

Univerzita Karlova

Přírodovědecká fakulta

Studijní program: Sociální geografie a regionální rozvoj

Studijní obor: Sociální geografie a regionální rozvoj



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Globální výrobní síť a pracovní síla: odbory v automobilovém průmyslu Česka a Slovenska

Disertační práce

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Praha, 2022

Charles University

Faculty of Science

Study programme: Social geography and regional development

Branch of study: Social geography and regional development



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Global Production Networks and Labour: Trade Unions in the Automotive Industry of Czechia and
Slovakia

Doctoral thesis

Supervisor: prof. RNDr. Petr Pavlínek, Ph.D.

Prague, 2022

Prohlášení:

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Praha 16. května 2022

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Declaration:

I declare that I have prepared my doctoral thesis independently and that I have listed all the information sources and literature used. Neither this thesis nor any substantial part of it has been submitted for another or the same academic degree.

Prague, May 16, 2022

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ABSTRAKT

Tato disertační práce se zaměřuje na roli pracovní síly v globálních výrobních sítích na příkladu automobilového průmyslu v Česku a na Slovensku. V této práci kombinuji konceptuální rámec globálních výrobních sítí s konceptem zdrojů moci odborů, jehož prostřednictvím jsem se snažila porozumět mechanismům, které umožňují zlepšovat pracovní podmínky v kontextu integrované periferie globálních výrobních sítí v automobilovém průmyslu. Svoji práci stavím na kvalitativních rozhovorech se zástupci odborů působících u finálních výrobců a dodavatelů a doplňuji je o další respondenty, jako jsou manažeři ve firmách, zástupci na odvětvové úrovni a zástupci na regionální úrovni. Docházím k závěru, že odborové organizace v integrované periférii jsou strukturálně slabé, což představuje výzvu pro budoucí vývoj v tomto odvětví z hlediska dopadů na zaměstnanost, zejména v souvislosti s dekarbonizací a probíhající digitalizací výrobních postupů. Disertační práce se skládá ze čtyř již publikovaných prací, v nichž se zaměřuji na odborové strategie a reakce související s nadcházejícími změnami v automobilovém průmyslu.

KLÍČOVÁ SLOVA

Automobilový průmysl, odbory, pracující, globální výrobní sítě, Česko, Slovensko

ABSTRACT

This doctoral thesis focuses on the role of labour in global production networks using the example of the automotive industry in Czechia and Slovakia. Drawing on the agent-based approach, I combine the conceptual framework of global production networks with the trade unions' power resources concept to understand the mechanisms which allow labour to improve working conditions within the integrated periphery of global automotive industry production networks. I base my evidence on qualitative interviews with trade unions' representatives operating at final assembly firms and suppliers, and I complement them with other respondents, such as company managers, sector level and regional level labour union representatives. I conclude that trade unions in the integrated periphery are structurally weak, which poses challenges for future industry development in terms of employment impacts related to decarbonization strategies and the ongoing digitalization of production. The doctoral thesis is composed of four publications where I study trade union strategies and responses related to upcoming changes in the automotive industry.

KEY WORDS

Automotive industry, trade unions, labour, global production networks, Czechia, Slovakia

Acknowledgements

I wish to thank my supervisor prof. RNDr. Petr Pavlínek, PhD for his supportive attitude, his sincere comments and helpful critique as well as his commitment to communication. I am equally thankful to my family and especially my husband Roman Matoušek. Without his involvement in our daily familial tasks, it would be literally impossible to study and do research. A big thanks also goes to my two children Ivánek and Alenka who got used to their always working mother.

This work could not be finalized without the great support of the Central European Labour Studies Institute (CELSI) and particularly Marta Kahancová who introduced me to the topic of industrial relations. Thanks to CELSI, I had the opportunity to familiarize myself with suitable research approaches and become a part of the network of researchers in industrial relations and beyond. Involvement in CELSI furthermore helped me to produce the presented papers which form the core of this doctoral thesis.

Last but not least, I need to acknowledge the important role of the Department of Social Geography and Regional Development in allowing me to study the topic of my choice and letting me to grow within the academic world.

I wish to thank also Brad McGregor and Adrian Bronson for their excellent proofreading and editing of this thesis and individual articles.

I am also thankful to the Charles University Grant Agency which supported my research through project No. 12901/2019 “GPNs and labour: Trade unions in the automotive industry in Czechia and Slovakia” between 2019 and 2020.

Abbreviations

CEE	Central and Eastern Europe
FDI	Foreign direct investments
GPN	Global production networks
HR	Human resources
ILO	International Labour Organization
MNC	Multinational corporations
NGOs	Non-governmental organizations
NIDL	New international division of labour
OEM	Original equipment manufacturer
OS KOVO	Odborový svaz KOVO (trade union KOVO)
OZ KOVO	Odborový zväz KOVO (trade union KOVO)
SDL	Spatial division of labour
TNCs	Transnational corporations
TUN	Transnational union networks

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Introduction

The ongoing globalization processes have been fuelled by constant efforts to reduce costs and rationalize production throughout increasingly integrated but fragmented production networks, which has affected the international division of labour and the type and quality of jobs (Castree et al 2004). The prevalent driver for relocation in the automotive industry was an effort to decrease costs by fragmenting production functions and locating manufacturing to locations with low labour costs; other less frequent factors included specialized labour profiles, institutional stability and state investment incentives (Humphrey and Oeter 2000, Pavlínek 2015). The constant search for profit maximizing locations left workers unemployed in some locations, whereas elsewhere employees benefited from offshoring but remained exposed to unstable and flexible jobs (Barrientos et al 2011a). The obvious imbalances between fluid capital and place-bound labour means that workers are left seemingly helpless within the currents of global capital flows.

The global production network (GPN) concept is frequently used to capture global corporate strategies and their impact on regions, less attention however is paid to the consequences that befall workers. To address this gap, several authors have called for labour to be integrated within the analysis of GPNs in order to study the global economic impact on workers and workers' impacts on the decisions of multinational corporations (MNCs) (Coe and Hess 2013, Rainnie et al 2010, Barrientos et al 2011, Dicken 2007).

My work contributes to this approach by exploring the role of labour in global production networks using the example of the automotive industry in Czechia and Slovakia. In order to capture concrete processes and changes for place-bound labour, the analytical framework empirically studies worker strategies vis-à-vis capital. Drawing on the agent-based approach, my objective is to understand the mechanisms that allow labour to attain its goals as well as investigate labour's impact on company strategies. For that purpose, I build on the power relations approach used in industrial relations studies, which considers trade unions an active agent with conscious strategies and their own mix of power resources for deployment (Lévesque and Murray 2010, Wright 2000).

My main research interest is to understand labour strategies in global production networks in the integrated periphery of automotive production chains. Impending changes in the automotive industry related to decarbonization, automatization and GPN restructuring may result in improved positions for countries within the production networks but also a significant decrease

in the production capacities of other locations. Working conditions are expected to change under both scenarios, causing structural changes on the labour market. The preparedness of workers and their representatives is thus crucial to undergoing this transformation with as few losses as possible. For that purpose, studying their current position, strategies and preparedness is highly relevant for future policies.

In what follows, I review the literature relevant to understanding labour's position in the globalized economy. In chapter 2, I propose a conceptual framework which combines an analytical framework for GPNs with industrial relations literature that deals with interactions between companies, states and trade unions within social dialogue schemes and collective bargaining. In the next chapter, I introduce the methodological approach and introduce the main sample of interviews upon which I derive my empirical evidence in the published works. Part 4 introduces the published works, stating briefly the main research question and summarizing the conclusions. The final part of my doctoral thesis provides some concluding remarks including suggestions for further research.

1. Globalized economy and labour: Literature review

This part briefly discusses the conceptual underpinnings of labour's position in the globalized economy based on a review of literature on the new international division of labour, the spatial division of labour and global production networks.

