“Slave law,” “Catching up,” and Hungary’s Dependence on the German Automotive Industry

What can the political left and right do?

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Abstract

This thesis seeks to identify the role of German foreign direct investments in the automotive industry of Hungary in the country's economic development. Although in the 1990s foreign direct investment was a driver of economic "catching up," since then, and especially after the economic crisis of 2008, it does not seem to be the case. It is a widely accepted idea that the country needs to keep its wages low in order to stay competitive and keep its place in the global division of labour. However, if the country seeks to converge to the Western European living standards, it needs to leave this mentality behind. This thesis demonstrates that any government on the political spectrum has to encourage radical policy and economic changes so that the country can escape its limited high road work model and semiperipheral status, and benefit from foreign private investments.

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List of Abbreviations

CEE – Central Eastern Europe

EU – European Union

FDI – Foreign direct investment

OEM – original equipment manufacturer

R&D – Research and development

TNC – Transnational corporation

Introduction

In December 2018, the Hungarian government announced a new piece of legislation which permits employers to demand their staff to work up to 400 hours overtime a year, the equivalent of almost an extra day a week.[1] This legislation soon became labelled as "slave law." The legislation pulled thousands of protesters onto the streets in the following days, calling for a rise in wages, instead of the dismantling of workers' rights. Responding to the protests, the government stated that the new law would allow companies to have easier access to employment. Prime Minister Viktor Orbán of conservative party FIDESZ declared "we have to remove bureaucratic rules so that those who wants to work and earn more can do so."[2] The opposition parties proposed an extraordinary session of parliament to January 3rd 2019, but the MPs of FIDESZ did not show.[3] The protests inside and outside the parliament lasted until mid-February, but the law eventually passed.

Meanwhile, on 18th January 2019, the blue-collar workers of Audi's plant in Győr started a strike which lasted for 12 days. The union's main reasons for the protest were the low wages and the regular weekend workdays amongst the factory workers[4] Although multinational companies are thought to have been providing more security and higher wages, than smaller business, many Audi workers noticed that their German and Slovak colleagues work less hours for comparatively much higher wages in the same roles. Eventually, the Independent Trade Union of Audi Hungaria managed to enforce a settlement under which wages would rise by

[1] Emma Graham-Harrison, "Thousands in Budapest marching against 'slave law' forcing overtime on workers," *The Guardian* (5 January 2019) Available: https://www.theguardian.com/world/2019/jan/05/thousands-in-budapest-march-against-slave-law-forcing-overtime-on-workers, accessed on 15th December 2019

[2] Emma Graham-Harrison, "Hungary passes 'slave law' prompting fury among opposition MPs," The Guardian (12 December 2018) Available: https://www.theguardian.com/world/2018/dec/12/hungary-passes-slave-law-prompting-fury-among-opposition-mps, accessed on 2nd December 2019

[3] Szabolcs Dull, "A Fidesz nem megy el a parlamenti ülésre" *Index* (3 January 2019) Available: https://index.hu/belfold/2019/01/03/a_fidesz_nelkul_ul_ossze_a_parlament/a_fidesz_nem_megy_el_a_parlamenti/, accessed on 2nd December 2019

[4] Zoltán Bán, "Hivatalos: Megvan a megállapodás, 20 órától teljesen helyreáll a termelés!" *Portfolio* (30 January 2019) Available: https://www.portfolio.hu/uzlet/20190130/hivatalos-megvan-az-audi-megallapodas-20-oratol-teljesen-helyreall-a-termeles-312335, accessed on 3rd December 2019

18%, additional non-wage benefits, and at least one weekend of each month. [5]

The strike brought about an additional impact: more than ten thousand cars were backed up in Audi's Ingolstadt Assembly Line.[6] Hungarian Chamber of Commerce and Industry chair László Parrach, argued in an interview that, as the German automotive industry was slowing down, the interests of the German unions could push for the moving back of manufacturing to Germany. "And we give a reason for them to do so. Therefore, it is not the best time for a strike." He reasoned that the comparison between Hungarian and German wages is unreasonable, since production would have never moved to the country if they received equal compensation. He stated "the reason why parts of the production process are based in Hungary is because wages are much lower. (…) This is still better than not having any of this kind of production here." [7]

The development of the two events can be tracked back to the foreign direct investment (FDI) influx injected to Hungary by transnational corporations of Western European countries, mainly of Germany. In this thesis, I shall explore the underlying social, economic and political mechanisms, which generally create a hostile environment for Hungarian workers in the German car manufacturing process, and how this effects the country's aim to catch up to Western Europe. I will argue that dismantling workers' rights most likely will not serve as a means to climbing up on the leader of development and secure a position as a core country in the globalised market. Instead, this will contribute to the entrenchment of semiperipheral position of Hungary, or even more so, this could lead to the slow downgrading to a peripheral position.

[5] Gábor Sarnyai, "Successful Audi strike could mean a new era for workers," *Hungary Today* (31 January 2019) Available: https://hungarytoday.hu/successful-audi-strike-could-bring-a-new-era-of-enforcement-of-workers-interests/, accessed on 3rd December 2019.

[6] Bálint Deák, "Megütötte az Audit a győri leállás," *Világgazdaság* (31 January 2019) Available: https://www.vg.hu/vallalatok/ipar/megutotte-az-audit-a-gyori-leallas-2-1335787/, accessed on 2nd December 2019.

[7] Márk Herczeg, "Vége a strájknak, megállapodott az Audi és a szakszervezet," *444* (30 January 2019) Available: https://444.hu/2019/01/30/vege-a-sztrajknak-megallapodott-az-audi-es-a-szakszervezet, accessed on 3rd December 2019.

This thesis will focus on the automotive sector's role in the economy of Hungary because of its crucial importance in employment and added value. Globally, the automotive industry is one of the most prominent industries enjoying a particularly great role in employment generation and GDP growth, especially of developed countries. In Hungary, the automotive industry has been 4 to 5% of the gross added value since 2013 (Table 1). Additionally, because this industry is very raw material-, capital-, and skill-intensive, and have many supplier companies locally, indirectly, it is also responsible for generating production (and thus creates jobs and profit) in many other industries. The manufacturing industry is one of the world's largest exporters, and major innovators, investing billions of euros in research and development (R&D). Yet, it will be demonstrated that economic gains from this sector are largely influence by the country's place in the global division of labour, and that there are negative long-term consequences of becoming too dependent of these kinds of investments.

My argument will be discussing two factors in which one can demonstrate the negative and positive effects of FDI. Firstly, the traditional and widely shared idea that economic growth is a positive phenomenon, and that countries should seek it, as it is beneficial to their citizens, as it can raise their standard of living. Of course, for many reasons, often the lowest classes see none or only a little of its benefits, and the growing standard of living in today's capitalist regime goes hand in hand with consumption, which is not necessarily beneficial. Moreover, the most economically affluent countries tend to be the greatest polluters, and thus it is unjust that they enjoy the highest standards of living. Still, in this thesis, I shall mainly focus on economic growth as a metric of progress, and most beneficial outcome any country and its citizens. The reason behind is that under neoliberal capitalism, economic development is seen as the agent of wellbeing and hence, decision makers base their ideas around it.

The other important factor I shall discuss is inequality which is a central part of political debate. According to Thomas Piketty, traditionally, there have been two opposite political view on disparity. The right-wing political position sees income and the standard of living, especially of the less affluent classes of society, as the determinising factors for how market forces, individual motivations and decisions, and productivity growth are played out. Thus, governmental interference should be limited in the "virtuous mechanisms of the market." Contrary, the traditional leftist position believes that the only way for exalting the poorer members of society is through political and social struggle achieved by the redistributive effects of government which is to changes the very core of the production process. Anti-capitalists

should confront the market forces which determine the unequable dispersion of profit, for example, by collectivising the means of production and setting strict wage schedules.[8] The left-right disagreement is not essentially due to clashing values of social justice. Traditionally, both of them sees a financially just society as desirable. They agree that if inequality is partially due to factors beyond the power of the individual, it is the job of the state apparatus to improve the quality of life of the least well-offs. The difference lies within their contradictory analysis of the economic and social apparatuses that engender financial disparity.[9] Based on these definitions, this thesis is an attempt to demonstrate that all political decisions-makers should be concerned about the current economic dependency of Hungary on German private corporations, and consequently the well-being of the Hungarian economy.

This analysis understands the inequal income and living standards between Central Eastern European (CEE) and Western Europe, and the Hungarian dependency on German FDI in the framework of the EU. Recently, when neoliberal economic ideas have held sway, the expectations for convergence of CEE have predominated the European economic discourse, especially arguments surrounding globalisation and economic integration.[10] Yet, although it is one of the main objectives of the European Union to enhance economic and social cohesion, there are still sizeable differences across member states in the levels of both between and within country income inequality. This is true especially since the "Eastern enlargement" (the enlargements of the EU in 2004, 2007, and 2013), when in total 13 additional countries, mostly from CEE, joined the EU.[11] These disparities are argued to cause "welfare migration"[12] and a "race to the bottom" [13] in wages both amongst CEE migrant workers in the Western part of the EU and within CEE. The tightening labour markets in the CEE region, which is caused by the labour shortages created by "welfare migration," upsurges the pressure on wages that are

[8] Thomas Piketty, *The Economics of Inequality* (Cambridge, MA: The Belknap Press of Harvard University Press, 2015), 1.

[9] Ibid. 1-2.

[10] Mick Dunford and Adrian Smith, "Catching Up or Falling Behind? Economic Performance and Regional Trajectories in the 'New Europe,'" *Economic Geography* 76, no. 2 (April 2000): 169.

[11] Clement Fuest, Judith Niehues, and Andreas Peichl, "Unequal Inequality in Europe: differences between East and West," GINI Discussion Paper 35 (September 2013): 3.

[12] Christoph Skupnik, "EU Enlargement and the Race to the Bottom of Welfare States," *IZA Journal of Migration* 3, no. 15 (2014): 1.

[13] Torben Krings, "A Race to the Bottom? Trade Unions, EU Enlargement and the Free Movement of Labour," *European Journal of Industrial Relations* 15, no. 1 (2009): 49.

arbitrarily kept low. Moreover, the CEE countries are attempting to attract foreign direct investment by giving out subsidies and dismantling workers 'rights. In align with this phenomenon, the Hungarian government serves the German corporations 'interest thought education, taxation, and labour right policy reforms.

In the first chapter of this thesis, I will present the academic literature on the potential methods of economic development, where I demonstrate why one must use dependency theories and the world system analysis, as well as introduce the concept of the semiperiphery and demonstrate why Hungary and the rest of CEE falls into that category. Then I will move on to introduce the impact of foreign direct investment on economic growth, and its role in establishing dependent relations within countries and the race to the bottom phenomenon. In the second chapter I briefly describe my methodology. In the third chapter, I will present how the current dependent market economy came about. I will argue that after the fall of state socialism, the region more or less involuntarily, as a heritage, kept is low wage profile. After, I will demonstrate why the dependent market economy of Hungary is limiting its possibilities for economic growth. In the fourth chapter, I will showcase the current labour use strategies of the German automotive companies. Thereafter, I will argue that the gap between the level of productivity and labour costs of the Hungarian car manufacturing sector makes the current system very lucrative to Germany but leaves very little financial benefits to the Hungarian economy. Additionally, this gap demonstrates that there is room for wage increases even within the current division of labour between the two countries. In the fifth chapter, I shall provide a couple of important factors that can influence the position of the country in the world system. Firstly, I will depict the current labour policies implemented by the current government and demonstrate why these are not inducing economic growth. Then I examine the role of job security and wage raises, of product value, technology, and skill levels, of trade unions, and of the EU as agents thought which Hungary can break out of its current semiperipheral position. It will be shown that the country should not be raising to the bottom against other countries in the region. Regardless of political ideologies, current and future governments have to implement drastic economic and policies changes, if they seek economic convergence to Western Europe.

