

## **How the EU's Eastern Enlargement Changed the German Productive Model. The Case of the Automotive industry**

Comment l'élargissement de l'UE aux pays de l'Europe centrale et orientale a modifié le modèle de production allemand. Une étude de cas de l'industrie automobile

Como la ampliación de la UE hacia los países de Europa central y oriental ha modificado el modelo de producción alemán. Un estudio de caso de la industria automotriz

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### **Résumés**

Quel impact l'élargissement à l'Est de l'Union européenne a-t-il sur les modèles productifs et les relations de travail dans l'industrie automobile allemande ? A-t-il débouché sur une « course au moins-disant » et au « dumping social » ? Cet article examine l'évolution des chaînes de valeur et des stratégies de produit ainsi que le développement de la relation d'emploi et de travail dans l'industrie automobile allemande et discute l'hypothèse de « dualisation » ou « désintégration ». Il est fondé sur des études de cas de constructeurs automobile et leurs équipementiers ainsi que sur des données statistiques concernant l'emploi, le commerce extérieur, et l'investissement direct étranger. L'analyse montre que l'usage de localisation à bas prix en Europe centrale et orientale a permis aux entreprises automobiles allemandes de renforcer leur focalisation sur des produits de haute qualité sans perdre leur compétitivité-prix. Les entreprises allemandes ont utilisé les menaces de délocalisation pour exiger des réductions de coût du travail et une plus grande flexibilité sur le temps de travail et l'emploi (par exemple, l'utilisation du travail temporaire) dans les sites de leur pays d'origine. Quoi qu'il en soit ces demandes ne sont pas allées jusqu'à rompre le compromis de gouvernance de l'industrie automobile allemande. Le syndicat de la métallurgie et les conseils de gestion restent encore assez puissants pour obtenir des compromis qui garantissent la sécurité de l'emploi en échange d'une plus grande flexibilité et qui fixent des limites à l'usage des formes d'emploi précaire.

### **Introduction**

1 When the Central and Eastern European (CEE) countries joined the European Union in 2004, many authors expected detrimental effects on employment and labor standards in Western Europe. It was thought that the low wages and weak unions in the CEE countries would represent incentives to relocate production to CEE and would initiate a race to the bottom in regard to labor standards. This skeptical view was shared by researchers with different political orientations. Vaughan-Whitehead (2003) pointed to the danger of “social dumping”. Fritz Scharpf (2008: 23) argued: “Globalization produces economic pressure. But it is the European integration process which has restricted or even taken away all legal means to react to globalization. Moreover, the Eastern Enlargement has brought low-wage locations and their economic pressure inside the EU.” Hans-Werner Sinn, a prominent German neo-classical economist, developed the thesis concerning Germany as a “bazaar economy”:

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<sup>1</sup> Revue de la régulation Capitalisme, institutions, pouvoirs, Vol. 15, No. 1, 2014.

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Outsourcing to Eastern Europe allowed the German manufacturing to continue to shine with outstanding products on the world market; the German export statistics continue to post results they can be proud of. An Audi car, whose engine comes from Hungary, is calculated with its full value in the German export statistics. But “Made in Germany” is increasingly becoming deceptive labeling. Only the final assembly takes place in Germany. The value-adding parts increasingly come from Eastern Europe. (Sinn, 2004)

2The dangers were summed up on the eve of the Eastern Enlargement in 2004 by Carl-Peter Forster, the former CEO of General Motors Europe, who said: “out of Germany or out of business.”

3The integration of the CEE countries in the European Union was in fact followed by a relocation wave. This relocation process coincided with changes in labor relations in the German automotive industry, which were driven by so-called employment protection agreements in companies. These employment protection agreements included wage and working time concessions by works councils and were seen by some researchers as undermining industry-level collective agreement standards – a process called “dualization” (Palier & Thelen, 2010) or “disintegration” (Greer, 2008). In addition, automotive companies expanded the deployment of agency workers, which caused a segmentation of employment conditions between secure and well-paid and insecure and low-wage workers.

4There were different factors driving these changes in labor relations in Germany: competition from low-wage countries in CEE, the failed transfer of Western German labor relations institutions to Eastern Germany (Hassel, 2009), and legislative changes including the liberalization of agency work and other labor market reforms (Palier & Thelen, 2010). Given this interplay of different complex processes, how can we examine the specific impact of the Eastern Enlargement? This article deals with this problem by using the concept of the “productive model” (Boyer & Freyssenet, 2002) as a mediator between the changes of the international division of labor caused by the Eastern Enlargement and the changes of labor relations in Germany.

5What is the “German” productive model? The research literature refers to this term in a variety of different contexts and with a range of meanings. At the institutional level, the “German model” indicates a specific constellation of institutions of collective bargaining (industrial trade unions, collective bargaining at the sectoral level), corporate governance (co-determination, cross-ownership between firms and banks), coordination through intermediary organizations (business associations), and social policy (Streeck, 2009). At the level of industry and companies, productive models are discussed in the sense of a coherent combination of product policy, the organization of the value chain, and labor relations (Boyer & Freyssenet, 2002). The automotive industry is often considered as the template for a German productive model, although this generalization is not quite appropriate, as industry-specific productive models in Germany are particularly diverse (Jürgens, 2004; Lüthje *et al.*, 2002). The main characteristic of the productive model in the German automotive industry is the high-quality product strategy (linked to a strong position in premium car markets and a quality-based brand image), which is linked with different kinds of product differentiation and volume strategies. An early version of this strategy was called “diversified quality production” (DQP) (Sorge & Streeck, 1988). The general characteristics of labor relations in the German automotive industry are: (a) recruitment and extensive deployment of skilled workers (*Facharbeiter*) with three or three and a half years of vocational education, (b) a high importance of job security, (c) co-determination at the company and at the plant level supported by a very high degree of unionization, and (d) industry-level collective bargaining supplemented by company-level bargaining (Jürgens, 2003; Jürgens & Krzywdzinski, 2009).

6We can develop two opposite hypotheses regarding the impact of the EU's Eastern Enlargement on the productive model in the German automotive industry. One possibility was that the automotive companies would use relocation to CEE to reconfigure their productive model by focusing on cost reduction strategies and on developing standardized low-cost products. The other possibility was that they would relocate the most labor-intensive and vulnerable parts of the value chain to CEE and strengthen the DQP focus of the German manufacturing base. The first scenario represents a threat to the traditional pattern of labor relations and could lead to dualization or disintegration. In the second scenario, by contrast, the relocation process would allow for a stabilization of the traditional patterns of labor relations. In order to examine both hypotheses, the article discusses three main questions:

1. What kind of division of labor between German and CEE locations emerged in the course of the Eastern Enlargement?
2. How did the Eastern Enlargement affect the value chains and the product strategies of the German automotive industry?
3. How did the Eastern Enlargement affect labor relations in the German automotive industry?