1.1. New international division of labour

The new international division of labour (NIDL) theory, developed at the beginning of the 1980s, denoted shifts in labour demand from core countries to peripheries with significant impact on workers in both “old” and “new” locations (Frobel et al 1978). Jenkins (1984) suggested that one important factor, besides strategies employed to increase the profits of the core countries, was the role of host economies that entered international competition by offering favourable conditions for companies to operate on their territory, such as tax incentives and low support of labour protection institutions (especially trade unions). Other factors that contributed to relocation strategies were technologies, transport advances and population growth; objective conditions that mixed well with the profit-seeking strategies of MNCs and the effort of newly industrialized countries to attract foreign investors (Grinberg 2016).

Capital relocations had (and still have) significant consequences on the labour force, that is, job losses in one place and employment increases in another place. Labour affected by capital relocations is seemingly powerless. Moreover, capital relocations often put workers against each other, which further undermines the labour power. In response, Jenkins (1984) suggests, “An effective strategy for labour must therefore go beyond demands to protect jobs and existing output. It must also encompass the nature of the use values being produced and the social relations under which they are produced” (p. 53).

While NIDL offers a plausible understanding of the impact of global capital relocations on the workforce, it fails to offer an analytical framework for studying the role of labour and its possibilities within the globalized economy. Moreover, critics of NIDL theory pointed out that, in terms of relocations, the authors focused only on the most visible impact, low-skilled job shifts to cheap locations, while other impacts (e.g., upskilling in home countries) were largely neglected (Jenkins 1984). One of the reasons why Frobel’s observations seem simplistic is that they did not account for various company strategies in different sectors and places (Grinberg 2016).

1.2. Spatial division of labour

Another academic response to observed relocation strategies was Massey’s theory of the spatial division of labour (SDL). She studied inter-firm relations and the hierarchical organization of firms and their impact on the structure of jobs and regional development (Dunford 2017). By noticing the spatial structures of production through the study of localization and organizational structures within particular companies, her theory contributes to the understanding of the *geography of employment (spatial structures of production)* (Dunford 2017, p. 974). Massey (1995) assigns, contrary to other NIDL scholars, an active role to agents coexisting in the region. She studies their connections and interactions and how they create preconditions for regional development. In her understanding, actor activities and interactions might both hamper regional development but also positively influence the region’s well-being (ibid).

Her approach is criticized for paying less attention to profit-seeking strategies among enterprises later developed by global value chain and GPN theories (Dunford 2017). Massey recognizes the organizational structures of companies as an explanatory factor of SDL and a driver of regional differences, but the actual organization strategies of companies are not the focus of her work. Her aim was to study and understand uneven geographical development

rather than propose an interpretation of world development at the time. As regards the role of labour, her contribution lies mostly in examining regional-based actors and their interactions with transnational corporations (TNCs) as an important factor in regional development.

The reason why the locational strategies of companies should concern us is that the limited ability of workers to move represents its major disadvantage. Labour's attachment to place stems from the place-tight character of production, reproduction and consumption activities and the embeddedness of local institutions that provide a regulation mechanism as well as the whole local character of the labour market itself (Castree et al 2004). Therefore, the impacts of global capital flows are largely local, a mosaic of different labour strategies and outcomes in different territories.

This discrepancy between the possibilities of place-tight labour and those of mobile capital contributes to highly uneven spatial development in the globalized economy. This is for Dicken (2007) the fundamental issue in the context of GPNs and largely explains the uneven development between but also within countries and regions. The consequence is that workers in many cases fight for scarce financial resources allocated to their wages, which results in a lack of solidarity among workers and further disadvantages them confronting capital interests. "Groups of workers in particular place are likely to have material interests that coincide with the strategies of their employers even if they lead to exploitation and abuse of workers elsewhere" (Cumbers et al 2008, p. 373). At the global scale, this lack of solidarity thus weakens the labour position apropos capital, but locally it usually has a positive impact on workers and on regional development in a given territory.

1.3. Global production networks

From the perspectives of the presented conceptual and theoretical approaches, the analytical framework of GPNs represents their combination as it studies both company localization and organization strategies while accounting for the importance of other actors as well and concerning itself with the impacts of localization strategies on regions.

The concept of GPNs describes the operation of TNC value chains and their interaction with other actors, such as regional, national or international institutions, states, customers, labour and civil society organizations (Henderson et al 2002). By introducing a wider spectrum of actors that influence multinational corporations, it allows for the analysis of mutual interactions and power relations. It should be noted that mutual relationships among these actors are not equal because each of them possesses different resources (e.g., capital, know-how, skills,

natural resources or market size) and also due to the mobility constraints of labour compared that of highly mobile capital (Dicken 2007). Table 1 summarizes the main actors' characteristics, their power resources, and examples of their deployment.

Table 1. Actors in global production networks

	Characteristics	Sources of power	Application examples
Multinational corporations	Strong position due to their ability to coordinate processes and transactions in GPNs having impact on other subjects without having ownership over these subjects	Ability to benefit from geographic differences in the distribution of production factors, capital mobility, and ability to relocate resources	Amount of investment in a given territory, localization and relocation decisions dependent upon value-added creation activity
State	Territorial unit in which corporations localize their activities	Power to <i>regulate</i> and <i>manage</i> the inflow and maintenance of global capital within its territory	Creating conditions for foreign investors, supporting local actors and the transfer of know-how, supporting improvements in the status of domestic companies, legislation and tax collection, education system management
Workers (represented by trade unions)	Considered as the production factor, value creation component, much less mobile than capital	Education level, possibility and ability to form trade unions, legal guarantees of labour rights, knowledge of local environment and employee needs	Consultations, collective bargaining, strikes, international cooperation, tripartite national and sectoral actions, networking
Consumers	Consumers of final products	Variability of preferences, purchasing power, mobility patterns	Consumer behaviour, influence of marketing, ecological behaviour
Civil society, non-profit organizations, interest associations	Local, national and transnational associations (environmental, workers' rights advocacy, employer and other associations)	Global cooperation; pressure actions, confronting multinational corporations (e. g. as regards working conditions)	Campaigns, media outreach, national and international lobbying activities

Source: own contribution based on Dicken (2007)

GPNs are characterized by divided production chains and diversified value-added activities within the production process such that high-value added and low-value added activities are geographically dispersed which affects regional development and creates diversified locations of automotive production, classified as core, periphery and semi-periphery. Peripheral and semi-peripheral regions were integrated through “[T]he FDI-driven geographic expansion of high-volume production at the international scale” (Pavlínek 2022, p. 64). The drivers behind this expansion are relatively low labour costs, geographical proximity to large markets, low corporate taxes, investments incentives and, the membership in free trade areas (Pavlínek 2018, 2022). Since strategic functions related to the organization of production and investments remain located in core regions and the home countries of MNCs, the efforts of local actors to influence local development are affected. Trade unions in integrated peripheries will face constraints when trying to ensure relatively decent working conditions compared to core regions, which will affect their results.

My analysis employs an actor-centred view within the GPN concept as presented by Yeung (2009), which allows us “to identify key actors involved in engendering the growth dynamics of cities and regions” and “account for their highly differentiated power relations and collective action” (Yeung 2009, p. 201). In this vein, Henderson et al. (2002) assign labour an active role in the GPN framework and allow for the analysis of its mutual interaction, reciprocal influence over and connectivity between various actors. According to Barrientos (2011), “Viewing workers as social agents looks beyond their role as factors of production, highlighting them as human beings with capabilities and entitlements” (ibid, p. 332). Similarly, Coe and Hess (2013), in their review of the contemporary literature on GPNs and labour, highlight Riisgaard and Hammer’s definition that labour is a “social actor with its own interests regarding the organisational, spatial and political structure of a value chain” (Riisgaard and Hammer 2011, p. 186 cited in Coe and Hess 2013, p. 5). According to Henderson et al. (2002), labour is an integral part of the network together with firms, governments and other economic constituencies.