Chapter 1 – Literature Review

1.1 Theoretical frameworks of economic development

The general economic aim of any country has been traditionally to grow its economy. As the countries of the "West" or "Global North" are the most advanced, and overall have the highest living standards on average amongst their population, they are the model to be achieved. There have been a number of theories about how the rest of the world can "catch up" to them. The most traditional are modernisation theories. According to these theories, the world consists of sovereign states that are following the same developmental "path" on an evolutionary ladder that leads from a traditional status to a modern one. Modernisation theorists believe that even though each state stepped on this "path" at different times and at diverse speeds, each of them seeks the economic and social well-being of the wealthiest countries of today. Thus, they have to go through the same stages that the most advanced societies experienced in order to achieve their relative wellness.[14] Unfortunately, industrialisation and class relations in Eastern Europe have differed distinctly from suspected role models in modernisation theory. Transnational capital has had a strong influence on regional development, leading to monopolistic structures without modernisation in various sectors of industry.[15] Arguably, this has caused the dependent integration of this region into the European division of labour.

This dependent integration is described by the so-called dependency school that challenges modernisation theories. It argues that there is no such thing as a linear developmental pattern. Instead, there are disadvantageous relationships in the capitalist world-economy, which is not dependent on internal structures of the developing countries or "starting late."[16] Various theoretical approaches of the "dependency paradigm" had attempts to connect socio-economic and special hierarchies in the framework of one global capitalism.[17] For instance, according to the neo-classical dependency theory, underdevelopment exists because of the historical evolution of the highly unequal international capitalist system of rich-poor country

[14] M. Faith Tayfur, *Semiperipheral Development and Foreign Policy* (Aldershot, UK: Ashgate Publishing Limited, 2003), 1.

[15] Rudy Weissenbacher, "Peripheral integration and disintegration in Europe: The 'European dependency school' revisited," *Journal of Contemporary European Studies* vol 26. no. 1 (2018): 85.

[16] Tayfur, *Semiperipheral Development and Foreign Policy*, 2.

[17] Weissenbacher, "Peripheral integration and disintegration in Europe," 82.

relationships. Either because rich countries are intentionally exploitative or unintentionally neglectful, the coexistence of rich and poor countries in a globalised international system makes being self-reliant and independent for poorer nations extreme challenging. This view of development shows that lower standard of living in developing countries is due to comprador groups in the less developed countries.[18] Therefore, the merits of development only reaches a fragment of the population. Hence, dependency theories cannot provide answers for how poor countries can develop in the globalised world-economy. Cutting off from the globalised markets and becoming self-reliant is hardly feasible, and becoming autarkies have not been proven to induce economic growth.

Relaying on the dependency school, Immanuel Wallerstein created a framework and macro-scale analytical tool for analysing our socio-economic reality. He claims that the world-system, which is a social unit entailing most of the world today, must be the primary unit of social analysis. The world system theory sees globalist capitalism an essential part of social and economic reality. To Wallerstein, the economy of the world system, or "world-economy" is built on the social division of labour within an integrated economic realm with certain types of production processes that interact with one another within the framework of the market.[19] One of the most important structural characteristics of the world system is the division of labour.[20] Geographically separate units in the system specialise in the different parts of production, and subsequently each region becomes dependent upon economic exchanges with others in order to accommodate the prerequisites of the region, such as employment, raw materials, assembled goods, services, etc.[21]

Traditionally, the division of labour is understood to create different inequal exchanges between regions. These exchanges result in the birth of core, often categorised as industrial/developed, and peripheral countries, thought to be industrialising/developing countries. It is commonplace that developing countries appear to be specialising in unskilled

[18] Michael P. Todaro, Stephen C. Smith, *Economic Development* (Essex, UK: Pearson Education Limited, 2011), 686-688.

[19] Immanuel Wallerstein, *The Politics of the World Economy* (Cambridge: Cambridge University Press, 1984), 13.

[20] Immanuel Wallerstein, *World System Analysis: An Introduction* (Durham: Duke University Press, 2004), 23.

[21] Tayfur, *Semiperipheral Development and Foreign Policy*, 4.

labour–intensive industries, while developed countries are specialising in skill-abundant ones.[22] Yet, according to Giovanni Arrighi, the traditional concept of the core-periphery structure suggests some questionable assumptions. For both dependency and modernisation theories, to develop is to industrialise by definition, implying that industrialisation equals development and the core is necessarily industrial. However, today, the wealthiest state started to de-industrialise. Additionally, unequal exchange does not only mean the relative positions of the parties in the network of trade, but the difference between wages at the same rate of productivity level and of profit. Unequal exchange is not the only contributor to the world system, but so are unilateral transfers of labour and capital. Both unilateral transfers of labour and capital have been forced (e.g. slave trade) and voluntary (e.g. emigration of workers, flight of capital). Voluntary transfers are based on the self-interest of the resource owners. Arrighi argues that these kinds of transfers have been far more important than unequal exchange in the expansion of the core.[23] For instance, the CEE brain drain and the large amounts of FDI in the region are both serving the interests of Western European companies.

Both Wallerstein and Arrighi argue that there is a distinguishable middle ground between the core and the periphery, called semiperiphery. Semiperipheral countries have relations to both core and peripheral countries, taking up on an intermediary role between them. During the business cycles of the global market and its cyclical economic crises, it can act as a puffer, for instance, by moving the production capacities to the semiperiphery, the profitability of production can be temporarily with cheaper workforce.[24] There can be possibilities to for semiperipheries to show an upward mobility, as the patterns of the business cycle can give momentum for states and regions for rising and falling in the hierarchical structure. During these momentum (such as economic slowdowns or financial crises) semiperipheral areas are likely to generate new institutional forms that transform system structures and modes of accumulation.[25] Then, the semiperiphery can be fertile ground for social, organisational, and technical innovation and often has an advantageous location for the establishment of new centres of power. That is why the structural position of the semiperiphery has such evolutionary

[22] Paul Krugman, "Growing World Trade: Causes and Consequences," *Brookings Papers on Economic Activity* 1995, no. 1 (1995): 328-343.

[23] Giovanni Arrighi, "The developmentalist Illusion: A Reconceptualization of the semiperiphery," in *Semiperipheral States in the World Economy*, ed. W.G. Martin (Westport, CT: Greenwood Press, 1990), 11-42.

[24] Czirfusz Márton *et al*., "Szószedet a Fordulat 26 számához," *Fordulat* no. 26. (2019): 9.

[25] Tayfur, *Semiperipheral Development and Foreign Policy*, 4-5.

significance.[26] Yet, Arrighi demonstrates that although, there are momentary movements in the hierarchy, looking at the twentieth century, only a couple of countries could change their position in the long term.[27] Hence, Hungary and the rest of the CEE region has to introduce radical economic policy changes, if they wish to climb on this "ladder." According to the world system analysis, Hungary and the other CEE counties are semiperipheral countries. Historically, they have been aiming to better their position in the world system from the semiperiphery to the core, in the couple of decades, being the most important political and economic target to "catch up to the West." By introducing the semiperiphery as a notion in this thesis, one can reflect on the ways in which Hungary is embedded in the capitalist world-economy, and its future prospects in achieving its goal to join the core countries.

1.2 The effects of FDI on economic development

In the increasingly globalised economy, FDI by transnational corporations is seen as a major force in the economic growth for developing countries, including CEE.[28] Yet, not many areas of political economy are so controversial and are interpreted so disparately as the benefits and detrimental effects of FDI. Based on the ideas of traditional modernisation theories, if investment ability does not vary systematically between countries, we should expect to see a global catch-up phenomenon. Capital should flow to less well-off countries, increasing their rates of economic growth, and therefore decreasing and eventually abolishing economic disparities between countries.[29] Yet, it is not clear what role FDI plays in economic growth, if any, and whether there is reverse causality, meaning that it is growth that attracts FDI. Economic growth (and stability) could generate new investment opportunities which

[26] Wilma A. Dunaway and Donald A. Clelland, "Moving toward theory of the 21st century: The centrality of nonwestern semiperipheries to World ethnic/racial inequality," *Journal of World-Systems research* 23, no. 2 (2017): 403.

[27] Arrighi, "The developmentalist illusion," 22.

[28] Petr Pavlínek, "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," 209.

[29] Thomas Piketty, *The Economics of Inequality*, 57-58.

conversely can attract more foreign investments.[30] Furthermore, there are cases where seems to be a strong bi-directional causality between economic growth and foreign direct investments.[31]

There is no universal agreement but a consensus on the positive association between FDI and growth. There is a good amount of empirical work on the role of foreign direct investment in host countries that seems to suggest that FDI is a key source of capital which complements domestic private investment.[32] As Dani Rodrik states, not many countries' economies have seen economic growth in the first couple of decades of globalisation without any input of external investment.[33] FDI could potentially function as a gap filler in resources necessary for growth. Some studies suggest that foreign direct investment stimulates growth for the host countries by increasing capital stock.[34] It is argued that this additional capital can generate new job opportunities, and in most of the cases is related to the development and transfer of technology.[35]

Nonetheless, others claim that the idea that "FDI causes growth" is often not supported by empirical data.[36] Looking at closely however, it is evident that the disagreements are generally not about the traditionally neoliberal metrics of economic prosperity such as GDP, and investment and manufacturing growth rates but the fundamental social and economic connotations of development.[37] The most important social connotation is whether between country inequality increases and decreases and the economic results in either scenario. FDI can be seen as a means to reinforce core-periphery relations and thus between-country inequality, or as a sufficient means to growth and "catching up." Specifically looking at Europe between 1980 and 2000, Dierk Hertzer and Peter Nunnenkamp used panel co-integration and causality techniques and found that FDI has a positive short-run effect on wage inequality in Europe, but

30 Dani Rodrik, *The New Global Economy and Developing Countries: Making Openness Work* (Washington, DC: John Hopkins University Press, 1999), 147.

31 Abdur Chowdhury and George Mavrotas, "FDI and Growth: What Causes What?" Paper presented at the WIDER Conference on "Sharing Global Prosperity", (WIDER, Helsinki, 6-7 September 2003): 17-18.

32 Todaro and Smith, *Economic Development*, 688-689.

33 Rodrik, *The New Global Economy and Developing Countries*, 33.

34 Sahraoui Mohammed Abbes *et al.*, "Causal Interactions between FDI, and Economic Growth: Evidence from Dynamic Panel Co-Integration," *Procedia Economics and Finance* vol. 23 (2015): 276.

35 Chowdhury and Mavrotas, "FDI & Growth: What Causes What?" 2.

36 Ibid. 17.

37 Torado and Smith, *Economic Development*, 688.

its long-term influence on economic disparity is negative on average.[38] These results are more in line with dependency theories. Although FDI can help boost an economy for a short period of time, it is in itself does not seem to be enough for economic convergence.

1.3 The effect of FDI on between country income inequality: "race to the bottom" in the globalised job market

One of the central concerns around globalisation is its effects of the liberalised job markets. Specifically, the idea that FDI may reposition jobs from high-income countries to labour-abundant economies driving a competition of downward regression of wages.[39] This phenomenon is labelled as "race to the bottom." Race to the bottom could cause the increase of inequality in the hierarchically higher (core or semiperipheral) countries as the jobs of unskilled and low skilled workers are outsourced, making this demographic compete for less jobs that does not require high skillsets. This could cause a drop in wages as high demands for fewer jobs gives more power for the employees in negotiations.[40] In lower-income countries, FDI have been aggravating inequality by changing the skill composition of labour demand (requiring more low skilled labour), creating a wage gap between works with different skill levels. Thus, it is evident that the globalisation of markets can negatively influence on international distribution of income.[41] It seems fair to state that there is little support for the idea that economic liberalisation of markets would favour the less fortunate in developing states, at least relative to the higher classes of their countries.[42] Hence, it is expected that the decision makers of the CEE region have been very welcoming of FDI, especially coming from Western Europe.

