

# Growth models in a world of international trade and capital flows

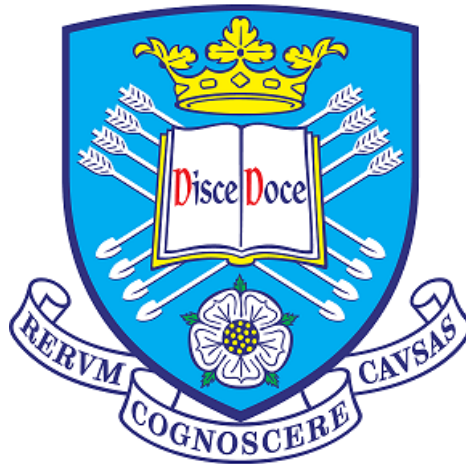
A Schumpeterian, firm-centric analysis of European economic  
development

**Patrick Kaczmarczyk (PK)**

First Supervisor: Dr. Owen Parker

Second Supervisor: Dr. Matthew Bishop

A thesis presented for the degree of  
Doctor of Philosophy



Department of Politics and International Relations

University of Sheffield

United Kingdom

01 December 2021

# Abstract

This research project blends comparative and international political economy to analyse economic development and change in the Eurozone between 1999 and 2018. It addresses the growth model literature, which struggles to capture the dimensions of time and change as well as the interdependencies between economies. The novelty of this approach is to use the transnational corporation (TNC) as an independent unit of analysis in a three-level model of (1) the TNC, nested in (2) the national economy, which, in turn, is part of (3) an international market. The study relies on a case study of the European automotive sector and compares the developments in the French and German economy. It shows that the expansion of the German manufacturers in Europe, which began in the mid-2000s, directly increased the pressure on the French firms via their losses of market shares and the concomitant pressure on margins. The higher competitiveness of German TNCs was due to a combination of three factors. First, wage repression at domestic sites as well as within the wider economic environment in Germany. Secondly, through cheap sourcing in Eastern Europe. Thirdly, through cheaper access to finance that was actively used to expand market shares. The French manufacturers, under pressure from financial markets, had to respond by outsourcing production entirely to low-wage economies and follow the German labour market reforms at home. Towards the end of this research period, French and German automotive producers find themselves at similar and continuously low levels of profitability, yet in both economies, working conditions deteriorated and wage growth did not pick up. The case study of the automotive sector vividly highlights the interdependence between economies due to the decisions made in TNCs' headquarters and under pressure of financial markets. It furthermore explains the economic and technological stagnation in Europe and the increased dependence on combustion engines, as the destructive forces of European competition force companies to optimise their production, rather than to innovate.

# Dedication

To my family and closest friends.

# Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

# Acknowledgements

First and foremost, my thanks go to my family, especially my parents, Jan and Joanna. Without their love, devotion, and support, I would have been light years away from being able to study at all. I am also very grateful for the values I was brought up with, which have become a natural part of my scientific and economic work. I would also like to sincerely thank my brother Martin, who has supported me in my work for years and has been a friend at all times.

I would also like to thank my best friends, whom I almost count as family. These include Felix Schulz and Julian Heise (with my warmest regards to both families), Rachid Bouhia, Beulah Chelva, Andreas Ditges, Patrick Sinn and Leandra Seiter. The unconditional trust I can place in these people, as well as their openness, honesty and empathy, are absolute pillars for me in my life and in my work. I can also only thank the circle of my close friends in this respect. These include Jane Zlatkov, Cord Wirries, Friederike Brusch, Robin Schädler, Alexander Person, Christian Theil, Lina Lefstad, as well as the rest of the "Dream Economists Quartet": Richard Senner, Michael Paetz and Sascha Bützer. Without the support and conversations that we have had in these circles, the work of the four years would have been impossible. In addition, I particularly appreciate it when we can discuss different economic and political views within the framework of these friendships without this in the least straining our relationship with each other. Finally, I would like to thank the entire Bauchard-Joanny family, who enriched my time and research in Paris.

Beyond my personal environment, many colleagues naturally contributed to the fact that I was able to complete my doctoral studies and that the book as such could come into being. First, I would like to highlight and thank for the contributions of both my supervisors at Sheffield, Owen Parker and Matt Bishop. From being confronted with a million different ideas in the first year to nailing down the final research, both were

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there to guide me every step of the way and provide competent and concise feedback. I would also like to thank my supervisor at Sciences Po, Cornelia Woll. With her tips and feedback, I was not able to publish an earlier version of my PhD literature review as a MaxPo working paper, but she also taught me of how to improve my approach to scientific inquiry at large. Moreover, through her advise to start my fieldwork from day one of my time in Paris, she was the main reason as to why I was able to submit in time – as otherwise, the Covid-19 pandemic that hit in March 2020 would have made a large chunk of my data collection a lot more difficult.

I would also like to particularly thank Heiner Flassbeck whose work was a decisive factor in my becoming interested in economic policy issues in the first place. We have been working together on various projects for more than five years now, and I would be hard pressed to put into words how much working with one of the world’s top theorists has deepened my knowledge. I remain immensely grateful for all the time he took for me, during which we were able to exchange ideas on far more than economic problems (and culinary delights were not infrequently neglected in the process).

In addition, I want to express my deepest and sincerest gratitude to thank the team at the Sheffield Political Economy Research Institute (SPERI), as each and every one gave input to my work in one way or another. Counting out each single contribution would require half a book in my case, and probably even that would not do it just. So, on the most basic level, I would just like to make clear how incredibly grateful I am to have been and continue to be a part of the wonderful SPERI family. I cannot measure as to how valuable the daily conversations in the office were, the occasional nights at the pub, and the many, many events that we organised as a team. In particular, my gratitude goes out (in alphabetical order) to Andy Baker, Jasper Blom, Simon Bulmer, Leah Downey, Remi Edwards, Jonathan Gamu, Maya Goodfellow, Ellie Gore, Colin Hay, Andy Hindmoor, Tom Hunt, Michael Jacobs, Natalie Langford, Scott Lavery, Genevieve LeBaron, Caroline Metz, Tony Payne, Ed Pemberton, Charline Sempéré, and Liam Stanley.

Likewise, I want to thank Adam Leaver, who has been immensely valuable in terms of providing his input and insights to the research, and without whose support the quantitative analysis would not have seen the light of day. A big thanks also for all his support, especially in terms of access to data, and all the many ideas and discussions we had around future research projects. Further input to the project for which I am thankful

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for came over the years from Alwyn Hopkins, Andreas Nölke, Olivier Godechot, Bruno Palier, Alison Johnston, and Richard Kozul-Wright.

I further want to thank the Sheffields Methods Institute (SMI) for all their hard work and dedication, and, above all, for equipping me with the right skills to get my PhD done. Especially, but not exclusively, I thank Andrew Bell, Will Mason, Todd Hartman, Mark Taylor, and Kerry Swain. The same gratitude goes out to all the administrative staff and financial support at the University of Sheffield and Sciences Po, the GERPISA network in Paris for the events and networking opportunities, the Maison Suger Foundation, and the VDA for cooperation on data requests. I also thank the ESRC and WRDTP for generously funding the research (ref. ES/P000746/1).

Finally, I would like to express my gratitude to Christoph Bertling and Peter Edward - two lecturers in previous studies who had an enormous influence on my way of thinking and are thus an example of what a degree course should actually impart, namely an inquisitive and critical mind coupled with integrity and social responsibility. I also want to thank Paul Steinhardt and the Makroskop-Community for enriching conversations and conferences.

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# Chapter 1

## Introduction

This research is an inquiry into the nature of change and development of national economies through the internationalisation of capital. In political economy scholarship, questions around political, economic, and social developments are often at the core of theoretical breakthroughs. Today, the field of political economy constitutes a broad range of different studies across the social sciences. Following Gamble et al. (2000), as cited by Clift (2021), its general purpose is to examine “how political and economic systems work. Its starting point is that social orders and the institutions which make them up need to be studied as complex wholes rather than as analytically distinct parts (...) in order to understand the interrelationships between the [economic and political] aspects, and secondly to understand the broader political and economic context in which a particular institution is embedded.” (p. 2) This definition implies, as Clift (2021) outlines, that political economy is an inherently interdisciplinary field of study, cutting across ‘distinct’ academic disciplines such as political science, geography, sociology, or economics.

Within the wider strand of the political economy literature, international (IPE) and comparative political economy scholarship (CPE) stand out as two related, yet academically distinct forms of scholarship (Clift et al., 2020). The former assesses international and systemic economic and political factors, whereas the latter organises “analysis in terms of national economic spaces” (Clift et al., 2020, 14). Due to increasing complexity and dynamic change in capitalist economies, several scholars have recently argued in favour of cross-fertilising IPE and CPE to enhance our wholistic understanding of the economy (Johnston, 2017).



This project will address this cross-fertilisation of CPE and IPE through studying economic development in Europe through the lens of transnational corporations (TNCs). TNCs will thereby constitute the independent unit of analysis – something Puente and Schneider (2020) noted as a gap in political economy scholarship. In order to cut through both national and international factors that impact development, this research develops a conceptual model with three levels: (1) TNCs, nested in (2) national economies, which are, in turn, part of a (3) international market.

The breadth of political economy scholarship would have allowed the framing of this project in many different ways. Yet, this research will address, in particular, the emerging growth model (GM) literature for several reasons. First, this literature, rooted in the tradition of CPE, began to incorporate insights from IPE research, notably in relation to financialisation, European integration, and the impact of other supranational institutions (cf. chapter 2). Moreover, given its recent surge in popularity, it is likely to shape the CPE research agenda for decades to come (Amable et al., 2019). It is hence the objective of this research to link to the positive developments and to contribute to further progress by addressing extant limitations, of which two are particularly important to this project. First, the analysis in chapter 2 will outline that, amongst other points of critique, the GM literature currently struggles to capture economic developments and change over time. Secondly, the chapter will argue that the interdependencies between national economies require more substantial theorisation and research.

This project will address above limitations by analysing the developments in the European automotive industry from 1999, the inception date of the Euro, to 2018. It will examine the impact of the performances and decisions of French and German TNCs in this industry on French and German national economic developments. The findings will imply, in essence, that it was notably through wage repression within the enterprises and in the wider German economy, as well as through Eastern European integration into its supply chains that the German firms increased their competitiveness vis-à-vis the French. Moreover, since more than half of German TNCs' sales is financed by the TNCs' in-house financial services via credit or leasing, better access to capital markets was another critical competitive factor that the German enterprises employed to gain market shares. The French, however, which performed strongly in the early 2000s, saw their market shares and sales erode with the onset of the German expansion. This increased

the relative cost base and led to a deterioration of their profit margins, since capacity utilisation rates went down. To regain access to capital markets and increase their own competitiveness, outsourcing remained the only viable option for the French firms – with the adverse effects of a breakdown of production and employment in the French automotive industry, as well as an increasing trade deficit due to imports of French brands from abroad. The mechanisms of the interdependencies between the French and the German economy therefore were the shifts in market shares and the increasing pressure on margins. Moreover, due to a competitive regime in Europe, in which firms are incentivised to optimise – that is outsourcing the existing methods of production and combining them with low wages (facilitated by the four freedoms of the Single Market, cf. chapter 3) – the exploitation of absolute advantages in an old technology (combustion engines) became the dominant objective in the automotive industry to remain competitive and operational. Although the French government launched an industrial strategy to increase competitiveness through moving into new technologies, notably the electrification of the industry, to increase the competitiveness at a given wage level through higher productivity (via new technologies that can be priced better in the market, due to their monopolistic advantage), the scale of these efforts remained low and technological leadership did not suffice to offset the losses in combustion engines. In short, Europe became increasingly specialised in and dependent on the production of combustion engine cars, whilst the German firms retained their competitive edge through cheaper refinancing rates, cheap sourcing opportunities in Eastern Europe, and wage restraints as well as labour market flexibilisation within the domestic economy.

The case study analysed in this research will thus show that it was primarily through the mechanisms of diverging market shares and profit margins that TNCs responded to with restructuring value chains and international production. These decisions had a profound impact on the German and French economic performances. Likewise, the findings will outline how a destructive competition that is merely based on cost optimisation slows down technological progress of an entire continent. In what follows in the rest of the introduction is a more detailed chapter by chapter review of this project.

## 1.1 Gaps in CPE scholarship

The theory section, presented in chapter 2, will provide an analysis of the developments in political economy scholarship, and, in particular, the literature on growth models. The GM literature is the latest conceptual innovation in comparative capitalism (CC) scholarship. It analyses which factors constitute the most important drivers of growth in national economies, whilst setting the focus on the demand side and political economic power structures. The GM literature entails a range of important advances compared to its varieties of capitalism (VoC) predecessor – especially in relation to incorporating implications that arise from European integration and financialisation. Yet, despite its scholarly progress, the literature struggles to explain trajectories and changes over time as well as the interdependencies between different growth models. The furthest GM scholars have come to address interdependencies between countries is the notion that, for example, demand- and export-led growth models must coexist, as one country’s deficits are another country’s surpluses and vice versa. The underlying mechanisms, however, remain largely unknown, so that this research seeks to move forward the theorisation of interdependencies between economies. Change, on the other hand, such as shifts from surpluses to deficits and back, also pose problems to classifying countries as particular growth models (Cornilleau and Creel, 2016). The case of France will be mentioned as a case in point. Shifts in growth models or the failure thereof, such as, for example, China’s change from export- to consumption-led growth (Sieren, 2018) or other countries’ failure to escape the middle-income trap, such as Malaysia or certain Eastern European economies (Wade, 2010), are also not well explained by the GM literature. Hence, in short, as soon as elements of dynamic development enter the equation, the current GM approach seems to have its difficulties with providing coherent answers. Given the importance for policymakers and academics alike to theoretically grasp the dynamics of growth (or de-growth?) in order to conduct analyses and design policies that would improve living standards and well-being, manage a transition to a socially and ecologically just society, and contain the inherent instabilities in capitalist societies, this conceptual gap therefore appears relevant.

Chapter 2 will develop the argument that using the TNC as an independent unit of analysis can contribute to addressing these limitations. On the one hand, TNCs have become key actors in the global economy. They structure regional and global value chains (GVCs) in line with their own corporate imperatives, they lobby politicians on regulations, and they operate on international markets across national boundaries. 80 per cent of world trade is attributable to the production networks of TNCs. One third of global trade even occurs *within* firms and therefore outside the market. Their size and scope have reached an unprecedented scale over the past decades and the tendencies point towards an increasing consolidation in most markets and industries. The sheer reach of TNCs thus already implies a certain necessity to more fully consider these powerful agents in the global economy when analysing capitalism. Yet, from a theoretical perspective, the study of TNCs goes even beyond this. In particular, as key nodes in the production system, TNCs are central to the renewal and change of the productive structure, which lies at the heart of Schumpeterian development theory. Through their investment decisions, they shape what is being produced where and how, which is inevitably tied to questions of interdependencies between countries, overall living standards, and power structures within and across national economies. Through their international expansion, they also affect market outcomes abroad, which, in turn, creates or reproduces patterns of dependencies across borders. The IPE literature has extensively researched TNCs throughout its history (Nölke and May, 2018), yet they were often employed as dependent variables in this research, not as independent ones (Puente and Schneider, 2020). In other words, we know a lot about TNCs through the IPE literature but less so about their interactions with national growth models and development. Given the impact that these firms have on national development, however, such a conceptual approach appears promising.

In addition to its international outreach, TNCs are firmly rooted in their home economies, which means that their conduct will also be impacted by domestic institutional arrangements, such as specific forms of corporate governance or national labour market regulations. This is where the GM literature in general provides a range of useful insights that can be applied. Hence, through its domestic rooting and international operations, TNCs are an ideal unit of analysis for studying both national and international factors that impact national economic development. In other words, using TNCs as independent variables allows to cut through what is commonly classified as domains of CPE

and IPE. The model proposed is one in which the TNC (level 1) is nested in the national economy (level 2), which itself is a part of an international market (level 3). The TNC thus lies at the heart of the research, but the analysis examines its impact on, interaction with, and constraints/opportunities of the domestic and the international economy.

The model is well-placed to be conducted within the framework of a case study. This research will specifically examine the European automotive industry, given its footprint in the European economy. France and Germany will be selected as the comparative country-level units, due to the size of both economies and impact on wider European development (see chapter 2 for empirical validation). Within this framework, the three-level model will allow us to capture the relationships on the horizontal levels, that is between firms and between countries, and one the vertical ones, i.e., between firms and the countries and regions they are nested in. The main research question to address the limitations of the GM literature will be:

*“How did the operations of large TNCs in France and Germany drive capitalist development and change in Europe in the period between 1999 and 2018?”*

This clearly outlines the general approach of using the TNC as the independent variable in this study, whilst examining its impact on the dependent variables – capitalist development and change. Although the main focus will be the impact on the French and German economy, there are numerous references to and implications for Southern and Eastern Europe, so that the framing of the research question will be set a little broader. To examine the developments at each level of the model and to obtain a comprehensive answer to the above question, there will be a series of sub questions. Each sub-question will be addressed by a different chapter. The first sub-question, addressed in chapter 5, will provide a general overview of the developments at level 2 and level 3 of the model, so that it will relate to the evolution of the industry as the European and the national level to outline:

1. Which key tendencies characterised the development of the European as well as the French and German automotive industry between 1999 and 2018?

From level 3 (European automotive industry) and level 2 (national-level industry), the next step will be to put the level 1 unit, i.e., the TNC, centre-stage in the analysis. This analysis will be presented in chapters 6 and 7, answering the questions:

2. What were the growth performances and internationalisation strategies of the TNCs of this case study between 1999 and 2018?
3. What explains the differences of the growth performances and internationalisation of the TNCs between 1999 and 2018?

Finally, the overarching research question will be answered by a synthesis of the findings of the sub-questions 1-3. The research sub-questions 4 and 5, both addressed in chapter 8 and aiming at different dimensions of development and change, will directly target the issues of trajectories over time as well as the interdependencies between and dynamics within national economies:

4. To what extent does the conduct of firms, which operate transnationally but are embedded in national economies, shape the interdependencies between countries (i.e., growth models)?
5. To what extent does it affect the dynamics within national economies (i.e., growth models)?

## 1.2 Case study and methodology

In this research, the answers to the research questions will be, as mentioned, based on a case study of the automobile industry in Europe, with a focus on five of the main European TNCs in this sector – BMW, Daimler (DAI), Volkswagen (VOW), Peugeot-Citroen (PSA), and Renault (RNO) – and their national home base economies Germany and France. The findings will therefore be limited to the selected case, yet given the importance of the automobile industry regarding industrial production, employment, and

trade, the conclusions have nonetheless substantial theoretical and policymaking implications. The five firms of this case study, the so-called Original Equipment Manufacturers (OEMs) in Germany and France, made up around two-thirds of the European market in 2018. In their respective home economies, they accounted for about 80 per cent of domestic car production. The two countries in which the corporations are based in, i.e., France and Germany, are classified as two different growth models: France is a demand- and Germany an export-led economy. It will therefore serve as an ideal case to compare the effects of TNCs' conduct and performances on both the productive structure within those different growth models as well as the interdependencies between them.

Methodologically, the study will employ a mixed-methods research design (MMR) on critical realist assumptions about the ontological and epistemological nature of the world. In particular, the issue of structure vs. agency, which is an integral feature of the theoretical model of this research, and the multi-dimensionality of the auto industry necessitate such an approach. The specific methods will comprise a quantitative analysis of descriptive statistics (national and international indicators related to the auto industry, TNCs' financials etc.), input-output stats, and a sentiment analysis of annual reports. The qualitative research will include a content analysis of annual reports and 5665 newspaper articles from the French and German business dailies, *Les Echos* and *Handelsblatt*, as well as 38 semi-structured interviews with experts in the auto industry. The analytical approach will be based on a template analysis.

### **1.3 The main findings**

The findings, presented in the empirical chapters 5-8, will show that the development of the industry both in France and in Germany was tightly linked to the performances and decisions made by the lead manufacturers. During the early 2000s, PSA and RNO performed well with regards to profitability and market shares: in 2002, RNO became the most sold automotive brand in Europe, and, in February 2003, PSA was, for the first time in the history of the company, ahead of VOW regarding its market share in Europe. The German firms struggled with low profitability and low growth, and it was in this context that radical labour market reforms were implemented, and trade unions were under high

pressure to give in to nearly all demands of management. Additionally, Eastern European enlargement increased the threat of relocation of production and allowed for a competitive re-organisation of value chains for the German automotive production – which was a lot more cost-efficient than the sourcing in Spain and Portugal, which were part of the French auto production network. The radical restructuring within the German enterprises as well as in their productive ecosystem – in Germany and abroad – increased their competitiveness vis-à-vis the French. It was from the mid-2000s that margins and market shares improved for the German manufacturers and the decline set in for the French. Since the overall market in Europe was stagnating, the gains in market shares by some were necessarily the losses of others. In Europe, it was thereby particularly the German firms that progressed in terms of market shares from 2004 onwards. The losses of market shares for the French OEMs put pressure on their margins, as capacity utilisation rates in France decreased and sales revenues remained flat, which drove up relative costs and led to a deterioration in their financial position. When the financial and the Eurozone crises hit, the firms were not able to refinance themselves on their own and needed government support. The only way to survive in the given competitive environment (including high pressure from financial markets) was to follow the German model from the mid-2000s, which implied radical restructuring within firms and in the wider economy. This was accompanied by wide-ranging outsourcing measures to Eastern Europe, which, due to the demands of just-in-time production meant that it did not complement the production in France, but actually replaced it – with all the detrimental consequences to domestic production, employment, and working conditions. As PSA and RNO hold still relatively high market shares in France (having ceded little to the German producers), most of the domestic car purchases of those brands are imports, which puts pressure on the trade balance. The financial performances of PSA and RNO, however, improved markedly and in terms of profitability, the French find themselves at par with the Germans – as was the case in the early 2000s.

The Germans, on the other hand, were able to penetrate the European market. Through the domestic restructuring and Eastern European integration, relative costs declined and the growth that followed allowed the firms to cheaply refinance themselves on capital markets and to lower unit costs through economies of scale and higher capacity utilisation. After 2010, the growth in China further improved their position, as



the explosion of the market and sales there reduced the development costs per unit – which are the largest cost block for each manufacturer. Despite the ‘Chinese miracle’, it is important to note that most customers were served by local production, which consequentially did not affect the German trade balance. Only very high-end models were exported overseas, yet their share in German automotive exports were rather low. For example, in 2018, around 15 per cent of total German car exports were exports of upper-middle- and upper-class models. Also, the degree of regionalisation in the automotive industry is very high. Although this applies to a more significant degree to the French than the German economy, even in the latter around 71 per cent of all cars produced (in 2018) did not leave the European continent. Moreover, it is interesting to note that the Chinese boom did not improve the operative performance of the German OEMs: the operating margin of DAI and VOW increased in the mid-2000s to a level of 6-7 per cent and it largely stayed in this territory. Another feature of the German expansion was that it was accompanied by low cash flows from operating activities (although this applies to DAI and BMW more strongly than to VOW). In other words, while the German OEMs were generating large nominal sums of profits, their operative performance was far from exceptional and hardly generated cash in the German OEMs’ bank accounts – as a large share of sales were financed by credit. This was especially so in the case of Europe and North America, while in China, the vast majority of sales was still based on actual cash payments in exchange for the final product.

Overall, the cash that German firms did generate stemmed largely from financing operations, notably the issuance of bonds. Through their international expansion and cheap benchmark securities (i.e., German government bonds), they obtained significant competitive advantages in the market as most car sales are now based on credit or lease, for which the refinancing rate becomes the decisive criterion. Often, the OEMs’ own bank is providing the financing for customers to purchase their cars. In the cases of BMW and DAI, 50 per cent of total sales are financed this way. The French firms, on the other hand, were facing years of decline. Due to the absence of growth and the pressure on the margins, the refinancing conditions deteriorated, which exacerbated the problems of the French OEMs. This research shows how much emphasis the French constructors placed on the generation of cash and securing liquidity in their operative business, which stands in stark contrast to their German competitors.

The nature of competition in Europe therefore – where competitiveness was determined based on relative costs and refinancing rates – will be argued to be a type of *Verdrängungswettbewerb*, a German term for cut-throat competition. In such a competitive environment, it is not Schumpeterian innovative rents which determine profits, but the degree of optimisation that each firm can achieve. In other words, it follows a Darwinian type of natural selection, where the firms who adapt the best to the given market environment are the ones who survive. Carlos Tavares, former CEO of PSA (now CEO of Stellantis, the corporation that emerged out of the merger between PSA and Fiat-Chrysler) referred to precisely such cost optimisation processes, when he addressed shareholders in PSA’s 2017 annual report with: “more than ever, we [PSA] must be Darwinian and agile.” (p. 2) This *Verdrängungswettbewerb*, which is institutionalised by the competitive framework of the Single Market and Single Currency (i.e., the free movement of capital, no wage coordination to meet national inflation targets, no targeted central bank measures to close spreads on government bonds, and public spending constraints), implies that firms either do not have the incentive (German OEMs) or the capacity (French OEMs) to invest in new technologies. Consequentially, following Schumpeter’s understanding of development as the creation of something new and the renewal of productive structures (rather than an optimisation of the existing), it is a type of competition that does not engender development and creative destruction. In other words, *Verdrängungswettbewerb* leads to a race to the bottom and diminishing productivity performance across national economies.

Through the internationalisation of capital in this type of environment, the pressure that internationally successful firms exert on domestic production constitutes the transmission mechanism through which firms in other countries are forced to adjust – regardless of the type of growth model that this country might be classified as. In the case of the automotive industry, this research shows that it is through the pressure on margins and loss of market shares that the French OEMs had to implement similar reforms as the German firms did during the early and mid-2000s. In the face of diminishing profitability and lower market shares, harder refinancing conditions made it difficult to expand the long-term asset base and/or to use capital to invest in the development of new technologies. Such investment constitutes a risky endeavour and requires the state to act as a ‘creative destruction manager’. Financial markets, in which market participants

exert pressure for short-term gains, as well as an institutionalised suspicion against industrial policy rendered the attempt of the French government after the global financial and, later on, the Eurozone crisis to retain production at home largely fruitless. France tried to invest in new technologies (i.e. in the automotive sector in the electrification of the industry) to allow its firms to exploit absolute advantages by maintaining existing wage levels in combination with the production of goods which could be priced better due to their monopolistic advantage. The electric vehicle (EV) market in Europe, however, did not take off until the Covid-19 crisis, in response to which governments started to invest and subsidise heavily these new technologies, so that through the period of this research (1999-2018), the improved competitiveness and profitability of the French producers after the Eurozone crisis was not based on innovation, but on radical restructuring and cost optimisation.

The German OEMs, by contrast, could and did specialise in and exploit their absolute advantages in an old technology. Regulatory pressures from Brussels were eased due to actions taken by the German governments, which successfully and repeatedly watered-down emission regulations. Although nominal sales grew, profit margins did not, so that investments in new technologies would have further diminished their operative performance. Given their market share and unit sales growth with combustion engine cars, there was no incentive for the German firms to change their model, and it was not until Dieselgate – the emission manipulation scandal at VOW (and others) – that the full scale of the problem became clear.

This study of TNCs in the automotive sector will thus lay bare the mechanisms that underlie the firms' conduct within and across countries, and the interdependencies and dynamics that this international competition entails. Regardless of the type of growth model, trade unions gave in to the demands of management both in Germany and in France, when the lead OEMs were under pressure. The differences in corporate governance structures, however, implied that in Germany, trade unions were being consulted first, before the allocation of production for new models would have gone elsewhere. In France, as soon as profitability and market shares deteriorated, the firms did not even properly engage in negotiations with labour, but directly outsourced production. The basic mechanism was the same: firms wanted to restore competitiveness by lowering wage and other production costs, and in both cases, free flow of capital increased the manage-

ment's bargaining power. The resulting production structures and market outcomes were both related to, on the one hand, domestic conditions of production, and, on the other, due to geographical proximity to Eastern Europe as well as refinancing terms on capital markets, where the German OEMs enjoyed significant advantages.

## 1.4 Contributions to the literature

This research contributes in four significant ways to the GM literature. Firstly, in terms of explaining the dynamics of the German and French economy, it shows the mechanisms through which the Germans managed to increase their exports, whilst the French lost their advantage in the market and their trade surpluses. It was through differences in market shares and margins, which, in turn, were affected by national wage policies and different sourcing strategies. Secondly, it highlights the interdependencies that existed between the German and the French economy. Through the wage repression and restructuring of supply chains in Germany, notably from the mid-2000s on, the French were losing market shares, which led to higher pressure on margins due to lower capacity utilisation rates. With access to capital markets becoming increasingly difficult, outsourcing remained the only option. Thirdly, regarding the dynamics within economies, this research shows, above all, that through exploring the workings of these firms, we get an insight into the dynamics of capitalist (under-)development in Europe: Through the intense competitive pressure in a stagnant market, and with the opportunity to simply outsource production to low wage economies, firms increased their competitiveness through optimisation in an old technology, rather than spearheading the developments in new technologies. This led to an increasing specialisation in and dependence on the combustion engine – a technology that will phase out over the next decades. Fourthly, and finally, this project will highlight the role of financialisation, which was hitherto – if we consider the findings of this research – not comprehensively addressed by GM scholarship. The literature looks at macro variables, such as households' saving rates, house prices, the share of private pension funds, the rate of home ownership, and the current account balance to classify economies as financialised or not (Hassel and Palier, 2021). France and Germany are among the least financialised countries, according to GM scholarship. Yet, the study of

the automotive industry suggests that financialisation played a highly significant role for the development of the most important manufacturing sector in both economies (and the rest of the continent). Moreover, this study exposed the mechanisms through which German OEMs were using financialisation as a competitive tool to get ahead in the market. The implications of these findings indicate that there is a necessity for reconceptualising how the financialisation of economies is measured in GM scholarship.

Beyond the GM literature, there is a wider set of ‘value-added’ of examining development through the lens of TNCs for the political economy literature. First, and most importantly, this research will present an approach that blends both IPE and CPE scholarship by placing the TNC at the heart of inquiry. Since the TNC is firmly rooted in its domestic economy but operates internationally, both national and international factors are inevitably examined in due course of the research. Secondly, the research will prove to be very practical, since most markets are dominated by a comparably small number of TNCs. The data are usually publicly available, and due to uniform accounting standards easily comparable. Given that the approach presented in this research will be a case study, it necessarily implies a certain range of limitations, which will be presented in chapter 9, alongside the contributions to the literature.

## **1.5 Structure of the thesis**

The thesis is structured as follows. Chapter 2 will provide the theory section, which examines the divide and potential for cross-fertilisation of CPE and IPE scholarship. It will then justify why the GM literature was selected as a reference literature for this project and why some of its extant limitations can be overcome by using the TNC as an independent variable. Subsequently, the chapter will provide a comprehensive analysis of the footprint of TNCs in the global market and in national economies to highlight the relevance and validity of this approach. Finally, there will be an empirical justification for selecting the automotive industry as a case study and the French and German economy as the country-level units.

Chapter 3 will provide the conceptual framework for analysing the TNC, using primarily Post-Keynesian and Schumpeterian theory. Chapter 4 will present the methodology employed to answer the research questions within the theoretical framework previously developed. It will begin by situating the mixed methods research (MMR) approach in terms of its fit with the critical realist foundation set out in chapter 3. Next, it will describe and justify the selection of specific research methods, which include, on the one hand, quantitative analyses of descriptive statistics, input-output tables, and sentiments of textual data, and, on the other, content analysis of annual reports, newspaper articles, and semi-structured expert interviews.

Chapter 5 will be the first empirical chapter. It will provide an overview of the development of the automotive industry on a global, regional, and local level (in France and Germany). It will answer research sub-question 1: “Which key tendencies characterised the development of the European as well as the French and German automotive industry between 1999 and 2018?” Chapters 6-7 will specifically examine the TNCs of this case study. Thereby, chapter 6 will introduce the main transnational actors of this research. The first part of the chapter will be an overview of major events and milestones of the OEMs between 1999 and 2018. Next, the chapter will present several first glance corporate indicators, especially in relation to growth performances and international expansion. It will thus address directly research sub-question 2: “What were the growth performances and internationalisation strategies of the TNCs of this case study between 1999 and 2018?” Chapter 7 will deepen the analysis of the growth and internationalisation indicators presented in chapter 6. It will look *inter alia* at the balance sheet structures, profitability, and cash flows. The findings will allow us to answer research sub-question 3: “What explains the differences of the growth performances and internationalisation of the TNCs between 1999 and 2018?” Finally, chapter 8 will synthesise the findings from the empirical research through the theoretical lens developed in chapters 2 and 3. It will address the research sub-questions 4 and 5: “To what extent does the conduct of firms, which operate transnationally but are embedded in national economies, shape the interdependencies between countries (i.e., growth models)?” and “to what extent does it affect the dynamics within national economies (i.e., growth models)?” Chapter 9 will summarise the findings of this research, specify its contributions to the literature, and discuss the limitations of this approach.

## Chapter 2

# Shifts and changes in IPE and CPE

In recent decades, the pace and complexity of recurring crises of capitalism increasingly required an approach that combines insights from both international (IPE) and comparative political economy (CPE) (Johnston, 2017; Clift et al., 2021). Yet, despite similar substantive foci, IPE and CPE *tend* to prioritise different methodological approaches, publish in different journals, and do not sufficiently communicate to one another. Notwithstanding recent changes in the field, which are examined in sections 2.2 and 2.3, CPE's emphasis remains largely on national factors, whereas IPE's focus is primarily on international institutions and international economic relations.

This chapter presents the extant theoretical, conceptual, and methodological chasm between the two literatures. Subsequently, it develops an argument as to how including transnational corporations (TNCs) as an *independent* variable can lead to a cross-fertilisation of CPE and IPE. This conceptual argument is framed in relation to the growth model (GM) literature, which is the latest strand of comparative capitalism scholarship that intends to incorporate some of the IPE literature, notably around the effects of European integration on national capitalisms. The GM literature, however, struggles to explain change over time as well as the dynamics within and the interdependencies between capitalisms. This research shows that one way of addressing these shortcomings is by studying the economy through the lens of TNCs, as such an approach provides greater depth of interdependencies and economic change through its supply-side focus and its blending of IPE *and* CPE insights. The chapter finishes by justifying the choice of the European automobile industry as a case study and developing the research questions for this project.

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## 2.1 Divisions between comparative and international political economy scholarship

IPE and CPE have traditionally been perceived or conceptualised as two distinct forms of political economy scholarship, despite their existing overlaps and interactions (Clift, 2021). Methodologically and conceptually, IPE – understood as “the application of the insights of political economy, classical and contemporary, situated within an international context” (ibid., p. 40) in this research – focuses on international institutions, economic relations, and political economic contexts and tendencies. CPE, by contrast, emphasizes the role of national political factors for political economic outcomes. Obviously, depending on the size of a given economy, both national and international factors matter for such political economic outcomes, so that a comprehensive analytical approach ought to take elements of both ideal types of political economy scholarship into account. Especially the crises of the past decades, however, have shown that IPE and CPE scholars often disagree on how to analyse developments and change of capitalism, so that through their separation, both literatures miss out on some explanatory power, which is provided by the respective counterpart (Clift, 2021; Johnston, 2017).

CPE scholarship is often criticised for its “methodological nationalism” by IPE scholars (Streeck, 2010; Bruff and Horn, 2012). Yet arguably, on a certain level, CPE must be ‘methodologically nationalist’, as it would otherwise cease to be ‘comparative’. And if political economists conduct comparative research, what are they comparing if not national political systems? Giving up methodological nationalism would imply that CPE would become ‘methodologically internationalist’, which means that, in turn, it becomes IPE scholarship (and vice versa for the latter). Moreover, in spite of the criticism of IPE, much of CPE scholarship, such as the literature on Varieties of Capitalism (VoC), has provided useful methodological and conceptual nuances by highlighting the diversity that exists among ‘capitalist’ economies (Hodgson, 2015).

These nuances and the diversity of CPE scholarship, in turn, is often overlooked by IPE scholars, who focus more on systemic tendencies, which itself has important limitations. For example, while IPE scholars note that the financialization of the global economy entailed a certain convergence of national capitalisms (Coates, 2000; Howell, 2003;



Streeck, 2009, 2011), they tend to “underplay continuities (such as economic and corporate law and governance structures, or labour relations) at the national level, and how pre-existing norms and structures endure and interact with new influences” (Clift, 2021, 38). Similarly, as Johnston (2017) highlights, it is often national economies which set off regional or global crises, e.g., as Thailand’s financial meltdown in 1997, the implosion of the US mortgage and financial derivatives markets in 2007/2008, or the management of Greece’s debt crisis from 2010 onwards. Finally, national actors are “not passive recipients of global political economic change but play an active role in shaping its dynamics.” (Clift, 2021, 39). Hence, an analysis that neglects national politics and institutions loses clout to the full scale to which crises emerge and capitalisms change.

Both the IPE and CPE literature hence ought to complement each other in the understanding of the dynamics of capitalism. Unfortunately, however, there remains a separation between the two strands of political economy scholarship (Clift et al., 2020). Clift (2021) characterises the divide between IPE and CPE, with a reference to Strange (1970), as another variant of “mutual neglect” (p. 38), which becomes particularly severe when trying to interpret political and economic change. To deepen our understanding of how national and international factors interact, there is a necessity to establish a “conversation with, and a cross-fertilization between, IPE and CPE” (Clift, 2021, 21), as both analytical dimensions matter and impact one another. A “unified IPE/CPE approach” (Johnston et al., 2020, 26) thus has the potential to provide a more comprehensive picture of both national and international political economic outcomes and the dynamics of capitalism.

## **2.2 Growth models: CPE scholars integrate insights from the IPE literature**

Recently, there were attempts by political economy scholars to incorporate insights from ‘the other’ school of thought. In the CPE literature, the growth model (GM) literature presents the most up-to-date example of this. To overcome some of the extant shortcomings of the first two generations of CPE scholarship, which both relied on the classification of different varieties of capitalism (VoC) and were criticised for their excessive supply side

focus, their functionalist understanding of the economy, and their methodological nationalism (Nölke, 2016, 2019), CPE scholars introduced insights from Post-Keynesian and Kaleckian macroeconomic theory to their analysis, which gave birth to this new literature. Illustrating its intellectual and conceptual origins in VoC scholarship, Nölke (2019) therefore defines the GM literature as the third generation of CPE scholarship.

Some pioneering work on GMs includes Lavoie and Stockhammer (2013), Stockhammer et al. (2016), and Baccaro and Pontusson (2016), whereby the latter is widely regarded as *the* pivotal paper in the emergence of GM scholarship (cf. Streeck (2016)). Baccaro and Pontusson (2016) present an analytical framework whose “main theoretical innovation is [the] return to Keynesian and Kaleckian insights neglected by [comparative political economy (CPE)] scholars” (p. 176). Breaking with the traditional firm centric VoC approach of analysing supply side institutions, the authors stress the importance of the demand side. Hereby, they propose to assess the relative contribution of different components of aggregate demand, following one standard formula of calculating GDP:

$$Y = C + G + I + NX \tag{2.1}$$

where  $C$  = consumption,  $G$  = government spending,  $I$  = investment and  $NX$  = net exports. The relative contribution of each of these factors to overall economic growth determines as to what degree a country can be classified as a, for example, export (NX) or consumption (C)-led economy. Another highly relevant factor in Baccaro and Pontusson’s analysis is that they put the “distribution of income among households and between labour and capital” (ibid.) centre stage. Given that changes in the wage share largely depend on the power structures within a given economy, yet affect consumption patterns and trade balances, the distributional conflict between labour and capital thus naturally becomes critical for the evolution of different growth models and introduces an element of instability and contingency. Baccaro and Pontusson’s foundational work itself is based on an analysis of economic development trajectories in Germany, Italy, Sweden, and the United Kingdom between 1994 and 2007, suggesting that growth patterns reveal to be either export or consumption-led, albeit to different degrees in different economies. In Germany, the export sector was dominant, whereas in the United Kingdom, household

consumption drove GDP growth. Sweden's growth relied on exports and household consumption, whilst Italy fit neither category, as both consumption and exports declined, leading to sluggish growth (Baccaro and Pontusson, 2016). Streeck (2016) therefore summarises these findings as “three-and-half ‘growth models’ in [a] four countries [case] study” (p. 244). Taking wider contributions to the GM literature into account, we find that overall, the literature identified growth models in which demand is driven either externally through exports or through foreign direct investments (FDI), or domestically via wages, investments, or private and public debt (Stockhammer et al., 2016; Baccaro and Pontusson, 2019; Hassel and Palier, 2021). In an effort to synthesise VoC and GM scholarship, Hassel and Palier (2021) furthermore recently deconstructed growth regimes, which they define “in its broadest term, as a mode of governance for the economy” (p. 12). Each growth regime has three components: (1) the engine of growth, i.e., the sector that contributes most, for example finance, manufacturing, agriculture, or high-tech; (2) the institutions governing the economy (e.g., modes of finance, corporate governance, industrial relations, skill formation, and social protection, mostly taken from VoC); and (3) the main components of aggregate demand.

Given the comparatively “more numerous and more unstable [growth models] than Hall and Soskice’s ‘varieties of capitalism’” (Baccaro and Pontusson, 2016, 176), it appears that GM scholarship indeed introduces more flexibility and dynamism compared to what many critiqued to be a rigid and static conceptual approach in the case of VoC. Some scholars see this as a major shift. Streeck (2016), for example, argues that the GM framework, as presented by Baccaro and Pontusson, has the potential to be “a death blow to the so-called firm-centred – that is, efficiency-theoretical and economic – concept of ‘capitalist’ diversity” (p. 244). He praises the model’s greater flexibility, its more dynamic and demand-side oriented nature, its historic rootedness as well as its incorporation of conflict, power, and class struggle.

Yet, not everyone is as convinced of the originality of the new framework – although considering the infancy of this literature, extant shortcomings do not come as a surprise. What Streeck (2016) calls a “creative destruction” (p. 244), Hope and Soskice (2016) regard as reinforcing “recent developments in varieties of capitalism” (p. 209). They show how the different types of growth models in the original analysis are complementary to the classification of those economies along the axes of CMEs, LMEs, and MMEs:

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consumption plays a larger role in LMEs, exports in CMEs, and MMEs fall somewhere in between. Clift and McDaniel (2021a) also point out that the GM analysis of capitalisms in the EU reiterates in certain ways the conceptualization of ideal types, i.e., the co-existence of CMEs and LMEs (in VoC) or export- and demand-led models. Moreover, they note that another weakness of this literature remains its difficulties in capturing the mechanisms underlying the interdependencies between economies and the dynamics of change. This introduces some inaccuracy when classifying certain countries that may not “closely resemble either GM or VoC ideal-types” (Clift and McDaniel, 2021a, 5). The authors use France as an example, and, indeed, in a more comprehensive examination, Cornilleau and Creel (2016) find that “when the time dimension is taken into consideration, the classification of the French growth regime is generally very difficult. (...) France has gone through different situations, from current account deficits to surpluses, and from surpluses to deficits, which prevents the application of a one-category-fits-all diagnosis.” (p. 216) Despite these difficulties, however, their conclusion rests on what Clift and McDaniel (2021a) would refer to as a ‘clumsy classification’, since Cornilleau and Creel (2016) argue that “drawing on the cyclical nature of the French public deficit and the steady contribution of households’ consumption to the GDP growth rate, a mild domestic demand-led economy is certainly the best description of the French economy.” (ibid.) Picot (2021) identifies similar changes from export- (pre-2007) to demand led growth after the financial crisis, which the literature struggles to explain in its dynamic.

Another example, recently analysed by Clift and McDaniel (2021b), is the United Kingdom. Classified as a ‘consumption-led economy’, the authors outline how the GM literature has its weaknesses in capturing the evolution of this growth model, in particular in relation to Britain’s anaemic productivity growth, which is far below that of other G7 economies (ibid.). They argue that the reasons for this shortcomings lie in GM scholarship’s conceptual approach, which “contains key analytical and assumptive weak points that pose problems for understanding capitalism comparatively (...). These assumptions circumscribe [the GM literature]’s ability to understand the *developmental* trajectory of GMs, the *instabilities* and *dysfunctionalities* of these models, and the dynamics of how growth is distributed *differently* across models.” (Clift and McDaniel, 2021b, 2). One approach to rectify these ‘analytical and assumptive weak points’ would be, following their analysis, to re-insert the supply side back into GM scholarship. With the shift towards

a purely demand-side approach, GM scholars may have distanced themselves from the economic and functionalist approach of VoC research, but they threw the baby out with the bathwater, as this shift occurred not complementary to, but “*at the expense of the supply side.*” (ibid.) - which, in turn, led to the conceptual problems the authors identified above.

In terms of its research design, GM scholarship continues to rely on comparative case studies, in which nation states are analysed as *relatively* closed boxes following some type of growth strategy (cf. Baccaro and Pontusson (2016), Baccaro and Benassi (2017), Menz (2017), Hassel and Palier (2021)). This approach, for all its merits, is one of the reasons as to why the GM literature is potentially ill-equipped to consider the interdependencies that exist between different economies as well as changes over time, for example from export- to consumption driven growth or vice versa. While some scholars might refer to complementarities of growth models, i.e., between ‘debt-driven’ and ‘export-driven’ growth (Stockhammer, 2016) or interdependences between ‘export’ and ‘demand-led growth models’ (Hall, 2018) such references do generally not go beyond a descriptive exploration of the dynamics that exist between those economies.

To better understand these interdependencies and complementarities of different growth models, and the underlying mechanisms through which they play out in the international economy, this project therefore proposes to examine at greater depth the main players in the market, which are TNCs. As will be outlined further below, these firms have become the key units in the capitalist economy, and since competition does not play out between countries per se, but the firms nested in those countries, this approach allows us to assess the underlying mechanisms and factors that feed into national aggregate economic performance indicators, such as GDP growth or consumption (Falciola et al., 2020). Such mechanisms may include, for example, the losses of market shares or pressure on margins for the main TNCs in a given economy, which forces the latter to react and restructure their value chains and production with the concomitant knock-on effects on investments, wage growth, and the trade balance. Examining development through the lens of TNCs is therefore one example of how to bring back in the supply-side to capture the dynamic features of capitalist change - what Clift and McDaniel (2021b) outline conceptually as the “path to future GM analysis” (p. 13).

Nonetheless, despite the GM literature's shortcomings, which continue to be addressed in various forms of research, GM scholars went - in relation to the larger question of cross-fertilising IPE and CPE scholarship - further than its varieties of capitalism (VoC) predecessor to acknowledge the impact of supranational institutions, notably in relation to EU integration or international financial markets (cf. Johnston and Regan (2018), Bohle and Regan (2019), Hassel and Palier (2021)). Another specific example in this regard is Johnston's 2017 analysis of the global financial crisis (GFC), which examined how national institutions shape and intermediated the forces of international finance, which used to be traditionally a strong domain of IPE scholarship (Fuller, 2015). The literature thus deserves credit for its efforts and accomplishments in the integration of insights from IPE scholarship, even though GM scholarship has not yet fully managed to overcome the shortcomings with which 'conventional' comparative research, such as the VoC approach, was associated, as divergences over time as well as the interdependencies between and dynamics within economies render the classification of countries into different types of growth models very difficult.

### **2.3 Integrating CPE in the IPE literature: TNCs as a playing field**

In contrast to the integration of IPE insights in CPE scholarship, the latter has formally remained largely marginalised in IPE scholarship, despite the overlap in research interests and subject areas (Clift et al., 2020). One reason for this is what Clift et al. (2020) refer to as 'disciplinary politics' of IPE, notably the reproduction and perpetuation of the discipline's origins, which continues to affect what work is regarded as and therefore included in or excluded from IPE scholarship. IPE is thereby often argued to have functionally emerged as a subfield of international relations (IR) to fill the gap between international politics and international economics (ibid.). It is therefore distinct to CPE, and this 'othering' of CPE is perpetuated by classifying some work as more akin to CPE than IPE (ibid., p. 26). In practice, however, it appears to be an inaccurate representation of the field. Clift et al. (2020) refer to scholarship that could be classified as IPE but emerged well before the 1970s, such as work on imperial and colonial political

economy. Moreover, in its citation practice, the authors show that the relevance of the work attributed to CPE is persistent and growing over time, and that references of IPE textbooks to some of the ‘magnificent seven’ – i.e., scholars commonly regarded as the founders of IPE as a discipline – included CPE scholars, such as Katzenstein (ibid.). The ‘othering’ of CPE in IPE thus creates artificial boundaries between the two disciplines, which are hard to hold up in practice. The interactions between national and international factors requires a more “inclusive approach to the field”, which considers a “dialogue and cross-fertilisation between IPE and CPE as integral to good academic conduct” to generate “a more holistic understanding of political economy.” (Clift et al., 2020). The empirical work of CPE scholars presented in section 2.2 strongly supports this argument in favour of a more formal recognition of the value-added of CPE insights to IPE scholarship.

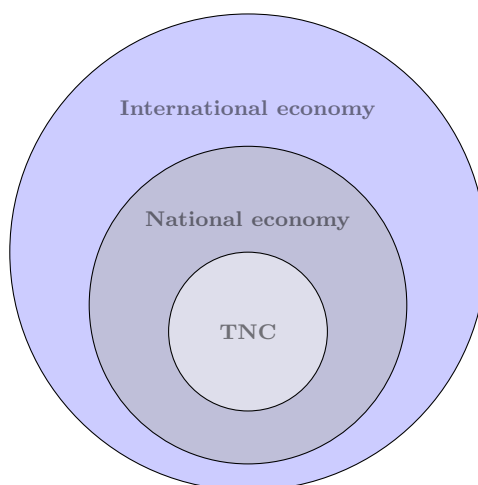
Although still largely marginalised, one subject area in which this tendency of ‘more CPE in IPE’ is visible is the IPE scholarship on the study of TNCs. Here, the consideration of CPE insights significantly enhanced the overall understanding and explanatory power of how transnational firms operate. The IPE literature has long history of working on TNCs, which are also part of the foundational narrative of IPE as a discipline (Kindleberger, 1970; Strange, 1970; Keohane, 2009). Yet, as Nölke and May (2018) show, IPE scholarship often engaged with the subject in a too simplistic fashion. During the 1970s and 1980s, the focus was on power relations and interdependencies between state and corporate agents, where corporations were mostly “viewed as instruments of national power” (ibid., p. 5). From the mid-1990s, the IPE literature frequently adopted a ‘corporations rule the world’ position, whilst often treating the TNC as a ‘black box’ in its analysis (Morgan, 2018). Over the past two decades, this started to change as IPE scholarship had to recognise the structural constraints that emerge from the embeddedness of TNCs and their subsidiaries in different institutional contexts – a strong domain of CPE scholarship (Kostova, 1999; Kostova and Roth, 2002; Kristensen and Zeitlin, 2005; Nölke and May, 2018). This new approach highlighted the different ways in which the national institutional environment impacted TNC conduct and delivered strong arguments in favour of conceptualising the TNC not as ‘institution makers’ but as ‘institution takers’.

One weakness that remained, however, was that TNCs were mostly studied “as a dependent variable [rather] than as independent variables” (Puente and Schneider, 2020, 1358). This means that, using this approach, TNCs were mere response variables, while the national and international institutional environments – the classical domains of IPE and CPE – were used to explain changes in that variable, such as, for example, corporate competitiveness, firm conduct, or investment decisions. Drawing out the implications of TNCs’ activities for international development or the interdependencies between and dynamics within economies would require studying TNCs as independent, and therefore explanatory variables – which is why Puente and Schneider (2020) call for this type of change in the research design.

Given the recency of Puente and Schneider’s 2020 argument, it is not surprising that the development of a comprehensive analytical framework or a systematic approach along the lines of their proposition has not yet been provided. The model in this research seeks to address this gap (cf figure 2.1). It is described in greater detail in chapter 4, as it is first important to set out the broad justification for this approach with reference to the relevant literature. However, in its basic structure, it is a three-level model with TNCs – as the core independent variable (level 1) – nested in countries (level 2), which are, in turn, nested in an international market and production networks (level 3). This allows us to centre the analysis around the TNC and examine the vertical relationships that exist between TNCs and economic outcomes at the national (level 2) and international (level 3), as well as capturing the vertical ties that the competition between firms and the countries they are nested in entail. In other words, it allows to use the TNC as the independent variable and assess the impact on development outcomes, which serve as the dependent variable in this case. The three-level structure draws upon, and contributes to, both IPE and CPE.



FIGURE 2.1: Stylised three-level model

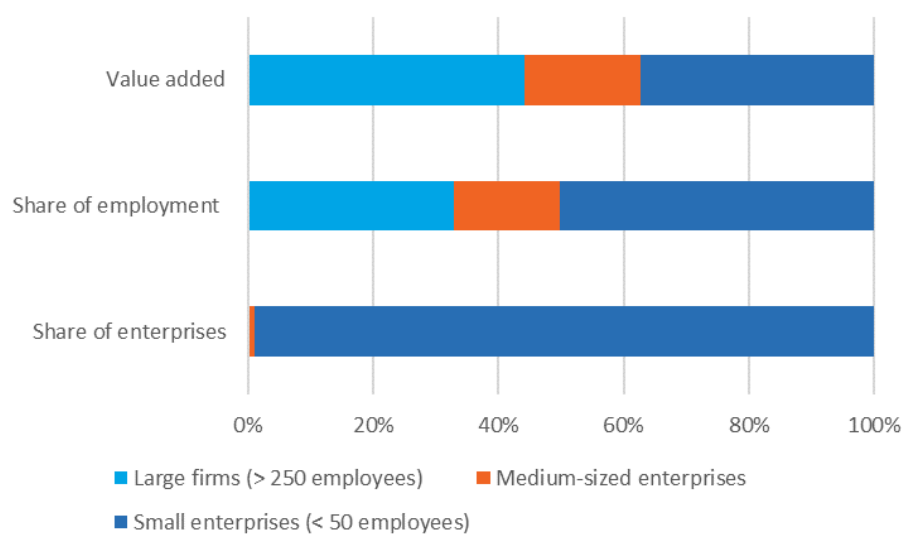


## 2.4 Cross-fertilisation of IPE and CPE: studying TNCs as a key unit in the global economy

Focusing on TNCs as the independent variable of study across different levels of analysis, both allows for and requires a reconciliation of IPE and CPE scholarship. Following Puente and Schneider (2020), it allows us to unveil the interdependencies and causal mechanisms between actors and countries. On the one hand, TNCs are, as the three-level model suggests, active internationally in terms of their business operations. They are key actors in structuring global value chains (GVCs) and shape the international regulatory environment (Ravenhill, 2017). On the other hand, TNCs remain firmly rooted in their home economies in terms of their highest value-added activities, corporate legal structure, and often also their marketing and culture (Czinkota, 2013; Saez and Zucman, 2019).

In addition to their national footprint and international reach, TNCs have become increasingly powerful actors in the global political economy, so that an analysis of their activities, performances, and decision making offers a more comprehensive explanation of both national and international economic outcomes. To illustrate the significance of TNCs as economic actors, and therefore justify studying TNCs as an independent variable impacting development (national and international), it is important to understand the full scale of their economic footprint. First, regarding their impact on value added,

FIGURE 2.2: Large firms' and SMEs' share of enterprises, employment, and value added in 2017.



Source: Eurostat.

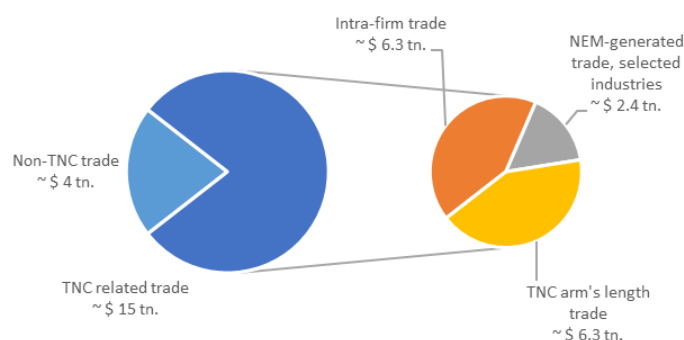
employment and production, one has to note that in contrast to the public discourse, in which small to medium sized enterprises (SMEs) are often referred to as the ‘backbone of the economy’ (European Commission), representing 99 per cent of all enterprises, accounting for more than half of the EU’s GDP, and playing a key role in value added, it is in fact the larger firms, often TNCs, who exert a disproportionate influence on economic performance indicators. As an example, figure 2.2 illustrates the distribution of firm sizes in the EU and their share of employment and value added. Although SMEs contribute significantly to the share of value added (around 56 per cent) and employment (around 67 per cent), in proportion to its share among enterprises (99.8 per cent), it is a comparatively low impact. Large firms, however, which account for only 0.2 per cent of all firms, contribute around 44 per cent to value added and employ one third of the workforce.

In international trade, the role of SMEs diminishes further. In the largest five EU member countries, for which there are data available, they account for only 31.6 per cent of intra-EU and 24.9 per cent of extra-EU export volumes (Abel-Koch et al., 2018). Also, in terms of innovation, SMEs contribute comparatively little. In Germany, for example, a country that is widely praised for its *Mittelstand*, SMEs account for “10 percent of Germany’s total [research and development (R&D)]expenditure and 15 percent of the

country's innovation expenditure" (EFI, 2016, 35). Following Schumpeter (1942), this is not very surprising: innovation requires the collaboration of entrepreneurs and the 'wasting' of resources to experiment with new methods of production and products (cf. chapter 3). Large firms, which operate with economies of scale, can easily afford such investments, which is not the case for SMEs (EFI, 2016). Yet, not only in terms of the *relative* impact on key economic metrics, considering the high level of heterogeneity and difficult access to data for SMEs (Berlemann et al., 2019), it is also a lot more practical to focus the research on the 0.2 per cent of large firms. This also allows to capture *some* of the SME production network, as many smaller firms operate as part of an upstream value chain – which, in turn, implies that the power balance is often in favour of the lead firm, which can exert pressure on prices and conditions (Gereffi et al., 2005).

While larger firms therefore dominate the economy and are more easily researched, this is even more so the case when analysing global trade flows and production. Thereby, TNCs, defined as “[enterprises] that [control] assets of other entities in economies other than [their] home economy” (UNCTAD, 2004, 40), have become increasingly powerful actors (UNCTAD, 2018a). Looking at world trade and the degree of control of TNCs over both regional and global trade and production patterns, we find that, according to UNCTAD (2013), TNCs are involved in 80 percent of global trade (cf. figure 2.3). Out of this 80 percent, around 40 percent is imputable to intra-firm trade. This means that around one-third of total global trade is organised *within* firms and therefore outside the market. Ylönen and Teivainen (2018) have shown how wide ranging the implications of this are, since internal transfer pricing – a direct function of corporate planning – substantially differs from market prices. While the remaining 60 percent of TNC related trade is not directly under TNCs' control, the largest firms are still capable of exerting significant pressure on their trade partners, depending on the market structure and the nature of production (Gereffi et al., 2005). With regards to the impact of European TNCs on trade statistics of national economies, UNCTAD (2013) refers to France as a representative case and estimates that 64 percent of total exported and 62 percent of total imported goods “can be considered to be within the international production networks of TNCs” (ibid., p. 136). In the case of China, Flassbeck and Steinhardt (2018) highlighted that between 60 to 70 percent of exports were exports by western firms, which have outsourced their production.

FIGURE 2.3: TNC involvement in global gross trade (exports of goods and services).



Source: UNCTAD (2013).

More recent figures further highlight the inequalities and power imbalances in global export markets (UNCTAD, 2017). UNCTAD (2018a) calculations, using the Exporter Dynamics Database, show that, especially in developed countries, the distribution of exports is heavily skewed towards the largest firms, with more than 60 percent of a country's exports being imputable to the top 1 percent of exporting firms (which are often TNCs). In the overall sample, the share of the top 1 percent amounts to about 57 percent of total exports. Within this 1 percent as such, there is an even more pronounced concentration at the top: Freund and Pierola (2015) find that the 'export superstars', that is the largest 5 or 10 firms in an economy, account on average for 30 or 42 percent respectively of the total exports of this economy. In their sample of 32 countries, most of which were developing and emerging economies, the largest firm alone accounts for almost 15 per cent of total national exports.

The case of Nokia in Finland is a particularly illuminating example. As *The Economist* (2012) wrote:

Nokia contributed a quarter of Finnish growth from 1998 to 2007, according to figures from the Research Institute of the Finnish Economy (ETLA). Over the same period, the mobile-phone manufacturer's spending on research and development made up 30% of the country's total, and it generated nearly a

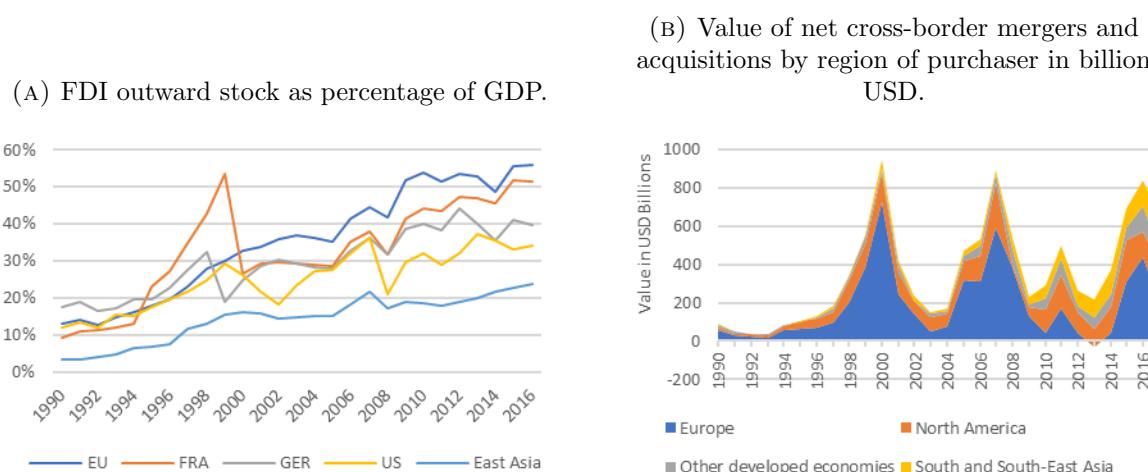
fifth of Finland's exports. In the decade to 2007, Nokia was sometimes paying as much as 23% of all Finnish corporation tax. No wonder that a decline in its fortunes – Nokia's share price has fallen by 90% since 2007, thanks partly to Apple's ascent – has clouded Finland's outlook.

Although Finland's 'one firm economy' (The Economist) is certainly an extreme case, the largest firm's influence on sectoral developments proved to be generally highly important. Freund and Pierola (2015) estimate that about one-third of the variation of the exports-to-GDP ratio is due to the top firm, whereas the largest five firms account for nearly half of all variation. In other words, revealed comparative advantage can be imputable to the exports of a single firm. Hence, not surprisingly, the authors arrive at the conclusion that "models that treat individual firms as atomistic overlook the prominence of a few firms at the very top of the distribution for trade volumes and sectoral trade patterns" (ibid., p. 1031). While there is a larger number of exporting firms in more advanced economies than in less developed countries, they also tend to have a larger average size of exporters and a higher concentration of exports in the top 5 percent (Fernandes et al., 2016). In highly developed and diversified economies, such as Germany, which may serve as a representative example, the top 10 exporters account for 23 percent of all national exports (UNCTAD, 2018a). These secondary sources thus suggest that a small number of TNCs exerts a disproportionate influence on global and national trade statistics (UNCTAD, 2017).

Given that GVCs are governed by large transnational enterprises, this distribution contributes to an uneven development in several ways and puts constraints on countries that seek to pursue their own independent growth model: First, as R&D is mostly located near corporate headquarters, technological progress primarily originates in TNCs' home countries, while a restrictive intellectual property rights (IPRs) regime often prevents its dissemination across other economies (UNCTAD, 2017). Secondly, in addition to R&D, other high value-added activities such as marketing and sales, are also largely captured at home, so that host countries may struggle to upgrade their production if they are dependent on or dominated by foreign TNCs (ibid.). Capital accumulation therefore continues in the developed world, whereas Schumpeterian dynamics are often absent in developing countries.

On the other hand, the increased stock of outward FDI and the volume of M&As indicate that TNCs have grown inorganically and, over time, also expanded their control over productive assets abroad (cf. figure 2.4). In other words, *national* production/growth strategies have become increasingly subject to TNCs' decision-making, as they structured GVCs in line with their own growth and profit objectives. Notwithstanding the large share of FDI that is linked to mere tax avoidance (Zucman, 2013), we can conclude that the scope of FDI flows is substantial and has been continuously increasing – which means that through their choices of production methods, which are linked to FDI investments, TNCs also affect overall regional development.

FIGURE 2.4: Corporate International Capital flows.



Source: UNCTADstat.

It is not surprising therefore that the growing size and influence of TNCs has led to increasingly concentrated international markets (UNCTAD, 2017, 2018a). The growing economic power of corporations translates into political power, which firms use to shape market regulations in their favour (Zingales, 2017). Hence, based on the understanding that the internationalisation of TNCs implies an *internalisation* of the market, the epistemological implications for any type of economic analysis, which were offered by Baran and Sweezy (1966) more than half a century ago, provide a starting point for drawing implications for the political economy literature:

Today the typical economic unit in the capitalist world is (...) a large-scale enterprise producing a significant share of the output of an industry, or even several industries, and able to control its prices, the volume of its production, and the types and amounts of its investments. The typical economic unit, in other words, has the attributes which were once thought to be possessed only by monopolies. It is therefore impermissible to ignore monopoly in constructing our model of the economy and to go on treating competition as the general case. In an attempt to understand capitalism (...), we cannot abstract from monopoly or introduce it as a mere modifying factor; we must put it at the very center of the analytical effort. (Baran and Sweezy, 1966, 6)

The developments described above therefore strongly encourage to develop a model that puts the TNC centre stage.

## **2.5 The TNC as a tool of operationalising political economy research**

Through their local and global operations, structure and footprint, there is a strong case to employ TNCs as the independent variable in political-economic research. As shown in section 2.1 and 2.2, this approach constitutes a promising avenue for future political economy research in that it merges insights from IPE and CPE. Addressing both IPE and CPE, however, equally implies that this research can be framed in relation to both literatures, which, in turn, requires a choice for this research. Regarding this project, there are several convincing arguments to frame it in relation to the GM literature, which is the latest strand in CPE scholarship.

First, the approach advocated by Puente and Schneider (2020) is best tested using a comparative design, since it is a novel way to conduct political economic analysis. This makes it methodologically more useful to start on a smaller scale, rather than to address international or systemic outcomes as the dependent variable in this framework. As the GM literature is the latest and most advanced attempt of integrating insights from IPE into its framework, it serves as a relevant reference point to expose and address extant

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limitations in CPE scholarship. Finally, given its surge in popularity, the literature is most likely to shape the next generation of CPE research (Amable et al., 2019).

Some of the more conventional forms of critique that IPE scholars expressed against ‘classical’ CPE scholarship is that it is not fully accounting for systemic and international factors. As shown in section 2.2, however, this only applies to a limited extent to the GM literature, since the latter considers the impact of systemic forces, such as financialisation or European integration, on national economic outcomes. Yet, regardless to what extent one judges the GM literature as a progress or as a reinforcement of more ‘classical’ type of CPE scholarship, such as the VoC approach, it cannot be denied that certain limitations and puzzles remain. Most importantly, studying national economies as the unit of analysis leaves a gap in the literature when it comes to understanding *dynamics within and interdependencies between countries*. In other words, it struggles to explain how and why productive structures within the economy *change* – an element that of course also affects social relations, living standards, and power structures – and how developments in neighbouring economies may affect domestic outcomes. If GM scholars continue to insist that “a core tenet of comparative capitalism remains relevant today as it did in the 1970s, namely that there are significant and enduring cross-national variations in economic and employment performance between countries, and that these differences are the product of public policy choices by political actors” (Amable et al., 2019, 437), they assume that national economic variations (and partly economic outcomes) are primarily down to national policymakers. This, in turn, allows for the conclusion that “different nation states pursue different growth models, with the implication that there are multiple pathways to achieving the same goal: improved material standards of living for citizens” (ibid., p. 438), without considering the fundamental interdependencies that exist between the firms that are nested in national economies but compete and often produce in international markets. Put briefly, it downplays the impact that the independent variable in this research might have – the TNC as a key node in the capitalist economy (cf. section 2.3) – on the dependent variable that is national economic performance.

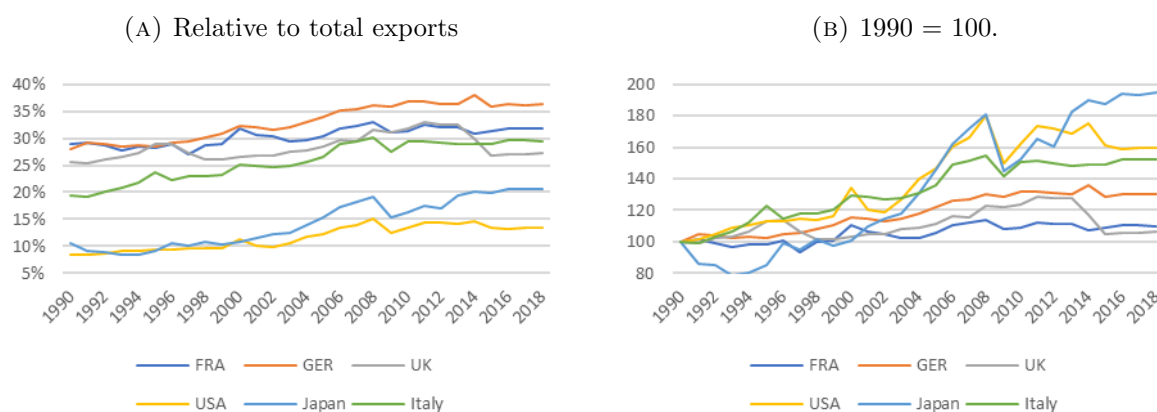
Beyond this, the GM literature does not have a clear theory of growth per se that could explain the “improved material standards of living” that may be an outcome of it, which leads us to the second major extant limitation: the conceptual framework has its difficulties when it comes to capturing the temporal dimension (cf. section 2.2). Not only



is this problematic in terms of classifying certain countries as certain growth models, but also in answering highly relevant research questions. Taking the European economy as a starting point, since much of the recent GM research has been conducted in this context, one question, for instance, which is unanswered by the GM literature is: Why did France fail to switch from a demand-led to an export-led model, notwithstanding the pressures from EU institutions and deflationary domestic reforms? The same applies to other economies of the European south (Scharpf, 2016). The usual argument in the literature is that these are simply demand-led economies, so that the enforced ‘competitive impoverishment’ is destined to fail (Hassel and Palier, 2021). Yet, ever since the crisis, unit labour costs have increased substantially less than in Germany and other northern countries, so why did exports not pick up (Kaczmarczyk, 2018)? Why, on the other hand, did China succeed in switching from a foreign direct investment (FDI) and export-led growth model to domestic demand-led growth, while countries such as Malaysia or Eastern European economies got stuck in a middle-income trap and FDI-led growth? (Wade, 2010) Why, at the same time, are European economies so far behind the US and China when it comes to the leadership in new technologies? (Sieren, 2018) Outside the GM literature, we would find the answers in the employment of wage policies and forced technology transfers (Flassbeck and Steinhardt, 2018), but without a deep understanding of the changes in the productive structure, i.e., the supply-side, from which the GM literature shifted away in order to focus more on the factors on the demand side, such dynamics over time cannot be comprehensively addressed.

The question of successfully delivering growth (and the nature thereof) as well as changing growth strategies will be of utmost importance for policymakers both in the global South and industrial economies. From a Schumpeterian perspective, described in greater detail in chapter 4, addressing above limitations and puzzles requires putting the renewal of productive structures centre-stage, which, in turn, necessitates an approach that uses the firm as an independent variable and focal point of analysis. In a world dominated by transnational capital, the structural power and economic footprint of TNCs allows to examine development and economic outcomes through the lens of these firms as *one* tool of operationalizing the research. Below, a brief, preliminary analysis highlights this implication in relation to the classification of different growth models.

FIGURE 2.5: Share of foreign value-added in total value-added in exports of selected economies.

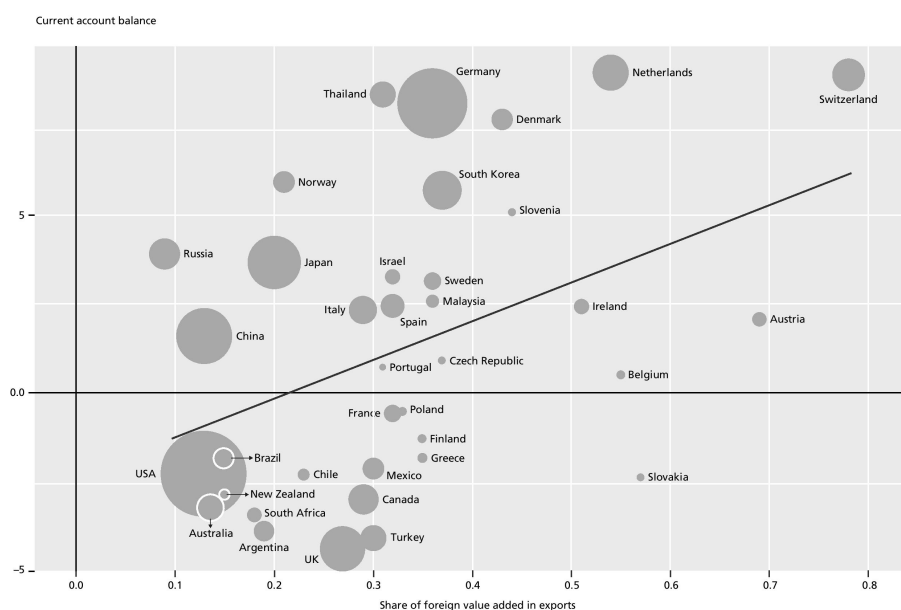


Source: UNCTAD-Eora GVC database.

Take the export-led growth model as an example. Looking at the share of foreign value added (FVA) in total value added (TVA) of national exports, we find that it has substantially increased over the past 25 years. The UNCTAD-Eora Global Value Chain database, which provides key GVC indicators for 189 countries, illustrates the extent to which *international* production has become critical to *national* exports (cf. figure 2.5). In 2016, the share of FVA reached more than 36 percent in Germany (up from 28 percent in 1990), 31 percent in France (29 percent in 1990) and 30 percent in Italy (19 percent in 1990). Economies that had a very low share in 1990, such as the US (8 percent) and Japan (11 percent), equally show a large increase in the share of FVA, with 13 and 21 percent respectively.

Hence, in highly export-led economies, such as Germany, more than a third of the value of its exports is produced abroad. To get an idea of the magnitude, it suffices to consider that VA criteria in rules of origin (RoO), as stipulated for example in the trade regulations of the European Union, often require a minimum of 60 percent of domestic content (UNCTAD, 2013). In purely hypothetical terms, a further increase in FVA of German exports could lead to a situation in which German exports would not qualify as exports originating in Germany, given that minimum originating requirements were not met. Due to the EU Single Market provisions, this will of course remain a purely hypothetical case, as most of the FVA comes from within the EU, but it nonetheless illustrates the extent of the internationalisation of German businesses. What appears to

FIGURE 2.6: Relationship between the shares of foreign value-added and current account surpluses.



Source: UNCTAD-Eora GVC database.

be more important, however, is that there is a tendency that countries with higher shares of FVA also tend to have higher current account surpluses. Figure 2.6 shows the average value of both indicators for the period 2015–2018, in order to smooth out any cyclical fluctuations, as well as the size in million USD of the given current account surplus or deficit. It seems as though companies in export-led economies rely on their international sourcing to maintain their competitive market position. Put differently, national exports appear to *inter alia* depend on their embeddedness in international production networks and GVCs.

As section 2.2 in particular has shown, the GM literature struggles to capture the dimension of economic change, i.e., the renewal of the productive structure and fluctuations of economic performance indicators over time, as well as the interdependencies between different growth models. So, in what ways can a reconceptualization of the research design, introducing the TNC as an independent variable, help to address these shortcomings? Theoretically, there are at least three possible consequences that such an approach might reveal, all of them providing a greater depth of the understanding of economic dynamics and interdependencies. Through the lens of the TNC, we can examine a)

the effects on the development of emerging and developing countries, b) the implications for TNCs' home markets, and c) potential knock-on effects on other countries' growth models.

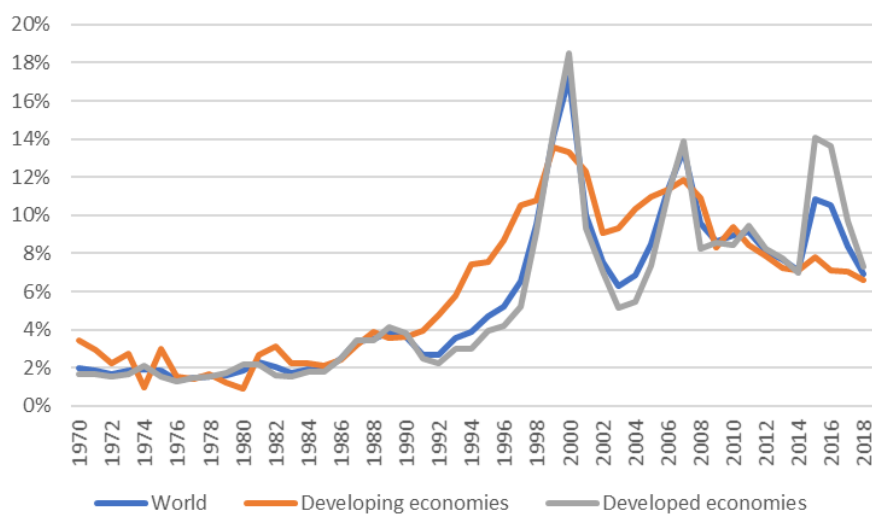
The implications for a) and b) refer *inter alia* to the dynamics of economic development, higher corporate power, and its influence on national and supranational politics, as well as potentially limited options for the sovereign development of a productive base. We can illustrate this tendency by using a simple case. Taking the most straightforward form of FDI, i.e., outsourcing the existing and capital-intensive mode of production to a low-wage country, TNCs can substantially lower their unit labour costs, without changing their method of production. If a firm outsources its production to a country where wages are at a level of 10 percent compared to its home economy, it lowers its unit labour costs by 90 percent vis-à-vis its domestic competitors. *Ceteris paribus*, this gives the TNC the opportunity either to increase its margins, and/or to reduce the prices to drive out competition. In both cases, it constitutes an absolute advantage which forces other firms to equally outsource their production or to devalue internally, if they want to remain competitive. Firms unable to match the competitiveness of their peers will lose market shares, which leads to further market consolidation and knock-on effects on the dynamics of domestic development, deindustrialisation, and a potential race-to-the bottom in labour standards. Since the methods of production do not change in this scenario, the growth dynamics at large will stall after an initial boost in the host economy, while the lead TNC may benefit from the slowdown of the dynamics, as it facilitates exercising control. In this context, the overall market structure and the productive capacities of individual economies will be shaped by the extent to which they are able to retain domestic value and employment within the international value chain of the firm.