7The article is structured as follows. Section 1 presents the theoretical framework and conceptual issues. Section 2 analyzes the development of the East-West division of labor in the automotive industry and its effects on the productive model of the German companies. The analysis will show that the use of low-cost locations in CEE allowed the German companies to strengthen the orientation on high-quality products without losing their price competitiveness. Section 3 discusses the effects of relocation and relocation threats on labor relations. It describes how companies have used relocation threats to demand labor cost reductions and higher flexibility of working time and employment (*i.e.*, the use of agency work). But it also shows that these demands did not go as far as to break the governance compromises in the German automotive industry. The final section comprises the discussion of the results and the conclusions.

## 1. Theoretical Framework and Conceptual Issues

8Due to its image as an archetypical example of a coordinated market economy, the German model is one of the most analyzed topics in the comparative capitalism research. There are three different interpretations of its development during the last two decades, which rely on different theoretical arguments: the continuity thesis, the dualism thesis, and the erosion thesis.

9The continuity thesis is based on the Varieties of Capitalism theory (Hall & Soskice, 2001; Hall & Gingerich, 2009) and its institutional complementarities argument. Due to the complementarities between productive models, industrial relations, corporate governance, and educational systems there are strong incentives for all relevant actors to stick to the existing institutional and behavioral pattern. Hall and Thelen argue: "Thus, one of the factors drawing German unions and employers back toward the institutions developed for wage coordination has been a lively perception on each side, periodically tested, that they have much to lose from failing to coordinate" (Hall & Thelen, 2007 : 9; cf. also Hassel, 2007).

10The first counter-thesis is the dualism approach (Palier & Thelen, 2010). In simple terms, this approach argues that the German model split into one area with safe and well-paid "good" jobs (mainly in the core manufacturing companies) and another area with precarious employment. There are different versions of the dualism approach. In Hassel's (2007: 272) analysis of labor market reforms in Germany, the emerging dualism of the labor market is described as an "adaptation" of the German model. Palier and Thelen (2010: 39), in contrast, describe the emerging dualism as "an important break from the past." According to the dualism thesis, companies in industrial core

sectors of the German economy responded to the increasing competition since the 1990s (and in particular since the EU's Eastern Enlargement) with so-called "employment protection agreements," in which companies offered job security to employees in exchange for flexibility and productivity increases. While this helped the companies to sustain their position on the global markets, it undermined the industry-level collective bargaining standards. In this way "structures put in place in the 1970s and early 1980s to enhance labor's voice at the plant level ironically provided ideal vehicles for fueling trends toward dualism when economic hard times hit" (Palier & Thelen, 2010: 26). At the same time, the German government liberalized the labor market regulation and reduced social security standards thus promoting the emergence of a low-wage sector with precarious employment (Eichhorst & Marx, 2011).

11 While the dualism thesis still sees the German productive model alive in the core industrial companies, the "erosion" thesis goes one step further. Streeck (2009: 22f) argues that the "decline in centralized control and organized regulation and an increase in competition in labor markets; in the collective articulation of interests; in the promotion of class cooperation and social peace by state intervention; and in the relationship between the state and the economy, between large firms, and between them and the banking system" leads to "disorganization" and "systemic change" in Germany.

12 This article focuses on the automotive industry, which represents one of the core industries in the German productive model. This industry should be expected to be particularly immune to the trends towards dualism or erosion. Doellgast and Greer (2007) and Greer (2008) argue, however, that we can observe a "vertical disintegration" of the German automotive industry and its labor relations. This disintegration means that works councils and trade unions accept wage and working time concession at the plant level. These concessions imply the increasing use of insecure employment forms such as agency work for non-core employees and the emergence of a dualism between core and non-core employees. Bernaciak (2010), Bernaciak and Šcepanovic (2010), but also Scharpf (2008) see the competition between German and Eastern European locations as a major driver of these changes.

13 The German automotive industry includes German car manufacturers (Volkswagen, BMW, Daimler etc.) and suppliers as well as subsidiaries of foreign companies (e.g. Opel, Ford, and big global suppliers like Delphi, Lear or Visteon). Companies like Opel or Ford were despite their foreign ownership for decades an essential part of the collective bargaining system in the German automotive industry and are included in the following analysis. The differences in the behavior of companies in German and foreign ownership will be taken into account in the analysis as far as necessary.

14 The analysis of the productive model at the sectoral level offers a specific way to analyze the impact of the EU's Eastern Enlargement on labor relations. The productive model concept is used here as the mediating variable between the changing East-West division of labor in Europe and the changes in labor relations in Germany. In the first step, this article discusses how the product strategies and the productive organization of the companies – two core elements of the productive model – changed due to the Eastern Enlargement. What kind of division of labor emerged between the German and the Eastern European locations? Do both sides compete for the same products or do we observe a complementary division of labor? The research on productive models (Boyer & Freyssenet, 2002) has shown that labor relations in companies develop in interaction with product strategies and modes of productive organization. While direct cost and productivity competition between German and Eastern European sites might be expected to undermine the traditional pattern of labor relations in Germany, a complementary division of labor could help to reproduce the traditional model.

15The second step of the analysis is to examine the changes in industrial relations in the German automotive industry. The focus is on the employment protection agreements and concession bargaining in the companies. Concession bargaining is often used as an indicator for the erosion or dualization of the German productive model. This interpretation of concession bargaining is, however, far from being self-evident. Concessions can also represent a temporary strategy to sustain the existing model as long as the concessions do not challenge the core social compromises behind it. The important question is first, how “balanced” the concessions of both management and labor are. The second question is, how strong and stable the emerging dualism between the core and the peripheral workforce is. Third, it is important to see whether the changes in industrial relations really undermine industry-wide collective bargaining.

## 2. The Emerging East-West Division of Labor

16The use of low-wage countries as export platforms for the home market is nothing new for the European automotive industry. Through the liberalization in the 1970s and the entry into the European Economic Community (EEC), Spain and Portugal became the first important low-wage locations for the European automotive industry. GM, Ford Renault, and PSA opened new plants there, while Volkswagen took control of the Spanish manufacturer Seat. The labor costs per hour in Spain were at around 50 percent of those of the level in Germany in the 1970s and 1980s (Pallares-Barbera, 1998: 350); in the meantime, however, the wage level in Spain has risen. In the early 1990s the Iberian Peninsula was superseded by Central Eastern Europe in its function as the low-wage periphery. The CEE countries offered at this time a wage level of some 10 percent of that in Germany.