38 Dierk Herzer and Peter Nunnenkamp, "FDI and Income Inequality: Evidence from Europe," Kiel Working Paper no. 1675 (January 2011): i.

39 Ozay Mehmet and Akbar Tavakoli, "Does foreign direct investment a cause race to the bottom? Evidence from four Asian countries," *Journal of the Asia Pacific Economy* 8, no. 2 (2003): 133.

40 Josh Bivens, "Using Standard Models to Benchmark the Costs of Globalization for American Workers without a College Degree," Economic Policy Institute Briefing Paper no. 354 (March 2013): 1-10.

41 Nita Rudra, *Globalisation and the Race to the Bottom in Developing Countries* (New York: Cambridge University Press, 2008), 6.

42 Pinelopi Koujianou Goldberg and Nina Pavcnik, "Distributional Effects of Globalization in Developing Countries," *Journal of Economic Literature* 45 (March 2007): 77.

Similarly to wages, countries can also race to the bottom in labour standards. Since the 1980s, labour standard laws and practices have been steadily declining in both OECD and non-OECD countries, competing for foreign direct investments. The primer are more likely to dismantle laws, while the latter are more likely to disregard the enforcement of labour protecting laws.[43] As it will be discussed, the race to the bottom of labour standards are one of the greatest concerns of the European cohesion model, as the peripheral countries of the EU often have lower job security and labour standards than the core. Many argue that Central and Eastern Europe have been trapped in this low wage spiral, where countries are trying to lower the wages in order to be more attractive to foreign investment. [44]

László Parrach statement during the 2019 Audi strike I quoted above is built on the idea of the "race to the bottom" of wages. As he stated, the automotive industry has been slowing down, and thus, the German car manufacturing companies are to cut costs, which will come from utilising cheaper labour than before. He believed that by demanding for higher wages, the Hungarians were persecuting the transnational corporations (TNCs). His words also reflected on the semiperipheral status of Hungary, as he identified the motivation for rationalisation behind the German investments in the country. Labour costs are lower in CEE than in Western Europe, but their geographical proximity also serves as an advantage compared to even cheaper workforces outside Europe where transport costs are much high. Additionally, he also subscribed to the idea of the "FDI causes growth" idea by stating that lower wages are still worth it development-wise, compared to not having any production of the German automotive industry in the country. I shall present in the following sections that these concepts do not uphold in the current capitalist world system, and that Hungary should not seek to attract additional investments by arbitrarily keeping wages down.

[43] Ronald B. Davies and Krishna Chaitanya Vadlamannati, "A race to the bottom in labour standards? An empirical investigation," *Journal of Development Economics* 103 (2013): 1-13.

[44] *Inter alia* Béla Galóczi, "Why Central and Eastern Europe Needs a Pay Rise?" (Brussels: European Trade Union Institute, 2017)*;* Dunford and Smith, "Catching Up or Falling Behind?;" Krings, "A Race to the Bottom?," Jan Drahokoupil and Agnieszka Piasna, "Dependent Market Economies and Wage Competition in Central and Eastern Europe," in *Market Liberalism and Economic Patriotism in the Capitalist World-System,* eds. Tamás Gerőcs and Miklós Szanyi (Cham, Switzerland: Palgrave Macmillan, 2018)

Chapter 2 – Methodology

This thesis aims to showcase the effects of the German automotive industry's supply chain in the Hungarian economy and its citizens, and the future scenarios where these effects can lead. It is also a goal of this thesis to display future scenarios and provide insight for Hungarian decision makers. In order to achieve these goals, I mainly used positivism by analysing quantitative data. I analysed data on productivity, GDP, and output of Germany, Hungary, and the rest of CEE accessed through the Eurostat database. Additionally, I conducted an interview with one of the employees of Audi Hungaria, István Kovács. He is in a managerial position, as the manager of one of the internal combustion engine assembly lines.

There are a number of limitations of this research. Firstly, I mainly used the publicly available data of Eurostat, which relies on the Hungarian Central Statistical Office, which has been proven to use misleading data pool. For instance, in its statistics, it leaves out agency workers from the automotive manufacturing industry. There is a number of factors that cannot be predicted in the near or far future, such as the volume and time of the next financial crisis, the effects of climate change on politics and car use, other political events on EU regulations, etc. Additionally, it is hard to foresee car trends, as most manufacturers are only plan for two weeks in advance. The aim of this thesis is not to propose policies for all possible events, but only the ones that are more or less predictable. Therefore, I shall hypothise that there will be a fiscal crisis in the upcoming decade, or at least, there will be a longer slowdown of the automotive market, as many believe so. I will also assume that there will not be greater restrictions on the free movement of labour in the near future.

Chapter 3 – Historical transformations of car production methods and development of economic dependency

3.1 The birth of the Toyota Model and the international division of labour

In the 1970s, as a result of the economic crisis of overproduction, the dominant production method Fordism became unprofitable. Since it required a continuous and uninterrupted demand, it entailed a constant possibility of overproduction.[45] The crisis brought about a more flexible economic system, inducing flexible production, that developed in Japan, and is also known as the "Toyota model" or "lean production model."[46] The Japanese production model, which has defined the contemporary production of car manufacturing around the world, demands the birth of new technologies and employment flexibility strategies.[47] The new production method was named "Just-In-Time" approach, breaking away from Fordist traditions. Instead of making products in advance for unknow buyers, they adapted a system where they manufactured cars based on pre-sales and delivered them to the customer within a couple of weeks.[48] This engendered the obviation of costly inventory storage of Fordism.[49] For instance, according to István Kovács, they Audi Hungaria generally have parts inventory for one day in advance, and they can produce engines for two day with shortages of parts supplies.

3.2 The structure of value chains in the automotive industry

The new methods and technologies stimulated a fragmentation of specialisation. This fragmentation now entailed the physical separation of the parts of production process where

[45] Ankie Hoogvelt, *Globalisation and the Postcolonial World: New political economy of development*. (Baltimore, MD: John Hopkins University Press, 2001), 95-96.

[46] Ibid. 98.

[47] Tamás Gerőcs and András Pinkasz, "Magyarország az Európai Munkamegosztásban: A termelés áthelyezése a globális járműipar értékláncolatában," *Fordulat* 26. (Budapest, Társadalom Elméleti Kollégium, 2019): 174.

[48] Hoogvelt, *Globalisation and the Postcolonial World*, 99.

[49] Eric Harwit, "Japanese Management Methods and Western Investments in Eastern Europe: The case of the automotive industry," *The Columbia Journal of World Business* (Fall, 1993): 47.

cross-border production networks between or within firms were established. The separation of production gave birth to the global value chains consisting of the firms, their various relocated plans, and their suppliers, all controlled by the lead companies that are on the top of the chain.[50] The various costs of labour around the globe was one of the main inductions for the relocations of different processes. The fragmentation of production created (mainly regional) networks, and consequently induced the transnational trade of parts. The fragmentation of production could only be cost-effective and more lucrative than the previous system with the integration of international trade which lowered the administrational costs and barriers.[51] Ideally, a well-operating, regionally integrated automobile industry would require unrestricted access for all locally based manufacturers in order to most proficiently rationalise production, and achieve the highest possible cost-efficiency.[52] Hence, this flexible production motivated to liberalise markets globally and regionally, for instance, by creating the European Single Market.

Despite the fact that the automotive industry is presented as an archetypical global industry, during the early 1990s, firms of this sector often pushed for regional integration.[53] Today, the automotive production networks are multi-scalar, ranging from local to regional to global.[54] TNCs began to expanded their production in semiperipheral countries. The general incentive of the transactional companies for establishing a global value chain is the exploitation of labour markets with lower wages and higher flexibility.[55] By outsourcing a share of their production to their non-core manufacturing services abroad, they could increase their competitiveness.[56] This process creates fragmented production, with plans geographically

[50] Gary Gerreffi, John Humphrey and Timothy J. Sturgeon, "The Governance of Global Value Chains," *Review of International Political Economy* 12, no. 1 (February 2005): 78-84.

[51] Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 174-175.

[52] Rob van Tilder and Denis Audet, "The Fastest Lane of Regionalism," in *Cars, Carriers of Regionalism?* eds. Jorge Carrillo *et al.* (New York: Palgrave MacMillan, 2004), 31-32.

[53] Michael Freyssenet and Yannick Lung, "Multinational Carmakers' Regional Strategies," in *Cars, Carriers of Regionalism?* eds. Jorge Carrillo *et al.* (New York: Palgrave MacMillan, 2004), 42-43.

[54] Vincent Frigant and Martin Zumpe, "Regionalisation or Globalisation of the Automotive Production Networks? Lessons from Import Patterns of Four European Countries," *Growth and Change*, vol. 48 no. 4 (December 2017), 661.

[55] Carina Altreiter, Theresa Fibich and Jörg Flecker, "Capital and labour on the move: The dynamics of double transnational mobility," in *The Outsourcing Challenge: Organising Workers Across Fragmented Production Networks*, ed. Jan Drahokoupil, European Trade Union Institute (2015), 67.

[56] Gary Gereffi and John Humphrey, "The governance of the global value chains," 80.

scattered, that build up the value chain. Today the highly fragmented and geographically isolated manufacturing processes include concentration of design engineering, regional integration of production, and potentially the global sourcing of some parts, making the automotive industry "clustered and dispersed."[57]

Global value chains created a highly hierarchical order amongst their production sites. Lead firms, the final producers of the brands, the so-called original equipment manufacturers (OEMs), have strong economic positions, therefore they are able to design a multi-level supplier network, while they can expropriate most of the value produced at the various levels of the chain.[58] Essentially, there are four types of agents in the car manufacturing industry: vehicle producers/OEMs, first-tier suppliers, second-tier, and third-tiers suppliers. Each of these have particular needs, as they require very distinctive resources for their given location, and since they have various relations to other agents within the value chain.[59] First-tier suppliers produce complete auto-parts units, such as brake systems and engines, and they supply directly the OEMs. They require high design and innovation capabilities. Second-tier suppliers cater to first-tier suppliers, and they produce less skill-based parts, e.g. tyres, textiles, chemical filters. These firms work based on the design of the OEMs or first-tier suppliers. They demand process-engineering skills, and the ability to meet quality standards. Third-tier contractors are generally companies supporting the production with basic products. Skill levels and investments in training are limited. Hence, the mainly compete with each other on price.[60] These tiers build the goods of the hierarchically lower manufacturers into their own products.[61] Within the value chain, the division of labour is constantly changing. The lead firms keep moving the least profitable quality production requiring activities down on the hierarchy. Therefore, the tiers are under pressure to develop their competencies (including technology and the education of the workers). This requires high investments that not all companies can afford, thus they are

57 Timothy J. Sturgeon, Jan van Biesebroeck and Gary Gereffi, "Value Chains, Networks and Clusters: Reframing the Global Automotive Industry," *Journal of Economic Geography* 8 (2008): 30.

58 Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 178.

59 Javier Bilbao-Anillos, "The spatial variable in the recent configuration of the value chain in the European Automotive Industry," *Outlook on Europe* 101, no. 3 (2010): 359.

60 John Humphrey and Olga Memedovic, "The Global Automotive Industry Value Chain: What prospects for upgrading by developing countries," *SSRN Electronic Journal* (September 2003): 22.