An actor-centred view allows us to understand what impact labour has with respect to global capital from a regional development perspective (Yeung and Coe 2015). The GPN framework considers a wide range of actors, such as states, international organizations, civil society organizations and consumers, as being able to form and influence the decisions of capital. Dicken (2007) understands GPNs as “an arena of contested relationships” where TNCs are only one of the actors that have an impact on regional economic development. This approach allows

us to see labour too as one of these actors.

When considering labour an active actor within GPNs, I will refer to the most widespread form of organized labour: trade unions (Henderson et al. 2002, Meardi et al. 2009, Cumbers et al. 2008). Trade unions are an institutionalized form of collective rights execution rooted in the international labour conventions of the International Labour Organization (ILO). Trade unions are recognized as a party entitled to participate in collective bargaining, which is according to ILO convention no. 154 understood as “all negotiations which take place between an employer and workers in order to determine working conditions and terms of employment and regulating employment relations” (ILO 1949, Article 2). The system of interaction between employer and employee representatives that may or may not lead to a legally binding agreement is referred to as a *social dialogue*. Despite the international regulation of collective bargaining and social dialogue arrangements, their national systems are highly path dependent and vary widely between countries.

1.4. Trade unions in the automotive industry

Trade union powers, actions and impact in the global economy are better studied via the example of a particular sector, and I have chosen the automotive industry for several reasons. First, in the context of global production networks, automotive represents a typical example of a well organized, producer-driven sector with disintegrated but highly coordinated production networks that consist of different levels of suppliers. This sector’s structure, to a large extent, determines the position and actions of other actors who interact with the MNCs in a given territory. Second, from the industrial relations point of view, the automotive sector has a considerable amount of organized labour worldwide with especially high unionization rates at the final producer companies (Meardi 2007). This fact is attributed to, among other things, the constant pressures on lean production, which affects working conditions. Third, the sector is exceedingly labour intensive, which has induced the MNCs’ relocation strategies for the past 30 years in their search for cheap labour locations. This brings us the fourth reason why the study of automotive in relation to an examination of labour agency in GPNs is appropriate. Thanks to the massive production relocations of several leading companies, automotive has become the dominant sector in the CEE region. For Mrozowski (2011), the automotive sector is “a symbol of the evolution of 20th century capitalism which demonstrates its internal tensions and developments, having had more general consequences for trade unionism” (p. 7).

The relocation strategies deployed in the automotive industry were also mirrored by the intensified process of production internationalization, which allows for cross-border cooperation through firm-level European works councils or international trade union organizations. This cooperation is not always easy as labour competes with each other in different regions through its price level, but still, the solidarity manifested in information sharing and mutual support may be an additional and important source of power for trade unions in globalized automotive production networks. Interestingly, in the internationalization of working conditions in MNCs, the national arena is still the most important for setting labour standards and is addressed by trade unions to a great extent. This creates a unique mixture of employment relations in each particular country and workplace and “as an effect, national-level compromises have remained clearly distinct in spite of converging global pressures” (Meardi 2009, p. 5). And again, the automotive sector serves as a perfect example of diverse working condition strategies in different workplaces within one corporation.

In Czechia and Slovakia, the automotive industry produces high volumes of cars, the majority of which are exported worldwide. Despite these volumes, both countries are considered an integrated periphery of the European automotive industry and mostly valued for its low labour costs and policies that provide incentives to foreign direct investment (Pavlínek and Ženka 2011). Moreover, low wages and low unionization rates are considered by these national governments to be advantageous for attracting foreign investors (Meardi et al. 2006). This leads to a limited growth model of modest wage increases with little improvements in job quality and perspectives for skills upgrading in the automotive industry (Jürgens and Krzywdzinski 2009)

The level of trade union density in the automotive sector is low in the studied countries. Three main explanations are offered by Hirsh (2008) in his analysis of the US trade union density decline. First is structural change, second is competitiveness and related outsourcing and offshoring practices, and the third is the increased institutional protection of workers by legislation imposed at the national level. Despite structural disadvantages, trade unions are not powerless in Central and Eastern Europe (CEE) (Adascalitei and Guga 2018) but their core focus may be limited to wage increases or organizing and providing leisure time activities for workers (Arendas 2016) while more conceptual and strategical thinking may be missing. In the following part the conceptualization of labour in the context of GPN is proposed introducing the trade union power resources concept.

2. Conceptualizing the role of labour in global production networks

The GPN concept allows for analysis of labour's impact on company performance and regional development as well as on the well-being of workers (Coe and Hess 2013). There are at least three aspects that should be considered when studying the role of labour, its position and impact within GPN structures:

- a) mutual interaction and cooperation
- b) power relations within GPN structures
- c) value capture and advancing working conditions

2.1 Mutual interaction and cooperation

Within the GPN concept, networking and interconnections are considered inherent parts of the global economy. Firms create GPN structures according to their economic and strategic interests, and trade unions must do the same to counterbalance this power. For this reason, it is also relevant to study worker connections and interactions at sectoral, national and international levels. For this purpose, trade union cooperation is an important factor in achieving a better position with regard to management in a particular company but also within the supply chains. That this task is not easy is noticed by Helfen and Fichter (2013) in their study of transnational union networks (TUN): "While corporations construct their GPN according to business goals and market strategies, TUN must link organizations with differing organizational resources and boundaries as well as varying and, not too seldom, contrary political, social and institutional logics" (ibid, p.8). Practice has confirmed that the international cooperation of workers and trade unions is problematic as local and national interests tend to be prioritized ahead of international solidarity, which may in turn disempower labour agents confronting management interests (Fichter, Helfen and Sydow 2011).

2.2 Power relations within GPN structures

A company's position in a network significantly determines the bargaining power of trade unions. Lower tier suppliers are under constant pressures to keep their costs low, which results in lower wages and a high share of low-skilled labour employed. This makes it difficult for

workers to demand both higher wages and high employment levels (Meardi et al 2009). Lower-tier firms are also more likely to relocate, further weakening the position of trade unions in these companies. Despite this deterministic position in GPN structures, Rainnie et al (2010) suggest that understanding of global network governance may allow labour to identify “vulnerabilities and potential points of leverage” as a part of an “emerging strategy to confront increasingly integrated and internationalized capital” (Rainnie et al 2010, p.164). Moreover, as Quan (2008) points out, labour’s awareness of a company’s position within the global chain is rarely recognized, meaning there is hidden potential for worker empowerment within the global production network analysis.

When studying the role of labour in globalized production chains, we can hardly avoid discussing power relations. Scholars consider aspects of intra-firm, inter-firm and extra-firm power relations. Intra-firm relations refer to the interactions of various actors inside a company, an example of which is the determination of working conditions through dialogue between trade unions and management (Kahancova 2007). Inter-firm relations capture power asymmetries among firms within the supply chain and refers to different forms of GPN governance (Mahutga 2014). Extra-firm relations capture mutual interactions among a full range of actors considered in the GPN analysis—firms, states, regions, NGOs and trade unions (ibid). Whereas intra-firm interaction relates to the company level, inter-firm relates to the global level (the level of TNCs), and extra-firm merges the company and global perspective, placing these interactions within a given territory and with consideration for the regional and/or national levels. All these three forms of interactions at various levels are relevant aspects when studying the role of labour within GPNs.