17What strategies do the German automobile manufacturers (the so-called original equipment manufacturers, OEMs) follow in regard to the role of the CEE locations? Jürgens and Krzywdzinski (2010) have established two types of East-West division of labor with German automobile manufacturers:

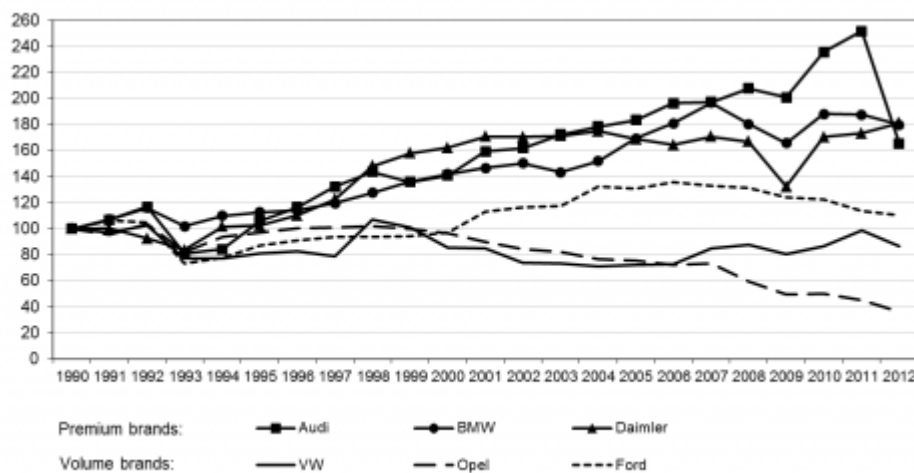
1. Complementary product specialization: This division of labor means the specialization of CEE in sub-compact cars and the low-price segment as described by Kurz and Wittke (1998). The motivation of companies to follow this strategy was first of all the hope that a new class of buyers for simple compacts and sub-compacts could develop (in particular in CEE itself); secondly, price competition for compact and sub-compact cars led to their production being located in CEE. Examples of this strategy are the take-over of Skoda by VW or the relocation of the production of Daimler’s compact car production (B-class) to Hungary.
2. Parallel production of the same models in several plants: In this constellation, management has the possibility of playing off production locations against each another (Pulignano 2007). In particular GM (Opel) has followed this approach and several times initiated competition between its European plants for the production of the Opel Astra.

18The direct relocation of car production from Germany to CEE took place in only a few cases. GM (Opel) shifted in 2004 the production of the Opel Zafira from Bochum (Germany) to Gliwice (Poland); in 2012 a part of the Astra production was moved from the German plant in Rüsselsheim to Poland (and the UK). Volkswagen moved a part of the production of the Polo (sub-compact), Golf (compact) and Passat (middle class) to Bratislava (Slovakia). It was not so much the direct relocation of production that changed the East-West division of labor, but rather the renegotiation of product allocation to the various European sites, which takes place with each new generation of products. In this renegotiation process, the production of low price, small, and compact cars has been shifted gradually to Eastern Europe. This development has strengthened the German

automotive industry's specialization in quality products and in the high-value parts of the production process; in doing so the companies simultaneously profit from those components produced under low-wage conditions in CEE.

19 In order to support this argument, we will consider two product areas: premium vehicles and production equipment for the automotive industry (machine building industry). The increase in the production of premium brands in Germany speaks for a strengthening of the quality strategy. As Figure 1 shows, the production of premium brands has increased in Germany over the last 20 years, while the production of volume brands (with the exception of Ford) has decreased. The specialization in quality competition is not limited to the premium brands. Jürgens and Krzywdzinski (2010) have shown the same process using the case study on the Utility Vehicles brand of Volkswagen, where the German Hanover plant specialized in a labor-intensive high-quality product, while the Polish plant in Poznań produced a small city van *i.e.*, a standard product, where every possibility for cutting costs has to be exploited.

**Figure 1. Production of cars in Germany according to brands, 1990-2010 (1990=100%)**



[Agrandir Original \(png, 48k\)](#)

Source: VDA, Tatsachen und Zahlen. Since 2012, Audi has counted CKD production in Germany as foreign production.

20 However, a strategy of specializing in premium vehicles has its limits. First, it can prove to be a trap if demand for these cars falls. “Decisive for the future competitiveness of German premium manufacturers will be that they do not succumb to the dangers of out-pricing. Some other branches of the consumer industry located in Germany have almost completely disappeared through this constant up-trading because the attainable markets and market segments become smaller and smaller.” (Diez & Merten, 2005). Second, this specialization has been somewhat weakened by a partial relocation of the production of premium brands into low-wage countries. The first important case is the co-production of the Porsche Cayenne by Porsche and VW in Germany and Slovakia. The second case is Audi. Between 1994 and 2000 Audi relocated its production of engines completely out of Germany and to Hungary. Audi also currently manufactures a sports car in Hungary and an SUV in VW’s Bratislava plant in Slovakia. Still, in the premium segment the importance of the “Made in Germany” label remains high, which thus limits the dangers of the premium line being relocated to CEE.

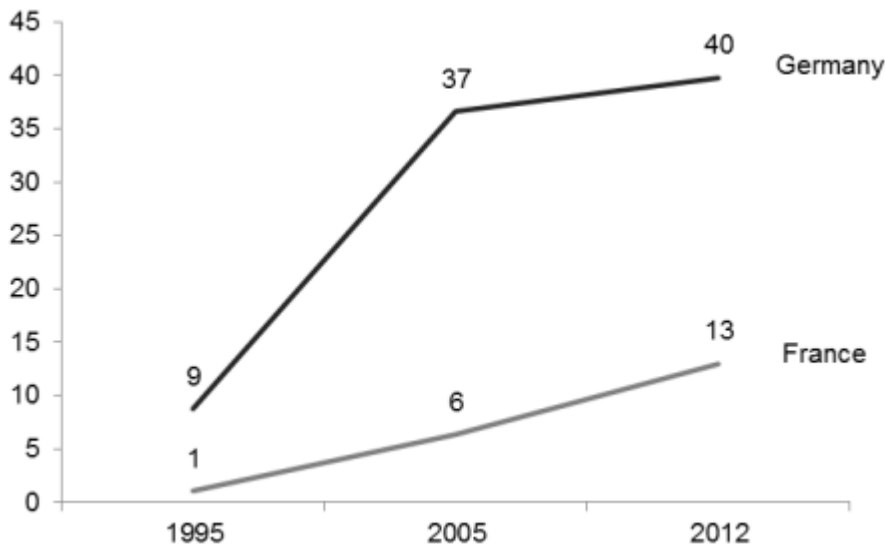
21A further indication of specialization in the course of relocation is the development in machine building. The automotive industry is one of the most important customers for the machine building industry, both in the area of tool making and in robots and manufacturing equipment. Moreover, machine building is the main sector employing highly skilled workers, the German *Facharbeiter*. The much lower level of internationalization in German machine building in comparison to the German automotive industry is striking. Although the machine building sector in Germany is nearly the same size as the automotive industry in regard to sales and employees, in the year 2010 FDI in the German machine building sector was only 26% of the FDI of the German automotive industry (Bundesbank, 2012). In the German machine building industry there have not been any notable relocations into low-wage countries to date. Instead, the expansion of the German automotive industry into the low-wage countries has created an export market for German production equipment and thus strengthened this sector. In 2010, a total of almost one third of the German exports of metalworking machinery were already going to low-wage countries in Eastern Europe and Asia.

