be reviewed for their anti-competitive effects.
- The fragmentation of the European single market should be further reduced in order to improve scaling opportunities for AI-based business models and lower barriers to market entry.
- The complementary conditions for the productive use of AI in businesses should be strengthened. To this end, existing training programmes should be made more visible and expanded in a targeted manner, AI skills should be embedded in initial and continuing education, the recruitment of international skilled workers should be facilitated, and management training for small and medium-sized enterprises should be strengthened. In addition, efforts should be made to create a more adaptable labour market that facilitates the reallocation of skilled workers to technologically dynamic companies (see **70**).

⁹⁸ Most recently, the European Investment Council awarded a €5 billion investment to the investment firm EQT, following a rigorous and highly competitive selection process, appointing it as the preferred investment adviser and fund manager for the 'Scaleup Europe Fund'; see: https://germany.representation.ec.europa.eu/news/investmentgesellschaft-eqt-wird-5-milliarden-euro-fonds-scaleup-europe-managen-2026-05-19_de, last accessed on 25 June 2026.

4.3.3.3 Strategically utilised public demand can create markets for AI at an early stage

887 The focus of economic policy lies at the application level, where German and European companies can capitalise on their comparative advantage. As the analysis has shown, the realisation of this potential is hampered by two interlinked obstacles. These are the marked inertia in adoption at company level and dependencies on key AI inputs. This constellation cannot be attributed to a single, clearly identifiable market failure. Rather, as outlined at the beginning of this chapter, it points to a failure of transformation, in which private investment, adoption decisions and scaling requirements do not sufficiently align. Particularly in the case of emerging technologies, such a phase can create a ‘Valley of Death’, in which investment incentives remain unclear and the necessary scaling fails to materialise (Nemet et al., 2018).

888 Public demand can be a key starting point for supporting the diffusion and scaling of AI applications. It steps in where private demand remains initially low, uncertain or fragmented. By pooling public demand – ideally at EU level – initial application markets can emerge (more quickly) and key reference projects can be established. This increases the expected returns from innovation as well as the incentives for companies to invest in the development and significant scaling of new technologies. This is particularly relevant in markets characterised by high R&D costs, sunk costs, technological uncertainty and economies of scale, as is the case with AI.

889 The economic approach follows the ‘infant industry’ argument, according to which new entrants incur higher costs than established providers in early stages of development and must first navigate their learning curve before they can compete. Time-limited support can enable them to build up learning curve effects, economies of scale and market experience. Applied to AI markets, the focus is on closing a structural demand gap. Public demand can help bridge a ‘Valley of Death’ for German and European innovators (Chiappinelli et al., 2025).

890 However, the pooling and strategic deployment of public demand should be designed with competition in mind. The ‘infant industry’ argument does not justify permanent market protection, but rather a temporary intervention subject to clear conditions. A prerequisite for any such demand policy is a clearly diagnosed failure of transformation; this must be accompanied by transparent procurement criteria. This threshold applies to all the approaches discussed below. The aim should be to facilitate market entry, enable scaling up and strengthen competitive alternatives. In this way, strategically utilised public demand can bolster European value creation and

technological connectivity whilst simultaneously fostering competitive dynamics. Industrial policy should not promote individual national and European champions, but rather the widespread use of AI.

891 However, public demand carries competitive risks. These risks may exist regardless of the supplier's origin. They become more significant, however, when public demand is used strategically to promote market entry, scaling and competitive alternatives:

- Firstly, there are information problems. Public contracting authorities are often unable to fully assess the value of new technologies, their performance and the appropriate contract value. This makes it difficult to select suitable procurement items and may lead to inefficient funding and procurement decisions.
- Secondly, there is a risk of lock-in effects due to long contract terms. Public IT and AI contracts often run for ten years or more. Once awarded, they create de facto path dependence and hinder subsequent changes of supplier.
- Thirdly, self-reinforcing advantages arise for existing providers. Anyone who wins an initial public contract builds up a reputation as a reference client, gains procedural knowledge and establishes a head start in terms of trust. These advantages are structurally difficult to catch up with in subsequent tenders and act as a barrier to market entry.
- Fourthly, the standardisation of procurement requirements can have a concentrating effect. If certifications, data protection clauses or technical specifications are formulated so stringently that only the largest providers can meet them, the bundling of demand is reversed and effectively acts as a driver of market concentration.
- Fifthly, crowding-out effects may arise. Public demand can weaken private demand and private investment if it replaces market processes or reduces investment incentives for private actors. It is therefore crucial that public procurement steers products and applications towards a sustainable level of demand. It should create demand where there is also realistic potential for subsequent private use.