As suggested, the buyer-supplier relationship and GPN structure is undoubtedly a relevant issue. Because of corporate power relations within the networks, there are differentiated structures of value-added activities. Assemblers and tier 1 companies are able to exploit their corporate power together with the integration of strategic functions and ability to innovate such that it brings increases in productivity. Lower tier companies on the other hand mostly perform production functions and compete through low production costs, which are reflected in the wage level, and which determine labour’s position in a particular company (Pavlínek and Ženka 2016, Jürgens and Krzywdzinski 2009). However, as mentioned earlier, there is no direct link between a company’s position and the labour position. What is more, there is no direct link between productivity increases and improvement in working conditions.

2.3 Value capture and advancing working conditions

The GPN framework takes into the account international competition along with territorial embeddedness, which is relevant not only for firms but also for workers. “An important part of labour conceptualization within the GPNs is its territorial embeddedness and influence of the processes in the given space and ability to spread the practices to other places” (Rainnie et al. 2010). Territory is thus perceived as an active location where “local and non-local systems of rules, norms, customs, legal structures and regulatory mechanisms intersect to shape and institutionalise the behavior of workers and employers” (Rainnie et al 2013, p. 180). Conversely, the HR practices of TNCs may, however, also undermine local employment standards or exceed them above the average so visible it may destroy tights of local actors. For example, the Škoda trade union in Czechia and Volkswagen trade union in Slovakia are not associated with any of the sector trade unions and the main reason of the split was little value added for the Volkswagen trade unions to remain in the sector level structures exactly because of high labour standards and wages set in these companies compared to the rest of the sector.

As suggested by Coe et al. (2004), regional development in globalized production is influenced by local actors, including labour agency together with government and state institutions as well as local firms. For them, “the local and the regional become the most important geographical scales through which labour interacts with the strategic needs of key actors in global production networks” (p.6). In this sense, the territoriality helps us to explain why workers in many cases do not oppose capital but rather cooperate with management as both labour and management have some interests common, especially from the regional development perspective (Coe and Hess 2013). A classic example would be the potential threat of company relocation, where state, employees and employers might find common interest in preserving the location (Castree et al 2004). What is also undeniable is labour’s role in the strategic coupling processes and the derived regional development perspectives that labour may facilitate and influence to a large degree (Yeung 2009).

In what follows, I provide discussion of the power resources at the disposal of labour within GPN structures. A GPN structure does not explain sufficiently the position of labour within GPNs because power relations and institutional setting interferes with this position significantly, as I will present in the next part.

2.4 Trade unions' power resources concept

Here I will further concentrate on the power asymmetries among actors involved in GPNs, emphasizing the power resources of labour to influence working conditions at the company and territorial level—in our case mostly the national level. Trade unions as a representative of workers' collective rights are highly dependent on their membership base and ability to mobilize workers to defend their rights and interests. The actual number of organized workers is falling worldwide but, apparently, they still “continue to be important social actors in regulation of the global economy, largely because of their influence in employment regulation at the national scale” (Cumbers et al. 2008, p.375). This ability to influence employment regulation assigns trade unions an important role in advancing working conditions in the country; nevertheless, actual execution depends on the legal framework and a trade union's strength. This leads us to the *sources of power* concept, an important part of in the agency analysis of trade unions.

Wright (2000) distinguishes the associational and structural power of trade unions as the two most important sources, whereas Hinz and Morris (2017) additionally recognize institutional power as a secondary power resource. *Associational power* is derived from the membership base (union density) at the national, sectoral and company level. The enabled associational power is a necessary condition for trade union's existence and its ability to advocate for its interests at all levels (Selwyn 2011). Besides the membership base, we would include here cooperation among trade unionists at the sectoral and cross-sectoral levels and those at the regional and international levels. Castree et al. (2004) distinguish three types of place alliances that involve local groups of wage workers: *cross-class alliances* (local government, business and labour, typically threatened by relocation), *community alliances* with other actors such as NGOs, and equal opportunity groups or *opting out alliances* (outside the capitalist system, ownership of production and exchange). In addition to alliances, the most typical method of wielding associational power is through workplace action (e.g., workplace strikes); in some circumstances, this may have more than just local consequences (e.g., stoppages that affect production elsewhere)

Structural power stems from the economic position of the sector, which determines the workers' bargaining power. Once the sector experiences a labour shortage—because of an economic boom or simply high informality in the economy, as described by Hinz and Morris (2017) in the case of Kaluga, Russia—trade unions become endowed with an additional power resource. But structural power also includes the structurally embedded position of the firm in GPNs, which is associated with relocation threats. Once an MNC is motivated to relocate for lower

labour costs, labour will increasingly face this relocation threat when asking for higher wages. Other motivations to remain in the location, especially market size or protectionists trade policies, would make the relocation threats empty (Hinz and Morris 2017) and empower trade unions. In the context of structural power, the position of a firm within production networks and technological advancement is recognized as important as well (Rainnie et al 2010). In general trade unions at final producers have a better position and higher structural power than those at suppliers. Here the hierarchy applies as well, the less advanced a supplier's production and less stable their position on the market, the less secure is the position of labour and trade unions.

Institutional power is facilitated through the *national institutional setting* that ascribes trade union representatives competencies and duties and determines their position in defending and improving working conditions in the local economy. Selwyn (2015) suggests that "trade union strength in relation to capital and the state is constitutive of the institutional environment within which globalizing capital seeks to operate and thus represents a determinant of the relationship between economic and social upgrading" (p. 108).

Rutherford and Holmes (2008) merge the GPN and territorial perspectives, studying power asymmetries among firms in supply chains while noting that the associational powers of actors are mostly locally embedded. Using the Canadian automotive industry as an example, they conclude that TNCs' ability to determine the structure of the industry and possibilities for particular companies to plug-in and operate inside GPNs is still the foremost factor in defining the relations of companies and other actors. Kahancova (2007), on the other hand, studies how the role of individual relationships at the company level plays a significant role in determining working conditions despite national regulations and the strategies and HR policies of MNCs. Adascalitei and Guga (2018) emphasize in their study on trade unions relations with management in Dacia, Romania, that all three aspects are important, which means that mutual relations will depend on the institutional environment of the given country, on the individual power relations at the workplace (power of trade unions and management approaches) and on the plant position in the production chain.

The main actors of collective bargaining are the trade unions together with employers and the government. Despite losing power in terms of membership and bargaining capacity in the 1990s and 2000s, trade unions still participate in social dialogue and influence working conditions at company, industry and national levels (Bernaciak 2015). Other agents, such as work councils or NGOs, might recognize the need for the improvement in labour standards in a particular firm

or industry, but they usually do not possess institutionally assigned instruments to achieve these. Also, trade unions in the CEE countries are less prone to cooperate with the social movements or socially engaged NGOs as this is perceived by the membership as too radical or too political (Mrozowski 2011).

2.5 The role of labour in value capture

In the evaluation of GPN dynamics, the concept of industrial upgrading has been introduced to capture shifts in firms, workers, regions and nations from lower to higher value-added activities (Gereffi 2005, Pavlínek and Ženka 2011). In what follows, I try to place labour in the processes of value capture and upgrading.

At the regional scale, *value capture* is a crucial issue that determines regional development (Coe et al 2004). Value capture within a region is understood in two separated forms (Pavlínek and Ženka 2016): reinvested profits within a firm so as to attain upgrading, which have direct impact on the number of jobs and level of wages, and in the form of value that is leaked into the region through suppliers, universities, wages and other employee benefits.

I further consider the upgrading concept as a starting point that allows us to study the role of labour in the value capture processes. I understand the contribution of labour to value capture in a broader sense that includes not only wage increases but also consideration for improvements in working conditions and production processes within a given company, industry or territory. Economic upgrading in terms of productivity increases is expected to be translated to social upgrading in the form of increased wages and improved working conditions, there is, however, no automatic mechanism which would intermediate this connection; in another words, the rise in labour productivity is not always transferred into the wage increases, nor is it translated into better working conditions, that is, social upgrading (Milberg and Winked 2011). This is shown, on the macro scale, in the disintegrated development of productivity and wages in CEE by Myant (2016) and in the specific example of the Czech automotive industry by Pavlínek and Ženka (2016).