22The development of the automotive suppliers differed considerably from the original equipment manufacturers (OEMs). Due to the cost pressure from OEMs and explicit demands to shift production to low-wage countries (Nunnenkamp & Spatz, 2002), automotive suppliers started to relocate production from Germany. This relocation at the supplier level became the driver of concession bargaining and of deviations from the industry-level agreements, which will be discussed in the next section.

23In the first half of the 1990s, only around one third of the German automobile suppliers were active abroad (Walker, 1999). However, toward the end of the 1990s, the transfer of production to low-wage countries began to scale up. According to a bi-annual survey of the Fraunhofer Institut für Systemtechnik und Innovationsforschung (ISI), the share of German automobile suppliers that relocated production outside of Germany lay between 25% and 38% in the years 1997-2001 (Kinkel & Lay, 2005: 71). Production processes that did not have high skills and education requirements were the first to be moved from Germany and into the low-wage countries. A classic example is the assembly of wire harness systems, which is done by unskilled or semi-skilled workers (mostly women). The assembling of wire harnesses was almost entirely relocated from Germany to CEE, Portugal and North Africa during the first half of the 1990s. In the case of automobile seats too, production of simple, high-volume products in large factories were relocated to CEE; those products with smaller volumes and a higher number of models (e.g., luxury seats) remained in Germany (Jürgens & Krzywdzinski, 2010: 99; Frigant, 2007).

24The scope of relocation to CEE from Germany was much larger than from any other West European country. We can see this when we look at the composition of automobile component imports to Western European countries. A relocation of component manufacturing abroad led to an increase in component imports. The share of component imports from CEE to Germany grew from 9% to 40% between 1995 and 2012. This growth took place at the expense of imports from West and Southwest Europe (Nunnenkamp, 2005: 50). Germany is the only West European country that has shifted its component imports so strongly toward CEE. Nearly 50% of German component imports in 2012 came from low-wage countries. For France, by contrast, the Iberian Peninsula and Mediterranean area are still playing a central role, although CEE is gaining in importance.

**Figure 2. Share of Eastern European New Members States in component imports of the German and French automotive industry in %, 1995-2012**



[Agrandir Original \(png, 13k\)](#)

Source: Eurostat, DS-018995. The New Member States are: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

25 Indeed, since the second half of the 1990s the relocation of more complex production processes requiring highly skilled employees has been ongoing. On the basis of case studies of suppliers in Poland, Jürgens and Krzywdzinski (2010) have differentiated between the following phases of development (see also Voskamp & Wittke, 2012):

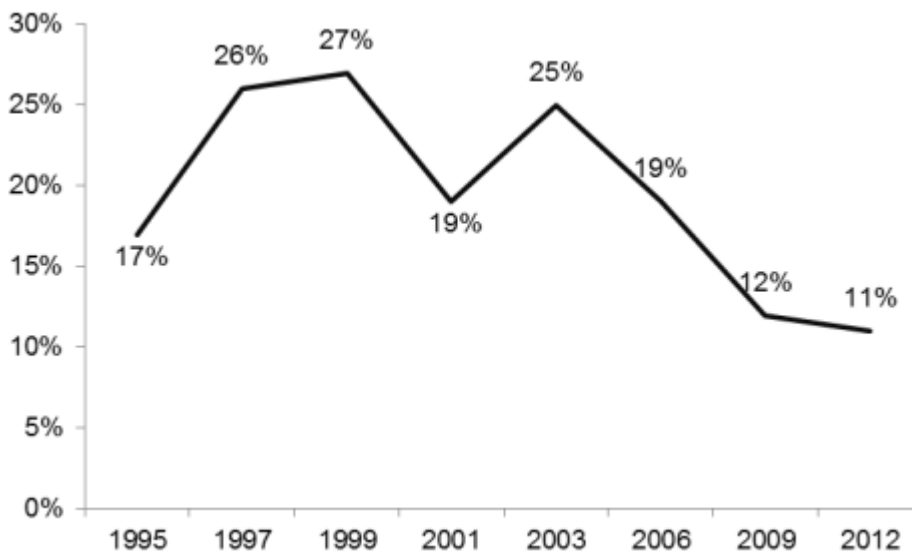
- In the middle of the 1990s, production facilities for labor-intensive parts were established (“extended work-benches”), which assumed simple steps of production and often served the CEE market or functioned as just-in-time (JIT) assembly locations. During this period, it was difficult for big automobile suppliers to find local sub-suppliers in CEE that could satisfy their demands for quality. The local value added in CEE was therefore rather limited.
- In the second half of the 1990s, both the value added and the range of products of the CEE plants were expanded. The plants developed their own capacities for product engineering and received limited procurement competencies, meaning that the share of parts bought from local suppliers increased. In addition, the production locations were expanded to enable mass production of standard components and now served several customers, which was accompanied by increasing exports to Western Europe (especially Germany).
- Since the middle of the last decade, some CEE locations have assumed further functions. In a few cases, they have become the lead plants for certain products. This development, however, has only held true for a minority of the locations. In some cases IT services for all European locations were centralized in CEE. There are also cases of R&D activities being located in CEE. As a rule, these R&D centers had a relatively subordinate function (e.g., adjusting an existing product), but in a few cases larger R&D centers came into existence.

26 The trend towards relocation to CEE began, however, to decline in the middle of the last decade and this development accelerated with the beginning of the world-wide economic crisis in 2008. The share of German manufacturing companies reporting relocation of production has continuously fallen since 2003 as figure 3 shows. In a PriceWaterhouseCoopers survey (2007) of 207 managers from the German automotive industry, only 7% of those questioned saw any further potential for reducing costs through relocation. In 2009, one year after the start of the economic crisis, the ISI came to the following conclusion: “The relocation of production abroad has sunk to its lowest point since 15 years.” (Kinkel & Maloca, 2009: 1). The Eastern Enlargement of the EU occurred at a



moment in which the German companies had already nearly exhausted the potential for relocation – at least in the medium term.