892 The pooling of public demand can be structured in various ways. There are essentially three possible approaches: open competition without geographical preference; selective preference for European suppliers in narrowly defined fields of application; and a general European preference in AI procurement. In any case, procurement procedures should be accelerated and designed to promote competition and innovation. The work of the Federal Agency for Breakthrough Innovations (SPRIND) provides a wide range of ideas in this regard.

893 The first option involves pooling public sector demand and putting it out to tender on a competitive basis, thereby excluding geographical preferences. The focus is then

on increasing the volume of procurement, standardised requirements and better co-ordination of public demand. This option is the most obvious from a regulatory perspective. It can facilitate scaling up, but only addresses to a limited extent the problem that established non-European suppliers have a structural advantage due to their existing market positions and economies of scale. Smaller European suppliers in particular could therefore continue to face difficulties in competing successfully in such procedures.

894 The second option relies on the state acting as an anchor customer with a preference for European suppliers. Such a preference remains subject to the conditions mentioned above. The aim is to open up early reference markets for European suppliers, facilitate scaling up and create opportunities to switch away from established non-European suppliers. However, such an arrangement would have to be linked to objective, verifiable and factually justified criteria.

895 The third option is a general European preference in AI procurement, i.e. a systematic favouring of European providers beyond individual use cases. Such an approach is increasingly being discussed in light of geopolitical developments. From the Monopolies Commission's perspective, a preference for European suppliers can stimulate competition, provided that it promotes the development of a European supplier landscape in areas where such a landscape has hitherto been non-existent or insufficient. Competition within Europe remains unaffected by this and may intensify as new suppliers emerge. A blanket and indefinite preference would nevertheless remain problematic: selective vertical interventions require clear justification based on a failure of market forces. An unconditional preference, by contrast, carries the risk of weakening competition, narrowing procurement markets and shielding existing suppliers.

896 A further competitive tension arises where public demand is to be steered via a preference based on origin. Such a link can only be considered where purely performance-based procurement fails to close this gap. It must be borne in mind that international competitive conditions in the AI sector are by no means symmetrical. Key trading partners, for their part, are pursuing targeted industrial policy strategies to strengthen domestic suppliers. Multilateral solutions are therefore preferable, such as bilateral agreements with states sharing similar interests, for example in the spirit of the 'Middle Powers'.⁹⁹ Where such solutions are not achievable in the short term,

⁹⁹ The 'middle powers' debate describes the growing significance in global politics of medium-sized states that are neither global superpowers such as the US or China nor very small countries. These states use their capacity for action to position themselves strategically within a fragmented world order. They do not wish to align themselves with a major power, but instead act as multi-allied states and seek strategic partnerships.

an origin-based component may be justified as a second-best solution, provided it is limited to the specific cases of need mentioned.

897 The European Commission’s proposal for a Cloud and AI Development Act of 3 June 2026 already provides for greater use of public procurement to reduce strategic dependencies in the cloud and AI sectors. In this context, ‘EU value-added’ criteria are intended to help better reflect security, resilience and sovereignty-related requirements in procurement procedures (European Commission, 2026). Within the scope of the proposal, these criteria would be incorporated into the quality assessment as non-price award criteria when procuring innovative cloud services and AI systems. In particular, they are intended to capture a tender’s contribution to the European digital supply chain, the use of European technologies and security of supply; however, they may only be taken into account as supplementary factors and must not be decisive for the award of the contract. From the Monopolies Commission’s perspective, such criteria should be linked to the aforementioned threshold and closely tied to objective, verifiable and factually justified requirements. The Monopolies Commission rejects a simple ‘Buy European’ approach on competition policy grounds.