There is no “automatic” mechanism that would translate a firm’s upgrading (and profitability) into better working conditions. Even worse, the economic upgrading of a company may be achieved through worsening the working conditions (Milberg and Winked 2010, Pavlínek and Ženka 2010, Selwyn 2013). Milberg and Winked (2010) refer to four combinations of economic and social dynamics: a high-road model where both economic and social upgrading occur, a

low-road model when we observe economic upgrading but social downgrading, a high-road decline where we see economic downgrading but improvement in working conditions and a low-road decline when we observe both economic and social realms declining.

Finally, the impact of industrial upgrading on working conditions depends on the power balance between capital and labour, which can be influenced by labour market institutions, such as minimum wage setting or collective bargaining which balance discrepancies in the market mechanisms (Holmlund 2014). At the company level, it will also depend on the individual relationships and management stance towards trade union organizations as well as on the character of the work and labour qualifications. Selwyn (2013) points out that mutual interactions at the company level are, to some extent, a “black box” that depends on many factors and the various combinations of transmission mechanisms that improve working conditions. Kahancova (2007) tried to conceptualize this black box, suggesting that the mutual relationships of managers and trade union representatives are the most important component in determining working conditions after the MNC culture and national framework of industrial relations. If individual relationships at the micro-level have decisive role on working conditions at the company level, the question then is, does it make sense to study the impact of labour on a broader scale, as is done at regional or national levels? In one of the articles composing this doctoral thesis we argue that, despite the importance of the company level, evaluating the role of trade unions at the upper scale is crucial to understanding labour’s impact on advancing working conditions (Martišková et al. 2021).

Obviously, the importance of labour will increase given its massive presence in companies and/or via the coordination of working conditions at levels higher than the company, be it regional or sectoral or national level (e.g., collective bargaining or national level regulations). The higher the coverage of organized labour, the higher the acceptance for companies as well. Contrariwise, the rarer the presence of trade unions in companies, the higher the reluctance of management towards trade union presence.

Therefore, a lesson learned here is that weak organized labour will not be able to contribute to advancing working conditions, which will in turn impact value capture in the region. And, if value capture through social upgrading should take place, some institutional support is required. This top-down approach through legislation, via national and international regulations, may support the bottom-up efforts of organized workers at the company level (Selwyn 2013). The interaction between the institutional framework and local level practices that results in social upgrading and value capture is thus a mechanism to be explored in order to understand the

impact of labour on advancing working conditions.

I explore the mechanism of social upgrading by assigning active role to labour, considering it an integrated actor of GPNs, which means that it is possible to identify its strategies, actions and the impacts of these vis-à-vis global capital. When looking at labour agency in GPNs, one must understand what is in the “agenda” of this actor. Agency here is taken to mean the “capacity possessed by individuals and groups to act for their own benefit or for the well-being of others” (Castree 2004 p.159). The *capacity to act* is thus represented by the power resources the actor has at its disposition and can exploit in order to reach its goals. The way a goal is reached is depicted in the strategy employed. A strategy, defined as “a pattern of critical choices about ends and means” (Boxall 2008, p. 209), refers to strategic interactions with the representatives of employers and other stakeholders to attain goals which will be reflected by employment improvements (social upgrading).

I conceptualize worker agency and evaluate its impact on improving working conditions through this concept of power resources and highlight strategies related to the GPN presence. As mentioned earlier, I recognize associational, structural and institutional power resources. Associational power resource is based on the number of members and ability to cooperate. Whereas the former is dependent on a trade union’s ability to attract members, the latter stems from its ability to cooperate in information gathering in the region, sector, within MNCs and along the production chain. The structural power resource is in large part given by the sector in which a company operates or its position within a GPN, but trade unions can work with these facts in a conscious way. Awareness about the position of a company within a GPN structure may help trade unions identify the importance of a company’s position. Institutional power resources are defined in legislation, and again, trade unions may use this fact, in this case to change labour legislation in order to advance working conditions.

Table 2. Power resources of trade unions

Power resource	Form	Strategy	Goals (forms of social upgrading)
Associational power	Membership base	Workers’ organizing strategies	Demonstrate strength to create leverage used to improve working conditions at the company level

	Cooperation	Cooperation with other trade unions in the sector, region or within GPN or MNC	Gather information about working conditions elsewhere to improve working conditions in the company
Structural power	Position of the company in the supply chain	Acknowledging company's position in negotiation and confrontation	Wage increases, working conditions improvements, better access to retraining at company level
	Sector where company operates	Acknowledging position of the sector in the economy and related working conditions	Wage increases, working conditions improvements, better access to retraining at the company level
Institutional power	Legal protection of trade unions	Collective bargaining	Wage increases, working conditions improvements, better access to retraining
		Tripartite consultations and participation Labour legislation changes	Make an impact on the national scale Make an impact on the national scale

Source: author's contribution based on Wright (2000) and Hinz and Morris (2017)

Understanding the position of trade unions and the mix of power resources they deploy as well as the strategies they develop may help us to understand future developments in the industry and the impact on labour. Since the second half of the 2010s, the automotive industry has been exposed to intensive pressures as regards automatization and digitalization of the production processes. In recent years, this has been further added to by a climate change induced shift to electromobility which is expected to transform production chains significantly and impact

labour opportunities.

The purpose of my research has been to explore trade unions impact on working conditions in the automotive sector using the example of Czechia and Slovakia. In this regard, I have formulated two hypotheses:

1. Trade unions within the integrated periphery have limited possibilities to improve working conditions, but diversifying power resources helps them to advance these conditions.
2. Trade unions within the integrated periphery have limited possibilities to react to the ongoing transformation in the automotive industry which prevents them from acting in the long-term interests of workers.

Based on these two hypotheses, I have formulated four research questions that I attempt to answer in the four published articles which form the core of my doctoral thesis.

1. What is the strength of trade unions and how do they attain improvements in working conditions?
2. How do trade unions diversify power resources to advance working conditions?
3. What is the perception of trade unions and workers about automatization and digitalization?
4. What is trade unions position towards decarbonization?

In the following chapter, I introduce the methodology primarily used in my research as well as some empirical observations about my respondents from the trade union movement.

3. Methodology

My research approach is built upon a qualitative analysis of interviews among stakeholders representing relevant interest groups in the industry. The data is triangulated using statistical resources and literature to better capture the followed phenomenon in respective articles. For each article I used specific set of respondents defined in the methodological parts of these works.

To complement my evidence, I did also background research mapping the landscape of the trade unions, where I focused on Czech trade unions in the automotive industry. For this purpose, I prepared a standardized questionnaire where I explored the following topics:

- Trade union power resources (ways of organizing; the importance of the legal framework; forms of cooperation, including regional cooperation; ways of organizing within supply networks)
- Trade union impacts on working conditions (wage growth, employment growth, improved labour standards, job safety, level of work flexibilization and automatization)
- Information about organizations (number of members, year of trade union organization establishment, information about the company where the trade union operates including the position of company in GPN)

I used the questionnaire in two ways. First, I prepared an online survey and distributed it among respondents. Contact with respondents were ensured via the trade unions OS KOVO in Czechia, whose representatives supported my research. Second, to ensure a relevant number of replies, I supplemented the online survey with interviews where I used the structure of the survey as a questionnaire for semi-structured interviews. The advantage of this approach was that I was able to ensure representativeness in my sample from the perspective of companies throughout the production chains—original equipment manufacturer (OEM) and suppliers—and with regard of domestic or foreign ownership. In this form, I collected 32 replies for the structured questionnaire.