On the other hand, if foreign firms enter developing countries by combining cheap labour with capital-intensive technologies, this will make it impossible for firms in the host economy to compete, since the latter rely on methods of production that entail overall lower productivity, which is the root cause for the overall lower wage level (Flassbeck and Steinhardt, 2018). In this case, the foreign firm drives out domestic firms through much lower prices and/or much higher profit margins. In a sense, a certain type of growth (or stagnation) model will be *imposed* upon the economy, in which the decision-making unit, the corporate headquarter, lies outside national boundaries, so that the chances for the

emergence of an independent growth model or industry are limited. Only by ensuring that wages follow productivity developments and the benefits of inward FDI, especially the diffusion of knowledge, are spread among domestic firms, it is possible to develop an internationally competitive domestic base of production and to gain more autonomy in setting growth strategies (Wade, 2010). Both of these factors explain why China, which has forced foreign TNCs to source domestically as well as to transfer knowledge and technologies to domestic firms and thereby enabled the build-up of its own base of influential TNCs (Dahlman, 2009; Felipe et al., 2013), managed to switch its growth model from an export- and FDI-reliant model to one that is more oriented towards domestic consumption.

Another means to judge the influence of foreign capital on domestic development is to look at the share of FDI in relation to gross fixed capital formation (GFCF). GFCF measures total net capital expenditure in a national economy, including the spending on transport equipment, new plants and machinery, new buildings and so on. It is thus a key indicator for the development of the capital stock, which in turn determines the overall productivity and therefore prosperity in a national economy. Since some FDI is related to tax evasion, and not all FDI translates into capital investments, as the aggregate FDI data include large equity purchases and M&As, the interpretation of the data requires some caution. Yet, the data suggest that the share of FDI in GFCF is nonetheless substantial across the board. Figure 2.7 shows this ratio for the world economy as well as separately for advanced and developing countries. Generally, we observe a significant increase in the early 1990s, and the share of FDI to GFCF remained on elevated level since. Compared to levels of between 2 and 4 per cent from 1970 until 1990, the ratio climbed to values between 8 and 14 per cent, albeit at higher levels of volatility during the past 30 years. This is particularly true for developing countries.

FIGURE 2.7: FDI as a share of gross fixed capital formation from 1970-2016.

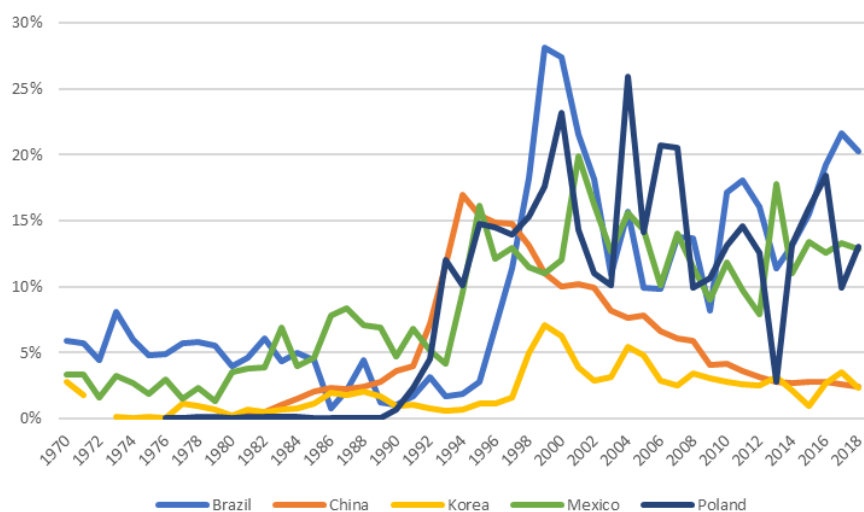


Source: UNCTADstat.

The same UNCTAD dataset for individual countries confirms these patterns (cf. figure 2.8). In countries known in the literature as FDI reliant economies, i.e., Brazil, Malaysia, Mexico or Poland, the share of FDI in GFCF surged in the early 1990s remained on levels between 10 and 20 per cent. In Poland, an exemplary case for eastern Europe, the dependence on foreign capital leads to yearly capital outflows of 4–7 percent of GDP, which dwarf the yearly contributions of 1–2 percent of GDP eastern European countries receive from the EU (Piketty, 2019). In countries such as Japan or Korea, which protected their domestic economies and merely imported advanced technologies, FDI played a negligible role in GFCF throughout the past 30 years (<5 per cent). On the other hand, in China, we find that throughout the 1990s, the share of FDI in GFCF substantially increased to up to more than 15 per cent, before continuously decreasing to similar levels as in Korea and Japan. This picture is therefore fully consistent with China’s overall development trajectory, which initially relied on foreign capital, but which has become less FDI-dependent and increasingly technologically advanced through domestic investments.

Finally, looking at the internationalisation of business ventures more thoroughly will allow CPE scholars to better understand how interdependencies in oligopolistic markets, as theoretically outlined by Knickerbocker (1973), can have knock-on effects on national growth models. Due to such interdependencies, the decisions and performances of TNCs

FIGURE 2.8: FDI as a share of gross fixed capital formation in selected economies (1970-2018)



Source: UNCTADstat.

in one country will inevitably affect the conduct of its competitors in others, leading to a restructuring of value chains and reorganisation of production and sales – with concomitant implications for given growth models. If TNCs headquartered in one economy begin to lose market shares due to a move by their international competitors, they will adapt strategies to secure their survival and growth (cf. chapter 4). If an internal devaluation does not suffice, TNCs will choose to relocate production to low-wage countries. In the manufacturing and other tradable goods sector, the effects will entail wide-spread deindustrialisation, lower potentials for future productivity gains, lower real wages, and thus weakened domestic consumption and employment. Given that the productive bases are transferred abroad, and wage disparities remain high in most regions, it is unlikely that exports will pick up quickly.

The foregoing offers example of some of the ways in which focusing on TNCs can allow for a fuller understanding than that offered in the GM literature of both the dynamics of capitalist change and of the associated interdependencies between economies. This does not require a complete change of research design (case studies remain important), but a different perspective and a different form of conceptualisation. Instead of looking at merely at national economies as cases, this project proposes to conduct a case study using transnational firms, which are *nested* in national economies, as its basic conceptual

outline. For that purpose, it is first necessary to broaden the theoretical underpinnings of TNC conduct and economic development (chapter 4), before conducting the empirical research. The advantage that this approach entails is that it blends insights from both CPE and IPE scholarship, so that both it connects the sphere of international production, politics, and competition, as well as the local specifications of national polity. Due to the footprint of transnational firms, focusing on a small number of TNCs will allow to explain in greater depth the evolution of national economic performance indicators as well as the nature of competition between firms nested in different countries. It therefore precisely addresses some important shortcomings of the GM literature identified in section 2.2, i.e., its weaknesses in explaining change over time and interdependencies between growth models.

## **2.6 Europe’s automotive industry: the case study**

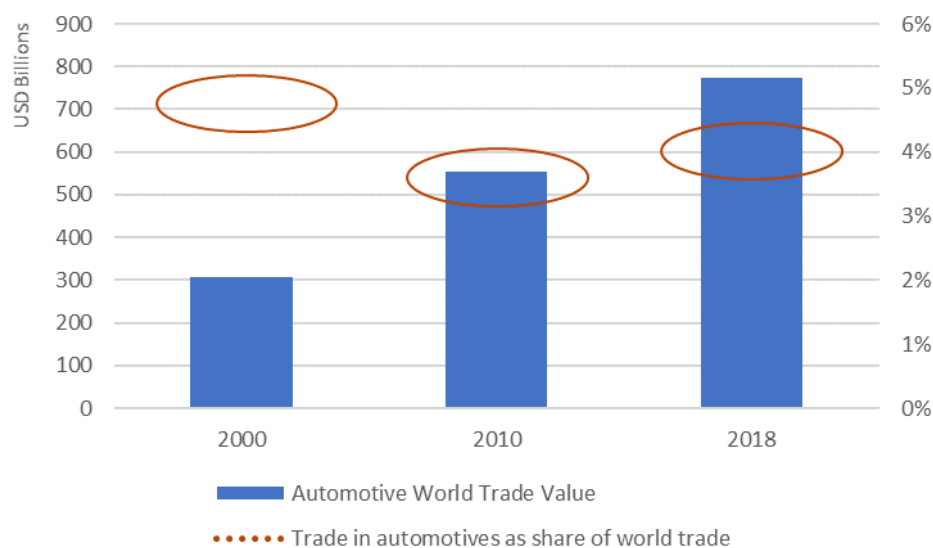
Putting TNCs centre stage naturally requires in most cases the selection of TNCs and specific industries. On the broadest level, case study designs are ideal to complement the findings from CPE and thereby in particular the growth model literature, which this research addresses. It is a suitable design to inductively “[generate] theory out of the findings” (Bryman, 2012, 71) – which is, within the limitations of the selected case, precisely the aim of this project.

The industry selected for the case study of this research will be the European automotive industry between 1999 and 2018 for several reasons. First, given the objective to use TNCs as independent variables in the model requires in terms of its conceptual approach the selection of a case in which (1) few TNCs dominate the market and industry, (2) where those firms have a substantial impact on national and industrial output, employment, and trade flows, and (3) where transnational value chains are structured by lead firms. The better these criteria are met the more explanatory power does the case study with the TNC as an independent variable generate.

In reference to the European economy, which is the dominant concern in the GM and much of the CPE literature, the automotive industry serves as a prime example of such a case. The European Commission (2020) states that the share of direct and



FIGURE 2.9: Automotive trade in relation to world trade.



Source: Comtrade.

indirect jobs provided by the auto sector amounts to 6.1 per cent of total and 8.5 per cent of manufacturing employment in the EU. Moreover, the sector is the largest private investor in R&D. Through its linkages to upstream (e.g., steel, chemicals and textiles) and downstream industries (e.g. ICT and mobility) it has significant multiplier effects on the wider economy. Hence, in Europe, the industry has an enormous manufacturing footprint that goes beyond the mere production of cars.

The automotive industry also plays a significant role in international trade. Figure 2.9 shows that the value of automotive exports (8703 in HS 4 Classification) has more than doubled from close to USD 300 billion to USD 780 billion between 2000 and 2018, and their share of total world trade in goods and services stands at more than 4 per cent. These values make cars the second most traded product in the world.

Thirdly, the auto industry serves a prime example of an oligopolistic market, in which a very small number of firms affects a much larger number of actors *transnationally*. Therefore, it appears ideal to discern the impact that the lead firms' conduct and performances had on wider development of various national economies or growth models. In Europe, the French and German TNCs alone – Renault, PSA, Daimler, BMW, and the Volkswagen Group – make up about two thirds of the market, which makes it a very

researchable sample of firms. Finally, the automotive industry in Europe is characterised by a fragmented production that leads to a hierarchical chain of direction and control, which, in turn, implies a “technological subordination” (Celi et al., 2017, 182) of peripheral suppliers as the leading companies develop and own critical technologies. This hierarchical structure of the industry is thus suitable to address power imbalances in the international economy, which is traditionally a central concern of IPE scholars that was increasingly taken into account by the GM literature within CPE.

Regarding the selection of countries, this project will focus on Germany and France. On the one hand, in terms of relevance for the European economy, both countries account for around 50 per cent of Eurozone GDP and are considered central when it comes to the political economic development of the Eurozone (Clift and Ryner, 2014). At the same time, they are classified as different growth models in the literatures: Germany as an export-led economy with traditionally ordoliberal institutions, such as the practice of co-determination and a strong emphasis on the ‘market conformity’ of state interventions (Clift, 2013) and France as a demand-led economy (Hassel and Palier, 2021), characterised by more substantial state interventionism in a dirigiste fashion (Clift, 2013). With regards to France, however, several authors admit, as it was outlined above, that there is a classification problem once changes over time are considered, which highlights precisely the problématique of dynamic development that is addressed by this research.

Moreover, although much of the attention regarding the importance of the automotive industry for economic performance is given in Germany, where the systemic relevance of the industry is a stylised fact, providing more than 800.000 jobs and being the largest industrial sector (BMW, 2021), its significance for the French economy must not be underestimated. Clift (2013), for example, underlined this point when analysing the rationale of the dirigiste response of France to the crisis, which was, in terms of direct support to manufacturing industries, heavily centred around subsidies and guarantees to PSA and RNO. He writes:

The economic relaunch plan was partly targeted at the car industry, with state aid seeking to prevent the delocalisation (...). Intervention in the car industry is partly explained by the place of the automobile industry in the French economy – it constitutes 45.2 % of exported production, 534 000 jobs, 2.3 % of employment, and 14.7 % of private R&D (...). It is one of France’s

key manufacturing industries, fifth in terms of value added, fourth in terms of employment. It is also key in terms of the balance of trade. Nearly one in two French cars are exported, with 85 % going to other EU countries. The car industry is also a key motor of private research – crucial in its own terms and for the positive technological externalities. (p. 112)

Hence, overall, the automotive industry in France and Germany constitutes a logical choice to examine the interdependencies between *different* growth models, as well as the dynamics of change within. 1999 as a start date of analysis was selected based on the introduction of the Euro, while the end date, the year 2018, was fixed based on practical grounds, since this was the latest data available from mid-2019 on.

The automotive industry itself, in turn, is a highly relevant industry for economic analysis due to its wider economic footprint, generation of employment, R&D intensity, and share of trade. Additionally, due to its market structure in Europe, it is easily researchable. Given the industry's significance in production and trade, some scholars have already outlined that the conduct of the TNCs in the automotive sector impacts national economic outcomes substantially. Celi et al. (2017), for example, argue that deficits and surpluses in Europe were often and to a large degree, the result of the conduct of big firms. Their research suggests inter alia that the deterioration of the French trade balance reflects the difficulties that the French economy faced at large, and that this deterioration was “imputable to the automotive sector” (p. 5). Finally, they arrive at the following conclusion:

If the performance of a single sector [the automotive industry], determined by the strategic choices of its firms, is able to explain a significant part of the performance of the aggregate (. . .), the macroeconomic explanations (the exchange rate, the aggregate level of demand and/or supply, the regime and overall structure of the labour market) lose clout to the benefit of explanations that call into question other factors. (p. 91-92)

The chapter thus outlined that a closer look at TNCs in the global political economy has the potential to enrich GM scholarship, in particular in relation to the puzzles developed above. Due to the significance of the automotive industry for the overall economic performance and development of national economies, it constitutes an appropriate case study to further elaborate on the limitations of the GM literature.

## 2.7 The research questions

The analysis above shows that including TNC as an independent variable in a three-level model – TNCs nested in countries, which are, in turn, nested in an international economy – appears to be a fruitful approach to cross-fertilise the IPE and CPE literature. In relation to recent GM scholarship, which began to integrate insights from IPE in CPE scholarship, it furthermore showed its value-added and its potential to address extant shortcomings, notably the question of the interdependencies between and the dynamics within economies as well as trajectories over time. We have seen in section 2.2 that these questions mark two extant limitations of the current GM conceptual framework. Cornilleau and Creel (2016), using the French economy as an example, admitted that “when the time dimension is taken into consideration, the classification of the French growth regime is generally very difficult.” (p. 216) Moreover, the literature did not have the tools to explain as to why France went “from current account deficits to surpluses, and from surpluses to deficits.” (ibid.) In terms of interdependencies between different growth models, the literature has hitherto not gone beyond a rather descriptive reference to the complementarities between, for example, demand- and export-led models. The underlying mechanisms, for example, via shifts in market shares, pressure on margins, or the restructuring of value chains, cannot be studied without a deeper understanding of the dynamics at the firm level. In relation to the case study selected above, the overarching research question therefore is:

*How did the operations of large TNCs in France and Germany drive capitalist development and change in Europe in the period between 1999 and 2018?*

To examine the developments at each level of the model and obtain a comprehensive answer to above question, there is a series of sub questions. The first question, which is examined in chapter 5, relates to the evolution of the industry at the European and at the national level. This allows us to outline a general overview of the developments at level 2 and level 3 of the conceptual model of this research:

1. Which key tendencies characterised the development of the European as well as the French and German automotive industry between 1999 and 2018?

From level 3 (European auto industry) and level 2 (national-level industry), the next step is to put the level 1 unit, i.e., the TNC, centre-stage in the analysis. Along the lines of the conceptual approach presented in this chapter, it will allow to better understand the interrelationships between the microcosm of the firm and the macrocosm of the economy. The analysis of TNCs is presented in chapters 6 and 7, respectively, and asks the questions:

2. What were the growth performances and internationalisation strategies of the TNCs of this case study between 1999 and 2018?
3. What explains the differences of the growth performances and internationalisation of the TNCs between 1999 and 2018?

Finally, an answer to the overarching research question requires a synthesis of the findings of the sub-questions 1-3. The research questions 4 and 5, which are presented in chapter 8, directly address the trajectories over time as well as the interdependencies between and dynamics within national economies:

4. To what extent does the conduct of firms, which operate transnationally but are embedded in national economies, shape the interdependencies between countries (i.e., growth models)?
5. To what extent does it affect the dynamics within national economies (i.e., growth models)?

Before answering these research questions empirically, the next chapter continues with the development of a theoretical framework to analyse TNC conduct and, relatedly, economic development. Chapter 4 subsequently presents the methodology employed in this research.

## Chapter 3

# Transnational firms: cross-fertilising IPE and CPE scholarship

Chapter 2 outlined the need for cross-fertilisation of what is classically conceived as IPE and CPE scholarship. Given that the GM literature presents the latest strand in CPE scholarship, which integrates some insights from the IPE literature and is increasingly growing and influential, this literature will serve as the reference point to the conceptual innovation proposed in this project. In particular, one extant shortcoming remains that the GM literature struggles to explain political-economic change over time as well as the underlying mechanisms of the interdependencies between different economies. To address this gap through a cross-fertilisation of IPE and CPE, this research will use the TNC as an independent variable in its analysis, whilst the embeddedness of the firm in the national (level 2) and international economy (level 3) will allow to examine the horizontal and vertical interdependencies that exist between, on the one hand, the TNC and the national and international production, and, on the other, between different TNCs nested in different economies. The purpose of this chapter is providing a comprehensive theoretical framework and developing a stylised Schumpeterian model to show the effects of TNC conduct on the dynamics of national and regional development.

The chapter proceeds as follows. First, it outlines a moderate-essentialist philosophy which will underpin the theory of the transnational firm as an actor in the global economy. Next, the chapter presents the principal theoretical features of firms' conduct and competition, before moving into the implications that emerge from cross-border trade and capital flows. The conceptualisation of business conduct thereby relies mostly on

the post-Keynesian as well as international and political economy literatures, since this provides the most suitable theory for imperfect competition in a world of fundamental uncertainty. This distinguishes the literature from alternatives, such as neoclassical economics, where agents are reduced to a role of mere optimisers and potential implications of uncertainty are assumed away. The nature of international competition and the impact on national and international economic development, i.e., the theorisation of the dynamics within the three-level model, rely on Schumpeterian theory. Compared to other alternative approaches, such as neoclassical or Marxist economic theory, Schumpeter explicitly develops an understanding of dynamic development (as opposed to the static view of neoclassical theory) and corporate entrepreneurship, which is key to the process of a new combination of input factors that lie behind rising living standards (and absent in Marx' work). Compared to conventional GM scholarship, this approach hence emphasises the role of the supply side for economic development, defined in Schumpeterian terms as the renewal of productive structures, without, however, neglecting implications from the demand side - recognising that production can only take place if there is enough demand in the economy to buy the goods that are being produced.

### 3.1 Moderate Essentialism

The understanding of firms, and therefore also TNCs, as employed in this research, depends on a moderate and non-deterministic form of essentialism. As argued by prominent scholars of critical realism, such an essentialism is distinct in that it “accepts that much social phenomenon is socially constructed, ideological and contingent, but may have temporary essential elements” (Seal, 2016, 268). It therefore differs from realist or foundationalist versions of essentialism that argue in favour of a deterministic relation between causal powers and events. Such epistemological approaches have been extensively criticised *inter alia* by Popper (1945, 1963), Quine (1960, 1966), or pragmatist writers such as Dewey (1929) and Rorty (1979).



Moderate essentialism is employed here as an ontological doctrine, which asserts that “for any kind of entity there is a set of characteristics that all entities of that kind must possess for it to be that kind of thing” (Hodgson, 2015, 28). This approach to identify and distinguish between different social entities is critical for categorising and operationalising social research. From this ontological position then, it is possible to acknowledge that, while certain social phenomena do not have essences, it does not follow that everything is without essence (Sayer, 1997). Social phenomena such as firms or TNCs, are made up of identifiable attributes that are essential for their existence, which, in turn, provides the respective social phenomenon with tendential properties and thus specific generative powers. In other words, it allows us to develop an account of the firm as a distinct type of agent in the capitalist economy. At the same time, it makes it a contingent outcome and establishes an interdependence between structure and agency.

A further advantage is that the moderate essentialist perspective allows us to identify common and demi-permanent characteristics of a wide range of corporations, which are the very basis for their agency. In the critical realist tradition of Roy Bhaskar, there is a *prima facie* convincing case against such a conceptualisation of corporations, since agency is primarily attributed to the individual (Collier, 1994). His model of the ‘position-practiced system’ develops perhaps one of the most prominent accounts of the interrelationship between a macro structure and individual agency, whilst preserving the ontological distinctiveness of both. Thereby, the system is comprised of certain positions, which entail a given set of responsibilities, functions, and rules. These positions, in turn, are occupied by individuals who exercise practices that are assigned to them by their position (with varying degrees of freedom to interpret their roles). As the structure cannot exist without the agents and the agents, in turn, can only exercise their practices due to the position they have in the system, positions and practices in the system are fundamentally relational. In this model, it is therefore valid to regard firms as structures in themselves, in which individuals exercise practices based on their respective position.

However, moderate essentialism equally acknowledges that structures can give rise to mechanisms and thus to new entities with new emergent powers (Sayer, 1997). Although it might entail a certain degree of simplification, it can change the nature of structure and agency. Applying this logic to our case, this means that, in a capitalist economy, a corporation can be conceptualised as such a new entity with individual agency, since it

has properties and powers determined by, but not reducible to, those of the individuals that comprise it. This mechanism is, *in principle*, akin to the study of natural sciences, for which Sayer (1997) makes a convincing case:

We need to recognise how the social can be both dependent on and irreducible to – or emergent from – the material processes studied by the natural sciences (...). When certain objects combine, new emergent properties arise. Water itself has properties quite unlike those of its constituents; it is a product of two highly inflammable gases, yet can itself be used for extinguishing fire. Our brain cells are a necessary condition of our ability to think but individual brain cells do not have this ability; thinking is an emergent property or power. Our thoughts and actions presuppose certain chemical transformations in our brains but are not reducible to them; in answering someone's question we are responding to the question not their brain chemistry. Thus, biological, chemical and physical powers are necessary conditions for the existence of the social world but the latter has properties – particularly, or 'essentially', communicative interaction and discourse, which are irreducible to or emergent from these ontological strata. (p. 479)

As further argued below, the new emergent properties of the corporation stem from the legal rights, duties, and protections assigned to it by the state as well as the synergies that firms create through transnationally employing labour and capital in a specific combination to produce goods and services. Given that both aspects provide the corporation emergent properties and powers, which cannot be reduced to its individual members, this justifies, from a philosophical point of view, the conceptualisation of firms, and therefore also TNCs, as agents.

In addition to its individual components and the constructivist (i.e. legal) grounding of TNCs – both of which are 'essential' qualities for corporations to exist – it is important to identify a set of characteristics that all TNCs must possess to be categorised as such type of entity. The challenge to identify these characteristics lies in finding the appropriate degree of generality: It must be conceptually precise, in that it must allow us to distinguish TNCs from other types of firms (without falling into an epistemic fallacy), while encompassing a variety of different types of TNCs (Hodgson, 2015). Otherwise,

we may risk approaching the TNC as a unitary and monolithic actor. An example from biology might further illustrate the basic principles at play. If we, for example, try to define a bird as a specific entity, the definition should be broad enough to apply to a large variety of different species, yet specific enough to keep birds separate from other animals (ibid.).

As further explained in the sections to follow, this research conceptualises TNCs based on the *combined* set of attributes related to (1) their status to operate internationally as a ‘legal person’, (2) their ownership of assets across national borders, and (3) their inherent and specific logic of accumulation. It should be noted that, firstly, each of the characteristics is not unique to TNCs. The ownership of assets across borders, for example, can also apply to government entities. It is, however, through a combined set of these features that TNCs can be clearly distinguished from other firms and participants in the market. Secondly, above characteristics can give rise to a specific set of positioned practices, as TNCs obtain a certain position within the international economy, which gives them a range of competitive tools at their disposal, but also entails systemic constraints and interdependencies with other actors.

## 3.2 Corporations as economic actors

As outlined above, there is a philosophical justification for regarding firms as agents, even though they may be highly complex and diverse entities in themselves. Despite the omnipresence of firms, and, in a wider sense, TNCs in the global economy, these entities often remained a theoretical and analytical blind spot. Especially in political economy and economic scholarship, where markets are assumed to be highly or perfectly competitive, there is no need for neither firms nor TNCs, as all transactions take place via the market. The emergence and expansion of firms therefore had to be theorised from a world of *imperfect* goods and factor markets, which meant a significant break from traditional approaches.

Ronald Coase (1937) was among the first to recognise that, in a world of perfect markets, the price mechanism should be sufficient to coordinate production and the use of resources most efficiently. However, the fact that a large and visible extent of production

was consciously coordinated by entrepreneurs, stood at odds with this assumption. Quite problematically, there was no theory that might explain “why coordination is the work of the price mechanism in one case and of the entrepreneur in another” (p. 389). Coase’s most important contribution in this regard was to show that transactions taking place through the market are not without costs. On the most basic level, each transaction entails costs of “negotiating and concluding a separate contract” (p. 390-391). Although the extent of the costs varies depending on the market and the specific transaction at hand, they cannot be eliminated completely. Moreover, due to uncertainty and imperfect information, long-term contracts that guarantee the supply of an input factor may put the purchaser of a commodity or service at a disadvantage. Additionally, government policies, such as sales taxes, can make it more profitable to internalise production as opposed to relying on the market. Yet, whilst organising production within one institution can minimise transaction costs, Coase also argued that, once firms have reached a certain size, diminishing economies of scale would limit their overall growth. This might be due to rising costs of organising additional transactions within the firms, higher inefficiencies as a result of growing complexity, or simple advantages that small firms have in specialising in certain activities (Coase, 1937). Thus, as long as the transaction costs of market exchanges exceed the internalisation costs, the firm will seek to internalise production. Williamson (1975, 1985) and Klein et al. (1978) further expanded Coase’s analysis in their approach to transaction cost economics, arguing that the efforts to reduce transaction costs fundamentally determine the form that economic institutions will take. Williamson (1975, 1985) thereby specifies that market imperfections and failures are the result of opportunism and bounded rationality, which may arise from a high degree of complexity, uncertainty, or even language barriers.

Another significant problem to rely on market modes of contracting stems from asset specificity. This term can be defined as the difference between the value for production of an asset within “the context of a given contract or set of contracts (such as a firm)” (Gorringe, 1987, 127) and its value outside these contractual relations. The difference between the two values gives rise to so called ‘quasi-rents’, as, in cases of high asset specificity (when the asset’s value in its present use is significantly higher than in its next best employment), it incentivises either side of the contract to opportunistically appropriate this value through renegotiation (Klein et al., 1978). Asset specificity can

take the form of different values for specific production sites, or specific labour and capital input factors, if they cannot be easily redeployed in other firms, industries, or settings. High asset specificity thus naturally entails high risks and costs if one party were to exit the contract or economic exchange. This might be the case, for example, if a specific labour asset, such as technical knowledge, is critical to a specific firm's production and has limited employability outside it. Under such conditions, vertical integration, that is an internalisation of the specific asset through a well-written and negotiated contract, will minimise transaction costs for both parties: The firm will be able to produce the output for sale, whereas the labour specific asset will be in employment. Once the relationship between the parties is settled, a "fundamental transformation" has taken place, since instead of a competitive market arrangement, a "bilateral monopoly" now exist. Although the extent to which it locks both parties into the agreement is contingent upon on the degree of asset specificity, it is indisputable that the contractual relationship generally creates (at least some) barriers to exit, sunk costs, and narrows the employment of production factors towards firm-specific assets. Hence, this setting is, in conventional terms, indeed different to a competitive market arrangement.

These market imperfections and transaction costs are not without consequences. As asset specificity, bounded rationality, and opportunism are ubiquitous, they inevitably permeate all contractual relations on which market exchanges rely. This exposes market participants to hazards of opportunism, so that contracts are used to protect oneself against such behaviour. Given that this is a systemic problem, the transaction costs model can be applied to all institutions within the market, including business associations and trade unions. In other words, transaction costs and the organisational efforts undertaken to minimise them, are critical to fully understand capitalist institutions at large. From the perspective of the individual firm, internal organisation, that is the integration of factors of production, suppliers, and/or distributors, offers three distinct advantages. First, since the internal exchange makes it more difficult for the involved parties to "appropriate subgroup gains at the expense of the overall organisation" (Williamson, 1975, 29), it lowers the risk of hazardous opportunism. Secondly, it is cheaper and more effective for the organisation to audit internal exchange, which, thirdly, equally applies to the settlement of problems or disputes. Thus, overall, it is argued that vertical integration and the concomitant growing size of firms are not a consequence of the firms' desire to

increase market power, but merely a rational decision to increase efficiency and minimise the risks of opportunistic hazards.

Although the transaction costs account has its merit, this theory has limited explanatory value for analysing international business operations. First, as Hodgson (2004) argued, the central role of opportunism, in particular in Williamson's theory, is problematic, as it ignores numerous sources of contracting problems other than opportunism. Moreover, vertical integration could also have the purpose of better directing and coordinating changes in management or production strategy, generating spill-over effects and leverage through collaboration, or fostering a corporate culture that would lead to a higher level of trust, collaboration, and motivation – all factors which are associated with positive business performance in the management literature. In short, while “opportunism may be part of reality, (...) it is not the only explanation of the existence of different governance structures” (Hodgson, 2004, 410).

Secondly, a significant shortcoming is the omission of questions of politics, power and control, which are key factors in the operation of the capitalist firm. These shortcomings leave no room for corporate agency and interpret market outcomes as the result of exogenous factors. Williamson (1975), for example, adapts this position when he theorises the emergence of monopolies not as the outcome of strategic actions taken by firms but as the outcome of “a breakdown of the self-policing properties of markets [caused by] change events (uncertainty), unusual business acumen (managerial idiosyncrasies), and default failures (ineptitude on the part of actual and potential rivals)” (p. 208). Yet, this reasoning fails to explain the wide range of business practices, which do not aim to minimise transaction costs, but to increase corporate growth and control (e.g. lobbying, horizontal M&As, advertising etc.). Also, given that concentration ratios and excessive profit margins have increased across most industries and advanced economies (De Loecker and Eeckhout, 2017; Diez et al., 2018), it remains unclear as to why there should have been a synchronised and worldwide “breakdown of self-policing properties of markets” since the 1990s. Even if we consider changes in transportation and communications technology, the unprecedented size of TNCs and their excessive profit margins are unconvincingly explained by mere desire to minimise transaction costs and increase efficiency (ibid.).

Finally, there are profound legal implications, which the standard theory does not address. First, as institutional economists have pointed out, it ignores the fundamental

role of law and the state, so that it is unable to explain why, in a historical perspective, firms and corporations are “specific and relatively recent phenomena” (Hodgson, 2015, 205), while market imperfections preceded their existence for a very long time. What the institutional economics literature proposes instead, is that firms and corporations exist because they are assigned a legal status by the state that allows them “to function as an economic actor able to hold property, make contracts and more generally assert its own legal interests, to the organisational structure of the firm” (Deakin, 2012, 115). In other words, a *sine qua non* condition for the existence and operations of firms is the state. Moreover, through an excessive focus on individual contractual arrangements, the transaction costs theory is incapable of drawing a clear boundary between the firm and the market, as it ignores the former’s “legal personality” (Hodgson, 2015). Somewhat ironically therefore, by explaining the existence of firms through the lens of transaction costs, a key legal characteristic of the firm is dissolved in a firm-market continuum.

Taking a legal perspective furthermore strengthens the case of conceptualising firms as agents that act within a market economy. *De facto*, the firm operates as a legal person when hiring wage labour, purchasing raw materials and machinery, contracting the production of input goods and services, selling the output, or being held accountable for misconduct. In other words, corporations “are treated by the legal systems as if they were ‘real’ persons (...), i.e. they can participate in the legal systems through the phenomenon of ‘juridical personality’ [and] ‘function’ in the economy like human beings” (Robé, 2011, 9). Regardless of how many individuals make up a firm, therefore, the law ascribes such entities effectively economic agency. In cases of formal corporations, this sense of agency is further strengthened by the fact it is legally not owned by its managers or shareholders, so that “the corporation itself [becomes the] owning agent” (Hodgson, 2015, 208). Although this definition of ownership applies also to cases where a corporation is owned by only one shareholder or parent company, it would be a *non sequitur* to conclude that such corporations cannot or do not act on behalf of its shareholders or higher-level parent corporations (Robé, 2011). What it means is simply that the status of corporate legal personality renders the question of corporate structure vs. agency in a market economy, which is fundamentally determined by law, to a secondary-rank issue.

### 3.3 Imperfect competition: the business environment of corporations

While neoclassical theory conceptualises firms as price takers and profit maximisers – in a perfectly competitive environment in which each enterprise is so small that it cannot affect the industry output by changing its price – the post-Keynesian and Schumpeterian literature has developed a different model of the firm and market competition that is closer to the empirical realities described in chapter 2. As synthesised by Lavoie (2014), the “relevant firm in the modern world” (p. 124), which Eichner (1976) referred to as megacorp, has four essential characteristics:

1. The size of the firm is large.
2. Its management is separated from its ownership.
3. It has approximately constant marginal costs.
4. It operates in an oligopolistic competitive environment.

Such conceptualisation of the firm, the market, and competition, gives firms a much wider degree of corporate agency than the neoclassical literature would suggest. In most general terms, oligopolistic competition is characterised by a small number of lead firms who are setting the price based on costs (Kaldor, 1978). Prices and costs are therefore tightly related, which, however, does not mean that firms will intend to foster a price competition between the oligopolists in the market, as this could have disastrous outcomes for all firms involved (Lavoie, 2014). Rather, the competition is based on the profit margins, for which costs are, alongside revenues (i.e. corporate income via prices), the main determinant.

Such a competition based on profit margins implies that there are different ways for firms to meet their target, and that the main variable of interest here is relative cost. This will be further highlighted in the Schumpeterian theory of development (cf. section 3.5). Yet, for now it is important to emphasise that it is the cost level in relation to revenues, which determines profit margins and thereby the capacity of firms to grow and survive in the long run. Competitive activities of individual firms, which can “create profound differences between enterprises so that many are driven from the market” (Lee, 2013,



169) include investment decisions, R&D, advertising, and the structure of production and production processes (ibid.). Moreover, as Baskoy (2011) notes, access to financial resources, investments in productivity, as well as various product policies, such as product differentiation, innovation and development, are equally widely employed competitive tools. In short, there is a wide range of non-price aspects of competition that we find in oligopolistic markets – which ensures that the market economy is dynamic by its very nature, rather than static or converging towards a (however defined) equilibrium.

Summarising some of the features of oligopolistic competition, we thus end up with a Schumpeterian view that the success or failure of firms depends on “differences in the quality and thus value of the goods being produced and in their methods of production; differences in the desire and capacity of firms to expand; and differences in the desire and capacity to innovate in order to improve products and methods” (Metcalf, 2013, 119).

## **3.4 Corporate conduct in a market economy**

### **3.4.1 Corporate objectives**

With the understanding that competition in oligopolistic markets includes mechanisms other than mere price policies and plays out via profit margins, it is possible to now turn towards the question as to what drives the conduct of enterprises in market economies. In conventional economic theory, it is assumed that firms maximise profits by adjusting production methods to relative prices of labour and capital, which are, in turn, related to the marginal product of each (Mankiw, 2011). Similarly, in the institutional VoC framework, we find strong rational-marginalist and functionalist assumptions, as the classification of LMEs and CMEs depends entirely on how firms address the coordination problems in their interactions with other agents (Hall and Soskice, 2001; Hall and Gingerich, 2009). Yet, again, such assumptions reduce firms to passive entities that only react to market prices and institutions, rather than entities who deliberately take action to obtain absolute advantages vis-à-vis their competitors. Moreover, it underpins the static nature of the market economy, which this research – in the process of understanding dynamic developments – does not adhere to.

As summarised by Lavoie (2014), several writers, including Keynes (1936), Galbraith (1975), and Robinson (1977), have stressed that the fact that the future is fundamentally uncertain has profound implications for the behaviour of all actors in a market economy – and should therefore constitute the starting point for any scientific inquiry. In relation to firms, it was especially John Kenneth Galbraith who “offered an approach to the modern firm that links technology, capital, money contracts, power and planning to the problems of uncertainty” (Dunn, 2011, 203). More specifically, Galbraith conceptualised the corporation as the “enduring institutional response to an uncertain future specifically designed to mitigate its impact” (ibid.). He arrives at this conclusion as the capacities of corporations to engage in economic planning make them better placed for “coping with, or getting rid of, market uncertainties.” (ibid. p. 183). Hence, put simply, firms are there to deal with uncertainty – and that too applies to the internationalisation of businesses, as discussed further below.

In a world, in which fundamental uncertainty prevails, firms will seek, as a result, to control their economic environment, which, in turn, requires market power (Lavoie, 2014). Power, defined by Galbraith (1983) in Weberian terms as the ability of “someone or some group [to impose] its will and purpose or purposes on others” (p. 1), is the ultimate objective of the firm – regardless of size and scope:

The firm wants power over its suppliers of materials, over its customers, over the government, over legislation, and over the kind of technology to be put in use. Business firms ‘make strategic decisions under uncertainty to pursue power over pricing, investment and financing’ (Baskoy, 2011, 124). The firm, whether it is a megacorp or a small family firm, would like to have control over future events, its financial requirements, the quality of its labour force, the prices of the industry, the possibility of takeovers. (Lavoie, 2014, 128-9)

The various non-price mechanisms described in the previous section on imperfect competition, are all tied to the objective to increase market power and to gain a monopolistic advantage over competitors, which the firm can exploit. Some authors, such as Shapiro and Mott (1995), regard power as critical for the long-term survival of the firm in the market. Without the ability to affect market outcomes, they argue, firms disappear. It is therefore a different form of Darwin’s natural selection, where not those firms survive,

which are best adapted to their environment (as in neoclassical theory), but those who can exert and maintain enough power in the market. Galbraith (1972) regards this fundamental objective as central to corporate conduct: “for any organization, as for any organism, the goal or the objective that has a natural assumption of pre-eminence is the organization’s survival” (p. 170).

According to Hymer (1972), the “key ingredients of capitalist power [are] information and money” (p. 104). In order to secure their survival, therefore, corporations must ensure to always have unhindered access to these ingredients. The flipside to this is that if firms want to eliminate competition or simply to retain the maximum amount of control and value within the value chain, they can and most likely will foster uneven access to information and money – as it is often the case for large TNCs (UNCTAD, 2018a). Beyond the rather narrow focus on capital and information, firms also try to control the regulatory environment through lobbying (Coen and Richardson, 2009), influence political elections (Ferguson, 1995) and social values in their own favour (Mirowski, 2013). The striving for power has implications for the market structure at large and for the firms’ more specific objectives therein. Galbraith (1975) writes that the quest to control the economic environment leads to corporate growth as the central objective of the firm – since size and power are directly related:

The need to control environment - to exclude untoward events - encourages much greater size. *The larger the firm, the larger it will be in its industry. The greater, accordingly, will be its influence in setting prices and costs. And the greater, in general, will be its influence on consumers, the community and the state - the greater, in short, will be its ability to influence, i.e., plan, its environment.* More important, as organization develops and becomes more elaborate, the greater will be its freedom from external interference. (p. 56, italics added)

Growth thereby relates to both the growth of sales (Galbraith, 1972) and assets (Gregg et al., 2012), although of course both reinforce each other. Galbraith (1975) furthermore highlights that the objective of growth and size are compatible with the personal objectives of the individuals who are running the firm:

As organization acquires power, it uses that power, not surprisingly, to serve the ends of those involved. These ends – job security, pay, promotion, prestige, company plane and private washroom, the charm of collectively exercised power – are all strongly served by the growth of the enterprise. So growth both enhances power over prices, costs, consumers, suppliers, the community and the state and also rewards in a very personal way those who bring it about. (ibid.)

Hence, we find that due to uncertainty and the “urge of firms to survive and to grow” (Robinson, 1962, 38), corporations try to control their economic environment, which, in turn, requires market power. While there is a variety of non-price competitive tools that firms employ, the size of the firm is one determining factor as to how much control it will be able to exert, and therefore how much power it will have. Growth appears *prima facie* to be more important than profit maximisation, which is the default assumption in most economic theories. However, as competition in imperfectly competitive markets plays out via profit margins (cf. section 3.3), it is clear that profits do play an important role. Indeed, the literature suggests that they are tightly related to the firm’s overall objectives of growth and survival: First, without profits, the organism as a whole will disappear, as constant losses eat up a firm’s equity, which ultimately leads to bankruptcy. Secondly, profitability is crucial for allowing the firm to obtain enough funding for its expansion and to refinance itself on reasonable terms on capital markets. Profits are, in other words, a key factor for having access to money, which was identified as one of the two ingredients of capitalist power and which is one crucial element of capitalist reproduction (Lapavitsas, 2003). Kalecki’s (1971) principle of increasing risk thereby states that the overall amount to be raised on capital markets is a function of the firm’s retained earnings – given that lenders and investors will seek to limit their own risk exposure. Firms without profits or losing market shares will thus have difficulties to obtain funding to invest in new technologies, marketing or other means to survive (Kaldor, 1978). At the same time, as the level of retained earnings determines the amount and the conditions of borrowing, higher profit rates imply lower refinancing costs, which can, in turn, be used as a competitive advantage in the market. Especially in times of crisis, when credit markets freeze, an unprofitable performance will make it even more difficult for firms to access external capital and survive. Among the only lenders willing to engage in

such high-risk endeavours would be specialised vulture funds, which often ends in a *de facto* takeover (Hotchkiss and Mooradian, 1997) or abnormal returns on cheaply acquired corporate debt. In times of regular business, however, firms may also engage in corporate fraud to obtain a better position in capital markets (Schilit and Perler, 2010; Foroohar, 2016). Especially since financialisation took off during the 1990s, there were an increasing number of accounting scandals where firms deceived investors by inflating their corporate profits or their balance sheets (*ibid.*).

The principle of increasing risk also applies to borrowers, in that the latter will want to limit their exposure to creditors or investors in the case of illiquidity or default. A high level of profitability thus allows firms to finance a part of their investments out of their retained earnings, rather than relying on capital markets, hence providing an additional layer of control. Finally, high profits enable firms to pay out greater dividends than their competitors, making it attractive for further investments and protecting it against hostile takeovers, as it is one means for maintaining a stable market capitalisation. At the very least, high dividends provide the basis for keeping shareholders quiet (Lavoie, 2014). As above reasoning indicates, therefore, high profitability matters greatly for various reasons.

For firms to make profits, size is one important factor. As previously mentioned, a large firm can more easily exercise control over its economic environment, which includes the prices that suppliers may want to charge as well as the end prices that the consumers will pay. Additionally, the larger a firm, the more likely it is to benefit from increasing returns to scale. This gives the firm a cost advantage in the market, which leads to higher profit margins and thus better growth prospects. There is therefore a mutually dependent relationship between growth and profits, in which the latter, however, is always assessed in the context of the former: Where growth prospects are high (as it is mostly the case for start-ups, for instance), the anticipated profits outweigh the relevance of the current level of profits. In such cases, longer periods of losses can be easily sustained and refinanced. Where the reverse is true, i.e. where profits remain high, but growth prospects diminish, established companies may suffer from an equity sell-out, which shrinks its market capitalisation (Foroohar, 2016). The reason here is that financial investors are increasingly focused on capital gains, i.e. their own return on equity (ROE), rather than the dividend rate (Lavoie, 2014). Lower growth prospects thereby seriously dampen the former, so that an investment becomes less attractive and, depending on the actual

market capitalisation of the firm, a hostile takeover more likely. A recent prominent example is Apple, albeit its overall market capitalisation is still far from making it a takeover candidate. However, its below expectations iPhone sales performance and what analysts perceived as poor growth prospects led in October of 2020 to an equity sell off that erased USD 111 billion of its previous market capitalisation – despite having posted a record profit that has been boosted by the lockdown during the Covid-19 crisis (Winck, 2020).

Summarising the relationship between growth and profitability, therefore, we can state that firms want to grow in order to make profits and make profits in order to grow. As long as this virtuous cycle is running, the survival of the firm and its control over its economic environment are safe. If it breaks down, the very survival of the company might be at risks, as it can either go bankrupt, if its losses of market shares led to zero or negative profits, or one of its competitors takes it over. It is important to note that the desire and urge to grow is not unique to contemporary capitalism. Over time, the growing size of the firm, particularly in the manufacturing industry, has been “so persistent that it might almost be formulated as a general law of capital accumulation” (Hymer, 1970, 441). From the Marshallian firm in the 18th century, which was organised at the factory level and controlled by a small number of people, the firm evolved to become a large national corporation with a more sophisticated administrative structure in the 19th and early 20th century, before spanning its production and sales internationally in form of a multidivisional corporation with an elaborated coordinative structure (Hymer, 1970). Changes in transport and communications technology of course facilitated this development (Kindleberger, 1969). Robinson (1971) has neatly summarised the issue of growth as a timeless feature throughout the history of modern capitalism, and the dynamics it generates vis-à-vis other competitors in the market:

Obviously the successful family businesses of the early nineteenth century must have been just as keen on growth as any modern corporation. Anyone who is in business naturally wants to survive (...) and to survive it is necessary to grow. When a business is prosperous it is making profits; for that very reason it is threatened with competition; it would be feckless to distribute the whole net profit to the family for consumption; part must be

ploughed back in increasing capacity so as to supply a growing market, to prevent others coming in, or to diversify production if the original market is not expanding. Anyone, by growing, is threatening the position of others, who retaliate by expanding their own capacity, reducing production costs, changing the design of commodities, or introducing new devices of salesmanship. Thus each has to run to keep up with the rest. (p. 101)

### 3.4.2 The internationalisation of capital

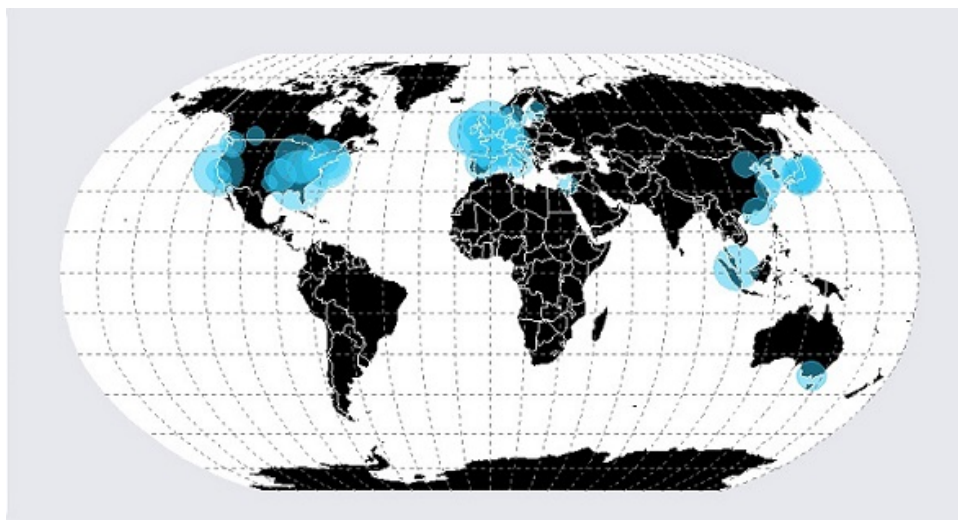
The desire to grow and to control their economic environment, which are essential to survive, led capitalist enterprises to expand their control over assets abroad. As we have seen in chapter 2, the size and scope of TNCs has thereby reached unprecedented heights in modern times. The Canadian economist Stephen Hymer was among the first to recognise that the central concern for firms engaging in FDI was to *control* foreign assets in order to facilitate planning and increase market power (Hymer, 1976). Indeed, in the words of Buckley (2006), Hymer views the TNC, at its most fundamental level, as a “special case where market imperfections and the direction of the *internalisation* of markets takes the firm’s control across national boundaries” (p. 143, italics added). Thus, if corporations are the institutional response for “coping with, or getting rid of, market uncertainties”, as stated above, the TNCs’ integration of international production perfects in a sense this endeavour, as it is altogether substituting the market as the organiser of exchange. Instead, it *internalises* the market, and the data presented in chapter 2 suggest that about one third of all TNC related trade in the global economy takes place *within* firms. It is for that reason that Hymer regarded FDI as inherently anti-competitive, as the increasing size and internationalisation of TNCs “[enlarged] the domain of centrally planned world production and [decreased] the domain of decentralised market-directed specialisation and exchange” (Hymer, 1976, 45). This has also implications for the notion of any form of comparative advantage for a national economy. The very concept of comparative advantage would imply an integration of many industries within one country. Yet, the larger the TNC and the more it is structuring the value chains across national borders, the opposite is occurring: TNCs integrate many countries within one industry (Hymer et al., 1979).

The control of foreign assets thereby serves as the basis for the TNCs' economic planning and constitutes *pari passu* the corporation's primary source of power to grow. Especially when relocating production to a low wage country, corporations have various means to put pressure on local as well as domestic firms, if they combine highly productive techniques with the low wages of the foreign workforce. On the other hand, investments abroad can also be employed to foster the innovative potential of the firm (Buckley and Casson, 1976; Cantwell, 1989; Porter, 1990). This is, essentially, to increase its competitive position in the global market through increasing its productivity and it is often the purpose of FDI in other advanced economies (Ricken and Malcottsis, 2011). What such international operations entail for development is discussed below. Suffice it to say at this stage that the internationalisation of businesses is a consequence of the corporations' efforts to secure their survival and growth in an increasingly internationalised marketplace – whereby the latter is an outcome that in itself was largely fostered and shaped by global capital (Standing, 2016). The more the TNC succeeds in internalising the market, the more the size of the market becomes limited to the size of the firm, which, embedded in the wider economy, turns TNCs into “islands of conscious power in an ocean of unconscious cooperation” (Hymer, 1970, 441).

As a company grows internationally, its internal structure too changes. This may affect the dependence of entire countries on foreign capital, given that the power and control over productive resources within the economy reside in the boardroom of the TNC. In a sense, the law of uneven development is a corollary of the law of increasing firm size, as a commanding general office (i.e. corporate board) plans and organises the allocation of resources in accordance with its personal objectives (Hymer et al., 1979). The decision-making procedure thereby spans several strategic decision-making levels to coordinate global business operations efficiently. On the highest level, where ‘level I’ activities take place, corporate top management determines the TNC's general goals, plans, and strategies. These activities are largely located in the corporate headquarters in the TNC's home country, which are overwhelmingly found in the Global North: out of the largest 100 non-financial TNCs by asset size, the World Investment Report 2018 indicates that only seven are registered in developing countries (cf. figure 3.1).



FIGURE 3.1: 100 largest non-financial TNCs by size of foreign assets.



Source: UNCTAD (2018b)

Beneath the top management, level II managers, to whom Hymer refers to as ‘corporate civil service’, have the purpose of globally disseminating the information from the headquarters and supervise level III executives, who manage local day to day activities. Thus, the power structure along this corporate hierarchy subordinates the economies that rely on foreign-owned capital to the decisions made in more powerful and predominantly western cities. In absence of a state-directed development strategy that counters this dependency by restricting foreign capital or actively subsidising home-based TNCs, economic sovereignty is substantially limited (Wade, 2010).

### 3.4.3 The limits to growth

The development of the past 200 years has been marked by the growth of business activities from local to now global operations. There is thus the legitimate question to the limits of growth. The neoclassical and political economy literature generally refers to the concept of “the firm of an optimum size” (Stigler, 1958). This hypothesis assumes that there are diseconomies of scale and/or systemic constraints (global systems view), which will ‘force’ firms to shrink to whatever may be their optimum size. There are several problems with this proposition. First, the argument about diseconomies of scale

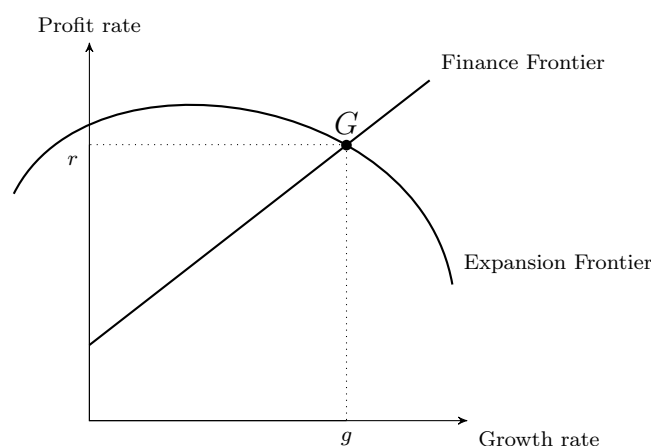
downplays the gains from increasing returns to scale, which are a key factor to obtain cost advantages – especially in oligopolistic markets. Moreover, it underestimates the ability of TNCs to offset the disadvantages associated with increased size (e.g. management or communication problems) through a decentralised organisational structure. Hymer realised this and argued that the TNC develops a highly sophisticated internal coordination mechanism, governed by ‘a general office’, that allows it to master capitalist accumulation:

These increases in size [of corporations] were accompanied by important changes in organizational structure involving both increased subdivision or differentiation of tasks and increased integration through the creation of new organs of control. Business administration became a highly specialized activity with its own elaborate division of labour; and the corporation developed a brain to consciously coordinate the various specialties and to plan for the survival of the organism as a whole. (Hymer, 1970, 441-2)

The global systems view, by contrast, is based on cost minimisation assumptions according to which, in equilibrium, there will be no opportunity for the system as a whole or for an individual firm to reduce its costs (Buckley and Hashai, 2004). As previously mentioned, this view ignores the dynamic dimension of entrepreneurial activities, where investments in productivity increases can lead to continuous cost advantages for the pioneer (Schumpeter, 1912). Likewise, it downplays the capacities of firms to diversify. Thus, in a dynamic economy, there is no optimum firm size as such.

However, this is not to say that firms can grow as they wish, without facing any constraints. Considering the relationship between profits and growth, the post Keynesian literature identifies two essential limits to growth: one is the expansion frontier, the other the finance frontier. As a result of Kalecki’s principle of increasing risk, the ability of firms to finance their expansion depends upon the profit rate. The finance frontier therefore “combines each growth rate pursued by firms with the minimum rate required to finance this expansion” (Lavoie, 2006, 38). The expansion frontier, on the other hand, combines each rate of growth with “the maximum profit rates firms can hope to reach.” (ibid.) This curve is bell shaped as the integration of new technologies, which are a key driver of productivity growth, require training and experience of staff for a smooth functioning

FIGURE 3.2: Constraints to growth



Source: Lavoie (2006, 38)

(Penrose, 1959). Furthermore, very high growth rates entail a high chance that the management of the firm will enter previously uncharted markets or that it needs time to integrate firms which it acquires in this course. Both factors are likely to depress profit margins at higher rates of growth.

Figure 3.2 reproduced Lavoie's (2006) graph of the finance and expansion frontier, illustrating that the point at which the two curves meet, point G, represents the maximum rate of growth at the given financial and competitive environment. Faster growth rates can only be achieved either by generating temporary Schumpeterian monopoly rents, e.g. through lower relative costs, which pushes the expansion frontier upwards, or by changes in the dividend rate and/or the interest rate environment, which would push down the finance frontier (ibid.).

#### 3.4.4 Satisficing vs. maximising

Although the graph in figure 3.2 may suggest that firms will seek to grow at profit rate  $r$  with growth rate  $g$ , the illustration rather represents a stylised form to outline the constraints that firms face. Indeed, due to fundamental uncertainty and imperfect knowledge, firms are not maximising anything, neither growth nor profits. Instead, as argued by Koutsoyiannis (1975), businesses constantly “seek to satisfice, that is, to attain

a ‘satisfactory’ overall performance, as defined by the set of aspirational goals” (p. 389), so that it is more accurate to conceptualise the firm as “a *satisficing* organisation rather than a *maximising* entrepreneur [where the] top management, responsible for the coordination of the activities of the various members of the firm, wishes to attain a ‘satisfactory’ level of production, to attain a ‘satisfactory’ share of the market, to earn a ‘satisfactory’ level of profit, to divert a ‘satisfactory’ percentage of their total receipts to research and development or to advertising, to acquire a ‘satisfactory’ public image, and so on.” (ibid.)

The satisficing behaviour of the firm and its objectives in the market are evaluated in relation to the expectations of various stakeholders, which are formed based on an assessment of the past and a prediction of the future. There is therefore a clear contextual and temporal dimension as to how well or bad the performance of a firm will be perceived to be. The degree to which the various stakeholders are ‘satisfied’, in turn, affects the firm’s market valuation, capital market access, ability to attract human capital etc. – in short, its capacities to grow, compete, and survive.

### **3.5 Transnational corporations and international development**

With above understanding of corporate conduct and the knowledge that the internationalisation of firms is linked to fundamental uncertainty and, ultimately, the desire to control the economic environment in an international market, it is now possible to develop a theoretical framework for analysing business operations in relation to economic development. Since the objective of this research project is to better understand the dynamics within and interdependencies between countries, it is indispensable to move towards a conceptualisation of dynamic development and situate the role of the transnational firm therein. Although there are many facets and dimensions to development, e.g., social, political, environmental and so on, the literature gaps and research questions to be addressed are tightly linked to its rather ‘economistic’ and ‘quantifiable’ aspects, such as GDP growth, trade flows, employment, or corporate performance indicators. This means that this research largely relies on Schumpeterian theory, which places the largest em-

phasis on entrepreneurship and development through a renewal of productive structures. Other alternatives, such as those, for example, in the tradition of economic thought of Karl Marx, Gunnar Myrdal, or Robert Solow, were not selected, either due to their weak conceptualisation of corporate entrepreneurship or static nature.

In order to understand economic development from a dynamic perspective, Schumpeter (1912) provides the most coherent foundation for theorising the evolution of capitalism. Schumpeter defines development as a “spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing.” (Schumpeter, 2017) He even specifies that without such qualitative changes in the economic sphere itself, “there is *no* economic development.” (p. 63, italics in the original). Central to his analysis is the role of the entrepreneur who disrupts the familiar and widely used methods of production through a new combination of input factors (labour and capital), which leads to new production processes or products that allow the pioneering entrepreneur to reap temporary monopoly rents. In other words, the entrepreneur obtains an absolute advantage vis-à-vis the competition by doing something *different* and *new*, rather than merely optimising the existing. The reason that the absolute advantages remain temporary is, according to Schumpeter, due to the fact that the success of the entrepreneur leads to wider emulation and consequentially to a replacement of old products and/or production methods with innovation – what is often referred to as ‘creative destruction’.

At the very origin of creative destruction lies an idea. Knowledge and ideas are, however, useless regarding their impact on economic development, if they are not implemented in the productive sphere. In Schumpeter’s (2017) words, “it is this ‘doing the thing’, without which possibilities are dead” (p. 121). Yet, ‘doing the thing’ requires financing, so that one important precondition for above entrepreneurial activity is a low interest rate environment. In other words, one may say that Schumpeter argues that the finance frontier (cf. figure 3.2) ought to be as low as possible for firms to finance their investment and growth. This cheap availability of credit money, which is created out of nothing by the banking system, allows to generate the additional demand for capital goods, which, in turn, engenders creative destruction. As the introduction of new methods and products is always a risky endeavour, often met with resistance (“Reibungswiderstände”), the pioneer cannot break out of the stationary cycle and implement

the innovation without access to such *ex nihilo* financial capital. Indeed, as Schumpeter put it, “talent in economic life ‘rides to success on its debts’” (p. 108) – highlighting the important role that access to credit plays for the growth and survival of firms, and for the entrepreneurial activity in an economy at large.

In addition to the role of the entrepreneur and the banker, “the ephor of the exchange economy” (Schumpeter, 2017, 74), it is possible to distil an equally important role for the state from Schumpeter’s writings. Burlamaqui (2020) summarises it as “the functions of Epher in finance, entrepreneur-in-chief in science, innovation and crucial decisions in investment, and creative-destruction manager” (p. 10). Thus, while a narrow focus on the theory of economic development suggests that development is initiated by an individual entrepreneur in absence of a state, his socio-economic work suggests otherwise. The tools that the state can and should employ in favour of development include fiscal policy (Schumpeter, 1991), monetary policy as well as selective credit policies for innovative industries and firms (Schumpeter, 1912), investments in infrastructure, i.e. “canal and road building and the like” (Schumpeter, 1939, 235), and taking active leadership in industrialisation that goes beyond the “mere control or regulation, and also from the mere conditioning” (ibid. p. 973). In *Capitalism, Socialism, and Democracy*, for example, he even argued that taking control over productive activities, while leaving the management of the firm “some freedom of action” (Schumpeter, 1942, 168), can also have positive effects on overall productivity and efficiency gains.

One further aspect of great importance is the need for the state to manage the transition from old to new industries and therefore productive structures, in particular in relation to threats of mass unemployment – whilst warning, however, against subsidising dying industries to keep them alive:

There is certainly no point in trying to conserve obsolescent industries indefinitely; but there is point in trying to avoid their coming down with a crash and in attempting to turn a rout, which may become a centre of cumulative depressive effects, into orderly retreat. Correspondingly there is, in the case of industries that have sown their wild oats but are still gaining and not losing ground, such a thing as orderly advance. (Schumpeter, 1942, 90)

Hence, the state “functioning both as an *entrepreneur for all seasons* and as a *lender of first resort* is perfectly compatible with the ‘creative destruction’ paradigm” (Burlamaqui, 2020, 3), and is, in fact, “a much needed complement” (ibid.) to its conventional conception. With a state as the ‘creative-destruction manager’, it is therefore clear that the original Schumpeterian idea of how firms get ahead in the market, i.e. through a new combination of input factors that gives them a relative cost advantage, is not the outcome of the action of an individual that occurs in a void. Rather, different organisations play different ‘entrepreneurial functions’:

[The] entrepreneurial function need not be embodied in a physical person and in particular in a single physical person. Every social environment has its own ways of filling the entrepreneurial function. For instance, the practice of farmers in this country [United States] has been revolutionized again and again by the introduction of methods worked out in the Department of Agriculture and by the Department of Agriculture’s success in teaching these methods. In this case then it was the Department of Agriculture that acted as an entrepreneur. (Schumpeter, 2002, 71)

There are therefore different entrepreneurial layers that facilitate or hinder the renewal of the productive structure, so that the success of an individual firm depends also on its embeddedness in a given political and economic environment. In an environment that is for all firms roughly the same, such as within a national economy, the input prices will be similar for all competing enterprises. The prices for raw materials are determined on international markets, interest rates are set by the central bank – with sovereign bond yields serving as the benchmark security for all private firms (Flassbeck et al., 2018) – and wage costs ought to be similar, too. We can thus simplify and assume that input prices are identical for all firms. In Schumpeter’s view, a company makes a profit because – under conditions which are otherwise the same for all competitors in the market – it achieves a relative cost advantage as an outcome of its investment and the deviation from the ‘stationary norm’. Such cost advantages can either originate in more productive processes and methods or because of the firm’s introduction of a new product, which succeeds in subtracting demand from the existing market offer. This allows the pioneer to either increase his/her margins and/or to lower prices to gain market shares with an existing

product, or, alternatively, to enjoy monopolistic rents of a new product introduction, for which there is no competing offer at this stage. In any case, the pioneering firm has an absolute advantage over its competitors. Hence, in sum, for firms operating in an environment of otherwise given prices for raw materials, labour, capital, and any other input factor, the only mechanism through which firms can obtain an advantage is through increasing their productivity.

In Schumpeterian theory of development, these absolute advantages do not last indefinitely. As competitors seek to emulate the successful pioneer, this process may ultimately end in the disappearance of the pioneer's profit, once all competitors have increased their productivity and lowered their prices. The profiteer is the consumer class, which now reaps the benefits of higher real income and living standards. This is precisely the driver behind what is commonly referred to as economic development: the risky action of one pioneer to break out of the norm triggers a movement that eventually succeeds in raising the standard of living of all those who participate in the productive and reproductive economy.

To put Schumpeter's theory in more formal terms, we can state that the Schumpeterian pioneer increases its productivity through a new combination of input factors at a given national wage level. This leads to lower unit labour costs and thus absolute advantages over competing enterprises. This holds regardless of whether the firm's advantage originates from the introduction of a new product or new production processes. In the first case, due to its monopolistic advantage, the pioneering company will be able to charge higher prices and reap monopoly rents. In case of more efficient production processes, the pioneer will be able to lower his/her prices to gain market shares and/or increase his/her margins. Either way, relative to its original input, the pioneer's output increases vis-à-vis previously employed production techniques. This allows the firm to grow, which, as previously outlined, will attract new entrants (large and established firms or new start-ups) and/or threaten the incumbent players in the market.



## 3.6 Schumpeterian theory in a context of international trade and capital flows

Section 3.4 has shown that absolute advantages are key for individual companies to grow and to appropriate monopolistic rents. Schumpeter explains the existence of such corporate profits as an outcome of an innovation introduced by a pioneering firm through a new combination of input factors, which leads to unit labour cost advantages vis-à-vis its competitors. This holds if for each firm all its input prices are equal to those of its competitors.

When it comes to an analysis of an *international* economy, one must therefore conceptualise the starting point as a two-level model with firms nested in different national economies. In the case of the European Union, where the Single Market is additionally regulated by a *sui generis* supranational institution, one can add a third level: firms nested in national economies, which are, in turn, nested in the Single Market. The basic principle, however, remains the same. In any international market, where firms nested in different economies compete, each company will seek to grow and to be profitable, for all the reasons outlined above. If absolute advantages of firms are the key to succeed in international markets, they will also determine overall international trade flows. If the absolute advantages of firms nested in a given country, for example through an undervalued exchange rate, lead to expansion and growth internationally, firms in foreign economies will suffer, as they will lose market shares and/or be left with depressed profit margins. Section 3.4 outlined how this will ultimately lead to the death of the enterprises in the foreign economy, as their losses or low profit margins will either lead to diminishing equity or to difficulties for refinancing themselves on capital markets – both of which is the end of a company's existence. In the absence of exchange rate adjustments, such a tendency is likely to trigger a counterreaction from the firms in the deficit country and/or their government. In any case, it shows that the very operations of businesses across national borders creates *interdependencies* between economies.

In this context, one may ask how trade can be beneficial for developing countries, if their firms face competition from firms in more advanced and productive economies. Here, it is important to note that a pre-condition for fair trade is that overall wage levels

equalise the competitiveness across countries. One can use a simple example: If the level of labour productivity per hour worked is EUR 100 euros on average for all the companies in an industrialised economy and the level of wages, including all non-wage labour costs, is EUR 50, the level of unit labour costs is 0.5 (corresponding to a 50 per cent wage share at the level of total income). If the level of productivity in a developing country is only a fifth of that of the industrialised country, i.e. EUR 20, its wage level consequentially determines the overall competitiveness of the economy. If the developing country also has a wage ratio of 50 per cent, then the wage level would be EUR 10 per hour and unit labour costs would stand, as in the developed economy, at 0.5. We thus have a case in which companies in the poorer country could trade and compete on an equal footing with the companies in the industrial country in terms of macroeconomic conditions. The intertemporal dynamics created through investments and profits of pioneering firms could function in developing countries the same way as in industrialised economies.

Thus, although the capital stock in the poorer country is smaller, which limits the amount of goods that can be produced for world markets, above macroeconomic conditions allow firms in poorer economies to compete internationally beyond some arbitrary natural advantages that they may have originally had, such as in the production of raw materials for example. One advantage that they thereby have vis-à-vis firms from industrial countries is that, unlike the latter, who can rely solely on further developing technologies that lead to an individual increase in labour productivity and to secure (intertemporal) advantages over their competitors, firms in developing countries can import technical solutions that, in combination with the cheap labour, allow them to reduce their absolute costs dramatically. In our example above, importing the production technology of the industrialised economy with its average productivity of 100 Euro per hour would reduce the unit labour costs from 0.5 to 0.1 for firms in developing countries. Even if this technology is not used by the domestic workforce with the same efficiency, it is most likely that the competitiveness of individual companies can be improved radically in this way.

However, with free movement of capital, this option is also available to companies in the industrialised economies, if they outsource their production to the developing country (Hymer, 1976). This can occur either by the fact that developing countries may produce goods such as raw materials or tourism, which are not available in the same way in

industrialised countries, or that developing countries - like China and Japan have done it before - gain absolute advantages by importing Western technology (high productivity incorporated in Western machines) and combining it with the low wages of their workers. This leads to a dramatic fall of unit labour costs for their products vis-à-vis the goods produced in industrialised countries.

As it is a lot simpler and less risky for firms in industrialised economies to combine high productivity with cheap labour by setting up production facilities in a low wage economy, rather than investing in entirely new methods of production or goods, above issue is of particular relevance in relation to FDI. *Ceteris paribus*, such simple outsourcing gives the firm a unit labour cost advantage vis-à-vis its domestic competition, which allows for either increasing its margins and/or to cut down the prices to drive out competition. If the firms who are put under pressure want to survive, they will equally have to outsource their production – unless they find a way to dramatically increase productivity at home. Based on the theoretical insights presented in section 3.4, however, it is likely that these firms, due to their weaker performance compared to the first mover, will have difficulties to refinance themselves on capital markets, as the principle of increasing risk applies. It is thus much more likely that they too will opt for the lower-risk option of simply outsourcing the existing method of production and combining it with cheap labour. Since simple outsourcing does not lead to a renewal of productive structures, no development takes place within the domestic economy, unless the firms would use their monopoly rents to finance investments in new technologies at home.

On the other hand, if the TNC enters developing economies to combine cheap labour with capital-intensive technology, this will make it impossible for firms in the host economy to compete. Local firms will continue to rely on overall lower productivity, which is the reason for its overall lower wage level (Flassbeck and Steinhardt, 2018). In this case, the TNC will dominate the foreign market, while local firms will have no chance to grow and compete. Such a *laissez-faire* approach to international capital flows may thus lead to the damage of domestic production and halt of long-term technological development. This simple model thus not only shows that the dynamics within but also the interdependencies between different countries are a function of the conduct of international businesses.

## 3.7 Conclusion

This chapter has provided a comprehensive understanding of the three-level model of the TNC, nested in a national economy, which is, in turn, part of an international market. Operationalising the TNC is a key step towards answering the research question as to how the conduct of large TNCs in France and Germany drive capitalist development and change in Europe in the period between 1999 and 2018.

The chapter started by conceptualising the TNC itself, which is the level 1 unit and independent variable in the analysis of this research. It first set out the philosophical legitimacy for characterising corporations as agents, rather than structures, even though they are made up by numerous individuals. The emergent properties of corporations, which cannot be reduced to the individual members, are a key factor for such reasoning. Moreover, as shown by a range of legal scholars, firms are assigned legal status operating as a person in the market economy, which makes the corporation *de jure* and therefore *de facto* an agent. With the understanding of corporations as actors, the next step in the inquiry consisted of examining the theoretical underpinnings of corporate conduct. In a world of imperfect markets and fundamental uncertainty, the primary objective of the firm is its survival for which it seeks to control the economic environment. This, in turn, requires growth and profits. To this end, corporations employ a range of tools, including marketing, lobbying, and restructuring of their value chain.

As the objective of this research is to address economic change and the interdependencies between economies, which was identified as an extant weak spot of the GM literature (cf. chapter 2), a theorisation of development followed the section on the firm in order to address implications for the national (level 2) and international economy (level 3). Development, understood as a renewal of productive structures, arises according to Schumpeter through entrepreneurial activity. As corporations try to control their economic environment by means of growing in size and increasing profits, they will be forced to invest in a functioning market economy. Through these investments, entrepreneurs find new combinations of labour and capital that gives them a unit labour cost advantage over their rivals. The entrepreneur is now able to either lower prices to increase market shares or to operate with higher profit margins. In both cases, the pressure will mount on other firms

to emulate the pioneer, which raises overall productivity and therefore living standards. In a world of international trade and capital flows, however, firms also have the option to enhance their competitiveness not just via investments in new technologies, but also through simply outsourcing the existing method of production and combine it with lower wages. The latter could lead to an initial renewal of the productive base in less developed countries, but without any investments in new technologies, overall dynamics will stall. Moreover, the TNC can also harm the development of local enterprises, since it has much lower unit labour costs than the domestic rivals in the TNC's host economy. Which dynamics will dominate depends on the regulatory market environment. What is critical for now is to understand that the three-level model employed in this research captures both the horizontal and vertical dynamics that exist between the levels within a national economy and between different countries. That is, on the one hand, the interdependencies between TNC operations in terms of investments, production, and employment both in the national and international economy. On the other hand, there are the interdependencies that arise through international competition via changes in market shares and profit margins, which, in turn, influence the TNC in its abilities, strategies, and actions to control their economic environment. This chapter has thus established the theoretical underpinnings of change as well as the mechanisms of the interdependencies that exist between different national economies. Before applying this theoretical framework to the case study, the next chapter presents the methodology employed in this research.

# Chapter 4

## Methodology

Chapter 2 identified a conceptual shortcoming of the growth model literature, suggesting that TNCs should become part of the analytical framework to better understand the dynamics within and interdependencies between growth models. The chapter also presented the main research questions. Subsequently, to provide the theoretical foundation for conceptualising TNCs, chapter 3 outlined a comprehensive theory of the TNC in the context of international trade and capital flows. It finished by providing a model showing how development within and interdependencies between national economies can depend on the conduct of transnational firms. Chapter 4 now presents the methodology to address the research questions. Thereby, the chapter follows a structure “from the generic to the specific”, hence first discussing the philosophical foundations and fit of the methodology, before presenting the research design, each individual method, and the analytical strategy.

### 4.1 Mixed Methods Research

The project employed a mixed-methods research (MMR) approach, defined by Tashakkori and Creswell (2016) “as research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry” (p.2). This broad understanding allowed to avoid the debate as to whether or not only fully integrated studies count as MMR, and how integration of methods itself should be defined (Creswell,

2015; Mason, 2016). MMR was identified as the most rigorous methodological approach to answer the research questions for several reasons. Most importantly, it offered the most compatible philosophical foundation and practical tools to address the research questions and the nature of the subject at hand.

First, the design of this research project required selecting a methodological approach that encompasses the inherent tensions of *structure vs. agency*. The conceptual framework and theoretical argument advanced in the previous sections necessitate a conceptualisation of TNCs as agents, who are embedded in global capitalism and act, *inter alia*, in response to each other's actions. Whilst some authors might (rightly) argue that TNCs are the result of structure themselves, the theory employed in this research justifies this simplification, as we have seen in chapter 3. Notwithstanding the assumption of a causality between TNCs' conduct and macroeconomic outcomes, CPE scholarship has convincingly shown that the wider institutional, economic, and structural constraints in which TNCs operate greatly matter for national businesses. This premise was accepted in this research project, so that its foundations are rooted in a basic constellation in which both the underlying theory and the suggested conceptual framework imply that TNCs neither act in isolation of structure nor independently from it. Yet, at the same time, due to the empirical footprint of TNCs, they are conceptualised as influential agents in the global and European economy.

This constellation entails *prima facie* several methodological challenges. Usually, explanations based on 'agentic' theorising attribute social outcomes to purposeful actions of individuals or organisations, whilst 'structural' theories rather stress the importance of systemic (i.e. institutional) factors (Wendt, 1987). Essentially, as Patomaki and Wight (2000) argue, the root of the structure-agency-problem is ontological, from which epistemological and methodological problems arise. Critical realism, however, convincingly rejects an ontological dualism of structure vs. agency by arguing that either presupposes the existence of the other. In our case, this implies that TNCs are integral to the development of capitalism, and, at the same time, that they could not exist without it. Collier (1994) provides one of the most succinct accounts of this 'third ontology', which relies on the work of Bhaskar (1975, 1994, 1998):

Societies (...) can only exist as the outcome of (...) agency. If we were not reproducing/transforming social relations all the time, they would not exist: that is the truth of ‘humanism’. But all (...) action presupposes the pre-existence of society and makes no sense without it. Its social context determines what actions are possible and what outcomes will be. That is the truth about ‘structuralism’. (p. 145)

This perspective implies that social phenomena must be explained by recognising the inter-dependencies between agents *and* structure. These interdependencies, in turn, can ontologically only be captured by regarding the social phenomena as inherently dynamic, or, as Patomaki and Wight (2000) put more accurately, “as a processual flow that is intrinsically open and subject to multiple and at times contradictory causal processes.” (p. 230)

From the ontological position of critical realism, two important implications for this research arise. First, agency and structure cannot be separated. Second, a very nuanced stance on causality is required. Unlike many interpretivists, critical realism does not exclude causal explanations. Yet, on the other hand, instead of searching for general laws, as advocated by empiricists, the continuous and dynamic changes in society necessitate a context-dependent analysis (Sayer, 1999). Lawson (1997) proposes to conceptualise the tendencies or law-like behaviours that one can observe in certain contexts as “demi-regularities” (p. 204):

Although the social world is open, dynamic and changing, certain mechanisms may, over restricted regions of time and space, be reproduced constantly and come to be (occasionally) apparent in their effects at the level of actual phenomena, giving rise to rough and ready generalities or partial regularities, holding to such a degree that *prima facie* an explanation is called for. (ibid.)

These insights from critical realists thus imply that causal mechanisms cannot be properly understood without an interpretive account of agency and an analytical assessment of structure. At the same time, demi-regularities ought to be understood as context-specific relationships. Overall, this sums up what Easton (2010) refers to when



he writes that “critical realists argue for the use of causal language with thinking” (p. 119). Consequentially, the complexity of the processes in ontologically open and dynamic systems encourages the incorporation of different perspectives, or, in other words, a “commitment to a multi-paradigmatic approach” (Patomaki and Wight, 2000, 226).

In line with Mason (2016), a second reason in favour of an MMR approach to this research is the multidimensionality of the automotive industry, which was selected as the case study for the analysis. This requires considering political, societal, economic and environmental factors that impacted and continue to impact the development of the industry. This multidimensionality makes it difficult, if not impossible, to look at the development of the automotive industry over a period of 20 years from the lens of a single method. One of the greatest strengths of MMR in this regard is precisely that it is capable of transcending partial perspectives and synthesise the conclusions derived from each into a broader, more coherent understanding of the phenomenon at hand (Bryman, 2016). It is important to note that the incommensurability thesis, which is often used to reject multi-paradigmatic approaches, demonstrates that communication between paradigms is, in principal, possible (Patomaki and Wight, 2000; Wight, 2016). It therefore does not deny the possibility of integrating different methods in a mutually informative fashion in MMR. In particular, when investigating relationships between different levels of analysis, as it is the case in this research, combining different methods allows us to analytically (not ontologically!) separate agency from structure to derive systemic insights (Tashakkori and Teddlie, 1998).