898 Regardless of the form it takes, strategically bundled public procurement should be closely aligned with competition and innovation policy guidelines. Its aim is to create additional demand for new AI applications, increase switching opportunities and strengthen innovation-driven competition. On the one hand, public demand can drive innovation into practical application by opening up early-stage markets, enabling showcase projects and facilitating the transition from development to market launch. On the other hand, it can bolster alternatives in key intermediate inputs within the AI stack. The following guidelines should therefore be observed:

- **Firstly**, the objective of public procurement should be clearly defined. For instance, a clearly identified failure of transformation may necessitate the targeted consideration of European alternatives. It must then be precisely determined what constitutes ‘European’ in the context of procurement. Objective and verifiable criteria that capture the actual contribution to achieving the objective are important. These may include the location of the head office and ownership structure, the location of key R&D activities, the tax domicile, and legal and technical measures to ensure compliance with European law. It is also crucial whether the supplier is sufficiently protected against extraterritorial access, such as foreign access powers. This would also allow for a differentiated assessment of different third countries. Some countries, such as Switzerland or the United Kingdom, pose lower dependency risks than others due to close economic and cultural ties and low levels of geopolitical tension. This suggests that requirements should be applied in a targeted manner where specific risks exist, rather than restricting public procurement markets across the board on the basis of country of origin.

- **Secondly**, openness should become the guiding principle for public AI procurement. This is the most effective lever in terms of competition — it lowers switching costs, limits lock-in effects and reduces dependence on individual suppliers, without coming into conflict with the principle of open markets. In addition, open standards, interoperability, multi-cloud capability and data portability should be made mandatory in tender specifications. This is also in line with the competition policy assessment of the Commission on Competition and Artificial Intelligence at the Federal Ministry for Economic Affairs. If the goal of technological sovereignty is to be pursued, it should primarily be understood as the freedom to choose and switch providers. It is precisely this freedom that a consistent openness strategy ensures. Specifically, the Monopolies Commission recommends an ‘open source by default’ preference in public procurement: where equivalent open-source solutions are available, these should be given priority. Any deviations from this should be subject to justification. An obvious application is the software sector. An ‘open source by default’ preference is also more effective in terms of competition than a preference based on origin, as it increases market contestability rather than shielding individual groups of suppliers.
- **Thirdly**, the scope of public demand should be defined. The focus should be on areas where public procurement can make a clear contribution to the scaling, market entry and diffusion of AI applications. The challenge lies in deploying public demand in such a way that it can open up additional markets and viable applications for the private sector.

Recommendations

- Public demand should be strategically concentrated on the basis of clearly defined objectives and criteria. It should be designed to be transparent, time-limited and competition-oriented. Particular emphasis should be placed on openness, interoperability and data portability.
- Public procurement should be used as an anchor customer with a strictly justified European preference. It is crucial that a European preference remains limited to clearly identified failures in transformation and existing dependencies, and is applied only where it is necessary to achieve the respective procurement objective. The measure should help to increase opportunities for switching, create early reference markets and support the development of high-performing German and European alternatives. This is particularly effective where public demand can pave the way for a market that will be viable in the future. Wherever possible, such procurement should take place at European level.

4.4 Recommendations at a glance

Competition law

- 1** The European Commission should examine AI services and include them in the list of key platform services under Article 2(2) of the DMA, so that they can be addressed within the framework of the behavioural obligations set out in Articles 5 and 6 of the DMA, which should be amended accordingly. Furthermore, key cloud services should also be designated by the gatekeeper companies. Rapid and effective enforcement is crucial both under the DMA and within the framework of competition law. **Section 74.3.1.1**
- 2** The high level of complexity surrounding permissible data collaborations creates significant legal uncertainty for many industrial companies, which hinders investment. The Monopolies Commission therefore recommends a low-threshold option for a pre-clearance procedure for industrial data collaborations at the Federal Cartel Office. To this end, the high threshold of a ‘substantial’ legal and economic interest in a decision under Section 32c(4) of the Act against Restraints of Competition (GWB) should be lowered. **Section 74.3.1.2**
- 3** In the Monopolies Commission’s view, competition authorities must recognise the pace at which disruptive AI technologies are developing in order to respond effectively to the associated competition risks. The ‘checkpoint’ analysis can make a significant contribution to identifying economic power in the AI sector and making it transparent where input supplies and dependencies on large technology companies should be addressed. This will strengthen competition protection in the field of AI by enabling ‘winner-takes-all’ developments to be identified at an early stage and curbed in a targeted manner. This can be achieved both through sector inquiries by the Federal Cartel Office and through DMA market investigations by the European Commission. **Section 74.3.1.3**