I used this data to support my empirical evidence in two of the four works presented in this doctoral thesis. The other two works were supplemented by additional interviews specific to the given topic. Each published work consists of a methodology section specifying the methodological approach. In the following part, I introduce the four published works which form the core of this doctoral thesis.

4. Introducing the published works

The order of the presented papers follows the logic of the two abovementioned hypotheses, and thus, it is not chronological but rather defined by the content, starting with a broader depiction of trade unions power resources, followed by analysis of their impact on addressing wage inequalities in the automotive and retail sectors. The other two articles move forward and present two studies where the most recent challenges in the automotive industry are discussed,

namely automatization and digitalization and its impact on working conditions and decarbonization and the barriers to transformation into an ecological mobility industry.

Text no. 1: Martišková, M., Šumichrast, A.: Czechia: Trade unions escaping marginalization. In. MULLER T., VANDAELE K., WADDINGTON J.: Trade Unions in the European Union (Peter Lang publishing, in print)

Research question 1: What is the strength of trade unions and how do they attain improvements in working conditions?

The chapter analyses trade union strategies and power resources in Czechia over the last 30 years. The main aim of the chapter was to understand the position and resources of trade unions over time. In the analysis, we look into the future and discuss possible challenges for the trade union movement in Czechia.

The chapter argues that trade unions in Czechia, despite experiencing a long-term decline in membership rates, are escaping marginalization by concentrating on specific sectors, such as the public sector, and by focusing their efforts to preserve decent working conditions for full-time employees at the expense of part-time workers and other vulnerable groups (e.g., foreigners). As we argue in the chapter, this accounts for a dualization path, which means that only specific segments in the labour market enjoy increased protection stemming from the presence and effort of trade unions. Nevertheless, trade unions in Czechia did not refrain from protecting part-time workers and other vulnerable groups and have deployed institutional power resources in the form of lobbying and negotiation to achieve their protection through legislation. Legislative changes, on the one hand, improve working conditions for all employees, whereas, on the other hand, they close the space for negotiation in collective bargaining and thus undermine the position of trade unions. Changes in legislation are further achieved by public action and protest activities which signals that trade unions also deploy associational power resources to increase their leverage. As we conclude in the chapter, “Trade unions have thus created a symbiotic structure of collective bargaining backed by a legislative framework and legislative solutions that help to improve working conditions and partially to escape the dualization path. The risk of this path is that trade unions’ achievements in legislation are highly dependent on political representation and a government’s political orientation.”

The automotive industry trade unions were studied within the context of the whole trade union movement of Czechia. Automotive trade unions are part of the biggest sectoral trade union OS

KOVO, associating around 180,000 members, which means they form and are forming the trade union movement and its strategies in Czechia. As we show in the second paper, this mixture of associational and institutional power resources is also typical for automotive trade unions.

Text no. 2: Martišková, Monika, Kahancová, Marta and Kostolný, Jakub. Negotiating wage (in)equality: Changing union strategies in high-wage and low-wage sectors in Czechia and Slovakia. Transfer: European Review of Labour and Research 27.1 (2021): 75-96.

Research question 2: How do trade unions diversify power resources to advance working conditions?

The second text offers a cross-country and cross-sector comparison of trade union strategies in mitigating wage inequalities within the automotive and retail sectors of Czechia and Slovakia. This comparative approach helped us to better understand the contextual issues of national level legislation and sectoral specifics and their position in the background of globalized automotive and retail industries.

A reduction in wage inequalities is the way social coherence can be achieved and is the reason to increase the lowest wages and ensure a reasonable level of high wages, all of this being part of the social upgrading process in the given sectors. Wage inequality is one of the aspects of working conditions which trade unions may impact in their strategies of wage increases at the company, sectoral and national levels. At the company level, depending on how wage increases are achieved, trade unions may attain a reduction in wage inequalities by increasing blue-collar wages more rapidly than white-collar wages. At the sector level, the higher the coordination of wage increases – either through collective bargaining or through informal coordination – the lower is the wage inequality of employees. As we conclude in the article, the main problem of why inequalities are rarely mitigated via collective bargaining is its decentralization to the company level and the deterioration of sectoral-level bargaining in Czechia and Slovakia, especially in the automotive sector. Unsurprisingly, the statutory minimum wage set at the national level remains the most important in mitigating wage inequalities in both Czechia and Slovakia. The national minimum wage is subject to tripartite negotiations, but it is up to government to set its level. As a result of political support, labour market shortages and enhanced voice among trade unions at the national level between 2015 and 2019 thanks to political tights, unions have achieved national minimum wage raises significantly in both countries. As the research shows, minimum wage is thus an important tool for achieving wage increases for relatively well-paid workers in the automotive sector as well.

From a broader perspective, we can conclude that along with collective bargaining, trade unions also deploy a mixture of tools to achieve improvements in working conditions, which confirms our hypothesis concerning the diversification of power resources to achieve social upgrading. The prominent role here was played by the addressing institutions via political lobbying which is the least stable power resource for trade unions.

Text no. 3: Martišková, M. (2020): The transformation of jobs and working conditions: Towards a policy response. In. Drahekoupil, J. (2020): The challenge of digital transformation in the automotive industry. ISBN 978-2-87452-570-4, ETUI, The European Trade Union Institute, Bruxelles.

Research question 3: What is the perception of trade unions and workers about automatization and digitalization?

The third text of this doctoral thesis is focused on the future of working conditions for employees in the automotive industry and the trade union responses to the changes implemented due to new technologies deployment. The book chapter studies the real impacts of industry 4.0 technologies on the working conditions in the automotive industry, bringing evidence from Czechia, Hungary and Poland. It builds on the analysis of interviews done with trade union representatives, managers and workers on the implementation of industry 4.0 technologies in production and presents their perception about the impacts of robotization and digitalization.

The research among respondents from the automotive sector was guided by the following questions related to changes in working conditions due to the implementation of new technologies:

- Deskilling: To what extent are workers experiencing a simplification of work tasks and the loss of autonomy in work performance?
- Changes in physical job difficulty and task complexity: Do we observe at the plant level a decrease in physically difficult jobs? Are the new tasks being assigned to workers more or less complex?
- Changes in job cadence: To what extent are new technologies increasing the speed of work?
- Level of control: Are employees exposed to increased levels of control by employers?

- Access to training: Bearing in mind knowledge of the importance of retraining in an era of disruptive technology introduction, are retraining policies at the company level being promoted by trade unions or employers?

In the chapter, I point out the dependent position of companies and trade unions when it comes to reactions to the implementation of new technologies. Trade unionists perceived investments in new technologies positively and lacked a critical perception of their impacts on working conditions. This can be interpreted in the context of working conditions determined by extreme pressures on high quality performance: when robots and automatization help workers perform their work better. Remuneration systems in the visited companies reward perfect work performance by adding up to 20% to a worker's wages. Moreover, trade unions are primarily concerned with improvements in wages and working conditions and have limited capacities to develop strategies that prevent the negative consequences of new technologies deployment.

The dependent position of companies in the automotive industry translates to the dependent position of trade unions. The lack of critical perspective on the deterioration of working conditions could be interpreted as a trade union weakness or as a strategic choice to focus on immediate improvements since the strategic choices of MNCs are impossible to influence. The semi-peripheral position thus makes trade unions seemingly powerless when confronted by capital, at least when looking at the company level. Future development in the automotive industry will require enhancement of trade unions capacities if the working conditions are supposed to be improved and jobs are supposed to be preserved.

Text no. 4: Gažo, P., Martišková, M., Smith, T. (2022): The transformation of the Slovak and Czech automotive industries: Stakeholders' perspectives and barriers towards an ecological mobility industry. International Journal of Automotive Technology and Management (in print)

Research question 4: What is trade unions position towards decarbonization?

