

Table of Contents

1	Introduction	1
	<i>Oliver Heneric and Wolfgang Sofka</i>	
2	The European Automotive Industry in a Global Context	5
	<i>Oliver Heneric, Georg Licht, Stefan Lutz, and Waltraud Urban</i>	
2.1	Economic Importance	5
2.1.1	Overview	5
2.1.2	Value Added	6
2.1.3	Employment	8
2.1.4	Production, Backward and Forward Linkages	9
2.2	Capital Stock and Investment	12
2.2.1	Special Focus on the New Member States	13
2.3	Industry Profile	18
2.3.1	Automotive Production	18
2.3.2	Manufacturers	24
2.3.3	Special Focus on Manufacturers in the New Member States	29
2.3.4	Suppliers	29
2.3.5	Special Focus on Suppliers in the New Member States	32
2.4	Globalisation and Restructuring	33
2.5	Capacity Utilisation and Structural Overcapacity	38
2.6	Conclusion	43
3	Competitiveness: A Market Perspective	45
	<i>Georg Licht, Wolfgang Sofka, and Waltraud Urban</i>	
3.1	Overview	45
3.2	International Markets	45
3.2.1	International Trade	48
3.2.2	Foreign Direct Investment	61
3.2.3	Emerging Markets	71

3.2.4	Conclusion	79
3.3	The Home Market	79
3.3.1	Market Size	79
3.3.2	Market Growth	92
3.3.3	Special Focus on the New Member States	97
3.3.4	Conclusion	100
4	Innovation and Competitiveness	103
<i>Thomas Cleff, Georg Licht, Alfred Spielkamp, and Waltraud Urban</i>		
4.1	Labour Costs, Labour Productivity and Unit Labour Costs	103
4.1.1	Data	103
4.1.2	Labour Costs	106
4.1.3	Labour Productivity	113
4.1.4	Special Focus on the New Member States	117
4.2	Human Resources in Science and Technology	122
4.3	R&D, Innovation, and Patents	127
4.3.1	Expenditures on R&D	127
4.3.2	Automotive Innovation as Mirrored in Patent Statistics	130
4.3.3	Innovation Patterns	134
4.3.4	Innovation Networks	137
4.3.5	Summary	139
4.4	Innovation and Restructuring of the Value Chain	140
4.4.1	Innovation in the Value Chain	140
4.4.2	The Relation Between Supplier and Vehicle Manufacturer	141
4.5	Trends in Innovation Activities	146
4.6	Price and Technological Competitiveness – A Short Summary	154
5	Regulation and Industrial Policy	157
<i>Thomas Cleff, Oliver Heneric, and Alfred Spielkamp</i>		
5.1	The Regulatory Environment	157
5.2	Measures and Procedures Affecting the Supply Side	159
5.2.1	Block Exemption Regulation	160
5.2.2	Harmonisation of Industrial Design Regulation on Spare Parts	168
5.2.3	End-Of-Life Vehicle Directive 2000/53/EC	169
5.2.4	Implications of the New EU Chemicals Legislation (REACH)	170
5.2.5	The Kyoto Claim: CO ₂ Emission Reduction – the Manufacturers' Contribution	171
5.2.6	Fuel Cell	175

5.3	Measures and Procedures Affecting the Demand Side	176
5.3.1	Charging for Infrastructure and Social Costs of Transportation	177
5.3.2	Taxation of Passenger Cars	182
5.3.3	Fiscal Measures in Order to Reduce CO ₂ Emission – CO ₂ Taxes	184
5.4	Assessment and Implications	186
6	Challenges and Opportunities for the European Automotive Industry	191
	<i>Oliver Heneric, Georg Licht, and Wolfgang Sofka</i>	
6.1	A Summary of Strengths and Weaknesses, Opportunities and Threats	192
6.1.1	Strengths	192
6.1.2	Weaknesses	194
6.1.3	Opportunities	195
6.1.4	Threats	196
6.2	The Forward Vision: A Scenario Approach	197
6.2.1	The Worst Case: Killing the Engine	197
6.2.2	European Automotive Industry: Taking the Pole Position	200
6.3	Policy Issues	202
7	Summary and Conclusions	207
	<i>Oliver Heneric, Georg Licht, and Wolfgang Sofka</i>	
	Appendix	209
	List of Figures	261
	List of Tables	265
	References	269