Regulation

- 4** The AI Regulation should, in principle, be retained, as it establishes a uniform EU-wide legal framework for AI and prevents regulatory fragmentation between Member States. However, bold measures must be taken to reduce duplication

and over-regulation. The AI Omnibus is a step in the right direction. Areas that are already subject to intensive sector-specific regulation should not (also) be regulated by the AI Regulation, but should be excluded from its scope. Furthermore, there must be a paradigm shift in future from ex-ante regulation to ex-post regulation. Before comprehensive provisions on AI are incorporated into sector-specific legislation, a regulatory moratorium should first be implemented to assess whether there is, in fact, a genuine need for regulation. Where sector-specific regulation appears necessary, far-reaching exemptions should be provided for small and medium-sized enterprises and start-ups. Finally, the incentives facing those involved in the legislative process should be examined in order to identify the causes of the ongoing intensification of regulation. **Section 74.3.2.1**

- 5** In addition to the relief measures already planned for small and medium-sized enterprises, further measures are necessary. The extension of the deadline agreed in the trilogue regarding the establishment of real-world laboratories should not be fully utilised at national level. Access to real-world laboratories must be low-threshold, with short preparation times, transparent costs and expert support. In view of the foreseeable capacity constraints, sectoral specialisation should be pursued rather than simply setting up a single real-world laboratory. Additional advisory structures are important complements that should be operationally integrated with the real-world laboratories. Before expanding existing programmes, their profile should first be raised or their activities focused through consolidation. Rather than merely reducing documentation requirements, substantive legal requirements for small and medium-sized enterprises and start-ups should also be lowered. In doing so, obligations should be tiered according to scope and actual risk. Further relief for small and medium-sized enterprises can be provided through opportunities to share or standardise compliance, for example via certified third-party solutions, industry codes or technical standards, compliance with which is deemed to satisfy regulatory requirements. Finally, small and medium-sized enterprises and start-ups should be granted more realistic implementation deadlines rather than being subject to the same deadlines as large providers. **Section 74.3.2.2**

- 6** Technical specifications are an important means for businesses to facilitate regulation. Where in doubt, it would be better to set longer deadlines for their development, but these should then be consistently enforced – notably through common specifications issued by the European Commission pursuant to Article 41 of the AI Regulation – as a transitional regime. Care should be taken to ensure that standardisation also takes sufficient account of the interests of small and medium-sized enterprises, start-ups and academic

stakeholders, as well as competition concerns, for example through financial support for smaller stakeholders and observer status for competition authorities in the relevant bodies. **Section 74.3.2.3**

industrial policy

- 7** The scientific knowledge base should be strengthened and its transfer into economic applications significantly facilitated. Public funding should support basic research and high-risk research with significant knowledge spillovers. At the same time, joint R&D projects between academia and industry should be strengthened, and spin-offs should be facilitated through standardised, transparent and accelerated IP transfer processes, as well as start-up-friendly participation models. **Section 74.3.2.1**
- 8** To enable widespread adoption of AI in existing businesses, the relevant framework conditions should be improved. To this end, administrative barriers to market entry should be removed, registration procedures digitised, the fragmentation of the European single market reduced, and existing training programmes for digital and AI-related skills made more visible and better tailored to needs. **Section 74.3.2.1**
- 9** Public demand should only be used as a temporary and competition-oriented instrument for the diffusion and scaling of AI applications where a failure of transformation has been clearly identified. It should be linked to clearly defined objectives, transparent criteria, a time limit, as well as openness, interoperability and data portability. A preference for European suppliers may only be considered to a very limited extent where it is necessary to reduce existing dependencies, create early reference markets and increase the scope for switching away from established non-European providers. **Section 74.3.2.1**