## 4.2 Research design

For the theoretical, empirical, and practical reasons outlined in chapter 2, the research design was a case study of the European automotive industry. While the justification in that section was primarily related to the relevance of this industry and its suitability with the research questions, it equally fitted the philosophical standpoint outlined above. As Easton (2010) argues:

Critical realism is particularly well suited as a companion to case research. It justifies the study of any situation, regardless of the numbers of research units involved, but only if the process involves thoughtful in-depth research with the objective of understanding why things are as they are. (p. 119)

This suitability of critical realist philosophy and case study research stems, in his opinion, from the match between the ontological and epistemological propositions and the practical steps in the research process. This spans critical realists' conceptualisations of phenomena, entities and objects, and causality, which allows the researcher to draw on and integrate a range of different methods and, taking into account the context-dependency of the mechanisms at play, to even generalise beyond the actual case – to the extent that the theoretical nature of the entities involved is clarified and their mechanisms of interaction well understood. It also takes into account the imperfect nature of our tools to understand the world, which exists independently of our knowledge, so that it justifies the interdependencies between research and reflections, which were an integral part of the MMR design as employed in this study. At the same time, however, as further outlined in the limitations in chapter 9, the generalisation of insights from this case study crucially depends on the level of comparability of the automotive industry to that of other industries. One differentiation thereby is, for example, to distinguish between bulk-gaining (such as the automotive industry) and bulk-reducing industries (such as raw materials). Another important distinction would have to be made between capital- and labour-intensive industries. Nonetheless, in terms of examining the interdependencies between economies and in the light that TNCs integrate many countries in one industry - rather than integrating many industries in one country-, the approach of primarily selecting a specific industry as a case (instead of countries) appears suitable to address some of the shortcomings identified in the GM literature (cf. chapter 2), even though the replication and general validity is subject to careful considerations that come with each industry. The nature and specificities of the automotive industry are further examined in chapter 5, while chapter 9 includes a discussion on the overall limitations of this approach and the selection of this industry.

### 4.3 Selection of research methods

Due to the nature of the research questions, this project employed an explanatory sequential design with some exploratory elements (Creswell and Clark, 2011). In this design, quantitative and qualitative data were collected and analysed separately, but integrated and adapted to each other throughout the research. First, in order to obtain a general picture of the development of the auto industry, the quantitative research, including descriptive statistics (to understand corporate performances and the market structure) and input-output (IO) analyses (to capture the nature and changes of the productive landscape of the industry in Europe) preceded and informed the qualitative research, which relied on semi-structured interviews and a qualitative content analysis of annual reports and newspaper articles.

The interviews and textual data were examined using template analysis. Critical in the analysis of qualitative data via this method is the concept of themes (King and Brooks, 2017). This research thereby followed King and Horrocks's (2010) definition of themes as "recurrent and distinctive features of participants' accounts, characterising particular perceptions and/or experiences, which the researcher sees as relevant to the research question" (p. 150). This definition also matches the comprehensive review of Braun and Clarke (2006) of what constitutes a theme. Hence, a certain degree of subjectivism, repetitiveness in respondents' accounts, and a high degree of distinctiveness between themes were key features of the conceptualisation employed.

The first round of quantitative research (from March to September 2019) set the framework for the first round of interviews (beginning in October 2019), which were semi-structured to allow for enough flexibility for the emergence of other relevant themes that may have previously been overlooked (Bryman, 2012). The emergence of new themes subsequently fed back into additional quantitative research and a modification of specific questions in the interview guide (November 2019 – April 2020). The data collection and qualitative content analysis of annual reports and newspapers followed the quantitative analysis as well as the interviews (April – September 2020). This sequence emerged due to practical constraints of the research. Under normal circumstances, the qualitative content analysis could have complemented the quantitative research, and the findings of

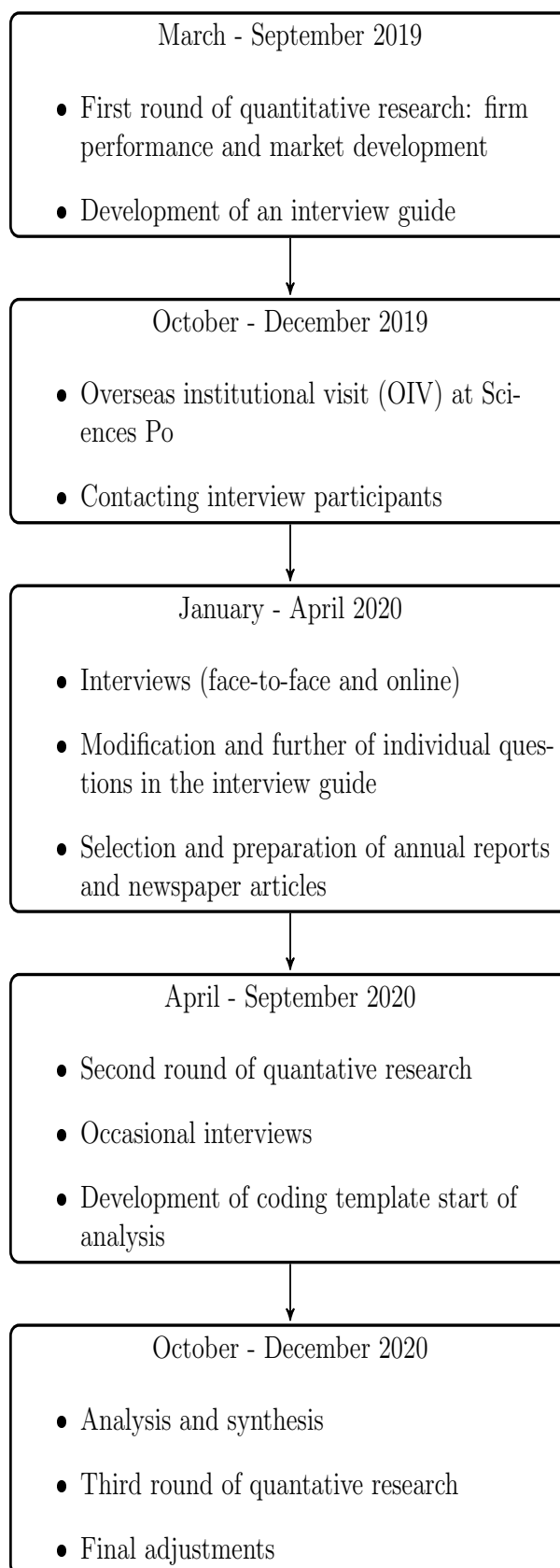
both would have fed into the development of the interview guide. Yet, in May 2019, two months after the confirmation review of this project, the offer for a six-months Overseas Institutional Visits (OIV) in Paris at the Centre d'études européennes et de politique comparée (CEE) and the Max Planck Sciences Po Centre (MaxPo) presented an excellent opportunity to directly take advantage of the institutional infrastructure in Paris and use the local networks for access to interviewees. In light of the Covid-19 pandemic and the restrictions put in place from March 2020 on, the adaption of this research to this opportunity, however, turned out to have been highly beneficial, as conducting interviews would have otherwise been much more substantially impeded. Figure 4.1 provides an overview of the timescale of the research. The justification and provision of more in-depth information on each method, data source, and analytical technique are presented below.

#### **4.4 Integrating the methods: Triangulation, offsetting, and completing**

To counterbalance potential biases from specific data source, this research drew on a diverse set of information. This meant that interview partners were selected from various professions, ranging from academics to lobbyist, government advisors, trade unions, financial analysts, rating agencies, and TNCs themselves. Annual reports, on the other hand, whose data could be potentially biased in favour of a more positive presentation of TNCs' performances and strategies, were cross-checked against findings from newspaper articles and interviews. The same principle of cross-checking equally applied to the usage of a wide range of data sources for the descriptive statistics (public and private). More detailed information on specific data sources are provided in the context of each method below.

In order to strengthen the robustness of the conclusions drawn from the data, following Bryman (2006), this research used three techniques to combine qualitative and quantitative data: triangulation, offsetting, and completion. First, as each method operated at a different level to generate data, triangulation was employed to assess whether qualitative and quantitative data mutually corroborated the findings at hand (Flick, 2007). The

FIGURE 4.1: Research timescale



crux was to examine whether that official statistics, a range of interviewed experts and the content of newspaper articles would, despite their distinct purposes, motivations, and backgrounds, provide similar views on key aspects of the development of the industry. For example, as shown in the results sections in the following chapters, the fact that the view on the market dominance of German producers were observable in both qualitative (interviews and qualitative content analysis) and quantitative data (market shares statistics) substantially increased the validity of this claim. Likewise, the issue of corporate outsourcing and the different nature thereof in Germany and France repeatedly occurred in interviews and newspaper articles. The additional application of IO analyses was perfectly in line with the argument that corporations outsourced production increasingly to the Eastern Europe, yet that German firms (*vis-à-vis* their French counterparts) retained a higher share of domestic value-added. Such triangulation thus increased the overall robustness of the conclusions drawn.

Secondly, offsetting was applied to overcome the respective weaknesses of quantitative and qualitative methods, while drawing on the strengths of each. In practice, this meant that, for example, while quantitative data sufficed to give an overview of corporate profitability, market shares, changes in the industry structure and so on, it was unable to explain the *how* and *why* behind these tendencies, which required using qualitative methods (Easton, 2010). This combination of “statistical trends (quantitative data) (...) and personal experiences (qualitative data)” (Creswell, 2015, 2) is why the literature attributes the resulting synthesis “a better understanding of the research problem than either form of data alone [would have provided]” (ibid.). One example of how the qualitative data explained the quantitative data in this project was that the crude observation that Volkswagen’s market share in Europe increased from around 18 to 24 per cent between 2000 and 2018 did not explain *why* this occurred. Data from the in-depth interviews, however, explained this primarily by its economies of scale, its financial position, and competitive cost structure. On the other hand, offsetting was also employed to overcome weaknesses of individual qualitative methods and data sources by contrasting the findings with information from other qualitative and quantitative methods. For instance, one weakness of interviews in the analysis of longer-term developments is that participants may have inaccurate memories of the more distant past, in part because more recent impressions may overshadow earlier ones – the issue of retrospective (Bakker and

Daniels, 2013). In this project, this became evident with the fact that many interviewees overestimated the trends towards the size of the average car, forgetting that in the early 2000s and in periods of high commodity prices, demand for smaller cars was much more pronounced. The newspaper articles, written during the given period, provided a more accurate account of the actual tendencies at the time, and thus fitted the quantitative data on market shares by car segments a lot better.

Third and finally, given the multidimensional nature of the subject and the research questions mentioned above, the use of various sources in a mutually informative manner allowed to obtain a more comprehensive account (Mason, 2016). For example, although most interviewees and newspaper articles attributed the German automotive industry a tremendous success during the period between 1999 and 2018, the financial data from Bloomberg somewhat relativized this argument to some extent (cf. chapter 6). Figure 4.2 provides an overview of the methods and techniques employed in this research. The following section discusses each individual method in greater detail (beginning with the quantitative research).

FIGURE 4.2: Research methods and techniques

	Quantitative Research	Qualitative Research	
<i>What?</i>	Descriptive Statistics (via Excel and R)	Content Analysis (via Nvivo)	Interviews (via Nvivo)
<i>Sources</i>	<ul style="list-style-type: none"> <li>● Annual reports (VW, Daimler, BMW, PSA, Renault)</li> <li>● Bloomberg, Refinitiv, S&amp;P Global Market Intelligence</li> <li>● Industry associations (CCFA, VDA, and ACEA)</li> <li>● Public institutions (Destatis, Insee, UN, ITC)</li> </ul>	<ul style="list-style-type: none"> <li>● Annual reports (VW, Daimler, BMW, PSA, Renault)</li> <li>● Newspaper articles (Handelsblatt, Les Echos)</li> </ul>	<ul style="list-style-type: none"> <li>● Analysts, consultants, investment bankers, and rating agencies</li> <li>● Managers in the auto industry, industry associations</li> <li>● Policymakers</li> <li>● Academics / researchers</li> <li>● Trade unions</li> <li>● Journalists</li> </ul>
<i>Content</i>	<ul style="list-style-type: none"> <li>● Market indicators</li> <li>● Corporate indicators</li> </ul>	<ul style="list-style-type: none"> <li>● Company strategies and objectives</li> <li>● Market environment (incl. policies)</li> <li>● Rationale behind TNCs' activities</li> </ul>	<ul style="list-style-type: none"> <li>● Market development</li> <li>● Market environment (incl. policies)</li> <li>● Rationale behind TNCs' decision making</li> </ul>
<i>Purpose</i>	Providing a coherent understanding of market development, as well as TNCs' performances and conduct; giving insights as to what extent firm-related factors correlate with wider macro outcomes.	Cross-validating and complementing findings provided by quantitative analysis and the interviews; identifying general motivations for TNCs' decision-making	Cross-validating and complementing findings provided by quantitative analysis and the textual analysis; identifying general motivations for TNCs' decision-making



## 4.5 Quantitative methods: Descriptive statistics, input-output analyses, and quantitative analysis of texts

### 4.5.1 Descriptive statistics

Regarding the quantitative methods, this study relied to a large extent on descriptive statistics, several input-output (IO) analyses, as well as a quantitative analysis of annual reports. As outlined above, the descriptive statistics largely served to assess TNCs' performances (*inter alia* profitability, costs, sales, investments), the industry structure in the home countries of respective TNCs, i.e. in Germany and France (*inter alia* production, employment, exports etc.), and the industry structure in Europe, the North America, and Asia (*inter alia* market shares, growth rates, market size). The data were mostly imported from a given data source and directly presented graphically without manipulation. In cases where indices were calculated or specific variables constructed by the author, the information is provided below the respective graph. The justification for the selection and use of specific indicators, such as, for example, the question as to why the author regarded earnings before interest and taxes (EBIT) as a more suitable earnings indicator than earnings before interest, taxes, depreciation, and amortisation (EBITDA), is provided in the context of the analysis to facilitate following the main argument.

The first round of quantitative analysis, which, together with the theoretical literature, provided a basis for the development of the initial interview guide, followed a second round of analysis once the qualitative interviews highlighted the emergence of new themes. This second round notably included an analysis of correlations of financial indicators, data on discounts and use of flexible workforces, and an extension of several quantitative indicators, such as market shares, market sizes, or imports and exports, to the pre-1999 period, in order to capture some of the tendencies and dynamics before the introduction of the Euro. Table 4.1 gives the reader, in more detail than figure 4.2, an overview of the descriptive statistics used in the analysis.

TABLE 4.1: Descriptive statistics

Source	Information
Bloomberg, Refinitiv, S&P Global Market Intelligence (S&P GMI)	TNC financials, world market indicators
Annual reports	TNC financials
Verband der Automobilindustrie (VDA), Comité des constructeurs français d'automobiles (CCFA), European Automobile Manufacturers Association (ACEA), CAR Center Automotive Research, Agence Centrale des Organismes de Sécurité Sociale (ACOSS), AAA, Kraftfahrt-Bundesamt (KBA)	National production and trade statistics, information on market developments
Statistisches Bundesamt, Institut national de la statistique et des études économiques	National production and trade statistics
Comtrade, ITC, World Input Output Database (WIOD), Eurostat	Trade flows

As evident from table 4.1, Bloomberg, Refinitiv, S&P GMI, and TNCs' annual reports constituted the primary sources of information that the author used to investigate TNC financials. These data sources are widespread in the finance industry and rest on strict legal accounting standards, so that they provide the most accurate, and, in the case of the three former databases, restated information that is available. This means that changes or errors in the accounting practices of stating balance sheet items, income statements or cash flow, were corrected *ex post*, which is an advantage vis-à-vis the information we find in annual reports.

In order to assess the development of the industry structure in the different regions of analysis – France, Germany, Europe, North America and Asia – this project used data from national statistics accounts (Statistisches Bundesamt, Institut national de la statistique et des études économiques), international organisations (United Nations, ITC), and data provided by key institutions in the industry, including, in particular, the Comité des Constructeurs Français d'Automobiles (CCFA), whose data serve also as the basis for analysis conducted by the European Commission, the Verband der deutschen Automobilindustrie (VDA), and the European Automobile Manufacturing Association (ACEA).

## 4.5.2 Input Output Analysis

In addition to the straightforward use and application of the descriptive statistics, several IO-analyses were employed to illustrate the nature and changes of the *structure of production* within the automotive industry both in Europe and worldwide (at the macro-regional level). Since the complexity of IO-analyses exceeds that of a rather simple presentation of descriptive statistics, the concept behind them merits some supplementary methodological information, as non-familiar readers may find it otherwise not easily accessible.

IO-models have recently become very popular in economic research (ten Raa, 2009), in particular due to the emergence of high-speed computing and more detailed sectoral data on economic activities. Their basic premise is to discern the interdependence of various industries and nations in the production of goods and services. As Miller and Blair (2009) put it, the “fundamental information used in input-output analysis concerns the flows of products from each industrial sector, considered as a producer, to each of the sectors, itself and others, considered as consumers” (p. 2), which, in the end, leads to an “an interindustry transactions table” (ibid.) that shows which inputs various sectors in various countries use for their production.

Timmer et al. (2015) have provided one IO-analysis for the automotive sector in their introduction to the World Input-Output Database (WIOD). Their approach was in principle modified and adapted to this project, albeit with a different geographical focus (incl. France), the latest available data (release 2016), and, in part, using different decomposition methods. The WIOD provides time series of World Input-Output Tables (WIOT) for some of the 40 largest economies in the world – including all EU member states, and 13 other large developed and emerging economies, which in total make up about 85 per cent of world GDP (the residual value is given by “the rest of the world”) – which indicate which industries, classified based on two-digit ISIC rev. 3 level, in which countries use which value (in million USD) of goods and services as intermediate inputs, and which output of a given industry goes into final consumption by governments and households (in this classification system, the automotive industry is classified as C29 “Manufacture of motor vehicles, trailers and semi-trailers”).

TABLE 4.2: World Input Output Table

			Use by country-industries						Final use by countries			Total use		
			Country	...	Country	...	Country	...	Country	Country	...	Country		
			1		M		1		M	1		M		
			Industry	...	Industry	...	Industry	...	Industry	...	Industry			
			1		N		1		N		1		N	
Supply from country - industries	Country 1	Industry 1												
		...												
		Industry N												
	...													
	Country M	Industry 1												
		...												
Industry N														
Value added by labour and capital														
Gross output														

Source: Timmer et al. (2015)

They also provide a useful schematic table for demonstrative purposes, which is replicated here as table 4.2. The columns show the production processes of each industry in each country (i.e. where they source to produce their own output). The rows, on the other hand, show which industries in which countries supply intermediate products (“Use by country-industries”) and which sector, public or private, consumes the final output.

While above table provides information on gross bilateral trade flows as well as production structures within individual countries, it is impossible to identify the part of the value added that was generated in the supplying industry and the part of the value added that occurred at previous stages of production. For instance, intermediates produced in Poland and used in production of final goods that are exported from Germany to China imply that the gross export from Germany to China contains value produced in a third country (Poland). This value added by the third country, however, does not become evident in the WIOT as it stands above. In order to capture the value added in trade *across* the international chain of production in each country, the Leontief decomposition of gross trade flows, which was also employed in the IO analyses in this research, allocates the values within a value chain to the original producers. The idea behind it, as succinctly

outlined in Quast and Kummritz (2015), was Leontief's (1936) insight that the output in a given industry  $i$  requires its own value added as well as that of other industries. In a closed economy,  $i$ 's value added is a direct, while the other industries' contribution represents  $i$ 's indirect contribution to domestic value added, as the production in  $i$  leads to the creation of value added in the supplying industries. As those supplying industries themselves rely on suppliers to produce (who again rely on their own suppliers and so on), this can be regarded as a knock-on effect of  $i$ 's production, so that it is possible to further trace this process back until one arrives at the original supplier. In a simplified form, following Quast and Kummritz (2015), this process can be expressed mathematically as:

$$MB = M(I - Z)^{-1} \quad (4.1)$$

where  $M$  is an  $N \times N$  matrix, where the diagonal indicates the direct value-added contribution of  $N$  industries,  $I$  is an identity matrix, and  $Z$  is the intermediate input coefficients matrix indicating the amount of input needed to produce one unit of output in industry  $i$ .  $(I - Z)^{-1}$  is what is widely referred to as the Leontief inverse, which shows the direct and indirect input requirements in each industry of the economy that is generated by one unit of output in industry  $i$ .

This principle can be easily extended beyond a closed, national economy to international IO tables such as WIOT. Again, following Quast and Kummritz (2015),  $M$  becomes a vector indicating direct value added to each industry in all  $C$  countries in the dataset, thus taking on a dimension of  $1 \times CN$ , while the intermediate input coefficient matrix  $Z$  now accommodates flows across industries and countries, hence taking on a dimension of  $CN \times CN$ . Multiplying these two matrices with export matrix  $E$ , a  $CN \times CN$  matrix with a diagonal containing  $N$  industries exports, the resulting decomposition equation is  $d = (I - Z)^{-1} \times E$ . The estimation of the value-added origins in exports based on this equation were implemented in the `decompr` package in R (ibid., 2015). This package was used in this research project to obtain the value-added coefficients of French and German exports in the auto industry. In addition to the Leontief decomposition, the `decompr` package also allowed applying the Wang-Wei-Zhu (WWZ) decomposition method. This decomposition method, as presented in Wang et al. (2013), is a technical extension of the

Leontief insight and gives us more detailed information on the composition of exports, such as domestic (foreign) value in final goods, domestic (foreign) value in intermediate goods or returned domestic value added.

### 4.5.3 Quantitative analysis of textual data using Quanteda

The final quantitative method employed in this project was a quantitative analysis of annual reports using the Quanteda package in R, as developed by Benoit et al. (2018). Given the increasing popularity of quantitative analyses of texts, particularly in financial research (Bodnaruk et al., 2015; Loughran and McDonald, 2016), several scholars have developed a range of tools that this research was able to draw upon, notably in terms of dictionaries and packages in R.

The Quanteda package provided an excellent handling of texts through its features for corpus management, creation and manipulation of tokens and ngrams, and visualising texts via co-occurrence network plots, for example. It is important to note that this method merely served as a complementary tool to a) triangulate the qualitative content analysis of annual reports, and b) to get a more comprehensive overview through widely tested and applied algorithmic tools (completeness). The package was employed to conduct a sentiment analysis. Such an analysis uses the words from specifically constructed dictionaries to gauge the extent to which the tone and language in a text, such as 10-k or other financial reports, suggests the overall business climate is positive, negative, constraining, or litigious, and the degree of uncertainty. The dictionary used in this analysis was the one provided by Loughran and McDonald (2011) and Bodnaruk et al. (2015). These dictionaries were constructed to analyse 10-k and financial reports, where the language has very specific connotations. Contrary to most widely employed dictionaries in textual analysis, Loughran and McDonald (2011) showed that almost 75 per cent of negative word counts in dictionaries such as the Harvard list are “are typically not negative in a financial context” (p. 36). These include words such as tax, cost, capital or liability. Their dictionary, which was further adapted and modified over time, has become a standard reference point in the finance and accounting literature that works on textual analyses.

## 4.6 Qualitative methods: Semi-structured interviews and qualitative content analysis

As quantitative data most often only provide information on general trends and tendencies, they have their weaknesses when it comes to discerning underlying mechanisms (Easton, 2010). This requires theory and more in-depth information, for which qualitative research methods are more suitable (Bryman, 2012). Hence, in order to better understand the dynamics in the automotive industry, this research has therefore employed semi-structured interviews and qualitative content analysis of annual reports and newspaper articles.

### 4.6.1 Semi-structured interviews – Rationale and practicalities

Semi-structured interviews were selected due to their suitability to obtain detailed information on a complex issue (Mason, 2002; Rubin and Rubin, 2005). Moreover, the semi-structured nature has the right degree of flexibility in relation to the subject matter and the sequential design of the research discussed above (Bryman, 2012; Denscombe, 2003). Finally, qualitative research with elites, such as consultants, managers at large corporations, or financial analysts – who have the greatest experience and knowledge about the subject matter – reduces the array of realistically conductible methods, as a very high degree of practical flexibility is a *sine qua non* condition to get access (Rice, 2010) – making interviews the most rational choice.

This study overall conducted 38 semi-structured interviews between October 2019 and April 2020, with the majority between January and April 2020. The interviews strictly followed the ethical and safety guidelines as set out and approved for this project by the University of Sheffield. The interviews were conducted either in person, via Skype/Zoom or phone, depending on the availability and the schedule of the interviewee. Until the 15<sup>th</sup> of March 2020, most interviews were conducted in person, before the Covid-19 pandemic necessitated physical distance to interview partners, so that the interviews were usually held via phone. However, given that the semi-structured interviews were all expert inter-

views that exclusively focused on the interviewee’s subject of expertise, the quality of the data does not greatly differ between personal interviews and those conducted via Skype or phone, since the building of rapport and trust is not as relevant as in the research of sensitive issues (Bryman, 2012). All the interviews, except for two, where it was not possible due to legal issues, were recorded and transcribed for analysis to maximise the accuracy of and familiarity with the data (ibid.).

The interview partners covered a wide range of professions to obtain a wide range of different viewpoints. This included academics, representatives from both OEMs and some of the largest suppliers (except for BMW, where it was not possible to get a positive response), trade unions, analysts at investment banks, commercial banks, central banks, and rating agencies, industry associations, journalists, consultants, policymakers, and former government advisors. The interviews were conducted in English, French, and German, respectively, and total anonymity was guaranteed to all participants. Since the automotive industry is indeed what might be referred to as a small world, the data referenced in the analytical section will be presented in the most generic manner – simply by indicating the identification number assigned to the participant by the researcher (“# Number”) – to keep the guarantee of anonymity intact. Otherwise, referring individual statements or themes to analysts within a given sector would substantially increase the chance of identification. Table 4.3 provides an overview at the professional level of all participants in the study.

TABLE 4.3: Interviews

<b>Profession</b>	<b>Number of participants</b>
Analysts, consultants, investment bankers, rating agencies	6
Industry managers and associations	9
Policymakers	3
Academics / Researchers	11
Trade unions	4
Journalists	5



In order to access interviewees, this research largely relied on the snowball sampling technique (Malhotra, 2010). This was particularly useful given the existence of close ties and networks within the industry, which are, however, difficult to access for outsiders. Initial contacts were usually sought via e-mails, and especially the account at Sciences Po appeared to have opened several doors, as the responsiveness to the requests substantially increased. In addition, the researcher was able to use the infrastructure provided by Sciences Po to connect either directly with individuals in the industry or to obtain access to second-rank connections who could refer him to someone in their network. Of particular use for recruitments were the so-called ‘soirées pour les enseignants’ (evenings for teaching staff), which were organised by the university and brought together, in an informal setting, teaching staff from all departments. Crucially, this included external teaching staff, so that it was possible to connect with high-end individuals working in the private and public sector who had occasional teaching duties at Sciences Po. Another useful network to access individuals was the ‘réseau international de l’automobile: GERPISA’ – an association of academic researchers and members of the private and public sector that specifically engage in issues around the automotive industry. The events that were organised by this network brought together some of the leading experts and managers in the auto industry, and due to the informal atmosphere and breaks at the sessions, it was simple to contact or to be referred to potential interview partners.

#### **4.6.2 The organisation of semi-structured interviews**

The structure of the interviews depended on the availability of the interviewee. Most interviews lasted between 45 and 60 mins, although in some cases, the researcher had to cut down the time to about 20 to 30 minutes. These shorter interviews were particularly conducted in later stages of the research process, where the researcher has obtained sufficient knowledge of the industry and was able to tailor the questions to narrower subjects, such as knowledge on specific markets (US or China) or specific issues, as for example the role of financial services of TNCs for their sales performances.

Initially, the issues discussed largely followed an interview guide, which was developed based on the quantitative analysis as well as the theoretical framework developed in

chapter two. This included a focus on market trends that were observed in the data (market structures, shares, and performances), the wider embeddedness of corporations in their respective political, economic, and social environment, which was stressed so extensively in the growth model literature (cf. chapter 2), and firm specific factors, which were addressed in the TNC literature (cf. chapter 3). The questions were posed in an open manner and related to issues that the respondent raised. This open and flexible approach is quite common with regards to semi-structured interviews (Bryman, 2012), but it offered additional, specific advantages for this project: on the one hand, it allowed the researcher to better explore “new areas or ones in which the researcher [had] limited knowledge” (ibid., P. 247) and discover the salience of issues, while, on the other hand, creating a more relaxed atmosphere for the respondents. The first interview guide addressed the following topics:

1. Presenting the background of the project
2. Interviewee background [opening question]
3. Identification of key tendencies from 1999-2018 in the European automotive sector
  - Market structure
  - Production patterns
4. The role of EU enlargement for the dynamics within the Single Market
5. National policy factors in Germany and France that contributed to observed tendencies
6. Firm specific factors that contributed to observed tendencies
7. Global strategies of German and French TNCs
8. Interdependencies between the performances of German and French firms
9. Shareholder influence at German and French TNCs

After the first round of 8 interviews in 2019, a preliminary assessment of the transcripts and the emergence of new themes led to slight changes in the interview guides for the second round beginning in January 2020. Notably, the general impact of EU policies was added, whereby the choice was left to the interviewee as to whether s/he regarded economic or environmental (or both) policies as relevant. The role of EU enlargement, on the other hand, was taken out, as it was mostly mentioned under 3b and addressed

through specific probing, in cases where the interviewee did not mention it. Similarly, themes 5 (firm specific factors), 7 (global strategies of TNCs), and 8 (interdependencies between TNCs' performances) were merged into one topic, since they largely coincided in the data. This allowed to conduct the interviews in 2020 with a neater guide of seven themes, which left more room for probing, where it appeared necessary:

1. Presenting the background of the project
2. Interviewee background [opening question]
3. Identification of key tendencies from 1999-2018 in the European automotive sector
  - Market structure
  - Production patterns
4. Role of EU policies in explaining above tendencies
5. Role of national policy in Germany and France in explaining above tendencies
6. Role of Firm specific factors that contributed in explaining above tendencies
7. Shareholder influence at German and French TNCs

While above interview guides were used for most interviews, in individual cases, as mentioned above, the researcher substantially diverged from this structure. This was necessary as more in-depth information was required on very specific subject areas that reoccurred in the data.

### **4.6.3 Transcription, coding and analysis**

The interviews were almost fully transcribed to ensure maximum accuracy and familiarity with the data (Bryman, 2012). The only parts left out of the transcription were the introduction to the research project at the beginning and the goodbye section at the end, since both were highly repetitive across interviews and of no analytical value to the project. In four cases, the quality of the recording was less than perfect, so that individual words or phrases were marked as unclear in the transcription.

The explanatory sequential design of this research project, which contained certain exploratory elements in the way in which various methods mutually informed each other, required a hybrid approach of inductive and deductive coding and theme development (Fereday and Muir-Cochrane, 2006). In order to allow for enough flexibility to follow, on the one hand, the issues and themes that emerged from the quantitative analysis (which were used to develop the interview guide), yet, on the other, also take into account and recognise new themes that are relevant to the research (which then also fed back to the quantitative analysis), the interview transcripts were thematically organised and analysed using template analysis (King, 2012). Thereby, the researcher developed a hierarchically structured coding template that summarised the themes that were identified as the most relevant ones and analysed the qualitative data on the basis of this template (Brooks and King, 2014). This analytical framework, described as “in the middle ground between top down and bottom of styles of analysis” (King, 2012, 430), meets the requirements for structured flexibility set out by this research and is, not less importantly, compatible with the critical realist position of the researcher (Brooks et al., 2015).

In the development of the template for the analysis, this research followed the six steps as outlined by Brooks and King (2014): (1) familiarisation with the raw data, (2) data coding, (3) formulating the coding template, (4) applying the template, (5) adapting the template to the data, and (6) finalisation. The first and second step thereby occurred with the transcription of the interviews, where the researcher took notes and comments (in Word documents and on a notebook) to see what themes the interviewees addressed. Once all interviews were transcribed, these notes were assessed and synthesised to identify the most relevant themes and start to formulate the template (step 3). This additionally included the use of a priori themes from the quantitative analysis (as indicated in the interview guide). In this process, the researcher also made the decision to allow for parallel coding, since some of the themes, such as, for example, the ‘Eurozone crisis’, was inextricably linked with some of the performances of European manufacturers.

This preliminary template was then applied to the first 20 interviews (roughly half the sample) to assess the fit and appropriateness. Additionally, since the same template was supposed to be used to analyse newspaper articles and financial reports in order to provide greater coherence and facilitate cross validating the findings, 10 randomly selected annual reports and 20 articles served to further adjust the initial template (cf.

next section). Subsequently, steps 4 and 5 were a reiterative process of readjusting and refining the template (using transcripts, annual reports, and newspaper articles) until no new or more detailed sub-levels in the hierarchical order were judged to be useful for further analysis. These steps therefore comprised the establishment of the hierarchy of the coding structure, whereby “broad overarching themes” (ibid., p. 5) were complemented by “successively narrower, more specific ones” (ibid.). After using the 20 first interviews to refine and adjust the template, the final version was applied to all interviews, without requiring any further modifications. The analysis was conducted in Nvivo12.

## 4.7 Qualitative content analysis

### 4.7.1 Newspaper articles

The analysis of longer-term historical time periods via interviews reveals several significant shortcomings. The first one is the possibility to obtain biased results due to memory lapses and distortions (Grele, 1998). Secondly, the small sample size makes it impossible to generalise the findings beyond the comparatively small group of experts. To counterbalance these limitations, and to triangulate the conclusions drawn from the interviews (as well as the quantitative methods), this research employed a qualitative textual analysis of annual reports and newspaper articles (Schreier, 2014).

The greatest advantages of this method for this project are its flexibility and systematic character, which makes it seamlessly compatible with both the overall MMR design of the study and integrated in the template analysis as outlined above (ibid.). Due to the relevance of the automotive industry in Germany and France, the researcher intended to analyse articles from 1999 until 2018 – the period of the research – from a major German and French financial news outlet respectively. Further selection criteria were: (1) high reputation, (2) daily publication, (3) high and comparable level of circulation. This ought to ensure a certain level of comparability regarding the quality, timeliness, and depth of information. The outlets selected based on these criteria were *Handelsblatt*, a German daily with a circulation of 134.515 newspapers (Handelsblattgroup, 2019) and the French *Les Échos*, which has a circulation of 132.210 units (ACPM, 2019).

The individual articles for analysis were downloaded directly from the Handelsblatt online archives and through the Nexis database, respectively. The former implied a search through the archives by “name of the organisation” for each corporation in each given year between 1999 and 2018. Similarly, in the Nexis database, the researcher filtered the articles by newspaper, name of each TNC in the “headline and leads” section, and year. Each article in the pool was skim-read to determine whether its relevance for the analysis. The principle of selection thereby followed rather exclusionary than inclusionary criteria. The researcher excluded articles that were related to sports sponsoring (Formula 1, sailing, tennis etc.), rumours (e.g. as during the periods of VW Dieselgate or certain takeovers, such as Porsche-VW or PSA-Opel), speculative forecasts and market trends, discussions about CEO pay, presentations or tests of individual products, and less relevant individual personnel choices (e.g. new sales manager for a company in a given region). Moreover, short statements on financial results and a comparison of quarterly performances were equally excluded, since the Bloomberg data and quantitative analysis already provided this type of information. Only in cases where additional information was found in the text, for example, by indicating that good results in a given quarter were due to the introduction of a particular model or superior performance in a particular market, the article was added to the sample.

Since many of the articles in both newspapers were the continuation of a longer story line, the researcher selected the articles which provided the core elements of any given story, without, however, including every bit of information that would have made the analysis unfeasible. Usually, this meant selecting one of the first articles on a given subject, which introduced the problem and outlined the reasons behind the observed developments, and one of the last, which summarised the main events, actors, and decisions taken in the course of the issue at hand. This procedure can be illustrated using the following case: on 22<sup>nd</sup> November 2006, Handelsblatt headlined: “VW sacrifices Brussels for Wolfsburg: VW Group withdraws the Golf production from Belgium - German plants [Wolfsburg and Zwickau] benefit - new production structure.” The article outlines the reasons for the decision, which were due to VW’s intention to increase capacity utilisation rates across its production network. Especially shareholder Porsche at the time pressured the firm to enhance its efficiency and profitability, and after the Brussels plant has come under pressure from the latest cost-reducing collective wage agreement for VW

employees in Germany. A day later, on 23<sup>rd</sup> November 2006, *Handelsblatt* wrote: “Workers on strike – VW reduction endangers Belgian economy”, which outlines the damage emerging from this decision for the Belgium economy (incl. its supplier industry), while on the 1<sup>st</sup> December 2006, we read under the headline “VW seeks a solution for Brussels” that VW CEO Martin Winterkorn and Belgium’s head of state, Guy Verhofstadt, discuss the future of the Brussels site. On 4<sup>th</sup> December 2006, *Handelsblatt* announced: “VW wants to build the small Audi in Brussels”, outlining the compromise found and the interactions of individuals, social partners, and politicians that led to this outcome. The first (22<sup>nd</sup> November) and the last article (04<sup>th</sup> December) were included in the sample, whereas the articles in the middle provided no value-added in an ex-post perspective.

In total, the final sample that was used in the analysis included 5.665 articles – 2.664 from *Les Échos* and 2.991 from *Handelsblatt* (incl. brief market notifications). The data were categorised into various folders. In principal, each TNCs had its own folder for each year between 1999 and 2018. In many cases, however, it was impossible to assign an article to one particular firm. The German premium car makers as well as the French volume manufacturers, for example, were often addressed at equal weight in one article (e.g. “New plunge for Renault and PSA in France” (*Les Échos* / 3<sup>rd</sup> May 2007) or “The German manufacturers are pushing Americans to convert to diesel” (*Les Échos* / 23<sup>rd</sup> October 2007)). In those cases, the articles were grouped in “general” folders for France and Germany, respectively. Other categorisations were geographical, if the articles rather addressed the region or market as a whole as opposed to individual firms (i.e. USA, EU, and Emerging Economies). Compared to the other categories, however, the number of articles classified here was lower. Finally, one particular theme that received particular attention in several articles was the issue of the price war within the automotive industry. Since this issue is related to the industry structure at large, yet affects each firm differently, the researcher created a folder for articles dedicated to this topic. Table 4.4 provides an overview of the number of articles of each newspaper in relation to each corporation and sub-folder created for categorisation.

TABLE 4.4: Overview Newspaper Articles

	BMW	DAI	VW	PSA	RNO	German Industry	French Industry	European Industry	USA	Emerging Markets	Price wars	Total
Handelsblatt	439	328	485	520	514	180	83	251	57	45	89	2991
Les Echos	246	277	463	599	751	70	133	83	7	22	13	2664

## 4.7.2 Annual Reports

In addition to newspaper articles, this research used annual reports. Not only provided this further and more detailed information for the quantitative analysis (e.g. on the financialisation of companies), which were not available in the financial databases, but it also gave additional insights on corporate decisions, strategies, and key performance indicators (KPIs). Of course, since it is a document for investors, its clear purpose is marketing: trying to convince the markets that the business is doing well, and that future dividends and growth prospects look bright. The information thus may eventually be biased, yet, cross validating the findings with the newspaper articles, which are a more neutral source of information, allowed to control for this factor to some degree. The annual reports were downloaded from the investor relations websites of the TNCs in English. The only cases, for which English documents were not available, even after repeated requests to the firm’s communications department, were the annual reports from PSA from 2000 to 2004. Here, the French version was used instead.

In terms of applying the coding template, several specificities applied to these documents, as large parts were explicitly excluded from the analysis. Most importantly, this applied to a pure presentation of financials, cash flow or balance sheet items, as well as the development of the share price, unless an additional explication was given to a number. For example, taking PSA’s annual report of 2009, an information such as “Faurecia’s consolidated revenue totalled €9,292 million in 2009 versus €12,011 million the previous year, a decline of 22.6% on a reported basis and 22.2% at constant exchange rates. At constant exchange rates, sales of tooling, R&D and prototypes contracted 8.5% to €874 million from €961 million, while sales of monoliths were down 42.9% at €828 million versus €1,476 million” (p. 98) was not coded, since the information is also provided in the financial databases, which take eventual restatements into account. By contrast, a



statement such as “the Group ended the year with a recurring operating loss of €689 million compared with income of €550 million in 2008, representing a negative margin 1.4% on revenues versus a positive 1.0% the previous year. The unfavourable swing stemmed from the collapse in world automotive markets leading to a fall in the Group’s unit sales” (p. 96) was included, as it provided an explanation as to why a certain figure occurred.

Other text passages that were excluded were economic indicators for world markets (e.g. such as the description of GDP growth and exchange rates), which were already analysed based on data from other financial databases, speculative forecasts (unless substantial underlying trends were addressed), investor relations events and corporate marketing / advertising (e.g. individual pilot projects, awards for cars etc.), shareholder rights and obligations, description of the accounting standards used, remuneration report of the company board, as well as all corporate social responsibility (CSR) related issues. As LeBaron (2020) showed, CSR is often highly misleading, and the Dieselgate scandal that erupted in 2015, highlighted that information on environmental sustainability provided by corporations were indeed not reliable. This research therefore relied on the more neutral source of newspaper articles to use the content related to these aspects of the business. Another aspect considered were recurring elements in the reports. These included, for example, a description of the legal structure of the firm, which were, unless significant adjustments occurred, identical to previous years. The same applied to structure of corporate alliances, such as Renault-Nissan. This research just coded such statements once, unless substantial changes occurred that were mentioned in the report. The French firms furthermore had the particularity that, from 2005 on, there were two separate documents provided as annual reports. On the one hand, there was the annual report published by the TNCs, which presented key figures and provided a lot of strategic but also marketing related information (similar to what we find in the early chapters of the annual reports of their counterparts in Germany). These annual reports, however, did not go into a lot of detail, when it came to the presentation of the balance sheet, income statement, and cash flow. This was provided by a second document – the so-called reference document. In the case of French TNCs, therefore, the two documents were merged into one, but elements of the annual report, which were then repeated in the reference document, were also coded only one time.

Finally, regarding TNC-specific aspects, this research focused primarily on the core element of the automotive business: sales and financing of passenger cars and light vehicles. Of course, the income from business divisions in which economies of scope exist for the firm, for example in commercial trucks, does matter for the overall performance. Yet, the information on these divisions were obtained from Bloomberg, Refinitiv and the S&P GMI databases – not from the annual reports. This sufficed to control for factors outside the core business – which accounted for and thus explained the vast majority of TNCs’ operations and performances. Similarly, figures from and information on integrated groups, which contributed fairly little to overall revenues and profits, such as Volkswagen’s Lamborghini, Bugatti, or Ducati (whose purchase was, according to *Handelsblatt* (17.04.2012), a present for the 75th birthday of Ferdinand Piëch, the powerful patriarch at VW at the time and a big motorbike fan), were excluded.

As outlined above, the template for the analysis of both annual reports and newspaper articles was developed using all qualitative data formats in order to be able to use one template. The information and arguments that emerged out of the analysis were then synthesised and the resulting output will be presented in the following sections.

## 4.8 Summary

This research relied on an MMR approach, and, more specifically, an explanatory sequential design using and integrating qualitative and quantitative methods. The methods included descriptive statistics, input-output analyses, quantitative textual analysis, as well as qualitative content analysis and semi-structured interviews. The methodological approach was set up in relation to the research questions, the theoretical framework, and the multidimensionality of the subject matter. The methods informed each other throughout the research, and the conclusions drawn from the data, as presented from the next chapter on, relied on the insights of both quantitative and qualitative research.

# Chapter 5

## The automobile industry

Chapter 2 and 3 have outlined that an analysis of transnational corporations may help to understand the interdependencies between and the dynamics within national economies, i.e., economic change. The literature review has elaborated this puzzle in reference to the GM literature, while chapter 3 provided a comprehensive theory of firm conduct, the internationalisation of capital, and the theoretical ties to the international economy and its development. Chapter 4 described and justified the methodology employed. As the basic framework for the analysis is a three-level model, i.e. firms nested in countries and, in the case of this research, the European Single market, this chapter now presents certain characteristics of the automotive industry. It proceeds thereby in a ‘zooming in’ manner, i.e. going from global, to European, to local (French and German) level of analysis. This is indispensable to provide a broader understanding of how the industry evolved and how it functions, and how important it is for the dynamics within and interdependencies between the national economies of this case study.

Conceptually and empirically, the focus of this chapter is therefore on the level 2 and level 3 of the three-level model developed in chapter 2 and chapter 3. In the context of the overarching research question of how the operations of large TNCs in France and Germany drove capitalist development and change in Europe between 1999 and 2018, it primarily addresses sub-question # 1: “Which key tendencies characterised the development of the European as well as the French and German automotive industry between 1999 and 2018?” Once this is thoroughly examined, it is possible to proceed to the in-depth analysis of the TNCs (chapter 6 and 7) and the linkages between the different levels and across countries (chapter 8 and 9).

## 5.1 The glocalisation of the automotive industry

There are perhaps few industries which stand as emblematic for globalisation as the automotive industry. It is therefore not by surprise that, in order to portray the US as a loser of globalisation, former US president Trump picked the industry as a scapegoat to justify more protectionist trade policies: “When you walk down Fifth Avenue, everybody has a Mercedes-Benz parked in front of his house. (...) How many Chevrolets do you see in Germany? Not many, maybe none, you don’t see anything at all over there. It’s a one-way street.” (Torry and Boston, 2017)

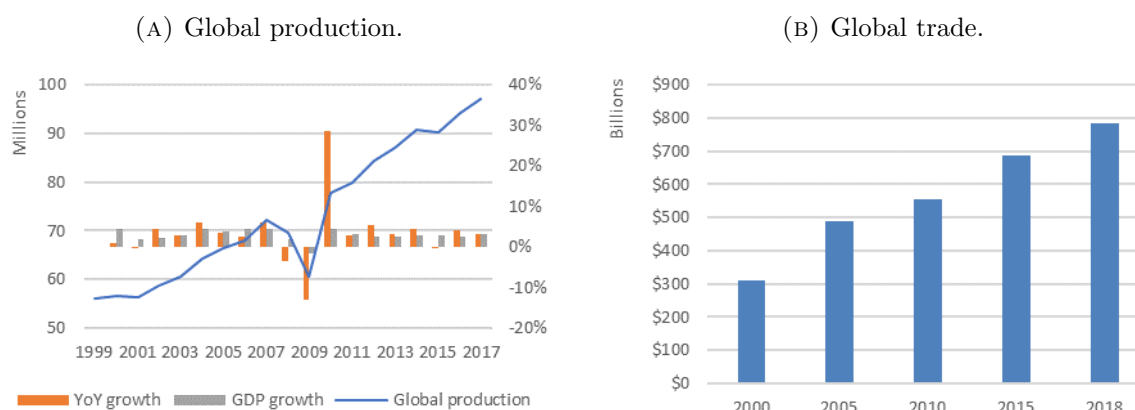
Whether these claims are justified, is not of interest at this stage. It is clear, however, that due to its visibility and prominence in the debates around globalisation, production, and trade, the auto industry often served as a heart rate monitor for the wider conditions of the economy.

### 5.1.1 The development of global sales and production

Considering the evolution of the industry on a global scale, we find that both the production of cars as well as its trade value (excluding components) have substantially increased over the past twenty years, as shown in figure 5.1. Since 2001, the production of vehicles has thereby grown linearly from just over 55 million units to more than 95 million in 2017, with growth rates mostly at par with that of the global economy at large. The sharp downturn during the financial crisis was only a temporary shock, since the rebound that followed brought production back in line with the previous trend in production.

The trade volume of automotive products (HS classification code 8703), increased even more than the production volume of vehicles, from around USD 300 billion in 2000 to close to USD 800 billion in 2018. It is important to note that this growth is mainly attributable to the growth of the industry in China. One interviewee provided a short-term overview of this development by comparing the size of the Chinese market to that of other markets:

FIGURE 5.1: Global vehicle production, growth, and trade volumes.

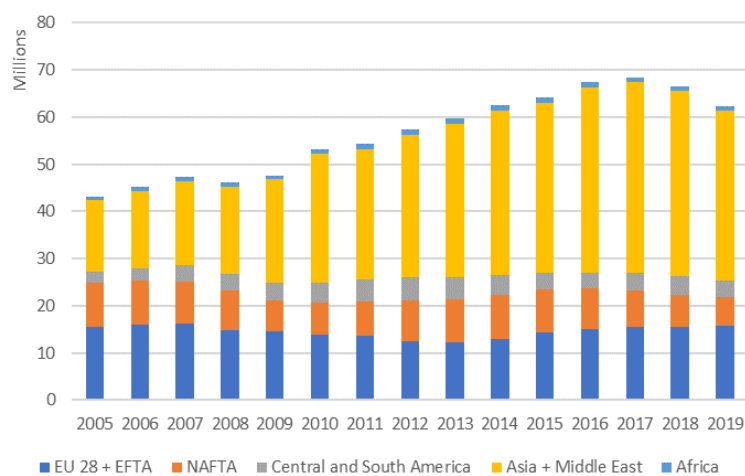


Source: OICA, Comtrade, World Bank.

If you look at how the Chinese market has developed from 2000 to 2018: in 2000 it was about the same size as the Dutch market: 300,000 cars. In 2005, it was bigger than the German market, in 2012 bigger than the European market, in 2013 bigger than the US market, and today we are at 22 million cars. In 2000 we were at 300.000! And if you look at the world car market, the whole development of how the automotive industry has grown in the last two decades is due almost exclusively to the development in China.<sup>1</sup> (#16)

Figure 5.2 shows the above described development with the data on worldwide car sales from 2005 onward. As mentioned, without China, there would have been hardly any growth, as the other major markets largely stagnated. The number of car sales in Europe was flat for the past 15 years, while in the US, we are at a lower level than we were in 2005, due to the decline in sales since 2016. The Latin American market, by contrast, grew, from a low base, substantially until 2013, before it collapsed. Africa remains as a market as marginal in 2019 as it was in 2005.

FIGURE 5.2: Worldwide passenger car sales.



Source: OICA.

While the rise of China is inevitably tied to its internal development and insertion in the world market, it is important to situate the evolution of the industry in the debate of regionalisation vs. globalisation. As Hay (2017) outlined, the growth of emerging markets, in this case China, does not mean that there is the tendency of the world economy to become one global market. Rather, he stressed the importance of regionalising tendencies that occur within the context of globalisation. The automotive industry is, in this regard, a prime example of an industry that is highly regionalised and globalised at the same time. It is regionalised because producers mainly produce *regionally* for local markets, and it is globalised, because the lead firms, so-called Original Equipment Manufacturers (OEMs), are large TNCs that operate globally with their technology and capital. The production is usually “integrated at the regional macro level” (#26), which means that firms are primarily concerned with access to regional markets and free trade zones, such as the EU Single Market or NAFTA, when setting up production abroad:

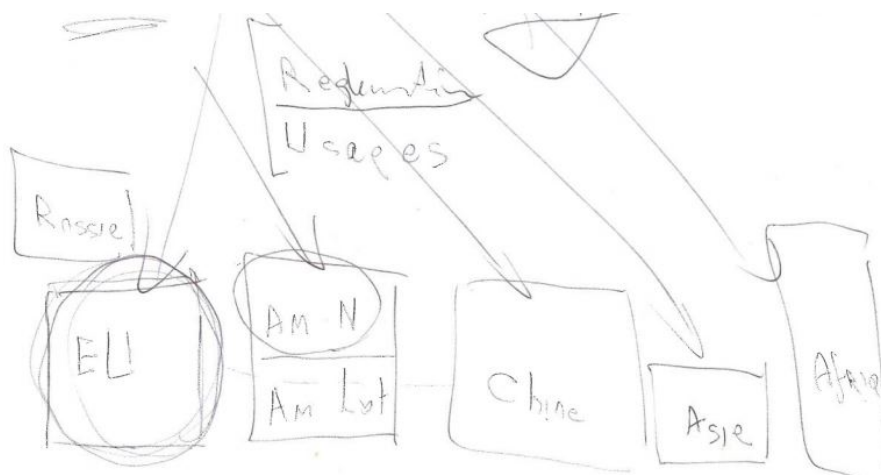
You have a global industry, but the production around the world of a specific company is really organised by regions. That is to say: cars are being produced in the region where they’re sold. That is something you find for the mass producers to hold true no matter where you look. (...) 80 per cent

of the vehicles sold in North America are produced in North America. I don't know the number for Europe off the top of my head, but it's going to be something similar. (#14)

This thinking in regions is a dominant feature when it comes to how the lead firms approach 'globalisation'. One person familiar with corporate strategies in this sector could not stress enough how central this fragmented 'thinking by market' is to each enterprise (see related quote and figure 5.3) :

This goes against the theory of free trade. But this is not free trade, this is reality. The real practice is that in the automobile industry, markets are rather by region. (...) You cannot make one product to sell it everywhere, this is not possible.<sup>2</sup> (#09)

FIGURE 5.3: Approach to internationalisation of a French OEM.



Drawing by # 09 during the interview.

### 5.1.2 The regional organisation of trade

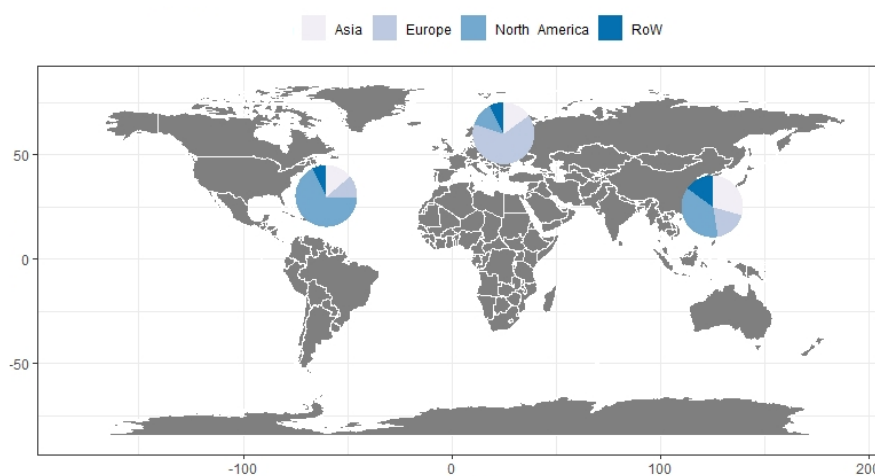
As companies approach the world market by market, this inevitably affects trade flows, which, as we have seen in chapter 2, are dominated by TNCs. Figure 5.4 empirically illustrates the degree of regionalisation using the total value of car exports (HS 8703) by

region of destination. According to these data, in Europe (EU-28) and North America (NAFTA), around two thirds of all exports occur within the region. The case of Asia looks more diversified, but that is, first, partially due to the composition of the dataset and must be, secondly, put in context to the size of the Chinese market. In the ITC dataset used for the visualisation, Turkey is classified as an Asian economy, and accounts for about a third of all Asian exports to Europe (around USD 10.3 billion out of USD 33.2 billion). However, due to its geographic proximity and close economic ties with the EU, Turkey serves as a production hub for numerous OEMs, including Fiat, Toyota, Hyundai, or Renault, who set up production there to supply the European market. In terms of its regional integration therefore, it would be more accurate to classify Turkey as a European, rather than an Asian economy. Its large volume of exports to Europe, in any case, is thus perfectly in line with the argument on the regionalisation of the industry, even if it formally implies that the EU-28 import the given product from Asia.

Secondly, the trade data must be put in relation to the size of the markets within regions, which can provide a *prima facie* distorting picture. In the presence of one large market, such as China, the local production supplies the local demand without crossing any borders – hence without generating any trade flows. The presence of large-scale local production for the local market may thus obfuscate the degree of regionalisation, if one focuses merely on trade as an indicator. Sticking to the case of China, we find that the value of the Chinese car market alone amounts to around USD 552 billion (Statista, 2020) – while the *total* value of Asian exports to *all* WTO member states (incl. intra-Asian trade) is around USD 185 billion. The value of car sales in one market is thus almost three times as large as all exports of the entire region combined. As a final remark on Asia, it should also be noted that out of its exports to NAFTA, Japan and Korea account for about 90 per cent of Asian exports into the region (USD 61.8 billion out of USD 69.3 billion).



FIGURE 5.4: Global trade flows by region of destination.



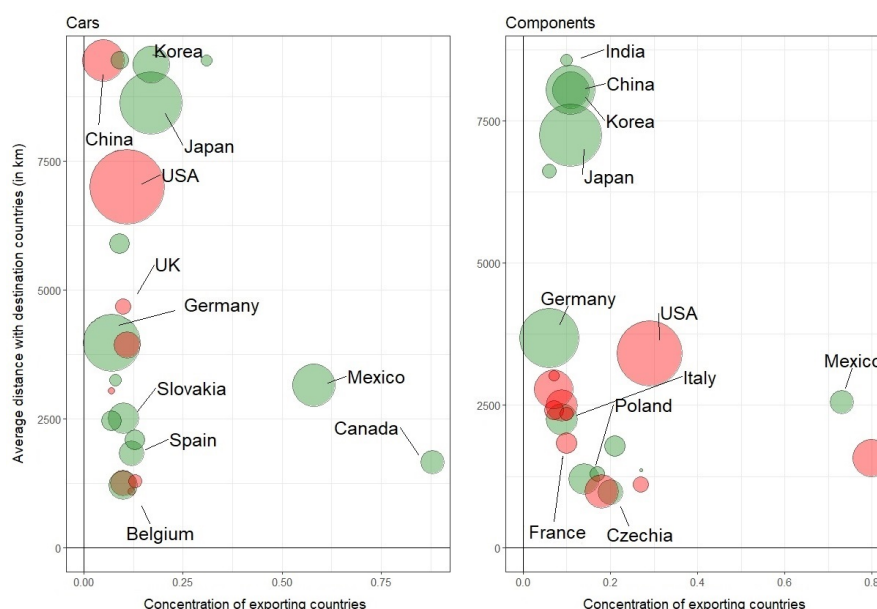
Source: ITC.

Going beyond trade flows within regions, another way to look at regionalisation is to focus on imports and exports of individual economies. Using the concentration of importing/exporting countries and the average distance with their supplying/importing economies allows to offset some of the disadvantages of above indicator and provides additional insights as to how trade flows are structured. Starting with exports, figure 5.5 shows the average distance with the destination countries for both cars (HS 8703) and components (HS 8708) and the concentration of exporting countries in 2019. The average distance is calculated based on the gravity centre of economic activity, as provided by the ITC, while the concentration of importing economies is based on the Herfindahl index. The size of the bubbles indicates the size of the overall trade surplus (green) or deficit (red) in the given product category. The countries in the graphs belong to the group of the 25 largest economies in automotive trade by trade value in USD (with the largest 10 being labelled).

We see that in regions, where country sizes are comparatively small and economic integration is high, the distances to car export destinations are very short. For example, in France, it amounts on average to only 1.244 km, in Spain to 1.835 km, and in Poland or Czechia to 1.291 km and 1.207 km respectively. The centre of gravity is thus clearly the European market. Germany, by contrast, has a larger average distance of 3.983 km to its destinations. Yet, this figure too shows that, while German exports serve markets outside

Europe, regionalisation still exerts a substantial force of gravity for the German car industry. Comparing the export of cars to that of components, we find that the degree of regionalisation in Europe becomes even more pronounced for all economies in the sample. In Asia and North America, the story is rather different. While intra-regional exports and local production dominate, the distances with the destination countries become much larger than in Europe. A final interesting fact across the entire sample, however, is that the concentration of exporting countries is very low for all economies, except for Mexico and Canada, where most car exports goes to the United States.

FIGURE 5.5: Average distance and concentration of export destinations for cars and components.

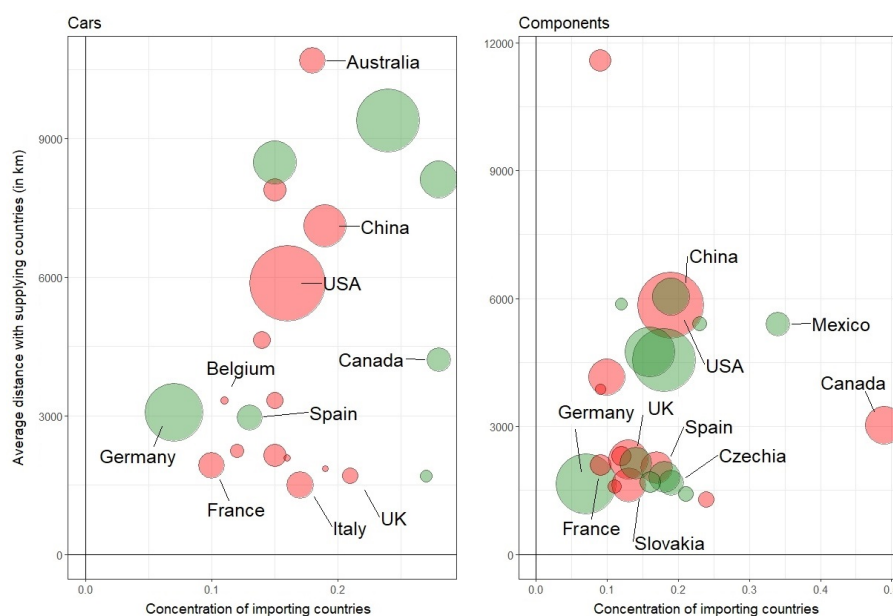


Source: ITC.

The imports of cars and components, on the other hand, as shown in figure 5.6, reveal broadly similar patterns: distances in Europe are shorter than elsewhere and regional integration is very high. Even for Mexico and Canada, which have very high concentration ratios for their exports of cars, the concentration ratio of car imports is substantially lower (which distorts the scales to some degree, when comparing figure 5.5 and 5.6). In Europe, it is evident that most of what the economies import comes from within the continent. Also, in the German case, the average distance with the supplying economies shrinks by almost 25 per cent to 3.073 km compared to the average distance with its export destination economies.

Regarding the imports of components, which are used in domestic production, it is noticeable that, in the case of Europe, the distances rarely exceed the average of 2000 km. Again, the German case is illuminating, with an average distance with its supplying economies of merely 1.648 km. Also, Eastern European economies, such as Slovakia (1.635 km), Czechia (1.687 km), Hungary (1.416 km) or Poland (1.822 km), have very short average distances to their own component supplying economies– and even Asian economies follow this tendency. We thus find what interviewee #26 referred to as “integration at the regional macro level”, is a key feature of the automotive industry.

FIGURE 5.6: Average distance and concentration of supplying economies for cars and components.



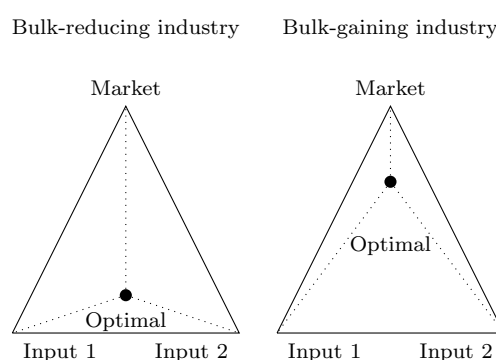
Source: ITC.

### 5.1.3 Drivers of regionalisation

There are various reasons as to why firms regionalise their production and sales, ranging from the specific demands of production and consumption to regulatory and cultural issues. Beginning with the most basic structural feature, Klier and Rubenstein (2015) have outlined that the auto industry is a bulk-gaining industry. This categorisation goes back to industrial location theory as presented by Weber (1929), who argued that “optimal location for a factory is the point that minimises the aggregate costs of bringing in inputs

from suppliers and shipping out final products to consumers” (Klier and Rubenstein, 2015, 104). Following this logic, he classified industries either as bulk-reducing – where the inputs are heavier or more voluminous than the final product, and the optimal location for the factory is one that is far away from the market – or bulk-gaining – where the opposite is the case (i.e. the factory close to market becomes the most rational choice, as the final good is heavier or more voluminous than the inputs). A good example for the former type is the raw materials industry, with mills and mines usually located close to extraction. The refined produce then can be easily stored and shipped cheaply to its final market (ibid.). The automotive industry, on the other hand, is a prime example for the latter, as an assembled vehicle is a lot larger, heavier, and more expensive to transport than the sum of the individual parts used in its production. One interviewee referred precisely to this role of transportation costs, when indicating that “we tend to produce there, where the market is, [so that] we save on transport, on logistics.”<sup>3</sup> (# 03) Especially in markets where the margins are low, due to competitive pressures and price wars, such additional costs can determine if one walks off with a profit at all. Figure 5.7 reproduces these two basic principles for locating the factory, depending on whether the firm operates in a bulk-reducing or bulk-gaining industry.

FIGURE 5.7: Weber’s theory of optimal factory location



Source: Klier and Rubenstein (2015, 104)

While the bulk-gaining nature of automobile production forces producers to locate near market to minimise transportation costs, very practical and political reasons play an important role as well. Due to its supply chain structure and research intensity, the auto industry is often regarded as a *key* industry for economic development, so that

policymakers set high tariff barriers, use local content requirements to promote domestic production, but also provide high subsidies to attract foreign manufacturers (Posth, 2006b). Also, rules of origin (RoO) standards, as set out by the World Trade Organisation (WTO) or various free trade agreements (FTAs) do play an important role in localising production:

Governments are pushing for having automotive assembly facilities in their country because they know that brings Tier 1 and Tier 2 suppliers around it and they are good skilled or semi-skilled jobs that have a much wider footprint than the manufacturing facility itself or the services that go with it. Hence, we've seen some very high barriers to trade, forcing businesses to actually locate facilities there. (#04)

If I look at Ford, for example, which has an engine plant in the United Kingdom, this means if they build a car in Germany and take the engine from the United Kingdom to install it here, then the vehicle is no longer in principle 'made in EU', because the value-added share of the engine is so high that it no longer counts as a European vehicle. This is an extreme example.<sup>4</sup> (#16, in relation to Brexit)

The case of China was an illuminating example for such a development strategy. Prior to 1994, import duties amounted to 150 per cent for small and 220 per cent for large cars (Harwit, 2001). Furthermore, the government required foreign producers not only to transfer technology, but also to source locally and to present a wider strategy that would bring in hard currency reserves through Chinese exports. According to Martin Posth, the first manager of Shanghai Volkswagen (SVW), Volkswagen's promise to produce engines locally and export them to other production facilities within the VW global production network was a key factor for Volkswagen to obtain the license to start producing in China (and not Citroën, which was Volkswagen's principal rival at the final stage of negotiations with the Chinese authorities). Moreover, the joint venture SVW was obliged to reach, within seven years, a local content rate of 80-90 per cent – and the Chinese government repeatedly threatened to withdraw SVW's production license whenever it had the impression that this objective was not pursued with enough determination (Posth, 2006b). Other countries employed similar protectionist policies in the

automotive industry. In Korea, for example, tariff rates stood at 400 per cent, before the Korean government gradually lowered those rates as the domestic industry became more competitive (Flassbeck and Steinhardt, 2018). Yet, even in developed economic zones today, governments protect the automobile industry to keep the production close by, with the European Union, for example, imposing a tariff of 10 per cent on imported cars.

In order to avoid substantial tariff payments, which lower the competitiveness of the foreign producer, firms are thus forced to produce locally to reach either specific content requirements set out by the local government or to meet the minimum value added target, as stipulated by the RoO of the given economic zone. In addition to tariffs and content requirements, however, there are also very specific technical regulations make it difficult to sell one car worldwide. Interviewee #27 referred to “a lot of technical details for which there are specific rules. I don’t know... windcreens or brakes or things like that.” Comparing the regulatory standards with regards to safety in the EU and the US, he went on to outline:

In Europe, I don’t think our safety standards are overall better than the ones they have in America, but they are *different*. We have for example legislation on pedestrian safety, also specific rules on when the car hits a pedestrian, there are requirements [to prevent that]. They don’t have that in America. In America, they have rules for protecting against cars rolling over. So, they put different emphasis on different elements of safety. (...) The same applies to Japan or Korea. (...) You [therefore] produce locally also to local standards. You don’t produce the European standards if you sell in China because you have to meet Chinese requirements. In America, you have to meet American requirements. So, there is no global car. (#27)

Harmonisations via FTAs have sometimes tried to contain the regulatory diversity and set uniform standards, yet the success has been very limited – not least because the wide diversity of bilateral agreements turned the global regulatory trade regime into a “Spaghetti Bowl” (Bhagwati, 1995, 4).

Apart from the regulatory requirements, exchange rate fluctuations play an important role in the structure of global production. As financial liberalisation led to high exchange rate volatility (Flassbeck, 2018), companies use so-called natural hedging – i.e. purchasing in the currencies of the sales markets – as a medium- to long term strategy to reduce their exposure to currency fluctuations, whilst short-term fluctuations are hedged with various derivative instruments and affect rather the profit margin than the price in the local currency. That is, “if the euro appreciates by 10 per cent against the dollar, it will not make the car 10 per cent more expensive in China or 10 per cent more expensive in the US, but the company will lose some of its margin because the pricing is done in the local market”<sup>5</sup> (#15). However, the longer a currency appreciation persists, the more likely it is that the producer will be forced to relocate the production, since the cost incurred in the domestic market, from which the product is exported, will make it impossible to compete. Especially around the time of the appreciation of the US Dollar against the Euro, during the late 2000s, German producers began to expand their production capacities in the United States, as will be shown in chapters 6 and 8.

Finally, there are cultural aspects too, which make it necessary to produce in the local market. Infrastructure and road conditions, for example, determine which kind of vehicles customers will want and need. Posth (2006a) provided one practical example of such a specific adjustment with regards to the horn that was built into the cars in China:

[We had to adjust the technical specifications of the horn]. In contrast to what we were accustomed to in Europe, Chinese car drivers sounded their horns incessantly - if for no reason other than to warn cyclists who blocked the streets and hardly budged to the side despite extensive, and prolonged honking. To avoid the horns in our Santana failing, despite intensive use, we upped the lifecycle considerably to 120.000 actuations. Because this was impossible to achieve, we finally agreed on a cycle of 105.000 actuations. This was part of a comprehensive change program for the product, which the Chinese government expected from us to reflect special local circumstances. To modify the Santana to reflect the peculiarities of the Chinese market, we had incidentally introduced no less than 350 changes, one of which was related to the horn. (p. 169-170)

Thus, as diverse as the reasons are, the outcome is that OEMs are forced to produce and supply the world markets region by region. Since the lead firms usually operate through FDI, one interviewee concluded that “this is what the great globalisation actually is: Foreign Direct Investments”<sup>6</sup> (#18). Yet, given that FDI entails both a global and a regional dimension, it appears more appropriate to employ the term ‘glocalisation’, as adopted from the marketing literature (Ghemawat, 2005). For the development of national economies, this structural feature of the industry described above implies that national economic outcomes, such as employment and production, will be more strongly determined by developments within the region, rather than those of some distant markets – especially when looking beyond short-term fluctuations.

## **5.2 The development of the European automotive industry**

The fact that the auto industry is such a glocalised industry means that analysing the dynamics within and interdependencies between national economies, as it is the objective of this research, should be based on a solid understanding of regional development. This does not mean, of course, that global factors should be entirely disregarded, as they do play an important role. It does mean, however, that the interdependencies between economies will play out much more significantly *within* continental boundaries than beyond. In order to understand the evolution of the French and German auto industry, therefore, one must understand the development within the European Single market.

### **5.2.1 Historical context prior to 1999**

Although the case study analyses the developments in the auto industry from the creation of the single currency onwards, it is useful to briefly provide the historical context of this starting point, as it provides a major contrast to what followed the completion of the Single Market and, even more so, the introduction of the Euro in 1999.



Prior to the deepening of the Single Market in the Single European Act 1986 and the Maastricht Treaty of 1992, the industry was structured by a ‘club’ of the largest European OEMs, while national regulators ensured the maintenance of balance of power between them (Jullien and Smith, 2014). The market was heavily fragmented by technical standards and a cartelisation of automobile distribution (Ramírez Pérez, 2020). The Committee of Common Market Automobile Constructors (CCMC) functioned thereby as key policy player, which facilitated the cooperation between the largest firms and the common ‘management’ of the European automobile market, including its protection against the penetration of foreign firms:

You had something called the Committee of Common Market Automobile Constructors where the auto bosses were in charge. They weren’t lobbyists like today. It was Agnelli for Fiat, and I don’t know who else, who met regularly to decide together how to manage the process of European integration: What standards? What safeguards? How to deal with the Japanese problem? It was something of a lobby, of defending the interests of the manufacturers. The Americans were not represented. Ford, Opel, they were not represented. So, it was really Fiat, Renault, PSA, VW, Mercedes and BMW, and the British. (...) So, before 1992, we had national champions in Europe, very, very strongly linked to their state, which controlled their national markets, which had [only] (...) indirect competition. They were not going to export the models which were sold by the national champions in their own market, but the models, which the national champions did not sell. So, there was indirect competition, which meant that they were not competing on price (...). There was a whole political management of the common market so that the integrated market was a resource for everyone and a threat to no one.<sup>7</sup> (#21)

The idea which prevailed at the level of the constructors as well as at the level of the politicians, was a sort of enterprise, first anti-American, then anti-Japanese, which consisted in trying to defend national champions in Europe to avoid that the construction of the European automobile in the 1950-60s would play out for the benefit foreign investors. (...) It is essentially the Italians and the French who are going to form the basis of what is going to

be the European automobile policy with the CCMC. So, it is Fiat, Renault, a little Peugeot, but above all Fiat and Renault (...), who will try to conceive what is going to be the common market and the automobile policy. And at this moment, the clear will is to avoid overcapacities, but also to ensure that any expansion benefits the national champions, with a sort of balance of power and deals that consists in saying (...) ‘we are going to become European’, but we’re going to do it by preserving a sort of balance between us.<sup>8</sup> (#19)

There was thus a balance of power between the national producers in Europe, who were the dominant force in their respective home market, shielded from foreign competition. The latter was particularly restrained by the activities of the CCMC, which, in the 1970s and 1980s, was preoccupied to block access to the Common Market for Japanese cars (Ramírez Pérez, 2020). Their global market penetration rapidly gathered pace at that time, reaching, in 1981, a market share of 7 per cent in the major European manufacturing countries, and, on average 23 per cent in countries without domestic auto manufactures (*ibid.*). The fact that the Japanese market share was more than three times as large in economies without a national champion illustrates the degree to which the latter managed to protect their home markets. Nonetheless, given that Japanese exports typically introduced “direct price competition, so that it was destructive (...) and had to be quickly neutralised”<sup>9</sup> (#21), the European Economic Community (EEC) and Japan concluded an informal European Voluntary Export Restriction agreement (Ramírez Pérez, 2020). As a response to the protectionist measures, Japanese producers entered the EEC via FDI in the United Kingdom, yet overall production capacities remained limited, so that it did not distort or threaten the balance of power and dominance of European enterprises.

Until 1991, the European market remained very fragmented, and the deepening integration, for example in form of the Single European Act of 1986, did not change this. There were certain policy loopholes that kept the national champions profitable and shielded them from ruinous competition, e.g. via maintaining selective distribution systems, which were exempted from competition policies (Jullien and Smith, 2014). As a corollary, the status quo remained largely unchanged, as the balanced market shares for the major European OEMs in 1990 reflect: Volkswagen had a market share of around 15

per cent, Fiat stood at 14.5 per cent, PSA and Renault at 13 and 10 per cent, respectively, and the German premium manufacturers, BMW and Daimler, both had market shares of around 3 per cent (ibid.). Hence, no individual firm or country dominated the European market: 21 per cent of the market was occupied by the Germans, 23 per cent by the French, and Fiat, the Italian producer, was not far behind. Since the overall market grew healthily – car production in Europe increased between 1980 and 1990 by 27 per cent, from 11.983.548 to 15.231.409 units, and all manufacturers and countries benefited from this growth (CCFA, 2000) – there was no incentive to distort this virtuous equilibrium for any of the players involved.

From 1991 on, this balanced equilibrium in the European industry began to change, albeit only gradually. It was, in one part at least, the general intellectual hegemony of ‘end of history’ thinking, which favoured free market capitalism and trade liberalisation. Yet, on the other hand, it was also the configuration of the automobile industry in the context of a potential EU enlargement, which was conducive to the German position of opening up the CCMC to non-European manufacturers:

From the 90s on, symbolically, it was the transition from the CCMC to the Association of European Automobile Manufacturers, the famous ACEA (...)  
At that time, it was thought that there was no longer any legitimacy to preserve the interests of the national champions. We can treat them indifferently. Obviously, this is quite understandable since we have gone beyond the Europe of six – with Belgium, the Netherlands, and Luxembourg, which didn’t say much, and then Germany, France and Italy, so only countries with manufacturers. From when you open up Europe towards others, such as the United Kingdom, for example, which no longer wants national champions because Thatcher has decided to kill the trade unions etc., you have a different configuration. And obviously, when Spain enters, they don’t have a national champion either, so they will adhere to this vision because it allows them to attract FDI and to develop their economy this way. And then, opening up to the countries of Central and Eastern Europe, they will be very favourable to this policy of opening up to everyone too, with ‘Welcome Hyundai’, ‘Welcome Nissan’, etc. because it allows them to benefit from this culture.<sup>10</sup> (#19)

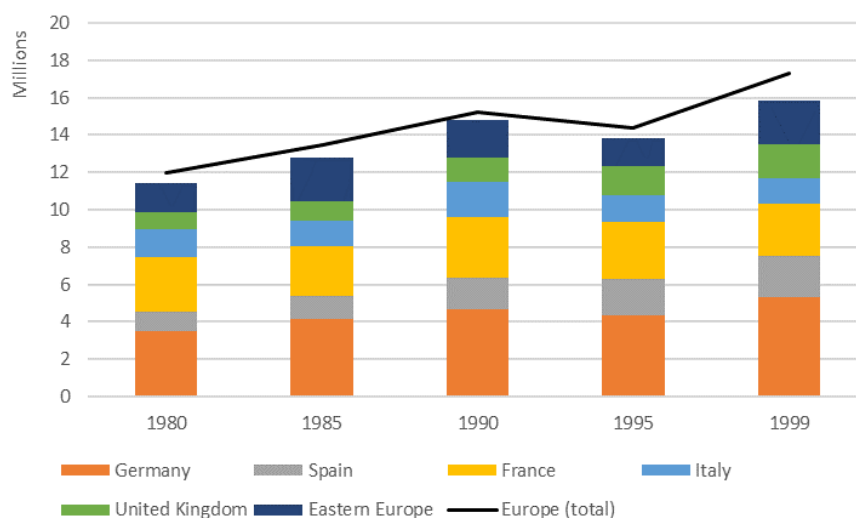
Hence, the intellectual momentum and the new constellation within the EU introduced a new dynamic into the market. In 1991, the European Commission then decided to open the market to Japanese manufacturers, which initiated the above breaking up of the CCMC and the transition to the ACEA:

In 1991, the European Commission negotiated a transition quota to last until 1999, because we greatly feared the Japanese. We told them it will only be possible to go up to [a market share of] 16 per cent of the European market, no more than that. This means that, even though we created the Single Market, until 1999, these quotas would maintain a kind of political compromise between the manufacturers to say: ‘we do not compete against each other’. (...) The CCMC ceased to exist in 1991 around the negotiations with the Japanese, since Calvet, who was the president of the PSA at the time, did not want any concessions regarding the Japanese. He was obsessed by it. And he felt betrayed by [those] who accepted the 16 percent quota. So, he slams the door of the CCMC, which was the end of the committee. Instead, the ACEA was created, which is open to all: ACEA is open to the Americans, then to the Japanese. Everyone is represented there.<sup>11</sup> (#21)

During this period of transition, the rifts between the manufacturers became increasingly pronounced – which occurred in the context of declining growth in the market. Compared to the 27 per cent growth between 1980 and 1990, European production grew only half as much (13.5 per cent) from 1990 to 1999 (i.e. around 1.4 per cent per year). Especially in the early 1990s, in the aftermath of the German unification and interest rate shock, and the resulting European Exchange Rate Mechanism (ERM) crisis, the auto industry contracted significantly (cf. figure 5.8).

What used to be an industry governed by compromise and consensus between the respective national champions showed increasingly signs of what Jullien and Smith (2014) refer to as ‘schizophrenia’: on the one hand, the main actors all tried to present themselves in favour of unification and convergence, yet on the other, they always managed in practice “strong heterogeneity in market and industrial structures.” (p. 65). The common ground and vision, which was the basis of industrial development and automotive policy in Europe, diminished during this transition period. As long as the balance of

FIGURE 5.8: Pre-1999 production in Europe.