**Figure 3. German metalworking companies reporting relocation of production abroad (in %)**



[Agrandir Original \(png, 14k\)](#)

Source: Zanker *et al.*, 2013.

27How can we sum up the evidence presented up to this point? At the OEMs, the expansion to CEE was linked to an upward shift of the German plants' product range. Together with many other product and process innovations, the relocation of the production of lower-priced cars to CEE allowed companies to produce quality products at affordable costs. The expansion of German OEMs abroad also created new markets for equipment manufacturers. From this perspective, the expansion in CEE represented a virtuous circle for German industry.

28In the supplier segment, labor-intensive production work with relatively low skill requirements disappeared from Germany. Standardized mass production of parts and components was also partially relocated to CEE. For the most part, the German plants kept customized production of high-quality components. German works councils tried with some success to slow down this process with the help of wage and working time concessions and by deviating from industry-level collective agreements. The concessions could not, however, prevent the relocation. At the end of the 2000s, the segments of the German automotive industry that were most vulnerable to competition from low-wage countries had disappeared – and the conditions for the consolidation of industry-level collective agreements reappeared, as we will discuss in the next section. In the mid-term, the danger for employment in the German automotive industry comes not so much from relocation to CEE but rather from the stagnation of the European car market and from the increasing importance of the Chinese market. The latter development might require the shift of production and R&D capacities to China.

29We can observe the shifts described above in the employment structure of the German automotive industry. Since the relocation wave began to go back in the middle of the last decade, employment in the German automotive industry has remained relatively stable at around 750,000–800,000 employees. The structure of employment has changed, however. Jürgens and Meissner (2005) studied the development of employment in the German automotive industry according to skill levels (table 1). The authors distinguished between unskilled workers, skilled workers

(*Facharbeiter*), white-collar employees with simple tasks, and white-collar employees with complex tasks. The study shows a clear difference between car manufacturers and suppliers. The number of skilled workers employed has increased in components manufacturing and the employment of unskilled workers has decreased. This can be understood as an indicator for the relocation of low-skill workplaces from Germany to low-wage countries.

30Interestingly, German automobile manufacturers exhibit the opposite pattern. Between 1996 and 2001 the employment of skilled workers decreased slightly and the employment of unskilled or semi-skilled workers increased. Jürgens & Meissner (2005: 67) attribute this to a change in work organization in the German automotive industry, which includes a return to short-tact assembly line production and a reduction of the scope of workers' job tasks (Springer, 1999). This change of work organization was accompanied by recruitment of workers without vocational education for production jobs.

**Table 1. Change in employment in the German automotive industry according to skill levels, 1996-2001**

	Production of cars and engines	Production of parts and accessories	Selected industries with inputs for automobile production	Total
Unskilled workers	+ 26 %	- 12 %	+ 13 %	+ 15 %
Skilled workers („Facharbeiter“)	- 2 %	+ 64 %	+ 20 %	+ 16 %
White-collar employees with simple tasks	- 88 %	- 56 %	- 48 %	- 55 %
White-collar employees with complex tasks	+ 94 %	+ 8 %	+ 36 %	+ 34 %

Source: Jürgens & Meissner, 2005: 227

31The most dramatic change, however, took place in the white-collar area. The absolute and relative growth of employment of highly qualified white-collar employees is the most important factor influencing the composition of employment in the German automotive industry. This has its origins in an intensification of innovation activities by German automotive companies in response to competition. While the number of R&D personnel in German manufacturing (not including the automotive industry) remained stable between 1995 and 2002, the number of R&D employees in the German automotive industry increased during this period by almost 50% to around 77,000 employees (Jürgens & Meissner, 2005: 22). “Through the intensification of innovation efforts with the perspective of opening new fields of high-value employment, the prevailing high-road development could be continued” (Jürgens & Meissner, 2005: 15).

### **3. The Transformation of Labor Relations in the German Automotive Industry**

32Even if the loss of employment through relocation to the CEE low-wage countries remained limited, the inclusion of the CEE low-wage locations in the German automotive industry's production networks transformed the balance of power between companies on the one hand and trade unions and works councils on the other hand. Threats of relocation became the driving force behind the changes. From the beginning of the 1990s the threats of relocation grew continually. According to a survey by Ahlers *et al.* (2007) there were threats of relocation in 35% of the

companies in the investment goods sector in the years 2003 to 2005; in a further 32% of the companies relocations had actually taken place. In the case of large companies with more than 1,000 employees, only 20% had actually relocated jobs, but 44% had threatened to relocate (Ahlers *et al.*, 2007). Indeed, the study notes carefully the difference between relocations abroad and domestically. It is remarkable that only 36% of all cases of relocation went abroad. The negative effects of the domestic relocations were even greater than those abroad.

33 These relocation threats gained in importance in a context of changing collective bargaining in the German automotive industry. This change has been described as an “opening” of industry-wide collective agreements to accommodate plant-specific deviations. This change began in the 1990s. In its long lasting conflict concerning the reduction of working time to 35 hours a week in the metalworking sector, the union IG Metall accepted the inclusion of the so-called “opening clauses” in the collective agreement in exchange. These clauses gave companies the option to lengthen the working week to 40 hours for up to 18% of the employees, in deviation from the industry standard. The next and more important stage of introduction of “opening clauses” was prompted by the precarious situation in the East German metal industry after reunification. The IG Metall reached a deal to raise monthly pay in Eastern Germany to the West German level in a step-by-step fashion. However, a so-called “hardship clause” was introduced that allowed East German companies, in case of economic difficulties, to suspend the pay raises.

34 The third stage of the introduction of the “opening clauses” was reached in the 2004 collective agreement known as the “Pforzheim Agreement”. According to this agreement, companies are allowed to deviate from the industry-wide standards if the deviation serves to protect employment or to safeguard investments and innovations; however, in every single case, they need the agreement of the IG Metall and the metalworking employers’ association (Gesamtmetall). An important goal of the Pforzheim agreement was to control deviations from the industry-level agreements. Due to relocation threats among others, many works councils had made a number of concessions regarding pay and working hours since the 1990s, which deviated from the industry standards without IG Metall being able to control them. IG Metall thus accepted the general possibility of deviation from the industry standards in the Pforzheim agreement, but, on the other hand, achieved a settlement that ensured every deviation would be presented to the union for control and acceptance.