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Directory

Figures

Figure 1.1: Development of real value added from 1978 to 2024	24
Figure 1.2: Development of employment figures from 1978 to 2024	25
Figure 1.3: Shareholder structure of the “Top 100”	28
Figure 1.4: Share of value added by the ‘Top 100’ by majority ownership	29
Figure 1.5: Trends in personnel links by type of link	31
Figure 1.6: Individuals holding multiple appointments on management and supervisory bodies in 2022 and 2024	32
Figure 1.7: Companies linked through personnel connections	33
Figure 1.8: Trends in merger activity among the ‘Top 100’	35
Figure 1.9: Aggregate price mark-ups in the manufacturing sector	39
Figure 1.10: Trend in the weighted quantiles of price mark-ups	40
Figure 1.11: Trends in price mark-ups, prices and estimated marginal costs	42
Figure 1.12: Trends in price premiums, factor and labour productivity	44
Figure 1.13: Labour productivity – composition	44
Figure 1.14: Energy – Trend in price premiums	51
Figure 1.15: Energy – Price premiums	52
Figure 1.16: Energy – Trends in price premiums, prices and estimated marginal costs	53
Figure 1.17: Energy – Trends in price premiums, factor and labour productivity	54
Figure 1.18: Energy – Composition of labour productivity	56
Figure 1.19: Import and export ratios	58
Figure 1.20: Trade exposure	60
Figure 1.21: Price premiums and trade elasticities	62
Figure 1.22: Price premiums and trade elasticity by energy intensity	63
Figure 1.23: Approximated marginal costs and trade elasticity by energy intensity	66
Figure 1.24: Prices and trade elasticity by energy intensity	67
Figure 1.25: Production index – high-tech and chemicals	69
Figure 1.26: High-tech – a comparison of price premiums	70
Figure 1.27: High-tech – price premiums	71

Figure 1.28: High-tech – Trends in price mark-ups, prices and estimated marginal costs _____	72
Figure 1.29: High-tech – Trends in price premiums, factor and labour productivity _____	74
Figure 1.30: High-tech – Labour productivity breakdown _____	75
Figure 1.31: Trend in the domestic share in the manufacturing sector and other industries _____	80
Figure 1.32: Domestic and global growth in value added _____	81
Figure 1.33: Domestic share of employment figures _____	81
Figure 1.34: Change in global growth and the domestic share of selected companies from 2010 to 2024 _____	82
Figure 1.35: Domestic and global growth in value added by companies' domestic share _____	83
Figure 1.36: Growth in value added by domestic share for the manufacturing sector and other sectors _____	84
Figure 1.37: Growth in employee numbers by domestic share _____	85
Figure 1.38: Trends in employment figures by domestic share, broken down into the manufacturing sector and other sectors _____	86
Figure 1.39: Hypothetical and actual domestic value added in the manufacturing sector and other sectors _____	87
Figure 2.1: Class action debt recovery _____	111
Figure 2.2: Antitrust damage in the supply chain _____	131
Figure 2.3: Number of notified and completed mergers _____	196
Figure 2.4: Number of main investigation proceedings and the decisions and withdrawals arising from them (since 2000) _____	198
Figure 2.5: Allocation of petrol stations for the broad regional comparison _____	230
Figure 2.6: Petrol station allocation for the identification of horizontal effects _____	232
Figure 2.7: Allocation of petrol stations to identify efficiency gains _____	233
Figure 2.8: Petrol station allocation for identifying vertical effects _____	235
Figure 2.9: Vertical effects as an event study _____	235
Figure 3.1: Horizontal industrial policy – electricity markets _____	289
Figure 3.2: Vertical industrial policy – the steel industry as an example _____	290
Figure 3.3: Industrial electricity price indices _____	292
Figure 3.4: Electricity prices by consumption bracket _____	293
Figure 3.5: Taxes and levies (small to medium-sized enterprises) _____	295
Figure 3.6: Electricity shares in selected sectors 2010–2022 _____	297
Figure 3.7: Germany's trading partners in 2024 _____	299