61 Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 178.

slipping down on the hierarchy. If they were already third tier suppliers, they might even fall out of the value chain. This process increases the competition between suppliers.[62]

Hungary holds a semiperipheral place in the German automotive value chain. It has lower transportation costs, while providing better educational backgrounds which can lower the investments in training, which these countries can provide. Partially because of the low labour costs, and partially because of the backward industrial infrastructure, the CEE region was introduced into the value chain as a platform for standardised production. Although, in the last 30 years, the technology Hungary could import from Germany became more and more complex and developed, this did not bring about an economic "catch up." This is due to the fact that the technology implemented in the country were already at the end of their product cycle.[63]

There are three stages of the production cycle of goods: new product, mature product, and standardised product. When introducing a new product, the inventor company has a monopoly and thus, can price it especially high. When the product becomes "mature," the competitors have joined in which leads to price competition. Because of the decreasing price, which inherently entails the drop in its profitability, the cost of production becomes vital. In order to cut costs, the technology and its production is standardised. Standardisation makes labour costs cheaper by separating the tasks of production to small units which requires lower skill levels from workers. The third stage, the standardised product makes the separation and replacement of the parts of production possible. After standardisation, the only way to cut costs further is by lowering labour costs, by outsourcing production to cheaper labour markets.[64] Unfortunately, many of the car parts and models manufactured in Hungary fall into this category.

3.3 The development of FDI induced dependency

By the '89 revolution and the end of socialism, the integration of the CEE into the international division of labour drastically changed with the regime change. The dramatic political transformation which swept across the CEE was expected to bring about a rise in the

[62] Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 178.

[63] Ibid.

[64] Raymond Vernon, "International investment and international trade in the production cycle," *The Quarterly Journal of Economics* 80, no. 2 (May 1966): 196-207.

standard of living as well as stable economic and political systems. However, it quickly became apparent, that lasting political and economic reforms would take far longer.[65] In the early 1990s, supposed "FDI causes growth" was commonplace. For CEE to successfully adopt to the capitalist order, large inflows of FDI were used to trigger the necessary industrial reconstructions and modernisation, and in general, to generate economic development.[66] The first substantial FDI came in the early 1990s, as some TNCs participated in the privatisation of state-owned businesses.[67] Amongst the CEE countries, Hungary became the pioneer recipient, as the government was most willing to privatise to foreign companies.[68] The government gave considerable privileges, monopoly rights, and market protection to foreign investors at the beginning of the transition.[69] Still, it is important to note that without adequate infrastructure and labour-skill levels, they would not have contemplate investing.[70] Part of this process, foreign TNCs took over the CEE automotive industry through heavy capital investments.[71]

During state socialism, the passenger car industry was a priority of the CEE Soviet bloc but was not globally significant. As they only aimed for the internal market, the volume of production remained low with slow technological development.[72] The sector was outdated, had low-productivity rates, and was not able to adopt the new methods of production that revolutionised the industry in the West. During the transition period from state socialism to

[65] David Sadler and Adam Swain, "State and market in Eastern Europe: Regional development and workplace implications of the direct foreign investment in the automobile industry in Hungary," *Transaction of the Institute of British Geographers* 19, no. 4 (1994): 389.

[66] Petr Pavlínek, "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," 209.

[67] Petr Pavlínek, *et al*., "Foreign Direct Investment and the Development of the Automotive industry in Eastern and Southern Europe," Working Paper, Brussels: European Trade Union Institute (March 2017): 5.

[68] Martin Myant, "Why wages are still lower in Eastern and Central Europe?" ETUI Working Paper (January 2018): 13.

[69] Anil Duman and Lucia Kureková, "The role of state in the development of socio-economic models in Hungary and Slovakia: The case of industrial policy," *Journal of European Public Policy* 19, no. 8 (October 2012): 1223.

[70] Myant, "Why wages are still lower in Eastern and Central Europe?" 16.

[71] Pavlínek, *et al.*, "Foreign Direct Investment and the Development of the Automotive industry in Eastern and Southern Europe," 5.

[72] János Rechnitzer *et al*., "A magyar autóipar helyzete nemzetközi tükörben," *Hitelintézeti Szemle* 16, no. 1 (March 2017): 124.

capitalism, the automotive industry of CEE was transformed by the inflow of foreign capital.[73] One of the most influential investors came from Germany, and German companies soon incorporated the Hungarian enterprises and workers into their production chain by the early 2000s.[74] Additionally, Germany became the largest trade partner of the CEE counties because of the fact that its FDI went into outfitting Central Eastern European subcontractors. Germany has become one of the most successful economies in the world, its export sectors being one of the most important engines of its economy. Today, the German export economy is founded on this commercial network it has developed in the economies of CEE.[75]

By establishing the Japanese production regime, German car producers were in need of cheap, flexible, and relatively productive labour markets in order to supply the production chain. The Central Eastern European countries were attractive locations because of the geographical proximity to affluent markets of Western Europe, and their significantly lower production costs mainly because of their low wages.[76] Moreover, CEE workers were relatively well-trained in vocational schools, and 80 to 90% of young adults had attended high school.[77] Yet, the Japanese production model also meant the radical change in organisation and order. Workers enjoyed quite some autonomy on the shop-floor under state socialism and had greater control over production. This, however, were replaced by the growing authority of foremen and managemental control alongside with more effective horizontal and vertical organisation of the workplace.[78]

These companies used different types of mechanism during this transition based on their mode of entry and local linkages. Firstly, foreign investment could have been channelled into either pre-existing companies, called "brownfield investments," or into newly formed production sites, known as "greenfield investments." Brownfield investments are much more

[73] Petr Pavlínek, "Transformation of the Central and Eastern European passenger car industry: Selective peripheral integration through foreign direct investment," *Environment and Planning* 34 (2002): 1685.

[74] Stephen Gross, "The German Economy and East-Central Europe: The development of intra-industry trade from *Ostpolitik* to the present," *German Politics and Society* 31, no. 3 (Autumn 2013): 89-91.

[75] Ibid. 83.

[76] Pavlínek, "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," 245.

[77] Gross, "The German Economy and East-Central Europe," 92.

[78] Pavlínek, "Transformation of the Central and Eastern European passenger car industry," 1692-1693.

likely to have linkages to the local suppliers, as companies invest in an already existing structure. This investment is more likely, if the investment does not only come in order to produce to the global market, but to sell on the local market, too. In these cases, the local businesses even have practices that is built into the standards of the TNC.[79] Hungary received almost entirely greenfield investments, namely from Audi, Suzuki, Opel, and later Mercedes. The German companies were all disembedded investments, meaning that they had little linkages to domestic firms, as they do not need to use many local suppliers. These are export oriented assembly plants, vertically integrated in the value chain of the parent company. They import components from more developed countries, and these parts are assembled into finished products which are then exported back to the core country.[80]

These companies do not trust the local businesses of the country. For example, Audi has been refusing to employ local suppliers since they could not meet its quality standards.[81] In 2014, only 4% of the supplies came from Hungarian business, all third-tier suppliers, which was an increase over time. This mechanism meant that the contribution of these companies to economic development have been very limited because of the weakness of their economic links to the local profit-making businesses. Yet, even if the company itself does not bust the production of local companies, the municipal office does. The aim of the local government is to cater to the needs of Audi. Therefore, it constantly invests into infrastructure such as roads, and private platform at the train station.[82] Thus, disembeded greenfield investments are particularly efficient that exploit the cheap, flexible, and semi-skilled labour, the governmental investment incentives, and the geographical proximity of the country. Yet, their contribution to the local economic development is limited to weak and slowly growing supplier links with domestic companies.[83] In other words, this type of FDI scarcely stimulates long term development, except its immediate weight in GDP.

[79] John Humphrey, "Assembler-supplier relations in the European auto industry: Globalisation and national development," *Competition & Change* 4, no. 3. (2000): 245-271.

[80] Pavlínek, "Transformation of the Central and Eastern European passenger car industry," 1694-1697.

[81] Ibid. 1700-1701.

[82] Katalin Czakó, "Audi Hungaria Motor Kft. in the local economy," *Space and Society* 28 (2004), 195.

[83] Pavlínek, "Transformation of the Central and Eastern European passenger car industry," 1701.

3.4 Dependent market economy and its limitations

In the capitalist world-system, as Andreas Nölke and Arjan Vliegenthart identify, CEE experience a type of capitalism called "depended market economy," where the economy is fundamentally reliant on financial activities of foreign investors. Because this region is so heavily reliant on FDI, the countries are competing for new investments, which provides an excellent position to corporations to demand the underregulation of job markets. The dependent market economies work well in medium level of labour market flexibility, as they do not use the labour force for technological innovation but have to retain the ability to keep the size of the workforce in order to avert the breakdown of their assembly lines. While the highly innovative parts of production stay at headquarters, fully developed technologies are transferred to the dependent market economies where the extremely favourable conditions for foreign investments, such as tax breaks, moderate labour costs, and a fairly skilled workforce. Hence, the region stays economically competitive in the global market.[84]

The dependency on foreign owned and controlled investments limits the potential economic benefits. Long-term economic policies of Hungary have been favouring foreign investors, which is at the expense of domestic companies and population. It also undermines value capture in the host country and leads to transfer of profits back to Germany. Strong dependency on the automotive industry also increases the region's vulnerability to the business cycle.[85] The negative effects of the economic dependency were most apparent during the financial crisis, as German companies could allocate the costs of the crisis to the Hungarian suppliers, workers, and budgets of the plants. Because of the flexible workforce, they could easily lay off Hungarian workers, cutting the costs of their operations. As the dependency school argues, the domestically produced goods could be reinvested locally, for instance by increasing production capacities. But it is decided by the OEMs and the local plants, and the managers and local governments have no say in.[86] Therefore, in the long term, this dependency

[84] Andreas Nölke and Arjan Vliegenthart, "Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe," *World Politics* 61, no. 4 (2009): 677-679.

[85] Pavlínek, "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," 246-247.

[86] Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 181.

is more beneficial to the foreign investors than to the receiving economies.[87] The lack of democratic political and economic policies limit alternative models challenging the core-periphery hierarchies: democratic decisions in the semiperiphery are overruled by the economic imperatives of core countries.[88]

Overall, Hungary's semiperipheral status and its economic dependency results in the exploitation of workers by big manufacturing corporations and low revenue in corporate tax, while most of the profit is brought out of the country. Yet, it would be a problem too, if they disappeared, as it is one of the key sectors of the Hungarian economy which provides employment to numerous workers. Therefore, a general financial or car manufacturing crisis, would make Hungarian production redundant causing a mass layoff of workers, and leaving high numbers of unemployment. Although unlikely, if a crisis would not happen, labour-abundant jobs would be still in danger as new technological change could bring about more standardisation and automatisation, which would lower the added value of the Hungarian industry. High unemployment would result in higher wage inequalities within the country, which arguably effects growth negatively.[89] Without other labour-abundant sectors to take on these workers, economic disparities would rise.

[87] Pavlínek, "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," 247.

[88] Weissenbachner, "Peripheral integration and disintegration in Europe," 93.

[89] Johnathan D. Ostry, *et al*. "Redistribution, Inequality, and Growth," *International Monetary Fund* (April 2014): 25-26.

Chapter 4 – The wage gap and dependency to German investors

4.1 The limited high road model

There are two approaches by which enterprises, industries, or regions have tried to meet the challenges of international competition and generate the highest profits.[90] Combining the two, in the 1990s, automotive companies implemented a limited high road model in the CEE production sites. A high-road work model necessitates a great amount of high skilled workers. In order for this model to work, it has to plan for the long run. Thus, it must invest in skill and competence development which is only cost-efficient over a longer period of time. Consequently, it requires higher wages and job security, which presumes greater internal work flexibility.[91] Additionally, it also often entails the opportunity for unions to have a say in some parts of the decision making. Conversely, the low skill model lowers labour costs and deregulates the labour market, which boosts productivity and profits, and hence, new job opportunities. Unfortunately, efficiency and flexibility are soon unavailable in the model because of the poor wages and labour conditions impede the firms from obtaining the skilled labour force they require. Additionally, in the long run, firms can lose their short-term productivity by neglecting "investments" in their workers.[92] Consequently, without any performance boost, these firms must cut their labour costs more and more, triggering a downward spiral.[93]

Yet, Jürgens and Krzywdzinski reason that CEE did not take a low road model, rather a "limited" high road model in the 1990s. This model combined skilled labour and secure employment for the core workforce, with a great number of precarious workers, low wages and limited representation.[94] There were high levels of unemployment amongst skilled workers in

90 Frank Pyke and Werner Sengenberger, *Industrial Districts and Local Economic Regeneration* (Geneva: International Labour Organisation,1992), 12.