35 The effects of the Pforzheim agreement are controversial. Bispinck and Schulten (2009: 201) argue: “Germany has experienced a continuous erosion of the industry-level agreements since the middle of the 1990s. This did not occur in large leaps, but rather as an incremental process which had several causes: the erosion of the unions’ structural power, organizational power and institutional power.” Haipeter (2009: 312), in contrast, came to another interpretation: “The acceptance of deviations from industry-level agreements [...] has contributed hitherto rather to a stabilization of the collective bargaining system in the metal and electrical industries than to its erosion. The establishing of formal procedures, the higher quality of concessions which the companies offer in return for the deviations, and the channelling of the ‘wild’ decentralization into organized procedures have increased the union’s control of the deviations from industry-wide agreements.”

36 The “opening” of the industry-level agreements created the basis for the development of the so-called “employment protection agreements,” which became the major method for achieving negotiated change in the German automotive industry. These agreements are concluded at the company or at the plant level between the management and the works council with the assistance of the unions. In these agreements, companies agree to obligations in regard to investments and

relinquish the right to collective dismissals. In exchange, the works council and the union offer concessions regarding wages, working hours and flexibility.

37 There have been several waves of employment protection agreements since the 1990s and they remain controversial. On the one hand, Hancké (1998) argued that they started a race to the bottom. Zagelmayer (2000: 19) spoke on the other hand of “brothers-in-arms” between labor and capital and stressed the role of the employment protection agreements as an instrument of cooperative problem-solving, by which “management and labor both gain when they reach agreements that increase productivity and organizational performance (win-win bargaining)”. Jürgens and Krzywdzinski (2006) argued that the orientation toward compromise remains an important characteristic of the employment protection agreements in the German automotive industry. This compromise orientation goes against the interpretation of the agreements as a break with the traditional model of labor relations in the German car industry. This trend toward compromise can be shown in regard to four important contents of the agreements: employment guarantees, pay concessions, working time flexibility, and the use of agency work.

### **3. 1. Employment protection**

38 From the point of view of the employees, employment guarantees and the commitment to allocate investment and products to the German plants are the main content of the employment protection agreements. The more comprehensive the promises of the management are, the more strongly they underline the continuity of the cooperative model of labor relations in the German automotive industry.

39 Jürgens and Krzywdzinski (2006) examined the contents of employment protection agreements in German automobile companies. The typical content of agreements is the promise not to use collective dismissals. This is found in almost all of the employment protection agreements in the German automotive industry. Indeed it is remarkable that the agreements of the years 2004 to 2006 at Volkswagen, Daimler, Ford, Opel and Porsche also contain concrete product and investment promises for the German plants. The negotiations about the allocation of production and about investment decisions give the works councils and unions considerable new regulatory functions (Streeck & Rehder, 2003: 345). Even if the growth in importance of the plant-level and company-level agreements means a certain weakening of the industry-level bargaining, that does not mean a weakening of the works councils and unions.

### **3. 2. Wage concessions**

40 The size and form of the pay concessions is of considerable importance in interpreting employment protection agreements: the higher the concessions, the more plausible the interpretation of the agreements as a concession bargaining in which particularly the employees must carry the burden of the economic adjustment process. The higher the wage concessions, the more fragile the acceptance of the agreements will be.

41 It is characteristic for the concessions at the German automobile manufacturers that they avoid direct wage and salary reductions. In the 1970s and 1980s, German automobile manufacturers had introduced wage supplements for their employees that meant that workers of the automobile manufacturers earned more than the wages agreed in the industry-level collective agreements. In the employment protection agreements, these wage supplements were now used as a buffer that was “melted” step by step. This “melting” process functioned so that the pay raises negotiated at the industry-level were set off against the wage supplements in the companies. When the wage level increased industry-wide, for instance, by 3%, the automobile manufacturers implemented this

increase but simultaneously reduced their wage supplements by 3%. Thus, there were no direct reductions in pay. At the beginning of the 1990s, the size of the wage supplements at the automobile manufacturers was around 30% to 40% of the industry-wide wage level. Indeed by the end of the last decade, wages at the mass manufacturers Opel and Ford had already reached the level of the sectoral collective agreement.

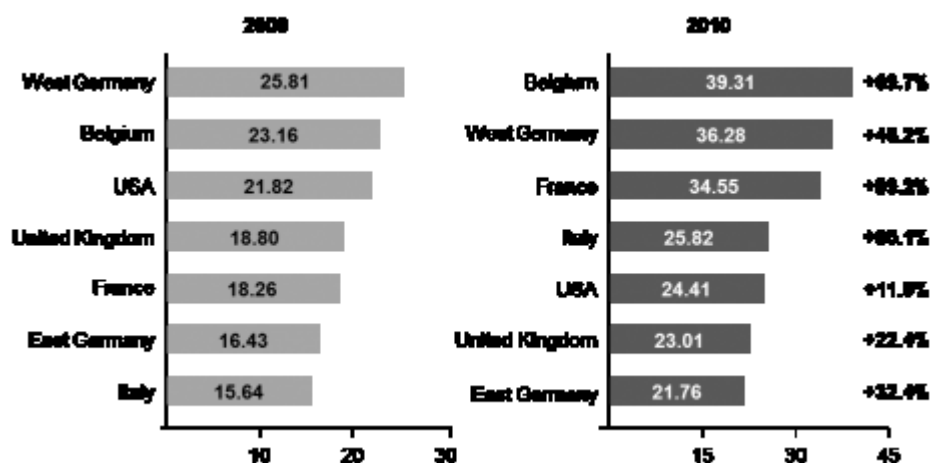
42 In fact, a direct reduction of wages took place only for newly hired employees. In those agreements made in the years from 2004 until 2006 Ford and Daimler agreed to a reduction of pay for new employees to the level of the industry collective agreement. The wages of those already employed remained untouched.

43 VW was able to take a particular path to wage concessions, since the company has its own company agreement and thus possesses more flexibility. From 1993 onwards, the normal weekly working time at VW was 28.8 hours per week. In 2006, the weekly working time was increased to 33 hours without a wage increase, which actually meant an almost 15% reduction of hourly pay.

44 The situation was different at the automobile suppliers. These companies pay wages according to the industry-level agreement and do not have wage supplements similar to the automobile manufacturers. The suppliers used the options to deviate from the industry-level agreements made possible by the Pforzheim agreement. Thus there were two distinct paths in the automotive industry: the car manufacturers' wages came closer to the industry-level agreement, while the suppliers instead used the opening clauses in order to undercut the industry-level norms.

45 Wage concessions have contributed in essential ways to the fact that real wage development in Germany has stagnated despite strong growth in productivity. Thus Germany has earned criticism from other European countries for unfair competition. In France, companies used the wage concessions in the German automotive industry as an argument to also demand the reduction of wages (Michaux, 2006). Indeed, it should be stressed that the labor costs in German industry are still among the highest in Europe. Figure 4 shows the total labor costs per hour in the manufacturing sectors of selected countries. Here a re-balancing process is taking place: labor costs in Germany between 2000 and 2010 clearly rose more slowly than in Belgium, Italy and France. Labor costs in the USA and Great Britain sank vis-à-vis Germany due to the strong Euro. And labor costs in Eastern Germany remain low.