The last text of my dissertation thesis is devoted to the barriers of transformation from individual car mobility to an ecological mobility industry with sustainable mobility patterns. Twenty interviews were held with trade unions, managers and other stakeholders as well as policymakers so as to better understand the future needs and developments of the automotive and mobility industry in relation to the climate crisis.

The paper aims to critically assess the positions of stakeholders towards transformation in the automotive industry and identify barriers to a transformation that would lead to an ecological mobility industry. We introduce the term “ecological mobility industry”, highlighting that the automotive industry transformation should be understood in a broader perspective, so that not only car production capacities are considered but also vehicles for public transport, rail transport and freight as well as individual ecological mobility such as (e)bicycles and cargo bikes, which will supplement the production of electric cars, creating new job opportunities. In a larger sense, the ecological mobility industry also includes changes in service provision and user behaviour towards a mix of individual mobility based on cars with public and shared transportation patterns, thus decreasing the emissions footprint of transportation.

This wider understanding also helped us to better incorporate different aspects of the auto and mobility transformation we are heading towards and to better interpret the barriers to this form of transformation. In this regard, we identified two main barriers to a deeper transformation. The first relates to the dependent position of the local automotive industry. Local actors, including trade unions, have limited space to push for their own vision of the transformation as many decisions are made outside the country. Nevertheless, we indicate that local actors, making industrial decisions, especially at the regional level and national level, may influence the shape of the transformation. The second barrier identified evolved around the strategy that should be taken. Looking at different stakeholders, we identified different visions of the change. Employers concentrated on changing combustion engines cars to electric vehicles as their primary business model, whereas actors more embedded in the region pointed out broader thinking more closely resembling mobility industry development.

Trade union representatives often questioned electromobility as the main strategy, perceiving it as political driven, but did not express major concerns about job opportunities. This however may stem only from the lack of knowledge and inability to perceive the situation in its complexity.

This paper was awarded the GERPISA Young Scholar Prize for best paper in 2021. GEPRISA is an international network of researchers focusing on the automotive industry.

Conclusion

The focus of my PhD research was on the position of labour in global production networks, studied using the example of the automotive industry within the integrated periphery of Czechia and Slovakia. For the purposes of my analysis, I combined the GPN literature with the industrial relations approach, studied trade union strategies and their power resources. This approach was used to explain the trade unions position and strategies in the integrated periphery of the European automotive industry. Empirical research confirmed the disadvantageous position of workers in relation to capital within the automotive industry.

In the last four years, the automotive industry has faced fundamental challenges never known before. There are multiple crises emerging ahead of us. This started with the climate crisis and discussions about mitigating its impacts, has continued with the COVID-19 pandemic, and now, most recently, the war in Ukraine has also impacted global supplies. Each of these events have affected or will affect employment and workers. High level of uncertainty causes that strategies may seem loose, and predictions impossible to provide. Nevertheless, to better orientate to the future developments, it is relevant to study the preparedness of different actors and their strategies. This is especially true for proponents of workers' rights as a large number of workplaces will disappear or change with significant impact on the Czech and Slovak economies. This thesis was prepared with the goal of contributing to the understanding of trade unions as one of the actors in the automotive industry facing unprecedented changes.

Studying trade union strategies, I confirmed my first hypothesis: in order for trade unions to overcome their disadvantageous position and advance working conditions they combine different power resources at different levels. At the company level within the automotive industry, trade unions rely mostly on associational and institutional power resources. An associational power resource is enhanced through (not always) successful efforts to recruit members. Here, the role of leadership of trade unions at the company level plays an important role. In terms of cooperation, trade unions mostly rely on local and sectoral cooperation, while international collaboration remains rather formal. Gains using this strategy remain constrained by the peripheral position of globalized companies. At the national level, the declining membership base and collective bargaining coverage has motivated trade unions to increasingly rely on legislative solutions enabled by their institutional power resource which allows the majority of workers on the labour market to be protected by labour legislation, but at the same

time, the solution is not only in the hands of trade unions as legislation is approved by the parliament. This makes this solution unstable and increases trade union dependency on political powers outside their influence.

Functioning within global production networks does not provide them significant power resources and rather weakens trade unions rather, preventing them from developing long-term strategies. Academic literature has pointed out that GPNs may provide the labour movement an additional power resource mostly through solidarity along the production chains, networking and acknowledging GPN structure and identifying sensitive spots in the supply chains. Nevertheless, since low production costs remain the main competitive advantage, especially in countries located on the semi-periphery or periphery, trade unions are disadvantaged because cost pressures are mirrored by unsatisfactory achievements in working conditions improvements. As a result, a significant part of their capacities is allocated to minor improvements in working conditions sought through collective bargaining while long-term strategies tackling future challenges are missing.

I also confirmed my second hypothesis that trade unions in the integrated periphery have limited possibilities with which to react to the ongoing transformation in the automotive industry, thus prevents them considering long-term interests of workers. These limited possibilities are connected to the weak position of labour representatives in company level decision-making, where investments and the implementation of technologies are, at best, announced and, in the worst cases, not even that. The perceptions on the impacts of the ongoing changes were rather positive among workers and trade union representatives when it came to new technologies implementation. Strategies related to reskilling and upskilling are not at the centre of trade union interest as compared to wage increases and working conditions, both of which still dominate collective bargaining. Decarbonization of the industry will be another important driver of changes in working conditions but trade unions are unprepared for this upcoming transformation, a situation mirrored by the companies and the sector as a whole.

Recommendations to policymakers can be formulated based on my research. First, the capacities of trade unions to devise a more strategic approach should be enhanced, most probably via external resources and incentives. Trade unions need recognition from other stakeholders, especially employers, as strategic partners in attaining change. Trade unions need financial, personal and analytical capacity enhancement to be able to acknowledge all the challenges and propose solutions. Second, to undergo this multiple transformation in the automotive industry with as few losses in jobs and companies, comprehensive reskilling and

upskilling policies are needed. Such policies must include motivation for employees to participate in reskilling and upskilling, and social partners need to be involved. Third, conceptual discussion about the industrial policy of the state should develop to better prepare for these upcoming challenges.

Future research should thus concentrate on the upcoming challenges related to decarbonization, and the global restructuring of production networks caused by electric mobility development. Interconnections between the car industry and mobility systems should also be studied in an interdisciplinary way. Upskilling and reskilling policies are another important study branch and highly relevant to Czechia and Slovakia. It too requires interdisciplinary research where social dialogue and the involvement of trade unions should not be omitted.

Literature

Adascalitei, D., & Guga, S. (2018). Tensions in the periphery: Dependence and the trajectory of a low-cost productive model in the Central and Eastern European automotive industry.

European Urban and Regional Studies.

Arendas, Z. (2016). Industrial Relations in Car-manufacturing Industry: A Comparative Case Study of Audi Hungaria, Győr and Mercedes Benz, Kecskemét. Working paper series 7/2016. Center for policy studies. Central European University.

Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and social upgrading in global production networks: A new paradigm for a changing world. *International Labour Review*, 150(3-4), 319-340.

Barrientos, S., Mayer, F., Pickles, J., & Posthuma, A. (2011a). Decent work in global production networks: Framing the policy debate. *International Labour Review*, 150(3-4), 297-317.

Boxall, P. (2008). Trade union strategy (Chapter 11). In: Blyton, P., Heery, E., Bacon, N., & Fiorito, J. (Eds.) *The SAGE handbook of industrial relations*. Sage.

Castree, N., Coe, N., Ward, K., Samers, M. (2004). Spaces of work: Global capitalism and geographies of labour. Sage publication London. ISBN 0761972161.

Coe, N. M., Hess, M., Yeung, H. W. C., Dicken, P., & Henderson, J. (2004). 'Globalizing' regional development: a global production networks perspective. *Transactions of the Institute of British geographers*, 29(4), 468-484.