Figure 3.8: Electricity prices in a European comparison (70–150 GWh) _____	300
Figure 3.9: International comparison of electricity prices in 2024 _____	301
Figure 3.10: Energy consumption by industry in 2021 _____	302
Figure 3.11: Energy-intensive sectors and other sectors in 2021 _____	303
Figure 3.12: Production index by industry _____	305
Figure 3.13: Production index for various industrial sectors _____	306
Figure 3.14: Electricity prices for energy-intensive companies _____	313
Figure 4.1 : Vertical AI stack _____	356
Figure 4.2: Foundation model layers _____	363
Figure 4.3: Use of AI in German companies _____	369
Figure 4.4: Use of AI in companies: an international comparison _____	370
Figure 4.5: Publication topics of German institutions _____	371
Figure 4.6: Risk model of the AI Regulation _____	400
Figure 4.7: Structure of the AI Regulation (greatly simplified) _____	402

Tables

Table 1.1: The largest companies in 2024 by domestic net value added _____	19
Table 1.2: Seats on management and supervisory bodies of the “Top 100” _____	31
Table 1.3: Energy-intensive industries _____	49
Table 1.4: High-tech sector _____	69
Table 1.5: The importance of the manufacturing sector in 2024 _____	79
Table 2.1 : Selected approaches to the judicial assessment of damages _____	125
Table 2.2: Section 29 GWB and Section 29a GWB _____	167
Table 2.3: Overview of the number of notified and completed mergers, as well as prohibitions imposed by the Federal Cartel Office, broken down by the Monopolies Commission’s reporting periods _____	197
Table 2.4: Overview of the state of German merger control in 2024 and 2025 (compared with 2023) _____	198
Table 3.1: Direct and indirect electricity purchases by selected sectors _____	296
Table 3.2: Description of the scenarios _____	325
Table 3.3: Price effects of the simulation _____	325
Table 3.4 : Aggregated price effects of the scenarios _____	326
Table 3.5: Results with varying pass-through _____	327
Table 4.1: Control point analysis – integration by competition authorities _____	395
Table 4.2: Examples of dual regulation under the AI Regulation _____	403

Boxes

Box 1.1: Methods and data _____	38
Box 1.2: The chemical industry as a key sector _____	50
Box 2.1: Collective redress mechanisms _____	109
Box 2.2: Loss estimation using regression analysis _____	122
Box 3.1: Examples of competition disadvantages caused by bureaucracy _____	262
Box 3.2: Definition of industrial policy _____	269
Box 3.3: Externalities and Transformation Failures _____	272
Box 3.4: Competition-oriented industrial policy _____	285
Box 3.5: Real-world laboratories _____	286
Box 3.6: Industrial Electricity Price _____	309

Box 3.7: Electricity price compensation _____	311
Box 3.8: Reduction in electricity tax _____	312
Box 3.9: Subsidy for transmission network charges _____	314
Box 3.10: Special compensation scheme _____	315
Box 3.11: State aid law in the energy sector _____	316
Box 4.1: Practical insights into cloud computing and dependencies _____	359
Box 4.2: Practical insights on data _____	362
Box 4.3: Practical insights into foundation models and in-house industrial AI models _____	365
Box 4.4: Practical insights into organisational inertia _____	373
Box 4.5: Practical insights into measuring impact _____	375
Box 4.6: Practical insights into AI adoption in Germany and company size _____	376
Box 4.7: Practical insights into the shortage of skilled workers _____	377
Box 4.8: Practical insights on regulation _____	379
Box 4.9: Technical, strategic and generic control points _____	393
Box 4.10: Material scope of the AI Regulation _____	399
Box 4.11: Practical insights into advisory services _____	409
Box 4.12: ETH Zurich as an example of accelerated IP transfer processes _____	417

Online Appendix

The online appendix to this report contains supplementary analyses, data and methodological details relating to Chapter 1: Merger Reporting. The materials compiled here serve to provide further insight into and clarify the analyses presented in the report. Whilst they are not strictly necessary for understanding the key findings, they do allow for a detailed examination of the underlying calculations and sources.

The subsections follow the structure of the main report. Cross-references in the main text point to the corresponding sections of this appendix.

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