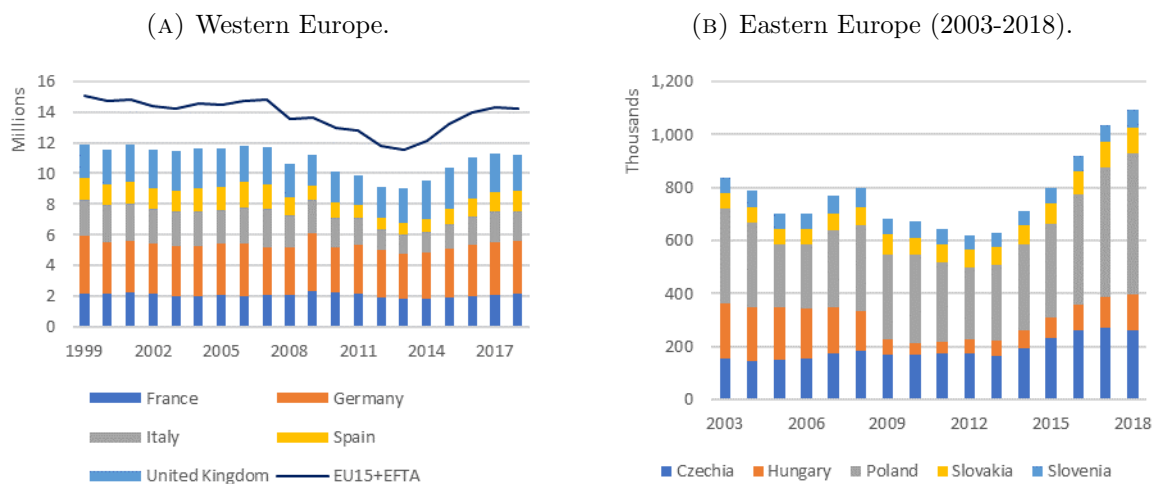
Source: CCFA.

power within the Italy-France-Germany triangle was maintained, this schizophrenia was still acceptable (*ibid.*). However, from 1999 on, with the introduction of the Single Currency and the deepening of the Single Market, the structures within the industry changed fundamentally.

### 5.2.2 The European auto industry during the Euro-era

While the 1990s were a period of the slowdown of growth, the 2000s turned into an outright stagnation. This is the first key tendency at the European level in relation to the research questions. Figure 5.9 shows the new passenger car registrations for some selected advanced European economies (EU-15) and the new member states. The first years of the currency union brought about a decline of new car registrations from over 15 million in 1999 to just over 14.5 million cars in 2005. Especially the German market suffered due to weak demand and high unemployment, both a direct outcome of the widespread wage repression that the red-green government under Gerhard Schröder initiated (Flassbeck and Bibow, 2018). Already in early 2005, this was also the reason put forward by the Association of the German Automobile Industry (VDA), attributing “the sixth consecutive year of stagnation to high unemployment, which now stands at around 5.2

FIGURE 5.9: Passenger car registrations in Europe.



Source: ACEA.

million job seekers, and consumer uncertainty.” (Handelsblatt, 2005)<sup>12</sup> Overall, between 1999 and 2005, the German market contracted from 3.802.176 to 3.319.259 new passenger car registrations, while the market in the rest of Europe stagnated. The global financial crisis and, even more so, the European sovereign debt crisis, led to a further contraction, so that overall new registrations in the EU-15 + EFTA reached a low point in 2013 at around 11.5 million. Compared to the 15 million units in 1999, this implies a decline of 23 per cent. Since 2013, new passenger car registrations have rebounded, reaching 14 million units in 2018. Regarding the new members states of Eastern Europe, we find that those markets – though starting from a very low basis – were not spared from the stagnating tendencies. This was, however, largely due to the liberalisation of second-hand car imports from Western Europe (of which more than 50 per cent were imports from Germany), which took off with Eastern Europe’s accession to the EU and flooded the local market (Pardi, 2015).

In addition to the overall stagnation, there are two additional tendencies that are central to characterise the development of the European auto industry over the past two decades, and therefore central to answering the first sub-question of the research questions laid out in chapter 2: one is the change in the market structure, both in relation to changes in the market shares of European OEMs as well as car segments. The other big trend is the shift of production towards the East (Klier and Rubenstein, 2015). The underlying

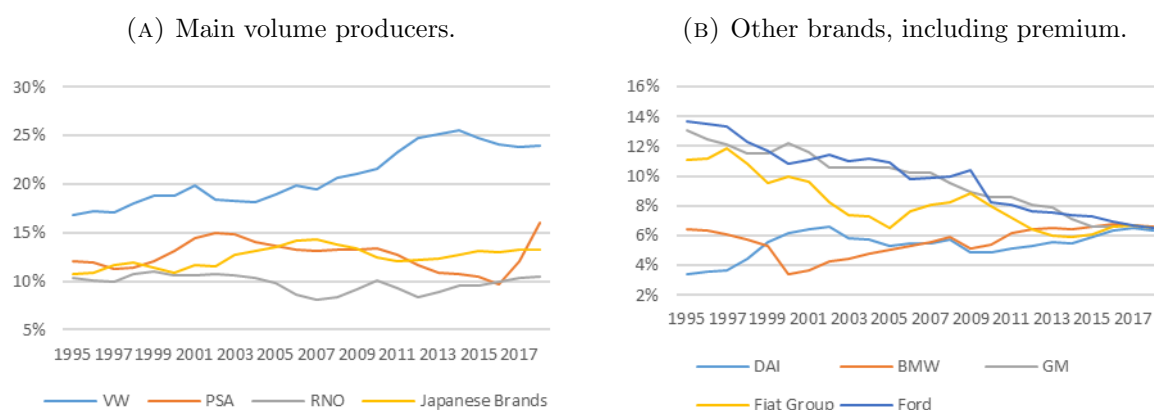
reasons for and implications of both trends will be discussed in much greater detail in the following chapters. At this stage, it is merely important to understand the scale and scope of these developments, in order to better contextualise the more detailed analysis that follows.

Starting with the market shares of the major European OEMs, figure 5.10 shows that the most significant growth in Europe came from the Volkswagen Group (VOW). It is relevant to note that, from 1999 on, this growth was organic, as most major acquisitions have been completed by then: SEAT became part of VOW in 1986, Skoda in 1994, and Bentley, Lamborghini and Bugatti in 1998 (Grieger et al., 2008). In 2012, VOW acquired Porsche, which did not have much of an impact on its unit sales, while other acquisitions, including Scania (2008), as well as Ducati and MAN (2012), did not affect the sales of cars, as the takeover of these businesses was part of a wider diversification into new business lines (trucks and motorcycles). In this context, it is remarkable how the company, after some difficulties in the early 2000s, managed to penetrate the European market from around 2004 on – up to the point that one in four new vehicles sold in Europe was coming from VOW. Even the Dieselgate scandal of 2015, which exposed widespread manipulations of emission indicators, did not lead to a dramatic fall of VOW's market share (considering the scale of the scandal). The other two German brands, Daimler (DAI) and BMW equally managed to increase their market share substantially. The figure for DAI is slightly distorted, given that it merged with Chrysler in 1998, which lasted until 2007. Taking this into account, the core of DAI (Mercedes Benz and smart) managed to more than double its market share between 1995 and 2018. BMW, after selling the Rover brand in 2000, also expanded significantly and has, similar to DAI, a market share of just over 6 per cent.

The French producers, on the other hand, managed to resist their decline until 2003/2004. From the mid-2000s on, both Peugeot-Citroën (PSA) and Renault (RNO) were losing ground. They just managed to regain some of their lost territory after the European debt crisis – where both firms introduced sweeping cost cuts, as we will see in the next chapters. RNO grew largely organically via its Dacia brand, which produces in Romania, while PSA increased its market share from 2015 on inorganically, through the acquisition of Vauxhall and Opel from General Motors (GM). The story of Fiat is one of continuous decline, as it is the case for Ford and GM. The Japanese brands, on the other

hand, which were so greatly feared in the 1970s and 1980s, have largely maintained their market shares. The data below, including the combined shares of Toyota, Hyundai-Kia, and Nissan, shows moderate growth from just below 11 per cent in 2000 to just above 13 per cent in 2018.

FIGURE 5.10: Market share development in Europe (1995-2018).



Source: CCFA.

As we have seen how important the home markets of the major European producers were, it is useful to further break down above aggregates to look at some of the core European countries. Below, figure 5.11 provides the distribution of market shares in the four largest economies in Europe from 2000 to 2016. It is immediately evident that national brands still dominate their domestic markets, yet some of the above European wide trends are equally reflected. The industry leader, VOW, has most significantly increased its market share in Germany, from under 30 per cent in 2000 to almost 38 per cent in 2016. In 2018, it still stood at 36.3 per cent, so that the Dieseltgate fallout was limited. The French and Italian producers saw their low market shares further marginalised. In 2000, PSA, RNO and Fiat had a market share of 4.5, 5.9, and 3.8 per cent, respectively, which declined to 3.3, 5.2, and 3 per cent in 2016. In the United Kingdom, the picture is similar, albeit more pronounced: Between 2000 and 2016, VOW increased its market share from 11.2 to 19.6 per cent (and 21.1 per cent in 2018), while PSA's market share almost halved – from 12.3 to 6.6 per cent – and RNO's declined from 7.3 to 4.1 per cent.



In France, PSA and RNO, had more moderate losses during this period: from 30.9 to 27.7 per cent and 28.2 to 25.7 per cent, respectively. VOW managed to increase its market share from 11.2 to 12.8 per cent, while DAI and BMW gained more substantially (from 1.5 to 4.3 per cent in the case of BMW). The Japanese brands roughly doubled their market share, from 5.2 to 9.9 per cent. Finally, in Italy, it was the German and the French brands that increased their market shares, while Fiat lost significant grounds at home.

FIGURE 5.11: Market share development in selected European economies.

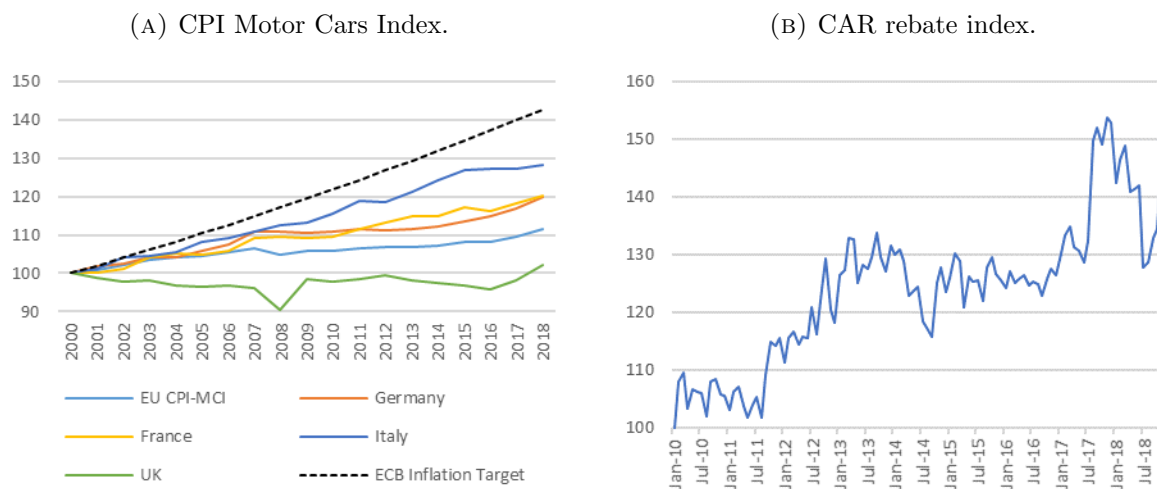


Source: CCFA.

In a stagnating market, it is important to note that one player's gains in sales are inevitably another one's loss. Growth for all firms is only possible in a market that is overall growing – otherwise, competition and the fight for market shares will intensify, as we expect based on the theory of the firm presented in chapter 3. As a corollary of the stagnation and the extant desire of firms to grow, the European market has been

subject to a ruinous price war, in which all actors were involved, whilst accusing each other of being its principal culprit. Chapter 6 and 8 will look at this subject in more detail. What we can state here for now is that the price war and the intense competition (in the context of stagnant wages and demand) led to high deflationary tendencies, as the Bloomberg data for CPI Motor Cars Indexes show (cf. figure 5.12). In the EU, the price increases for cars averaged at just above 10 per cent over the entire period between 2000 and 2018. The auto industry was thus far off meeting the inflation target – and all that despite a much higher degree of sophistication and technical equipment in the product itself. We can additionally conclude from figure 5.12 that, notwithstanding some stronger price increases over the past 10 years (compared to the period of 2000-2010), the price war in terms of discounts intensified. The right graph shows the CAR rebate index on the intensity of discounts in the German market, which is emblematic for the price wars in other European economies. The CAR institute began to compile this index in 2010 to provide an indication of the extent to which the actual pricing of cars diverged from list prices – an industry practice that was as ubiquitous as evident throughout the whole period of stagnation, but for which very little data existed. Since 2010, where rebates and discounts were already at high levels, we find, according to this data, a continuation of the price war in the context of the Eurozone crisis. Towards the end of 2013, it appeared for a couple of months that a recovery may be underway. However, the discounts remained on elevated levels and, in the aftermath of Dieselgate, escalated to new heights in 2016 and 2017. Already in 2008, an auto analyst argued that “list prices [are] actually no more than numbers on paper” (Handelsblatt, 2008)<sup>13</sup> – from 2010 on, this became even more so the new norm.

FIGURE 5.12: Price developments in Europe.



Source: Bloomberg; CAR Institute.

The second aspect of changes in the market structure relates to changes in the market shares for different car segments. The European Commission defines the segment of a given car based on its size (EAFO, 2019). Table 5.1 provides an overview of the classification.

TABLE 5.1: Passenger car classification as defined by the European Commission

Car Segment	Example
A	City cars, e.g. Fiat 500, Opel Adam
B	Small cars, e.g. Renault Clio, Ford Fiesta
C	Medium cars, e.g. Volkswagen Golf, Honda Civic
D	Large cars, e.g. BMW 3-Series, Volkswagen Passat
E	Executive cars, e.g. Audi A6, Mercedes CLS
F	Luxury cars, e.g. Mercedes S-Class, BMW 7-Series
S	Sport coupés, e.g. Porsche 911, Peugeot RCZ
J	Sport Utility Vehicles (SUV), e.g. VW Tiguan, Mitsubishi Outlander
M	Multi-Purpose Vehicles (MPV), e.g. Renault Scénic, Ford S-Max

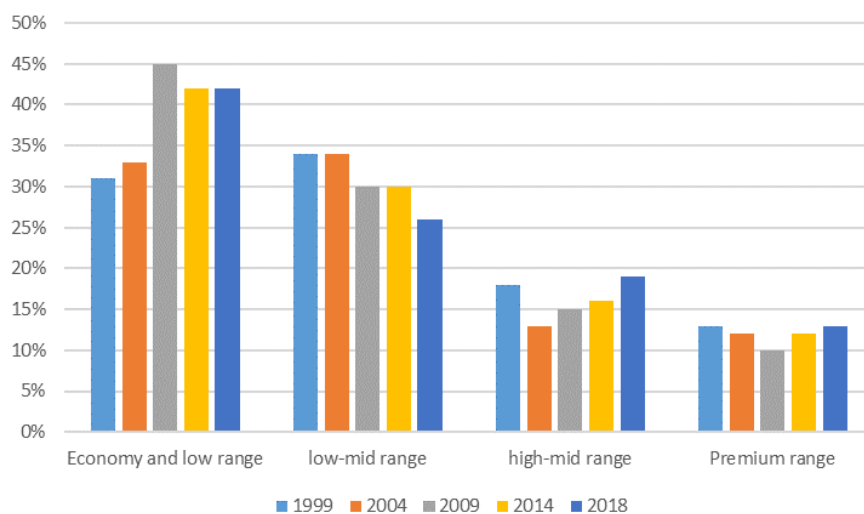
The Comité des Constructeurs Français d'Automobiles (CCFA) uses a more simplified method of classification in its data by segregating different types of cars into four ranges (cf. table 5.2, following the models and brands of this case study). This makes it easier to distil the main tendencies in the automotive sector, as it reduces some unnecessary complexity.

TABLE 5.2: Passenger car classification by the CCFA

	Economy and low range	Low-mid range	High-mid range	Premium range
VOW	Lupo, Polo	Golf, Touran	Passat, A4	Phaeton, A6-8
DAI	Citan	A, B-Class	GLA	C, E, S, SLK-Class
BMW	Mini	Series 1-2	X1	Series 3-7
PSA	C1-3, 107, 206	308, 3006	407, 508	
RNO	Twingo, Clio, Logan	Mégane	Laguna	Espace

Figure 5.13 provides the development of the different ranges over the course of the period of this research for the EU-15. The main tendency we find is what interviewee #22 called the 'market dichotomy' between "the premium and the entry-level segment"<sup>14</sup>, with the mid-range segments losing out. The empirical data show nicely that this shift from the low-mid range, which was, until 2004, the largest segment in the EU-15 market (close to 35 per cent market share), to the high-mid and premium range, on the one hand, and to the economy and low range, on the other, has substantially changed the landscape: Economy to low range cars now make up more than 40 per cent, while the share of high-mid range cars increased to close to 20 per cent (the highest, premium range remained roughly constant, with a dip after the crisis in 2009).

FIGURE 5.13: Market shares in Europe by car segment.



Source: CCFA.

For Europe at large, the reasons for this development lie, in part, in the rise of income inequalities and social precarity of what used to be the European middle class, as well as new modes of sales, which are further discussed in chapter 6 and 8:

I think this is very much linked to a distribution of income in Europe that has exploded inequalities and made social differentiation much more accentuated. And indeed, for an executive in France, for an executive in the City of London (...), an Audi TT or a BMW, even a series one, it is not the same as having a Mégane or an Opel Astra. So, it was both the objective circumstances regarding income inequality and the subjective conditions regarding the differentiation of lifestyles (...), aesthetics, etc. (...) There is indeed a real difference between the premium and the rest, a real difference which has been brought about by the market and by the forms of social and economic organisation, but which are nevertheless quite characteristic of all these phenomena of deregulation, financialisation etc.<sup>15</sup> (#19)

When breaking down the market share to individual economies, here again focusing on the major economies, as in figure 5.11, these basic tendencies apply across the board (cf. figure 5.14). In Germany and in the United Kingdom, the share of higher range vehicles is higher than in France and in Italy, yet the market polarisation – with an overall much larger share of lower to mid-size vehicles – is present in all cases.

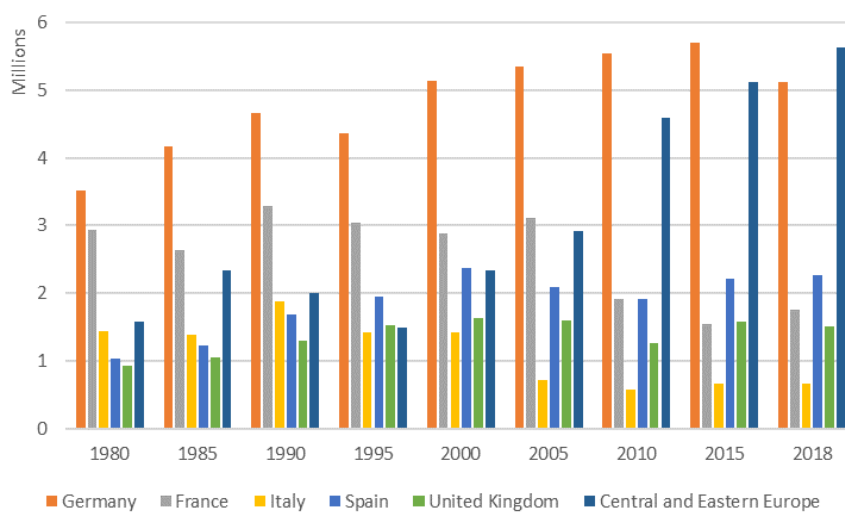
FIGURE 5.14: Car segment market shares in selected European economies.



Source: CCFA.

Alongside the changes in market structure, the other major development in Europe was a shift of production to Eastern European countries. Figure 5.15 shows the long-term development of production in major European economies from 1980 on, which shows the impressive growth of Central and Eastern Europe – up to the point at which production even surpassed that in Germany, which has experienced a decline since 2016.

FIGURE 5.15: European unit production of cars (1980-2018).

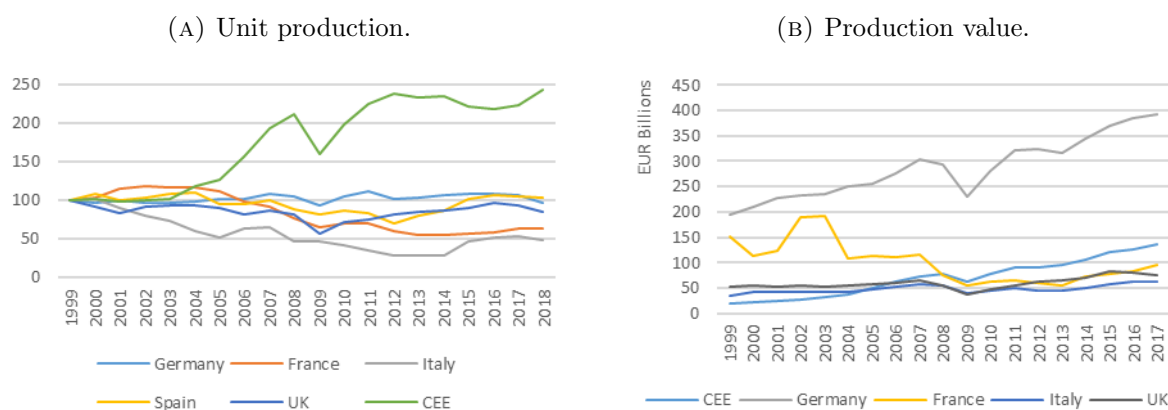


Source: CCFA.

The reasons for this shift in production to Central and Eastern Europe were, initially, related to tapping into new markets, and, later, to merely exploit the cheap labour, good industrial base, and solid infrastructure to re-import cars to Western European markets:

Originally, the opening to the East was done by buying up producers who were formerly Soviet firms, such as Skoda, for example. (...) Originally, one buys the factory, as Renault bought Dacia, and produces vehicles of this brand with German or French technology. It was a modernisation. The stated objective of these operations, which took place during the 1990s and 2000s, was to capture the markets of Eastern Europe. So, it wasn't outsourcing, it was simply tapping into this market – and to meet the increase in demand in Central and Eastern Europe, one produces locally. We're going to produce in Poland, Hungary etc. for the new middle classes there, except that this middle class never emerged. There has never been an increase in per capita income in these countries which would have allowed for the emergence of a middle class like in Western Europe. As a result, the manufacturers found themselves repatriating, reimporting all the cars they produced in the East.<sup>16</sup> (#07)

FIGURE 5.16: European production by units (1999 = 100) and by value.



Source: CCFA, Eurostat.

Scaling in on the period of analysis, i.e. 1999 to 2018, the extent of the growth under the Euro, and – in particular – after the Eastern EU enlargement in 2004, illustrates the striking divergences in European car production. While Germany largely managed to hold its 5 million units benchmark, and Spain rebounded after 2012 (after production has declined by 30 per cent compared to 1999), production in France, Italy, and the UK is now below its 1999 level. The decline was especially pronounced in France and Italy, where only 63 and 48 per cent of the volumes of 1999, respectively, were being produced in 2018. In terms of the value of production (cf. figure 5.16), we find that Germany and France had both a broadly similar trajectory in the early 2000s, apart from a brief dip on the French side. From the mid-2000s on, however, the trajectories diverge: Germany continues to increase its production value – at constant units, which implies an increase in the value of each car produced – while, in France, both the units of production and its overall value declined. Before analysing the role of the lead OEMs in these trends, the final part of this chapter provides an overview of how the development of the industry affected economic indicators in the national economies of where the selected TNCs are nested in.



### 5.2.3 The automobile industry in Germany and France

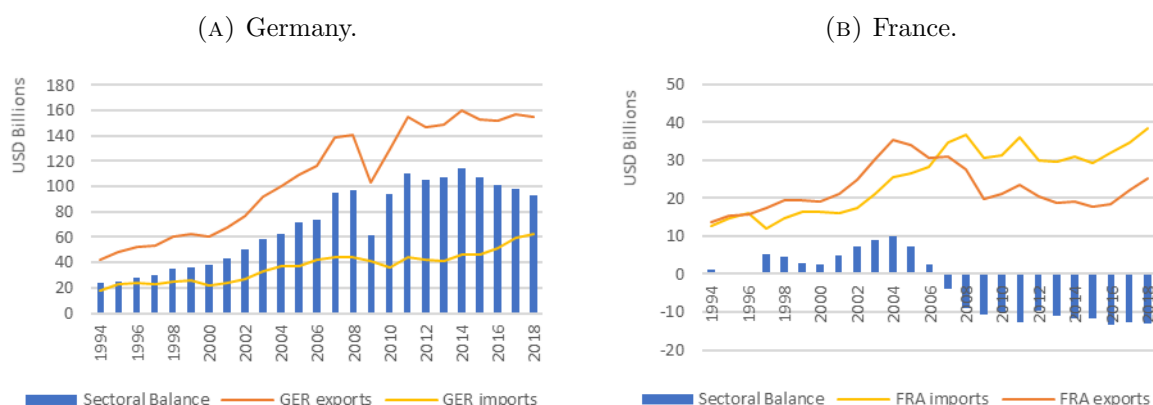
As above data show, the German economy resisted the decline in production much more successfully than the French economy. The specific reasons for this, from the perspective of TNCs, will be elaborated in due course of this research. For now, in order to get a picture regarding the impact of the automotive industry in France and Germany, which is essential for making the link between the microcosm of the firm and the wider macroeconomy, this chapter finishes by providing an overview of the developments of the industry in both countries. The following part, however, specifically addresses the level 2 of the three-level model - i.e., the national economies -, to generate insights that help to answer sub-question 1 of the research questions.

#### Trade

The first association with the German economy, both in the public discourse and in the academic literature, is its export orientation, so that it is practical to start with an overview of sectoral trade flows (with the limitations in mind, which an individual sectoral analysis entail). Figure 5.17 shows the sectoral trade balances in the automotive industry in both Germany and France from 1994 on. We see that both economies had surpluses throughout the late 1990s (although Germany's was a lot more substantive), and that surpluses increased in both countries with the onset of the monetary union in 1999. From the mid-2000s on, they continued to increase in Germany, whereas in France, exports tumbled and left the sectoral balance negative from 2007 on.

Comparing the export destinations in US Dollar value, we see, in line with what the political economy literature emphasised, that the German economy exported a lot more towards the United States, China, and the United Kingdom than the French economy did (cf. figure 5.18). Regarding the US and China, it appears almost as though France is not present on these markets (at least not with domestic production, which is exported overseas). Also, within Europe, French exports did not manage to penetrate foreign markets. Comparing the level of exports to Italy, Germany, Spain, and the United Kingdom in 2004, hence at the peak of total French automotive exports, with the level in 2018, we find that the volume of French exports collapsed substantively and barely recovered beyond what it was in 1999. In Germany, on the other hand, the three non-Eurozone

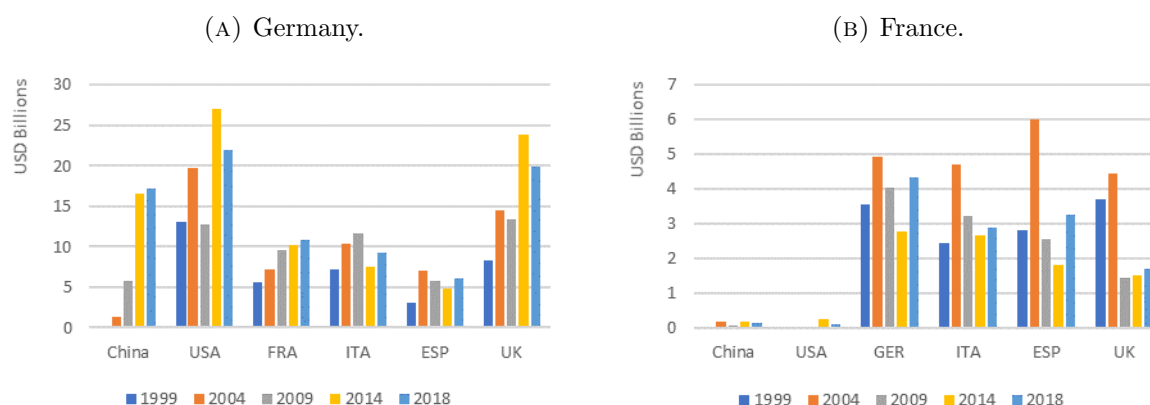
FIGURE 5.17: Sectoral balances in Germany and France.



Source: Comtrade.

economies of China, the US, and the UK became major destinations for exporting. Yet, putting German exports in context of the regionalisation vs. globalisation debate above, it is important to note that the four major European trading partners alone make up about 30 per cent of total automotive exports in US Dollar value, vis-à-vis around 25 per cent of China and the US, despite a vastly smaller market size. Moreover, if we take unit volumes into account, the VDA (2021) data suggests an even more significant importance of the European market for German exports. In 2018, out of 4 million exported cars, around 2.5 million had other European economies as their final destination (domestic production in Germany stood at 5.1 million units). As 1.1 million of domestically produced cars were sold in Germany, this means that in total 3.6 out of 5.1 million units (i.e. 71 per cent) produced within the country never left the European continent. Exports to China and the US, on the other hand, accounted for 290.000 and 470.000 units, respectively. In other words, the comparatively high importance of the US and China, should not obfuscate the fact that the German economy relied, to a very large extent, still on European trade flows to maintain its level of exports and production at home. In Europe, German exports to all major markets increased, contrary to the rather disappointing tendency of French exports (note the differences in scales between the left and right graph of figure 5.18).

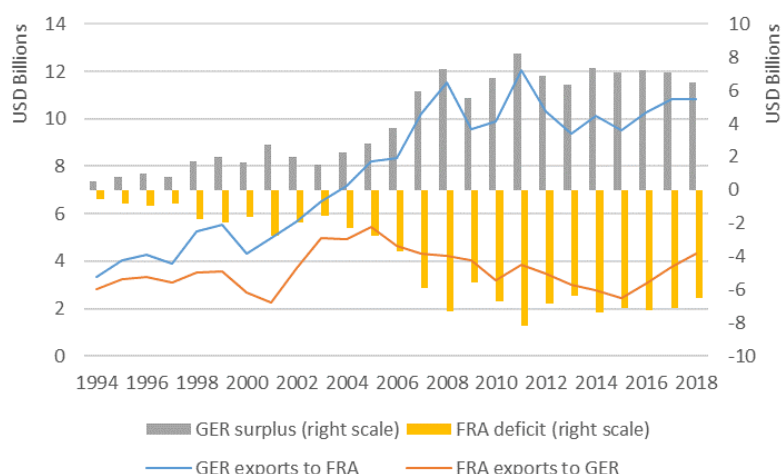
FIGURE 5.18: German and French car export destinations by value.



Source: Comtrade.

Since the objective of this research is inter alia to discern the interdependencies between economies, it is useful to look at the bilateral flows and impact on trade balance in this sector. Figure 5.19 presents the evolution of bilateral flows, and indeed, although a substantial part of the deficit in the French trade balance comes from the outsourcing of production to Eastern Europe, Spain and North African countries, as we will see in the course of this research, the bilateral deficit with Germany is certainly non-negligible.

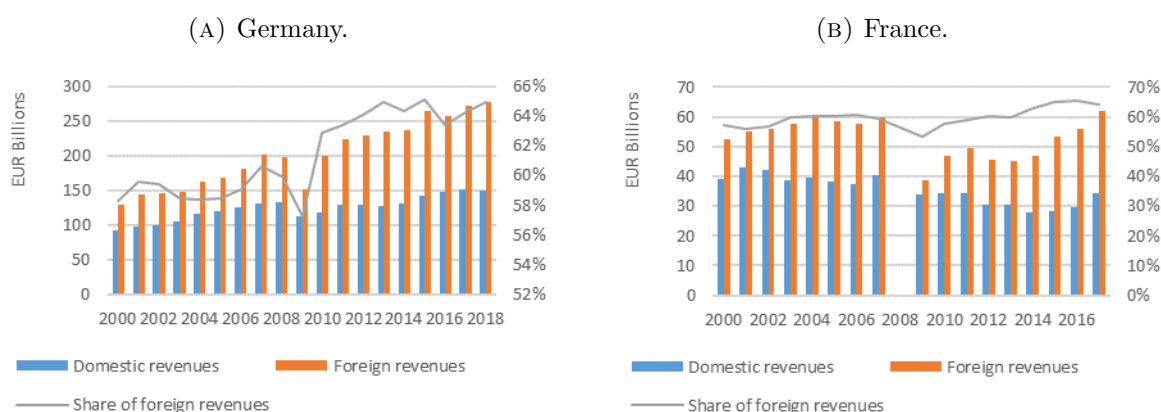
FIGURE 5.19: Bilateral imbalances in the trade of cars.



Source: Comtrade.

The differences in export orientation also come through when analysing the revenue streams from domestic and foreign economies. The data in figure 5.20 differentiate from those in figure 5.18 in that they indicate the revenues for the entire automotive industry (parts and components), rather than merely cars (HS 8703). We find here that both countries are essentially dependent on foreign revenues, with a foreign share of revenues of about two thirds for either. The crucial difference between Germany and France is, of course, that the former managed to largely increase its revenue streams, which was not the case in the latter.

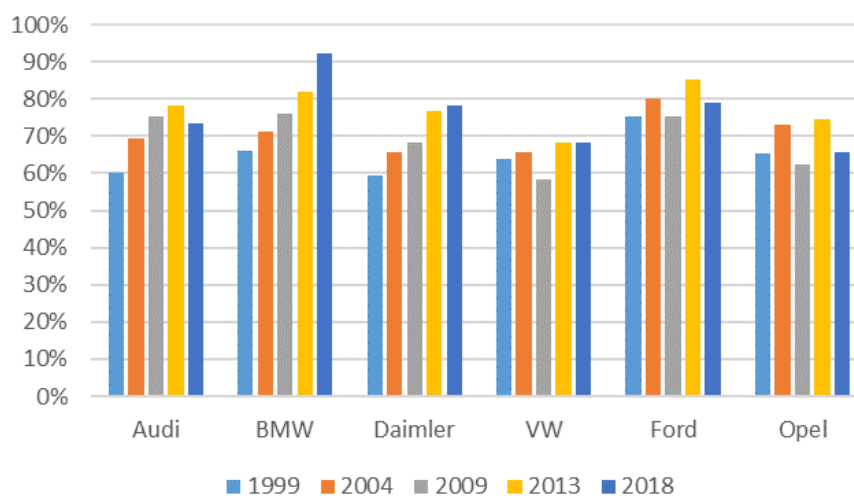
FIGURE 5.20: Revenues in German and French automotive industry.



Source: Statistisches Bundesamt, CCFEA.

For Germany, there are data available for the individual producers and models too, which are provided in figure 5.21. It is important to consider that the data here refer to unit figures, not revenues. Revenue ratios based on geographic regions for the French and German TNCs of this analysis are provided in the next chapter. What figure 5.21 shows, however, is that especially the German luxury manufacturers have incredibly high export ratios. In the case of BMW, for example, more than 90 per cent of its cars went abroad. Yet, also the volume manufacturers have high export ratios (with close to 70 per cent for VOW, for instance), and largely managed to increase them – with the exception of during the global financial crisis (GFC), where most manufacturers benefited from domestic demand and scrapping schemes.

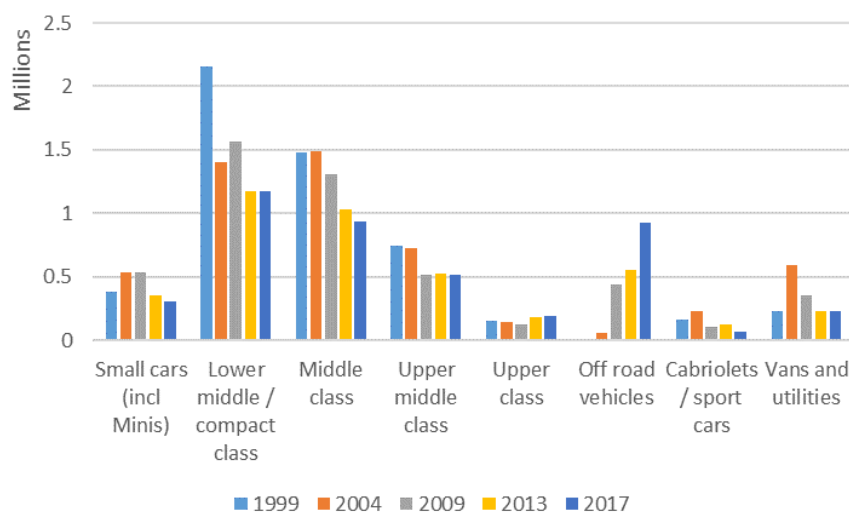
FIGURE 5.21: Export shares of TNCs producing in Germany.



Source: VDA.

With regards to specific models that are exported, figure 5.22 shows that most exports are in the compact (e.g. VW Golf, Mercedes A class) and middle class (e.g. VW Passat, BMW 3er series, Audi A4). Also, luxury vehicles – here classified as ‘upper middle class’ (e.g. Mercedes S Class, BMW 7er series or Audi A8) – have a solid export volume of around 500.000 units per year, even though the overall unit number is lower compared to the early 2000s. Notwithstanding widely popular references to the specialisation of German firms in the export of high-end models, the data show that upper middle class and upper class vehicles account for merely for 15 per cent of German exports. Considering the revenues and margins that these models generate, this is clearly substantial - yet there is hardly any doubt that such volumes would be sufficient to maintain high employment rates in the German economy. For French exports, such detailed figures are unfortunately not available. Yet, in terms of general tendencies, we would find a stronger concentration in the compact class than in Germany, and, from very recently on, an increase in exported SUVs.

FIGURE 5.22: German car exports by segment.



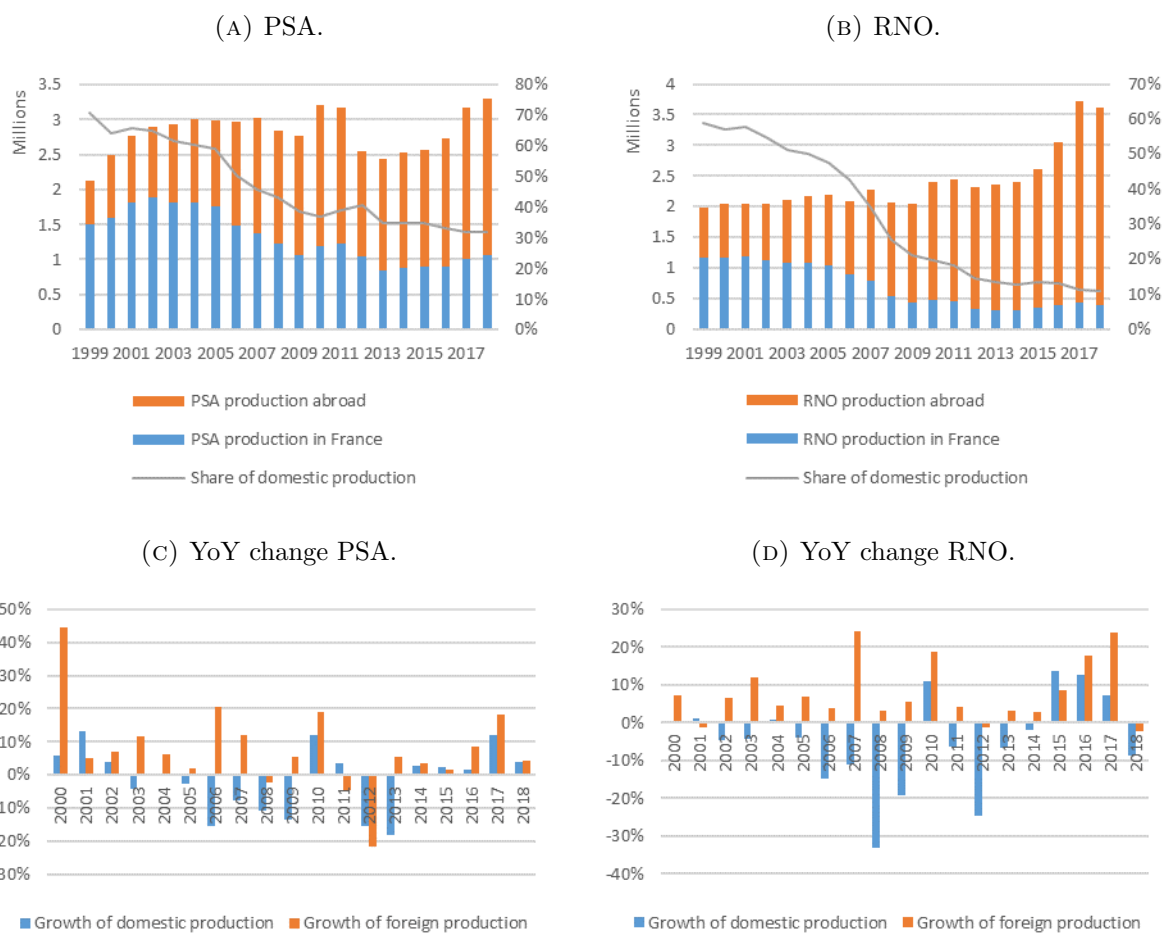
Source: VDA.

## Production and employment

Above trade flows will be, to some extent at least, reflected in the data on production. First, when breaking down the decline of production in France, as shown in figure 5.15, we find that a large share of it comes down to the production of PSA and RNO (cf. figure 5.23). Both French TNCs have massively scaled down their domestic production, while ramping up facilities abroad. The case of RNO is more extreme than PSA, where the share of domestic production has declined to just above 10 per cent, with around 386.000 units produced on French soil. In the case of PSA, the decline was less drastic, as it still produces around one in three case at home with a total unit production of more than 1 million. What is visible in both cases, however, is that the decline in domestic unit production substantially accelerated from the mid-2000s on – and even more so during the years of the global financial and the Eurozone crises. Another interesting parallel, further analysed in the following chapters, is that as long as PSA and RNO managed to hold or even increase their market shares in Europe (cf. figure 5.10), unit production in France remained relative constant. In other words, during that time, in which overall French automotive exports grew, the increase in production abroad did not come at the expense of domestic production, but only as additional growth. To hold some of the exodus of French firms after the GFC, the French government launched an industrial

strategy to boost the French production of electric and hybrid vehicles during both crises (Duscha, 2010; Ki, 2020), yet due to a range of factors, further elaborated in chapter 6 and 8, the production of electric vehicles did not take off.

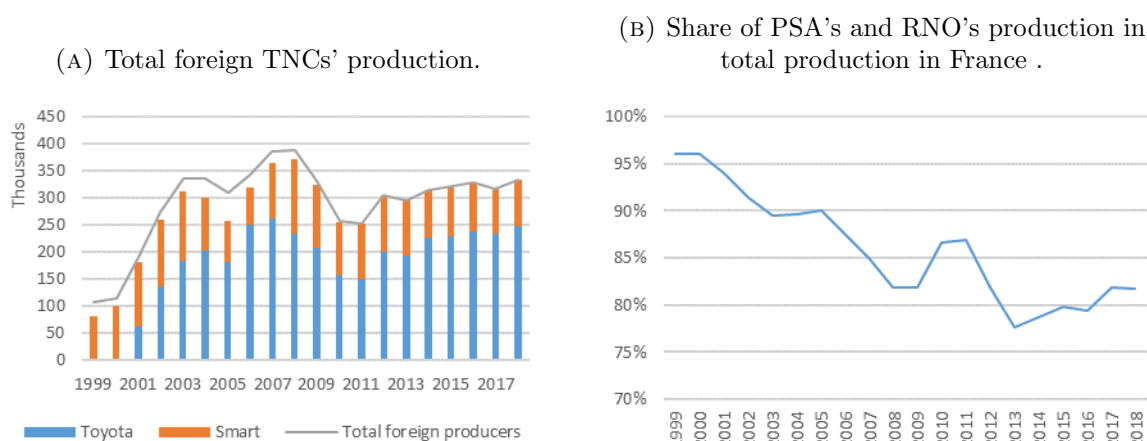
FIGURE 5.23: PSA and Renault's production.



Source: CCFA.

In addition to PSA and RNO, there are and were a few foreign producers in France, which one must take into account to control for potential distortions. The foreign brands producing in France are smart (Daimler-owned), Toyota (from 2001 on), and, until 2010, Italy-based Fiat (incl. Lancia). We see, however, that while their share in French production is not negligible, PSA and RNO still account for more than 80 per cent of French production – and given that unit production has remained fairly constant after a strong increase in early 2000s, the overall decline of the industry in France is thus largely due to the two French TNCs (cf. figure 5.24).

FIGURE 5.24: Foreign TNCs' production footprint in France.

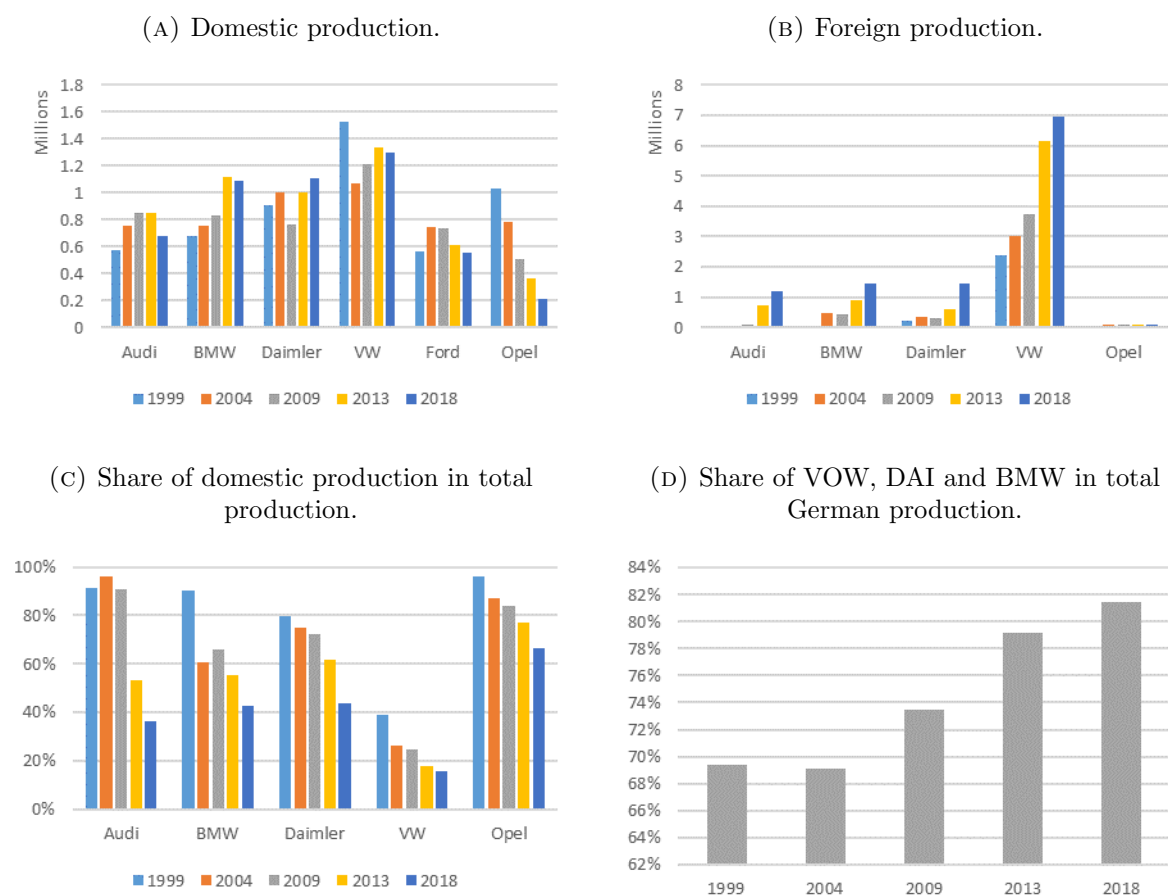


Source: CCFA.

Germany provides a different picture. The producers with manufacturing capacities in the country comprise Volkswagen (VOW, incl. Audi), Daimler (DAI), BMW, as well as US-based Ford and Opel (owned by PSA since 2017). Due to the larger variety of firms, figure 5.25 only shows the values in 5-year intervals. The data was cleansed to exclude the figures for Chrysler (DAI) and Rover (BMW). It is noticeable that, as the French TNCs, German firms have substantially increased their production abroad, up to the point that, in 2018, each German firm produced more units abroad than at home – regardless of whether we look at the premium brands (Audi, DAI, and BMW) or the volume producer VOW. Yet, no other firm was as active in its internationalisation as VOW, where, compared to the domestic production, around six times as many cars are produced abroad. Audi too produces nearly twice as much on foreign soil as it does at home.



FIGURE 5.25: German manufacturers' production.

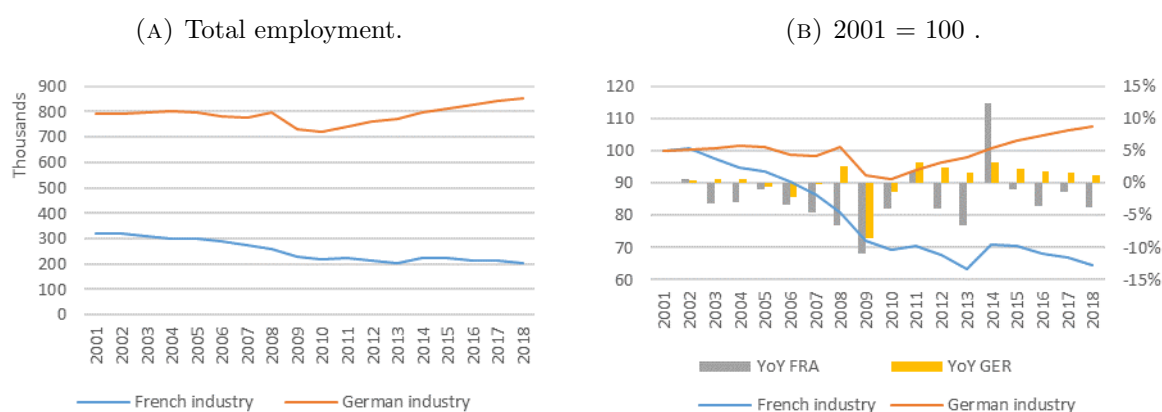


Source: VDA.

In contrast to their French counterparts, however, there was no general decline in domestic unit production in Germany – except for Opel, which was a story of a continuous entrepreneurial downfall. Instead, DAI and BMW increased their domestic production over time, VOW did so from the early 2000s on, and even Ford's production in Germany shows merely an inverted U-shape, with a closing level of 554.082 units in 2018 – hence, slightly less than the 562.179 units produced in 1999. Finally, similar to France, the production of formally Germany-based TNCs (VOW, DAI, and BMW) account for around 80 per cent of the total production in the economy (whereby the increasing share is largely due to the decline of Opel's production). This justifies in either case to look at 'French' and 'German' TNCs only in order to make conclusions about the developments in their national economies at large.

Thus, in summary, above data show that the declining share of domestic production applies to both French and German TNCs. Yet, in the case of France, the increase in foreign production came *at the expense* of the domestic one, which was not the case in Germany. The employment data equally reflects this tendency. Figure 5.26 illustrates the evolution of employment in the auto industry in Germany and in France. We see that while employment in the auto industry in France was decreasing from the early 2000s on, the decline accelerated from the mid-2000s and peaked during the GFC. In the context of the Eurozone crisis, there was a further significant decrease, despite an already low level. In Germany, by contrast, employment remained roughly constant throughout the entire period. After the GFC, there was a significant drop too (albeit not as large as in France), yet subsequently, Germany had a low but continuous job growth.

FIGURE 5.26: Employment in the auto industry in Germany and France (2001-2018).

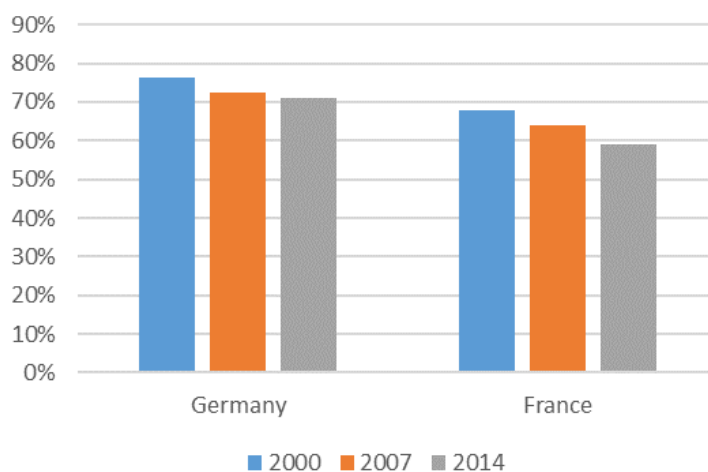


Source: Statistisches Bundesamt, Insee, CCFA.

## Value chain structures

This divergence in terms of employment has also partially been the outcome of the specific restructuring of value chains. As figure 5.27 shows, in both economies, France and Germany, there has been a decline in the share of domestic value added in the auto industry. In the former, however, this decline was a lot more pronounced. In 2000, domestic value-added content in France stood at 68 per cent and in Germany at 76 per cent. In 2014, the year for which the last data are available, the French share has decreased to 59 per cent, whereas Germany has maintained a domestic value-added share of 71 per cent.

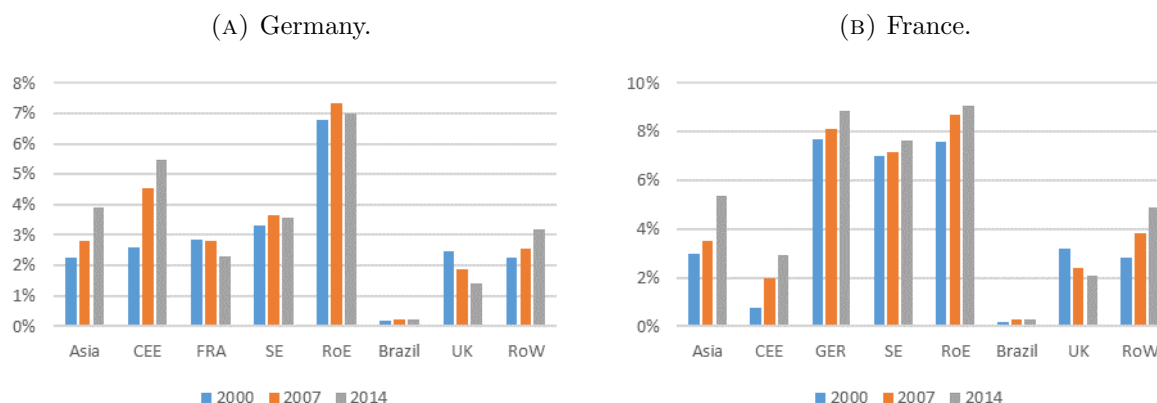
FIGURE 5.27: Domestic value-added in the German and French auto industry.



Source: WIOD.

Going beyond domestic value-added numbers, the international value chain structure reveals several similarities, but also differences in its reconfiguration. (cf. figure 5.28). In both France and Germany, we see a significant increase in sourcing from Central and Eastern Europe (CEE, including Czechia, Hungary, Poland, Rumania, Slovakia and Slovenia) and Asia. In particular in Germany, CEE is now a crucial region for its domestic production. In the case of French automotive production, on the other hand, firms in Southern Europe (SE, comprising Italy, Spain, and Portugal) serve as a critical supplier. Moreover, it is interesting to observe that while German sourcing in France (FRA) declined over time, French sourcing in Germany (GER) substantially increased, making it the most important single country for its auto production in terms of value-added. The rest of Europe (RoE) and the rest of the world (RoW) have a large share of value added due to the cumulative effects of many (smaller) individual economies being grouped together.

FIGURE 5.28: Value-added by region and selected economies for the German and French auto industry.



Source: WIOD.

The different patterns of regional value chain integration are related to the demands of automobile manufacturing, where geographic proximity plays an important role due to integrated and just-in-time production networks – which gives rise to lower distances of exports and imports of components vis-à-vis final products, observed in figure 5.5 and 5.6. There are some aspects directly related to production, others to the flow of information and control, as several interviewees outlined:

If you have an assembly plant (...), then assemblies like seats, which is specific to the individual vehicle, that assembly plant for the seats will have to be either literally in the perimeter of the vehicle assembly plant or very close by, because they basically get the information which vehicles are coming down the assembly line an hour or two in advance, and they therefore have to react and assemble the seats just in time in response to that. So, they have to be physically very close by, and you can look across the categories of components and things like dashboards and interior trim has to be close by. (#25)

[Premium and volume manufacturers] basically all access the same resources. The best example for me is the company LEONI. LEONI makes wiring harnesses for cars. Every wiring harness in every car is different because the equipment is different. One car has air conditioning, another one has height-adjustable seats, and these wiring harnesses can only be made by hand. Because of all the new electronic devices that are in a car, (...) the things have become more and more complex. (...) That means you need someone in the car industry as a supplier who can make you wiring harnesses that are quickly on the assembly line, that are made by hand, specific to your car, and of high quality. LEONI does that. Where do they have their factories? First, they were in Germany, then they were in the Czech Republic, now they are in Serbia and the Ukraine. (...) They always go to the periphery of the economic region, where it is cheapest. Where they find the lowest wages, in relation to the distance to the car factories. Audi, BMW and Daimler all source from these factories in their own way. This is a typical example of how the German car industry is profiting from eastward enlargement.<sup>17</sup> (#13)

I think that proximity and that cultural proximity is not to be underestimated when you've got to train huge workforces. I think a cultural affinity can really help, having seen Japanese having really struggled with US culture for example. Proximity helps in the sense of, I'd argue knowledge transfer as much as anything. (...) It's that ability to send not just your senior engineers and project managers etc. to help develop a production facility. Because of the proximity you can send the next tier down, the people who really do have their sleeves rolled up and manage production lines etc. It is easier to have the involvement of them. (...) [Also,] you can start to have synergies such as reduced inventory pooling. If you are in a distant market and you are physically far away, you need a greater level of what we call safety stock, because obviously you need your production facility moving along, which reduces the benefit of a lot of just in time models. So the more inventory you got, the more it deteriorates the benefits of that model and you're able to operate that more easily when you have physical proximity because you can say 'okay I'm really low in this facility here but I have a supplier that is near shore'. (#04)

It is also important to note that what may appear merely as change of ‘a few percentage points’ in value-added, has very significant ramifications for the competitiveness of the individual producers and their margins – which also includes premium manufacturers:

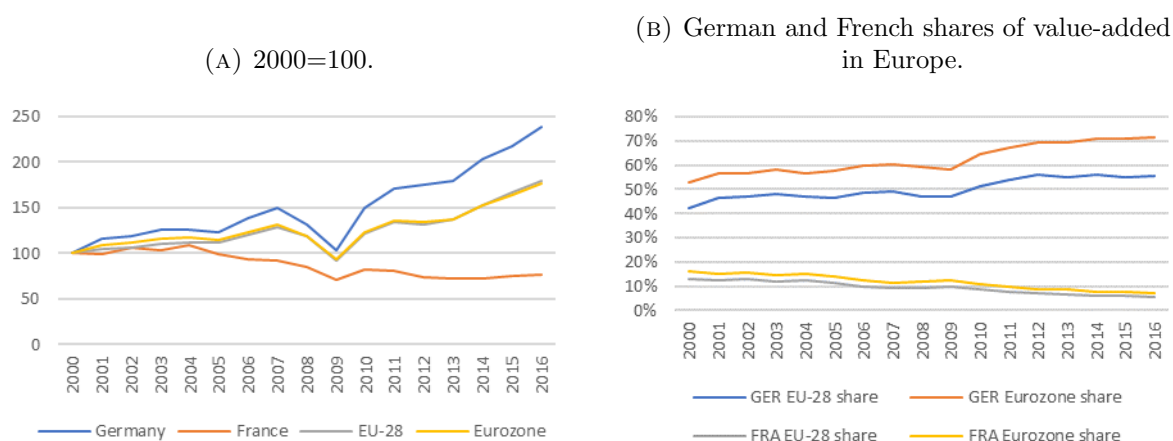
A large part of the added value of vehicles certainly happens in the development of a vehicle. This development takes years, which is an extremely intensive process. The share of development costs in the total costs [can] (...) even go in the direction of 40-50 percent (...). This means that one factor is, of course, the production costs in general, which may only have a limited share in the total costs of the automobile as a product. (...) Then the question in price competition is always: Does it make a difference? (...) If the manufacturing costs, then the labour costs in fact only account for a few percent for companies in general, how much does it contribute to competitiveness if we tweak this? (...). On the one hand, it is certainly true that the main game for success is basically played via products, via the products on offer, the attractiveness of the products and not necessarily via the differences in labour costs. (...) At the same time, we can see that companies are working like crazy on these few per cent in terms of price competitiveness, which is due to the fact that margins per vehicle are very low (...).<sup>18</sup> (#25)

The suppliers must produce locally. More than the manufacturer, moreover, because in the automobile sector one has to take into account that approximately 60 or 70 per cent of the [production] value of the car is the purchases, the parts and components that are bought to make the car.<sup>19</sup> (#02)

If you look at how many car factories, how many of the suppliers to the German car industry now work in Eastern Europe at the most favourable conditions, and whose output is, so to speak, refined here in Germany! Look at a project like the Porsche Cayenne. It is more or less built in Bratislava, at incredibly low cost, finished in Leipzig, then passes as a German product and brings Porsche wonderful profits. This is how Eastern Europe has become a cheap workbench for the German car industry.<sup>20</sup> (#13)

Due to the demands of production and geographical proximity, therefore, the German industry was able to integrate Eastern Europe in its supply chains and maintain value added at home, while the French industry sourced, due to principally similar constraints and opportunities, from Southern Europe. The extent to which the German industry has managed to appropriate most of the value-added created in the *European* industry, however, is truly remarkable. Figure 5.29 shows that while value-added in the automotive industry increased in the Eurozone, the EU-28, and Germany, value-added in France is now far below its level in 2000. What used to be different starting points in both economies – with a value-added in Germany of EUR 56.7 billion and EUR 17.5 billion in France in 2000 – are now two separate universes, as Germany increased its domestic value-added to EUR 134.9 billion and France faced a decline to EUR 13.3 billion. In other words, the difference of a factor of around 3 in 2000 has turned into a difference of a factor of 10 in 2016. Moreover, at the end of the time series, Germany accounts for 56 per cent of all value-added in the EU-28, and even 72 per cent of value-added in the Eurozone.

FIGURE 5.29: Value-added in production in Europe (2000-2016).



Source: Insee.

## 5.3 Conclusion

In order to answer the research question of how the operations of large TNCs in France and Germany drove capitalist development and change between 1999 and 2018, this chapter particularly addressed the sub-question #1 around the key tendencies that characterise the development of the European as well as the French and German automotive industry between 1999 and 2018. The insights provided an understanding of the developments in the international (level 3) and national economy (level 2), i.e., they helped to get an overview of the wider ‘picture’, in which TNCs operate. The chapter showed that the auto industry is a highly glocalised industry, which means that it is very regional and global at the same time. This structure is due to, on the one hand, productive conditions on the ground, and, on the other, due to regulations and cultural differences. Based on this regionalisation, it was concluded that to understand the dynamics within and interdependencies between national economies, the evolution of the industry at the regional level is central (without abandoning, of course, global factors).

In Europe, the analysis revealed several key tendencies. First, we saw that the industry largely stagnated over the past two decades, as the German firms were gaining more and more market shares and VOW emerged as the dominant force. In this context of stagnation, the growth of some enterprises threatened the position of others, so that a vicious price war has been part of the European automotive reality. Secondly, the European market was characterised by a strong polarisation, in which the lower and higher ranges gained market shares, although the proportion of lower to mid-range cars is still dominant in terms of unit sales. The third structural trend was the Eastern European integration, which shifted the gravity centre of production towards the East.

In terms of national features, Germany managed to use the Central and Eastern European economies to integrate them in their supply chains and generate high value-added at home. Additionally, the German firms exported heavily to other European countries, but also to the US and China, whereas France experienced a continuous decline in exports as well as domestic production, employment, and value-added. This stands in stark contrast to Germany, where foreign production did not come at the expense of domestic production. Given that the French brands still dominate the domestic market,



but outsourced most of their production, the economy at large faces a significant trade imbalance – which is exacerbated through its bilateral trade with Germany and the loss of market shares in the EU at large. The next chapter now looks at the main actors – French and German TNCs – to make sense of these developments.

## Notes

<sup>1</sup>”Wenn man sich anschaut wie sich der chinesische Markt vom Jahr 2000 bis zum Jahr 2018 entwickelt hat: 2000 war er ungefähr so groß wie der holländische Markt, 300.000 Autos. 2005 größer als der deutsche, 2012 größer als der europäische, 2013 größer als der amerikanische, heute sind wir bei 22 Millionen Autos und 2000 waren wir bei 300.000. Und wenn man sich den PKW Weltmarkt anschaut, dann ist eben die ganze Entwicklung, wie sich die Automobilindustrie in den vergangenen beiden Dekaden gewachsen ist, das ist fast ausschließlich auf die Entwicklung in China zurückzuführen.”

<sup>2</sup>”Ça va à l’encontre de la théorie de libre-échange. Ce n’est plus de libre-échange, mais la pratique réelle, elle est comme ça. La pratique réelle c’est que dans l’industrie automobile, en fait (...) les marchés sont plutôt par région. (...) Vous ne pouvez pas faire un seul produit pour le vendre partout. Non, ce n’est pas possible”

<sup>3</sup>”On reste plutôt dans cette tendance de la production là où est le marché. En fait, on économise sur le transport, sur le logistique”

<sup>4</sup>”Wenn ich jetzt zum Beispiel Ford sehe, die haben ein Motorenwerk im Vereinigten Königreich, d.h. wenn die jetzt in Deutschland ein Auto bauen und nehmen den Motor aus dem Vereinigten Königreich und bauen den in Deutschland ein, dann ist das Fahrzeug vom Prinzip her nicht mehr ’made in EU’, weil einfach der Wertschöpfungsanteil des Motors so hoch ist, dass es halt nicht mehr als europäisches Fahrzeug zählt. Das jetzt mal als Extrembeispiel”

<sup>5</sup>”Wenn der Euro gegenüber dem Dollar um 10 Prozent aufwertet, dann wird nicht das Auto in China um 10 Prozent teurer oder es wird in den USA um 10 Prozent teurer, sondern das Unternehmen nimmt dann etwas von der Marge weg, weil die Preisbildung erfolgt im lokalen Markt.”

<sup>6</sup>”Das ist, was ja die große Globalisierung eigentlich ist: Foreign Direct Investments”

<sup>7</sup>”T’avais un truc qui s’appelait le comité des constructeurs de marché commun où vraiment siégeait les patrons. Ce n’étaient pas des lobbyistes comme c’est le cas aujourd’hui. Mais c’était Agnelli pour Fiat, je ne sais pas qui d’autre qui se réunissaient régulièrement pour décider ensemble comment gérer le processus d’intégration européenne ? Quelles normes ? Quelles protections ? Comment gérer le problème japonais ? C’était vraiment quelque chose de lobby, de défense des intérêts des constructeurs. Et les Américains n’étaient pas représentés. Ford, Opel, ils ne siégeaient pas. Donc c’était vraiment Fiat, Renault, PSA, VW, Mercedes et BMW, et les anglais. (...) Donc on avait, avant 1992, des champions nationaux en Europe, très, très fortement liés à leur État qui contrôlait leurs marchés nationaux, qui avaient des exportations en concurrence indirecte, ils n’allaient pas exporter les modèles qui étaient vendus par les champions nationaux dans leur propre marché, mais que les modèles des champions nationaux ne vendaient pas. Donc il y a des concurrences indirectes, ce qui voulait dire qu’on ne faisait pas concourants sur les prix, mais plutôt on occupait tout le marché. Et donc, il y avait toute une gestion politique du marché commun pour que les marchés intégrés soient en ressources pour tous et en menace pour personne.”

<sup>8</sup>”L’idée qui prévalait au niveau des constructeurs, comme au niveau des politiques d’ailleurs, c’était

une espèce d'entreprise, d'abord antiaméricaines, puis antijaponaises, qui consistait à essayer de défendre des champions nationaux en Europe pour éviter que la construction de l'automobile européenne dans les années 50-60 ne se fasse au profit des investisseurs étrangers. Ce sont essentiellement les Italiens et les Français qui vont constituer les bases de ce qui va être la politique européenne de l'automobile avec le CCMC. Et donc c'est Fiat, Renault, un peu Peugeot, mais surtout Fiat et Renault (...), qui vont essayer de concevoir ce qui va être le marché commun et la politique automobile. Et à ce moment-là, la volonté claire c'est d'éviter les surcapacités en management de marché, si vous voulez, mais aussi de permettre que l'expansion se fasse au bénéfice des champions nationaux, avec un espace d'équilibre des pouvoirs avec des deals qui consiste à dire (...) 'on va devenir européen' mais on va le faire en préservant une espèce d'équilibre entre nous."

<sup>9</sup>"Ça montre bien comment on avait bien contenu la pénétration japonaise, qui était à terme concurrence typiquement par le prix, c'était en concurrence directe par les prix, donc c'était destructives. Donc ils avaient été très vite neutralisés."

<sup>10</sup>"À partir des années 90 on cesse de raisonner comme ça et symboliquement, c'est le passage du Comité des Constructeurs du Marché Commun à l'Association des constructeurs européens d'automobiles, la fameuse ACEA – parce que les Allemands souhaitent ça. Ils sont très atlantistes et comme ils ont chez eux Opel et Ford, ils vont tout faire pour que la ACEA s'ouvre à des constructeurs non européens. Dans un premier temps, ça va être Ford et General Motors et ensuite, comme les Anglais vont s'abandonner de leur industrie automobile et essayer de la remplacer, cette industrie automobile nationale, par l'industrie japonaise, tout va être fait pour que la ACEA soit accueillante aussi aux constructeurs japonais, puis au constructeur coréen. (...) À ce moment-là, on a eu l'idée qu'il n'y a plus de légitimité à préserver les intérêts des champions nationaux. On peut indifféremment traiter. Évidemment, cela se comprend assez bien puisque on est passé d'une Europe qui était une Europe de six avec Belgique, Nederland, Luxembourg, qui ne disait pas grand-chose, et ensuite vous aviez l'Allemagne, la France et l'Italie, donc que des pays avec des constructeurs. À partir du moment où on ouvre l'Europe vers d'autres...vers l'Angleterre, par exemple, qui ne veut plus de champions nationaux parce que Thatcher a décidé de tuer les syndicats etc. on rentre dans une autre configuration. Et évidemment, quand l'Espagne va rentrer, eux, ils n'ont pas de champion national non plus et par conséquent, ils vont adhérer plutôt à cette vision parce que ça permet d'attirer des investissements directs étrangers et ça permet de développer son économie. Et quand ensuite, on va avoir évidemment l'ouverture aux pays d'Europe centrale et orientale, ils vont être très favorables à cette politique d'ouverture à tous avec Welcome Hyundai, Welcome Nissan, etc. parce que ça permet effectivement de bénéficier de cette culture là."

<sup>11</sup>"En 91, la Commission européenne a négocié un quota de transition jusqu'à 1999, puisqu'on craignait énormément les Japonais. On l'a dit, on pourrait monter seulement jusqu'à 16 pour cent du marché européen. Pas plus. Cela veut dire que, même si on crée un marché unique, jusqu'à 1999, ces quotas, maintenaient une espèce de compromis politique entre les constructeurs pour dire on ne se fait pas concurrence. (...) Le CCMC se terminait en 91 autour de la négociation avec les Japonais, puisque Calvet, qui était le président des PSA à l'époque, lui, il ne voulait aucune concession vis à vis des Japonais. Il était obsédé par ça. Et il s'est senti trahi par [ceux] qui acceptent au contraire le quota de 16 pourcents."

Donc, il claque la porte du Comité des constructeurs du Marché commun et donc c'est la fin du comité et on crée à la place l'ACEA qui est ouvert à tous : ACEA est ouvert aux Américains, ensuite aux Japonais. Tous y sont représentés."

<sup>12</sup>"Als Grund für das voraussichtlich sechste Stagnationsjahr in Folge führt der VDA die hohe Arbeitslosigkeit mit inzwischen rund 5,2 Mill. Jobsuchenden und die Verunsicherung der Verbraucher an" in: Handelsblatt (01.03.2005) – Autobauer erwarten weiter Absatzflaute

<sup>13</sup>"Listenpreise [sind] eigentlich nur noch Zahlen auf dem Papier" in: Handelsblatt (21.11.2008) – Mit Premium-Preisen in die Autokrise

<sup>14</sup>"Il y a eu un phénomène dans les années 2000, on avait appelé ça 'une dichotomie du marché', c'est à dire avec le segment premium et le segment d'entrée de gamme et au milieu, le moyen de gamme a perdu beaucoup en valeur"

<sup>15</sup>"Je pense que c'est très lié à une distribution des revenus en Europe qui a fait exploser les inégalités et qui a rendu la différenciation sociale beaucoup plus accentuée. Et effectivement, pour un cadre supérieur en France, pour un cadre de la City à Londres (...), une Audi TT ou un BMW même série une, ce n'est quand même pas pareil que d'avoir une Mégane ou une Opel Astra. Et donc ça a été à la fois une donnée objective sur la différenciation des revenus et les données subjectives, sur la différenciation des styles de vie et des visions de l'avenir, de l'esthétique, etc. (...)"

<sup>16</sup>"À l'origine, l'ouverture à l'Est, elle s'est faite par des rachats de constructeurs qui étaient anciennement les constructeurs du bloc soviétique, comme Skoda, par exemple. (...). À l'origine, on rachète l'usine, comme Renault a racheté Dacia, et on produit des véhicules de cette marque là, mais avec les technologies allemandes ou françaises – on modernise. L'objectif affiché lors de cette opération de rachat qui a eu lieu pendant l'ouverture, donc autour des années 90 et 00, ça a été bien de capter les marchés d'Europe de l'Est. Donc, ce n'étaient pas des délocalisations, c'était simplement on augmente notre marché – et pour répondre à l'augmentation de la demande en Europe de l'Est et centrale, on produit localement. On va produire en Pologne et on va produire en Hongrie pour cette nouvelle classe moyenne dans ces pays-là, etc. Sauf que cette classe moyenne n'a jamais émergé. Il n'y a jamais eu d'augmentation du revenu par tête dans ces pays-là qui permettait à avoir une classe moyenne comme en Europe de l'Ouest. Et du coup, les constructeurs se sont retrouvés à rapatrier, à réimporter toutes les voitures qu'ils ont produit à l'est."

<sup>17</sup>"[Premium und Volumenhersteller] greifen im Prinzip alle auf die gleichen Ressourcen zu. Das beste Beispiel für mich ist das Unternehmen LEONI. LEONI macht Kabelbäume für die Autos. Jeder Kabelbaum in jedem Auto ist anders, weil die Ausstattung anders ist. Der eine hat eine Klimaanlage, der andere hat höhenverstellbare Sitze, und die können nur in Handarbeit gemacht werden. Aufgrund der ganzen neuen elektronischen Geräte, die im Auto sind, im Gegensatz zu von vor 20 Jahren, sind die Dinge immer komplexer geworden. In einem modernen Auto liegen ja kilometerlange Kabel – und die sind individuell. Sie können nur per Hand gemacht werden, und das heißt, sie müssen relativ nah an der Produktion sein, weil die Automobilwerke just-in-time bauen. Sie müssen aber individuell gemacht werden. Die müssen kostengünstig sein und die können nur per Hand gemacht werden, weil Roboter das nicht können. Die können mit biegsamen Kabeln nicht umgehen. Das heißt, Sie brauchen jemanden

in der Autoindustrie als Zulieferer, der Ihnen Kabelbäume macht, die schnell am Band sind, die per Hand gemacht sind, und die individuell sind, in hoher Qualität. Das macht LEONIE. Wo haben die ihre Werke? Die waren zunächst in Deutschland, dann waren sie in Tschechien, mittlerweile sind sie in Serbien und in der Ukraine. Das heißt, wir gehen immer an die Grenzen des Wirtschaftsraums. Da, wo es am billigsten ist. Da, wo die niedrigsten Löhne sind in Abhängigkeit zur Entfernung zu den Autowerken. Da bedienen sich Audi, da bedient sich BMW, da bedient sich Daimler, jeder auf seine Art. Das ist so ein typisches Beispiel dafür, wie die deutsche Autoindustrie von der Osterweiterung profitiert.”

<sup>18</sup>”Ein großer Teil der Wertschöpfung von Fahrzeugen passiert sicherlich bereits in der Entwicklung eines Fahrzeugmodells. Die Entwicklung eines Fahrzeugs dauert Jahre, das ist ein enorm intensiver Prozess. [Der] Anteil der Entwicklungskosten an den Gesamtkosten [kann] (...) durchaus auch Richtung 40-50 Prozent gehen (...). Das heißt, das eine sind natürlich generell die Fertigungskosten, die an den Gesamtkosten des Produkts Automobil nur einen begrenzten Anteil haben. (...) Dann ist natürlich immer die Frage im Preiswettbewerb: Macht es einen Unterschied? (...) Wenn die Fertigungskosten, dann die Arbeitskosten faktisch generell für die Unternehmen nur wenige Prozente ausmachen, wie viel trägt es zur Wettbewerbsfähigkeit bei, wenn wir da dran rumfeilen? Und ich finde die Antwort gar nicht so leicht. Auf der einen Seite ist es sicherlich richtig, dass im Grunde über Produkte, über die angebotenen Produkte, die Attraktivität der Produkte und nicht unbedingt über die Lohnkostenunterschiede, das Hauptspiel für den Erfolg gespielt wird. (...) Zugleich sehen wir ja, dass die Unternehmen ja wie verrückt an diesen wenigen Prozent feilen im Hinblick auf die preisliche Wettbewerbsfähigkeit, was ja da dran liegt, dass die Margen pro Fahrzeug sehr gering sind (...).”

<sup>19</sup>”Ce qui est important c’est la proximité des fournisseurs. Principalement il faut que les fournisseurs produisent en locale. Plus que le constructeur, d’ailleurs, parce qu’en gros dans l’automobile il faut se rendre compte soixante, à-peu-près soixante-dix pourcent de la valeur de la voiture c’est les achats. Ce sont les pièces qu’on achète pour fabriquer la voiture.”

<sup>20</sup>”Wenn Sie mal schauen, wie viel Autowerke, wie viele der Zulieferer der deutschen Autoindustrie mittlerweile in Osteuropa zu günstigsten Konditionen arbeiten, die sozusagen hier in Deutschland dann veredelt werden! Gucken Sie sich mal so ein Projekt wie den Porsche Cayenne an. Der wird mehr oder weniger in Bratislava gebaut, zu großen Teilen zu fantastisch günstigen Kosten, in Leipzig veredelt, geht dann als deutsches Produkt durch und beschert Porsche wunderbare Gewinne. So ist Osteuropa zu einer günstigen Werkbank geworden, für die deutsche Autoindustrie.”