91 Ulrich Jürgens and Martin Krzywdzinski, "Work models in the Central European can industry: Towards the high road?" *Industrial Relations Journal* 40, no. 6 (2009): 474.

92 Pyke and Sengenberger, *Industrial Districts and Local Economic Regeneration*, 12.

93 Jürgens and Krzywdzinski, "Work models in the Central Eastern European car industry," 472.

94 Ibid. 471.

the region. Yet, the unemployment rates of high skilled workers dropped after the enlargement of 2004 partially due to emigration to Western Europe and the employment creation of the inflow of FDI in other sectors. This meant that companies have to increase their efforts in training, and answer to higher demands from employees such as raising wages and more security for employment. Although, early on, there were some attempts to move to this direction, the lack of political support and the competition from other low-wage countries would threaten the high-road development.[95] Comparatively, in the Germany-based firms, where today the whole high road model is in place, the unions are more representative of the high skilled workers, than the low-skilled ones. This has resulted in the fact that the managements of the car manufacturer companies could convince the unions about the move of the more standardised parts of the production abroad, although, this meant the loss of low-skilled jobs within the German plans.[96] By the 2000s, most of the low-skilled, labour intensive jobs almost entirely disappeared from the German job market.[97] Yet, because of the high-skill profile and its high added-value connotations, the productivity of the German automotive industry has been steadily increasing (except during the financial crisis), with average 4.8% since 2000. This number is less than 1% in Hungary (Table 2.1). This clearly contributes to the stagnation of development.

4.2 The gap between productivity and labour costs

Traditional economics would believe that productivity, wages, and labour demand all influence each other. Wages supposedly correlate to productivity as well as with the profit rationalising activities of corporations. Firms could boost their profits by employing a greater workforce, and hence expanding their production, when the productivity per labour unit increases. If wages stay below the growth of productivity, firms can invest in employment and maximise their profits.[98] Yet, obviously, it does not seem to be working in the CEE region. In Hungary, after 2008, there has been a steady decline (8%) in real wages compared to Germany.[99] It is especially striking, as in the last couple of years, many automotive factories

95 Jürgens and Krzywdzinski, "Work models in the Central Eastern European car industry," 472.

96 Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 187.

97 Martin Krzywdzinski, "Work Models Under Strain of Offshoring East-West Competition in the European Car Industry." Lecture on the 16th International GERPISA conference, Turin June 19th, 2008.

98 Galóczi, "Why Eastern and Central Europe needs a pay rise," 7.

99 Ibid. 11.

reported lasting shortages of high skilled workers and engineers, and recently even manual workers were hard to recruit.[100] This should mean that the scarcity of skill and labour should make wages rise. However, as Table 3 demonstrates, Hungary, and most of the CEE did not experience significant wage increases in the sector in the last decades.

In order to understand the divergence between labour costs, productivity, and labour scarcities, one must examine the labour use strategies of German corporations. There are considerable differences in skill requirements and the use of precarious employment contracts between Germany and CEE. This can partially be due to a bi-directional causality between the development of the low and high road models and a number of location factors that accommodate them. Martin Krzywdzinski identifies three factors that explain this dichotomy: the local institutional and legal framework, the power of worker representation, and the role of the plant within the value chain.[101] The institutional embeddedness mainly stems from the fact that both developed and developing countries are aiming to provide better environment for companies in the rising competition over the global control of manufacturing. Yet, by specialising to low and high road models, the legal and institutional setting has to differ significantly.

In the high road model, for the introduction of new technological process, firms require close cooperation between employees of various manufacturing areas. Thus, they must employ production workers who have intensive vocational training linking theoretical and practical knowledge. This also commands secure employment contracts. It is then not surprising that within the value chains, German plants are the ones which implement the new technologies first.[102] For the low road model, flexible employment is crucial because the automotive industry is very up-front investment heavy. Thus, they have to undertake large-scale investments and recruit and maintain an adequately skilled and motivated labour force. Yet, because of the unpredictable business cycle, firms cannot guarantee a steady level of demand for their products

[100] Galóczi, "Why Eastern and Central Europe needs a pay rise," 12-13.

[101] Martin Krzywdzinski, "Automation, skill requirements and labour use strategies: High wage and low-wage approaches to high-tech manufacturing in the automotive industry," *New Technology, Work and Employment* 31, no. 3 (2017): 247.

[102] Ibid. 263.

and therefore require different levels of labour inputs over time.[103] These opposing models make a very different level of wages at the core country plants and at the peripheral plants and suppliers.

The high wage gaps observed in the manufacturing sector between Western European and the CEE EU member states, and a relatively lower gap in other, non-tradable industries seem to support the claims about the relevance of low wages as a factor in international competition for FDI.[104] Wage differences are not due to the differences in labour productivity, but to institutional and market power factors, such as the strength of unions and their collective bargaining are key for accounting residuals. The value added produced by a unit of labour cost in manufacturing is much higher in CEE than in Germany.[105] In Hungary, since 2000, it has been around 9% on average (see Table 4). One of the simplest theories of wage inequality is that different workers contribute different amounts to a firm's output. This is based on the idea of human capital, which essentially means that the productivity levels of two workers are different (e.g. a more skilled worker contributes to the profits than a low skilled worker). This notion would mean there are lasting inequalities between the "worth" of two human beings, which also justifies their different level of living standards. In the last couple of decades, in the West, supposedly there has been a "skill-biased technological change." Because of the massive technological advancements, companies have been in need for very highly skilled workers, who are very productive, and thus receive much higher salaries. Human capital theory has been used to explain rising wage disparities resulting from market liberalisation. Low-skill workers are competing with the cheap labour of the Global South. Yet, the growth of wage inequality seems to be caused by internal production processes within the developed countries and are not really affected by international trade. [106] There is a growing divide between production units, some of them being far more effective than others results in the wage differences between plans.

[103] Jan Drahokoupil, Martin Myant, and Stefan Domonkos, "The politics of flexibility: Employment practices in automotive multinationals in Central and Eastern Europe," *European Journal of Industrial Relations* 21, no. 3. (2015): 224.

[104] Drahokoupil and Piasna, "Dependent market economies and wage competition in Central and Eastern Europe," 61.

[105] Ibid. 44.

[106] Piketty, *The Economics of Inequality*, 66-74.

4.3 Current political climate

Since the early 2000s, the understanding of foreign private investments has changed significantly by increasingly differentiating between "good" or "bad" FDI.[107] The FIDESZ government also implemented a dual treatment of transnational companies. After 2010, they began to apply selective advantage measure. On the one hand, they created a hostile environment for multinational businesses mainly in trade and services sectors, such as multinational banks or energy providers. The regulation of these served the political agenda of the government as often it entailed the artificial cuts of prices. On the other hand, they introduced advantageous measurements for manufacturing companies, in order to promote further industrial FDI. The government started to imitate partnerships with, amongst others, foreign owned car manufacturers. It is possible that these double standards are an attempt to divide the established networks of multinational businesses in the country, and thus weaken their bargaining power.[108]

The industrial, business, and employment policy reforms in the government introduced since 2010 heavily serve for the German automotive industry. They provide favourable institutional and legal environment of the important factors of production, most importantly, infrastructure and the appropriate amount and appropriately skilled labour force. In the 2010s, the Hungarian government introduced a new dual vocational training system, mimicking the German one. With the help of the German-Hungarian Chamber of Industry and Commerce, they changed a number of business legitimation. For instance, since 2017, Hungary has the lowest corporate tax rate (9%) in the EU, but because of subsidies, the 30 largest businesses on average only pay 3.6% of their pre-tax budget.[109] Furthermore, local governments often give out additional discounts. In Győr, any corporation that bring at least 1.5 billion HUF

[107] Magdolna Sass, "Is a live dog better than a dead lion? Seeking alternative growth engines in the Visegrad countries," in *Condemned to Be Left Behind? Can Central and Eastern Europe emerge from its low-wage FDI-based growth model?* eds. Béla Galóczi and Jan Drahokoupil (Brussels: EUTI, 2017): 74.

[108] Miklós Szanyi, "The emergence of the patronage state in Central Europe: The case of FDI-related policies in Hungary since 2010" in *Market Liberalism and Economic Patriotism in the Capitalist World-System,* eds. Tamás Gerőcs and Miklós Szanyi (Cham, Switzerland: Palgrave Macmillan, 2018), 116-122.

[109] Ibid. 192.

investment, such as Audi, gets 5 years of relief from corporate taxation entirely. If some of their profits is reinvested in their local plants, they receive an additional 10 years of 0% tax.[110]

Furthermore, the Hungarian government is seeking to attract German investments by initiating new legislations concerning employment rights. By catering to their flexible and cheap labour needs, the companies are more likely to bring their investments to Hungary than other countries in the region. Since the financial crisis of 2008, there were three major reforms in labour market regulations: the modification of strike regulations in 2010, the Labour Code in 2012, and the infamous "slave law" of 2018. These measures have been increasingly supporting flexible employment. The 2010 legislation limited the possibilities for strikes. The 2012 modification weakened the voice of unions and made various forms of employment more flexible, such as the possibility to elongate working hours. The "slave law" lifted the annual maximum possible over time from 250 to 400 hours and lengthened the deadline for overtime payments from 1 year to 3 years. Additionally, now firms can decide if they pay for overtime, or give out vacation days instead. This amendment had been requested by the car manufacturing firms for years.[111]

These legislations effectively serve the TNCs by helping them facing the challenges of the fluctuating business cycle of the world-economy, as well as optimising for their internal structural changes. Under the "slave law," TNCs can request more hours from their employees, when they have larger demands, and "pay" them with leave days as part of their Just-In-Time method. On the other hand, the new Labour Code weakened the protection of trade union members. Furthermore, it was far harder to go on strike during the protests against the "slave law" because of the new strike regulations of 2010. The economic policies help to reduce the costs of the downhill of the business cycle of the globalised market. The Hungarian government seeks to create a political environment where these corporations can generate the most amount of profit possible, but this embeds the semiperipheral position of the country. As these TNCs are very sensitive to economic slowdowns, this economic strategy assists in cost optimisation by devolving the higher relative costs of production to costs of the Hungarian wages.[112]

[110] Petra Jakab, *Egy nagyvállalat és a város együttműködése hírnevük alakításában: Hírnévelemek, a hírnév alakításának folyamatvizsgálata*, (Győr: Szécsényi Isván Egyetem, 2017): 102.

[111] Gerőcs and Pinkasz, "Magyarország az Európai Munkamegosztásban," 193.

[112] Ibid. 193-194.

Chapter 5 – Overcoming the semiperipheral status

Béla Galóczi and Jan Drahokoupil show that the CEE dependent economy model "has reached its limits," having not much evidence that the region is about to catch up to Western Europe. The level of innovation and research is the lowest in the EU. Labour shortages and the scarcity of skilled labour limit growth, and the region does not seem prepared for technological changes.[113] The dependence on decisions and innovations from abroad and the limited development of technology domestically may constrain the future role of suppliers from the semiperipheral economy of CEE.[114] According to Martin Myant, without any change in political will, CEE will also stay in a "middle income trap," never able to converge to the Western European standard.[115] For escaping this, the increase of wages would be necessary. The middle income trap is an economic model where an economy begins to develop but cannot overcome the stage of middle income, due to low capacity for original innovation/absorption of advanced technology. Without available capital-intensive jobs, workers do not aspire to gain the skills the companies need.[116] The lack of investments in innovation in the sector, based on the current model of the division of labour, will not provide the country an edge to catch up to the core. The current low wage and labour-intensive manufacturing model is cannot overcome the current gap between living standards without immense changes in the financial, legal, and institutional framework.