Coe, N. M., & Hess, M. (2013). Global production networks, labour and development. *Geoforum*, 44, 4-9.

Cumbers, A., Nativel, C., & Routledge, P. (2008). Labour agency and union positionalities in global production networks. *Journal of Economic Geography*, 8(3), 369-387.

Dicken, P. (2007). *Global shift: Mapping the changing contours of the world economy*. SAGE Publications Ltd.

Dunford, M. (2017) Spatial divisions of labour: Social structures and the geography of production, *Regional Studies*, 51:6, 973-976, DOI: 10.1080/00343404.2017.1278972

Fichter, M., Helfen, M., & Sydow, J. (2011). Employment relations in global production networks: Initiating transfer of practices via union involvement. *Human Relations*, 64(4), 599-622.

- Fröbel, F., Heinrichs, J., & Kreye, O. (1978). The new international division of labour. *Social Science Information*, 17(1), 123-142.
- Gereffi, G. (2005) The global economy: organization, governance, and development. In N. J. Smelser, R. Swedborg (eds) *The Handbook of Economic Sociology*, 2nd edn. pp. 160–82. Princeton: Princeton University Press.
- Grinberg, N. (2016). Global Commodity Chains and the Production of Surplus-value on a Global Scale: Bringing Back the New International Division of Labour Theory. *Journal of World-Systems Research*, 22(1), 247-278
- Helfen, M., & Fichter, M. (2013). Building transnational union networks across global production networks: Conceptualising a new arena of labour–management relations. *British Journal of Industrial Relations*, 51(3), 553-576.
- Henderson, J., Dicken, P., Hess, M., Coe, N., & Yeung, H. W. C. (2002). Global production networks and the analysis of economic development. *Review of international political economy*, 9(3), 436-464.
- Hinz, S., & Morris, J. (2017). Trade unions in transnational automotive companies in Russia and Slovakia: Prospects for working-class power. *European Journal of Industrial Relations*, 23(1), 97-112.
- Holmlund, B. (2014). What do labor market institutions do? *Labour Economics*, 30, 62-69.
- Humphrey J. and Oeter A. (2000) Motor industry policies in emerging markets: globalisation and the promotion of domestic industry, in Humphrey J., Lecler Y. and Salerno M.S. (eds.) *Global strategies and local realities: the auto industry in emerging markets*, Basingstoke, Palgrave Macmillan, 42-71.
- ILO (1949): C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98). Convention concerning the Application of the Principles of the Right to Organise and to Bargain Collectively (Entry into force: 18 Jul 1951)
- Jenkins, R. (1984). Divisions over the international division of labour. *Capital & Class*, 8(1), 28-57.
- Jürgens, U., & Krzywdzinski, M. (2009). Work models in the Central Eastern European car industry: towards the high road? *Industrial Relations Journal*, 40(6), 471-490.

- Kahancová, M. (2007). One Company, Four Factories: Coordinating employment flexibility practices with local trade unions. *European Journal of Industrial Relations*, 13(1), 67-88.
- Lévesque, C., & Murray, G. (2010). Understanding union power: resources and capabilities for renewing union capacity. *Transfer: European review of labour and research*, 16(3), 333-350.
- Mahutga, M. C. (2014). Global models of networked organization, the positional power of nations and economic development. *Review of International Political Economy*, 21(1), 157-194.
- Martišková, M., Kahancová, M., & Kostolný, J. (2021). Negotiating wage (in) equality: changing union strategies in high-wage and low-wage sectors in Czechia and Slovakia. *Transfer: European Review of Labour and Research*, 27(1), 75-96.
- Massey, D. (1995). *Spatial divisions of labour: social structures and the geography of production*. Red Globe Press London. <https://doi.org/10.1007/978-1-349-24059-3>
- Meardi, G. (2007). More voice after more exit? Unstable industrial relations in Central Eastern Europe. *Industrial Relations Journal*, 38(6), 503-523.
- Meardi, G., Marginson, P., Fichter, M., Frybes, M., Stanojević, M., & Tóth, A. (2009). The complexity of relocation and the diversity of trade union responses: Efficiency-oriented foreign direct investment in Central Europe. *European Journal of Industrial Relations*, 15(1), 27-47.
- Milberg, W., & Winkler, D. (2011). Economic and social upgrading in global production networks: Problems of theory and measurement. *International Labour Review*, 150(3-4), 341-365.
- Mrozowicki, A. (2011). Trade union organizing in Eastern Europe: A viable pathway to trade union revitalization? -A case study of the automotive sector. *Emecon: Employment and Economy in Central and Eastern Europe*, Vol 2 No 1. Available at: <https://www.emecon.eu/index.php/emecon/article/view/19/10>
- Myant, M. (2016). Unit labour costs: no argument for low wages in eastern and central Europe. European trade union institute ETUI. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2854935
- Pavlínek, P. (2015). Foreign direct investment and the development of the automotive industry in central and eastern Europe. *Foreign investment in eastern and southern Europe after 2008: Still a lever of growth*, 209-255.

- Pavlínek, P. (2018). Global production networks, foreign direct investment, and supplier linkages in the integrated peripheries of the automotive industry. *Economic Geography*, 94(2), 141-165.
- Pavlínek, P. (2022). Relative positions of countries in the core-periphery structure of the European automotive industry. *European Urban and Regional Studies*, 29(1), 59-84.
- Pavlínek, P., & Ženka, J. (2010). The 2008–2009 automotive industry crisis and regional unemployment in Central Europe. *Cambridge Journal of Regions, Economy and Society*, 3(3), 349-365.
- Pavlínek, P., & Ženka, J. (2011). Upgrading in the automotive industry: firm-level evidence from Central Europe. *Journal of Economic Geography*, 11(3), 559-586.
- Pavlínek, P., & Ženka, J. (2016). Value creation and value capture in the automotive industry: Empirical evidence from Czechia. *Environment and Planning A*, 48(5), 937-959.
- Rainnie, A., McGrath-Champ, S., & Herod, A. (2010). Global production networks and labour: A critical analysis. In *Work, Employment and Society Conference 2010: Managing Uncertainty*
- Rainnie, A., Herod, A., & McGrath-Champ, S. (2013). Global production networks, labour and small firms. *Capital & Class*, 37(2), 177-195.
- Riisgaard, L., & Hammer, N. (2011). Prospects for labour in global value chains: Labour standards in the cut flower and banana industries. *British Journal of Industrial Relations*, 49(1), 168-190.
- Rutherford, T., & Holmes, J. (2008). ‘The flea on the tail of the dog’: power in global production networks and the restructuring of Canadian automotive clusters. *Journal of Economic Geography*, 8(4), 519-544.
- Selwyn, B. (2011). Beyond firm-centrism: re-integrating labour and capitalism into global commodity chain analysis. *Journal of Economic Geography*, 12(1), 205-226.
- Selwyn, B. (2013). Social upgrading and labour in global production networks: A critique and an alternative conception. *Competition & Change*, 17(1), 75-90.
- Selwyn (2015). The grapes of wrath: social upgrading and class struggles in global value chains. In: van der Pijl, K. (Ed.). (2015). *Handbook of the international political economy of production*. Edward Elgar Publishing.
- Quan, K. (2008). Use of global value chains by labour organizers. *Competition & Change*,

12(1), 89-104.

Wright, E. (2000). 'Working-class power, capitalist-class interests and class compromise'. *American Journal of Sociology*, 105 (4): 957– 1002.

Yeung, H. W. C. (2009). Regional development and the competitive dynamics of global production networks: an East Asian perspective. *Regional studies*, 43(3), 325-351.

Yeung, H. W. C., & Coe, N. (2015). Toward a dynamic theory of global production networks. *Economic geography*, 91(1), 29-58.

Annex: Copies of published works