# Chapter 6

## Introducing the transnational actors in the European market

While the previous chapter analysed the characteristics of the automotive industry on a global, regional, and local level for the two countries relevant to this case study, chapter 6 provides an introduction and broad overview of the main actors. In the context of the three-level model employed in this research, this means that after having analysed level 2 (the national economy) and level 3 (the international economy), this chapter proceeds with an examination of the level 1 unit, the TNC, which is the independent variable in this project. In terms of the research questions presented in chapter 2, it addresses sub-question 2: “What were the growth performances and internationalisation strategies of the TNCs of this case study between 1999 and 2018?” The insights on this question will help to contribute to the wider understanding of how the operations of large TNCs in France and Germany drove capitalist development and change in Europe between 1999 and 2018.

The most important factors to recall from chapter 5 are, on the global level, the high degree of regionalisation of the industry, and, on the European level, the evolution of market shares – both in terms of firms and car segments – as well as the intensity of competition (i.e. price wars) and shifts in production patterns towards the east of Europe. With regards to the evolution of the industry in France and Germany, we observed that the latter resisted the decline in production and employment a lot more than the former, as the French industrial development was characterised by an exodus of its main producers – Renault (RNO) and Peugeot-Citroën (PSA) – and a high sectoral

trade deficit. In Germany, however, employment and output remained stable until the late 2010s and sectoral surpluses increased. Equally, the German automotive sector generated a much higher share of value-added than other European economies, whilst increasingly sourcing inputs for its production from Central and Eastern European markets.

This chapter now analyses these industrial developments from the perspective of the French and German TNCs. It is broadly divided in two parts: the first is an overview of major events and milestones of the OEMs between 1999 and 2018. The second part consists of a presentation of ‘first glance’ corporate indicators, i.e. the evolution of the production network over time as well as market capitalisation and nominal profit and revenue streams. The focus here is to discern the growth performances over time, given that growth was a central feature in the theoretical framework developed in chapter 2. As interdependencies between TNCs are a major focus of this research, an in-depth analysis building on the findings of this chapter follows in chapter 7 and 8.

## **6.1 French and German TNCs – A brief introduction and overview (1999-2018)**

This section presents an overview of the history of TNC events and milestones over the period of this research. It is a synthesis of the information obtained from annual reports and newspaper articles, starting in alphabetical order with the German premium manufacturers, BMW and DAI, before moving on to the volume manufacturers VOW, PSA, and RNO. The overview is kept *intentionally brief* to provide a succinct account of the most important corporate events and leave enough room to address the expansion of global and European production as well as the aforementioned ‘first glance’ indicators.

### 6.1.1 BMW and Daimler – the premium manufacturers

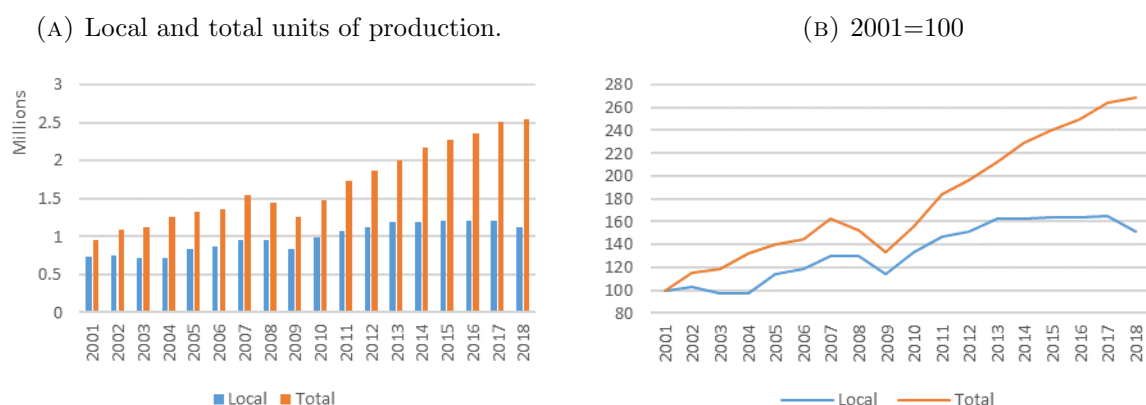
During the past 20 years, there were some striking similarities, but also important differences, between the two German premium manufacturers BMW and DAI.<sup>1</sup> Both firms faced problems with mergers that they were involved in, albeit at different moments of time. For BMW, the end of the old and the beginning of the new millennium were difficult, primarily due to problems with its Rover subsidiary, which BMW acquired in 1994. Especially in the context of an appreciating Pound Sterling, the competitiveness of the business deteriorated. In its annual report, BMW (1999) states that it conducted an analysis in early spring, “as to whether Rover could develop into a sustainable competitive brand on the global market” (p. 3). They found that, “on the basis of the market and foreign exchange forecasts at the time, the outlook for Rover was, indeed, promising. (...) [The] exchange rate for the British pound against the German Mark was still some DM 0.34 lower than it was at the end of 1999. Alone this rise in the value of the British pound in the interim has further increased the burden in the 1999 balance sheet by about DM 1 billion.” (ibid.) Towards the end of the year, however, “it became clear that the general conditions for the Rover brand were deteriorating dramatically – the British pound climbed to over DM 3.00. As a consequence of this, serious consideration was given to a strategic reorientation of the BMW Group.” (ibid.) All restructuring, efficiency enhancing, and cost cutting measures as well as the additional support from the British government did not suffice. In the end, the former BMW CEO, Bernd Pischetsrieder, who was responsible for the Rover deal, had to leave and the firm decided to sell the brand. In May 2000, Rover was purchased by Phoenix Venture Holdings for the symbolic price of GBP 10 (and obtained an additional loan over GBP 500 million from BMW) – an announcement that relieved investors (Handelsblatt, 2000) and marked the beginning of a near continuous expansion of BMW, except for the years of the financial crisis (cf. figure 6.1).

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<sup>1</sup>Audi is the third important premium producer in Germany. However, as this firm is an integral part of the VOW production network, it is treated within the context of the VOW analysis.



FIGURE 6.1: BMW automotive production.

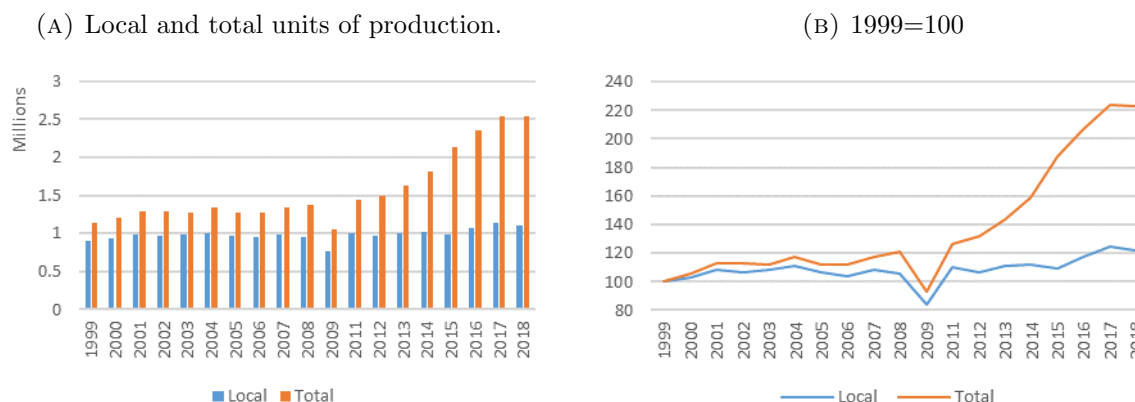


Source: Bloomberg.

DAI also struggled with the consequences of a merger in the early 2000s. What was supposed to be a ‘merger of equals’ and a ‘wedding made in heaven’ (Jürgen Schrempp, former Daimler CEO), intended to tackle the challenges of globalisation and increasing consolidation in the auto industry via scale, turned out to be a disaster (Handelsblatt, 2003a). The US market was crippled by an intense price war, which eroded the margins of the producers. The Germans initiated a series of restructuring measures at Chrysler in the US, notably under the leadership of Dieter Zetsche, who went on to become the CEO of DAI in 2006, yet they did not manage to generate sustainable profits. In May 2007, just before the intensification of the GFC, DAI sold Chrysler to the US investor Cerberus, which was met with relief by all sides (Nesshöver and Herz, 2007).

In addition to the problems at Chrysler, DAI’s core brand, Mercedes-Benz Cars, was equally subject to substantial restructuring measures. In the early 2000s, the pressure on margins and the loss of market shares led to serious disputes between the management and the trade unions with several rounds of layoffs and cost cutting measures, whereby the power imbalances in the German economy led the trade unions to concede to nearly all demands of management. The details to the negotiations and their impact on firm performances as well as wider implications for competing producers, in Germany and abroad, are presented in chapter 8. The overall production at DAI (without Chrysler), stagnated until the crisis and increased especially abroad from 2011 on (cf. figure 6.2). A large share in the surge of foreign production from 2011 on is, again, due to China,

FIGURE 6.2: Daimler automotive production.



Source: Bloomberg.

where DAI began to produce in 2003 with its partner Beijing Jeep Corporation (BJC), which was founded by Chrysler and Beijing Automotive Industry Corporation (BAIC) in 1984 (Handelsblatt, 2003b).

During the GFC, as all other producers, both BMW and DAI suffered markedly. In the years prior to the Lehman fallout in September 2008, the German premium producers were already hit by the strong appreciation of the Euro vis-à-vis the US Dollar. For that reason, in 2005, DAI started to ramp up its production in Alabama (G-, M-, and R-class) (Handelsblatt, 2005d), and BMW followed suit with a decision in May 2007 to increase production at its US plant in Spartanburg (Fasse, 2007).

The demand shock from the GFC led to an unprecedented crisis at the time for the manufacturers. BMW was hit even harder than DAI, as it has been using an aggressive sales policy via ultra-low leasing rates in the US to increase its market shares and drive volumes. In the midst of the crisis, the assumed residual values of the cars at the end of the leasing contracts turned out to be “phantasy prices” (Fasse and Schneider, 2008), so that in 2008, BMW “recognised an additional risk provision expense for bad debts and residual value risks amounting to EUR 1.968 million.” (BMW, 2008, 14).

Both BMW and DAI drastically reduced production, workforce and employment in response to the crisis. While furlough schemes allowed to contain overall layoffs, the scrappage scheme, implemented by the German government in January 2009, did not help the German premium brands, but rather VOW and other volume producers. By

mid-2009, BMW has sold only “15.000 BMW and Mini cars, which is a fraction of the sales of VW or Opel, (...) [despite having added] another 2.500 euros to the scrappage bonus for the entry-level models of the 1 series.” (Fasse, 2009). Daimler, on the other hand, shocked the public in May 2009 with “the statement that 200.000 Mercedes are currently on the back burner, [which] corresponds to the - reduced - Daimler production of the first quarter” (ibid.). In addition to the sales problem in the volume segment, both BMW and DAI had to offer high discounts – of up to 30 per cent – on top-range cars to push them into the market, which, in turn, put a high pressure on earnings (ibid.).

As severe as the financial crisis was, however, the rebound for BMW and DAI came already in late 2009 and set off a period of continuous record earnings. Interviewee #18 remembered, that “in 2008, it was the end of the world, and in 2009 it was already said that we would no longer be able to keep up with production.”<sup>1</sup> Between 2010 and 2015, despite the Eurozone crisis in between (during which also the premium manufacturers were not spared of issuing profit warnings, cf. Handelsblatt (2012)), the premium producers presented, in absolute terms, one record earnings figure after another, which was driven by sales to China and the US, as well as higher sales and market shares in Europe. Taking model cycles into account, sales growth was strong across the entire range from the entry compact cars to high-end models (cf. table 6.1).

TABLE 6.1: BMW and DAI unit sales for selected models

	2010 - unit sales	2015 - unit sales
BMW entry range (1 series and MINI)	430.179	520.624
BMW mid-range (3 series)	399.009	444.338
BMW high-end range (5 and 7 series)	304.268	383.460
DAI entry range (A-/B- class and smart)	316.000	546.000
DAI mid-range (C-class)	342.000	470.000 (new model makeover)
DAI high-end range (S- and E-class)	411.000	312.000 (E-class in last year before model changeover)

Source: Annual reports.

In 2015, the emission Dieselgate scandal and, one year later, the election of Donald Trump as president of the US were the main items affecting the German premium manufacturers. While BMW was accused of engaging in manipulation, there has not been any proof of systematic fraud, as it was the case at DAI and VOW. Although the scale of the scandal at DAI became first visible towards the end of 2018, hence towards the end of the period of this research, the provisions of EUR 4.9 billion in 2019 for lawsuits (up from previously EUR 2.1 billion) illustrates the extent to which the firm has been engaged in the manipulation of its emission values (Daimler, 2019). The protectionist tendencies and trade tensions between the US and the EU and China (with BMW as the largest exporter of vehicles from the US to China), worried both premium producers, although a more significant fallout from this did not occur.

### **6.1.2 Volkswagen – the rise of a global automotive empire**

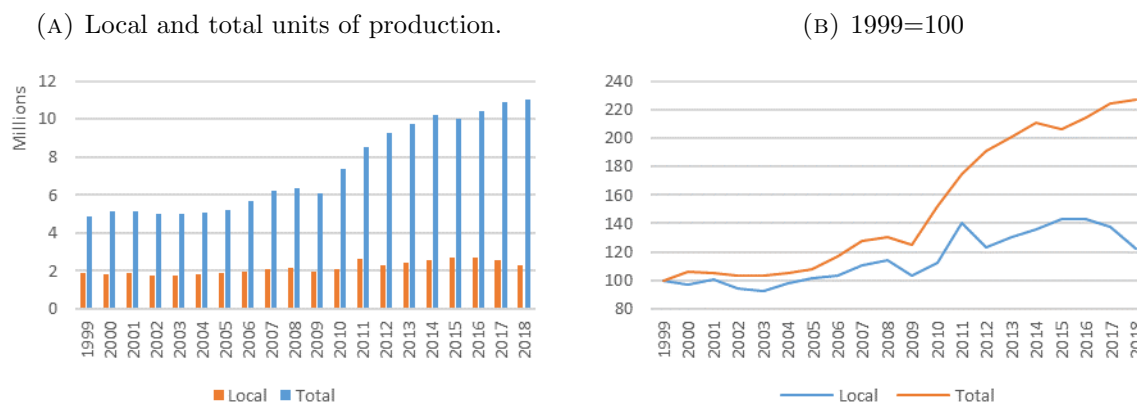
The story of VOW is one of continuous growth. The firm is characterised through a strong state influence, with the Land of Lower Saxony holding 20 per cent plus one share of voting rights, and a strong presence of labour representation, with half of the members of the supervisory board being elected by the employees (Volkswagen, 2018). It is, in particular, the historic legacy of the firm, which was founded by the Nazis with the expropriated funds of trade unions, which creates a sense of shared ownership for employees and their representatives (Murphy et al., 2020). In addition to having the state as an anchor investor and strong trade union influence, the so-called ‘VW law’, put in place in 1960, protects the firm from hostile takeovers and ensures that the state retains a veto right *regardless* of the actual distribution of shares. In its original form, the law stated that no investor may exercise more than 20 per cent of the voting rights at the annual general meetings of the firm. Since the State of Lower Saxony held 18.2 per cent, this made it almost impossible to be outvoted (Handelsblatt, 2005b). This law, however, was subject to several disputes at the European Court of Justice (ECJ), as investors regarded it as impeding the free flow of capital. Especially during the time of the attempted takeover of VOW by Porsche that started in 2005, the pressure on VOW and the German state mounted. Porsche acquired a stake of 20 per cent at VOW in late 2005, and continuously increased it. First, in 2007, to around 31 per cent, and, at its peak

in January 2009, it retained 50.76 per cent of VOW's common stock – without being able to exercise effective control. In 2007, the ECJ overturned the 'VW law', yet the reform of this law, as proposed and approved by the German government, now stipulated that for important decisions, a consent of at least 80 per cent plus one vote at the annual general meeting was required (Handelsblatt, 2008). The state of Lower Saxony thus retained a *de facto* blocking minority, and even though the EU Commission launched an infringement procedure against the German government, the ECJ this time sided with the defendant. Porsche, which was highly indebted due to the attempt of the takeover, fell in the hands of VOW in 2012 (Volkswagen, 2012).

The fact that the voice of trade unions and employees is much more present than in other firms, however, does not mean that VOW is free of labour disputes. As in the case of DAI, the early and mid-2000s were a time of serious clashes between labour and management, whereby the former made substantial concessions to guard production at home. VOW had an endemic profitability issue at the time, and for analysts and managers alike, the only way out was to lay off staff, reduce former privileges laid out in the house agreement, and functionally outsource and reduce the costs for the production of parts and components (Fasse, 2005). As figure 6.3 shows, the domestic production of VOW did indeed first increase *after* the major cost cutting programmes and efficiency measures were implemented in the mid-2000s. During the years of the GFC, VOW too experienced a downturn, but it was not as substantial as in the cases of BMW and DAI. All firms, however, benefited from credit guarantees from the German government put in place during the crisis, as it facilitated access to capital for the finance divisions of the German OEMs – which infuriated smaller cooperative banks, who regarded the auto banks as “sales promoters for the automotive industry and dispensable in their systemic banking function” (Bastian et al., 2009).

In terms of more direct sales support during the GFC, the scrappage schemes introduced in Germany and abroad stimulated demand for VW vehicles, and even though the Eurozone crisis left its mark on local VOW production, the latter still remained on an elevated level compared to the first decade of the 2000s. After domestic restructuring measures enhanced profitability, VOW announced in 2007 confidently its objective to overtake Toyota as the world's largest automotive manufacturer (Herz and Hofmann, 2007). In 2016, it has achieved this goal, with 10.3 million cars sold and therefore 100.000

FIGURE 6.3: Volkswagen automotive production.



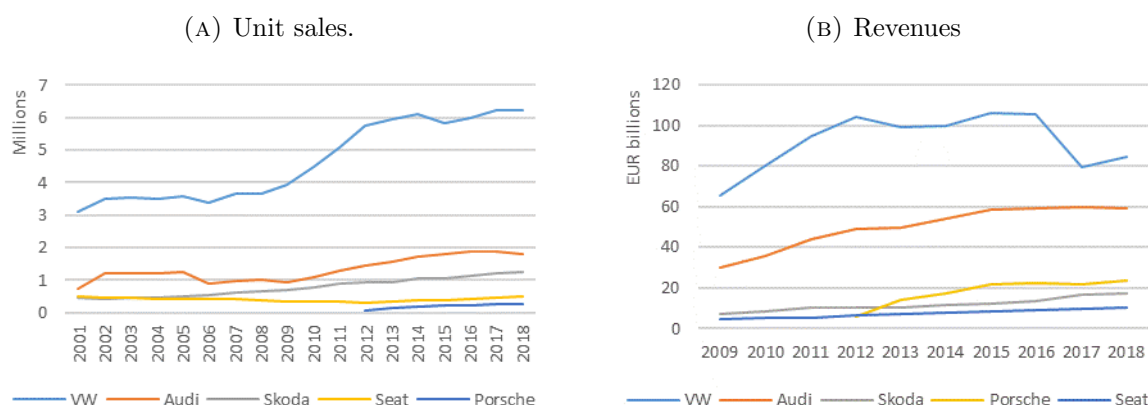
Source: Bloomberg.

units more than Toyota and General Motors. Almost all of this growth, however, was due to the production abroad, as shown in figure 6.3, which is closely tied to the development in China (Menzel, 2018).

What makes VOW structurally different to its European competitors is its wide range of brands, which cover the entire market range of vehicles, and its platform strategy, which comes with significant economies of scale. In 2018, the Group comprised 12 brands (Volkswagen, Audi, SEAT, Škoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN), of which only Porsche, Ducati, Scania and MAN were acquired during the period of this research. Most of the growth in the passenger car sector, i.e. the main object of this study, was therefore organic growth – though some economies of scope with trucks certainly exist. Figure 6.4 outlines the relative importance of the main passenger car brands, showing sales by units and revenues.<sup>2</sup> We find that the VW brand clearly dominates in terms of unit sales, and that the unit sales were not affected by the diesel scandal in 2015. By contrast, the scandal seems to have impacted VW's revenues substantially, and significantly increased the proportion of Audi in total revenues (at much lower unit sales).

<sup>2</sup>Data on sales revenues prior to 2009 is not available due to the reporting of the group structure.

FIGURE 6.4: Volkswagen unit sales and revenues by brand.



Source: Bloomberg, annual reports (2003 and 2005).

Although figure 6.4 broke up unit sales and revenues by brand, the VOW Group is more accurately analysed as *one* large enterprise, given that it comprises *one* large productive and integrated ecosystem: In 2000, VOW launched its revolutionary platform and modular strategy, whereby the use of the same components in the cars of one segment would allow the firm to generate substantial economies of scale across its brands (Winter et al., 2000). This system was gradually improved and found its perfection in the introduction of the Modular Transverse Toolkit (MQB) in 2012:

By employing the Modular Transverse Toolkit (MQB), the Volkswagen Group has made a quantum leap in the enhancement of the cross-brand platform and modular strategy in 2012. The MQB allows vehicles to be designed whose architecture permits a transverse arrangement of the engine components. This enables us to produce vehicles with differing lengths, widths and wheelbases, and thus to meet growing customer wishes for a variety of models, equipment features and design. At the same time, the MQB reduces the complexity, unit costs and time required for development. We take advantage of the savings gained to further improve our vehicles' equipment features, among other things. (Volkswagen, 2012, 198)

The effects of this strategy are astounding: “in reality people see a different envelope, so they consider that there are different cars, but what we have underneath is the same thing.”<sup>2</sup> (#02) In other words, whether VOW produces a VW, Audi, SEAT or Škoda, the components that make up the car, are identical. Other producers, including PSA and RNO, followed this strategy to a certain extent, yet nobody pushed it as far as VOW. The implementation of this production method was a key element of VOW’s expansion and especially with the growth in China, it drove volumes that only few could match. Also, in Europe, VOW substantially expanded its market share to become *the* dominant player, as shown in chapter 5 (cf. figure 5.10).

This continuous expansion took seemingly a sudden hit in September 2015, when the US Environmental Protection Agency (EPA) found irregularities between the emissions of diesel vehicles during federal emissions tests. The agency discovered a serious violation of the Clean Air Act, as it accused VOW of having installed “a sophisticated software algorithm on certain Volkswagen vehicles [that] detects when the car is undergoing official emissions testing, and turns full emissions controls on only during the test.” (EPA, 2015). These control devices greatly reduced the emissions during the tests, yet in normal driving situations, the level of emitted nitrogen oxides (NOx) was “at up to 40 times the standard” (ibid.). The scandal shook the German industry at its very core, with politicians expressing their disbelief and fear that the reputation and trust of German brands was put in jeopardy. The EU Commission also launched investigations at VOW and other producers to verify to what extent its emission regulations had been manipulated. In 2015, VOW put aside EUR 16.2 billion for legal risks and pending modifications in relation to what its annual report refers to as “the Emissions Issue” (Volkswagen, 2015, 53), and, in 2016, special items related to Dieselgate amounted to EUR 6.4 billion (Volkswagen, 2016, 119). By the end of 2018, the total costs for Dieselgate amounted to EUR 28.2 billion (Zeit, 2018), yet due to its scale and stock of accumulated cash, the viability of the company was never put in question.



### 6.1.3 PSA and Renault – the French volume manufacturers in two turbulent decades

The period between 1999 and 2018 was a turbulent one for both French producers. PSA, like BMW, remained throughout under strong, albeit diminishing influence of a family, the Peugeots. While the family retained around 40 per cent of voting rights in the early 2000s (cf. *Les Echos* (2002)), it declined to around 17 per cent in 2017 (PSA, 2017). In 2001, analogous to VOW, PSA launched a platform strategy to reduce costs (*Les Echos*, 2001a), and the first years of the new millennium were years of growth and expansion – especially in Europe (Chauvot, 2005). Even the German press praised the French car-maker for its productivity increases, cost management through the platform strategy, and the quality of output, concluding that it is “bursting with self-confidence” (Alich, 2005). In addition to its platform strategy, PSA attempted to reduce costs through cooperation with other producers, notably Toyota, with whom it also shares a production factory in Kolin (Czechia) since 2005 (Fainsilber, 2006b), and BMW, with whom it concluded a partnership in the development and production of engines in 2002 (PSA, 2002) that would last until 2015 (Ruello, 2012). In February 2003, PSA was, for the first time in its history, ahead of the VOW group in terms of its market share (including light commercial vehicles), with 16.9 per cent vis-à-vis 16.6 per cent for VW, Audi, SEAT, and Škoda (*Les Echos*, 2003b). Yet, as figure 5.10 showed, this was a snapshot that would not last long.

The problems started to occur in late 2005 and early 2006, when PSA missed its earnings and profit objectives (Cosnard, 2006). The pressure on margins mounted throughout 2006 and 2007, and it became increasingly clear that corporate targets were being constantly missed (Chauvot, 2006; *Les Echos*, 2007a). In February 2007, Christian Streiff replaced Jean-Martin Folz, and announced his ambitions to make “PSA the most competitive manufacturer in Europe” and to triple the firm’s operating margin within three years to 6 per cent (*Les Echos*, 2007b). PSA launched two programmes the same year, ‘CAP 2010’ and ‘Ambition 2015’, which entailed sweeping cost cuts and efficiency enhancing measures, such as increased sourcing in low cost countries, as well as a voluntary separation plan, under which more than 6.200 employees in France left the firm, two thirds of them white collars (PSA, 2007). Recalling PSA’s production figures shown in

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figure 5.23 in chapter 5, we find that 2006 and 2007 were the turning point following which the share of domestic production substantially declined.

In the case of RNO, the early 2000s were equally a time of expansion and growth. As VOW, RNO is an enterprise in which the state historically had a strong influence. Similarly, the origins of state influence date back to the mid-20th century, as the owner of RNO at the time, Louis Renault, was convicted of collaboration with the Nazis in 1944. All RNO factories were seized by the provisional government and fully nationalised in January 1945 (Piketty, 2019, 511). During the period of this research, the influence of the state has gradually diminished. While it retained 44.2 per cent of shares in 2000, its stake declined to merely 15 per cent in 2017 (Renault, 2000, 2017). This was initially due to the alliance with the Japanese carmaker Nissan, rather than the outcome of an ideological shift. Given its solid financial position at the time, RNO was able to take a 36.8 per cent equity stake in Nissan, saving the latter from bankruptcy, and to gradually increase this to 44.4 per cent in 2002 (Renault, 2002). Nissan, in turn, after an initial restructuring managed by Carlos Ghosn, acquired 15 per cent of RNO – without the ability to exercise its voting rights under French stock market regulations (*ibid.*). The entry of Nissan led to a dilution of the French government’s ownership to 37.21 per cent and to a further reduction of its equity during the early 2000s, so that already in 2005, it was down to 15.33 per cent (Renault, 2005).

With the purchase of Dacia in 1999, RNO initiated another acquisition, which would turn out to be critical for its strategy. Preferring “privatisation over bankruptcy” (Les Echos, 1999), the Romanian government signed a deal with RNO for the latter to take a 51 per cent equity stake in the struggling manufacturer. Parts of the agreement included an “exemption of taxes on profits for five years, deferred payment of VAT for three years, and the exemption from customs duties for the import of 10.000 Renault cars.” (*ibid.*). RNO gradually increased its stake to 80.1 per cent in 2000 and to 92.7 per cent in 2001 (Renault, 2000, 2001).

The turnaround at Nissan was quick, and from 2001 on, RNO benefited from strong dividends and a reduction of costs through common purchasing and therefore larger economies of scale (*cf.* chapter 7). Dacia, on the other hand, was used to deliver “modern and robust car designed specifically for emerging economies and priced at only EUR 5.000” (Renault, 2000, 17). The prospects for the firm were bright. Analysts classified

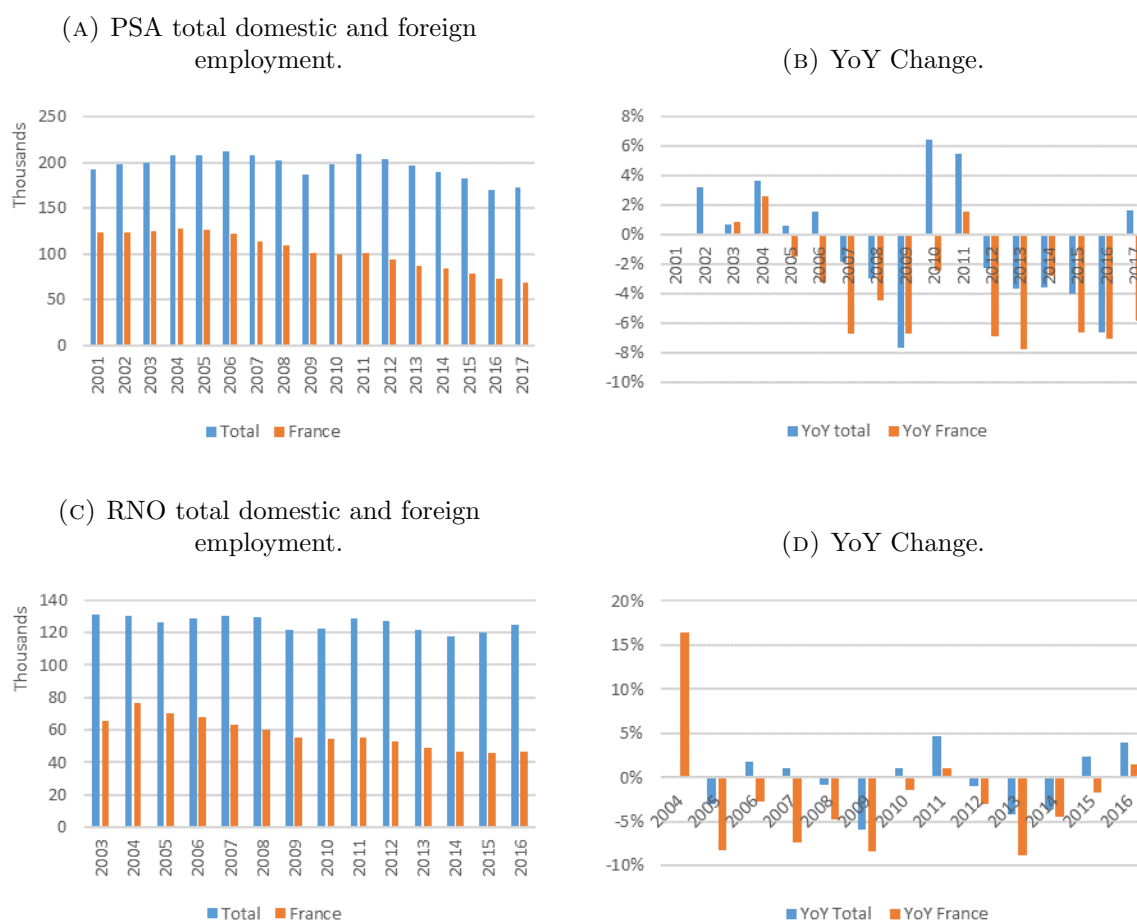
RNO in early 1999 as an “outperformer” (Handelsblatt, 1999), referring to its strong positioning and promising cost cutting initiatives. In 2002, RNO became, for the first time in 20 years, the most sold brand in Europe – ahead of the VW brand (Les Echos, 2003a). The early 2000s were thus generally years of record profits, especially due to strong sales of Mégane models, yet, in a context of overall stagnation of the European market, growth began to slow. The firm reached its peak in 2005, when Carlos Ghosn, the manager who was hailed for restructuring Nissan so quickly and who got the nickname “monsieur cost killer” (Lamm, 2006), took over RNO. Given the emerging strengths of competing enterprises, in particular VOW after its domestic restructuring initiatives, and an aging fleet, substantial competitiveness issues began to become increasingly visible from the third quarter of 2005 on, as it was the case at PSA (Kuchenbecker, 2006). Carlos Ghosn tried to counter the difficulties especially of the RNO brand by increasing and deepening the alliance with Nissan (and negotiating with General Motors and later Ford in attempt to expand the alliance (cf. Les Echos (2006b) and Fainsilber (2007)), outsourcing production, and launching new model offensives (Alcaraz, 2006). As the problems at RNO intensified, and Nissan’s sales declined at the onset of the GFC, RNO found itself in the midst of the storm during the years of 2007 to 2009.

For both French OEMs, RNO and PSA, the GFC crisis marked the onset of turbulent five years. As it was the case in Germany, the French government had to step in to ensure that the firms could refinance themselves, as credit markets were frozen and access to capital was “as scarce as expensive”, according to Carlos Ghosn (Fainsilber, 2009). RCI Banque (RNO) et Banque PSA Finance each received EUR 3 billion in state aid, though against the conditionality of not closing down any factories in France and to reduce dividends, which caused substantial resistance from both firms to accept the demands (Les Echos, 2009; Clift, 2013). Furthermore, the French government provided investment subsidies to make France the centre of RNO’s and PSA’s electrification, and in particular RNO, through the knowledge transfer with Nissan, was able to launch the production of the electric Zoé at its plant in Flins at the end of 2011, although it was not sufficient to fully use the capacity at the factory (François, 2009). As VOW, both French producers also benefited from the scrappage schemes introduced in France and elsewhere.

The sales rebound after the financial crisis was short-lived and domestic production did not pick up. Just a year after RNO and PSA paid back the loan to the French government in April 2011 (Les Echos, 2011), the European debt crisis hit and drastic austerity measures crippled demand in Europe. The issue of overcapacities exacerbated the situation in Europe, and it was especially Volkswagen that was accused by ‘the Latins’ of creating a “bloodbath” (Sergio Marchionne, Fiat CEO) in Europe, as it used the “insolent financial health of the group” with its “net liquidity of almost 15 billion euros” to continue to “launch new models like others are multiplying loaves of bread” (Fainsilber, 2012). Philippe Varin, CEO of PSA, used a less drastic language than Marchionne, accusing VOW of using its profits in China to “subsidise” its low fares in Europe (ibid.).

While RNO just managed to stay afloat, largely due to contributions from Nissan, PSA found itself at the brink of bankruptcy, despite desperately selling real estates and a 75 per cent stake in its profitable logistics subsidiary GEFICO. It was again the French state which stepped in with a loan of EUR 1.2 billion and further EUR 7 billion in guarantees that allowed the firm to regain access to capital markets (Handelsblatt, 2013). Further restructuring measures included wide-ranging layoffs and the launch of a partnership with Opel that ought to reduce costs. When comparing the employment figures of PSA and RNO in France and abroad, which are available for most of the period of this research, we see that it was especially during the crisis years that both firms reduced their workforce on a large scale (cf. figure 6.5).

FIGURE 6.5: PSA and Renault Employment Statistics.

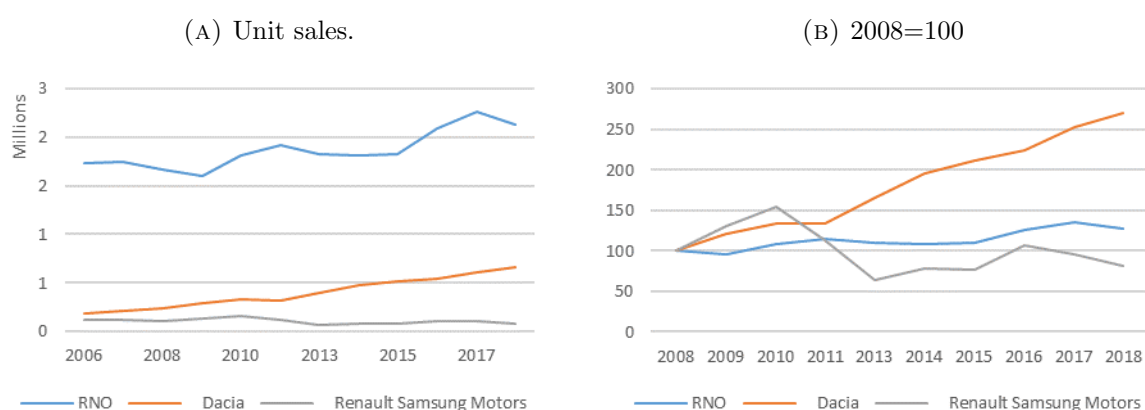


Source: Bloomberg.

At PSA, the peak in terms of workforce reduction was reached in 2013, with close to 8 percent, yet the firm continued to shrink. The new corporate strategy implemented rigorously by Carlos Tavares, former number two at RNO and CEO of PSA from January 2014 on, was to radically reduce the size, render the firm profitable, and simplify the model range (Amiot, 2014). At the same time, all this occurred in the context of wide-ranging domestic reforms of the French economy, around the “pacte national pour la croissance, la compétitivité et l’emploi” (national pact for growth, competitiveness, and employment), introduced by president Hollande in 2012. This reform package aimed to boost competitiveness by increasing flexibility and lowering unit labour costs. In a sense, it mirrored the German reforms during the 2000s, and helped both French producers to improve their profitability (Amiot, 2013b; Grasland, 2013).

After the Eurozone crisis, both French OEMs returned to profitability and deepened their cooperation with and integration of other producers. In 2017, PSA decided to fully integrate Opel through an acquisition to cut costs via more economies of scale (Fainsilber, 2017). RNO, on the other hand, welcomed Mitsubishi in the alliance with Nissan in 2016 (Renault, 2016) and deepened its cooperation with DAI in the production of compact cars, which was put in place in 2009-2010 and also involved mutual equity stakes of 3.1 per cent (Renault, 2010b). At the same time, the firm also grew organically via unit sales of its Dacia brand, as figure 6.6 shows.

FIGURE 6.6: Renault sales by brand.



Source: Bloomberg.

In 2016 and 2017, the diesel scandal that the revelations at VOW triggered reached RNO and PSA, and although the evidence put more pressure on the former rather than the latter, neither French OEM was hitherto convicted of fraud (Calvi, 2019). Towards the end of 2018, however, the very existence of RNO appeared to be put in jeopardy through a different event, as Carlos Ghosn was put in custody on charges of misappropriation of funds (Feitz, 2018b). Over time, he has accumulated more and more power within the alliance – up to the point that he was CEO of Nissan and RNO as well as chairman of the board of directors of Mitsubishi Motors, and supposedly planned a full merger between Nissan and RNO (Sciurti, 2018). This issue raised political tensions between the French and the Japanese governments (le Boucher, 2018). In Japan, the authorities were increasingly frustrated with the imbalance of power between the two firms – where RNO, an enterprise, in which the French state had a 15 per cent equity stake (and double voting

rights!), retained 43 per cent of Nissan, while the latter only held 15 per cent at RNO, without any (!) voting rights, despite being significantly larger (with 5.8 million units vis-à-vis 3.8 million units sold of RNO in 2018) (Feitz, 2018c). The fears of a takeover and ceding control entirely to France were therefore substantial, especially as prior to the merger plans in 2016, Emmanuel Macron, then minister of the economy, expressed his concerns that RNO may increasingly outsource its core activities to Asia (Murphy and Hanke, 2016). Even though the case ‘Carlos Ghosn’ put the very existence of the alliance into question, Nissan and RNO continued to cooperate, also knowing that the cost benefits and scale deriving from the alliance were crucial for the survival of both firms in the long run (Feitz, 2018b).

## 6.2 The global and European expansion of French and German OEMs

Having obtained a broad overview of the major corporate events and strategic considerations, it is now possible to offer a comparative analysis of the TNCs of this research, i.e., directly answering research sub-question 2 on their growth performances and internationalisation strategies. This section starts by presenting the evolution of the productive network of the OEMs on both the global and European level. It provides more details and complements the macro features of the automotive industry developed in chapter 5, by putting it in relation to TNCs’ investment decisions, and also highlights some aspects previously mentioned, notably the changes in domestic and foreign production of OEMs.

First, when analysing the world production structure of French and German firms, which are presented in figure 6.7 and 6.8 on the following pages (excluding Complete Knock Down (CKD) and Semi knocked down (SKD) production facilities),<sup>3</sup> we find that French producers remained largely focused on Europe. Indeed, in North America, there appears to have been a retreat between 2001 and 2010, whilst production facilities in Latin America only marginally increased. Especially in Asia, where most of the growth in the automotive industry occurred, French producers were absent in 2001 and 2010,

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<sup>3</sup>CKD production implies the complete disassembling of a vehicle in the country of origin and its reassembling in another, while SKD implies only a partially disassembling.

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and started to re-enter comparatively late, which left them at a significant disadvantage vis-à-vis the foreign competitors in the market. It is not, however, the case that both manufacturers were blind to the developments in China. PSA entered the Chinese market, in fact, at exactly the same time as VOW through a joint venture (JV) with Guangzhou Automobile, a local state-owned enterprise (SOE) in Guangdong Province, which was concluded in March 1985 (Fernandez and Shengjun, 2007). Yet, the JV Guangzhou Peugeot Automobile Company (GPA), only produced 100.000 cars until 1997 and accumulated nothing but losses (ibid.). The other JV concluded in with Dongfeng Motor Corporation in Wuhan in 1992 still exists, but full production started only in the early 2000s and remains a fraction of, for example, that of VOW (PSA, 2015). RNO, on the other hand, never saw much of a need to enter the market, as it left Asia to Nissan and cashed in the benefits in form of dividends. In *principle*, it is not different to having a JV in China, which is a separate company at which the western firm usually has a 50 per cent equity stake. Both Nissan's contributions to RNO and the contributions of the Chinese JVs for the German OEMs are accounted for using the equity method in their income statements, i.e. recording the earnings or losses in proportion of ownership of the separate legal entity abroad.

In contrast to the French, the German OEMs were already well present in international markets, especially in North America. The gravitation towards the east shifts during the 2000s and 2010s with the rise of the Asian market, notably China, where the Germans have a much more significant footprint than the French. In the beginning though, it was primarily VOW who had local production facilities, whereas the premium manufacturers expanded mostly during the years of 2010. BMW established a JV with the private company Brilliance in 2003, yet local production remained marginal during the 2000s (BMW, 2010). Daimler, on the other hand, entered in 2004 through Chrysler's partner Beijing Jeep Corporation (BJC) (Handelsblatt, 2003b), yet, similarly, local production and sourcing were low throughout the 2000s (Daimler, 2010). As it is evident from figure 6.7 and 6.8, VOW's presence in China came earlier and was stronger compared to all other firms in the sample. Its success story, however, is in large part due to a substantial proportion of luck. In 1978, the Chinese minister of mechanical engineering, Chou Tzu Tsian, was on tour in Stuttgart to discuss a potential cooperation with Daimler, one of the very few OEMs that the Chinese knew about at the time (Posth,



2006b). Once arrived in town, the minister and his delegation noted that the streets were dominated by VW products, such as the VW Käfer or Golf, which sparked his curiosity. He was then told that these cars were made by Volkswagen in Wolfsburg, so that he spontaneously decided to take the train to their factory in Lower Saxony in the north of Germany. The delegation walked from the main train station to Volkswagen's visiting centre and Tsian introduced himself to the security guard, with the help of a translator, as "the Chinese minister of mechanical engineering" and expressed his wish to speak to "a manager of Volkswagen" (Posth, 2006b, 5-6). Luckily, Werner Schmidt, then director of sales at VOW, was in his Wolfsburg office to welcome the delegation and initiate the talks. In October 1984, after Citroën, the last remaining foreign firm to bid for a JV with the Shanghai Automotive Industry Corporation (SAIC), was out, VOW and SAIC concluded the JV that marked the foundation of Shanghai Volkswagen (SVW), the largest mechanical engineering company that China has ever set up with a foreign investor at the time (Posth, 2006b). A second JV with First Automotive Works (FAW) followed in 1991.

Although Carl Hahn, the head of VOW between 1982 and 1993, played a key role in fostering and investing in the JV, it was the link to the political authorities in China that proved to be decisive for VOW's success. All the projects with foreign producers that were meant to become the backbone of the Chinese auto industry were based on different 'experimental modes' of dealing with profit-oriented enterprises. Martin Posth, VOW's first managing director of the JV, elaborated in his account the importance of having been located in Shanghai, and not in Guangzhou in the South (as was the case for PSA), for the project to be successful. He writes:

Like the Peugeot joint venture in Guangzhou or Beijing Jeep, Shanghai Volkswagen was a local project, a kind of guinea pig the government was experimenting with to move China towards mass production of cars. We had a major advantage compared with other local projects - the attention of the central government. It was more or less assured because national institutions, such as CNAIC [China National Automotive Industry Corporation, the association for the Chinese automotive industry] and the BoC [Bank of China] were shareholders. (Posth, 2006a, 85)

Interviewee #10, an expert on the Chinese automotive industry, also outlined the crucial role for success and failure between the two different experimental models in which the first French and German firms in China, PSA and VOW, found themselves in:

The reasons [for the success] are probably less to be found at Volkswagen than within China. The first Volkswagen plant was a joint venture between Shanghai Automotive, a company that was virtually owned by the local state or the city of Shanghai. PSA was in the south, in Guangzhou, and they had a completely different approach. It was more *laissez-faire* in the south. SAIC, by contrast, was a pretty well coordinated company, well managed by the local state, and the cooperation was very good.<sup>3</sup>

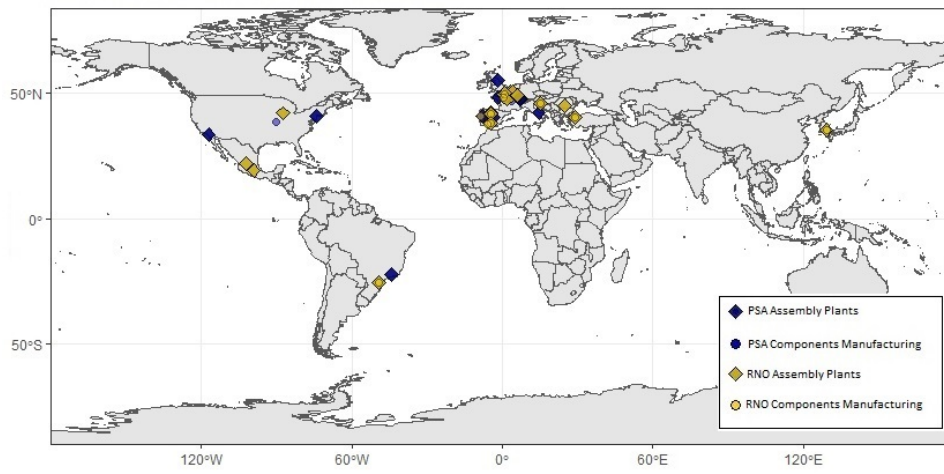
It is thus not surprising that Posth (2006a) concluded that:

Despite all the difficulties and arguments, one thing was quite clear: without Shanghai municipal government, without central government, without our own ‘government’ in Wolfsburg and its representatives, we would have achieved nothing (Posth, 2006a, 136).

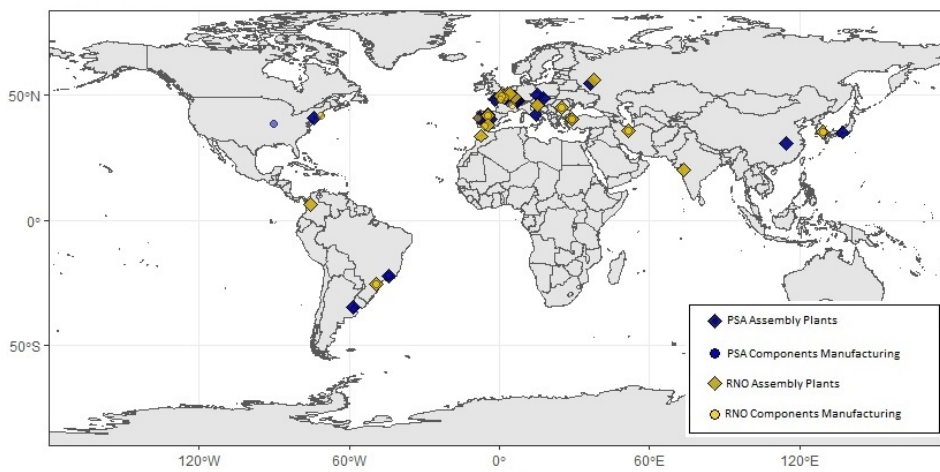
Hence, the success of VOW in China is partly due to the efforts and investments that the firm put in, especially under leadership of Carl Hahn, yet, at the same time, there is a big proportion of contingencies that determined as to whether a firm succeeded in the market or not. After China’s entry in the WTO in 2001, more foreign firms entered China, and the market became increasingly competitive. With the GFC and the Chinese stimulus that followed and also included support packages to the auto industry, China became the most important growth market, and those firms who had already a strong footprint in the market, were the ones that were able to benefit the most.

FIGURE 6.7: French OEMs' global production.

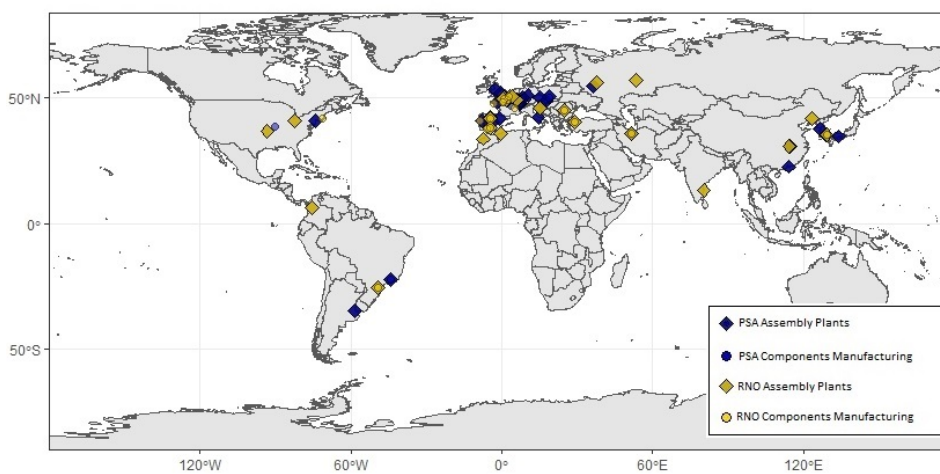
(A) 2001



(B) 2010



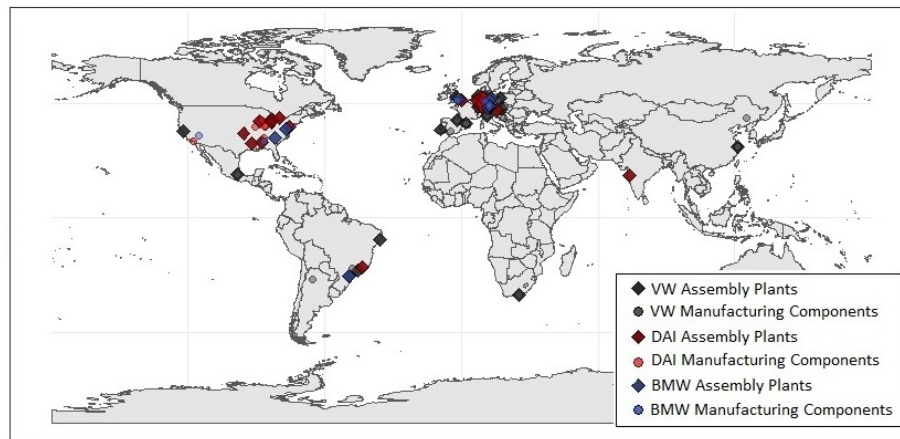
(C) 2018



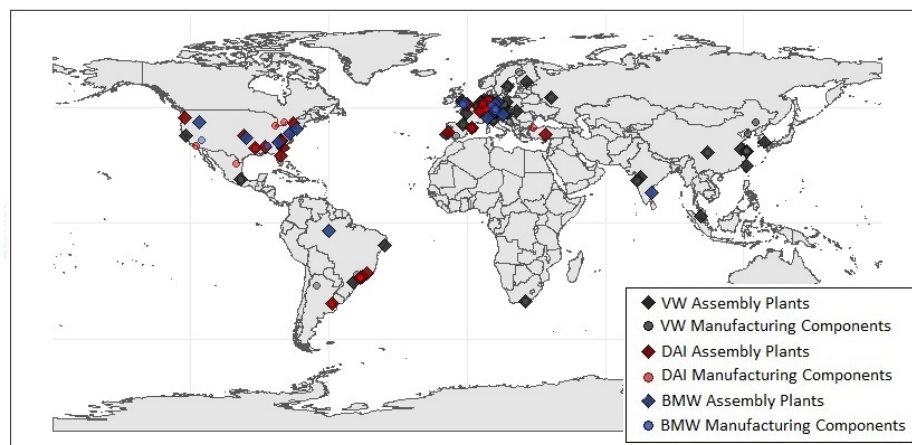
Source: Bloomberg, annual reports.

FIGURE 6.8: German OEMs' global production.

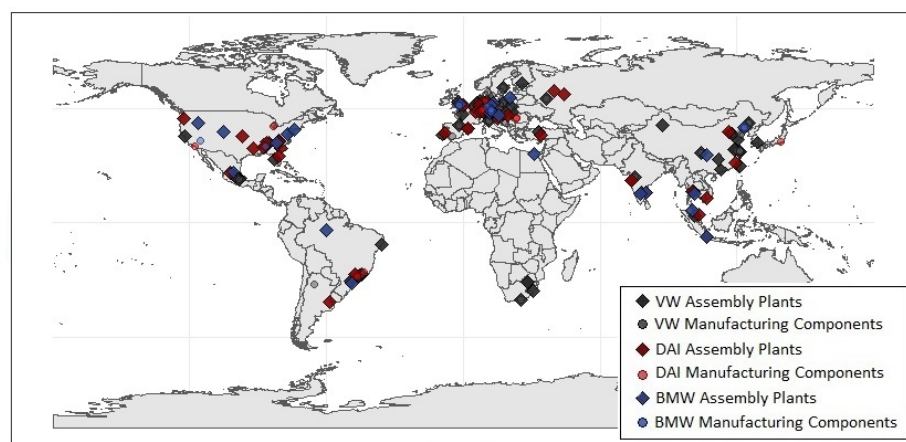
(A) 2001



(B) 2010



(C) 2018



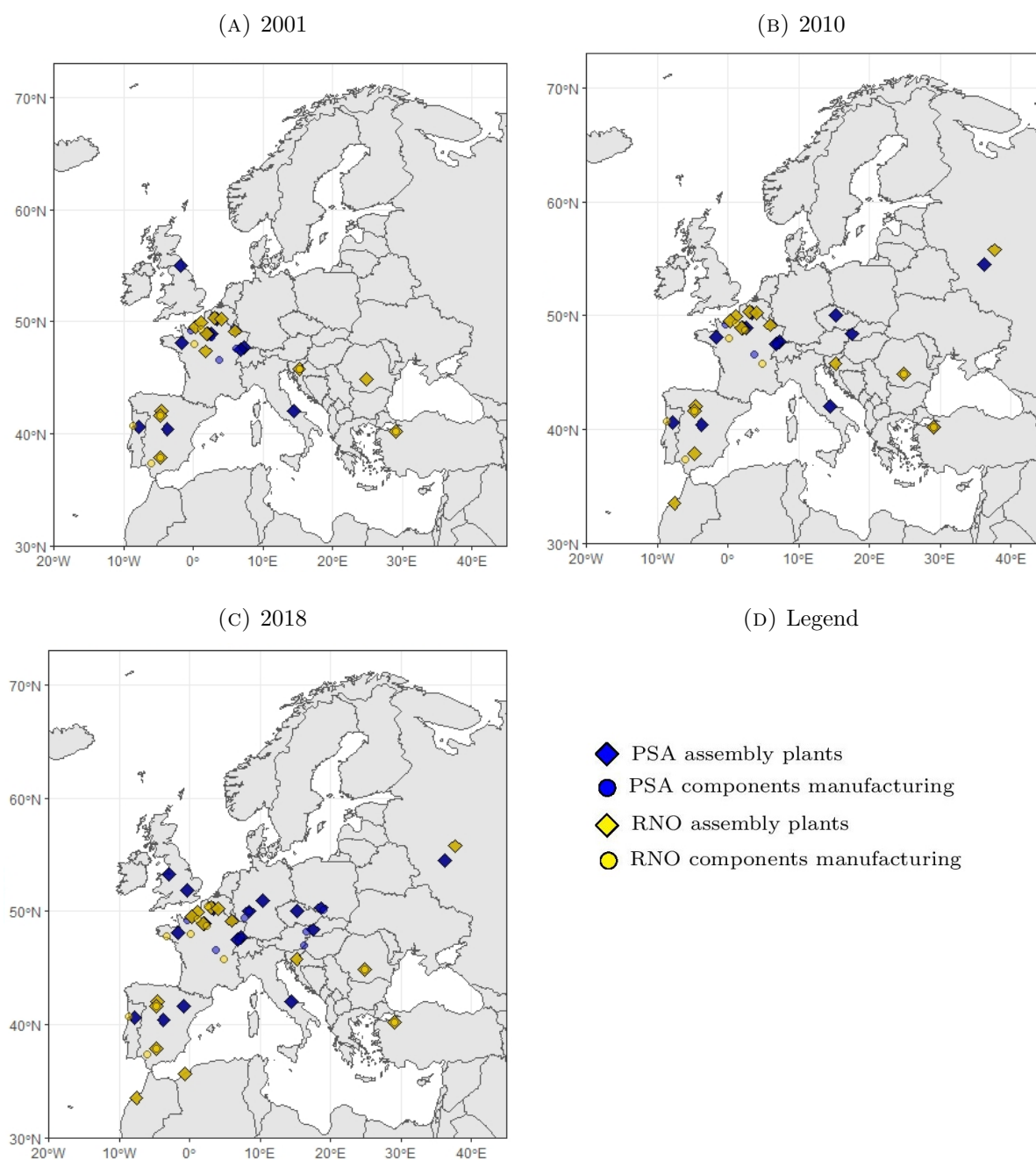
Source: Bloomberg, annual reports.

In terms of the development of the European production network, which is the most important dimension to understand regional developments, figure 6.9 and 6.10 shows that the structure of production is closely linked to the structure of value chains outlined in chapter 5. In other words, what we observed in the country-level data for the industry, is largely due to the production decisions of the five TNCs that dominate production in their respective domestic markets.

Regarding the French manufacturers, in the early 2000s, Eastern Europe was an unexplored field. The concentration of production remained primarily in the north of France, as well as in Spain and Portugal, where PSA and RNO set up plants after the accession of both countries into the EU in 1986. The Germans, and thereby, again, notably VOW, were already present in the East with both assembly and component plants.

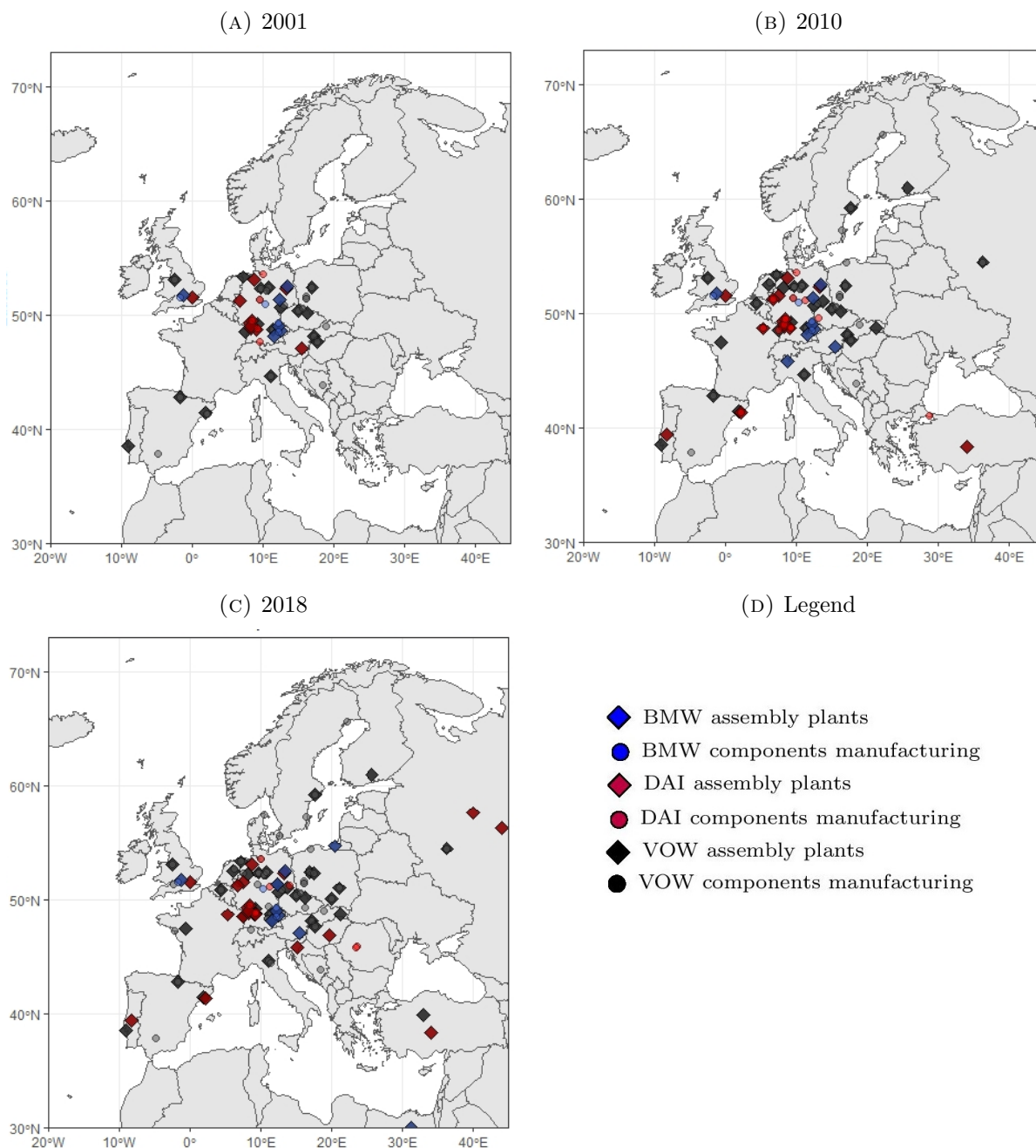
During the 2000s, the expansion towards Eastern Europe intensified for German OEMs, while PSA also started to set up factories in the region. It is important to note, however, that due to just-in-time production, the plants in Eastern Europe are not integrated with those in France or Spain – while the German OEMs could benefit from cheap sourcing and geographic proximity. Between 2010 and 2018 then, PSA took over Opel's plants in Central and Eastern Europe, the United Kingdom, and Germany, while Renault notably expanded in North Africa with factories in Morocco and Algeria to supply the European market. On the German side, it is interesting to note that while previously, VOW was dominant in the East, also the premium manufacturers BMW and DAI increasingly began to source and produce in this region from which they were previously absent.

FIGURE 6.9: PSA and RNO European production.



Source: Bloomberg, annual reports.

FIGURE 6.10: BMW, DAI and VOW European production.



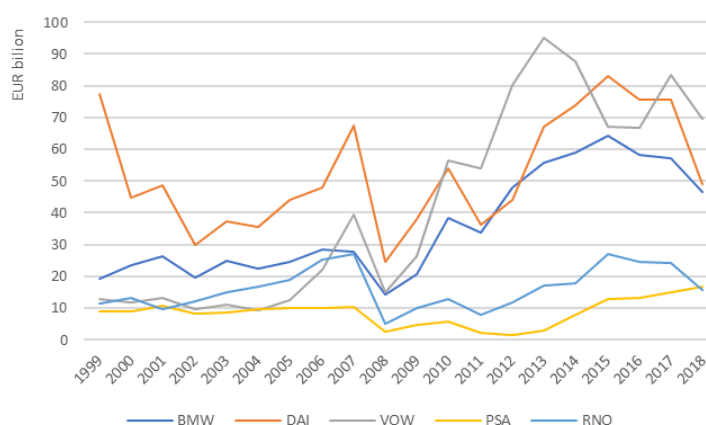
Source: Bloomberg, annual reports.

### 6.3 Revenues and profits

While the overview of major corporate events already referred to some aspects of the firms' performances, this last part of the chapter shows some 'first glance' quantitative indicators, including market capitalisation as well as revenues and profits in *absolute, i.e. nominal terms* (based on International Financial Reporting Standards (IFRS)). In broad terms, it thus outlines corporate growth, before identifying, in the next chapter, the quality and nature of this growth through a more detailed analysis.

When beginning to analyse growth, it is useful to first assess how stock market investors have evaluated a company's growth prospects throughout the period of this research, which is reflected in its market valuation. Comparing the market capitalisation of the five OEMs, i.e. the value of all their shares of stock, we find in figure 6.11 that the great divergence between the German and the French manufacturers set in after the financial crisis. Just until 2007, there was no very substantial difference between BMW, PSA, and VOW, whereas PSA's market capitalisation was merely a flat line, despite its growth in sales and market shares in Europe.

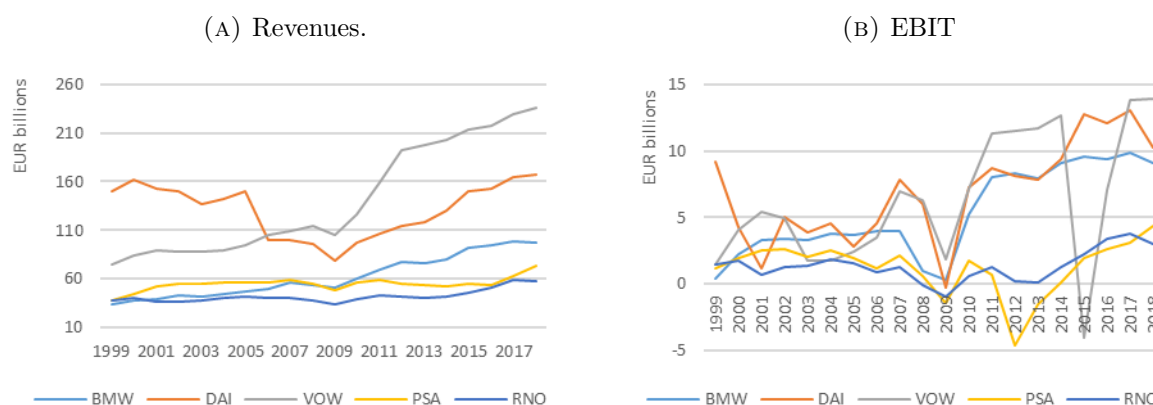
FIGURE 6.11: Market capitalisation.



Source: Refinitiv.



FIGURE 6.12: Total revenues and EBIT.

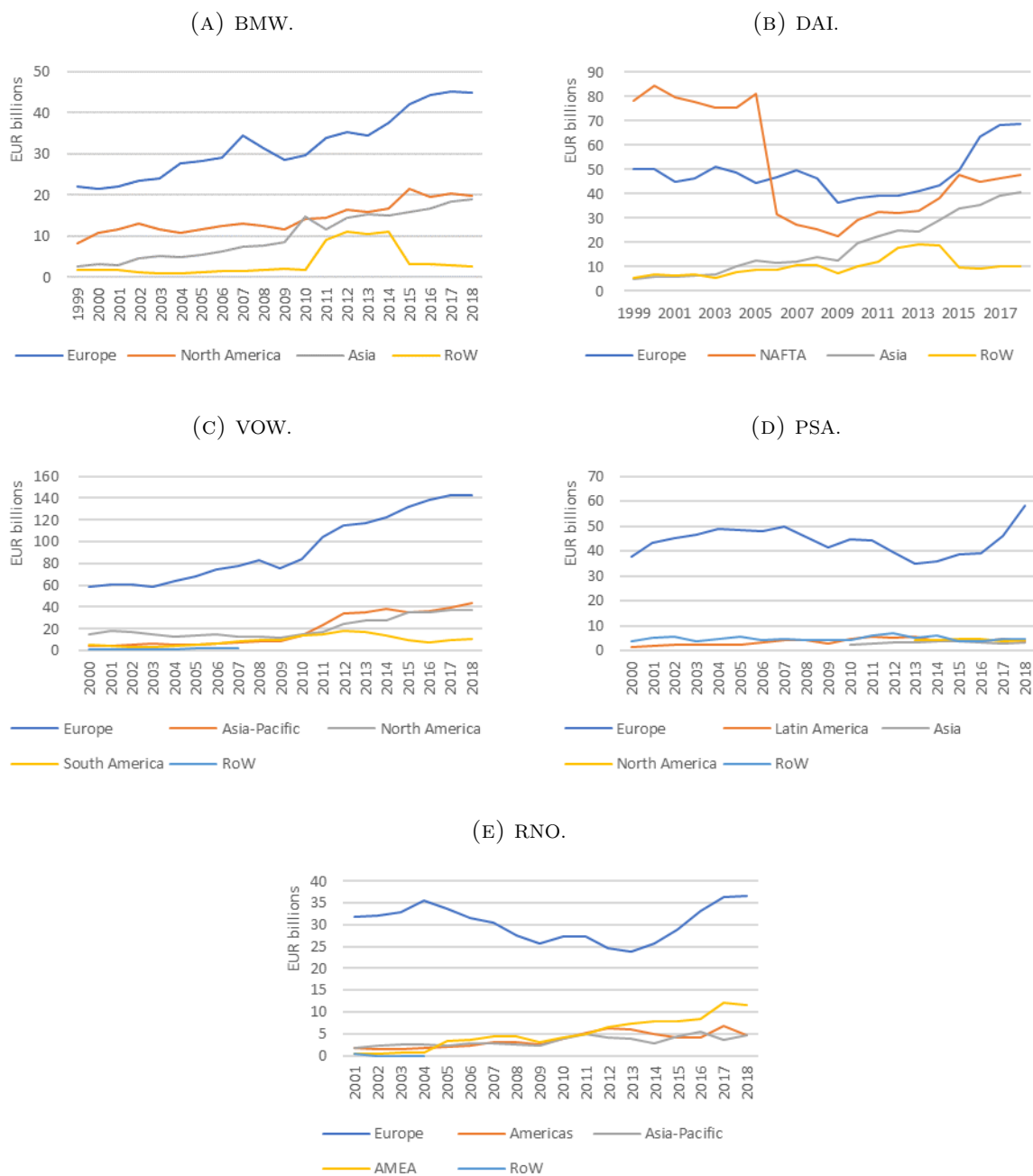


Source: Bloomberg.

This great divergence in market capitalisation stems from a divergence in earnings as well as the evaluation of the future outlook, as shown in figure 6.12, which provides the data on total revenues and earnings before interest expenses and income taxes (EBIT). While the former indicator simply states the overall sales revenue of an enterprise, the latter deducts the cost of goods sold and operating expenses, i.e., it is an indicator to assess a company's profits from its business operations. The data for DAI in the early 2000s include the revenues from Chrysler, which explains the decline until 2007. What we find is, in line with the evolution of market capitalisation in figure 6.11, that the French OEMs have not been able to generate any significant growth compared to their German competitors. While PSA's revenues increased between 1999 and 2004 from around EUR 38 billion to EUR 56 billion, it took until 2017 and the merger with Opel that the firm would surpass 2004-earning levels. Regarding its EBIT, from 2006 on, the downward trend intensified and reached its low point in 2012 with the near bankruptcy of the company. RNO's earnings growth was weak throughout the period and only picked up after 2014. The German firms, on the other hand, appear as the big profiteers: (1) After the Rover fiasco, BMW more than doubled overall earnings and EBIT, (2) the revenues of VOW outsized that of all the others, while (3) DAI's earnings substantially grew after its separation from Chrysler. In terms of EBIT, the German OEMs moved nearly at par, although VOW's provision for the Dieseltgate scandal harmed its profitability in 2015.

Figure 6.13 and figure 6.14 show in different ways the breakdown of revenues from different geographical regions. First, figure 6.13 provides data on the nominal revenues that companies earned in the major markets, usually Europe, North America, and China (with slight differences in reporting), and, for the volume producers, also Latin America. The remainder of revenues is classified as ‘rest of the world’ (RoW). We find that the large nominal revenue growth of the German producers was not only due to China, as some of the academic and public discourse suggests, but to a far more significant extent, due to revenue growth in Europe. In the case of BMW, revenues in its home market increased in this period from around EUR 30 billion to EUR 45 billion, i.e. by EUR 15 billion, against an increase by EUR 5 billion from around EUR 14.8 billion to EUR 19.7 billion in Asia. At DAI, we find an increase of EUR 30 billion in Europe (from EUR 38.5 billion in 2010 to EUR 68.5 billion in 2018) vis-à-vis EUR 21 billion in Asia (from EUR 19.7 billion in 2010 to EUR 40.7 billion in 2018), while VOW’s income from Europe grew twice as much as its revenues from Asia-Pacific: from around EUR 83.8 billion (2010) to EUR 143.1 billion (2018) in Europe (i.e. an increase of EUR 59.3 billion) vis-à-vis revenues from Asia from EUR 14.4 billion (2010) to EUR 43.2 billion (2018), i.e. an increase of EUR 28.8 billion. The figures for DAI are slightly distorted due to the alliance with Chrysler until 2007 and its large share of revenues from its truck division in NAFTA, yet the overall tendency that *all* the OEMs of this case study make their income primarily on the old continent.

FIGURE 6.13: Nominal revenues by region

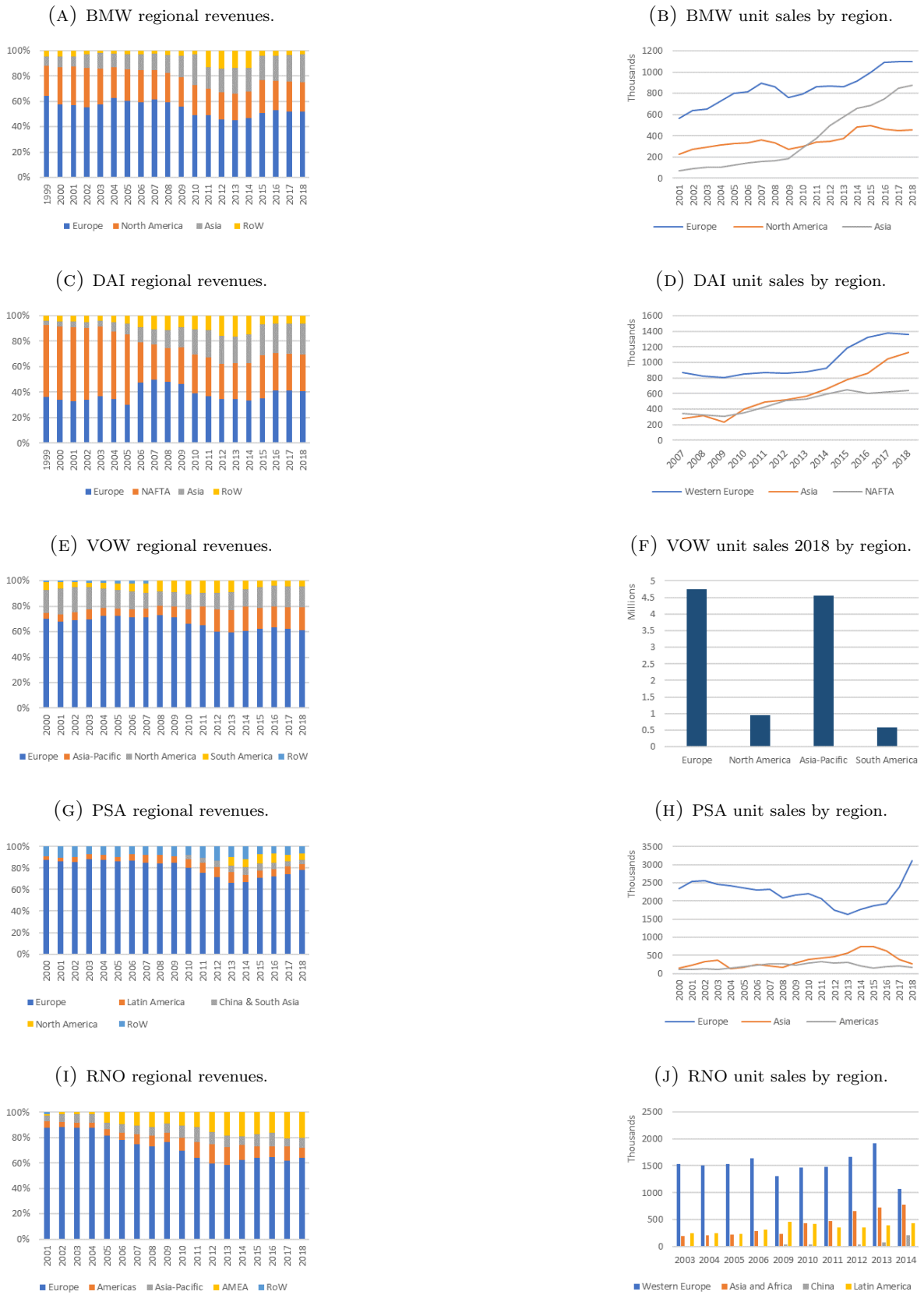


Source: Bloomberg.

Despite the importance of Europe in the nominal revenue data, however, it is clear that the international footprint of the German enterprises is a lot more pronounced than that of their French counterparts. To illustrate the differences, figure 6.14 shows the *proportions* of revenue that the given OEMs earned in different regions as well as unit sales. VOW merely reported the revenues in a consistent and comparable manner, not the unit sales, so that figure 6.14 confines itself to illustrating regional unit sales only for the year 2018. Unit sales for RNO were also not available for certain years.

The tendencies we find are clear and do highlight the important role of overseas market for the German manufacturers. In particular, the German premium OEMs have and always had a much stronger implementation overseas, with ‘just’ about half (BMW) and 40 per cent (DAI) of revenues generated at home in 2018. The volume manufacturers VOW, PSA, and RNO are all much more reliant on revenues from their home market, with VOW and RNO generating about 60 per cent of sales in Europe, and PSA even close to 80 per cent. The unit sales show the strong increase of sales in Asia for both premium producers, yet, not surprisingly given the data in figure 6.13, also their very substantial growth in Europe. PSA and RNO, on the other hand, struggled to increase sales in their core market and barely managed to take off overseas. As previously mentioned, RNO had, through its stake in Nissan, which was performing well in Asia and North America, less pressure to be physically present in those markets. For PSA, however, the loss of market shares through the expansion of the German manufacturers in Europe and the lack of intercontinental revenues turned out to be a major issue during the Eurozone crisis, which brought the firm at the brink of bankruptcy. Thus, above figures lead to the conclusion that growth - identified in chapter 3 as the main corporate objective to secure survival and profits - was largely confined to the German TNCs of this case study.

FIGURE 6.14: Revenues and units sales by region and brand.



Source: Bloomberg, Refinitiv.

Yet, as indicative as this conclusion is, above information does not say much about the quality of this growth, how it was generated and sustained, and how the performances of the corporations are therefore to be evaluated. As such, it is of limited use to answer the question regarding the interdependencies between those firms, and, consequentially, what implications this has for the development and performance of their home base economies. An extensive analysis of this type requires the use of ratio analysis (Elliott and Elliott, 2019), which is presented in the following chapter.

Moreover, if considering some additional first glance indicators, we find that the impressive earnings performance seems to be relativised to a certain extent. For example, one striking aspect of the surge in earnings after 2010 is that the earnings' quality appears to have been deficient. Table 6.2 provides data on the quality of earnings through evaluating a mix of, *inter alia*, accruals, operating efficiency, and cash flow. The top value that can be achieved on this scale is 100. We see that the period after 2010 was generally marked by poor earnings quality. This applies particularly to the German premium producers, BMW and DAI, as well as the French volume producer RNO. PSA, on the other hand, managed to develop a solid quality of earnings after 2013, while VOW's earnings were, in this sample, the most stable over time. However, even VOW's scores are not thrilling, as for almost half of the years since 2010, i.e. the year in which the German firms' earnings kicked-off significantly, the quality of earnings was very poor. This puts the surge in revenues and EBIT of the German TNCs after 2010 - that, as we have seen, was attributable to increases in sales across all markets and segments - in a different perspective: it is apparently not a flawless German success story and a failure of their French competitors, but it requires additional scrutiny.