5.1 Wages, job security, and the treatment of workers: bring an end to cheap labour?

Jürgens and Krzywdzinski argue that low wages led to a high labour turnover amongst skilled workers, and in the view of labour shortages, the practice of creating a larger buffer of temporary labour in industrial plants have become less acceptable.[117] Productivity is almost

113 Béla Galóczi and Jan Drahokoupil, "Condemned to Be Left Behind? Can Central and Eastern Europe emerge from its low-wage FDI-based growth model?" (Brussels: EUTI, 2017): 23-24.

114 Boleslaw Domanski and Krzysztof Gwosdz, "Toward a more embedded production system? Automotive supply network and localised capabilities in Poland," *Growth and Change* 40, no. 3 (September 2009): 452.

115 Myant, "Why are wages still lower in Eastern and Central Europe?" 4.

116 Todaro and Smith, *Economic Development*, 156-157.

117 Jürgens and Krzywdzinski, "Work models in the Central and Eastern European car industry," 486-487.

entirely dependent on the type of activities TNCs decide to locate in the country, and that can only be induced by policy measures that form a more welcoming environment for inward investors.[118] Béla Galóczi argues that CEE does not have a problem with a race to the bottom of wages. The historical involuntary low wage profile of the CEE region which determines its place in the international division of labour is a double constrain for future developments. It limits growth prospects by keeping domestic demand under pressure, and it keeps the region in a low-added value assembly stage of production without a clear "path" for additional advancements. Furthermore, the foreign corporations have less and less leverage to keep the wages low, as the country faces a workforce shortage. The region currently has a higher wage-adjusted productivity in manufacturing than Germany. Therefore, wages could still go up, as there is still productivity reserve.[119]

The main concern László Parrach implied is if the Hungarian and other CEE workers had the same wage-adjusted productivity that German workers, why would German companies keep their production or reinvest in the region? The CEE countries, as explained above, have a relatively lower level of vocational education than Germany, experience high levels of brain drain within the EU, not to mention the costs of transferring production from Germany to the region. However, higher wage levels may induce a structural change towards more skill-intensive and high value-added activities. It is possible that investments in both vocational and high skill providing institutions would attract investors to set up first or second-tier production. Overall, as Béla Galgóczi argues, transnational companies should be less able to decouple wages from productivity. Fair distribution of earned income should not only be thought of as fully justifiable demand from the workers' perspective, but as a necessary action, as it limits the economic growth of CEE.[120]

One of the most striking indicators of the involuntary low wage profile is the relative difference between wage and productivity. The German companies compensate for the increasing costs of the manufacturing with the CEE wage costs. They achieve this by keeping the ratio of wages to productivity stable between the German OEMs and the Hungarian plants. Table 4 shows that although, productivity fluctuates more than wages (because of its

[118] Myant, "Why wages are still lower in Eastern and Central Europe," 16.

[119] Galóczi, "Why Central and Eastern Europe needs a pay rise?" 23.

[120] Ibid. 4.

sensitiveness for the business cycle), its relative difference to wage costs is constant in the long run, around 9%. This means that given the level of productivity and labour costs, the Hungarian workforce generates relatively higher profits than their German counterparts, higher than the difference between real wages would allow for. Thus, this is how moving labour-intensive activities to the country becomes highly profitable, while it also provides a buffer in a case of economic slowdowns. To Galóczi, this higher wage-adjusted productivity is an indication that there is productivity reserve, which provides leverage for wage increases.[121]

The fluctuation of market demands can be addressed in three ways based on labour strategies.[122] Firstly, work-time flexibility can be achieved by adjusting hours across periods. Secondly, numerical flexibility can be achieved through adjusting the total number of employees. One of the most common ways to do so it is employing agency workers. For instance, today, about 5% of the workers are through agencies at Audi Hungaria. They are the first to be laid off with falling demands, and they help out during labour shortages. The 2010 change of the Labour Code engendered a legal environment, where it is much easier use this kind of employment. Thirdly, production and employees can be moves between tasks and plants. This also happened at Audi Győr. According to Kovács, the 2008 fiscal crisis resulted in the layoff of many temporary workers. Because of the drop in demands, the production decreased, meaning Audi needed less employees (see table 2). He informs that in the factory, there are two types of workers: the ones wearing red-uniforms and the ones with blue. The blue uniform workers have higher skill levels, are in managerial positions, and in general, are the core workforce with higher job security. As he stated, during the crisis, Audi kept these workers, despite the fact that was not cost effective. However, because of the knowledge they possess took years of training and investment, it was more beneficial to keep them, so that they would still create high added value after the crisis. But many red overalls were laid off. Because of the shortage of production, blue overalls took on the less skill abundant tasks, taking over the red uniform jobs. He believes that during the next crisis, this will happen again.

In the limited high road model, job security is strictly restricted to the smaller core workforce. Both internal (working time, change of roles) and external working flexibility

[121] Galóczi, "Why Central and Eastern Europe needs a pay rise?" 20.

[122] Drahokoupil, et al. "The politics of flexibility," 232-236.

(temporary work) have increased in the last two decades.[123] The majority of the workforce, low skilled temporary workers are "disposable" in this model. For example, with the slowdown of the automotive industry, there has been rumours that Audi was about to lay off workers since mid-2019. In April, the plant stopped renewing contracts with fixed contract and agency workers. Allegedly, they have already laid off 1300 people until November (almost 10% of workers) and will lay off an additional 1700 internal workers and 700 contractors. Altogether, there planning to lay off 30% of their workforce between 2019 and 2023, mainly from diesel manufacturing. The factory denied the allegations but admitted that, because of the new technological cycle of the automotive industry, they might not be able to renew fixed term contracts in the future. They are restructuring the factory to be more digitalised, more automatic and to cater to upcoming production of electric cars.[124]

5.2 Product value, technology, and education: high-skill profile

Evidently, the current dependent economy is not beneficial to the CEE countries, partially because of the low ranking of the domestic suppliers in the value chain. Unfortunately, as Arrighi argues, the expansion of industrialising to the semiperiphery is not a sign of the development but rather, the peripherisation of the industry.[125] In order to capitalise on the current German automotive FDI, Hungary must rely on its public sector provisions. The current level of productivity of the CEE region is far beyond that of Germany. Hungary's productivity rate has only been about 30% of the German one in the last two decades, and it does not show an increasing tendency (Table 5). This is due to the place of the country' production and suppliers in the hierarchy of the value chain and the place of assigned parts of production in the product cycle. As the European Commission stated that Hungary has shown to be unable to improve the quality of its products, and that the weight of high technology products has been declining in the 2010s.[126]

[123] Jürgens and Krzywdzinski, "Work models in the Central European car industry," 487.

[124] Ede Záborszky, "Az Audi szerint nincs elbocsáltás, mégis kevesebb ember fog a cégnek dolgozni," *Index* (31st October 2019) Available: https://index.hu/gazdasag/2019/10/31/az_audi_szerint_nincs_elbocsatas_megis_kevesebb_ember_fog_a_cegnel_dolgozni/, Accessed on 10th December 2019.

[125] Arrighi, "The developmentalist illusion," 24.

[126] Galóczi, "Why Eastern and Central Europe needs a pay rise," 21.

To understand how productivity of limited high road model is much lower than of Germany (table 2.2), one must understand the relationship between technology and the educational levels of workers. Although this model has been interpreted on within country inequalities, in an integrated labour and financial market such as the Single Market, it is still applicable. Income inequality is widely considered to be affected by the development of education and technology. It has been argued that income inequality first rises with economic growth when new, higher-productivity sectors emerge, but then supposedly decreases when more and more workers join the new, high-paying sectors of the economy. This could mean that by spreading the access to new technologies, the economic disparities within the EU could decrease. But, according to Thomas Piketty and Emanuel Saez, this is an over-optimistic theory of natural decline in income inequality, that does not account for political and societal forces.[127]

Contrary to the idea of natural equalising society, the most widely used economic model is based on the idea that there is a "race" between technology (the demand for skill) and education (the supply of skill).[128] The development and increasing availability of education leads to an insurgence of the supply of skills, whilst technological advancement would lead to the increasing demands for skills. If the expansion of education is greater than the technological development, labour income inequality would decrease, whereas if technological change is more rapid than the educational skill supply, inequality would increase.[129] Economic growth can be stabilised if the race between technology and education comes to an equilibrium.[130] Consequently, CEE should focus on aggregating the supply of skill in order to reduce the disparities within the EU.

On a national level, Michael Kremer's O-ring theory can describe how Hungary and the rest of CEE are stuck on a low equilibrium between technology and education and how human capital produces the global fragmentation of specialisation, the hierarchy of the value chain, and between country economic inequality. He exhibits that even a small difference in

127 Thomas Piketty and Emmanuel Saez, "Inequality in the long run," *The Science of Inequality* 344, no. 6186 (May 2014): 842.

128 Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, MA: Harvard University Press, 2017 [2013]), 382-383.

129 Claudia Goldin and Lawrence F. Katz, *Race between Education and Technology* (Cambridge, MA: The Belknap Press of Harvard University Press, 2008), 191-193.

130 Ibid. 320.

human capital or the skill level of workers can make a large difference in their wages and productivity.[131] The value of upgrading skills, equipment or quality depends on the level of upgrading by similar agents. Firms will not enter a market or locate an area if workers do not own the skills the firm needs, but the workers will not acquire the skills, if the firm is not there to employ them. This deadlock can leave an economy stuck in a bad equilibrium. Higher skill workers create the incentive for more people to study towards higher skill jobs. Lower skill level workers tend to do the opposite. This can create an economywide low-production-quality trap. Worsening this, high skill jobs also pay better in developed countries, hence the brain drain will keep detracting capital-intensive investments.[132]

In Hungary, the educational and investment strategies of the 19900s and 2000s missed the opportunities to educate more skilled labour in the sector, which led the lack of innovation and R&D functions. Being at the end of the product cycle, new technologies arrive standardised, they do not require high skill levels. Without any incentives from outside, firms will not bring capital-intensive function to a low-skill pool country. On the other hand, without secure, high paying jobs, less people will attain skills required in the industry, and even the ones who do so will probably try to find employment in the core, seeking higher salaries and higher social security. Thus, the government would need a comprehensive plan to induce investments in skill and motivate the population to acquire further education, in order to become an attractive location for higher value-added investments. Simultaneously, it needs to help in the generation of higher wages for these skilled workers, so that they would not move to higher paying countries.

Despite the more and more complex technologies and more high-end processes of the production line, as they had already gone through the standardisation process, the country did not experience technological advancements. In theory, Hungary's productivity could grow in this system, if the companies did not only apply the standardised procedures but implement the higher added-value model and design development. Low wages will not be able to compensate for the low levels of innovation and lack of R&D capacities. In theory, the level of productivity could be mainly be increased by establishing higher added-value production, such as car model

[131] Michael Kremer, "The O-ring theory of economic development," *The Quarterly Journal of Economics* 108, no. 3 (1993): 557.

[132] Todaro and Smith, *Economic Development*, 176-181.

design and development. In order to upgrade the level of innovation and hence moving up on the hierarchy of the value chain, higher compensation is actually necessary for stopping the brain drain, and thus stop lacking the competencies, that would require. Yet, it is not quite available as it would require more high skilled workers for which there is an intense race in the global market. This brain drain causes the concentration of high skill and state-of-the-art technology at the core, while in the semiperiphery, makes the ever more lowering numbers labour force to drop. Thus, the most important prerequisite of the R&D implantation in the country is unattainable in the current integrated labour market.