**Figure 4. Total hourly labor cost in the manufacturing sector in selected countries (in €), 2000 and 2010**



[Agrandir Original \(png, 31k\)](#)

Source: IW Trends, various years.

### **3. 3. Working time flexibility**

46At high-wage locations, one of the possibilities to guarantee competitiveness vis-à-vis low-wage locations is a high level of working-time flexibility. The introduction of so-called working time “corridors” and working time “accounts” are the most important instruments of working time flexibility. Working time accounts reduce the costs of flexibility considerably. During periods of high production levels more working time can be achieved without the overtime pay. The extra time is accumulated on the working time accounts and can be paid out in the form of free time when production levels are lower.

47Working time accounts have found wide use in the German automotive industry. The number of working hours the accounts can store was expanded as part of the large wave of agreements of the years from 2004 to 2006 (Jürgens & Krzywdzinski, 2006: 42). At Volkswagen up to ± 400 working hours can be stored on the accounts; at Opel there is no limit as to the number of hours on the working time accounts.

48One example of the importance of flexible working time as a competitiveness factor is the case of the BMW plant in Eastern Germany (Leipzig) (Pries, 2006). The plant was founded in 2005 and employs around 5,500 employees. The city of Leipzig was selected in competition with the Czech location of Kolin. There were many reasons for the decision to choose Leipzig: state subsidies in the amount of 30% of the investment; good infrastructure; the number of skilled workers in the area around Leipzig. Moreover, an important factor was the wage difference between Eastern and Western Germany. Working time in the East German metal industry is longer than in Western Germany, which means that the hourly wages are at around 80% of the Western level.

49Management and the works council at the plant in Leipzig also stressed that the working time flexibility was an important advantage of the location (Pries, 2006). An agreement between BMW and the works council introduced much greater working time flexibility for the Leipzig plant than in the West German plants. The maximum plant operating time is 140 hours per week in Leipzig (compared to 100 hours for the West German BMW plants). There are annual working time accounts that can store up to ± 200 work-hours. According to Pries (2006) this work-time flexibility made a flexible break-even point possible for the plant, while the competing Czech location had indeed lower labor costs, but a more rigid regulation of working time.

50However, CEE locations are catching up with German plants in regard to working time flexibility. The Czech Republic, Hungary, and Slovakia have all reformed their working time legislation since the end of the 1990s and have created the possibility of annual working time accounts on the basis of collective agreements (Jürgens & Krzywdzinski, 2010). Also Poland liberalized its working time regulation in 2009 for two years and is now considering a permanent reform.

### **3. 4. Agency work**

51Almost all of the automobile plants in Germany use agency labor. Due to the German labor leasing law, it has become an important way of cutting labor cost. According to the labor leasing law of 2004, agency workers must be paid according to the collective agreement of the deploying company (“equal pay” principle), but only if the employment agency has not signed its own collective agreement. There is no temporal limitation for the use of agency workers. The legislation had the goal of encouraging the development of collective agreements in the agency sector. As a

result, however, the employment agencies signed collective agreements with so-called “Christian” unions, which only play a marginal role in the German system of collective bargaining, but which made it possible for the labor leasing agencies to avoid the equal pay principle and to pay very low wages (Dribbusch, 2010). In 2010, one of the “Christian” unions in the agency employment sector was found by the Federal Labor Court not to be representative and its agreements were deemed null and void; but the others are still in force. Even the Confederation of German Trade Unions (DGB) accepted a collective agreement for the temporary agency workers with a wage level below the respective collective agreements in the industry.

52 Thus, for companies in the automotive industry, the deployment of agency workers not only means more flexibility, but also a cost advantage. According to IG Metall, the wage difference between agency and regular workers in the metal industry in North Rhine-Westphalia was between 38% and 44% in the year 2006 (IG Metall, 2010). As a result, the use of agency workers in the automotive industry increased very swiftly. At the BMW plant in Leipzig some 30% of the employees were agency workers – the highest level among German automobile manufacturers. A study by Dudenhöffer & Büttner in 2006 estimated the average share of agency workers in the German automotive industry at 17% of the semi-skilled workers and at 7% of the skilled workers (*Facharbeiter*). 45% of those automobile companies surveyed by Dudenhöffer and Büttner (2006) used agency workers only temporarily for bottlenecks, but 34% of the companies reported the long-term use of agency workers.

53 In companies with strong union organizations, however, IG Metall and the works councils succeeded in reaching agreements to limit the use of agency workers. At Audi the maximum share of agency workers per plant was set at 5% of the direct workers; higher quotas are only possible during the production ramp-up phase. At Mercedes-Benz the number of agency workers is not allowed to increase beyond 4% of the labor force per plant and 1.5% of the total labor force. At Ford Germany the limit for agency workers in the production area was set at 3% of the direct workers in 2003; this was applied to Opel in 2004. These limits can be surpassed only in times of product ramp-ups.

54 Because of the very low wage level in the collective agreements of the labor leasing companies, works councils in automobile companies began also to press to increase agency workers’ wages. At Ford, the agreement concluded in 2003 requires that the agency workers are paid according to the collective agreement of the North-Rhine-Westphalia metalworking industry. At the end of 2007, BMW concluded an agreement with its works council, according to which the company will deploy only agency workers from those agencies that pay wages according to the metalworking industry collective agreement. IG Metall and Adecco agreed in 2007 on a collective agreement for agency workers at Audi that corresponds to the standards of the Bavarian metalworking industry. Since 2001 Volkswagen has had its own labor leasing agency called AutoVision. In 2010 AutoVision employed around 11,600 workers, the greatest part of which was deployed at VW. AutoVision has concluded collective agreements with IG Metall that are at the level of the metalworking collective agreement.

55 Since 2010, IG Metall and the works councils have succeeded in pushing through industry-level limitations and rules for the use of agency workers. In 2010 a wage agreement was negotiated for the Northwest German iron and steel industry that contains the “equal pay” principle for companies using agency workers. In May 2012, IG Metall reached an agreement with the metal industry employers’ which gives works councils co-determination rights in regard to agency work. Agency work can be used only if it has a clear time limit and a justified reason (e.g., lack of specialists, a temporary production peak, or the need to temporarily replace a regular employee). The wage level and working conditions of agency workers are not allowed to “put at risk” the wages and working

conditions of regular employees (IG Metall, 2012). In every case, the works council has to agree to the use of agency work. As an incentive for the companies to fix the rules for the deployment of agency workers in plant-level agreements with works councils, IG Metall accepts that companies that conclude such agreements increase the number of employees with a 40-hour working week (in deviation from the standard of 35 hours) by 12%. If no plant-level agreement about the use of agency work is fixed, the industry-level agreement prescribes that every agency worker has to be offered a permanent job after 24 months. Notwithstanding the achievements of the agreements, its critics point to the fact that most of the agency workers stay in the companies less than one year and that the agreement will hardly change the situation in companies with weak works councils that are not able to enforce a reduction of agency work.