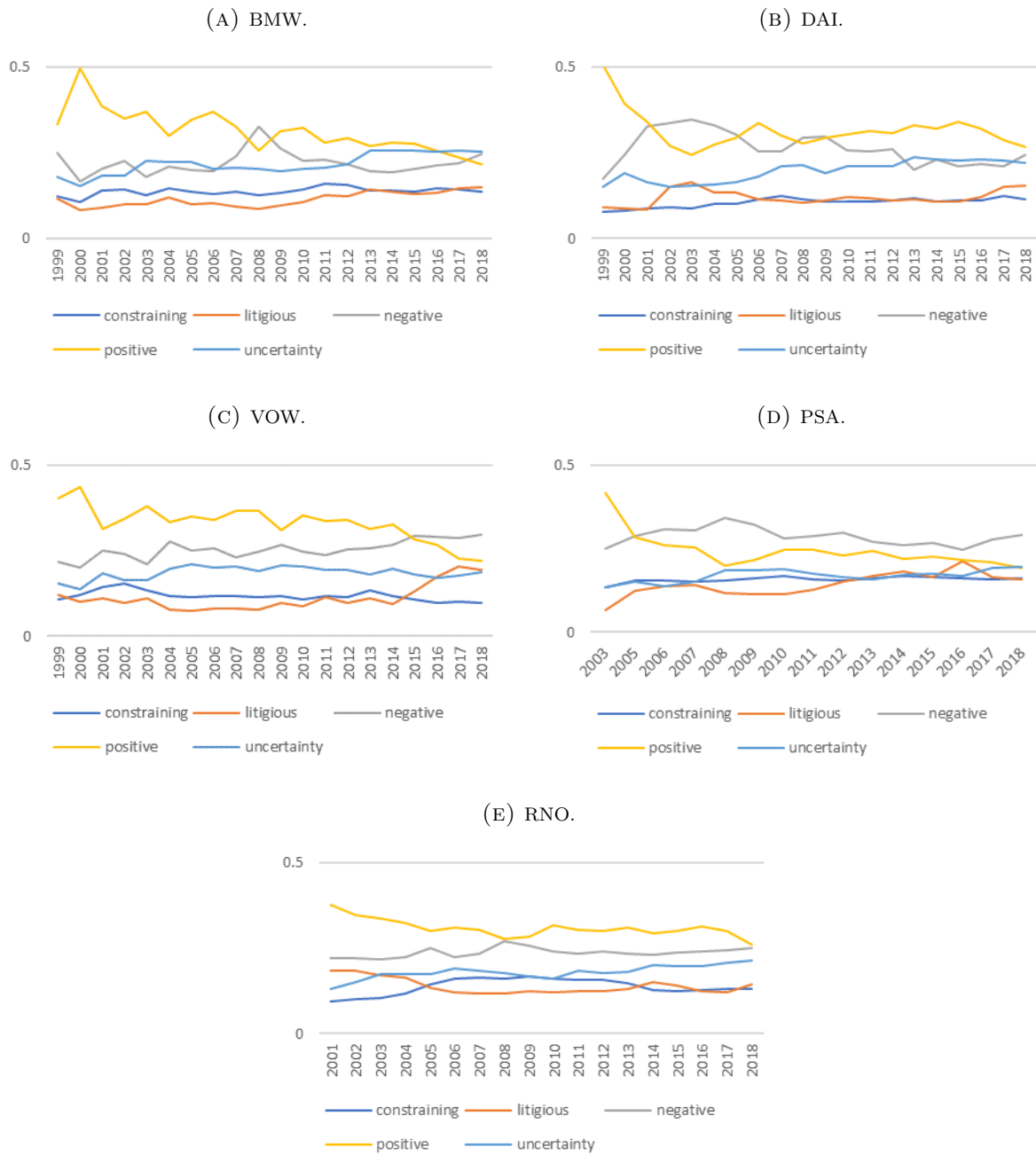
TABLE 6.2: Earnings Quality Scores (2005-2018)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
BMW	47	41	37	18	28	58	40	19	11	17	10	12	20	10
DAI	7	9	46	16	39	59	9	4	17	13	10	5	7	5
VOW	48	64	66	12	42	42	33	4	46	14	45	38	4	8
PSA	11	59	55	7	35	44	11	20	20	89	61	64	98	96
RNO	36	4	20	5	38	17	20	22	20	26	19	14	15	21

Source: Refinitiv.

A sentiment analysis of annual reports, presented in figure 6.15 seems to support this conclusion. The analysis used a specific dictionary and algorithms, designed for the analysis of financial reports, to assess their general tone (cf. chapter 4). In figure 6.15, the five main sentiments, classified as (1) constraining, (2) litigious, (3) negative, (4) positive, and (5) uncertainty, are put in relation to one another to account for the differences in scope of the annual reports, both in relation to variations over time as well as between firms. For PSA, the annual reports of 1999-2002 and the report for the year 2004 were merely available in French and had to be therefore excluded from the analysis, as the most established dictionaries to run the algorithms are for English reports only. Similar to what Refinitiv's Earnings Quality Scores indicate, the overall positive tone in the annual reports of the German OEMs had a tendency to decline, *despite* record nominal earnings, especially during the period of 2010-2015. The same is true for the positive sentiments in the reports of the French firms, yet given that growth was weak, this was to be expected. Negative sentiments, on the other hand, were slightly increasing across the sample - with the exception for DAI, where the dismal performance of Chrysler during the early 2000s distorts the results. Another commonality that is given across all firms is that the relative weight of uncertainty increased over time.

FIGURE 6.15: Sentiment analysis of annual reports



Source: Annual reports.

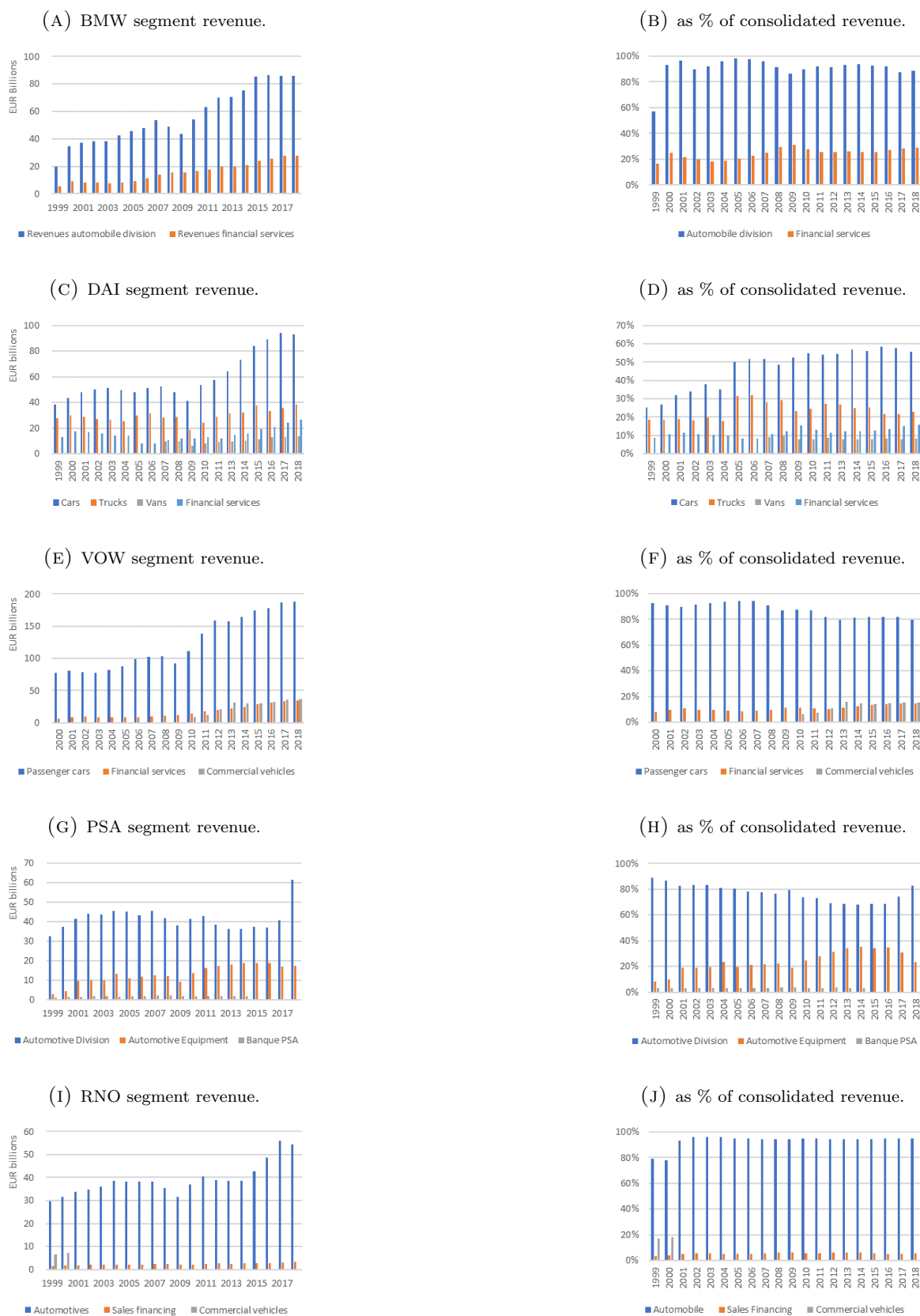


## 6.4 Corporate structures

While the material hitherto evaluated provided a broad overview of corporate growth and raised questions about the nature thereof, a further weakness that must be addressed before proceeding to a more in-depth analysis in the next chapter is that the indicators used so far ignored differences in the capital structure and the impact of non-core operations (Elliott and Elliott, 2019). In order to avoid potential distortions and obtain a more accurate picture about the business operations of the firms compared in this case study, this final section thus provides insights on the differences in corporate structures.

First, the firms which compete in the automotive industry are also active in areas other than passenger cars, such as financial services or commercial vehicles. To control for the impact of those divisions and their relative importance for the economic entity as a whole, figure 6.16 shows the share of revenues in consolidated total profits, while figure 6.17 illustrates the proportions of assets in the given segment. The left graph in figure 6.16 indicates the segment's nominal revenue, whereas the right graphs outlines the segment's share in total consolidated revenues. Since nominal revenues include inter-segment revenues, and consolidated revenues do not, the sum of shares of the former may exceed 100 per cent. To primarily improve the readability of the graphs, marginal contributions of individual segments of below 5 per cent, are excluded, *unless* they provide important information for the comparative analysis. For example, BMW motorcycles or DAI busses both contribute relatively little, and there is no comparative value regarding competing OEMs. Financial services, on the other hand, do play a major role for the German producers, and less so for the French. Nonetheless, this difference is important to understand the evolution of and interdependencies between firms as well as their position in the market, as will be further discussed in chapter 7 and 8.

FIGURE 6.16: TNCs' revenue structure.



Source: Refinitiv, PSA annual reports (2000-2018).

The revenues by business segment show that across all OEMs, revenues from the automotive division dominate. In the case of DAI, however, it must be considered that commercial vehicles constitute a non-negligible source of income for the enterprise.<sup>4</sup> At VOW, this segment also became more important, notably with the acquisition of Scania and MAN. PSA, on the other hand, also shows a particularity in that revenues from automotive equipment, i.e. its stakes at GEFCO and Faurecia, are relatively more important than it is the case for other producers.

In terms of financial services, figure 6.16 indicates that they do play a much more substantial role for the German OEMs. At DAI and VOW, the share of revenues from this division of total consolidated revenues increased from around 8 per cent in 2000 to about 15 per cent in 2018. In the case of BMW, it increased from about 17 per cent in 1999 to almost 29 per cent in 2018. As per the French OEMs, on the other hand, this share never exceeded 4 per cent (PSA) or barely managed to climb over 5 per cent (RNO). The relative difference in importance is thus undeniable.

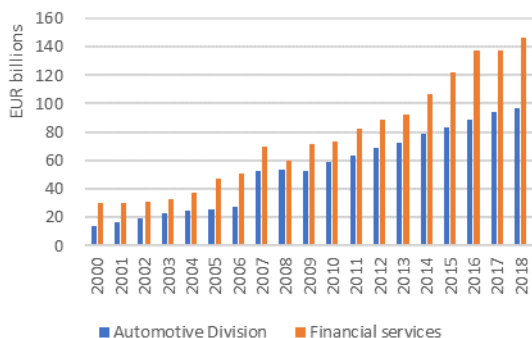
The differences become even more pronounced when analysing the balance sheet structure of the firms, as presented in figure 6.17. Just taking the relative size of assets by segment into account, one may ask as to whether the German firms, especially the premium producers, are car manufacturers with auto banks, or rather financial institutions that produce cars. The data highlight the stark differences among the OEMs in this comparative case study. The assets of the financial divisions at BMW and DAI exceed those of the automotive division by a factor of 1.5 (BMW) and 2 (DAI), respectively. The volume manufacturers, on the other hand, have consistently more assets in the automotive division than in financial services on their balance sheet. VOW stands out with a slightly higher ratio than PSA and RNO, but the differences are rather marginal. The decline of the value of assets in financial services for PSA is the outcome of a corporate restructuring in 2014, whereby the firm decided to transfer its financial assets to a new JV with Santander Consumer Finance. The JV is owned 50 per cent by Banque PSA and 50 per cent by Santander and seeks to provide better and more decentralised financial services across countries where the firm operates. In all other cases, the auto banks are in 100 per cent ownership of the given OEM and they are employed as a key competitive tool to generate sales.

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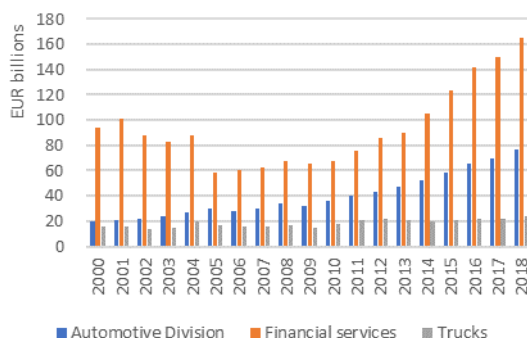
<sup>4</sup>In 2021, DAI decided to outsource its commercial vehicle division.

FIGURE 6.17: TNCs' balance sheet structure.

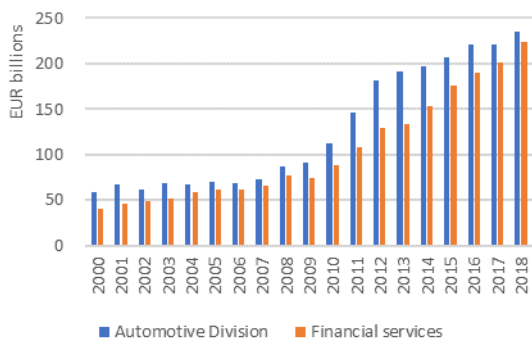
(A) BMW assets in automotive and financial services division.



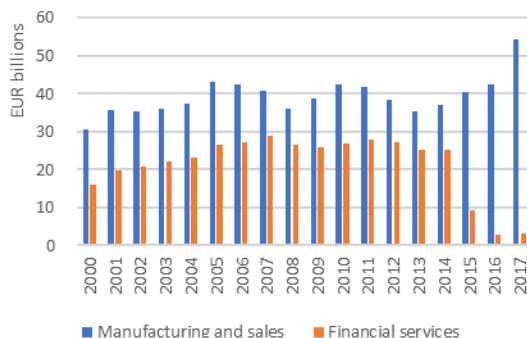
(B) DAI assets in automotive and financial services division.



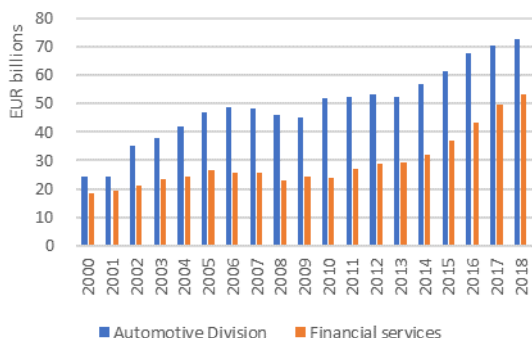
(C) VOW assets in automotive and financial services division.



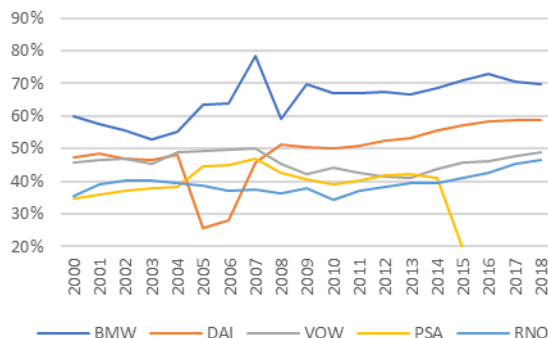
(D) PSA assets in automotive and financial services division.



(E) RNO assets in automotive and financial services division.



(F) Financial services assets as % of total consolidated assets



Source: Refinitiv, annual reports (Daimler, 2004; BMW, 2008, 2010; PSA, 2002, 2004, 2013-2018; Volkswagen, 2010, 2012)

## 6.5 Conclusion

This chapter has introduced the main actors in greater detail through a qualitative synthesis of newspaper articles and annual reports and some first glance indicators regarding production and revenues. The purpose was to address sub-question 2 of the research questions, i.e., analysing the growth performances and internationalisation strategies of the TNCs of this case study. Hence, it was the first step towards empirically examining the key independent and level 1 variable of this research, namely the TNC. The analysis showed that the German manufacturers have had, in particular after the restructuring measures at their domestic bases in the mid-2000s and following the GFC from 2010 on, strong nominal earnings and sales growth. Also, the premium brands increasingly penetrated the volume market during the 2000s and 2010s. The French firms, on the other hand, have had two turbulent decades, marked by a rather satisfying performance in the early 2000s and a decline from 2005 on. It was not until the domestic restructuring and outsourcing measures were implemented after the Eurozone crisis that the French manufacturers managed to return to growth.

In terms of their international footprint, the German firms were more present overseas compared to their French counterparts, while in Europe, the expansion of the production network of the former was stronger towards the East, and in case of the latter towards the South. In Asia, the most important growth market, a more genuine implementation of the French producers occurred only after 2010, whereas the Germans went in and expanded a lot earlier. Profit and revenue streams indicated a *prima facie* strong performance of German firms vis-à-vis their French competitors, yet the quality of earnings as well as the sentiment analysis cast some doubts on the quality of growth, which thus requires further investigation. Finally, this chapter has shown that a major structural difference between the German and French OEMs is that financial services play a much more important role for the former as opposed to the latter. Given the shortcomings discussed of the indicators that were used in this chapter to introduce the firms, chapter 7 continues with an in-depth analysis to better evaluate the quality and nature of growth of the German enterprises and to identify the reasons for the lack thereof for the French producers.

## Notes

<sup>1</sup>”In 2008, da war Weltuntergangsstimmung, und 2009 hieß es schon, wir kommen mit dem Produzieren nicht mehr hinterher.”

<sup>2</sup>”En réalité les gens voient une enveloppe différente, donc ils considèrent que ce sont deux voitures différentes mais ce qui on a en dessous c’est la même chose.”

<sup>3</sup>”Die Gründe sind wahrscheinlich weniger bei VW als innerhalb Chinas zu suchen. Das erste Volkswagenwerk war ein Joint Venture zwischen Shanghai Automotives, also dem vom sozusagen vom lokalen Staat bzw. von der autonomen Stadt Shanghai quasi besessenes Unternehmen. PSA war im Süden, in Guangzhou und die hatten ein ganz anderes Modell da heranzugehen. Das war mehr so Laissez-faire im Süden. Und SAIC war dagegen ein ziemlich gut koordiniertes und von dem lokalen Staat gut gemanagtes Unternehmen und die Kooperation.”

# Chapter 7

## Analysis of corporate financial structures and statements

Chapter 5 presented the structural features as well as trade and production data of the automobile industry (level 2 and 3 of the three-level model), chapter 6 introduced the main actors of this case study (level 1), relying largely on qualitative data that was supplemented with several quantitative indicators. While the main research question seeks to identify as to how the operations of large TNCs in France and Germany drove capitalist development and change in Europe between 1999 and 2018, chapter 5 and 6 addressed sub-questions 1 and 2, respectively: which were the key tendencies in Europe and within the national economies (sub-question 1) and what were the growth performances and internationalisation strategies of the TNCs of this case study (sub-question 2). Regarding the former, the empirical analysis showed that the European auto industry largely stagnated throughout the period of this research. The price wars intensified, whilst more production shifted towards the East. Germany, as opposed to France, managed to withstand a decline in production, whereas its OEMs continued to increase their market share. Regarding sub-question 2, chapter 6 showed that the growth of the German firms – which were more present in overseas markets than the French – translated into higher revenue and EBIT figures, while growth remained largely absent in the case of their French competitors. Furthermore, one critical difference in the asset structure of the firms was that the premium producers BMW and DAI have a much higher reliance on assets in its finance divisions compared to the volume manufacturers, VOW, PSA, and RNO. At the same time, however, earning quality scores and business sentiments of

the German OEMs did not follow the trends in nominal earnings. Both indicators were equally bleak in the case of the French corporations, although PSA managed to generate much better quality of earnings after 2013. This raised questions about the nature of growth and potential implications for national economic outcomes in the home countries of all TNCs.

Based on the findings of this research so far, this chapter now provides an in-depth inter-firm comparison that will begin answering sub-question 3: “What explains the differences in the growth performances and internationalisation of the TNCs between 1999 and 2018?”. It engages in an analysis of the TNCs’ financial structures, followed by a structured ratio analysis along the DuPont pyramid model, which is a well-established and widely used approach for inter-firm comparison schemes (Elliott and Elliott, 2019, 708), especially as the usage of ratios controls for the factor of scale (Weetman, 2019). The final part of this chapter is a cash flow statement analysis. To make the analysis accessible to readers non-familiar with the technical accounting terminology, the chapter explains and justifies the use of the indicators employed. The accounting standards are International Financial Reporting Standards (IFRS) for the data between 2000-2018 for the German and 2004-2018 French OEMs. In case of the French TNCs, the reporting for the years 2000-2003 was based on French Accounting Standards. The differences between the French accounting standards and IFRS are, however, mostly based on formalities (Porta and Montagnier, 2019). If anything, IFSR is more ‘neutral’ compared to the more ‘prudent’ measurements of French standards, so that, *in substance*, the differences in accounting standards do not distort the conclusions drawn in this research (ibid.).



## 7.1 Financial structure

In chapter 6, figure 6.17 showed that the financial divisions play a much larger role for the premium manufacturers than for volume producers. In order to further examine and understand structural differences between firms, it is, however, important to further evaluate the asset structure as well as to address the other side of the balance sheet, i.e. the firms' equity and liabilities. This allows for an analysis of the extent to which a firm is financing its operations via debt or equity, and whether there are significant differences between the German and French OEMs in this regard.

The analysis starts with a more nuanced picture of the firms' assets, in particular in relation to their short-term and long-term nature. Figure 7.1 presents (A) the firms' current assets (i.e. assets expected to be liquidated within a year, notably cash and cash equivalents,<sup>1</sup> inventory,<sup>2</sup> and trade receivables<sup>3</sup>), (B) non-current assets (i.e. long-term and illiquid assets, including investments in other companies, intellectual property, as well as property, plant and equipment), (C) the relative share of non-current assets in total assets, and (D) the current ratio, which is the ratio of current assets to current liabilities (i.e. short-term liabilities due within a year). The latter thus indicates the firms' ability to meet payments of short-term liabilities out of current assets (Atrill and McLaney, 2019).

Several features are to be noted here. First, not surprisingly given the growth trends identified in chapter 6, the German firms have had a much stronger overall asset growth performance than the French enterprises. Yet, the differences between the German and French OEMs become particularly pronounced when it comes to the growth of long-term (i.e. non-current) assets. The sharp increase in the share of non-current assets of the German OEMs in the early 2000s is almost entirely due to the development of non-current assets (rather than a decline of current assets), whereas PSA and RNO experienced hardly any growth in this regard. In the case of PSA, the fall in current assets from

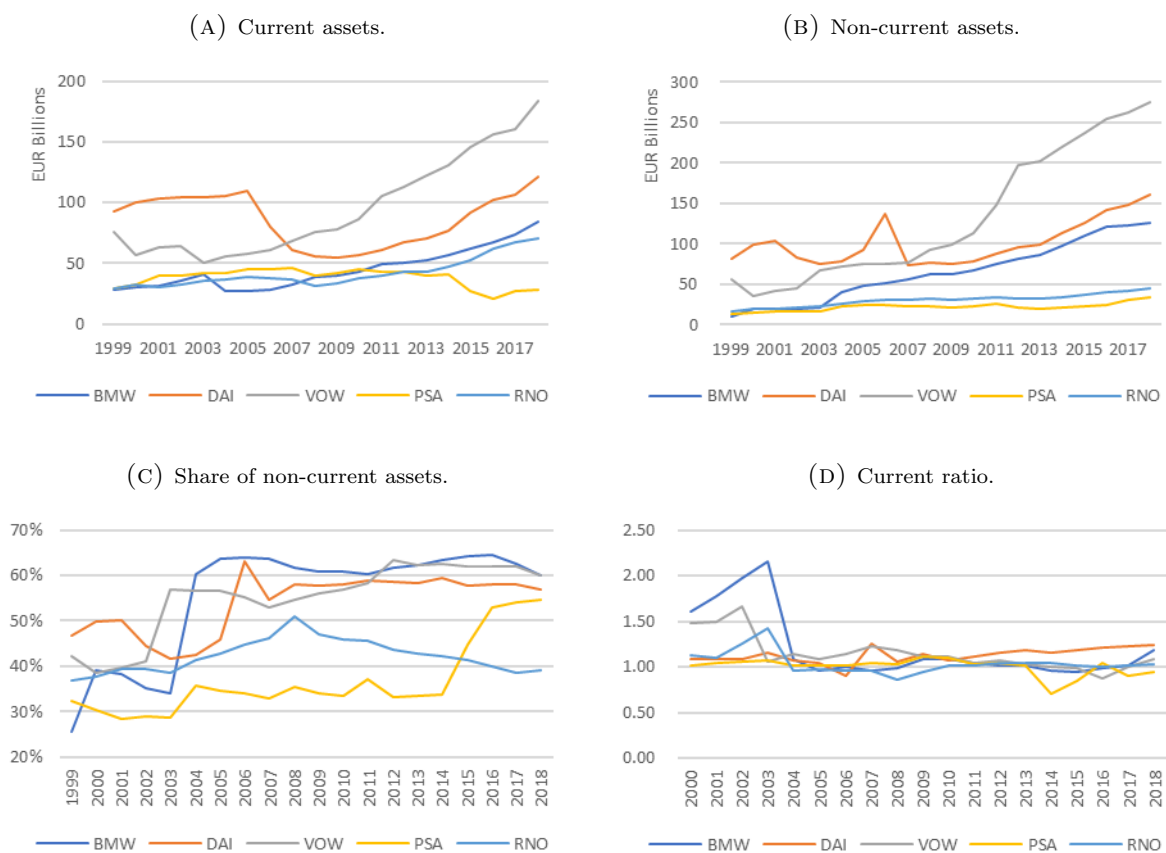
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<sup>1</sup>Cash and cash equivalents refer to assets that are cash or can be converted into cash immediately, such as government bonds.

<sup>2</sup>Inventory includes the goods available for sale as well as raw materials and work-in-progress. In the automotive industry, cars that are available for sale but not yet sold account for the largest share of inventory.

<sup>3</sup>Trade receivables are claims that a company holds from the delivery of goods and services, which have not yet been paid for.

FIGURE 7.1: Balance sheet structures



Source: S&amp;P Global Market Intelligence, Refinitiv.

2014 on is attributable to the outsourcing of its financial division, which took a large proportion of current assets off the firm's balance sheet, as well as various downsizing measures implemented by the management in the aftermath of the near collapse of the firm. The outcome of above tendencies is that the share of current assets in total assets remains generally higher for the French TNCs vis-à-vis their German competitors, which indicates, in addition to the absence of growth of non-current assets, an elevated pressure to maintain and demonstrate liquidity.

Despite the growth of current *and* non-current assets for the German firms, we see that across the sample, all firms roughly had a current ratio of 1, which means that current assets were just about equal to current liabilities. The French enterprises had certain years where this ratio was lower than 1, indicating potential short-term liquidity issues, which would have also made it more difficult to obtain capital to invest in non-current assets.

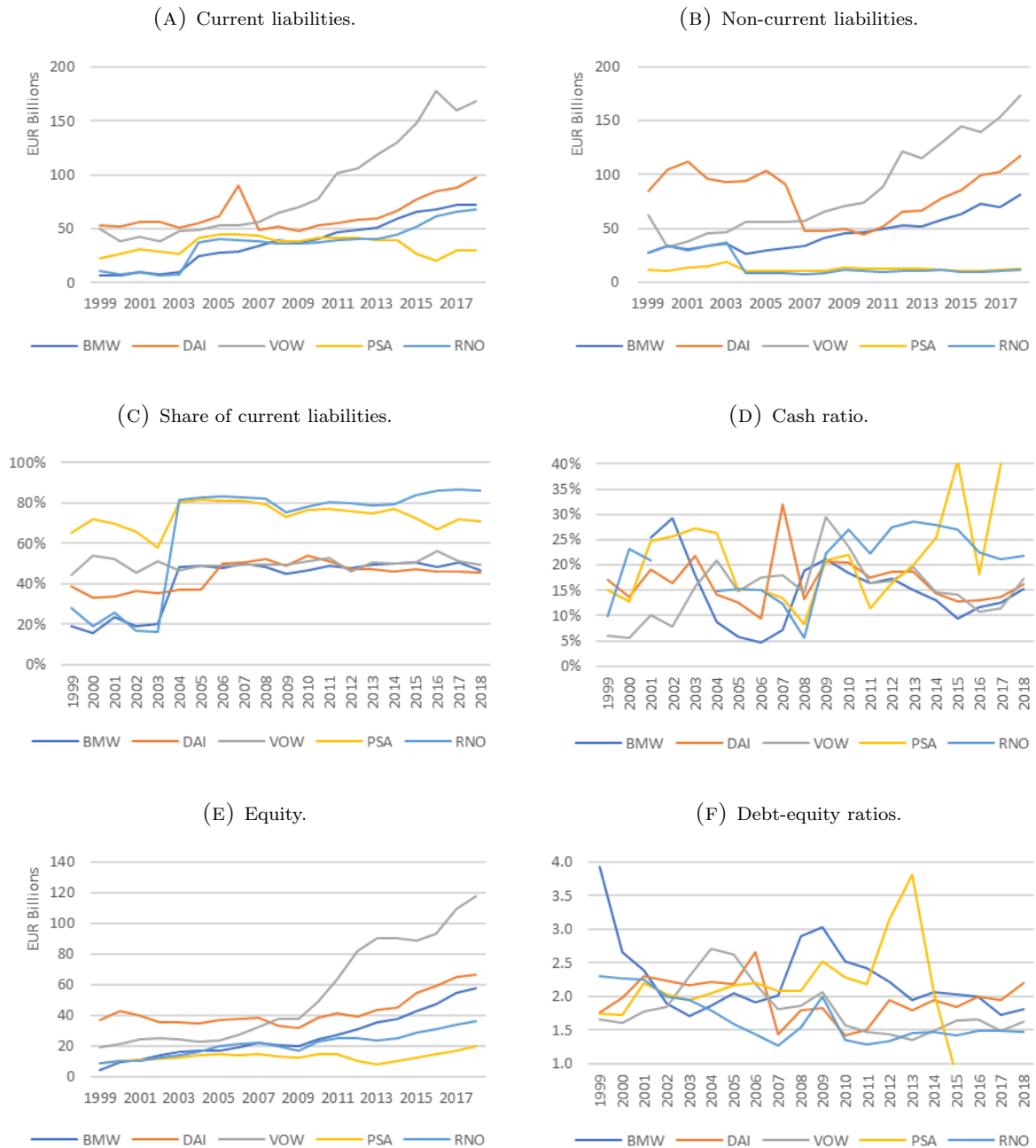
On the equity and liability side, figure 7.2 presents (A) the firms' current and (B) non-current liabilities, (C) the share of current liabilities in total liabilities, (D) the cash ratio, indicating the ratio of cash and cash equivalents to current liabilities, (E) the TNCs' equity, and finally, (F) the debt-equity ratio.

The data reveal similar patterns as above: while the German firms were able to substantially raise longer-term capital, the French OEMs were predominantly refinancing themselves through short-term funding, as non-current liabilities remained flat. This led to a much higher proportion of current liabilities out of total liabilities vis-à-vis the German firms.<sup>4</sup> The cash ratio, on the other hand, which is the most conservative liquidity ratio, as it shows the proportion of current liabilities that can be immediately settled through cash and cash equivalents (i.e. any firm's most liquid assets), does not indicate any general differences between the 'German' or 'French' firms prior to 2007. Yet, after the GFC and Eurozone crises, it appears as though the French firms had to hold higher proportions of cash relative to current liabilities from the 2010s on. This would fit the interpretation of above data that suggest more difficult access to capital markets to obtain long-term capital, as it indicates increased efforts (compared to the German firms) to ensure the ability to service short-term liability payments – or, in other words,

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<sup>4</sup>RNO's rapid increase in the share of current liabilities of total liabilities 2003-2004 is due to changes in accounting standards.

FIGURE 7.2: Liabilities structure



Source: S&amp;P Global Market Intelligence.

to sustain its short-term liquidity. The phenomenon that cash ratios increase during crises is not surprising, as crises generally increase demand for short-term liquidity and cash constitutes the most liquid asset any business entity can possess (Elliott and Elliott, 2019). This is due to its capacity to settle *any* form of liability, which gives cash the quality to act as an "insurance" against the vagaries of the market (Minsky, 2008, 75). The fact the cash ratios *remained* high for PSA and RNO, while they decreased for BMW, DAI, and VOW, suggests that financial markets were a lot more confident in the ability of the German firms to refinance themselves, and that the French enterprises had to hold on to cash to signal financial market participants that short term liabilities would be served. To put it in more Minskian terms, the hoarding of cash, constituting an insurance against the economy, in combination with a higher share of short term liabilities, are classical examples that market participants perceive higher risks regarding the sustainability of the committed cash flow to prospective cash flow ratio (Minsky, 2008).

PSA continued to *repeatedly* refer in its annual reports to their commitment to maintain a "diversified, proactive financing strategy with a conservative liquidity policy" in order to meet the firm's financing need.<sup>5</sup> In 2008, the company launched a cost and inventory reduction programme called "CASH 2009", before announcing "CAP 2010" (which expanded several cost-cutting and restructuring measures) and the "2012 Cash Management Plan" – all with the goal to better manage cash reserves and generate positive free cash flow (PSA, 2008, 2012). In a more normal market environment and in a situation of growth, such an excessive emphasis on cash would have been, if anything, only necessary in the short run, but not over a span of more than 10 years. In the case of RNO, the starvation for cash was similar, considering the strategic importance the firm attached to achieving positive free cash flow – an indicator that broadly shows whether a firm is generating more cash than it spends on operations and investments. It is further addressed below in the cash flow statement analysis, yet when trying to interpret the higher cash ratios, the extraordinary managerial and operational relevance that RNO attached to the generation of cash is illuminating.

As it is normal in a period of market volatility and liquidity constraints, RNO's management during the GFC was concentrating all their efforts to the preservation and

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<sup>5</sup>Cf. PSA's annual reports of 2008 (p. 108), 2010 (p. 265), 2013 (p. 152), 2015 (p. 153), or 2017 (p. 203)

generation of cash. The former chief operating officer (COO), Patrick Pélata, went so far to outline that “[the firm’s] crisis plan in 2009 was aimed at a single objective: achieving positive free cash flow.” (Renault, 2009, 9). In 2010, Carlos Ghosn (CEO) affirmed that for RNO, “generating free cash flow is necessary to strengthen [the firm’s] investment capacity and, accordingly, [its] ability to grow. It is also vital for paying off the remainder of [corporate] debt, establishing a minimal protective cushion against future uncertainties, and paying dividends to our shareholders.” (Renault, 2010a, 3). After the GFC, RNO continued to place a strong emphasis on free cash flow. In 2010, it was stated as one out of two main objectives for the next six years (under the “Drive the Change” plan) – next to growing sales volumes (ibid.). Following this plan, the maintenance of a positive free cash flow was stated again as a main priority for the subsequent six-year plan introduced in 2016: “Building on the success of Drive the Change, our next strategic plan will cover the period until 2022 and build the future of Groupe Renault. Our ambition is to achieve EUR 70 billion in revenues, with a minimum margin of 7 per cent at the end of the plan, while maintaining a positive free cash flow every year.” (Renault, 2016, 4) The maintenance of a positive free cash flow was thus a condition based on which all other objectives rested. Hence, in sum, the continued reliance on cash and higher cash ratios for the French firms is, compared to the German OEMs, one sign of the heightened sense of insecurity related to these enterprises in financial markets (Elliott and Elliott, 2019). In a context of growth, it would not be necessarily a precondition to ensure liquidity and make investments, as firms could merely tap in capital markets instead.

Notwithstanding the greater ease that German OEMs had in accessing capital markets - which explains one part of the differentials in the growth performances (sub-question 3) -, with regards to overall gearing, there are no substantial or general differences between the firms in this sample: While the German TNCs managed to increase their nominal equity base, especially through higher retained earnings, the debt-equity ratio shows that RNO operated with the lowest gearing out of all TNCs, closely followed by VOW after the GFC. PSA’s gearing ratio was somewhere between that of the German premium OEMs. It increased significantly from 2011 on due to the collapse of its equity, which declined from EUR 14.5 billion in 2011 to a mere EUR 7.8 billion in 2013, before the bailout of the French government saved the firm from bankruptcy. The corridor of a ratio between 1.5 and 2 for all firms in the sample is normal for capital-intensive industries, which also

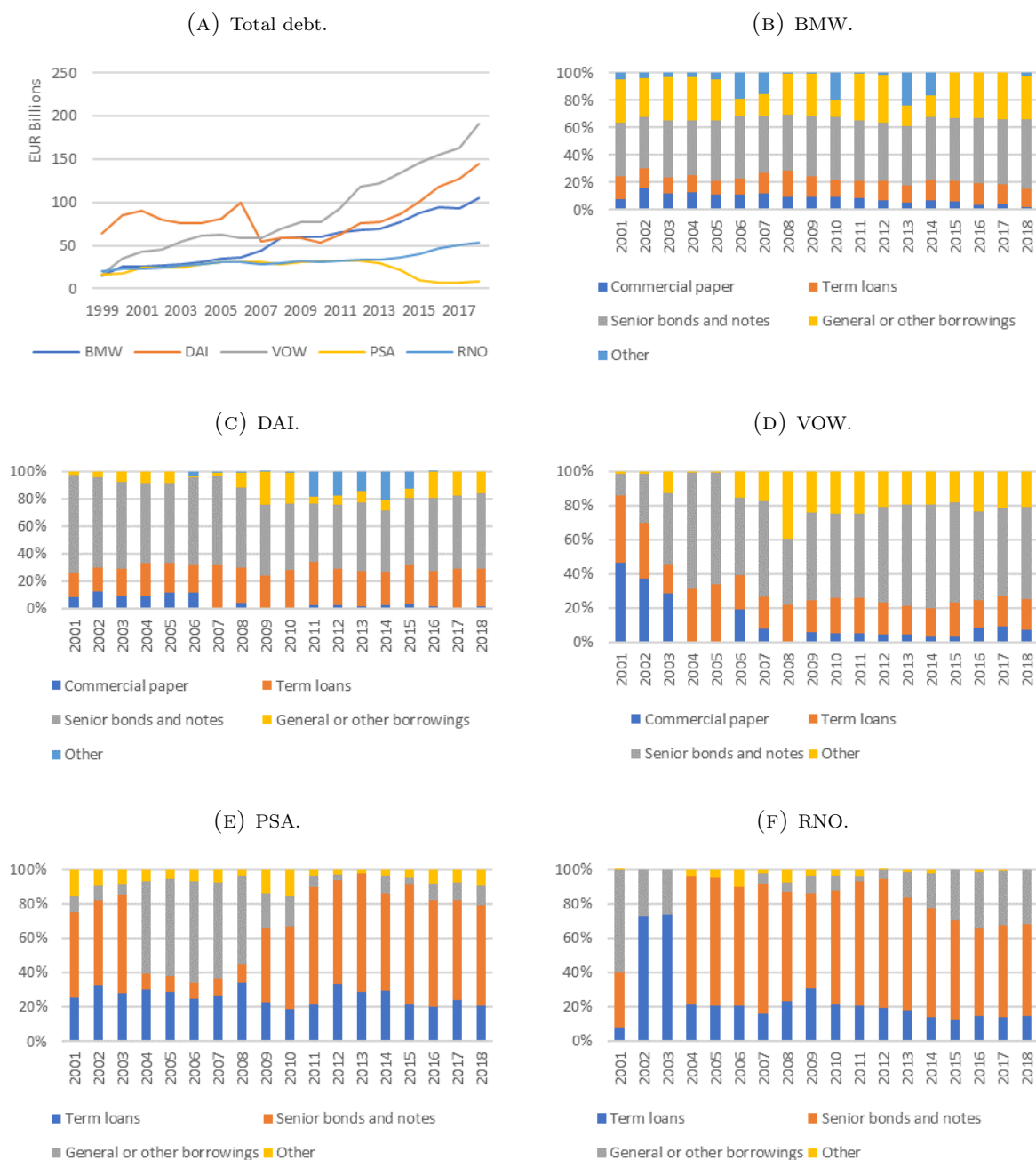
shows the importance of access to capital for these firms to refinance business operations to grow and survive.

When breaking down the debt structure to its main components, we find that, for OEMs in the automotive industry, it is the refinancing via bonds that is critical. Figure 7.3 shows the total amount and composition of corporate debt, including liabilities in form of commercial papers (German OEMs only), regular bank loans, senior bonds and notes, and general or other borrowing, i.e. liabilities from asset-backed securities (ABS) or deposits in the direct banking business. Other liabilities, such as subordinated bonds and loans or revolving credit, as well as other not further classified debt is included in the category of ‘other’. The data show that across all enterprises, senior bonds and notes dominate, and that the direct banking business and securitisation play an important role, too. The outstanding total amount of term loans, however, hardly exceeds 20 per cent.

Regarding the activity on capital markets, as already suggested by figure 7.2, the German OEMs were a lot more active than the French. In chapter 3, the theoretical framework outlined that the relationship between growth and profits can be characterised as a virtuous cycle: firms must grow to make profits and make profits to grow. The ability to refinance the firms’ operations on capital markets was thereby a key reason as to why growth and profits are both essential for firms to survive. In a sense, access to finance fits in in a similar fashion: it serves as a precondition for growth and profits, while growth and profits are a precondition for access to capital (on reasonable terms).

Figure 7.4 shows the *net* issuance (retirement) of debt, i.e. the issuance minus retirement of corporate debt as well as the total to EBITDA ratio, i.e. debt as a multiple of earnings before interest, income taxes, depreciation, and amortisation. The special net retirement of debt of DAI in 2007, which involved a strong net reduction in debt (EUR 21.8 billion) in the context of the sale of Chrysler, goes beyond the scale simply to improve the readability of the graph. It is evident from these data that especially the strong growth of earnings after 2010 involved very significant amounts of new debt that the firms issued to fund their growth. French firms, on the other hand, were hardly active on capital markets. Debt issuance and debt retirement were nominally lower than for German firms and mostly balanced each other out – which is, in itself, a sign of low growth, as it suggests that the firms had little need or ability to fund an expansion.

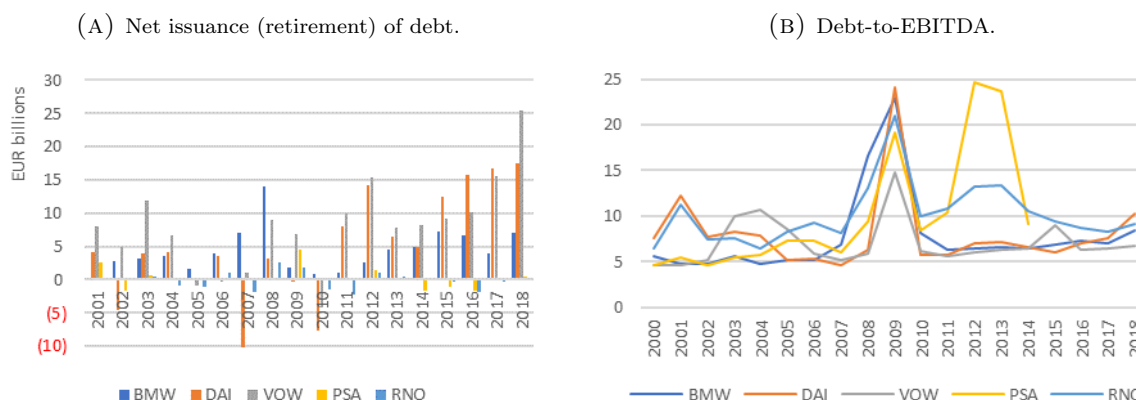
FIGURE 7.3: Corporate debt structures



Source: S&P Global Market Intelligence.



FIGURE 7.4: Debt issuance



Source: S&P Global Market Intelligence.

In this context, we see that the total debt to EBITDA ratio confirms above theoretically outlined relationship, as the development of the ratios remain very much in line with one another – with the spikes related to the collapse in earnings during the GFC and the Eurozone crisis, which especially hit PSA and RNO and left their debt to EBITDA ratios on an elevated level compared to that of the Germans. Combining the insights with the structure of the liabilities, this implies that PSA and RNO had difficulties to obtain finance on reasonable terms and had to rely largely on short-term maturities, with most liabilities being due within a year. The reasons for that are imputable to lower growth prospects and higher risk sentiments (as also expressed in the low market capitalisation shown in figure 6.11 in chapter 6). In other words, the loss of market shares and the near absence of revenue growth in Europe suffocated the French OEMs, while the expansion of the German firms in overseas markets increased their scale and thus gave them additional firepower. Another critical feature, notably for the developments in Europe, were more unfavourable rates of benchmark securities (i.e. government bonds) for the French producers – an issue that will be further discussed in the next chapter.

Hence, as the absence of growth created problems for the French manufacturers, in that it entailed a less favourable environment for refinancing operations, especially vis-à-vis their German competitors, in the next section, the question is to further investigate the underlying nature of the growth of the German firms and the lack thereof for the French OEMs.

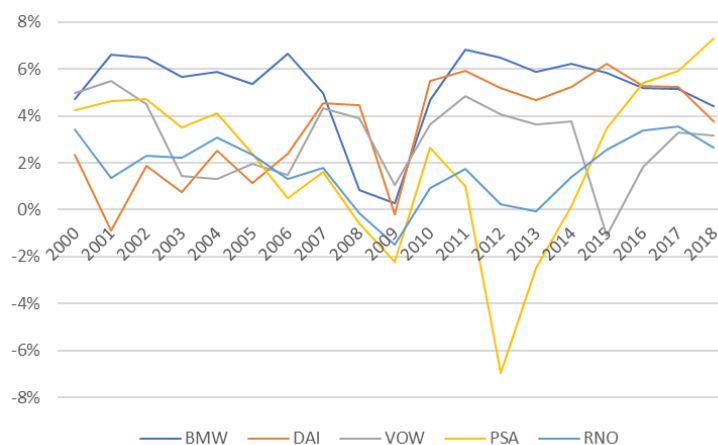
## 7.2 Financial statement analysis

The financial statement analysis follows the DuPont pyramid approach for inter-firm comparisons, as presented by Elliott and Elliott (2019). As mentioned above, nominal growth figures are important to obtain an overview of and set the context for analysing market developments. Moreover, they help to provide initial insights as to which firms were able to increase or reach a certain scale, which the theoretical framework in chapter 3 identified as critical to control the economic environment (something that all firms strive for given the uncertainty that prevails in the market). However, nominal growth figures do not say anything about the quality and nature of growth. For that, one must turn to ratio-analysis, which controls for the size of the company, as it puts the relevant indicators in relation to total sales.

### 7.2.1 Profitability

The DuPont pyramid starts with the return on capital employed (ROCE) and then analyses “those ratios that impact on the profit and those that impact on the assets employed in the business.” (Elliott and Elliott, 2019, 708). ROCE is a fundamental indicator to measure a company’s performance and its competitiveness, since it “compares inputs (capital invested) with outputs (operating profit) so as to reveal the effectiveness with which funds have been deployed.” (Atrill and McLaney, 2019, 277) The ratio is expressed as the profit margin multiplied by asset turnover (i.e. ratio of sales to average assets), so that it combines the two main components of the return on capital employed, which are margins and volume. Higher ROCE values imply higher profits that can be reinvested to further generate growth and benefits for shareholders, which, in turn, makes ROCE a good indicator to identify which companies grow successfully and are therefore able to access capital markets more easily.

FIGURE 7.5: Return on capital employed.



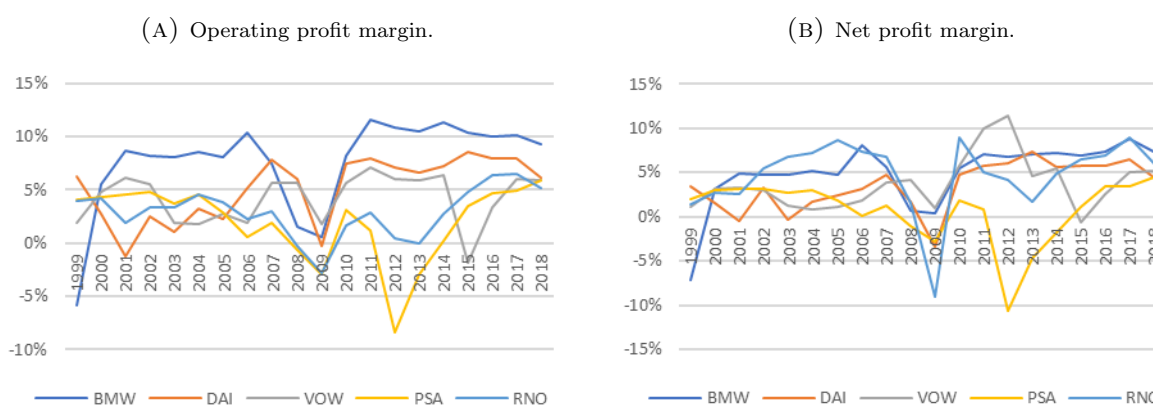
Source: Refinitiv.

The ROCE of the five TNCs of this case study, presented in figure 7.5, reveals some striking insights. First, we see that there is a direct relation to the market share developments in Europe, which is not surprising given the strong reliance of all enterprises, especially the French ones, on the developments in their regional market. As long as PSA and RNO were able to defend their market share, ROCE values remained either stable around 4 per cent for PSA and increased for RNO between 2001 and 2003. VOW's ROCE fell during the early 2000s and that of DAI increased, yet it remained very poor, also due to the firm's problems with Chrysler. BMW was the only firm that stands out in the sample, with a consistently superior value of around 6 per cent. Since the time when the German firms, especially DAI and VOW, started to implement radical restructuring and cost cutting measures at their home bases in the mid-2000s (cf. chapter 6), we observe reverse trends to set in: PSA's and RNO's competitiveness and ROCE values deteriorate, while the indicators of DAI and VOW significantly improve. Due to the upward momentum (DAI and VOW) as well as a generally higher level of ROCE (BMW), German firms fared a lot better after the GFC than PSA and RNO, both of whom were burning capital to generate profits. While all firms then benefited from the rebound of the European market, and German firms were additionally profiting from the growth in China from 2010 on, the Eurozone crisis hit the ROCE of all OEMs. Yet, the French firms, who had lost market shares on its home continent and had a weak presence in overseas markets, were particularly hit. It is during the years 2010 and 2014 that the dif-

ferences in ROCE between the German and the French OEMs are the most pronounced. Following the restructuring measures at PSA and RNO, and wide-ranging labour market reforms in the French economy, both PSA and RNO returned to strong ROCE, while the trends of the German manufacturers were on a continuous decline since 2015. In 2016, PSA's ROCE was equal to that of the German manufacturers and continued to improve, so that the firm turned out to generate more profits out of capital employed than the German premium manufacturers. However, as the analysis will show further below, a large share of PSA's ROCE values after 2015 is attributable to higher asset turnover, which was inflated due to a decline in assets. It thus requires a certain degree of caution, when interpreting the data as a sign of superior success of the business. RNO's ROCE, in turn, was overall lower than that of PSA, but it has reached similar values that the firm had in the early 2000s – and is at par with VOW.

To further evaluate the developments in ROCE, it is important to analyse the profit and volume components. Figure 7.6 provides two specific profit indicators: the operating profit margins, used as one factor in the ROCE computation, and net profit margin. The operating profit margin provides information on how much profit a company makes from its core operations before interest and tax payments, which makes this ratio “normally the most appropriate measure of operational performance” (Atrill and McLaney, 2019, 279). The net profit margin, on the other hand, indicates the profit after deducting all costs (Weetman, 2019).

FIGURE 7.6: Profitability



Source: Refinitiv.

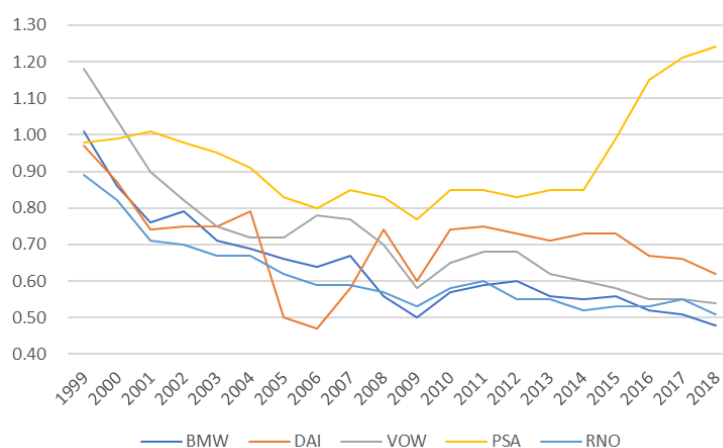
As the trend in operative profit margins largely follow that of ROCE values in figure 7.5, the first conclusion is that the ROCE was largely determined by the operative performance of the business, rather than sales volume (in relation to the companies' assets). As with the ROCE values, we observe a deterioration of operating profit margins of both French TNCs from the mid-2000s on, which find their low points during the GFC and the Eurozone crisis. After the restructuring measures implemented in both enterprises, the firm returned to levels of their operating margins which they had in the early 2000s. The German enterprises, with a notable exception of BMW, shifted their operating margins on a level of just above 5 per cent following their own restructuring at home and largely remained on this level – regardless of the growth in China or increases in exports to the US, both markets that were, in addition to an increase in local production, served with rather high-end models exported from Germany.

While it appears *prima facie* striking that the operating profitability of enterprises such as DAI and VOW (including the Audi and Porsche brands) with its premium positioning used to be and is now again at the level of pure volume producers as RNO and PSA, the net profit margins further relativize the impressive German earnings performance observed in chapter 6. Based on this profitability measure, which takes into account the deduction of all costs, RNO is at a level with its German competitors throughout the entire period of this research. PSA's net margin deteriorated in line with its operating performance from the mid-2000s on, to reach a low point with its near bankruptcy. Yet, following the corporate restructuring, it returned to a level similar to that of the other OEMs of this case study. It can therefore be concluded that the growth of the German TNCs, especially that after 2010, had not been accompanied by increased profitability, whereas the improving operative performance during the mid-2000s was *pari passu* to a slight increase in output (due to higher market shares). The French enterprises, on the other hand, experienced a deterioration of margins in the context of their decline in Europe. Their rebound after the Eurozone crisis, however, was one of growth and improved profitability. Chapter 8 discusses the implications for the home economies of those TNCs, yet for now, it is important to further understand above preliminary conclusions.

## 7.2.2 Volume analysis

Since the operating margin indicators follow closely the ROCE value (except for PSA during the last years of this research), it was suggested that operating margins drove ROCE, rather than volumes. In order to confirm this preliminary conclusion, figure 7.7 outlines the values for the OEMs of this case study and the period of this research. As briefly indicated above, the asset turnover measures the amount of sales revenue in relation to capital employed (Atrill and McLaney, 2019, 287). The higher the ratio, the more sales revenue a company generates from the amount of capital that it employs.

FIGURE 7.7: Asset turnover.

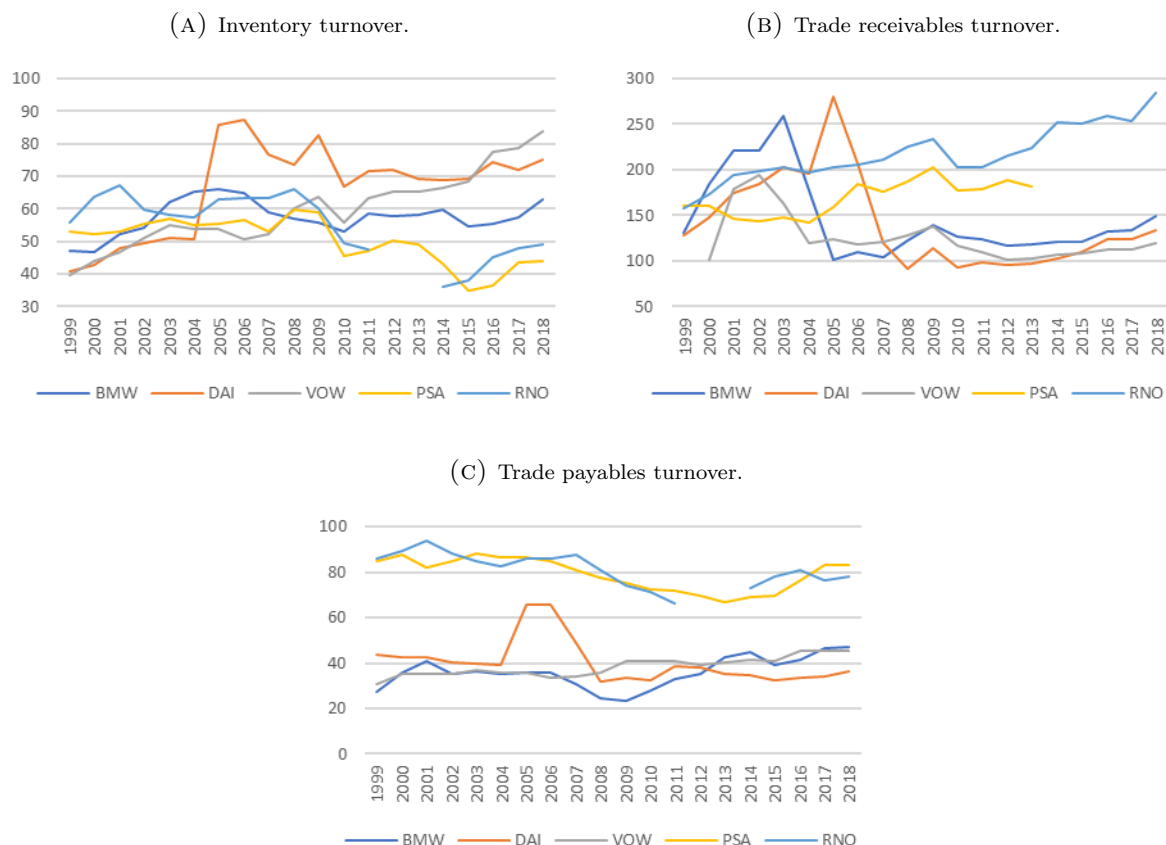


Source: Refinitiv.

The asset turnover for the French and German OEMs confirms the preliminary conclusion drawn in the previous section: it was, in particular, the operative performance that determined ROCE. The case of PSA is a slight exception to this, since it employed its assets generally with higher efficiency than the other firms. However, comparing the sudden increase in asset turnover with the balance sheets presented in figure 7.1, it was the forced sale of assets to stay afloat, such as its stakes in its profitable logistics subsidiary GEFECO, the outsourcing of its financial division that improved asset turnover, and the downsizing managed by Carlos Tavares (cf. chapter 6 for the details of both aspects). Also, the case of DAI is illuminating in that it shows that the business did improve its asset employment efficiency after the separation of Chrysler. Nonetheless,

there is a clear downward trend across all OEMs, which implies that all firms had to employ more and more assets to generate the same amount of sales revenues.

FIGURE 7.8: Asset turnover - working capital



Source: Refinitiv.

Analysing whether this general decline is due to internal or external factors, requires an analysis of *net* current assets (i.e. ‘working capital’), hereby focusing on the three key components of inventory, trade receivables, and trade payables<sup>6</sup> (Elliott and Elliott, 2019). Figure 7.8 shows the respective values for inventory turnover, i.e. the average times (always measured in days in this analysis) that it takes the company to sell its inventory, the trade receivables turnover, i.e. the average time that it takes the customers to pay, and trade payables turnover, i.e. the average time that it takes the business to pay its suppliers. We see some general differences here between the German and the French OEMs. First, the latter have a better inventory management, since it takes them less

<sup>6</sup>Trade payables refers to the money that is owed by a company to its suppliers.

days to sell the goods that they have on stock (recall, that the vast majority of inventory in the auto industry consists of finished products). On the other hand, however, it takes them longer than their German counterparts to collect cash from their customers as well as paying their own suppliers. Despite these differences though, there is no indication as to why there would be a general decline in asset turnover for the companies of this case study, which implies, in turn, that what we observe in figure 7.7 is largely due to external factors, especially the overcapacities and the resulting pressure on prices that were two key characteristics not only in the European market, but also in the US and in China (cf. chapter 5).

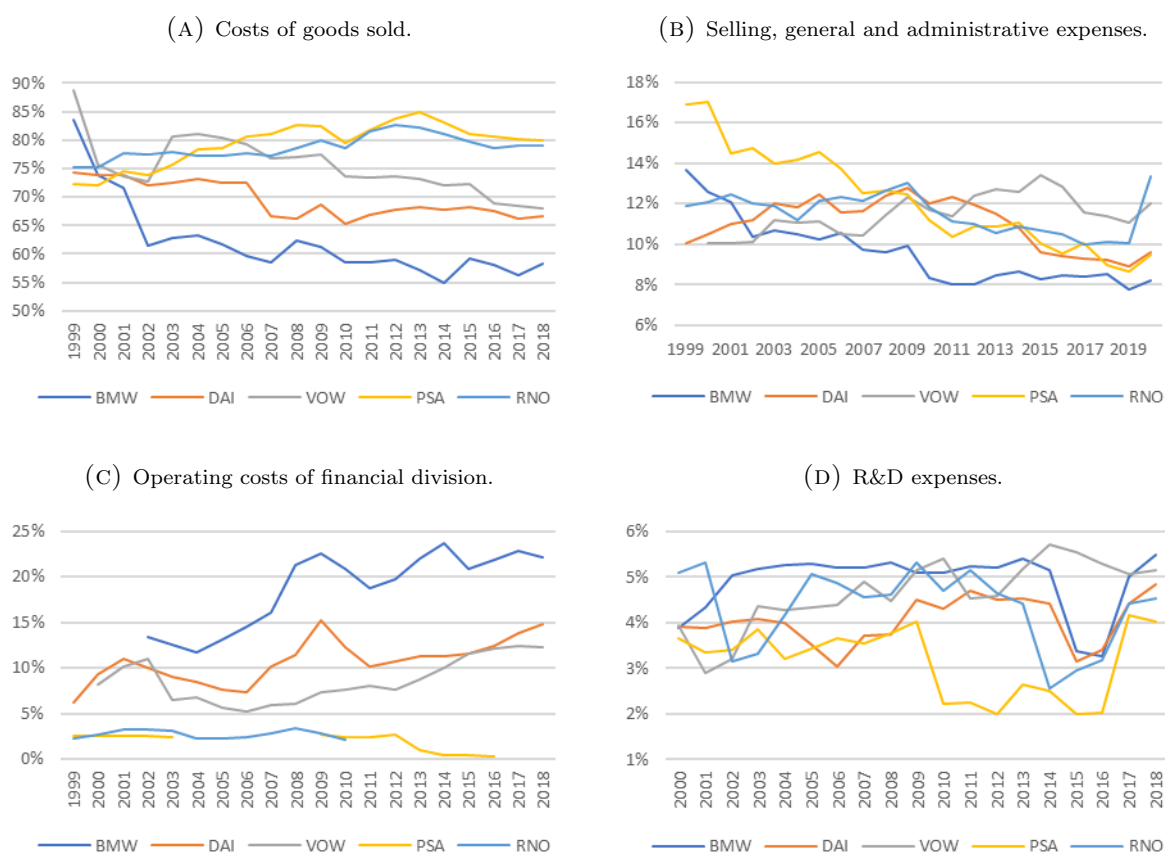
### 7.2.3 Cost structures

Given the importance of the operating margins for ROCE of all TNCs, it is useful to further assess the cost structures, which have a fundamental impact on profitability. In chapter 3, the theoretical framework for this analysis, it was argued that the *relative* costs are the decisive factor. Absolute costs have very little informational value to assess a company's cost structure, since they do not say anything about the relation of those costs to the output of the firm, which is the main determinant of a company's competitiveness.

Figure 7.9 shows various aspects of the companies' costs all in relation to sales. First, (A) presents data on the costs of goods sold (COGS), which are defined by the S&P Global Market Intelligence Database as "the cost incurred on all raw materials and work in process, manufacturing expenses and costs incurred which can be directly attributable to generate the main revenues of the company". Put simply, these are the costs which are *directly* related to production. Next, (B) provides information on selling, general and administrative expenses, which refer to costs that are *not directly* related to production, such as "advertising, marketing, plan contributions, delivery and distribution, storage, and other indirect (...) expenditures." Finally, (C) and (D) outline the operating costs relating to the finance division of a company and R&D expenses for the years in which the figures were available.



FIGURE 7.9: TNCs' cost structures



Source: S&P Global Market Intelligence.

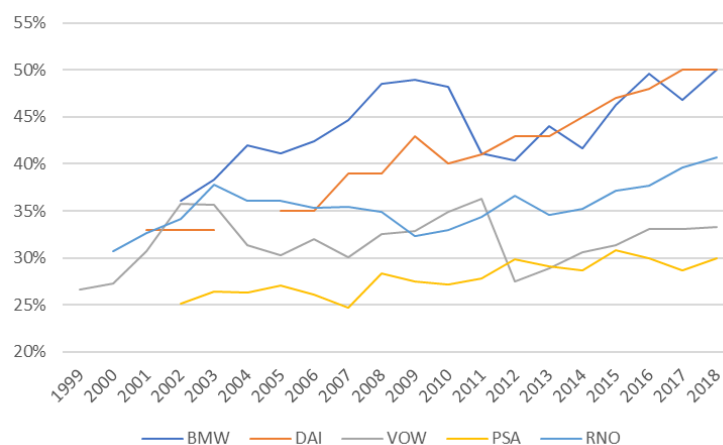
The data show that, in fact, French OEMs do have substantial costs problems vis-à-vis their German competitors. COGS, which accounts for the vast majority of total costs, have, as a share of sales, not ceased to increase until the Eurozone crisis. Both OEMs managed to reduce costs significantly during the last years, but they continue to have a large gap compared to their German competitors. This high cost base in combination due to the loss of market shares exacerbated the situation for French firms and explains the deterioration of margins, which we observe in figure 7.6. The German OEMs, by contrast, have substantially improved their cost competitiveness, in the case of DAI and VOW, in particular, from the mid-2000s on. BMW stands out as the most cost-effective producer, so that the reasons for having the highest profitability in the sample lie in its effective cost management relative to sales, which boosts its margins.

In terms of selling, general and administrative expenses, which account for the largest share of non-operational costs, the French firms fared better. Especially PSA managed to drastically reduce its costs, so that, from the GFC on, there were no more general differences between ‘German’ and ‘French’ OEMs in this cost category. However, where we do find a significant difference – in line with the structure of corporate assets presented in chapter 6 – is in the operating costs of the financial divisions of the firms. Although the data for the French OEMs is only partially available, it is clear that the German enterprises devote a much higher proportion of expenses to their financial divisions. Especially BMW, which had the strongest cost management in production as well as in its administrative costs, spends more than 20 per cent of its sales on running their financial division, while DAI and VOW spend substantially less, with around 15 and 12 per cent, respectively. The French OEMs, by contrast, spent – with 5 per cent of sales – only a fraction of this. It is also interesting to note the differences in trends: while there is a clear upward tendency over time for the German enterprises, the data for the French enterprises points towards outright stagnation or even a decline.

The reason behind above tendency lies in different refinancing rates: the absence of growth for French firms, loss of market shares and a pressure on margins, as well as the deterioration of the economic environment in their home market and higher interest rates on government bonds, which are the benchmark interest rates for all securities, simply did not allow to cheaply raise capital to refinance the sales. The Germans, on the other hand, had strong growth of earnings and market shares, low interest rates on German government bonds, and an overall market environment in their home market that was marked by low unemployment, which was a significant competitive advantage that allowed the OEMs to raise capital cheaply, and, in turn, offer cheap means to refinancing the sales and leasing of their own products. This contributed to further growth and kept the virtuous cycle running. The penetration rates, i.e. the proportions of new vehicles financed or leased by the OEMs’ own financial division, are substantial across the board, as figure 7.10 shows. Especially the German premium manufacturers, DAI and BMW, rely heavily on financial services, as one out of two new vehicle sales is financed or leased by their in-house financial division – up from a penetration rate of around a third at the beginning of the 2000s. Also, RNO’s penetration rate has increased substantially and is, with more than 40 per cent of new vehicles sold in 2018 being financed by its own sales

financing, very high. The figures are lower for PSA and VOW, yet here too, one in three new vehicles (slightly lower value for PSA) are financed or leased by the OEMs' respective financial division. The discontinuity of VOW's penetration rate 2011-2012 occurred "due to the inclusion of the Chinese market since the beginning of 2012, (...) [where] the share of leased or financed vehicles is significantly below the average in other automotive markets." (Volkswagen, 2012, 127-128). Continuing the growth trend that followed this 'correction', one could expect that in developed markets, the share will be somewhere between that of DAI/BMW and RNO. In any case, however, we see how fundamentally important financial services and therefore access to capital has become to generate sales in the auto industry.

FIGURE 7.10: Penetration rates.



Source: Annual reports.

Finally, returning to the last element of the cost structure analysis, which were R&D expenses, we do not find any generalisable conclusions that can be made, although certain tendencies can be explained with the earnings and profitability situation of the given firms. Up until the crisis, BMW was spending the most, with more than 5 per cent, while VOW and RNO closely followed. DAI and PSA had overall lower levels of around 4 per cent. With the shock from the GFC, PSA drastically reduced its R&D expenses. The Eurozone crisis put subsequently pressure on expenditures for innovation, so that it was not until its return to profitability and growth that it was able to regain some of its lost ground. RNO, on the other hand, kept its R&D expenditures up until the Eurozone crisis, and then equally had to cut back. The German OEMs largely maintained R&D

expenditures around a level of between 4 and 5 per cent, with a temporary drop in 2015, following Dieselgate, for the German premium producers. The spending on R&D is thus closely linked to the performance of the firm, which, in turn, affects its future ability to innovate and compete, as Aghion et al. (2020) outline:

If firms face credit constraints, it is their current income rather than future profit that determines how much they can borrow. Hence, if a recession hits and reduces a company's current income, the firm will not be able to adequately address the liquidity shock and it will be forced to trim its R&D expenses. (p. 353)

This is why the ratio analysis must be understood in the context of growth: the loss of market shares in Europe and the concomitant pressure on margins and earnings were, for the French enterprises, key reasons as to why the access to capital markets was more expensive and restricted than for their German competitors. This, in turn, has affected the French OEMs' ability and capacity to invest in R&D – even though figure 7.9 showed that they resisted for a long time and kept R&D spending at the levels of the German firms until the crises hit. Such constraints have, of course, important consequences for the highest value-added activities in the TNCs' home economy, where most of the R&D is situated. With regards to the main research question, which addresses the mechanisms of change, we see that changes in market shares and pressure on margins are two key drivers behind corporate decision-making that feeds through to aggregate statistics. This will be further discussed in the next chapter. For now, the final piece missing to synthesise the conclusions from the corporate analysis is to assess how well the companies generated and used their cash resources.

## 7.3 Cash flow analysis

As indispensable as balance sheets and income statements are to analyse the performance of a firm, they are insufficient to make a concluding statement as they do not provide any information on the generation and employment of cash resources. Yet, cash constitutes “the lifeblood of every business entity” (Elliott and Elliott, 2019, 104), as people and businesses will normally “only (...) accept cash in settlement of their claims” (Atrill and McLaney, 2019, 204). Therefore, to pay employees, suppliers, bankers, and shareholders, a firm must have access to cash, leading some to the conclusion that the very “survival prospects of any organisation rest on the ability to generate positive operating cash flows” (Elliott and Elliott, 2019, 105).

It is important to note that revenues, profits, and cash flows are all different phenomena, since the accrual accounting records revenues and expenses when they occur, not when they are paid. Making a profitable sale on credit will thus increase profit in a given year but have no effect on cash flow. Conversely, if a customer pays back the credit (trade receivable), it will have no effect on profit but increase cash flow (Atrill and McLaney, 2019). The mechanisms through which accrual accounting links profits and cash flows thus allows to potentially estimate future cash flows out of an analysis of the balance sheet and income statements. However, it is also theoretically possible that a company that posts record net income figures year after year runs out of cash to service its loans or pay its employees and suppliers (ibid.). This is what actors in financial markets mean when they refer to the proverb “*revenue is vanity, profit is sanity, but cash is king.*”

Cash flows are generally classified based on cash flows from (1) operating activities, (2) investing activities, and (3) financing activities. Table 7.1 provides a brief description of each, following Chen (2020).

TABLE 7.1: Classification of cash flows

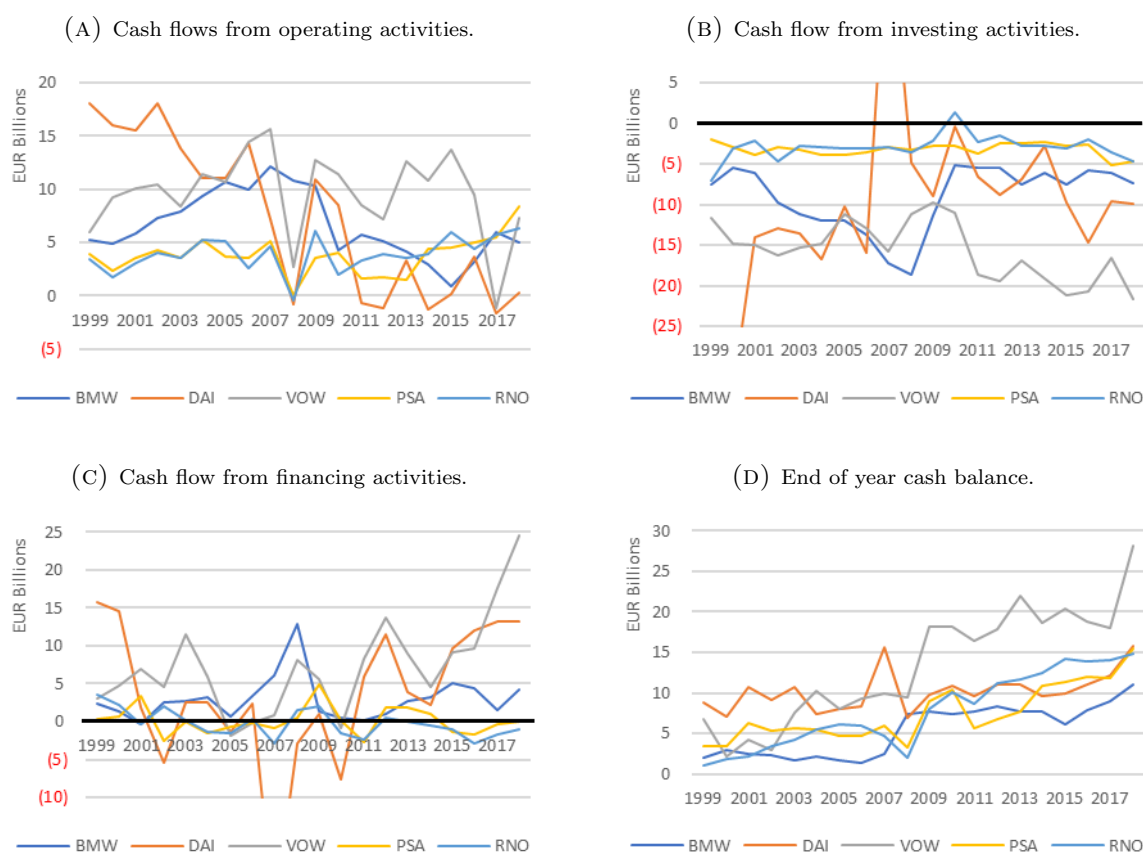
	Definition	Examples
Cash flows from operating activities	Cash flows from operating activities include cash inflows associated with revenue and cash outflows associated with operating expenses.	<ul style="list-style-type: none"> <li>- Cash receipts from the sale of goods and services</li> <li>- Cash receipts from royalties, fees, and commissions</li> <li>- Cash payments to suppliers for goods and services</li> <li>- Cash payments to and on behalf of employees</li> </ul>
Cash flows from investing activities	Investing activities are defined (...) as the acquisition and disposal of long-term assets and other investments not included in cash equivalents.	<ul style="list-style-type: none"> <li>- Cash payments (receipts) to acquire (from sales of) property, plant and equipment, intangibles and other long-term assets</li> <li>- Cash payments (receipts) to acquire (from sales of) equity or debt instruments of other entities</li> <li>- Cash advances and loans made to other parties (other than advances and loans made by financial institutions)</li> </ul>
Cash flows from financing activities	Financing activities are activities that result in changes in the size and composition of the contributed equity and borrowings of the entity.	<ul style="list-style-type: none"> <li>- Cash proceeds from issuing shares or other equity instruments</li> <li>- Cash payments to owners to acquire or redeem the entity's shares</li> <li>- Cash proceeds from issuing debentures, loans, notes and bonds</li> </ul>

Source: Chen (2020, p. 7, 22, 27).

Figure 7.11 provides the data on above three types of cash flow (A-C) and (D) the end of year cash balance. The data on cash flow from (B) investing and (C) financing activities do not fully show the DAI value for 2007 to make the graph more readable. DAI's cash inflow of close to EUR 26.5 billion from investing activities and cash outflow of EUR 25.2 billion from financing activities that year is related to the separation of Chrysler, and therefore a one-off event that distorts the scale.

The cash flow statement analysis reveals several striking findings. First, we find that the record earnings of the German premium manufacturers DAI and BMW were hardly accompanied by any cash coming in from operating activities. While during its growth in the early 2000s, BMW did generate cash from its operating activities (DAI's values prior to 2007 include Chrysler), the surge in growth from 2010 on, which we have seen in chapter 6, was for both premium OEMs a period of growth where cash from operating activities were either at or below the level of that of the French volume producers – in the case of DAI, operating activities were even burning, rather than generating cash in some years. This weak cash flow is largely due to its excessive reliance on credit and the reason for the bad earning quality scores in table 6.2 (cf. chapter 6).