By demanding higher wages though, one could argue that automation could simply overtake the tasks of unskilled labour. Still, automation does not result in high skill requirements in production in itself. The role of the plant also plays an important role in the introduction of new process technologies. The use of new technologies would require close cooperation between workers in manufacturing roles and product development roles, and suppliers. For production workers, this kind of collaboration demands intensive vocational training linking theoretical and practical knowledge.[133] In this respect, national labour regulations that promote flexible employment may attract low added-value jobs, but therefore can distract high added-value ones. In 2001, Audi built its first engine research and development centre outside Germany in Győr.[134] Today, this centre employs about a hundred engineers. In this centre, they build and test the designs they receive from the EOM, and monitors production processes. According to Kovács, this centre accumulated a great level of processional competencies, which, he believes, provides so high added value that it secures the plant's place high in the value chain. He reckons that it would also make it highly unlikely that Audi would move production to a country cheaper labour cost.

The other important aspect of technological advancement is the domestic embeddedness of the firm. Local small and medium sized businesses could be more integrated in the value chain and should aim to qualify for tier one or two level. In order to help this process local institutions could try to enable domestic producers to access the value chain of the industry. Firstly, with skilled labour in order to enhance process-engineering capabilities. The education and training system need to support this. They can also help by providing testing

[133] Krzywdzinski, "Automation, skill requirements and labour-use strategies," 263.

[134] Pavlínek, "Transformation of the Central and Eastern European passenger car industry," 1701.

and measurement facilities, as for small firms the costs of testing is very high. In addition, the government could rent out special laboratory services and create a national framework for metrology. Market intelligence is also important, as the long-term survival of small firms in the global car manufacturing industry is dependent on proactive market strategies, targeting new customers and markets.[135]

Overall, there are two ways in which the government could incentives businesses to bring in higher added-value activities. Firstly, as I demonstrated, it could invest in education and R&D facilities. Instead of cutting corporate taxes without specifically targeting the problem of low added-value production, the government could give out subsidies that either make companies invest in education or make them employ more domestic suppliers. These could be attained by providing subsidies only on high added value productions, or by cutting labour taxes of skilled, well-payed workers in their training period. Additionally, it could provide tax breaks on sold products that have a high amount of domestically produced parts or invest in small parts-producing business to help them increasing the quality of their products.

5.3 Unions

Other than increasing productivity (as it can still have an effect on wages), wages could increase by closing the gap between productivity and the labour costs. According to Pavlínek, flexible labour strategies used in CEE would be impossible to implement in Western Europe because of the union resistance.[136] Unions can represent large amounts of workers and can collectively bargain for their wages, wage schedules, and a lower gap between high and low skilled labour compensation. If they work efficiently, no worker can lower their wages individually. Unions can use their monopoly to demand higher wages, even if that means the lowering overall level of employment. In theory, if labour unions are successful, firms will inevitably use more capital and less labour as well as more skilled labour than unskilled workers. According to Piketty, as redistribution within the workplace might result in the layoff of workers, it would be more beneficial to have the state introduce higher and more effective redistribution. This way, the firm would still pay the skill-biased wages for its workers, but the lower-skilled workers would not have to pay for the skill-biased technological changes. Yet, in

[135] Humphrey and Memedovic, "The Global Automotive Industry Value Chain," 44.

[136] Pavlínek, "Transformation of the Central and Eastern European passenger car industry," 1703.

practice, unions seem to work. In countries where they remained relatively strong, there is lower wage inequality. Because fiscal redistribution has not been in place, unions might be able to play a role as substitutes.[137]

But can unions contribute to economic efficiency? In short, yes. Setting the wage range, firms must pay for a certain skill set can motivate workers to acquire more industry-specific forms of human capital without the fear of expropriation by the employer. This can also mean that the firm would invest more in the education of workers.[138] On the other hand, the employer has a monopsony power. They can insist on paying less for labour than the competitive market price would allow, yet, with the risk of losing some of the workforce.[139] During the first strike in 2016, in Audi, the trade union was aiming to achieve a general wage increase and work environment improvement, and most of their commands were temporarily fulfilled. In the 2019 the trade union of Audi Hungaria was also highly successful. Although, these successes might only benefit the core workforce in the long run. It is unlikely that in the current Hungarian political environment with the more flexible labour laws, there will be no layoff in the company. Thus, strengthening the voice of the unions is supposedly beneficial for the increase of wages, and fighting for better labour conditions. Strong unions are traditionally a left wing ideal. Still, strengthening their position can be beneficial to the political right, as this would require far less governmental spending than investing in education and technology.

5.4 The EU and an end to the brain drain

The EU is a prime example of macro regional integration. This could provide an exceptional institutional environment a highly integrated productive system in the European automotive sector in the 2000s [140] Yet, it is confronted with a very persistent cohesion problem. Arguably, that it is the economic crisis that brought into question this fundamental idea of the EU, especially in the case of income convergence.[141] The EU provides the free movements of goods, labour, capital, and services. Yet, there are disparities between how these fit into the institutional framework on the nation state level. There is a vast difference between the average

[137] Piketty, *The Economics of Inequality*, 66-77.

[138] Ibid. 92-94.

[139] Ibid. 94-95.

[140] Frigant and Zumpe, "Regionalisation or Globalisation of the Automotive Production Networks?" 662.

[141] Galóczi, "Why Central and Eastern Europe needs a pay rise," 15.

standard of living, qualities of the education systems, economic inequalities, economic development, and taxation policy amongst the member states. One of the main reasons behind the low wage spiral is the fact that the institutional influence of the EU on social and wage policies are limited. It has the power to set minimum standards for employee protection and anti-discrimination law. However, wage policy (such as the right to organise and the right to strike) is not within the EU's competence.[142] Secondly, because of the global completion for high-skilled workers, there is a "brain drain" form the semiperiphery to the core. Consequently, the high-skill deprived parts specialise on the labour-intensive parts of production.

Furthermore, the EU regulatory framework is quite ambivalent, as the different national and EU legal frameworks create very diverse legal situations. By enacting the opportunity to employ workforce from other countries, businesses can exploit many loopholes to bypass European regulations and the legal framework of the nation states. Moreover, often, employment contracts are legal in writing, but labour rights policies are transgressed by refusing to give out the required amount of pay leaves, or by undercutting the hourly minimum wage through the manipulation of working hours. Because of the liberalised labour market, the threat of relocation put pressure on unions and other labour organisations who, in turn, have less collective bargaining powers and can be forced to make concessions. They often give up on job security and regulations in order to secure production in the country. In addition, the fragmentation and fluctuation of workers make it difficult to even uphold strong unions, as often these workers are less aware of their rights and more vulnerable to the potential atrocities from the cooperation, if they join the union.[143] Overall, the EU regulatory framework reinforces the current core-periphery status.

One of the most important problem the EU causes for CEE dependent economies is the brain drain. In order for CEE countries to transition upwards from a low-cost outsourcing and manufacturing base, they need a wide pool of highly skilled workers. To establish a high road model, CEE have to move away from the current FDI induced development model, which, although certainly used to contribute to the economic growth of the region, makes it very sensitive to the economic health of Germany. If they want to be more self-sufficient, they need

[142] Attac Austria (ed), *The European Illusion,* 123-125.

[143] Altreiter, Fibich, and Flecker, "Capital and labour on the move: The dynamics of double transnational mobility," 80-81.

to move up the value chain and create their own products. In this case, the political left and right could choose different directions. For the left, the answer to the brain drain would be building a welfare state, hence stopping “welfare migration.” This would include some of the previously mentioned strategies, investment in education, and potentially making it free, establishing a legal framework which incentivises the job security, or raising the minimum wage.

Conclusion: How to benefit from German manufacturing FDI

Overall, there are a number of ways to help make the current high levels of foreign owned corporations more lucrative to the overall prosperity of the country and the region. However, as Arrighi found, there is very little mobility in the long run on the core-semiperiphery-periphery "ladder" in the capitalist world system. Between 1938 and 1983, only a few of semiperipheral countries managed to move up to the core, such as Japan. There was greater mobility in the first and second half of this period than in the whole period all together. Still, these movements equalised each other in the long run. This means that the temporary rise or fall of these countries can mask the underlying hierarchy of the world system, creating the illusion of upward mobility.[144]

Hungary in itself cannot exit from the liberalised market economy and cannot abolish capitalism. However, with radical change in the current understanding of its semiperipheral status, it can capitalise on German inward investments. If the country would like to catch up, I argue that Hungary and the rest of CEE have to escape the unintentional race to the bottom in wages, which is due to their need of capital after the fall of state socialism. Although, in the short term, foreign direct investment was beneficial and the cause of economic growth, today it is a constraint of further development. Recent political decisions were made mainly based on the idea that FDI induces growth, and that the only way to stay in the global division of labour is to make wages arbitrarily low and the labour as flexible as possible. Instead of strengthening the country's low wage profile and semiperipheral status, decision makers should focus on uplifting the country in the hierarchy of the world system, and in the automotive global value chain.

As I established, the best indicator of the dependent status in the world-economy is the country's high gap between labour costs and productivity in the car manufacturing sector relative to the German industry. This gap means that there is room for wage increase even in the current low added-value profile. Yet, because of the dependent market economic status of Hungary, it is unlikely that this could be changed. However, in the long term, the country's

144 Arrighi, "The developmentalist illusion," 22.

limited high road work model and its low wages cannot compete with peripheral labour costs, and hence it is crucial to attract higher added-value investments in order to catch up to the West. It is therefore necessary to change the legal and socio-economic environment that foreign companies find satisfactory for implementing higher added value activities. In order to do that, Hungary has to change its skill pool profile. Nonetheless, with the free movement of workers in the EU and the low investments in education, there are excessive shortages of highly skilled labour force.

In order to escape economic dependency, and gain benefits from the current FDI and harness it an agent of economic development, Hungary has to aim for achieving the high road work model. For both the political left and right, the strategy would include the raise of wages and hence, living standards. The high road model requires large numbers of highly skilled workers and R&D facilities. For the political left, this would entail creating a stronger welfare state which would potentially lower the brain drain, and the investments in education, while increasing job security. Although it is traditionally a left-wing policy, the right-wing should strengthen unions as they require less financial investment than welfare policies. Additionally, instead of corporate tax breaks, the right-wing governments should give out subsides for products built up from locally sourced materials or for the employment of high skilled workers. Overall, these measures should all be implemented, if the country seeks to catch up to Western European standards.

Bibliography

Abbes, Sahraoui Mohammed *et al.* "Causal Interactions between FDI, and Economic Growth: Evidence from Dynamic Panel Co-Integration." *Procedia Economics and Finance* 23 (2015): 276-290.

Altreiter, Carina, Theresa Fibich and Jörg Flecker, "Capital and labour on the move: The dynamics of double transnational mobility." in *The Outsourcing Challenge: Organising Workers Across Fragmented Production Networks*, edited by Jan Drahokoupil, 67-87. European Trade Union Institute, 2015.

Arrighi, Giovanni. "The developmentalist Illusion: A Reconceptualization of the semiperiphery." in *Semiperipheral States in the World Economy*, edited by W.G. Martin, 11-42. Westport, CT: Greenwood Press, 1990.

Austria, Attac (ed). *The European Illusion: Why we need new strategies towards the EU and beyond.* Rosa Luxemburg Stiftung: Vienna, 2018.

Bán, Zoltán. "Hivatalos: Megvan a megállapodás, 20 órától teljesen helyreáll a termelés!" *Portfolio* (30 January 2019) Available: https://www.portfolio.hu/uzlet/20190130/hivatalos-megvan-az-audi-megallapodas-20-oratol-teljesen-helyreall-a-termeles-312335, accessed on 3rd December 2019

Bilbao-Anillos, Javier. "The spatial variable in the recent configuration of the value chain in the European Automotive Industry." *Outlook on Europe* 101, no. 3 (2010): 357-363.

Bivens, Josh. *"Using Standard Models to Benchmark the Costs of Globalization for American Workers without a College Degree."* Economic Policy Institute Briefing Paper no. 354, (March 2013): 1-10.