## Conclusions

56The opening of a low-wage periphery in direct proximity to Germany has led to a reorganization of the value chains of the German automotive industry. The production of cars and vehicle components at low-wage locations has become a major part of the German productive model. The first step was to locate simple and labor-intensive processes in CEE, but these initial relocations were followed by the relocation of more complex products and processes. However, despite massive expansion in CEE, employment in the German automotive industry has not developed negatively. Losses caused by relocation were counterbalanced by a successful specialization in premium, high-tech, and quality products. Since the Eastern Enlargement of the EU, the number of relocations from Germany to CEE has continuously fallen. In the mid-term the stagnation of the European car market and the increasing need to shift production and R&D capacities to the growing Chinese market might prove a much stronger danger for employment in Germany than the competition from CEE sites.

57How can we interpret this empirical evidence? From an evolutionary perspective, which is the perspective taken by this article, the trajectory of the German productive model shows considerable continuity and path dependence. The specialization in high quality, high-value-added activities and products was linked to a loss of jobs in the production of standardized mass products, but created at the same time new jobs with higher qualification requirements. By the end of the last decade, labor-intensive production of standardized mass products competing mainly on price had disappeared from Germany. This adaptation pattern follows the classical DQP trajectory (Sorge & Streeck, 1988). This model has been stable even if wage increases in CEE and Germany or a (admittedly hitherto not especially pronounced) change in consumer wishes towards smaller, environmentally-friendly vehicles could undermine its basis.

58What does this development mean for labor relations? The specialization path of the German automotive industry brought with it the loss of jobs in the low-skill area and a high adaptation pressure on companies. Both factors shifted the balance of power between labor and capital and provoked a wave of concession bargaining. A closer look shows, however, that the concessions were not one-sided but represented compromises. The flexibility of working time was greatly extended. Long-term investment commitments were agreed to by companies in exchange for wage concessions. A limited and negotiated segmentation of employment between well-paid core-workers and more “flexible” and less well-paid agency workers was introduced. In the case of several supplier companies, the concessions by unions and works councils went very far and provoked discussions on whether they put social compromises in companies at risk. In particular since the number of relocation cases to Eastern European low-wage countries fell until the end of the last decade, however, the works councils and IG Metall have started to rebalance the compromises in favor of labor. The recent agreements put limits on the use of agency work and



push for “equal pay” standards for the agency workers’ wages. This pattern of compromise-based change is a sign of the continuity of the German productive model and its governance compromises.

59Regarding the automotive sector, the thesis of “vertical disintegration” (Doellgast and Greer, 2007; Greer, 2008) seems not only exaggerated, but also conceptually questionable. It compares the empirical developments with an “idealized” and static conception of the German productive model and hence concludes that recent developments represent a break. Empirical research shows, however, that compromise-oriented industrial relations and industry-level collective bargaining in the German automotive industry always went along with company-level bargaining and also with phases of segmentation of the employment structure. Despite industry-level collective bargaining, there were considerable wage differences between OEMs and suppliers already in the 1970s and 1980s due to the wage supplements that the OEMs paid to their employees. In the 1970s and 1980s, the German automotive industry was also characterized by segmentation between the German workforce and the so-called “guest workers.” The latter usually had fixed-term contracts, worked in worse jobs (Dohse, 1982; Köhler and Preisendörfer, 1988), and bore the main burden of the employment reductions during the crisis in the 1970s (Streeck, 1984). Concessions and the segmentation of employment were used in phases of crises and were pushed back by works councils and IG Metall once the situation stabilized. As Hall and Thelen (2009: 20) write: “Processes such as these can act as shock absorbers in the face of new economic developments, bringing an elasticity to the institutions of the political economy that analyses focused on formal rules sometimes miss.”

60As this study focused on the automotive sector as one of the core industries of the German economy with strong trade union organization, it is only partially suited to examining the empirical evidence on the erosion or the dualization of the “German model” as such. The collective bargaining coverage of employees in the total metal sector lies still at 81%. The number of metal sector companies without a collective agreement increased strongly, but these are mainly small companies in Eastern Germany (Haipeter, 2013). The best evidence for the erosion or the dualization theses are not the developments within the metal or the automotive sector, but rather the contrast between the metal sector and the service sectors.

61Interestingly, however, by concentrating on concession bargaining in the weakest parts of the value chain, the literature on the “vertical disintegration” of the German productive model ignores an important process that changes the social basis of the governance compromises in core companies of German manufacturing. The continuously increasing share of highly skilled white-collar employees – a trend fostered by the changing division of labor between the German and the foreign locations – has profoundly changed the situation of trade union representatives and works councils in German industry. The organization of white collar employees has become a more and more important issue for IG Metall and might in the long term be one of the most decisive “battles” about the future of the German productive model and its industrial relations.

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## Table des illustrations



**Titre** **Figure 1. Production of cars in Germany according to brands, 1990-2010 (1990=100%)**

**Légende** Source: VDA, Tatsachen und Zahlen. Since 2012, Audi has counted CKD production in Germany as foreign production.

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**Titre** **Figure 2. Share of Eastern European New Members States in component imports of the German and French automotive industry in %, 1995-2012**



**Légende** Source: Eurostat, DS-018995. The New Member States are: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

URL <http://regulation.revues.org/docannexe/image/10663/img-2.png>

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**Titre** **Figure 3. German metalworking companies reporting relocation of production abroad (in %)**

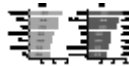


**Légende** Source: Zanker *et al.*, 2013.

URL <http://regulation.revues.org/docannexe/image/10663/img-3.png>

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**Titre** **Figure 4. Total hourly labor cost in the manufacturing sector in selected countries (in €), 2000 and 2010**



**Légende** Source: IW Trends, various years.

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## Pour citer cet article

### Référence électronique

**Martin Krzywdzinski**, « How the EU's Eastern Enlargement Changed the German Productive Model. The Case of the Automotive industry », *Revue de la régulation* [En ligne], 15 | 1er semestre / Spring 2014, mis en ligne le 27 juin 2014, consulté le 20 mars 2016. URL : <http://regulation.revues.org/10663>

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