FIGURE 7.11: Cash flows



Source: S&P Global Market Intelligence.

VOW's operating activities, by contrast, stand out as a cash generating machine. The earnings growth in the early 2000s came with strong increases in incoming cash, and also during the post-2009 expansion, VOW maintained high levels of cash flows in excess of EUR 10 billion (with the exception of the Eurozone crisis 2012). However, it is important to note that the vast majority of this cash flow was due to its business in China, which leaves us with the conclusion that the growth in North America and Europe generated only a minority of cash:

“For years, relatively little cash flow [came] back from China. And there, one is dependent on the management of the joint venture to get the money out directly. (...) There are of course much supply business going on, because the cars are not completely localised or built with local components, but some of the engines go over there, some of the transmissions go over there,

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some of the other parts go over there, which earns you money directly, and you still export a lot, like luxury limousines, and there you also get the result directly. In this respect, there are different profit flows, and all in all, the German companies have generated a very, very considerable amount of cash flow from China. Again, at VW, 60-70 per cent of the group's cash flow comes from China. ”<sup>1</sup>(#34)

It was not until Dieselgate that cash flows from operating activities collapsed at VOW. The French OEMs, on the other hand, largely maintained the comparatively lower level of cash flow from operating activities prior to the GFC and managed to slightly increase it after the Eurozone crisis. The case of RNO, however, is special, because the firm received most years large dividends and income contributions from its stake in Nissan (classified as income from operating activities) – without which operating cash flows would have been substantially lower.

With regards to cash flows from investing and financing activities, we see that the German firms were a lot more active. Especially VOW had large cash outflows in the course of its expansion, while BMW managed to reduce cash outflows following the GFC. In terms of financing activities, PSA and RNO's cash flows move up and down along the value of 0, which means that the cash it obtained on financial markets mostly matched the cash it had to spend to settle obligations and to repay investors. The German firms tended to generate more cash, and, pairing this insight with the information on the debt structure above, it is clear that this was largely through the issuance of bonds and other debt instruments. From the early 2010s on, this funding was then mostly used to refinance the operations of the financial division to generate sales and growth. DAI states that explicitly in its annual reports: “The funding [or funds] raised by Daimler in the year [2012 through to 2018] primarily served to refinance the leasing and sales-financing business.”<sup>7</sup> The case of BMW is similar, as its annual reports state that “almost all of the funds raised are used to finance the BMW Group's Financial Services business”<sup>8</sup> or, rephrased in 2017 and 2018, that the “funds raise are used almost exclusively to finance the BMW Group's Financial Services business.”<sup>9</sup> Access to capital markets is

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<sup>7</sup>Cf. Daimler's Annual Reports 2012 (p. 108), 2013 (p. 96), 2014 (p. 92), 2015 (p. 96), 2016 (p. 114), 2017 (p. 112), and 2018 (p. 96)

<sup>8</sup>Cf. BMW's Annual Reports 2012 (p. 56), 2013 (p. 52), 2014 (p. 53), 2015 (p. 53), and 2016 (p. 69)

<sup>9</sup>Cf. BMW's Annual Reports 2017 (p. 79) and 2018 (p. 73).



therefore absolutely central for the premium OEMs, as without borrowing large sums on international debt markets (on favourable terms), their business model would not work. Put differently: access to capital markets was *the* central mechanism for the generation of sales growth. The difference to the French producers, both starving for cash, could not be more pronounced.

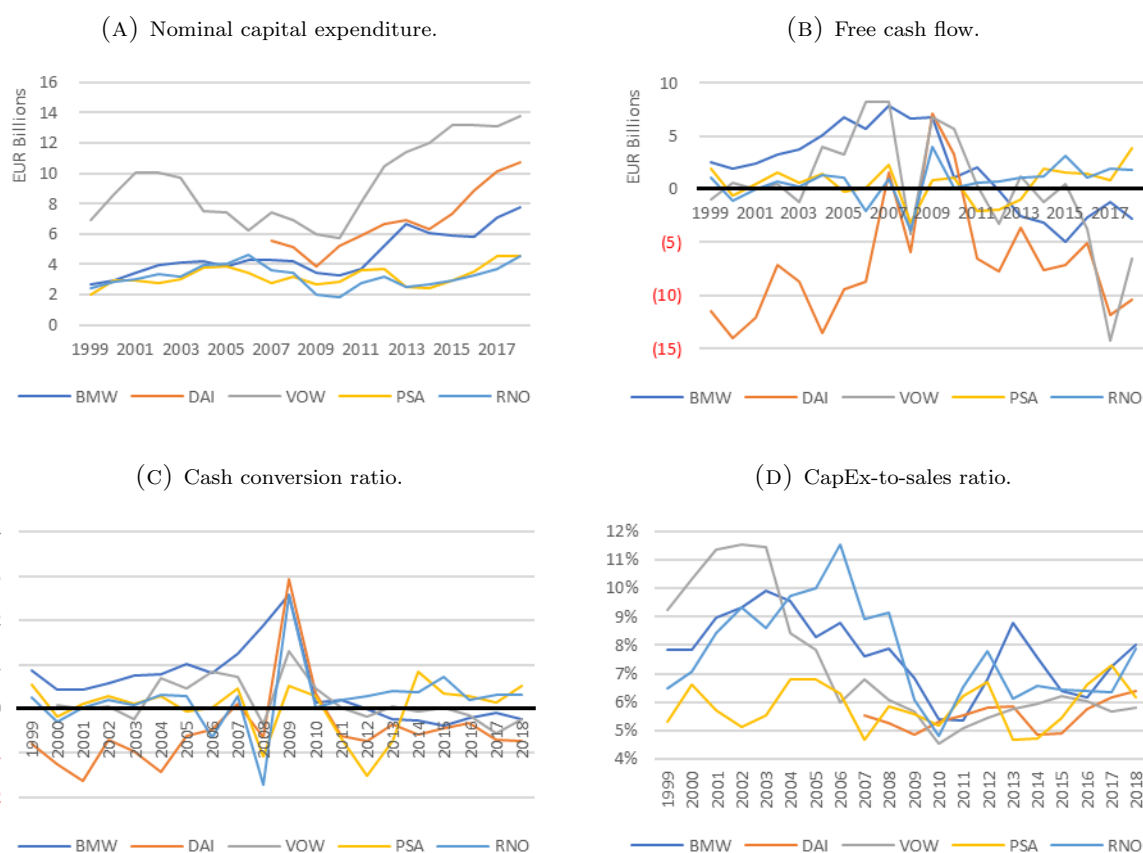
Finally, the cash balance at the end of the year provides a sort of summary of net changes in cash flow over time. It is thus not surprising to see that the strong cash flow performance of VOW via its operating and financing activities had led to substantial increases in its cash balance. The French volume manufacturers, RNO and PSA, largely relied on its operative performance to improve their cash balance, while the German premium manufacturers, DAI and BMW, generated their cash through financing activities. Overall, it is interesting to note that, for the period post-2010, the cash balances between RNO and PSA on the one hand, and BMW and DAI on the other, hardly differed – despite the much more substantial growth of the latter and a market capitalisation that exceeds that of the French producers by a factor of 3 (cf. chapter 6). If anything, the French volume producers tended to have a larger stock of cash in their bank – which, in line with the interpretation of their higher cash ratios above – supports the conclusions that the lack of growth made it difficult for the French to refinance themselves on capital markets, so that market participants tended to provide rather short-term capital and that only under conditions that the companies displayed some security of liquidity through holding larger stocks of cash.

In this context, as it was outlined in relation to the discussion of cash ratios, it is useful to further evaluate free cash flow, which can be defined as a “performance measure showing how much cash a company has for further investment after deducting from net cash generated by operating capital the amount spent on capital expenditure” (Elliott and Elliott, 2019, 115). In other words: how much cash does a business generate after capital expenditures (CapEx) are taken into account. CapEx refer to funds that are used to buy, maintain, upgrade, or expand physical assets, such as plant or equipment, and therefore, regarding cash flows from investing activities, they generally constitute the largest single position for cash outflows (especially in capital-intensive industries). In the beginning of this chapter, we saw that, after 2010, French OEMs put a much stronger managerial emphasis on generating cash and achieving positive free cash flow.

The reasons for such corporate conduct are either of a more ‘offensive’ nature, such as the signalling to investors that the company manages well its capital and keeps CapEx in check (which allows the firm to generate higher returns), or they emerge out of a ‘defensive’ position, i.e. when a company needs to show commitment to its liquidity position, maintain its credit rating, or if it seeks to increase operational control, as it becomes less reliant on external funding (Elliott and Elliott, 2019). Given that operating profit margins from the mid-2000s on began to deteriorate and both French enterprises faced severe difficulties in refinancing themselves, both offensive and defensive reasons for the focus on free cash flow apply to the case of PSA and RNO.

Figure 7.12 presents the data on (A) CapEx (a critical factor in the calculation of free cash flow), (B) free cash flow generated by the OEMs, (C) the cash conversion ratio (CCR), and (D) the CapEx to sales ratio. First, and not surprisingly given the growth and international expansion of the German firms, we find that their nominal CapEx figures largely exceed those of their French competitors, whose spending remained flat. Combining this insight with the weak cash flow from operating activities observed above, the German OEMs’ free cash flow was largely negative during the post 2010 expansion – even though VOW managed to hold a balance up to the Dieselgate scandal, which brought down its operating cash flow. This, however, did not entail any refinancing constraints on capital markets for any of the German players. The French firms, on the other hand, starving for cash, as previously mentioned, focused on retaining positive cash flow and therefore ensured short-term liquidity and retain control over its economic environment. The CCR, calculated as the free cash flow divided by EBITDA, indicates “the rate at which profits are being turned into cash” (Elliot and Elliot, p. 116) and therefore serves as an additional liquidity indicator. Although CCRs in industrial sectors are generally low, it nonetheless shows – in line with all other liquidity indicators – the divergence between the French firms post GFC/Eurozone crisis and the German firms, whose CCR remained negative but who had no issues raising fresh capital.

FIGURE 7.12: Capital expenditure and free cash flow

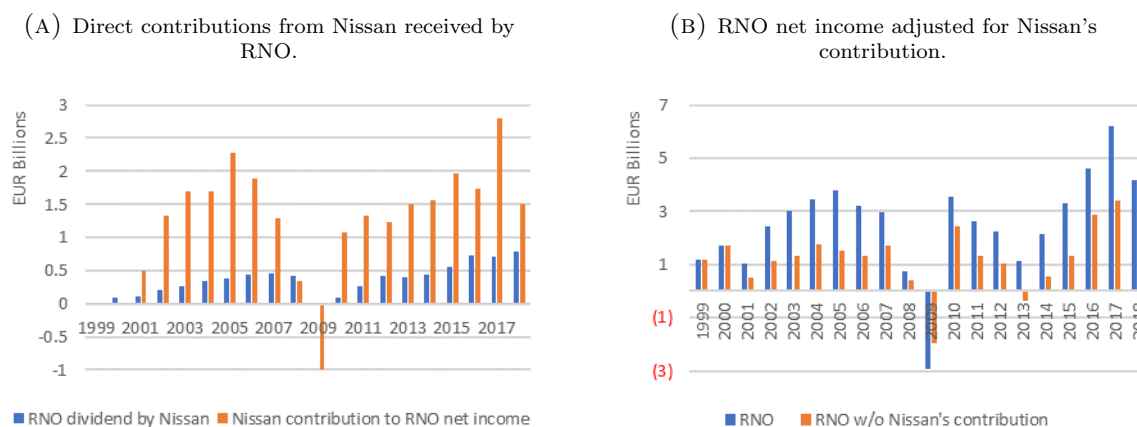


Source: S&P Global Market Intelligence.

Finally, the CapEx to sales ratio indicates that in relation to the size of the respective company, there are not generalisable differences between ‘the French’ and ‘the Germans’. The same was already true with regards to R&D expenditures, as outlined above. The conclusion thus cannot be that German firms’ superior investments spurred sales growth and expansion, but rather that different growth performances constrained the companies in how much they could invest to innovate and generate further growth.

Before analysing dividend and share buyback policies in the final part of this analysis, it is now necessary to further highlight the special situation for RNO. As mentioned above, the firm received large dividend payments from its stake in Nissan throughout the entire period of this research. Figure 7.13 shows, firstly, the dividend payments received by RNO as well as Nissan’s overall contribution to RNO net income. We see that after RNO saved Nissan in 1999, this investment turned out to be very beneficial to the firm.

FIGURE 7.13: Nissan's contribution to Renault's results



Source: Annual reports, Refinitiv.

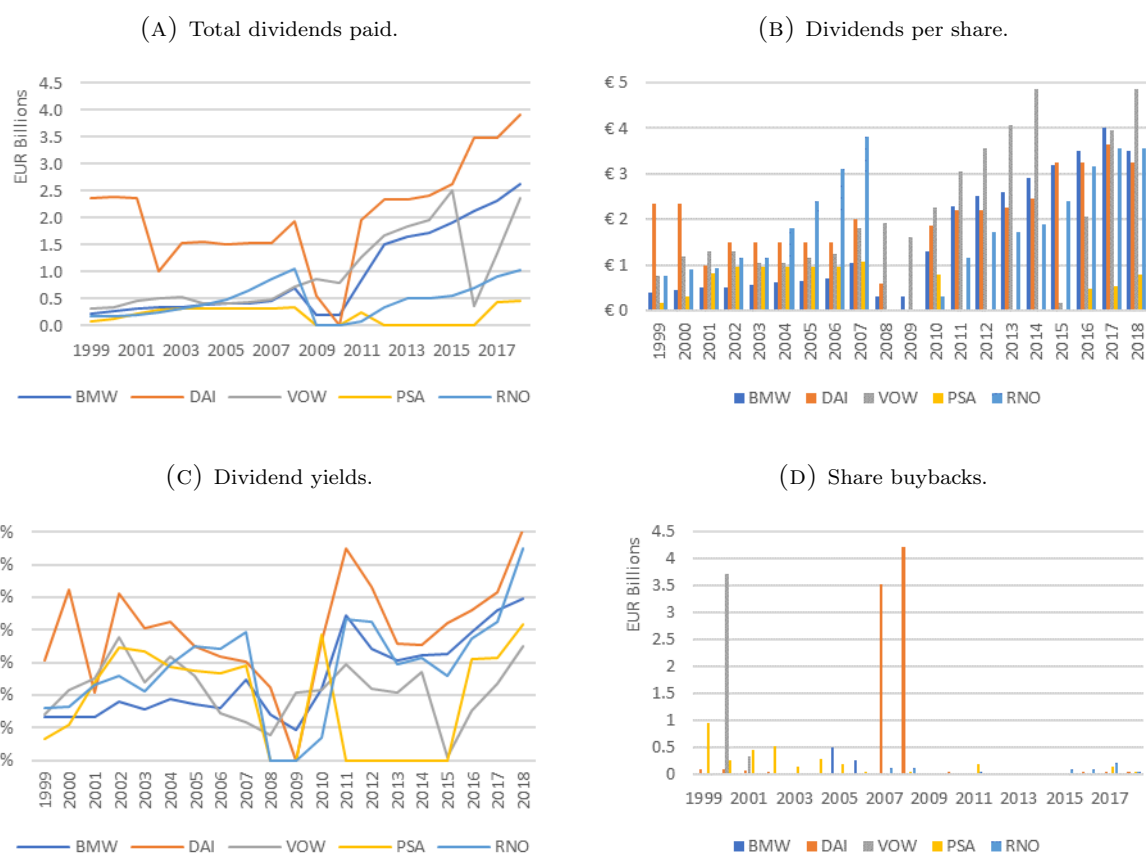
Nissan contributed regularly between EUR 1-1.5 billion to RNO's net income, and in some years, this figure went up to or even exceeded the EUR 2 billion mark. In terms of dividend payments, RNO earned usually between around EUR 400 and 800 million in direct cash payments. Nissan's success in Asia and North America was thus a major reason as to why RNO was not as pressured to expand internationally, as the net income from these markets went into its bank account without the firm being physically present there.

Yet, since net income before tax is the starting point for calculating operating cash flow,<sup>10</sup> RNO's cash flow performance would have been considerably worse. The right graph in figure 7.13 shows RNO's formal net income before tax and the net income adjusted for Nissan's contribution. Especially over the years of the Eurozone crisis (until 2014), it was the relationship to Nissan that saved RNO from a similar fate to that of PSA.

In the final part of the cash flow statement analysis, this research looks at the dividend and share buyback policies of the firms in order to control for potential distortions with regards to how much of the resources were devoted to boost financial performance indicators and reward shareholders, instead of being invested in productive activities. Figure 7.14 shows (A) the total amount of dividends paid, (B) the dividends per share, (C) dividend yields, and (D) the amount of cash spent on share buybacks. The pay-out

<sup>10</sup>Using the indirect method, cf. Elliott and Elliott (2019)

FIGURE 7.14: Capital expenditure and free cash flow



Source: S&P Global Market Intelligence, Refinitiv.

ratios, i.e. the amounts of dividends paid to shareholders in relation to the total amount of net income, is not shown here, as individual pay-out decisions for individual years at the different companies significantly distorted the scale and make any graphical long-term projection unreadable. Overall, however, the ratios varied between 10 and 40 per cent, yet without any generalisable differences between OEMs.

Regarding the data presented, we find the following. First, while the total amount of cash poured out to shareholders is a lot higher for the German firms than for the French enterprises, in relation to the overall performance of the stock, it is only PSA that falls behind significantly. Up until the GFC, dividends per share and dividend yields were in line with that of the German OEMs. After the crisis, however, PSA was not able to keep up with the rest, and the financial markets punished this with a collapse in equity and the concomitant near bankruptcy of the firm, as explained above. It required a radical

restructuring for PSA to start paying dividends again and improve its yield. RNO's stock performance, on the other hand, must be considered in light of the special effect of the RNO-Nissan alliance on the firm's ability to generate cash flow and pay dividends.

In terms of share buybacks, the data are relatively scarce. However, where they are reported, share buybacks played an only miniscule role for cash outflow in financing activities (except for individual years). Mostly, the amounts remained within eight or very low nine-digit figures, so that its overall impact is less relevant for this analysis.

## 7.4 Conclusion

Following up on the findings of chapter 6, this chapter analysed the nature of the growth of German and French TNCs in the automotive sectors, hence addressing research sub-question 3 regarding the growth drivers. Except for the years around the GFC and Eurozone crisis, in a long-run perspective, there were hardly significant differences in overall corporate performances across the sample, which implies that the nature of growth was a type of *Verdrängungswettbewerb*,<sup>11</sup> which includes a strong element of price competitiveness, rather than genuine and innovative growth that would have been driven by high profit margins (through a Schumpeterian monopolistic advantage) and the generation of cash.

With regards to operating margins, German firms slightly improved their performance and the French found their margins under pressure during the 2000s. Given that this happened against the background of a strong focus on the European economy for the French producers (cf. chapter 6) and losses in market share in a stagnant, hyper-competitive European market (cf. chapter 5) the two trends are directly related. After the GFC and the Eurozone crisis, it took radical restructuring and outsourcing measures for the French OEMs to boost their profits back to a level that matches that of the German firms. At the same time, car sales have become increasingly reliant on financial services – with penetration rates of up to 50 per cent for the German premium producers and 25-40 per cent for the French enterprises. Access to capital markets and the conditions thereof have

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<sup>11</sup>A German term for characterising cutthroat competition and brutal practices to secure survival and expansion.

become therefore absolutely central to boosting sales growth – and the German firms had much greater ease in this regard than the French OEMs. The latter were tied to generating positive free cash flows to secure liquidity, whereas the former were highly active on capital markets, despite hardly generating any cash flows from operating activities. The story of growth for the German enterprises hence does not seem to fit the overall success narrative that is often attributed to this sector in the media and in public discourse. One interviewee neatly summarised this – before (!) the empirical analysis of this chapter was concluded and before the researcher of this project was aware of the data:

I would be a bit cautious to say that the German firms were extremely successful. If I look at the fact that the premium manufacturers operate with returns in the middle to low single-digit percentage range, that hardly any cash flows are being generated, that hardly any dividends are being paid out, then I would not say that they were successful. When I look at the valuation of companies on the stock markets: the VW stock, Daimler stock, BMW stock – they have all depreciated relatively by 50-60 percent to the DAX [German stock index]. Not only in absolute terms has the valuation plummeted over the last 10-20 years, but also relative to the DAX. So, I don't see the success there. (...) And then, when you take into account the end-equity result from China...adjusted for that, Mercedes makes around 2-3 per cent return on sales! Mercedes!!! So, if we had price flexibility, they would be more profitable.<sup>2</sup>(#34)

This type of competition and the weak performance and difficulties of all firms in the sample suggests a race to the bottom causing more harm than good. In order to fully assess the consequences that it had for the dynamics within and interdependencies between different national economies in Europe (notably in Germany and France), the next chapter will situate the developments of TNCs in their respective economic and political environment and synthesise the findings from this empirical research.

## Notes

<sup>1</sup>”Über Jahre [kam] relativ wenig cash-flow von China [zurück]. Und da ist man im Ergebnis von der Führung des Joint Venture abhängig, das Geld direkt rauszukriegen. (...) Es [gibt] natürlich viele Lieferbeziehungen, denn die Autos werden ja nicht komplett lokalisiert bzw. mit lokalen Komponenten gebaut, sondern da gehen zum Teil Motoren rüber, da gehen Getriebe rüber, andere parts gehen rüber, womit man halt direkt Geld verdient und man exportiert immer noch viel wie Luxuslimousinen, und auch da kriegt man das Ergebnis direkt. Insofern sind schon unterschiedliche Ergebnisströme und in der Summe haben die deutschen Unternehmen in ganz, ganz erheblichem Maße cash-flows aus China generiert. Nochmal, das ist bei VW 60-70 Prozent des Konzern Cash-Flows, das kommt aus China.”

<sup>2</sup>”Also ich wäre da ein bisschen vorsichtig zu sagen, dass die deutschen Hersteller jetzt so extrem erfolgreich waren. Wenn ich mir angucke, dass die Premiumhersteller mit Renditen im mittleren, niedrigen einstelligen Prozentbereich unterwegs sind, dass kaum cash flows generiert werden, dass kaum Dividenden ausgeschüttet werden, dann würde ich nicht sagen, dass sie erfolgreich waren. Wenn ich die Bewertung der Unternehmen an den Börsen angucke: also eine VW Aktie, eine Daimler Aktie, eine BMW Aktie hat relativ, relativ zum Dax, 50-60 Prozent abgewertet. Nicht nur absolut, ist die Bewertung über die letzten 10-20 Jahre in den Keller gerauscht, sondern auch relativ zum Leitindex. Also ich sehe da nicht den Erfolg. Und dann rechne mal noch das End-Equity Ergebnis aus China mit ein... bereinigt macht Mercedes ich sage mal 2-3 Prozent Umsatzrendite, Mercedes! Also, wenn wir die Preisflexibilität hätten, dann wären die profitabler.”



## Chapter 8

# Interdependencies between and dynamics within economies

Chapters 5 to 7 provided a detailed analysis of the developments in the automotive industry, addressing research sub-questions 1-3 on (1) global, European and national developments of the industry and its footprint on the economy, (2) growth performances and internationalisation of the TNCs of this case study and (3) the underlying nature of that growth and the mechanisms explaining change. The data indicate that the auto industry is a highly glocalised industry and that Europe was characterised by the tendencies of stagnation and price wars, polarisation of the market, a shift of production towards the East, and an increased dominance of the German OEMs. In terms of their internationalisation strategies, the German corporations rely stronger on sourcing in Eastern Europe than the French, which primarily source in Southern Europe. Growth performances of the German enterprises were stronger, yet the financial statement analysis revealed that the quality of earnings were poor, especially in terms of cash flow. A very large proportion of sales of German OEMs is financed by credit, which is provided by in-house financial services. Also, with regards to profitability, there was merely a span of several years after the GFC, during which the German OEMs outperformed their French competitors. However, after the restructuring measures at PSA and RNO, as well as in the wider French economy, there are no more generalisable differences between the firms, so that profit margins remain overall on rather low levels. This suggests that the type of competition is an outright *Verdrängungswettbewerb* as opposed to a competition which would be characterised by innovation (and therefore entail higher profit margins).

The purpose of this chapter is to synthesise these insights to address the sub-questions 4 and 5: To what extent does the conduct of firms shape the interdependencies between countries and to what extent does it affect the dynamics within national economies? Answering the remaining two sub-research questions will allow to provide a coherent response to the main research question on how the operations of large TNCs in France and Germany drove capitalist development and change in Europe in the period between 1999 and 2018. Finding the answers to sub-questions 4-5 and the main research question requires embedding the above analysis of corporate structures and performances into the wider national and European context of production, which is done based on the theoretical framework developed in chapter 3 as well as qualitative data from interviews and newspapers. Chapter 9 follows up with an extensive engagement of the findings in light of the GM literature and the specific contributions of this research.

## **8.1 Embedding TNCs' performances in the wider economic environment**

Glocalisation, that is the global operations of TNCs but local production for the local market, allows us to examine the implications of the TNCs' international business operations on the TNCs' home economies. For the enterprises in the automotive sector, FDI are the principal mechanism of internationalisation. This means, in turn, that global developments will have, especially in the long run, much less importance for the evolution of domestic production than regional developments. In the present case study, this means that French and German production will be determined by how well the firms do within the Single Market, rather than by their export performances to China and the US. Yet, due to the differences in overseas exports between the German and French OEMs, it is important to understand the underlying reasons for and implications of this observation, before discerning the impact of the TNCs' conduct and performances on the interdependencies between and dynamics within their national home economies.

## 8.2 Overseas exports

As we have seen, the degree of regionalisation was higher for the French OEMs than for their German counterparts. Yet, regarding production in the German economy, the degree remained nonetheless high: in 2018, for example, 2.5 out of 4 million exported cars remained within Europe (against 290.000 and 470.000 units to China and the US, respectively), while around 1.1 million cars produced domestically were sold in Germany. Hence, in total, 3.6 out of 5.1 million cars produced in Germany in 2018 (71 per cent) never left the continent, which just shows the extent of regionalisation for an economy with relatively high average export distances (cf. chapter 5).

At the same time, considering the differences between unit exports and revenues generated overseas, it implies that mainly high-end models were exported at greater distances (cf. figure 5.18), so that the exports to the US and to China allowed the German economy to partially and temporarily compensate weaknesses in its home markets by retaining domestic high-end car production at home. Although the exports of upper-middle- and upper-class models, as classified by VDA, accounted for around 15 per cent of all German exports (cf. figure 5.22), it still raises the question as to why the German OEMs continued to serve the US and the Chinese market from its domestic bases, rather than localising their production (this is especially true for BMW and DAI, less so for VOW). Is it due to domestic institutions, which made Germany a competitive base for worldwide exports, as the GM literature would suggest? Or is it perhaps a rather common side effect of an international expansion?

In fact, the data suggest that both factors play a role: the way in which TNCs in the automotive sector tap into new markets as well as domestic institutional arrangements (which also affected exchange rates). Regarding the first point, it is important to note that businesses operate in time and space – all in the context of radical uncertainty. Chapter 3 argued that obtaining control over its economic environment is the TNC's ultimate objective. For that reason, if a new market opens up and OEMs want to seize the opportunity, there is a trajectory, which will also impact trade flows, as interview data show:

When a mass producer that is based in a region, say in Europe or in Asia, enters a new market in a different region, say: an Asian producer like Honda comes to the United States (...) When they first enter the market, they're (...) going to enter the market as a sell-on vehicle. (...) Then, when they grow successfully, [they] start producing there. (...) So, there's the trajectory: For every two assembly plants, you need an engine plant and a transmission plant, and so on and so forth. (...) There are some companies, which don't follow this pattern, and they're not mass producers. Porsche to this day only produces vehicles in Europe. And the reason is: their sales volume is not large enough. It doesn't make sense for them to build a plant in North America, because North American sales are not large enough to fill an assembly plant. (...) And then you take BMW and you take Mercedes, and they're sort of in between. (...) They're not a mass producer like VW is or like Peugeot, Renault, or FCA [Fiat-Chrysler]. But they're also not at total niche producer like Porsche, Jaguar or Lamborghini. They are a premium producer, but they're they have been trying to grow. So, they have multiple assembly plants. (...) BMW, regardless of the trade noise from Washington, must have been already thinking about building an engine and a transmission plant in North America, because they're producing about 700,000 vehicles in North America, and at that point, you don't really want to import all your engines and your transmission stuff. (#14)

VOW's story in China, as described by Posth (2006b), confirms the views expressed above: the firm had to import much of their input and increased the degree of localisation over time, also due to high pressure by the Chinese government, which was highly determined to maintain and, if possible, expand the stock of precious currency reserves. This adjustment of production volumes can thus temporarily lead to a surge in exports of input products, if TNCs tap into a new market and continue to source at home. In relation to the institutional set-up, in particular the JV structure in China, there is a clear incentive for TNCs to do so:

On the Chinese side, they want [local production]. But Volkswagen would prefer, of course, to import the parts, especially high-quality parts, because this way, it will be sold within the group structure. If you sell parts from Germany - say, a high-quality module from Audi, which belongs 100 per cent to Audi - to China so that they can install it there, then it will be bought by Audi 50-50: 50 per cent from Audi and 50 per cent from the Chinese partner. It's a money-making machine. That's why you're happy when such high-quality parts are being purchased. Of course, there are other reasons too, because with the JV you always have the problem: how much of your technical know-how do you want to hand over to your partner? (...) But I think the main reason for this structure is that you can massively make money with it.<sup>1</sup>(#10)

Nonetheless, over time and due to the glocalised nature of the automobile industry, when sales volumes grow, and the productive ecosystem evolves (in relation to physical infrastructure but also a presence of tier 1-3 suppliers), companies expand local production that replaces previous exports – especially as the differences in quality standards diminish. As outlined in chapter 5 and 6, this was precisely the case for the German OEMs, too. Considering the tight margins in the industry and the fact that a superior brand equity implies that a “made by BMW (or DAI or Audi)” is more important than a “made in Germany”, as the example of Porsche shows (where its top range product, the Cayenne, is produced almost entirely in Bratislava), this trend is likely to continue. In chapter 6, we already noticed a decoupling between domestic and total production of German OEMs (cf. figures 6.1, 6.2, and 6.3), which continued in 2019. VDA (2021) data show that exports decreased to 3.5 million units – roughly the same as it was in the crisis year of 2009 and just around 50.000 units more than in 1999. Domestic production declined to 4.7 million units, which was the lowest value in 20 years and 600.000 units less than in 1999, which shows some of the pitfalls of excessively relying on exports. Foreign production, on the other hand, increased to 11.4 million in 2019, reaching a new record level. Interviewee #16 noted an interesting phenomenon around these figures:

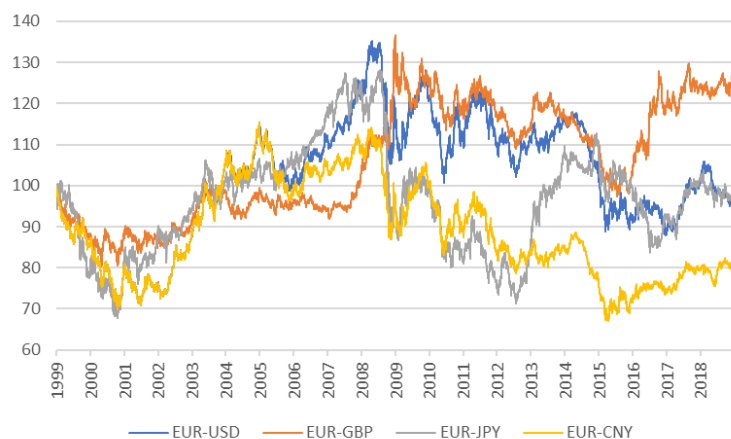
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When we get enquiries today about why car production in Germany is so bad, it's just German research institutes that want to know this. None of the producers asks me. They say 'yes, our production is not going badly at all' (...). [National production] is only of interest to those who look at national production, at the national gross domestic product and so on. But, of course, that is not what a company does.<sup>2</sup>(#16)

A second factor, which fuelled German automotive exports overseas, especially to the US and the United Kingdom, were exchange rates. Figure 8.1 shows the nominal exchange rate of the Euro against four other major currencies: the US Dollar (USD), the Pound Sterling (GBP), the Japanese Yen (JPY), and the Chinese Renminbi (CNY). As we can see, the post-2010 boom of German overseas exports was *pari passu* to a significant devaluation of the Euro against all these currencies. Over the course of time, the exchange rate valuation always had a big impact on production and product decisions. In 2003, VOW decided, for example, to add the Bora production to its Mexico plant and to export it to Europe, instead of setting up local production (Handelsblatt, 2003c). Two years later, in 2005, cars produced in Germany became increasingly “unaffordable” in the US, with margins remaining under pressure in a market battered by price wars (Handelsblatt, 2005a). In this context, DAI decided to massively scale up production at its Tuscaloosa plant in Alabama to naturally hedge the appreciation of the Euro vis-à-vis the US Dollar (cf. chapter 6). VDA president Bernd Gottschalk expressed his anger at the time that the US was “making monetary policy according to the motto: our currency - your problem” (ibid.). By 2007 and 2008, BMW and VOW followed with decisions to increase their local production, as the exchange rate made it impossible to operate profitably in the US out of Germany (Schneider, 2007; Herz, 2008). In 2009, DAI announced further increases its US production (Meck, 2009). During the 2010s then, the devaluation over time eased relocation pressures for German firms and exports to the US and China substantially increased.

Although in the public discourse it is common to attribute the German export performance, especially to the US, to its “superior product quality” (DW, 2017), the undervalued exchange rate appears to have been a much more important factor. This is, on the one hand, evident in how OEMs reacted with their production decision to exchange rate valuations throughout the 2000s, and, on the other, there is no evidence for

FIGURE 8.1: Euro Exchange Rates.



Source: Refinitiv.

a sudden surge in German product quality post-2010 compared to the pre-2010 period. Considering that profit margins generally did not improve despite the surge of high-end car exports to the US and China, it appears that the exchange rates were indeed the key factor in serving these markets from home. Otherwise, German producers would have been forced to further optimise (i.e., localise) production to increase profitability. The nature of competition in overseas markets as well as the price elasticity there equally point towards the same conclusion, as one interviewee highlighted in a rebuttal of the widespread ‘quality narrative’:

This is complete bullshit! The elasticity in the automotive sector, even in the premium sector, is extremely high. *Extremely* [strong pronunciation] high! (...) The market data are completely clear! When I look at the discounts and incentives that BMW and Co. have to give on 7-series and S-class cars in the USA and how the demand reacts to even very small changes in pricing, this is brutal! (...) That’s due to the competition in the car market. Both between [market segments], for example, BMW 5 Series versus BMW 7 Series, and between brands. Customers, especially commercial customers, who are extremely relevant for the premium brands, have only limited brand loyalty. To say ‘our products are so good, the Americans and the Chinese would have bought them even if they had been 20 per cent more expensive’ is absolute, absolute non-sense! *Absolute* [strong pronunciation] non-sense!

There are time series in the databases where BMW sometimes must give discounts of 20.000 USD to sell their cars. (...) Without the currency, which is of course undervalued for Germany, there would never have been this export miracle. Both within Europe, but also to China and the USA, because you can no longer earn money in a currency that is 30, 40 or 50 percent more expensive. (...) The localisation that is now taking place (...) would have taken place earlier. Germany would have probably adapted to the global market sooner, with more localised production, and would have built up other structures in Germany, perhaps investing in other technologies than diesel engines, because there would have been more pressure to change. It was possible to live comfortably for a long time because the Chinese consumer covered up the deficits in innovation and capacities etc. in Germany. <sup>3</sup>(#34)

The depreciation of the Euro exchange rate is, of course, a function of domestic politics. As the GM literature has argued, domestic institutional arrangements in Germany facilitated the cooperation between social actors within the economy: through wage restraint policies under the condition of the Single Currency, inflation was held below the ECB target – which boosted German competitiveness. The fact that Germany accounts for around a third of Eurozone output and that fellow Eurozone members were forced into the same deflationary spiral (Scharpf, 2016), left the ECB with no other choice but to opt for very expansionary monetary policy to fight deflation. As a consequence, the value of the Euro depreciated vis-à-vis other countries and the German automotive sector has, as we have seen, very much directly benefited from this.

In sum, therefore, while overseas exports of the German OEMs brought in export revenues that managed to temporarily offset some of the losses in the European market, it was based to a large extent on an undervalued currency – as an outcome of domestic politics – and absolute advantages in an old technology. Yet, more importantly, as this research has shown the high degree of regionalisation in the industry, the next step is to examine the dynamics in Europe, which remains much more important in terms of production volume and employment in Germany.



## 8.3 Interdependencies between economies

Due to the globalised nature of the auto industry and the superior importance of European demand for the German and French economy, we can now focus on embedding the empirical findings from chapter 5-7 in the context of the European political economy. To assess the impact of TNCs' conduct on the interdependencies between and the dynamics of change, the data presented in chapter 6 and 7 with regards to growth and operational performances suggest further analysing two principal domains: the productive structure itself as well as financialisation. Production structures, i.e., the integration of various economies into the OEMs' production network, and the resulting production costs proved to be structurally different between the German and French OEMs. We have seen this, in particular, in relation to the costs directly imputable to production and the costs of running financial services (cf. chapter 7). The latter, on the other hand, combined with the balance sheet and penetration rates data, implies that the financialisation of non-financial corporations and the increasing reliance of households on financial services were crucial factors in the divergent market share and sales growth performances of French and German OEMs.

### 8.3.1 Production structures

The first difference during the investigation of profit margins were that the French enterprises have higher relative costs than the German firms (cf. figure 7.9). Once again, in relation to the theoretical chapter 3, it is important to highlight the relevance of relative costs, rather than nominal or absolute costs, as the basis of competitiveness. Without putting costs in relation to output, it remains impossible to say whether a firm's competitiveness is high or low. Moreover, as we will see below, if a firm outsources some of its production to low wage countries or to service providers who are not bound to collective wage agreements, then the firm lowers its relative wage costs, even though nominal wages within the enterprise might still appear comparatively high. So, relative costs are the main determinant of overall competitiveness and provide a more holistic picture of production and non-production costs. In relation to cost of goods sold (COGS), the

most important cost component, the striking difference was a divergence in trends from the early 2000s on. While the German and French OEMs started off at relatively equal levels, relative costs for the French increased, while those of the German firms decreased significantly – especially during the early- and mid-2000s.

The early 2000s were a time of very low profitability for the German OEMs (in particular DAI and VOW). In chapter 3, it was outlined that a firm which wants to increase its competitiveness can either do this via investments in new technology and to obtain a relative cost advantage through higher productivity at a given wage level, or to use the existing level of productivity and lower wages. Firms under pressure will not have much room to raise capital for investments, and given the risks that new innovations entail, they will preferably opt for the second means to boost competitiveness. This was, following this stylised model, what the German firms did.

From the early and mid-2000s on, it was especially DAI and VOW who exerted high pressure on trade unions to give in to the demands of management and capital markets to keep the production at home. This occurred in a context of wider labour market reforms in Germany, where “Autokanzler” (car chancellor) Schröder and his administration used their political influence to support businesses in their attempts to bring down costs and increase flexibility.

At DAI, the quarrel reached its initial peak in 2004, when Jürgen Hubbert (CEO) demanded savings of EUR 500 million in its production locations in the Land of Baden-Württemberg alone. If not, the production of the C-class would go to Bremen or to South Africa (Handelsblatt, 2004b). Erich Klemm, the chairperson of the General Works Council at DAI, criticised that “these are not negotiations, this is an attempt of hard-core blackmailing” (Handelsblatt, 2004c). In July, after a series of strikes, the trade unions conceded to all the demands of the management in exchange for the security of jobs until 2012 (Handelsblatt, 2004a).

At VOW, the pressure on trade unions was on from the early 2000s as well. First, management wanted to increase flexibility and lower wage cost through the implementation of the project 5000 x 5000, i.e., creating a subsidiary – Auto 5000 – which would sign 5.000 unemployed individuals and pay them 5.000 DM (around 2.500 EUR at the time) (Nuri, 2001). The trade unions were against this project as the wage level was 30 per cent below the VOW house agreement and required, in cases where quality standards were not met, unpaid overtime work (Handelsblatt, 2005f). The negotiations initially failed but, under the pressure of chancellor Schröder, the trade unions and management came to an agreement. It was the first significant achievement for management at that time, notably for Peter Hartz, who was the head of human resources at VOW and would later design the labour market reforms (Les Echos, 2001b; Nahrendorf, 2001).

The tensions intensified during subsequent years, as VOW struggled due to low demand and low profit margins. VOW management continued to hollow out existing collective wage bargaining agreements in negotiations with trade unions and fostered a turning away from its previously lucrative house agreement in the in exchange for offering the production of a new model to a given plant (Herz and Hofmann, 2004). In the fall of 2004, VOW management and trade unions found an agreement which entailed the cost cuts worth billions of Euros. As VOW was the market leader in Europe, its decisions and actions have exacerbated the pressure on Opel, and, by extension, other European volume producers, to follow their lead and cut costs (Handelsblatt, 2004d).

Despite the agreements concluded by 2004, the pressure and race to the bottom in the industry intensified in 2005. The announcement of the CORE programme at DAI targeted further restructuring and efficiency enhancing measures to improve returns on sales to 7 per cent (Handelsblatt, 2005c). Until the fall of 2006, more than 9.300 employees in Germany have left the firm (Handelsblatt, 2006a), whereby administrative jobs (minus 20 per cent) and management positions (around a third) were hit particularly hard (Buchenau and Herz, 2006). The situation at VOW was equally dramatic, entailing countless rounds of strikes, disputes between management and labour representatives, and further cost reduction measures (Handelsblatt, 2006b). It was not until mid-2007 that management was satisfied with the extent of cost reductions and – due to growth in the European market – the capacity utilisation that was achieved (Handelsblatt, 2007a).

The restructuring measures were not only confined to actions within the enterprise, but also within the wider productive ecosystem. This was, on the one hand, due to cheaper input costs, as sectors without any protection were crushed during the early 2000s. VOW, for example, was “tightening the screws” (Vittori, 2005) especially in logistics to reduce costs. A sector that can be regarded as the nervous system of the car production, was a prime example of how the OEMs based in Germany profited from cost reduction and greater flexibility therein:

What we (...) [see] is a polarisation of labour markets. (...) It is not so much inside the OEMs, but it is in the supply chain that you have many agency workers with very poor working conditions, no rights at all. This agency sector was not regulated, just until recently you had no minimum wage. (...) In many factories, agency workers are not counted as staff. They are a service that is bought by the company and you don't see them in the employment figures. (#30)

Of course, we had to make many concessions, some of them very painful, to prevent relocations, especially in the supply sector. The bargaining power there was different, but it was different because the threat of relocation there [compared to] a company where we are well organised, where we have good co-determination practices, where we have a sustainable anchor investor or owner, is completely different.<sup>4</sup> (#31)

Thus, the German labour market reforms directly lowered input costs throughout the domestic supply chain throughout the 2000s. At the same time, lead OEMs functionally outsourced more and more production to logistics and supply partners:

Distribution is not just distribution. It is also assembly. Sometimes it is also production: putting parts together, packaging parts, making parts together etc. So, sometimes logistic centres do production, assembly of parts and components. It is not only distribution in logistic centres. (#01)

Additionally to directly lowering production costs via lower input costs and functional outsourcing, a second factor of superior cost competitiveness was the increased flexibility of the labour force that the labour market reforms entailed. This was highly beneficial, in particular, for BMW, which is the most profitable producer and known for its flexible and efficient production management:

There were also a few other things during that time [early 2000s], for example the Pforzheim model, which is a clause that IG Metall allowed in the collective agreements to get out of the 35-hour week, to make working hours more flexible, to reduce ancillary wage costs, etc. All this has made car manufacturers more flexible and competitive. What was definitely a success factor: the introduction of subcontracted employment. Very important! There was a lot of use of it. If you look at a company like BMW, they must have 10,000 temporary workers in Germany during good times. Even if nobody wants to talk about it, that's the way it is. And that has made them very, very flexible. (...) Today it is enormously important to work flexibly in the car industry. (...) There is nothing more expensive in the car industry than plants that are not working at full capacity. (...) You must always have a high capacity utilisation, otherwise you have a problem. And you can vary this utilisation by letting the plants breathe (...). You must be able to build significantly fewer cars in a year without making losses by sending the subcontracted workers back home. If you have a permanent workforce, then it becomes expensive. (...) That's how it works in the car industry now.<sup>5</sup>(#13)

In sum, therefore, with regards to the production within Germany, the lead OEMs benefited from both cutting wages within the firms but also in the ecosystem in which the firms were embedded in, as interviewee #33 summarised:

Due to the wage restraint [in the factories and in the production around them] and in combination with the euro, we have had a comparatively low-cost product in other countries. Although we have decent wages in the core workforce and a strong IG Metall, if the employers hadn't been accommodated so much, there would have been much higher increases than these 3-4

per cent every 2-3 years. And then there is the fact that outsourcing has taken place in areas where collective agreements are scarce or non-existent. The issue of subcontracted employment, I am thinking now of BMW Leipzig, very strongly, or also Daimler...this is an additional issue that can be subsumed under wage restraint. <sup>6</sup>

In addition to the domestic advantages, Eastern European integration played a key role, as chapter 5 and 6 outlined empirically and to which many interviewees referred:

The supplier industry is gone [to Eastern Europe]. (...) In the end, it's the low wage level that is important. So even in the Czech Republic I still have a third of the German [wage] level. (...) Today there are also no differences in quality at all. If you look at the work they deliver, it is exactly the same as in Wolfsburg, Zuffenhausen or Leipzig. (...) That's why the main advantage is the cost advantage, and apart from that it's not far away. So, whether I get my parts from Belgium or from France or from Poland to Wolfsburg, it's all the same.<sup>7</sup> (#17)

[Germany] has also become competitive by deciding that not everything is being produced at home, but parts of the value chain have been outsourced to Eastern Europe. Then they bought parts from there and assembled them here. (...) With the eastward enlargement of the EU, market access became even easier and very often there were greenfield projects where it was possible to rebuild without any spatial restrictions and also partly through corresponding support programmes of the state governments.<sup>8</sup> (#15)

Especially in the early 2000s, these measures were critical to reduce overall wage costs and push German OEMs out of their crisis (Handelsblatt, 2005e), as it was also evident from 7.9 – with profound implications for the development of the industry in France, as discussed further below. Even though the wage levels increased somewhat after the Eurozone crisis, the growth that kicked off prior to the downturn and the strong international expansion after 2010 allowed to maintain cost advantages through economies of scale that reinforced the dominant position in the European market. This applies to the premium producers, which have significantly expanded in volumes, but to no firm more than VOW:

Volkswagen's success has (...) something to do with its innovative edge: Especially in the modular principle. Volkswagen implemented it as early and as consistently as no other company. And then there are economies of scale. With the transverse modular system, you're not just serving Volkswagen. You serve Audi, you serve Seat, you serve Skoda and then you achieve economies of scale that no one else can match. This means that the development costs are significantly lower per vehicle. The purchasing costs are much more advantageous because I have a completely different negotiating power. This gives Volkswagen an outstanding position in the compact class, i.e. lower mid-range, compact class, and small cars. Something that no one else has. At best, this is comparable globally with Toyota, which covers roughly the same market segment. <sup>9</sup> (#31)

Three factors – wage restraint within firms, wage restraint in the wider economy, and sourcing in Easter Europe – were key to improving German cost performance in the early 2000s which set them apart from the French. It was also, in turn, the foundation for kick starting the virtuous cycle, which was subsequently further stimulated by the German OEMs' international expansion: more growth, higher operational profitability, lower refinancing costs, more growth and, as an outcome of this, increasingly significant economies of scale.

In a stagnating market as in Europe (cf. chapter 5), the gains of market shares for one firm are necessarily the losses for the other. Figure 5.10 showed, alongside the strong performance of the German OEMs, a decline of the American manufacturers and Fiat, a relatively constant market share for the Japanese brands from 2004 on, and, from the mid-2000s on, a relative decline for the French manufacturers (although RNO managed to bounce back after 2008). The data make it clear that the divergent performance of the German and French firms is interrelated:

You have a real decline, a progression of Volkswagen in terms of market shares to the detriment of Peugeot and Renault, it's obvious. And at the top of the range, it's BMW and Mercedes who are taking market share from Peugeot and Renault, from Alfa Romeo, in Italy, so you have a real success of the German models. It's hardly questionable. <sup>10</sup> (#32)

The data suggest that it was, in particular, during the mid-2000s that a turning point was reached: increasing operating profitability and market shares for the German OEMs and a decline of both indicators for the French. During the early 2000s, the French OEMs managed well to resist in terms of their market shares, with PSA even increasing its share continuously up to 2004, but any wide-ranging cost-cutting and efficiency-enhancing measures as in the German economy, did not take place. Even though foreign production of both PSA and RNO grew stronger than domestic production (cf. figure 5.23), the latter remained relatively stable and declined, if anything, only marginally. The same accounts for employment in the industry at large (cf. figure 5.26). The more the Germans, however, managed to restructure their production at home and improve their operating profitability, the more their market shares increased, especially in the case of VOW. This pushed the French OEMs on the sideline from the mid-2000s on.

It was especially the pressure on margins, due to price pressures from overcapacities in the market as well as accumulating stocks of inventory (unsold products), on the one hand, and lower sales volumes, which were directly related to losses of market share, on the other. This increased the costs of the French firms considerably through low-capacity utilisation (Fainsilber, 2005; Chevillard and Counis, 2005). At RNO's Sandouville and Dieppe plants, for example, capacity utilisation stood, at the end of 2005, at merely 43 and 30 per cent, respectively (Fainsilber, 2006b). When Carlos Ghosn took over RNO as CEO in 2005, he made it directly clear in which direction he intended to take the firm: "My main concern is performance. (...) In our management, there are not many people who tell you that with an operating margin between 3 and 4 per cent the company will be doing well." (Fainsilber, 2006a). At PSA, the weak operative performance was equally the main point of concern. In January 2006, its management shocked analysts and financial markets by revising the target for its operating margin from "between 4 and 4.5 per cent" to "around 4 per cent" and announced that in the second semester of 2005, this margin stood at a mere 2.7 per cent (Cosnard, 2006).



As in the case of German enterprises, French OEMs had two options: improving their absolute advantage by either investing to increase productivity at a given wage level or to combine existing methods of production with lower wage costs. Similarly, they opted for the second mechanism to increase competitiveness by scaling up production abroad, notably in Central and Eastern Europe (Les Echos, 2006a). Consequently, the decline of production in France accelerated from 2006 on, albeit more quickly at RNO than at PSA (cf. figure 5.23):

The relocation strategy (...) [came earlier] and [was] much more massive at Renault than at PSA. (...) But for us, unlike the Germans, relocating means closing down in France. Whereas the Germans (...), they can build production capacity in the East without having to reduce it at home. For us instead, as our manufacturers lose market shares, it means going east, and going to Eastern European countries means closing down in France. (...) For me, who has a background in economic geography, it is indeed important because it would have been different if, geographically, France was in Germany and Germany was in France, since you have this problem of distance. When you operate at just-in-time, you can't operate just-in-time thousands of kilometres away. Well, you can do it, but it's very, very, very expensive, very complicated to organise and extremely fragile at the slightest incident. <sup>11</sup> (#32)

The option to source cheaply and exploit the advantage to maintain the production at home, was therefore simply not possible for the French producers so that outsourcing remained the only solution. It is important to note at this stage, however, that the opinions expressed in the interviews were divided on this subject. Several experts claimed that production in France could and should have been maintained, instead of outsourced to improve competitiveness. Others followed the above narrative, in that the pressure on margins forced the French OEMs to set up production abroad. This project endorsed the second line of argument, given the data in chapter 5 and 7. There, we observed the increasing losses of market share, mounting pressure on margins, and the reliance on short-term capital funding. Considering this data, it appears unrealistic that financial markets would have accepted a riskier investment strategy of increasing productivity at

home, rather than going down the safer route of setting up existing methods of production in low-wage economies (especially as the cost differences to other European competitors, notably the German OEMs but also Asian enterprises, were substantial).

While in Germany during the early 2000s, the institutional form of *Mitbestimmung* in corporate governance, granting trade unions a say in production decisions at least led to negotiations between management and labour (even if the latter had to give in on most demands), the French managers directly outsourced production and put, in order to reduce costs, different sites in different countries in direct competition with each other:

The managerial recipe from the 1980s, which remains extremely powerful today, is to put employees in competition with each other. (...) First, the integration of Spain and then the countries of Central and Eastern Europe was used as an opportunity to put French employees in competition with Spanish employees first and, later on, to put French and Spanish employees in competition with Romanian employees, Romanian employees in competition with Polish employees, Slovakian or Czech employees, or even Turkish employees. (...) At the end of the 2000s, with the crisis and especially the years 2010, you have the example of Renault, which needs to build a new factory because Dacia is doing very well. They have the choice between two alternatives: either to increase their Romanian production to a level that would have reached (...) 600,000 units [or to construct a new plant elsewhere]. (...) The Romanian employees know how important they are for Renault and they take advantage of it to negotiate relatively large annual wage increases. What does Renault do? They are opening in Morocco! And as a result, if you like, today, the competition between employees, which initially mainly concerned French employees, concerns everyone. <sup>12</sup> (#19)

[Outsourcing has] become a kind of logic, which (...) has very significantly reduced production capacity in France since 2004 (...) [and] which has basically led to an increasingly significant relocation of production capacity to the east. Now, North Africa too, is enormous. They both [PSA and Renault] have built 450,000 vehicles of the capacity in Morocco. It is an enormous development and it is used to put them in competition with the Romanians, the Slovenians, etc. So, this is the logic taken by the French constructors. <sup>13</sup> (#21)

Above tendencies accelerated with the two crises, the GFC and the Eurozone crisis, which hit the French firms, in particular PSA, very hard. Here too, the interdependencies between the German expansion and market power and the weakness of French enterprises were evident. Chapter 6 already addressed that VOW was accused by the ‘Southern’ European producers, i.e. Fiat as well as the French OEMs, of pursuing a destructive price war that was suffocating their own enterprises. Fiat CEO Sergio Marchionne used the most drastic language, saying that VOW was fostering “a bloodbath of pricing and a bloodbath on margins.” (Ewing and Vlastic, 2012). The ability to engage in this kind of price war more successfully than others was due to the firm’s capacity to “keep costs down by sharing parts and development among a huge stable of brands, ranging from low-end Skodas to luxury Audis.” (ibid.) In other words, economies of scale were a key tool to aggressively expand market shares in Europe, which of course exacerbated the situation for competing OEMs. The Southern car manufacturers were supported in their accusations of VOW by Prof. Ferdinand Dudenhöffer, one of the most renowned automotive experts in Germany (Herz, 2012b; Fasse et al., 2012). He outlined already in May 2012 that the firm employed discounts of up to 23 per cent on a range of models in the compact and small cars segments, such as the Golf Cabrio or VW Polo (Herz, 2012b). The intensity of the discounts increased over the year, and the launch of the VW Golf VII in the fall of 2012 came with discounts of more than 27 per cent, according to his analysis (Fasse et al., 2012). Such high discounts for a model that is “the volume leader in the European business” was something that “we have never seen before.” (ibid.) He moreover criticised VOW for using aggressive bonus programmes with its dealers to generate sales, which ultimately eroded the latter’s profitability (Döring and Heide, 2012). VOW rejected the initial accusations as “complete nonsense” by emphasising that discount policies are choices made by individual dealers, which act as “independent enterprises” (Herz, 2012a) – an argument which Dudenhöffer could “not take seriously.” (ibid.). Without going into the details of above disputes, it is clear that as a market leader in Europe, VOW’s discount policy has a tremendous influence over the policies in the entire market, by being a “reference point” for its competitors (Herz, 2012b).

The Eurozone crisis marked the low point of the decline of the French OEMs, especially for PSA. RNO’s position was slightly better, yet this was largely due to the contributions of Nissan (cf. chapter 7). It was thus a question of survival for the French enterprises,

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which have been kept alive already in the aftermath of the financial crisis through a “car pact” of the Sarkozy government totalling EUR 9 billion (Clift, 2013), and had seen their competitive position deteriorating since. Given the ‘survival of the fittest’ political and economic context in Europe, a radical restructuring was thus the only way out, and contrary to the crisis response of 2009, there was little political resistance. The restructuring measures in France that followed the crisis were principally similar to - or, to use the term employed by Avlijaš et al. (2021, 143), inspired by - the ones put in place in Germany: wage and costs cuts within the enterprises as well as within the wider economy. Within the enterprises, this entailed layoffs, pay freezes, increasing flexibility as well as the implementation of modular production – similar to VOW but much smaller in scale (Fainsilber, 2013; Feuerstein, 2013). Apart from the Confédération générale du travail (CGT), there was little resistance from trade unions, and the deal was – again, similar as in Germany – to preserve a production in France of at least 1 million units for PSA and 750.000 units for RNO (Hanke, 2013; Feitz, 2018a), a lot less than the 1.5 million units produced by PSA and the 1.1 million units of RNO in 1999. At the same time, the level of flexibility substantially increased in French factories. At RNO, for example, at the end of 2015, 45 per cent of the entire workforce in France were subcontracted and temporary labour (Amiot, 2015).

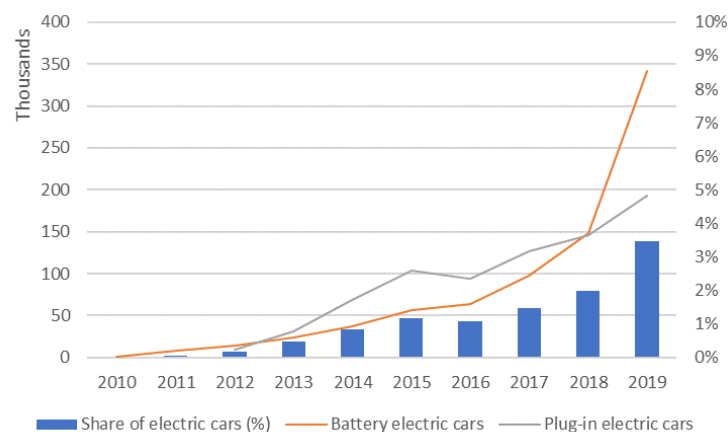
To halt some of the exodus of French production, the French government launched several programmes to support the electrification of the industry from 2009 on. Following the Schumpeterian model developed in chapter 3, the objective here was to foster investments in new technologies, which have a monopolistic advantage over old technologies and can therefore be priced better. In other words, the aim is to regain competitiveness through investments in new technologies, i.e., higher productivity, at the given wage level. As we have seen in chapter 3, Schumpeter’s writings assign the state “the functions of Ephor in finance, entrepreneur-in-chief in science, innovation and crucial decisions in investment, and creative-destruction manager” (Burlamaqui, 2020, 10). The French state employed all of above elements: in research, the public nuclear authority Commissariat à l’énergie atomique et aux énergies alternatives (CEA) worked on the development of batteries, while the environmental Agence de la transition écologique (ADEME) was charged with developing intelligent power grids for battery charging. In finance, the public Fonds stratégique d’investissement (FSI) subsidised RNO’s battery production plant with EUR

125 million, with the promise of further subsidies in the range of EUR 150 million (PSA was also subsidised with an initially smaller amount of EUR 100 million). The publicly dominated energy firm *Électricité de France* (EDF) received EUR 900 million for setting up 75.000 charging stations. Electric car sales were subsidised with EUR 5.000 and public companies such as La Post, EDF and SNCF were asked to order 50.000 units in total (Handelsblatt, 2009). Additionally, the state set regulations for standardisation to further develop the industry (Duscha, 2011).

In 2013, the French government went a step further by launching a sweeping industrial strategy “New Industrial France”, where the link between the loss of competitiveness and the case for gaining leadership in new technologies was made explicit by then president Hollande right from the start: “France’s industry has suffered through a long period of crisis. In June 2012, when facing with an ever-increasing number of layoffs, the French government decided to put an end to the country’s drastic loss of competitiveness. To ensure France’s place in a globalised world, our industry had to be strengthened. (...) [The] competitiveness battle will not be won on the basis of cost alone. Our goal is to be an innovation leader and to push the technological frontier.” (NIF, 2013, 1) The programme included further research funding, investments in infrastructure, sales subsidies, and direct purchases of government agencies from RNO and PSA (Bay, 2012; Amiot, 2013a). Yet, even though PSA and RNO did become pioneering firms with regards to electrification in Europe (Rother, 2015), the market did not take off (cf. figure 8.2), as cross-European government support would have been necessary (Wangness, 2020). The fiscal rules in Europe and the preoccupation with balanced budgets after the Eurozone crisis, largely imposed on other Eurozone countries by Germany and its northern allies, naturally limited the options of state support (Clift and Ryner, 2014). The case of the industrial strategy in relation to the automotive sector is emblematic for the schizophrenia of French policymaking under the Euro. On the one hand, the government sought to develop the economy in a way that contained elements from its classical dirigisme, i.e., selective credit and public procurement policies (Clift, 2012, 2013). On the other hand, the state was constrained by financial markets (e.g., via the pressure on credit ratings) and European fiscal rules, enforced by German structural power in the Eurozone (Clift and Ryner, 2014). The French government hence employed a very peculiar form of “economic patriotism” (Clift and Woll, 2012) through which it desperately tried to

retain a number of high-end manufacturing jobs in France, but in which it was equally severely constrained given the political realities in the Eurozone and the realities that French OEMs faced on financial markets.

FIGURE 8.2: Electric cars registered in the EU-27, Iceland, Norway and the United Kingdom.



Source: European Environment Agency (EEA).

With regards to the regulatory side of the automotive sector, there was also little incentive to green the industry, as the German government continuously intervened in Brussels to prevent that environmental regulations could hamper the sales of the most profitable (and polluting) SUV and other premium high-end cars. Especially from 2007 on, CO<sub>2</sub> emission standards were increasingly at the core of the debate (Handelsblatt, 2007c). The German producers, whose automotive products with the highest profit margins were at the same time the most polluting, were pressing for rather relaxed standards, while the French and Italians preferred stricter targets – knowing that this would grant them a competitive advantage vis-à-vis the Germans through their specialisation in smaller cars (Handelsblatt, 2007b). Through intensive lobbying and pressure from Berlin, however, the EU Commission repeatedly either gave in directly to the demands of the German government, such as with the “lex SUV” in 2009, which relaxed emission standards for heavier cars (Frank and Traufetter, 2020), or it continuously pushed back the implementation dates of environmental regulations, which benefited above all the German producers vis-à-vis their Southern European competitors (Honore, 2013). It was not until Dieselgate in 2015, which shook the relations between German politics and the auto industry, that the pressure to change on the German auto industry started to increase.

Although Berlin continued to defend its domestic industry in Brussels (Dupont-Calbo, 2018), tighter emission regulations from the 2020s will now apply.

Hence, in the absence of the take-off of alternative technologies, PSA and RNO became, by 2016, the “new champions of profitability” thanks to “ruthless cost hunting” (Amiot, 2016) – largely in old technologies. In particular wage costs, which were regarded as a key competitive disadvantage (Schaeffer, 2011; Andresen, 2011), were addressed successfully. Yet, as we have seen in chapter 7, large disparities between the French and the German producers still prevail. The price that the French economy had to pay for the new profitability of PSA and RNO is much lower production, output, and employment in the automotive industry. From the perspective of the individual enterprises, however, the ruthless nature of *Verdrängungswettbewerb* left them with no other choice. As outlined in chapter 3, an enterprise that does not grow and is not profitable will disappear from the market, as access to capital will become increasingly scarce and expensive, while its equity disappears. The urge to control the economic environment and survive hence presupposes both growth and profits, which mutually feed each other. For the French OEMs, it was the restoration of profitability that allowed them to capital markets and to return to growth. In the case of PSA, growth occurred both organically in terms of increasing sales revenues (cf. figure 6.12) and inorganically via the purchase of Opel and later a merger with Fiat-Chrysler (FCA). In PSA’s annual report 2017, CEO Carlos Tavares made no secret out of the strategy the firm would have continue to employ in the future: “More than ever, we must be Darwinian and agile”, whereby performance (both financial and non-financial performance, which “feed from one another”) remains “the only safeguard” and constitutes, alongside responsibility and transparency, the key marker to be leveraged (PSA, 2017, 2).

Thus, in summary, when it comes to the survival of the enterprise, considerations of the impact of corporate decisions on the national and/or regional economy are secondary. What matter is regaining competitiveness, which, in difficult times, will be done by either pushing down wages in the home economy and/or outsourcing production to low wage countries, where the existing level of productivity can be combined with cheap labour. In this regard, it is interesting that institutional configurations, the basis for categorising different growth models, appear less relevant. The story of the automotive industry shows that, in a world of free capital flows, the main determinant of corporate conduct

is not national institutions in areas where it might still be distinct, but the performance of the enterprise. If growth is absent, profit margins deteriorate, and refinancing on capital markets becomes increasingly difficult, the survival of the firm is at stake. In this scenario, regardless of whether there is *Mitbestimmung* or not, the management will be determined to restore competitiveness as it sees fit. In Germany during the early 2000s, the negotiations in the auto industry between social partners can hardly be described as relational in a corporatist sense, as it was hard political and business pressure on labour (i.e., working conditions and wages) to fully give in to their demands. Once growth and profitability were restored and cost advantages maintained, *then* forms of a social dialogue were resurfacing again – without, however, threatening the competitive edge. In other words, corporate performance is a precondition for a corporatist model to function in a corporatist way. Such nuances and underlying mechanisms of change are difficult to grasp for the GM literature, as long as it does not explicitly examine TNCs as independent variables in its model.

The *Mitbestimmung* may have prevented simple and immediate outsourcing as in France, yet at the same time, the decision as to where the production of a given model takes place belongs to management too. If it were to block the assignment of a new model to a given factory in Germany, there is not much trade unions can do. Without the assignment of new models, however, the factory runs out of production and therefore jobs. Thus, the tactics that the French OEMs employed, namely putting production sites across Europe and the peripheral economies in competition with each other, is also what the German enterprises used as a pressure tool to restore profitability of domestic production (although Eastern European integration eased some of the pressure, as input sourcing became cheaper). In France, on the other hand, despite a different institutional set-up, i.e., a much more centralised wage-setting regime (Hassel and Palier, 2021), similar reforms as in Germany were implemented with a delay of 10 years, once the viability of the enterprises was threatened. Interviewee #01 explained the mechanism in the industry across Europe in the following way:

It is always the same process: all of the production sites are in competition with each other. Time and again, when a model runs out, and has to be replaced by a new model, then the central management comes to the plant



and they say: ‘yes you can produce the next model but what do you offer us? How can you convince us?’ It is like a tender, and they have to offer productivity increases, wage moderation etc. For the people, the most important thing is that they get guarantees for future investments, and in exchange, they have to make social concessions, it is always the same process.

### 8.3.2 Financialisation

In addition to differences in shaping the national and European production networks in line with corporate objectives, the financialisation of the economy played an important role in determining macroeconomic outcomes in France and Germany. As we have seen in chapter 6 and 7, the financial assets of German OEMs dwarf their productive assets, and the operational costs of their financial divisions exceed those of the French enterprises by a factor of between 2 and 4, depending on the firm (cf. figure 7.9). Moreover, the penetration rates indicate that for the German premium producers, roughly half their sales are financed by their own financial division, which is significantly more than for the French OEMs. Several interviewees also made it clear that, to them, financialisation is the key to understand market outcomes:

Why did the Germans win? (...) Because the financialisation of the economy made it possible - especially when interest rates were low - to buy cars (...) with financing. Right? (...) When I buy a very expensive BMW, if I buy it on credit (...) it doesn't impact my budget and in the medium term I lose less money on a BMW than on a Peugeot or a Renault because of [its] residual value.<sup>14</sup>(#22)

[Credit modes of financing] are pretty fundamental, because nowadays, especially in the premium segment, the capacity to be able to not only produce the car but sell the service to the client, to be able to finance it, is pretty crucial. So financial services have been an increasing contributor to the companies' operating margins, especially the Germans, which operate their financial services under the direct control of the manufacturing businesses.

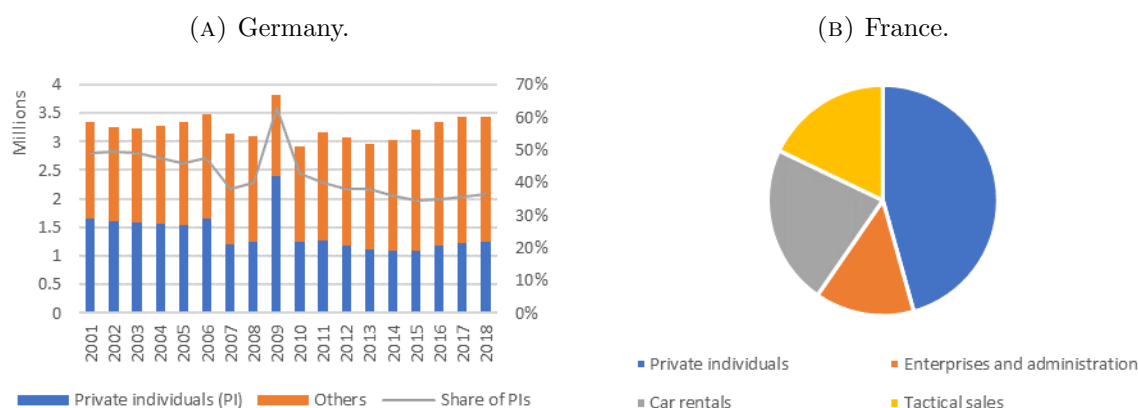
(...) Other producers in other countries do have different arrangements. Typically, for example, PSA doesn't control the whole financial business, but it is run now in partnership with a bank. That means a lot, I would say, but for companies like the Germans (...), financial services are a key competitive tool in order to place the vehicle in the market. (#37)

In this context, it is important to also refer to a shift in terms of new car purchases away from private individuals towards company cars, which can usually push through higher discounts due to the sales volumes they order (Menzel, 2006), which have lower brand loyalty and higher cost sensitivity (as interviewee #34 outlined), and which regard the company car as an asset, meaning that the residual value becomes a critical factor as to whether a business leases a car or not:

So, when I buy, I don't know, [say] a BMW for 50.000 euros. If I sell it 5 years later, I'll sell it for 40.000 euros. If I buy a Peugeot at 30.000 euros, if I take it five years later, I'm going to sell it for 15.000 euros. (...) I pay a lot of money on a Peugeot and I don't lose any on a BMW. So, the fleets of companies, which do have a lot of capital, buy many cars and consider them to be assets, an investment. They say since it's an investment, it's cheaper to buy a BMW than to buy a Peugeot or a Renault. And if I can afford to buy a BMW, it's because the economy is financialised. I can buy it on credit, there are plenty of financial instruments so that it doesn't consume too much capital, and that's one of the reasons why premium German groups have established themselves in the world. <sup>15</sup> (#22)

The share of company car purchases of new vehicles, which often use the services offered by the OEMs' financial divisions, varies across countries. Yet, especially in developed economies, it is substantial. Figure 8.3 shows the data for Germany and France. For Germany, there is time series data available from 2001, showing that private individuals account for an increasingly falling share of sales, reaching a mere 36 per cent in 2018 ('others', by contrast, include commercial customers and government agencies). Yet, it is important to note that the data may be somewhat distorted by so called *Tageszulassung* (i.e., one-day registration). These imply that a car dealer or manufacturer registers a new vehicle that is to be sold for a single day with the registration office. In the next step,

FIGURE 8.3: Composition of new vehicle registrations by type of client.

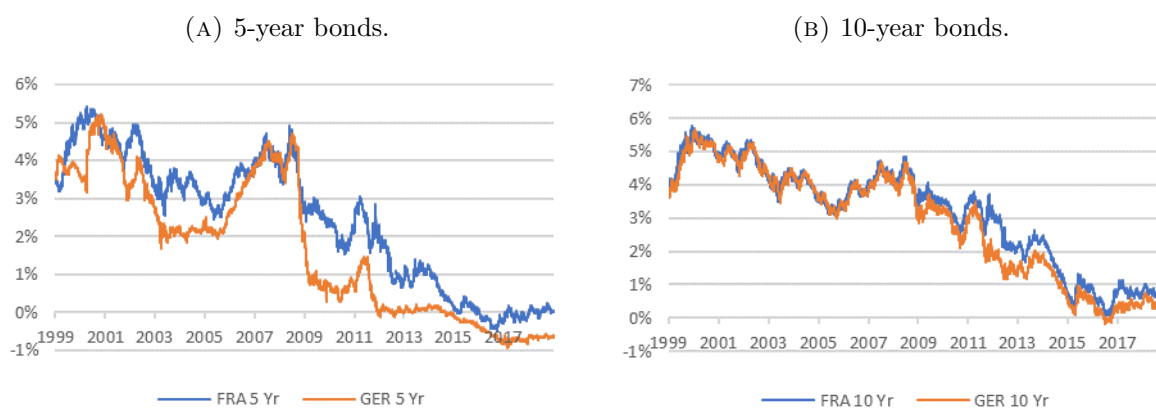


Source: Kraftfahrtbundesamt; AAA Data.

this allows the dealer to sell the new vehicle with a high discount to a customer without having to officially lower the listing price (ADAC, 2020). Dealers generate more sales and bonuses this way, while the manufacturer benefits from better sales statistics and the publicity that comes with it. During crisis years, as in 2011, such tactical sales were estimated of up to a third of all new vehicles sales (Buchenau, 2011). In 2018, 766.081 of 3.435.778 new vehicle registrations (22.3 per cent) were attributable to dealers and vehicle repair services. In France, for which the only data available was that of 2019, there is a similar principle of increasing sales numbers through tactical sales (VD + Garages), and it accounts for roughly the same share as in Germany (around 17.5 per cent). Such tactical sales are vehicles registered by the manufacturer and then distributed to dealers and garages. They are often courtesy vehicles (e.g., lent by a garage to a customer while his car is being repaired) or demonstration vehicles (e.g., for showroom purposes). After short time, they are resold as second-hand vehicles and they too account for a large share of total new registrations. Regardless of the specific sales tactics, however, we see that sales to corporate clients account for a very significant proportion of new vehicle registrations in both countries, and many interviewees referred to this being the case across Europe.

To generate sales and market shares, therefore, the terms that firms can offer their clients – both corporate clients as well as individual private customers – to finance their sales are a key competitive tool in the market. We have seen in chapter 7 that the

FIGURE 8.4: 5 and 10-year government bond yields.

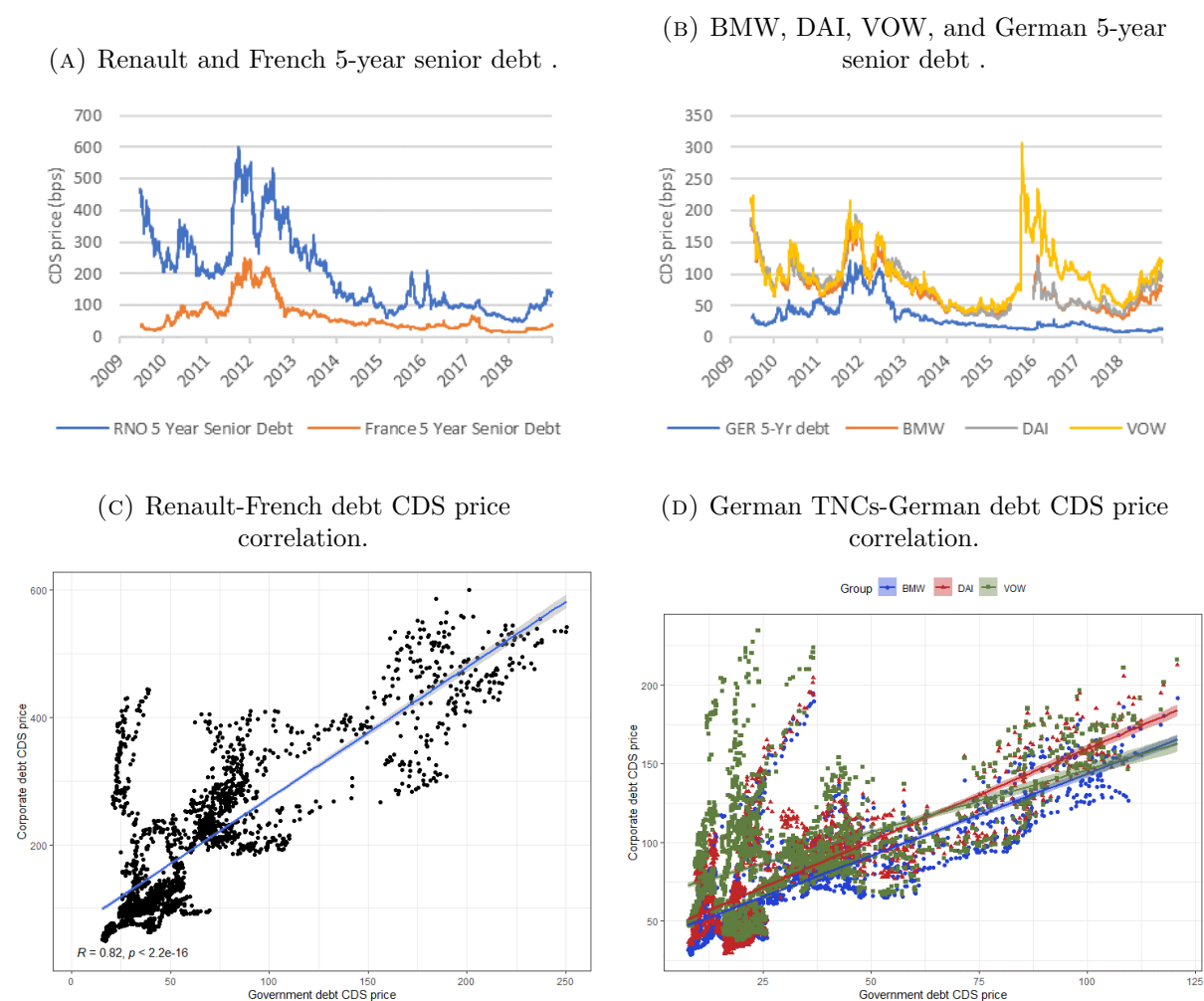


Source: Refinitiv.

issuance of corporate bonds is mainly used as a refinancing tool of the firms' respective financial divisions, which makes, in turn, the ability to cheaply raise capital a critical factor for survival. From a theoretical point of view, corporate bonds are going to be priced against the benchmark securities in each market, which are usually government bonds (Flassbeck et al., 2018). Figure 8.4 shows the data for 5- and 10-year government bond yields of France and Germany, revealing that in particular with regards to long-term finance, German enterprises have already from the start a very substantial competitive advantage vis-à-vis the French OEMs, as they benchmark security comes at much lower refinancing costs.

Although direct data on corporate bond yields was not available for this research, figure 8.5 presents the data on the prices of Credit Default Swaps (CDS) on the OEMs' 5-year senior debt in relation to the prices of CDS of 5-year senior government debt between 2009 and 2018. This data serve as a good substitute, as it indicates how much investors would have to pay, in basis points (bps), for the insurance of debt default (which is inevitably tied to the prices of corporate bonds and therefore yields). The higher the prices, the more demand there is for CDS, which means that more market participants sense a higher risk of default or are actively betting on it. (A) and (B) show the absolute bps values while (C) and (D) the correlations of RNO's and the German TNCs' CDS pricing in relation to that of their respective home governments.

FIGURE 8.5: Credit Default Swaps Prices.



Source: S&P Global Market Intelligence.

What we see for Renault as well as the German enterprises (PSA data unavailable), is that there is a high correlation between the benchmark securities – government bonds – and the pricing of CDS for corporate 5-year debt securities. One exception here is the Dieselgate scandal from late 2015, which significantly increased CDS prices and led to a lower steepness of the regression line in figure (D) compared to BMW and DAI. However, in the case of VOW, the perceived risks in the market was at the height of uncertainty at 300 bps, which was a value that was close to the price of CDS on French government debt during the height of the Eurozone crisis (note the differences in scale)! The corresponding correlation coefficients, provided in table 8.1, reveal the extent to which the security prices move together: For BMW and DAI, we have correlation coefficients for corporate and

German government CDS prices of 0.75 and 0.78, respectively. VOW, as mentioned before, stands out due to Dieselgate with a value of 0.4. Yet, until 31.08.2015, the correlation moved in line with that of the other German firms with a value of 0.77. At RNO, this correlation is even higher than for the German OEMs, with a coefficient of 0.82.

TABLE 8.1: Correlation between CDS prices of TNCs and their national governments' 5-year senior debt

	BMW	DAI	VOW	RNO
Correlation-Coefficient	0.75	0.78	0.40 / 0.77 (until 31 August 2015)	0.82
p-value	p < 0.001	p < 0.001	p < 0.001	p < 0.001

Source: S&P Global Market Intelligence.

Beyond the differences in benchmark security rates, there are, of course, corporate specific risks – notably the solidity of corporate performance indicators – and additional specific risk factors that impact credit ratings and therefore the terms on which companies can access capital markets. Given the absence of growth and pressure on profitability, the French OEMs were continuously downgraded by the rating agencies from the mid-2000s on. One person familiar with the rating process, outlined that:

Most of the financing conditions [of financial divisions] are in a way related back to the parent. As long as you have pressure on the parent rating, this basically feeds through the lien between the manufacturing and the financial business. (...) On top of it, the financial business is not only impacted by how the interest rates spreads are over time, [but] also by the need actually to provision for two main risks. One is cost of credit, meaning the counterparty risk that you face when you are lending or leasing your product to someone else (...). And then you have residual value risk (...) from the potential difference between the presumed value of the vehicle at the end of the leasing contract and the market value at the time the contract expires. (#37)

Hence, during the time of the crisis, the loss of market shares and the lack of growth, pressure on profitability, lower residual values, as well as weaker national economic indicators (which translate into higher credit risk provisions) all battered the French OEMs so that the gap between the GFC until the end of the Eurozone crisis turned into an existential threat. The only quick countermeasure to bring about success in such a situation was via radical restructuring, downsizing and outsourcing measures to regain the ability to refinance themselves – with all the consequences that this entailed for the wider economy in terms of investment, employment, demand and output. The German firms, on the other hand, were able to use their favourable access to capital markets as a competitive tool to further grow and expand in Europe. In November 2012, Handelsblatt analysed the situation as follows:

Would you rather drive a VW or a Peugeot? Perhaps the decision will be easier if VW offers the leasing rate for your Golf around 80 euros a month cheaper. That's (...) the advantage that Volkswagen enjoys over its French competitor. (...). VW gets the money for less than two per cent. Meanwhile, Peugeot's parent company PSA needs state guarantees (...) to be able to borrow money at all. (...) The competition faces a self-reinforcing process of decline. (...) The French and Italians have a choice: either they keep leasing rates high and lose even more market share to the Germans, or they forego their last profits and engage in a discount battle. In both cases, the rating agency will lower its thumbs again (...). Two extremes show how wide the gap is: Fiat and BMW. Fiat has lost 16.3 per cent in sales since the beginning of the year (...). Italy's largest industrial group is now paying 7.75 per cent interest for a four-year bond. On the other side of the Alps, BMW is practically getting money thrown at. [It] borrowed more than 20 billion euros in 2012 and paid a modest 1.25 per cent for its last bond. (...) As a consequence, BMW can offer leasing rates of less than 200 euros (...). The competition is boiling. (...) Fiat has no chance of competing against its big German rival with the current credit rating differential, even if Fiat were to increase its productivity a lot more. In Italy, [it] offers the Fiat 500 small car at six percent interest, while VW counters with zero percent for the comparable Up model. (...) The French PSA can no longer keep itself

alive by its own efforts. Threatened by a new downgrade by the rating agencies in October, the government in Paris had to step in (...). Neither Peugeot nor its saviour have much time left for restructuring: if Paris loses its top rating next year, the guarantee will not be worth much either. The state and its most important carmaker threaten to drag each other down. Never has the competitiveness of carmakers shifted so radically as in recent months. (Fasse, 2012)

Although the refinancing situation slightly changed for Southern European carmakers, the Germans still enjoyed a competitive advantage in mid-2015:

The German carmakers are far ahead of their competition - also thanks to low interest rates. If there is any truth in the argument of four American-German economists that [German] companies are gaining market shares in Europe's crisis countries, then one would have to see it first and foremost in the automotive industry: The industry is very capital-intensive, different financing costs play a major role in production costs and thus in competitiveness. If you pay significantly lower interest rates than your competitors, you can drag them into a price war that they cannot survive. For those who cannot get credit, or only at high interest rates, simply has to accept high losses in order to maintain market shares, while the competition is still making profits despite competitive prices. (...) The cost advantage of German carmakers over their competitors in other countries, especially in Italy, is large. While the German carmakers' banks can refinance at two percent or less, benefiting from Germany's safe haven status, rival Fiat paid up to eight percent. Keeping up with the competition on price is practically impossible with such differences in financing costs. (Häring, 2015)



### 8.3.3 Conclusion on interdependencies between national economies

These insights allow us to formulate a response to research sub-question 4 as to what extent does the conduct of firms, which operate transnationally but are embedded in national economies, shape the interdependencies between countries. The German OEMs' restructuring measures and the reorganization of the European production network during the early and mid-2000s restored the competitiveness of the German sites. Due to stagnation in the market and lack of demand in Europe, the expansion of the German firms came at the direct expense of the French producers, who faced significant pressures on their margins and declining market shares. Financialisation reinforced the trends of German growth and French decline, which were subsequently exacerbated by two consecutive crises. In order to secure their survival, French OEMs initiated a radical restructuring of their corporations, and the French state also engaged in a range of reforms that helped to restore profitability, with brutal consequences for domestic production and employment in the sector.

The German OEMs thus enjoyed a first mover advantage, which facilitated further expansion. Moreover, due to having Central and Eastern Europe next door, they benefited from better sourcing conditions, as wages in these economies lie significantly below the wages in Spain and Portugal, which are part of the French OEMs' hinterland. After the radical restructuring at the French OEMs, it left the firms with a much smaller size and much lower volumes, entailing lower employment and production. As profitability returned, however, so did growth both in terms of sales volumes and market shares due to acquisitions (PSA purchase of Opel and later its merger with Fiat-Chrysler). From the perspective of the enterprise, it is now therefore better positioned to compete and survive against its European competitors. From the perspective of the French economy, after years of declining employment and output in the industry, the implications for the future are yet uncertain.

## 8.4 Dynamics within national economies

In addition to the interdependencies between national economies, which are impacted by TNCs' performances and conduct, there are also implications for the dynamics within economies. This leads us to answer sub-research question 5: “to what extent does it affect economic change within countries?” We have seen that all enterprises increased, maintained, or tried to gain competitiveness via lowering wages and other input costs rather than investing in new technologies, which could be priced with a larger premium due to its monopolistic advantage. In other words, it was an optimisation that all companies engaged in. Although there was undeniably incremental innovation in both the production technologies but also technologies in the product, the competition between firms was essentially a *Verdrängungswettbewerb* based on an old key technology (i.e., combustion engines).

The absolute advantages that the German OEMs obtained led to an increasing specialisation in and optimisation of this technology, until the Dieselgate scandal hit in 2015. Following Schumpeter's definition of development, we can thus state that there was no development in the German economy, given the absence of the creation of something new:

I would firmly believe that, without the export miracle, the industry would have developed differently and that we would not have sent all our young people into production plants to build engines or transmissions or anything, but we would have moved ahead in other, innovative technologies, because these innovations can of course be better priced than combustion engines. That's why I think Germany is relatively old-school in many areas as far as the car industry is concerned, because for a long time it was too easy to earn money because of the currency and the export markets. <sup>16</sup> (#34)

The top managers at the German enterprises knew, however, that in the long run, this may create significant problems for their survival. Due to the pressure of financial markets to deliver returns – in combination with rather short-term mandates – initiating such wide ranging and risky changes at the expense of current profitability was difficult (especially, as we have seen, given that the operating margins of German firms were far from exceptional for most part of this research period):

Of course, they are aware of the problem. But they all have mandates of 5-7 years. They are all under pressure, so you just take what you can get. I would say that BMW is perhaps a pioneer in sustainable long-term planning, both in terms of currency dependencies and global market trends. BMW is really trying to position itself for the long term. But many, many others are simply relatively short-term, in the sense of 5 years or so. <sup>17</sup> (#34)

In France, on the other hand, there was at least an attempt to move towards new technologies in order to offset the competitive disadvantage vis-à-vis German and, to a lesser extent, the Asian producers. Yet, the scale of production and demand has not reached sufficient levels for generating high levels of employment, as the regulatory framework and the market environment are geared towards a race to the bottom, survival of the fittest type of competition. In a Schumpeterian type of competition that is based on innovation and productivity, relatively fixed prices, notably of labour, ensures that competitive advantages can only be achieved via investments and concomitant higher productivity. With large wage disparities across Europe and ample opportunities to outsource the existing methods of production, companies have a safer and quicker route to restore their competitiveness by simply combining cheap labour and high productivity. Without incentives to invest in the home economy, no long-term renewal of productive structures takes place. The deflationary pressures in Europe that largely stem from every country trying to lower its unit labour costs and the low investment rates suggest that not investments but pressure on wages is the main tool employed to increase competitiveness. Germany was the first mover in this regard and is still ahead of others, but we have seen that most of the restructuring in France followed the optimisation logic of lowering input costs to improve margins. Here too, genuine development remained largely absent.

This nature of competition is thus one reason as to why European countries, such as Germany and France, fall behind companies in the US or China. In these economies, public investments are not as restrained as in Europe and regulators allow for a higher degree of monopolisation, which facilitates the wasting of resources to generate new innovations – a prerequisite for creative destruction (cf. chapter 3). Moreover, especially in China, the state used wage policies, in particular minimum wage policies, which also incentivises investments in capital intensive technologies, as market participants know

that simple optimisation will not work in the long run. In Europe, on the other hand, the Single Market institutionalises a race to the bottom competition: free capital mobility without any wage coordination regime at the European level incentivises firms to optimise to improve their competitiveness, rather than investing in new technologies. State aid and fiscal rules exacerbate these pressures, as they limit the extent to which governments can intervene, as in France, to steer their economies in a more innovative direction.

The TNCs' integration of the European production network, where large wage disparities exist and wage developments within economies are left to national governments, are therefore not suited to create an environment which is conducive to genuine development in a Schumpeterian sense. The latter would require massive public interventions in markets, notably the closing of spreads through the ECB and tying direct investments to wage conditionality, which forces investors to increase wages in the host economy in line with average national productivity gains and the national inflation target. Yet, an insistence on competition for its own sake leads to the type of *Verdrängungswettbewerb* that we observed in the automotive industry – and with it, a Darwinist type of natural selection in which only the firms which adapt best to the given market environment will be able to survive. For national economies as well as the European Union at large, this implies technological stagnation and a continued absence of development. Differences in institutions will only marginally impact differences in innovation outcomes, as long as countries are embedded in such a supranational regulatory framework.

## Notes

<sup>1</sup>”Also der chinesischen Seite liegt daran, dass diese Sachen vor Ort produziert werden. Volkswagen möchte aber natürlich lieber die Teile, vor allen Dingen hochwertige Teile, dass die importiert werden. So wird es ja innerhalb der Konzernstruktur verkauft. Und wenn du Teile aus Deutschland – sagen wir mal ein hochwertiges Modul von Audi, was zu 100 Prozent Audi gehört – wenn du das nach China verkaufst, damit die das da einbauen, dann wird es dort von Audi 50-50 gekauft: 50 Prozent von Audi und 50 Prozent vom chinesischen Partner. Das ist eine money-making machine im Prinzip. Deswegen freuen Sie sich darüber, wenn so hochwertige Teile eingekauft werden. Das hat natürlich auch noch andere Gründe, denn man bei dem JV natürlich immer das Problem: Wie viel deines technischen know-hows möchtest du deinem Partner übergeben? (...) Aber ich glaube der Hauptgrund an dieser Struktur ist, dass Sie damit massiv Geld machen können.”

<sup>2</sup>”Wenn wir jetzt heute Anfragen bekommen, warum die PKW-Produktion in Deutschland so schlecht läuft, dann sind es alles deutsche Forschungsinstitute, die das wissen wollen. Es fragt mich keiner von den Unternehmen. Die sagen ’ja, unsere Produktion läuft doch gar nicht schlecht.’ (...) [Nationale Produktion] interessiert eigentlich nur die, die dann auf die nationale Produktion, auf das nationale Bruttoinlandsprodukt schauen. Aber das ist natürlich nicht das, was ein Unternehmen macht.”

<sup>3</sup>”Das ist kompletter Bullshit! Also die Elastizität im Automobilssektor, auch im Premiumsektor, ist extrem hoch. Extrem hoch! (...) Die Marktdaten sind da völlig klar! Also wenn ich mir die Discounts und Incentives angucke, die BMW und Co. auf 7er und S-Klasse in den USA geben müssen und wie die Nachfrage auf kleine Veränderungen im Pricing reagiert, das ist brutal! Hier geht es ganz klar um die Konkurrenz innerhalb des Automarktes. Sowohl innerhalb des Markts, z.B. 5er gegen 7er, als auch zwischen Marken. Kunden, insbesondere gewerbliche, die für die Premium Marken extrem relevant sind, sind nur sehr bedingt markenloyal. Da zu sagen ”unsere Produkte sind so gut, die Amis und die Chinesen hätten die auch gekauft, wenn sie 20 Prozent teurer wären” ist absoluter, absoluter non-sense!! Absoluter non-sense! Da gibt es Zeitreihen in den Datenbanken und da muss BMW teilweise 20.000 USD Rabatt geben, um die Dinger zu verkaufen (...) Ohne die Währung, die für Deutschland natürlich unterbewertet ist, hätte es natürlich nie diese Exportschlager gegeben. Sowohl im innereuropäischen Bereich, aber auch gerade nach China und in die USA, weil man in einer Währung die 30, 40 oder 50 Prozent teurer ist, dann kein Geld mehr verdienen kann. D.h. das hat dann im Prinzip eine Übergangsfrist geschaffen. Die Lokalisierung, die jetzt in den Märkten stattfindet, hätte dann schon eher stattgefunden. D.h. Deutschland hätte sich nach meiner Einschätzung schon eher angepasst auf den globalen Weltmarkt, mit einer stärker lokalisierten Produktion und hätte in Deutschland andere Strukturen aufgebaut, vielleicht in andere Technologien investiert, als in Dieselmotoren, weil es dann schon diesen Veränderungsdruck eher gegeben hätte. Man konnte halt dadurch komfortable lange leben, dass der chinesische Konsument die Defizite in Punkto Innovation aber auch Kapazitäten usw. in Deutschland überdeckt hat.”

<sup>4</sup>”Wir haben natürlich viele, gerade im Zulieferbereich, viele zum Teil sehr schmerzhaft Zugeständnisse machen müssen, um Verlagerungen zu verhindern. Die Verhandlungsmacht war eine andere, aber sie war

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deswegen eine andere, weil die Verlagerungsbedrohung in einem Betrieb, wo wir gut organisiert waren, wo wir eine gute Mitbestimmungspraxis haben, wo wir einen nachhaltigen investierenden Ankeraktionär oder Eigentümer haben, da ist eine ganz andere Auseinandersetzung als wenn alles drei fehlt.”

<sup>5</sup>”Es gab in der Zeit dann auch noch so ein paar andere Sachen, zum Beispiel das Pforzheimer Modell, das ist eine Öffnung, die die IG Metall in den Tarifverträgen zugelassen hat, um aus der 35-Stunden Woche rauszukommen, die Arbeitszeiten zu flexibilisieren, Senkung der Lohnnebenkosten etc. All das hat die Autohersteller flexibler und wettbewerbsfähiger gemacht. Was auf jeden Fall ein Erfolgsfaktor war: Einführung der Leiharbeit. Ganz wichtig. Davon wurde reger Gebrauch gemacht. Wenn Sie mal schauen, so ein Unternehmen wie BMW hat in guten Zeiten bestimmt 10.000 Leiharbeiter in Deutschland. Auch wenn man darüber nicht gerne redet, aber es ist so. Und das hat sie sehr, sehr flexibel gemacht. Sehr, sehr große Kostenvorteile gebracht. (...) Heute ist es enorm wichtig, in der Autoindustrie flexibel zu arbeiten. Es gibt Nachfrageschwankungen, plötzlich läuft ein Modell nicht mehr. Gucken Sie mal die Modellvielfalt in der Automobilindustrie mittlerweile an! Die ist riesig. Früher gab es drei Modelle. Ich bin jetzt wieder bei BMW: Da gab es einen 3er, einen 5er und einen 7er. Ende! Mittlerweile haben Sie, glaube ich, 25 Modelle, die alle fünf unterschiedliche Motoren haben, die in zwei Dutzend Werken gebaut werden. Das ist sehr komplex. Es gibt in der Autoindustrie nichts Teureres als Werke, die nicht ausgelastet sind. Das ist so eine Faustformel. Sie müssen immer eine hohe Auslastung haben sonst haben sie ein Problem. Und Sie können diese Auslastung dadurch variieren, dass Sie sozusagen die Werke atmen lassen. Also, dass Sie einmal in einem Jahr deutlich weniger bauen können, aber immer noch keine Verluste machen, weil Sie die Leiharbeiter nach Hause schicken. Wenn Sie so eine Stammebelegschaft haben, dann wird es teuer. Wenn Sie Leiharbeiter haben, dann sagen Sie dem Verleiher von heute auf morgen: ”Brauchen wir nicht mehr. Ab nächster Woche können sie ja einpacken, die alle mit nach Hause nehmen. Dann müssen Sie die woanders einsetzen. Hier sind wir durch. Wir rufen wieder an, wenn es Arbeit gibt.” So läuft das mittlerweile in der Autoindustrie, in weiten Teilen. Und das heißt, Sie können viel flexibler arbeiten mittlerweile durch dieses Instrument Leiharbeit, Arbeitszeitkonten etc. Das sind jetzt nicht die Hartz-Reformen, aber das hat man dann tariflich mit den Arbeitnehmern gemacht. Dann dieses Pforzheimer Modell, ich weiß nicht, ob es heute noch gibt, aber das haben wir mit Sicherheit in irgendeiner Form übernommen, dass sie Überstunden nicht mehr so bezahlen etc. Das heißt, man hat die Autowerke sehr, sehr viel flexibler gemacht, als vor 20 Jahren noch möglich war. Und da haben die Hartz-Reformen ganz erheblichen Anteil an diesem, ja, ich will schon sagen Erfolg, weil das war einfach ein Wettbewerbsvorteil.”

<sup>6</sup>”Wir haben durch die Lohnzurückhaltung [in den Werken und in der Produktion drumherum] vergleichsweise und dazu in Kombination mit dem Euro ein kostengünstiges Produkt in den anderen Ländern gehabt. Wir haben zwar in den Stammebelegschaften schon ordentliche Bezahlungen und eine starke IG Metall, aber hätte sie die Arbeitgeberseite nicht so stark mitbedacht, dann wären da noch deutlich höhere Steigerungen drin gewesen als diese 3-4 Prozent alle 2-3 Jahre. Und dann kommt hinzu, dass outgesourced wurde in Bereiche, wo es schlechtere oder keine Tarifverträge gibt. Thema Leiharbeit, ich denke jetzt an BMW Leipzig, ganz stark, oder auch Daimler. . . das ist ein Zusatzthema, was man unter der Lohnzurückhaltung subsummieren kann.”

<sup>7</sup>”Die Zulieferindustrie ist ja raus gegangen [nach Osteuropa]. (...) Wichtig sind dann am Ende doch die niedrigen Löhne. Also auch in Tschechien habe ich nun mal noch ein Drittel des deutschen Niveaus und das ist halt bei allen, bei den Zulieferern auch. (...) Heute gibt es auch überhaupt keine Qualitätsunterschiede mehr. Die liefern genau dasselbe was Wolfsburg, oder Zuffenhausen oder Leipzig auch liefern. Also da gibt es keine Unterschiede mehr. Die sind genauso gut. Das hat vielleicht in den ersten 10 Jahren etwas geruckelt, aber darüber redet heute keiner mehr. (...) Deshalb ist der wesentliche Vorteil der Kostenvorteil und ansonsten ist es ja auch nicht weit. Also ob ich meine Zulieferteile aus Belgien beziehe oder aus Frankreich oder aus Polen dann nach Wolfsburg, das ist alles dasselbe.”

<sup>8</sup>”Zugleich ist der Standort [Deutschland] auch dadurch wettbewerbsfähig geworden, dass man sagt, man macht nicht alles selbst zu Hause, sondern Teile der Wertschöpfungskette wurden dann entsprechend nach Osteuropa ausgelagert. Und dann hat man Teile von dort gekauft und dann hier zusammengebaut. (...) Es gab dann mit der EU-Osterweiterung dann (...) einen noch leichteren Marktzugang und es sind ganz oft Greenfield Projekte gewesen, wo man ohne irgendwelche räumlichen Beschränkungen und auch teilweise dann durch entsprechende Förderprogramme der Landesregierungen.”

<sup>9</sup>”Der Erfolg von VW hat (...) schon etwas mit dem Innovationsvorsprung zu tun: Insbesondere im Baukastenprinzip. Also Volkswagen hat es so früh und so konsequent durchgeführt wie kein anderer. Und dann kommen Skaleneffekte dabei heraus. Mit dem Querbaukasten bedienen Sie ja nicht nur Volkswagen. Sie bedienen Audi, Sie bedienen Seat, Sie bedienen Skoda und dann kommen Sie zu Skaleneffekten, wo kein anderer mithalten kann. Das heißt, die Entwicklungskosten, die drin sind, werden halt deutlich pro Fahrzeug geringer. Die Einkaufskosten sind deutlich vorteilhafter, weil ich eine ganz andere Verhandlungsmacht habe. Und damit hat Volkswagen schon eine herausragende Stellung im Bereich der Kompaktklasse, also untere Mittelklasse, Kompaktklasse, Kleinwagen bedingt noch, ja, was kein anderer hat. Das ist allenfalls vergleichbar global mit Toyota, die ja ungefähr das gleiche Marktsegment abdecken.”

<sup>10</sup>”Tu as un vrai déclin, une progression de Volkswagen en termes de parts de marché au détriment de Peugeot et Renault, c’est évident. Et dans le haut de gamme, c’est BMW et Mercedes qui prennent des parts de marché à Peugeot et à Renault, à Alfa Romeo, en Italie, donc tu as un vrai succès des modèles allemands. C’est peu contestable.”

<sup>11</sup>”La stratégie de délocalisation (...) [venait plus tôt] et [était] beaucoup plus massive chez Renault que chez PSA. (...) Pour nous, contrairement aux allemands, délocaliser ça veut dire fermer en France. Alors que les Allemands (...), eux ils peuvent construire des capacités de production à l’est sans avoir à réduire vraiment chez eux. Alors que nous, comme les constructeurs perdent des parts de marché, ça veut dire aller à l’est, et aller dans les pays d’Europe de l’Est, ça veut dire fermer en France. (...) Et pour moi, qui suis de formation géographie économique, c’est effectivement tellement important parce qu’effectivement, ça aurait été différent si la France était en Allemagne géographiquement et l’inverse, puisque tu as quand-même ce problème de distance. Quand tu fonctionnes à juste-à-temps, tu ne peux pas fonctionner en juste-à-temps à des milliers de kilomètres. Tu peux le faire, mais c’est très, très, très coûteux, très compliqué à organiser et extrêmement fragile au moindre incident, ce que la chaîne se caisse.”

<sup>12</sup>”La recette managériale qui a été initiée dans les années 80 et qui reste extrêmement puissante aujourd’hui, c’est la mise en concurrence des salariés. (...) Quand ils ont vu la première ouverture sur l’Espagne et la deuxième ouverture sur les pays d’Europe centrale et orientale, là, on va avoir l’utilisation de cela comme une opportunité de mettre en concurrence les salariés français avec les salariés espagnols dans un premier temps et de mettre en concurrence les salariés français et les salariés espagnols dans un second temps avec les salariés roumains, avec les salariés Roumains avec les salariés Polonais, avec les salariés Slovaques ou Tchèques, voire Turcs. (...) Et puis arrive la fin des années 2000, l’arrivée de la crise et surtout les années 2010, et là, vous avez un premier exemple qui est Renault, qui a besoin de construire une nouvelle usine parce que Dacia marche très bien. Ils ont le choix entre deux alternatives soit ils font croître leur production roumaine à un niveau qui aurait atteint [de] 600.000 unités [soit ils construisent une nouvelle usine]. (...) C’est évidemment une période durant laquelle les salariés roumains connaissent leur importance pour Renault et ils en profitent pour négocier des augmentations salariales annuelles relativement importantes. Que fait Renault ? Ils ouvrent au Maroc ! Et du coup, si vous voulez, aujourd’hui la mise en concurrence des salariés qui a initialement concerné essentiellement les salariés français, concerne tous.”

<sup>13</sup>”[La délocalisation est] devenue une espèce de logique, qui (...) a très significativement réduit la capacité de production en France depuis 2004 (...) [et] on [est] (...) en gros allé vers une délocalisation de plus en plus importante des capacités de production vers l’est. Là maintenant, l’Afrique du Nord aussi, c’est énorme. Ils ont construit tous les deux [PSA et Renault] des 450 000 véhicules des capacités au Maroc. Ça se développe énormément et c’est utilisé pour les mettre en concurrence avec les Roumains, les Slovènes, etc. Donc ça, c’est la logique prise par les constructeurs français.”

<sup>14</sup>”Pourquoi les Allemands ont gagné? (...) Parce que la financiarisation de l’économie permettait et permet – et surtout quand les taux d’intérêt étaient bas – d’acheter des voitures (...) avec un financement. D’accord ? (...) Lorsqu’on achète une BMW qui coûte très cher, si je l’achète à crédit (...) ça n’impacte pas mon budget et à moyen terme, je perds moins d’argent sur une BMW que sur une Peugeot ou une sur une Renault à cause de ce qu’on appelle la valeur résiduelle.”

<sup>15</sup>”Alors quand j’achète, je ne sais pas, [disons] une BMW à 50.000 euros. Si je la revends 5 ans après, je la revendre à 40.000 euros. Si j’achète une Peugeot à 30.000 euros, si je la prends cinq ans après, je vais la revendre à 15.000 euros. (...) Je paie énormément d’argent sur une Peugeot que je ne perds pas sur une BMW. Et donc, les flottes d’entreprise qui achètent beaucoup de voitures qui ont du capital estime que la voiture est un actif, un investissement. Donc ils disent puisque c’est un investissement, c’est moins cher d’acheter une BMW que d’acheter une Peugeot ou un Renault. Et si je peux me permettre d’acheter une BMW, c’est parce que l’économie est financiarisée. Je peux l’acheter à crédit, il y a plein d’instruments financiers pour que ça ne consomme pas trop de capital et c’est une des raisons pour lesquelles les groupes allemands premium se sont imposés dans le monde.”

<sup>16</sup>”Ohne das Exportwunder, würde ich fest davon ausgehen, dass sich die Industrie anders entwickelt hätte, und dass wir nicht unsere ganzen jungen Leute in irgendwelche Produktionsbetriebe reinschicken würden, um Motoren oder Getriebe oder sonst was zu bauen, sondern andere, innovative Technologien stärker nach vorne gebracht hätten, weil man diese Innovation natürlich besser preisen kann als ir-



gendwelche Verbrennungsmotoren. Deswegen ist Deutschland in vielen Bereichen meiner Meinung nach relativ old-school, was die Autoindustrie angeht, weil man lange zu bequem aufgrund der Wahrung, aufgrund der Exportmarkte Geld verdienen konnte.”

<sup>17</sup>” Ja klar war denen die Problematik bewusst. Nur die haben alle Mandate von 5-7 Jahren. Die stehen alle unter Druck, dann nimmt man halt mit, was man mitnehmen kann. Ich wurde mal sagen BMW ist vielleicht Vorreiter in einer richtig nachhaltig langfristigen Planung, sowohl was Wahrungsabhangigkeiten angeht, aber auch globale Markttrends. BMW versucht sich da wirklich am langfristigen aufzustellen. Aber ganz, ganz viele andere sind da einfach relativ kurzfristig, also im Sinne von 5 Jahren oder so unterwegs.”

# Chapter 9

## Conclusion: new insights and avenues for future research

The aim of this project was to show how including TNCs as an independent unit of analysis can bridge a conceptual divide between the CPE and IPE literature and how it can enhance our understanding of capitalist development and change. This project was framed in relation to the GM literature, which has incorporated some insights from IPE scholarship into CPE, but struggles to explain interdependencies between growth models as well as changes over time. As much of GM scholarship is conducted with European economies as case studies, this project selected Germany and France as the main country cases, although references to neighbouring economies and regions were made throughout. The industry for the case study was, due to its systemic relevance and wider manufacturing footprint, the European automotive industry. The theoretical model employed and developed in chapter 2 and 3 had three levels with (1) firms, nested in (2) countries that are a part of (3) the Single Market in Europe. The selected TNCs were the main German automotive firms, BMW, Daimler (DAI), Volkswagen Group (VOW), and the French manufacturers Peugeot-Citroën (PSA) and Renault (RNO), nested in their respective home economies in the European Union. Those firms make up about two thirds of the European market and account for 80 per cent of domestic production in their home economies. The methodology relied on a mixed methods research (MMR) approach of quantitative and qualitative analysis, including descriptive statistics, input-output computations, and sentiment analysis of annual reports as well as a content analysis of annual reports and 5665 newspaper articles, and 38 semi-structured expert interviews.

The main research question of the project asked: *“How did the operations of large TNCs in France and Germany drive capitalist development and change in Europe in the period between 1999 and 2018?”*

The sub-questions were:

1. Which key tendencies characterised the development of the European as well as the French and German automotive industry between 1999 and 2018? (Chapter 5)
2. What were the growth performances and internationalisation strategies of the TNCs of this case study between 1999 and 2018? (Chapter 6)
3. What explains the differences of the growth performances and internationalisation of the TNCs between 1999 and 2018? (Chapter 7)
4. To what extent does the conduct of firms, which operate transnationally but are embedded in national economies, shape the interdependencies between countries (i.e., growth models)? (Chapter 8)
5. To what extent does it affect the dynamics within national economies (i.e., growth models)? (Chapter 8)

In relation to sub-question 1, the research showed that due to the high degree of regionalisation of the automotive industry, which was termed as the phenomenon of ‘glocalisation’, dynamics within regions have a much higher impact on national production and employment indicators than developments in some distant market. In Europe, where the market was stagnating over time, the data outlined how the German firms managed to progress in terms of their market share at the expense of other producers, notably the French and Italian (but also American) enterprises. The turning point in the industry were the early and mid-2000s, a period during which the German sites increased their competitiveness by radical restructuring measures at home (both within enterprises but also the wider productive domestic ecosystem) and cheap sourcing in Eastern Europe. The German firms also increasingly benefited in their expansion from cheap refinancing rates and economies of scale, which were further boosted by growth in overseas markets, notably China.

The French, on the other hand, who performed well during the early 2000s, faced increasing pressure on margins and losses of market shares from the mid-2000s on. Around this time, the French OEMs began to outsource production, mostly to Eastern Europe, to address their lack of competitiveness. As their financial position deteriorated and the global financial and Eurozone crises hit, however, both firms had to be saved by the French government. In order to restore operating profitability, both firms radically cut costs – as the firms in Germany did during the early and mid-2000s - by cutting wages and increasing flexibility. They also benefited from reforms, pushed through by the French government, that rendered their domestic productive ecosystem more competitive, and continued to ramp up production abroad. From 2015 on, the French firms had restored their competitiveness and were, in terms of operating profitability, again up at the level of the Germans. This came, however, at the expense of domestic production, which declined by around 37 per cent over the period of this research. The answers to question 2 and 3 therefore suggest that the German TNCs' growth performances and internationalisation strategies were much stronger compared to their French competitors. German firms grew significantly and had a much better footprint overseas (question 2). Yet, much of that growth was driven by the ability to remain profitable in the face of a price war (due to high cost-competitiveness of the German corporations) and financialisation, which allowed for cheaper refinancing of German OEMs' automotive banks than it was the case for PSA and RNO (question 3).

Regarding question 4, in one of its main contributions to the literature, this project has shown that the mechanism underlying the interdependencies between countries were, in the case of the automotive industry, driven by shifts in margins and market shares. Due to the nature of the Darwinian *Verdrängungswettbewerb*, which characterises European competition, firms largely relied on combining existing methods of production with lower wages – either through outsourcing or domestic wage repression. This held regardless of whether the country was classified as an export-led (Germany) or domestic demand-led economy (France). In the case of the former, it was simpler to retain a high share of domestic value-added due to the geographical proximity to Eastern Europe, which was not the case for France, where the entire assembly had to be outsourced (given the demands of just-in-time production). Additionally, as previously mentioned, financialisation was a key factor that facilitated the German expansion, since refinancing was, due to their

growth performance and low yields on benchmark securities, a lot cheaper than for the French. This advantage could and was passed on to customers through cheap interest and leasing rates – which have become highly important for the sales of new vehicles.

As the above model worked comparatively well for German firms, despite overall low margins and weak cash flows, there was little incentive to move into new and alternative technologies. The dynamics in Germany over time were thus an increasing optimisation and specialisation in combustion engines – up to the point that the state-owned and largest German enterprise, VOW, engaged in corporate fraud to meet emission targets in the US. A renewal of productive structures and investments in new technologies (which could be priced better due to a monopolistic advantage) were neither politically nor economically incentivised, so that – to answer question 5 – no Schumpeterian development took place. In France, on the other hand, the pressure on margins, due to the erosion of market shares and concomitant low capacity-utilisation rates, firms had to outsource production, leading to widespread deindustrialisation and precarisation of work. As PSA and RNO retained high market shares at home, it also put pressure on the trade balance and led to the accumulation of financial liabilities vis-à-vis foreign economies. The French government sought to push firms through an industrial strategy into new technologies, but although French OEMs took leadership notably in electric vehicles, the market overall remained too small to offset the losses in conventional combustion engine cars. Demand for higher priced vehicles was also hampered by internal devaluation measures and EU fiscal rules. So, in France too, there is a tendency of stagnation and no genuine renewal of the productive structures, hence no development.

The answers to the overarching question of how the operations of large TNCs in France and Germany drove capitalist development and change in Europe in the period between 1999 and 2018 thus revealed different dimensions. First, it was in both cases corporate action, supported by the government and facilitated by the four freedoms of the Single Market, to restructure domestic and international production in response to profitability issues and losses of market shares. Both in Germany and in France this impacted national production, employment, and the degree of industrialisation. The German OEMs were the first movers, profiting from the political pressure exerted on trade unions, wage repression, and proximity to Eastern Europe. After the financial and Eurozone crises, with their backs against the wall, the French OEMs followed suit with

*principally* similar reforms at home, implemented by the Hollande government, and wider outsourcing to the European periphery. In contrast to the German restructuring, the French initiatives were accompanied by a *dirigiste* effort to move into new technologies, which turned out to bear little fruits, however. Secondly, this study has revealed how important financialisation and the state-market nexus on capital markets is. Through spreads on government bonds, the TNCs in Germany and France enjoyed very different starting positions, which allowed the former to offer much more attractive leasing and credit rates vis-à-vis the latter.

In relation to the GM literature, the key contributions of this project are, on the one hand, the deeper understanding of what mechanisms underlie the dynamic evolution of conventional economic performance indicators, such as national production, employment, and trade. In this case, it was, in particular, the changes in market shares and pressures on margins that pushed the firms in France and Germany into action respectively, which fed through to these national-level indicators. On the other hand, the project revealed the way in which financialisation has transformed market transactions and corporate business models. Without the advantages on capital markets, the German firms would have not been able to grow as strongly in Europe, which, in turn, would have adversely impacted German exports, production, and employment. At the same time, the pressure on European car manufacturers would have not been as high, so that probably less outsourcing would have taken place. In the end, however, this model led to an increasing specialisation in an old and dying technology and did not generate any cash for the German enterprises, especially the widely praised premium producers. This means that in the long run, it is a competitive model in which everyone ends up losing. It would require a political response to set a different framework for a different type of competition in Europe, which has little to do with the four freedoms of the Single Market and the race to the bottom in unit labour costs that we observe since 2012 (Kaczmarczyk, 2018).

After this concise summary and response to the research questions, the purpose of this chapter is to elaborate further the contribution of the approach taken in this project to GM scholarship. The rest of the chapter is structured as follows. First, it points towards the most relevant aspects of the GM literature that are coherent with the results of this case study. The subsequent section outlines how the study of TNCs as an independent unit of analysis enhances our understanding of capitalism. Notably, it shows the benefits

in relation to understanding change, the interdependencies between and the dynamics within growth models (i.e., the renewal of productive structures). It also highlights certain shortcomings when it comes to conceptualising financialisation in the GM literature and draws out the policy conclusions that emerge of this research. Finally, as with any research, the approach adopted in this case study has a range of limitations that go beyond the methodological limitations and complications that were examined in chapter 4. The chapter finishes by analysing them and drawing out implications for future research.

## 9.1 Where the growth model literature is right

In this case study, one core finding of the GM literature, namely the repression of wages and domestic consumption for export-led growth (Baccaro and Pontusson, 2016), was an important factor that affected the development in the automotive industry and strengthened German exports both to other European economies but also overseas. Although nominally, wages in German OEMs may be higher than at other firms, the case study showed how political and business power was used to restore the competitiveness of the German sites by restraining wages and increasing labour market flexibility under the protection of the Euro. Additionally, it brought to light as to how the embeddedness of the auto industry in the German political economy benefited its OEMs: business functions were increasingly outsourced to providers that were not covered under collective wage agreements, such as the service sector, which is essential to production, but was crushed in terms of wages and labour standards. Conceptually, the aspect of power structures within the economy, which is a central feature of the GM literature, proves useful to understand the developments in the German economy. The low bargaining power of labour in times of high unemployment and international mobility of capital were critical for trade unions to give in to the demand of management. Yet, on the other hand, the German *Mitbestimmung* prevented a wider and more immediate outsourcing of core productive functions, which could have otherwise taken place as in France from the mid-2000s on – but the limits to outsourcing were also largely due to the factor that German firms enjoyed already significant advantages in the market and the wage increases never threatened their competitive position (cf. chapter 7).

In terms of the cooperative relationships between social partners as the basis for the institutional capacity to wage restraints, a key feature in both GM and VoC analysis, also turned out to be a critical factor in this case study. This corporatist dimension of the German political economy played a significant role when it came to the labour market reforms of the early and mid-2000s – which were designed by the former head of HR of VOW, Peter Hartz, and implemented by SPD-led governments. During that time, however, one can hardly speak of a cooperative relationship in a consensual sense. The style rather resembled a cooperation and collusion between businesses and political leadership, which relentlessly pushed through the reforms. Contrary to the concept of *Tarifautonomie*, according to which the German government is not supposed to intervene in collective wage bargaining but leave it to the trade unions and businesses, it was strong political pressure and direct state intervention that set the stage for continuous rounds of wage cuts at German factories. The power dynamics were in favour of German businesses, so that despite formal co-determination practices, labour unions gave in to almost all demands of management (cf. chapter 6 and 8). Previously set standards, such as collective bargaining agreement on both industry and firm levels, were continuously undermined and represent today merely a shadow of the pre-Euro era. Once the automotive TNCs had significant advantages in the market and were able to comfortably defend them, then more consensual forms of social dialogue arose again.

Another example of the cooperative relationships between social partners was the German government's pressure on regulators in Brussels to water down environmental and emission standards. Without Merkel's interventions, the German firms would have had to invest in new technologies much earlier (which would have eroded profit margins in the short run), and they would have had to rely on the production of smaller, less polluting cars. The German support in Brussels was therefore a key factor to ensure that the German expansion was not hampered by European emission regulations.

Finally, in this case study, it was evident that the German reforms and state interventions were not at odds with the ordoliberal tradition in this country, as the wage dumping and liberalisation of labour markets, especially – but not exclusively (!) – in unprotected sectors (Palier and Thelen, 2010), can still arguably be referred to as 'market conforming interventionism' and 'efficiency-enhancing' policies, which characterise ordoliberal political ideas (Clift, 2013).



On the other hand, the French economy, as outlined in chapter 2, is classified as a demand-led economy that is characterised by centralised industrial relations, in which the state has a bigger role in securing similar wage setting outcomes at the level of industry as in Germany (Palier and Thelen, 2010). A further characteristic of France, in comparison to Germany, is its more stringent minimum wage laws and more generous welfare system. In the GM literature, both aspects are argued to be central in sustaining domestic, wage-led consumption and demand (Avlijaš et al., 2021). In terms of its approach to economic development, the French government often employed dirigisme and “Colbertist” state interventionism (Clift, 2013).

The absence of a similar form of co-determination as in Germany within the French enterprises, in other words, a different form of corporate governance, made it simpler for the French OEMs to directly outsource production once they were losing competitiveness. The GM scholarship thus delivers a valid explanation for why French firms outsourced more effectively and substantially than the Germans. Moreover, much stronger than the Germans, French firms employed a strategy in which they were putting different sites in different regions in competition with one another – it is again a form of behaviour that we do not find to that extent at the German firms of this case study. The influence of labour in management was therefore an important factor that partially explains differences in corporate conduct between the German and French enterprises in this sector. At the same time, however, this research also showed that French firms did not have much of a choice, given the high pressure on margins, difficulties of refinancing on capital markets, and the high proportion of short-term liabilities on their balance sheets. There is thus the counterfactual question, which remains unanswered, as to how the restructuring would have looked like if, under similar market conditions, there would be similar co-determination practices in France as there are in Germany.

As per the French dirigisme, here it was also possible to predict from previous GM and CPE scholarship the responses to the crisis, as, compared to Germany, it was indeed the most significant difference that the state sought to take a more active role in its strategy to technologically upgrade the industry. While the German government abstained from an industrial strategy or reflationary measures that may have pushed the automotive industry into new technologies, the French government actively sought to take leadership of its national champions in the electrification of the industry (cf. chapter 8). Of course,

it did not manage to fully succeed, since the implementation of an industrial strategy and structural change cannot be accompanied by contractionary policies. But the active role of the French government was a lot more visible than in Germany, where the government bailed out the OEMs' banks and set up scrapping incentives from which mostly smaller car manufacturers benefited.

In summary, therefore, some of the insights of the GM literature proved useful and valid when applied to the case study of this research. Notably, this relates to the institutional capacities of the German economy for wage restraint as well as the French preferences for dirigisme. Yet, other elements, such as the French performance on cutting wage costs (cf. chapter 8) and certain circumstantial factors, such as timing (i.e., first mover advantage of German OEMs) and market conditions in which the enterprises operated (i.e., especially differences in access to capital markets) were hardly addressed in the literature, despite their relevance to firm conduct and performances.

## **9.2 How the study of TNCs enriches the growth model literature**

Although the GM literature has undoubtedly its benefits in analysing demand side factors and power structures within the economy, due to its methodological focus on national economies and its conceptual gap concerning the impact that TNCs have on economic outcomes, it struggles to answer certain puzzles. Chapter 2 showed that especially in relation to dynamic changes, such as changes from surpluses to deficits and vice versa, as well as interdependencies between and the structural development within growth models, the GM literature currently has its difficulties. Additionally, during the empirical research, the role of financialisation became increasingly relevant, which appears, in light of the findings of this case study, insufficiently addressed by GM scholarship. This section thus highlights the contributions of this case study to GM scholarship and our broader understanding of capitalist development in Europe. For a potential generalisation of the findings, further research is required (see end of this chapter).

### 9.2.1 Explaining change and a failure to change

As the German economy accumulated export surpluses throughout most of the post war history (Höpner, 2019) the question of change is perhaps less relevant than in the case of France. Yet, nonetheless, the study highlighted the mechanisms through which the German OEMs increased their competitiveness under the Euro, which was via (1) widespread wage restraint both within the firms but also in the German economy, (2) an integration of central and eastern Europe in its value chains, and (3) financialisation. Usually, only the former two are attributed to German export successes.

In France, on the other hand, the question of change was more pertinent. Chapter 2 showed that political economy scholars had difficulties to firmly place the country into a given category, as “France has gone through different situations, from current account deficits to surpluses, and from surpluses to deficits, which prevents the application of a one-category-fits-all diagnosis” (Cornilleau and Creel, 2016, 216). Indeed, based on the experiences in the automotive sector, we have seen that the early 2000s were still a time of expansion, before PSA and RNO lost grounds mainly to the German manufacturers. In order to retain their profit margins and secure their survival, both firms had to outsource production and, given that PSA’s and RNO’s market shares remain high, the re-importation of cars creates deficits, while a declining production based in France does not allow for exports to offset this shortfall – especially as the German enterprises still enjoy significant cost and refinancing advantages. There were attempts to re-boost domestic production through focusing on exports and production in new technologies. Yet, due to overall limited fiscal capacities to manage a technological transition as well as the absence of regulatory support, the market for electric vehicles did not pick up. As it was the case in Germany, the low bargaining power of labour – in light of declining production and increasing unemployment – led to drastic restructuring measures in France, and due to its weaker political power vis-à-vis the German government on the European level, it was difficult to push through regulatory changes in Brussels, which could have benefited the French producers.

The experiences of the TNCs of this case study and their different impacts on the performance of their national economies brings some new light and more nuances into GM scholarship. For example, when analysing changes in growth models, Avlijaš et al. (2021) write:

France and Italy were clear examples of wage demand-led growth regimes typical of Fordism (...), despite the existence of some export sectors (...). Since the 1980s, these countries have been stuck in the Fordist growth model, being able to neither grow nor transform into new ones. Their ‘consumption-based welfare systems’ (...) guaranteeing a high level of compensatory benefits, such as unemployment allowances and generous old-age pensions, are key to sustaining their domestic demand-led growth. Italy has been an example of ‘permanent stagnation’ since the 1990s (...), while France has continuously failed to become an export-led economy. (p. 405-406)

In the case of France, the authors go more specifically on to explain:

France is an interesting example of a failed attempt to switch to an export-led growth regime, while being restrained by the (institutional and political) legacy of the domestic demand-led one. The turning point starts in the 1980s, reinforced in the 1990s by several attempts at welfare retrenchment, and culminates in a series of policies to lower firms’ labour costs. Most of the French growth strategy towards bolstering export capacity is thus based on cost reduction and is in reality a low-cost strategy that relies on dualizing welfare system reforms. (p. 409)

The insights from analysing both French automotive OEMs indicate that these statements are too broad-brushed and inaccurate. As long as both of the French firms maintained or increased their market shares in Europe during the early 2000s – even overtaking VOW at some point –, the value of French exports grew, whilst employment and unit production remained stable in France. This was despite the French welfare regime or other forms of social benefits, which may have been more generous than in Germany. We have seen in chapter 6 how German newspapers looked with envy and praise at the other side

of the Rhine, where French firms were flourishing due to their productivity performance and, compared to German OEMs, higher profit margins. To the GM literature, this is a conundrum that can hardly be explained. It was not until the German government restructured the economy and the OEMs began their expansion in a stagnant market that the French OEMs began to lose market shares, which lowered capacity utilisation rates and evaporated their cost-competitiveness. The subsequent pressure on financial markets left firms with no other option than outsourcing, and as PSA and RNO retained high market shares in France, this caused a deterioration of the trade balance, as the French were importing ‘French’ cars. So, the constraints to switching the French growth model to an export-led one were less rooted in France’s institutional and political setting, but more due to external conditions, notably the German expansion and the pressure of financial markets.

Hence, the issue, at least in the automotive industry, was not the high levels of compensatory benefits necessary to sustain a demand-led model, but the hyper-competitiveness of the German OEMs and their lower refinancing rates that pushed the French automakers against the wall. From some of the evidence presented in chapters 5 and 8, it appears as though Fiat had faced the same problems, so that the same conclusions may apply to Italy as well. The “different situations, from current account deficits to surpluses, and from surpluses to deficits,” which (Cornilleau and Creel, 2016, 216) refer to, can be explained, in part, through the dynamic changes of TNCs’ market shares and profit margins that pushed the firms to take action to restore their competitiveness in the best way they saw fit – and with it, all the knock-on effects on domestic production, employment, and exports.

Using the TNC as an independent variable in the analysis therefore allowed to better understand how changes observed at the macro-level are the outcome of firms’ competition at the micro-level. It provides a more nuanced picture of the evolution of growth models by highlighting which mechanisms underlie the dynamics within a domestic economy. It also adds the benefit that whilst the developments within the national economy can be studied through the lens of the TNC, factors related to the international economy are considered as well. Especially the examination of the dynamic nature of change in the French sectoral trade balance, and hence, its growth model, showed that change itself cannot be understood if only domestic factors of impact are considered.

## 9.2.2 Understanding interdependencies

The last insight naturally brings us to the second point, i.e., that of interdependencies between national economies that arise from their embeddedness in international markets as well as global value chains (GVCs). Naturally, interdependencies will be higher for highly regionally integrated economies with numerous, comparatively smaller countries, as in Europe, than for economies such as the United States or China, which have large internal markets and are relatively closed (Hay, 2017; Flassbeck and Steinhardt, 2018). This makes it problematic that the GM literature has, to a large extent, downplayed the relevance of supply side structures, as these ‘real’ factors, in this case study in particular intra-European value chains, still matter for economic outcomes (cf. chapter 2).

Due to its conceptual focus on national economies, the GM literature struggles to theorise the interdependencies between countries. The most it explains in some accounts, is the notion that demand- and export-led growth models interact with one another, since some country’s deficits are another country’s surpluses. Yet, at best, this amounts to an exercise of *ex-post* assigning labels to trade statistics, without understanding the reasons for or mechanisms underlying these interactions. Moreover, it leaves a blind spot in relation to dynamic changes that may arise as a consequence of these interdependencies and which this case study (and the previous section) so vividly showed.

Using TNCs, which account for the majority of world trade, as a point of departure, this research illustrated the ways in which corporate conduct and absolute advantages of firms do affect outcomes across national borders: the labour market reforms in Germany during the early and mid-2000s, financialisation and Eastern European integration into German supply chains allowed the German OEMs to regain competitiveness and restore profitability of their factories. These absolute cost advantages passed through increasing profit margins and higher market shares, and the international expansion that followed allowed the German manufacturers to generate substantial economies of scale. For the French firms, by contrast, relative costs increased through the absence of similar reforms and the geographical impossibility of cheap sourcing, lower capacity utilisation rates at French factories and declining sales in Europe. Moreover, the capacity of German firms to access capital markets on much more advantageous terms facilitated the refinancing

of their financial divisions, which were substantial drivers of German sales at home and abroad – again, an area where the French enterprises were unable to compete. In order to survive, especially after the problems were exacerbated by two consecutive crises, the French firms had to combine the existing methods of production with low wages, which implied going to Eastern Europe and North Africa and pushing down the wage level at home. Although these drastic measures helped them to return to profitability and growth, the implications for the domestic economy were significant, as production as well as working conditions declined. This also explains, from the insights with regards to the automotive sector, why France did not manage to switch to an export-led model: on the one hand, the market was largely occupied by the Germans, who continued to enjoy a relative cost advantage (also due to economies of scale from their international expansion), and, on the other, the French firms lacked the cheap labour next door. Growth and profits for the French TNCs had their basis in factories in Central and Eastern Europe as well as North Africa, so that a better performance of French TNCs does not translate to more exports out of France (it is, rather the opposite, as the French import their RNO and PSA vehicles from abroad).

This case study thus brought to light the transmission mechanisms that exist between national economies. Moreover, in a world of free capital and trade flows, it shows the dependence of an ‘export-led’ model on the ability to exploit cheap labour that can be integrated in the domestic realm of production – and the helplessness of a ‘demand-led’ model to counter a surge of imports when domestic producers simply lose competitiveness and market shares. In other words, what we learn from the study of TNCs is that the nature of the growth itself and the functioning of different institutional configurations in national economies are highly dependent on how well firms are placed to use their absolute advantage in the market. With free capital mobility and, in cases of high unemployment, better bargaining power, trade unions will have not much of a choice but to concede, as it happened in both Germany and France – despite their categorisation as different growth models.

### 9.2.3 Understanding the dynamics of under-development

In addition to deepening our understanding of how growth models interact through value chains and absolute advantages of the firms in given economies, it also helps to make sense of dynamic economic and technological development. This was another shortcoming of the GM literature as it currently stands, as most of its research is confined to an *ex-post* analysis without making *ex-ante* predictions of broader, future developments.

Following our model developed in chapter 2 and 3, it is possible to conceptualise that in a market in which all input prices are given, entrepreneurs have two choices of restoring or gaining absolute advantages: they can either invest in new technologies to, ideally, combine the existing level of wages with higher productivity, or they can lower wages at the existing level of productivity, either through outsourcing production, i.e., combining a capital-intensive technology employed in advanced economies with lower wages of developing economies, or through directly lowering wages in the advanced economy (Kaczmarczyk, 2020). In a Schumpeterian sense, development occurs when productive structures are renewed, not optimised. In other words, if things are being done differently, not in the same way but more efficiently. Merely pushing down wages without significant technological change therefore does not count as development, and eventually, the economy will run out of steam. From this theoretical perspective, a large share of the technological stagnation in Europe can be explained by the model of competition adopted by the EU, which incentivises optimisation and a Darwinist *Verdrängungswettbewerb* instead of genuine innovation. This project showed that firms under pressure of financial markets will not engage in risky innovation investments but use what they have in combination with cheap labour. We have seen how the German wage repression and its integration of Eastern Europe into its supply chain has helped the manufacturers to remain competitive. In an international market, the interdependencies between firms (and, by extension, the economies in which they are embedded) will thus put pressure on those who did not optimise or outsource their production. They will be either driven out of the market (via losses of market shares and/or lower margins) or forced into a very similar type of conduct – unless an institutional framework is given that mitigates these tendencies.



The four freedoms of the Single Market are not such an institutional framework. Contrarily, it even amplifies the pressure to optimise, as capital, labour, goods, and services are mobile. Firms are pressured to perform, ideally on a quarter-to-quarter basis – and if the performance is unsatisfactory, the pressure on management increases, as the experiences of VOW, RNO and PSA showed. In certain cases, such as at VOW or RNO, it may be that the state ownership increases the takeover threshold. The same applies, in theory, to strong anchor investors, such as the Peugeot family at PSA or the Klatten family at BMW. Yet, with regards to performance pressure, none of above corporations was spared of wide-ranging optimisation measures. The evidence presented in chapters 6-8 showed that much of corporate decision making was related to pressure on sales and market shares, as well as margins and refinancing conditions. In such a system, increasing competitiveness via large-scale investments in a new technology – where the outcome is unknown at the moment of investment – is a wasting of resources that is either unaffordable or that will be punished by the markets in the short-run. Given the overall low margins, it was simply a bet companies could not afford, so that it was easier and safer to increase competitiveness via outsourcing the existing methods of production and lowering wages.

For the German economy at large, this meant that the absolute advantages that firms had in international markets were exploited as much as possible, leading to an increasing dependency and specialisation in an old technology. Due to the structure of supply chains, Eastern Europe was drawn into this specialisation, whilst political initiatives to green the industry were stopped by interventions from the German governments in Brussels.

France, by contrast, tried to move into new technologies to improve its competitiveness, yet the scale of the efforts was overall limited and the market for electric vehicles did not take off, so that the French initiative was insufficient to offset the large losses in production capacities in combustion engines. In order to halt the outsourcing and regain competitiveness in the old technologies, the French manufacturers and the French government followed the German model of wage repression.

## 9.2.4 Understanding the role of financialisation

Although the effects of financialisation were largely neglected by the CPE literature (Hassel and Palier, 2021), recent contributions have begun to take into account the insights from IPE, where financialisation was extensively researched (cf. chapter 2). Yet, most of the discussions were focused, *inter alia*, on questions of private and public indebtedness, replacement of social policies through financial market services (Krippner, 2005), the role of the house prices (Johnston et al., 2020; Reisenbichler, 2021) and inequalities for the evolution of growth regimes (Hassel and Palier, 2021). Some research also looked at how financialisation affected the dynamics in current account imbalances, but the argument often amounted to mere *ex-post* description of the relationship between current account balances and financialisation – i.e., that the accumulation of assets via current account surpluses on one side fostered a recycling of those assets in the financial markets of the deficit countries (Van Treeck, 2009). Recently, GM scholarship provided some more explanatory analysis, arguing that financial flows led to nominal exchange rate appreciation and increases in domestic demand through asset price inflation, which drove the imbalances in the Eurozone (Guschanski and Stockhammer, 2020).

By including the role of financialisation as an explanatory variable, their attempt was one of the first to identify a different cause for the emergence of the imbalances in Europe. The conventional alternatives were usually assigned to one of the two camps: one side argued that the interest rates in southern economies were too low, which fuelled indebtedness (Belke and Dreger, 2013; Sinn, 2014). Others regard the divergences in unit labour costs and deflation in the North (Flassbeck and Lapavitsas, 2015) as the primary driver. The way in which financialisation has fuelled the imbalances in the automotive sector, however, are not well addressed by GM scholarship or any of the other explanations.

Although one must be careful with generalising the conclusions (see limitations below), this case study has shown that financialisation, from the perspective of the TNCs, was a mechanism *actively* employed to foster an expansion of the German firms, which financed their own sales in Europe, and increased the pressure on French OEMs to downsize, optimise and outsource their production. The implications for the GM literature from

this analysis are twofold. On the one hand, it may involve a certain reclassification of growth models. On the other, there is a question as to how accurately financialisation measured with macro-indicators captures what happens at the micro-level.

Regarding the first point, neither Germany nor France is classified as a financialised economy (Hassel and Palier, 2021), although some scholars attributed a higher degree of financialisation to France than to Germany (Lapavitsas, 2013; Alvarez, 2015). Nonetheless, both are considered as different growth models (cf. chapter 2): France as a “domestic demand-led” growth model with “relatively low level of financialization and ICT development” (Hassel and Palier, 2021, 41) and Germany as a “export-led” with a focus on high-quality manufacturing goods (ibid., p. 39). Whether German exports were price sensitive or not, as one might expect for high-quality manufacturing goods, has been subject to an intense debate in the literature. Baccaro and Benassi (2017) argue that there is a high price sensitivity of German manufacturing exports. On the other hand, scholars such as Storm and Naastepad (2015), amongst others, find that it is superior non-price features that are behind the German export miracle. Quoting Wolfgang Streeck, who argues that “[German] firms accepted the challenge and got ahead by improving and innovating, particularly in the global market, focusing on quality not price” (Storm and Naastepad, 2015, 16), they join the chorus attributing the German export performance to quality, not price. While there is a theoretical question to settle in this context, i.e., the question as to how convincing it is to argue that price and quality may be separated from one another, the low operating margins in the automotive industry support the conclusion put forward by Baccaro and Benassi (2017). It appears at first sight surprising, given that the automotive industry usually serves as a prime example for the price inelasticity of German exports. What is more important, however, is that this research has shown that despite the low level of financialisation that is attributed to France and Germany, financialisation did play a decisive role for the success of the German auto industry.

In contrast to a ‘classical’ market exchange in which goods change ownership in exchange of direct and full settling of liabilities in cash, e.g., as on a regional food market, in the automotive industry, credit and leasing modes of financing dominate, which implies that a whole set of financial tools are used as part of the eco-system. This research showed how financialisation was *actively used* as a competitive tool by corporations to generate sales and growth – as the OEMs’ in-house financial services finance their own

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sales –, even if it did not generate high operating margins and cash flows. It contradicts the idea of prudent and un-financialised German businesses, and it brings up the question of whether Germany is rightly classified as an export-led economy with low levels of financialisation, given that financialisation was a critical part of the German export miracle, at least in the automotive industry. At the same time, it was not the demand-led model of the French economy that forced PSA and RNO to outsource their production, but the pressure of financial markets and the inaccessibility to credit. French firms lost market shares to a significant degree because their refinancing rates were a lot higher than those of their German competitors. As we have seen in chapter 8, prices on CDS on French government debt during the Eurozone crisis – the benchmark rates for PSA and RNO – were just slightly lower than CDS prices on VOW’s debt at the height of the uncertainty around the biggest corporate fraud in recent history. With spreads on government bonds in a single currency area there is simply no fair competition in the market, and the better positioned firms have an easy game of pushing others out of the market. Hence, even though financialisation might not play as much of a role in the French and German economy according to the GM literature, it is an integral factor that impacts the evolution and dynamics of both countries.

This leads to the second implication, namely the question if the macro indicators used to measure the degree of financialisation in GM scholarship may not well capture what happens at the micro level of enterprises. In one of the latest contributions, which constitutes a state-of-the-art synthesis of the CPE and, in particular, GM literature, Hassel and Palier (2021) classify the degree of financialisation based on indicators that include households saving rates, house prices, the share of private pension funds and the rate of home ownership, and the current account balance. They find that “most financialized countries are those which have a low savings rate (below 5%), high house price inflation (more than 100% since 1980), high shares of pension funds (more than 50% of GDP), and a current account deficit.” (ibid., p. 29) Anglo-Saxon economies mostly meet these criteria in their analysis. At “the other end of the spectrum”, they find that “the least financialized countries with a high savings rate of more than 9%, low house price inflation and pension funds, and a positive current account are Austria and Germany, but also Korea and Japan (though low savings rate). Switzerland follows closely (but for a high share of pension funds as share of GDP), as well as France and

Belgium (but for a relatively high degree of house price inflation).” (ibid., p. 32). While these data may give us some insights on the aggregate level of financialisation, it is prone to downplay the significance of financialisation at the corporate level. This research suggests that additional tools should be employed to analyse corporate balance sheets as well as cost structures. These factors revealed to be the largest structural difference between German and French firms, with decisive consequences for overall development and the competitiveness of the manufacturers.

As this project has shown, financialisation amplified the interdependencies between economies as well as the dynamics within. Easier access to capital for the German firms was one key factor of their expansion and allowed them to grow without necessarily generating much operating cash flow or increasing operating profitability. By contrast, given the differences in benchmark rates, as well as weak operational performances, the French enterprises could not compete against the financing offers of the German OEMs’ banks. This exacerbated their decline, increased the difficulty to obtain fresh capital on financial markets, and pressured firms to rationalise production. In terms of the dynamics within economies, it therefore led to the excessive optimisation, described above, whereas in the case of German enterprises, the expectations to generate profits and to exploit absolute advantages in an old technology to this end, led to an increasing specialisation on combustion engines and transmissions of the entire economy, i.e., not only the OEMs but also their suppliers and research institutes, as interviewee #34 outlined (chapter 8).

Financialisation has increased the difficulty of deriving conclusions from an analysis of the macro-indicators employed in current GM scholarship. It exacerbated the imbalances in the Single Market, as the benchmark rates for different participants differed depending on the country in which the companies were based in. The resulting competitive advantages and disadvantages are, as we have seen, quantitatively significant: if the competitor of a given company is able to borrow billions of euros on more favourable terms, it will enhance its ability to invest, to finance its sales, to service its debt etc. In other words, it will help firms to grow – even at the expense of firms in other countries, where firms do not have the same access to capital markets and lose market shares. It is thus clear that it also has an overall effect on growth, yet in the GM literature, this issue is hardly discussed.

### 9.2.5 The contributions in a nutshell

Hence, in short, the specific contributions of this case study were to shed some light on the dynamics of change within different growth models. By looking at the economy through the lens of TNCs, it became easier to understand why a country like France moved from deficits to surpluses and from surpluses to deficits again. It also highlighted the reasons for the growth of German exports, which were hitherto only partially addressed by GM scholarship. At the same time, the study exposed the mechanisms through which the interdependencies between different economies play out in the market. In the case of the automobile industry, it was primarily via divergent trends in market shares and margins. Finally, the Schumpeterian theory employed in this research allowed for deriving conclusions for the increasing dependency and specialisation of the European automotive industry in an old and dying-out technology. This research has therefore broader implications for the nature of capitalist (under-)development in Europe.

To the wider field of political economy, the case study illustrated the benefits of blending IPE and CPE perspective in one research project. Through the three-level model of (1) firms nested in (2) countries, which are in turn nested in an (3) international economy, the scholar cuts through both national and international political and economic factors. This study showed the benefits that German OEMs derived on international markets from the institutional set-up and the political pressure in the domestic economy, yet also from Eastern European integration and the Single Market competition rules with its four freedoms. Likewise, despite the dirigiste support that French OEMs received from the state to move into electrification, this research exposed the helplessness of French politics and firms to restore competitiveness via new technologies in the face of tremendous political pressure from Brussels, the German expansion, and the increasingly difficult conditions on financial markets.

## 9.3 Policy implications

The policy implications that emerge from the GM literature are primarily related to the national economy. For example, Hassel and Palier (2021) show in an extensive collection

of essays how welfare state policies are part of and coherent with the broader growth strategy adopted by national governments. In a certain way, the approach resembles the VoC-type of development of policy proposals. Hall and Soskice (2001) argue that policy must consider the institutional complementarities in different varieties of capitalism. Such institutional complementarities exist, “if the presence (or efficiency) of one [institution] increases the returns from (or efficiency of) the other” (p. 17). For example, if firms rely on bank-based finance, as in CMEs, it allows them to adopt a long-term perspective, which, in turn, facilitates the cooperation with suppliers, clients, and employees (incl. investments in education and vocational schemes). As a corollary, labour market rigidities and long-term relationships between stakeholders and firms are the norm. Market-based finance, on the other hand, as present in LMEs, incentivises short-term behaviour, and therefore requires institutional flexibility on labour markets and arm’s length relations between businesses and employees (Hancké, 2009). According to Hall and Soskice (2001), for government policy to improve economic performance, it should be accommodative to existing institutional configurations. Following the same logic, the GM literature argues that policies must be compatible with the actual growth model. Policies that may be suitable for an export-led economy will merely hurt growth if applied to a domestic-demand led economy (Hassel and Palier, 2021). This is, for example, why France relies on a more generous welfare system, as that supports its demand-led growth model.

This research project has shown, however, that the international economic order is critical to countries’ growth prospects and development. In that sense, the policy proposals emanating from this research not only rely on domestic, but equally on international and (especially) regional policies that would improve the quality of competition of firms nested in different economies and prospects for the improvement of living standards.

Firstly, the most important policy would be to install an institutional regime in which a type of Schumpeterian competition prevails. This means that if firms have two options to increase their competitiveness, i.e., lowering unit labour costs, either via increasing productivity at a given wage level or at lowering wage levels at the given level of productivity, it is the former type of competitive advantage that has to be incentivised. This, in turn, necessitates wage coordination policies, on the one hand, regarding domestic politics (i.e., an obligation to meet the common inflation target by corresponding unit labour costs increases), and, on the other hand, wage conditionality regarding interna-

tional capital flows. Domestically, it is the responsibility of the government to employ a wide range of tools – e.g., collective bargaining agreements, minimum wage laws, salaries of all public employees etc. – to ensure that the economy at large follows the golden wage rule: nominal wages must increase in line with the inflation target and average national productivity growth (Flassbeck and Steinhardt, 2018). With productivity growing 3 per cent and an inflation target of 2 per cent, this means that nominal wages must increase by 5 per cent. Regarding international capital flows, firms investing in a low wage economy must be forced to follow the same principle, that is they must be required to increase wages in line with average productivity growth and the national inflation target. This way, absolute advantages that an investor can obtain by outsourcing productive technologies and combine it with lower wages will erode over time, while in the short run, low wage economies can still benefit from capital imports that come with advanced technology. If such policies are absent, we will see, as we did in the European automotive industry, an increasing optimisation across countries – driven by TNCs that seek to meet their financial targets. The free flow of capital will thereby exacerbate the competitive pressure in highly integrated economic regions and lead to technological and economic stagnation within countries – regardless of the national growth model. A third policy implication notably for the Eurozone is that the ECB must close the spreads on government bonds. Forward guidance, that is the mere announcement of this new policy, would most likely be sufficient (as it was the case with Draghi’s announcement of the OMT programme). If not, the ECB would have to merely buy up more high-yielding bonds or sell-off lower yielding ones, until the spreads are closed (depending on the given monetary policy objective – to keep interest rates low, the former option would be executed, if interest rates were to be set higher, the ECB would go with the latter). It may require abandoning temporarily the capital key, but it would at least ensure that all firms in the common currency area would have the same starting position, so that bond prices and therefore refinancing terms would solely reflect the individual firm’s risk premium that investors perceive.



## 9.4 The wider value-added of TNC case studies to political economy scholarship

In addition to the specific contributions to the literature previously mentioned, there is a wider set of ‘value-added’ that including TNCs as an independent unit of analysis entails. It was outlined that the study of TNCs has proven to unveil the processes through which companies retain or gain competitiveness in the market, and which implications the performances and the decisions of transnationally acting firms have. Embedding TNCs into a wider macro-Schumpeterian theoretical framework allows a better grasp of the interdependencies between and dynamic within economies – a question that is critical to policymakers as well as academics. It also helps to address the increasingly relevant question of whether economies can follow zero- or de-growth models, something to which the GM literature has no genuine answer to. From the perspective of TNCs, this research showed that the growth of firms is indispensable to control the economic environment in an uncertain world and essential for the firms’ long run survival. Without growth and profits, enterprises competing in international markets will lose market shares to other producers and increasingly face difficulties to refinance themselves on capital markets.

Beyond this, however, including TNCs in case study research has a range of further advantages. First, the market structures as well as the nature of accounting standards and data availability make it a very researchable subject. As we have seen in chapter 2, market concentration ratios significantly increased across countries, industries, and markets. This means that a rather small number of firms managed to obtain more and more monopoly power, which translated into higher mark-ups. Although the market itself is characterised by an intense price war and cut-throat competition, the automotive industry is a perfect example of an oligopolistic market in which increasing consolidation has taken place and continues to do so. In many other industries too, the researcher ‘simply’ has to analyse a low number of key players which dominate the market to identify certain patterns. This makes it more practicable than examining economic structures that are the outcome of billions of individual decisions. At the same time, the application of accounting standards makes the data very comparable. Figures reported under the International Financial Reporting Standards (IFRS) or the Generally accepted accounting principles (GAAP),

for example, will have been computed based on the similar methodologies across countries (Elliott and Elliott, 2019), which enhances the reliability and validity of such comparative research. Finally, as most transnational companies are publicly listed, the information is simple to access – even if the researcher does not have access to expensive databases such as Bloomberg, Eikon Refinitiv, or S&P Global Market Intelligence. Financial reporting is a legal obligation for these firms and the annual reports will therefore provide all the necessary information to work with.

In addition to its practicality, one last aspect to mention as a major advantage of this approach is not only its fit with the wider tendency to conduct case studies in CPE scholarship but its ability to cut through different levels of analysis and aspects relevant to businesses. For example, when studying economic development from the perspective of TNCs, one will necessarily touch upon the relationships between the firms with national and supranational regulators or the relationships between labour and capital under different forms of corporate governance. These relationships are extensively researched in CPE and GM scholarship (cf. chapter 2).

Through the study of TNCs, one also automatically takes into account what happens in the international economies, i.e., the mechanisms through which firms lose market shares and how they adapt, what implications it has for the national economy and so on so forth. In other words, it lifts the veil covering aggregate data such as employment, production (GDP), or trade and current account imbalances and allows us to grasp and interpret the processes behind these outcomes. This may lead to a new interpretation of the data. For example, although one would have to conduct further research on this question, it occurred in this project that the large trade surpluses of Germany may be, at least in part, the outcome of production adjustments of firms that internationalise and enter new and emerging markets. We have seen that in the beginning of the development in China, many capital goods had to be imported before the pressure to localise increased and more and more input factors were sourced locally. Also, the JV structure in China leaves the firms with a strong incentive to continue importing parts that belong to the German partner, since in this case, the purchase of the JV (50-50) becomes a mere intra-group transaction from which the partner firm benefits to 100 per cent. Hence, instead of attributing the surge of exports to domestic institutional factors or generic ‘demand side’ factors, as it is often done in CPE, this research suggested that it will be,

at least partially, a by-product of the growth of German firms in emerging markets and the *temporary* structure of the value chain. An understanding of these temporalities, in turn, allows to make some judgements about future developments of the industry – and we have seen in the automotive sector that German production and exports are now diverging with more and more production being localised. Several experts during the interviews have noted and predicted these shifts, while many German economists and research institutes were caught by surprise and bemoan a loss of German competitiveness.

Additionally, this TNC case study highlights the importance of contingencies. In this research, they included, for example, the beginning of VOW's success story in China as a matter of luck, both in terms of the initiation of the negotiations as well as the embeddedness in the right economic zone, where they enjoyed political support (contrary to Citroën's failure in China), or the mere geographic positioning of Germany as a country in the heart of Europe close to Central and Eastern European economies, which also played a significant role in terms of retaining production in the automotive sector at home. Due to unfortunate constraints on the word count, the role of commodities would have been a further aspect, which was not further covered in this research. However, there too, we see that the oil prices substantially affect the demand for the type of vehicle, and the German luxury cars would have not found a buyer if oil prices had not been as low. There are thus also numerous factors which are not attributable to any particular type of political economy, but rather constitute exogenous contingencies that nonetheless matters.

## 9.5 Limitations

Despite the advantages that the study of TNCs entails, there are some limitations that readers and academic researchers must consider. Limitations generally refer to the limits of the theoretical, epistemological, methodological, empirical claims one can make due to the decisions taken to focus on some aspects and not others. It is hence important to interpret the findings of this study in the context of these limitations.

The most important limitation of the approach of this case study is its limited generalisability or external validity, which is a general characteristic of case study research.

In this regard, Bryman (2012) has put forward the question of “how can a single case possibly be representative so that it might yield findings that can be applied more generally to other cases?” (p. 69), before providing himself the answer that “it is important to appreciate that case study researchers do not delude themselves that it is possible to identify typical cases that can be used to represent a certain class of objects (...). In other words, they do not think that a case study is a sample of one.” (p. 70) Especially when compared to macro-oriented political economy scholarship, which does not suffer from the same limitation (or, at least, not to a similar extent), it makes it clear that case study research cannot replace IPE and CPE scholarship, which use more macro-based data and methodologies. Yet, given the advantages outlined above, it was precisely the aim of this study to provide a *complementary* research agenda to deepen our understanding of how capitalism evolves and how capitalisms interact over time. All the conclusions, however, must be interpreted within the limitation that they are derived from the automotive industry and a comparative study of France and Germany. Regardless of how relevant the automotive industry may be as a lead manufacturing industry with its wider footprint in regionally integrated economies, or its share of total world trade, it will never be possible to derive the claims as general truths. The same applies to the question of what the results of a comparison of different industries would be. Say, for example, the airline industry, agriculture, or fast-moving consumer goods. Since each industry has its specificities in terms of structure and value chain hierarchies, it would amount to mere speculation to estimate if the same findings and mechanisms would appear in other industries, too. From a theoretical point of view, one might expect so as deflationary pressures in Europe are high across the board and technological leadership in almost any industry is primarily located in the US or in China. But one cannot go beyond such a general hypothesis since each industry is idiosyncratic in its own terms.

Another limitation of this conceptual approach is that, in its current form, the model is more suited to the analysis of integrated regional economies, in which numerous different national economies are embedded. For large economic units, such as the United States or China, which have low export shares and can therefore be categorised as rather closed economies, the integration of various economies into the production network of TNCs will have less of an impact than it is the case in Europe, for example. The adjustment processes may be in principle similar, as, for example, the migration of the auto industry

from Detroit to the South of the US showed (where wages and labour protection were lower and the distance to factories in Mexico shorter, cf. Klier and Rubenstein (2015)), yet the shaping of production will largely (not exclusively!) take place *within* countries.

Additionally, since only a fraction of TNCs have their headquarter in developing countries (cf. chapter 2), one has to adjust the approach when replicate the model for a comparative study of industrialised and developing or emerging economies. A research project comparing, say, the US and Mexico, or Germany and Poland, could involve analysing TNCs at the firm-level 1, yet bearing in mind that the TNCs' home base – and with it, the main source of power, information, and value-added – is located in the advanced economy. In the developing countries, there are primarily TNCs' subsidiaries. Hence, one can still use the TNC as an independent unit of analysis, but there is an additional power dimension to consider (cf. chapter 3), which could potentially alter the conclusions. An alternative or complementary measure here could be to examine the economy through the lens of larger, domestic firms, and analyse how they cope with the pressure exerted by the presence of the TNC.

Finally, and related to the idiosyncrasies of different industries, although one advantage of studying TNCs is its practicality as well as a comparatively easy access to data, it is nonetheless very time consuming to conduct this research and the knowledge obtained is not easily transferrable to other industries. Moreover, since part of the research will necessarily require interviews, if the researcher is not yet an expert in a given industry, this implies that the limitations of interview research apply to this study, too (cf. chapter 4 on the methodology). Every time a researcher finishes working on one industry, this necessitates a new adjustment for new research projects, where the researcher has to find out, which factors are the most relevant in the industry and who the key informants are that the researcher may want to speak to.

## 9.6 Further research

Given the limitations in the generalisability of this research, further research on TNCs ought to be conducted based on other industries and countries. The automotive industry is merely one sector, and it would be necessary to examine whether the findings and conclusions are also complementary to industries such as raw materials, retail, agriculture, or chemistry. Likewise, the role of the new tech giants with regards to national economic indicators might be revealing, especially as their business model is one that does not necessarily entail local production in the more conventional sense.

This research could also be replicated in a different geographical context, such as in relation to South America and their integration into North American production structures, or in the Asian economy. For large economic units, such as the US and China, one would have to control for the factor of size, yet the insights as to how the processes behind the trade and production patterns work could prove to be equally important to policy. Whether the researcher conducts a principally similar TNC case study either in other industries or in different regions, the theoretical and conceptual framework of this research to study the TNCs – in particular the Schumpeterian model described in chapter 3 – can be easily adapted and modified to these ends.

In the automotive sector, one could further look into the role of the economic impact of the relationships between the lead OEMs and its suppliers. The supplying industry is hierarchically organised, with several big firms at the top of the food chain and a number of smaller to medium sized enterprises, with low bargaining power, at the other end. Moreover, given the dependence of the big supply firms on their OEMs (and vice versa), it would be interesting to further study the consequences of shifts in market shares on the supplying industry. On the one hand, it is clear that due to the proximity that just-in-time production requires, it means that lower production of lead OEMs will also have knock-on effects in terms of a wider decline of the production of parts and components in the economy. At the same time, however, for some large French suppliers, such as Faurecia, for whom the French OEMs were normally the largest and most important clients, VOW increasingly became the most important customer, accounting for 14.4 per cent of total sales in 2018 (PSA, 2018). In 2017, as interviewee #07 mentioned, it was

for the first time that the French trade balance in parts and components turned negative, too. So, there is a question to what extent this is related to shifts in market shares or simply a consequence out of the outsourcing of French OEMs.

Such research can easily integrate and, in turn, enrich the insights from IPE and CPE scholarship, but it fits the GM model literature particularly well due to the latter's reliance on case studies as well as the central question of what is driving 'growth'. The theoretical chapter showed that it is an essential feature of the very nature of corporations to grow, so that the link is there to be explored.

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