Chowdhury, Abdur and George Mavrotas. "FDI and Growth: What Causes What?" Paper presented at the WIDER Conference on "Sharing Global Prosperity." WIDER, Helsinki, 6-7 September 2003. 1-18.

Czakó, Katalin. "Audi Hungaria Motor Kft. in the local economy." *Space and Society* 28 (2004): 188-198.

Czirfusz, Márton *et al*. "Szószedet a Fordulat 26 számához." *Fordulat* no. 26 (2019): 5-27.

Davies, Ronald B. and Krishna Chaitanya Vadlamannati. "A race to the bottom in labour standards? An empirical investigation." *Journal of Development Economics* 103 (2013): 1-14. Galóczi, "Why Estern and Central Europe needs a pay rise,"

Deák, Bálint. "Megütötte az Audit a győri leállás." *Világgazdaság* (31 January 2019) Available: https://www.vg.hu/vallalatok/ipar/megutotte-az-audit-a-gyori-leallas-2-1335787/, accessed on 2nd December 2019.

Domanski, Boleslaw and Krzysztof Gwosdz. "Toward a more embedded production system? Automotive supply network and localised capabilities in Poland," *Growth and Change* 40, no. 3. (September 2009): 452-482.

Drahokoupil, Jan and Agnieszka Piasna. "Dependent Market Economies and Wage Competition in Central and Eastern Europe." in *Market Liberalism and Economic Patriotism in the Capitalist World-System* edited by Tamás Gerőcs and Miklós Szanyi, 43-66. Cham, Switzerland: Palgrave Macmillan, 2018.

Drahokoupil, Jan, Martin Myant, and Stefan Domonkos. "The politics of flexibility: Employment practices in automotive multinationals in Central and Eastern Europe." *European Journal of Industrial Relations* 21, no. 3 (2015): 223-240.

Dull, Szabolcs. "A Fidesz nem megy el a parlamenti ülésre" *Index* (3 January 2019) Available: https://index.hu/belfold/2019/01/03/a_fidesz_nelkul_ul_ossze_a_parlament/a_fidesz_nem_megy_el_a_parlamenti/, accessed on 2nd December 2019.

Dunaway, Wilma A. and Donald A. Clelland. "Moving toward theory of the 21st century: The centrality of nonwestern semiperipheries to World ethnic/racial inequality." *Journal of World-Systems research* 23, no. 2 (2017): 400-464.

Dunford, Mick and Adrian Smith. "Catching Up or Falling Behind? Economic Performance and Regional Trajectories in the 'New Europe.'" *Economic Geography* 76, no. 2 (April 2000): 169-195.

Duman, Anil and Lucia Kureková. "The role of state in the development of socio-economic models in Hungary and Slovakia: The case of industrial policy." *Journal of European Public Policy* 19, no. 8 (October 2012): 1207-1228.

Freyssenet, Michael and Yannick Lung. "Multinational Carmakers' Regional Strategies," in *Cars, Carriers of Regionalism?* edited by Jorge Carrillo *et al.*, 42-56. New York: Palgrave MacMillan, 2004.

Fuest, Clement, Judith Niehues, and Andreas Peichl. "Unequal Inequality in Europe: differences between East and West," GINI Discussion Paper 35 (September 2013): 1-36.

Galóczi, Béla. *"Why Eastern and Central Europe needs a pay rise?"* Brussels: European Trade Union Institute, 2017.

Galóczi, Béla and Jan Drahokoupil (eds). *Condemned to Be Left Behind? Can Central and Eastern Europe emerge from its low-wage FDI-based growth model?* Brussels: EUTI, 2017.

Gerőcs, Tamás and András Pinkasz. "Magyarország az Európai Munkamegosztásban: A termelés áthelyezése a globális járműipar értékláncolatában," *Fordulat* 26 (Budapest, Társadalom Elméleti Kollégium, 2019): 172-198.

Gerreffi, Gary John Humphrey and Timothy J. Sturgeon. "The Governance of Global Value Chains." *Review of International Political Economy* 12., no. 1 (February 2005): 78-104.

Goldberg, Pinelopi Koujianou and Nina Pavcnik, "Distributional Effects of Globalization in Developing Countries." *Journal of Economic Literature* 45 (March 2007): 39-82.

Goldin, Claudia and Lawrence F. Katz. *Race between Education and Technology*. Cambridge, MA: The Belknap Press of Harvard University Press, 2008.

Graham-Harrison, Emma. "Thousands in Budapest marching against 'slave law' forcing overtime on workers." *The Guardian* (5 January 2019) Available: https://www.theguardian.com/world/2019/jan/05/thousands-in-budapest-march-against-slave-law-forcing-overtime-on-workers, accessed on 15th December 2019

Graham-Harrison, Emma. "Hungary passes 'slave law' prompting fury among opposition MPs." The Guardian (12 December 2018) Available: https://www.theguardian.com/world/2018/dec/12/hungary-passes-slave-law-prompting-fury-among-opposition-mps, accessed on 2nd December 2019

Gross, Stephen. "The German Economy and East-Central Europe: The development of intra-industry trade from *Ostpolitik* to the present." *German Politics and Society* 31, no. 3 (Autumn 2013): 83-105.

Harwit, Eric. "Japanese Management Methods and Western Investments in Eastern Europe: The case of the automotive industry." *The Columbia Journal of World Business* (Fall, 1993): 46-61.

Herczeg, Márk. "Vége a strájknak, megállapodott az Audi és a szakszervezet." *444* (30 January 2019) Available: https://444.hu/2019/01/30/vege-a-sztrajknak-megallapodott-az-audi-es-a-szakszervezet, accessed on 3rd December 2019.

Herzer, Dierk and Peter Nunnenkamp. "FDI and Income Inequality: Evidence from Europe," Kiel Working Paper no. 1675 (January 2011): 1-21.

Hoogvelt, Ankie. *Globalisation and the Postcolonial World: New political economy of development*. Baltimore, MD: John Hopkins University Press, 2001.

Humphrey, John. "Assembler-supplier relations in the European auto industry: Globalisation and national development." *Competition & Change* 4, no. 3 (2000): 245-271.

Humphrey, John and Olga Memedovic, "The Global Automotive Industry Value Chain: what prospects for upgrading by developing countries." *SSRN Electronic Journal* (September 2003): 1-50.

Jakab, Petra. *Egy nagyvállalat és a város együttműködése hírnevük alakításában: Hírnévelemek, a hírnév alakításának folyamatvizsgálata* (Győr: Szécsényi Isván Egyetem, 2017): 97-112.

Jürgens, Ulrich and Martin Krzywdzinski. "Work models in the Central European can industry: Towards the high road?" *Industrial Relations Journal* 40, No. 6 (2009): 471-490.

Kremer, Michael. "The O-ring theory of economic development." *The Quarterly Journal of Economics* 108, no. 3 (1993): 551-575.

Krings, Torben. "A Race to the Bottom? Trade Unions, EU Enlargement and the Free Movement of Labour." *European Journal of Industrial Relations* 15, no. 1 (2009): 49-69.

Krugman, Paul. "Growing World Trade: Causes and Consequences." *Brookings Papers on Economic Activity* 1995, no. 1 (1995): 327-377.

Krzywdzinski, Martin. "Automation, skill requirements and labour use strategies: High wage and low-wage approaches to high-tech manufacturing in the automotive industry." *New Technology, Work and Employment* 31, no. 3 (2017): 247-267.

Krzywdzinski, Martin. "Work Models Under Strain of Offshoring East-West Competition in the European Car Industry." Lecture on the 16th International GERPISA conference, Turin June 19th, 2008.

Mehmet, Ozay and Akbar Tavakoli. "Does foreign direct investment a cause race to the bottom? Evidence from four Asian countries." *Journal of the Asia Pacific Economy* 8, no. 2 (2003): 133-156.

Myant, Martin. "Why wages are still lower in Eastern and Central Europe?" ETUI Working Paper 2018.

Nölke, Andreas and Arjan Vliegenthart. "Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe." *World Politics* 61, no. 4 (2009): 670-702.

Ostry, Johnathan D. *et al*. "Redistribution, Inequality, and Growth." *International Monetary Fund* (April 2014): 1-30.

Pavlínek, Petr. "Foreign direct investment and the development of the automotive industry in Central and Eastern Europe," in *Eastern and Southern Europe After 2008: Still a Lever of Growth?* Edited by Béla Galóczi et al, 209-255. Brussels: European Trade Union Institute, December 2015.

Pavlínek, Petr *et al*. "Foreign Direct Investment and the Development of the Automotive industry in Eastern and Southern Europe." Working Paper, Brussels: European Trade Union Institute, March 2017.

Pavlínek, Petr. "Transformation of the Central and Eastern European passenger car industry: Selective peripheral integration through foreign direct investment." *Environment and Planning*, vol. 34 (2002): 1685-1709.

Piketty, Thomas. *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press, 2017 [2013].

Piketty, Thomas. *The Economics of Inequality*. Cambridge, MA: The Belknap Press of Harvard University Press, 2015.

Piketty, Thomas and Emmanuel Saez. "Inequality in the long run." *The Science of Inequality* 344, no. 6186 (May 2014): 838-842.

Pyke, Frank and Werner Sengenberger. *Industrial Districts and Local Economic Regeneration.* Geneva: International Labour Organisation, 1992.

Rodrik, Dani. *The New Global Economy and Developing Countries: Making Openness Work.* Washington, DC: John Hopkins University Press, 1999.

Rudra, Nita. *Globalisation and the Race to the Bottom in Developing Countries*. New York: Cambridge University Press, 2008.

Rechnitzer, János et al. "A magyar autóipar helyzete nemzetközi tükörben." *Hitelintézeti Szemle* 16, no. 1 (March 2017): 119-142.

Sadler, David and Adam Swain. "State and market in Eastern Europe: Regional development and workplace implications of the direct foreign investment in the automobile industry in Hungary." *Transaction of the Institute of British Geographers* 19, no. 4 (1994): 387-403.

Sarnyai, Gábor. "Successful Audi strike could mean a new era for workers." *Hungary Today* (31 January 201) Available: https://hungarytoday.hu/successful-audi-strike-could-bring-a-new-era-of-enforcement-of-workers-interests/, accessed on 3rd December 2019.

Sass, Magdolna. "Is a live dog better than a dead lion? Seeking alternative growth engines in the Visegrad countries." in *Condemned to Be Left Behind? Can Central and Eastern Europe emerge from its low-wage FDI-based growth model?* Edited by Béla Galóczi and Jan Drahokoupil, 47-79. Brussels, EUTI, 2017.

Skupnik, Christoph. "EU Enlargement and the Race to the Bottom of Welfare States." *IZA Journal of Migration* 3, no. 15 (2014): 1-21.

Sturgeon, Timothy J., Jan van Biesebroeck and Gary Gereffi. "Value Chains, Networks and Clusters: Reframing the Global Automotive Industry." *Journal of Economic Geography* 8 (2008): 297-321.

Szanyi, Miklós. "The emergence of the patronage state in Central Europe: The case of FDI-related policies in Hungary since 2010" in *Market Liberalism and Economic Patriotism in the Capitalist World-System*, edited by Tamás Gerőcs and Miklós Szanyi, 99-126. Cham, Switzerland: Palgrave Macmillan, 2018.

Tayfur, M. Faith. *Semiperipheral Development and Foreign Policy.* Aldershot, UK: Ashgate Publishing Limited, 2003.

Todaro, Michael P. and Stephen C. Smith. *Economic Development.* Essex, UK: Pearson Education Limited, 2011.

van Tilder, Rob and Denis Audet. "The Fastest Lane of Regionalism," in *Cars, Carriers of Regionalism?* edited by Jorge Carrillo *et al.*, 23-41. New York: Palgrave MacMillan, 2004.

Vernon, Raymond. "International investment and international trade in the production cycle." *The Quarterly Journal of Economics* 80, no. 2 (May 1966): 190-207.

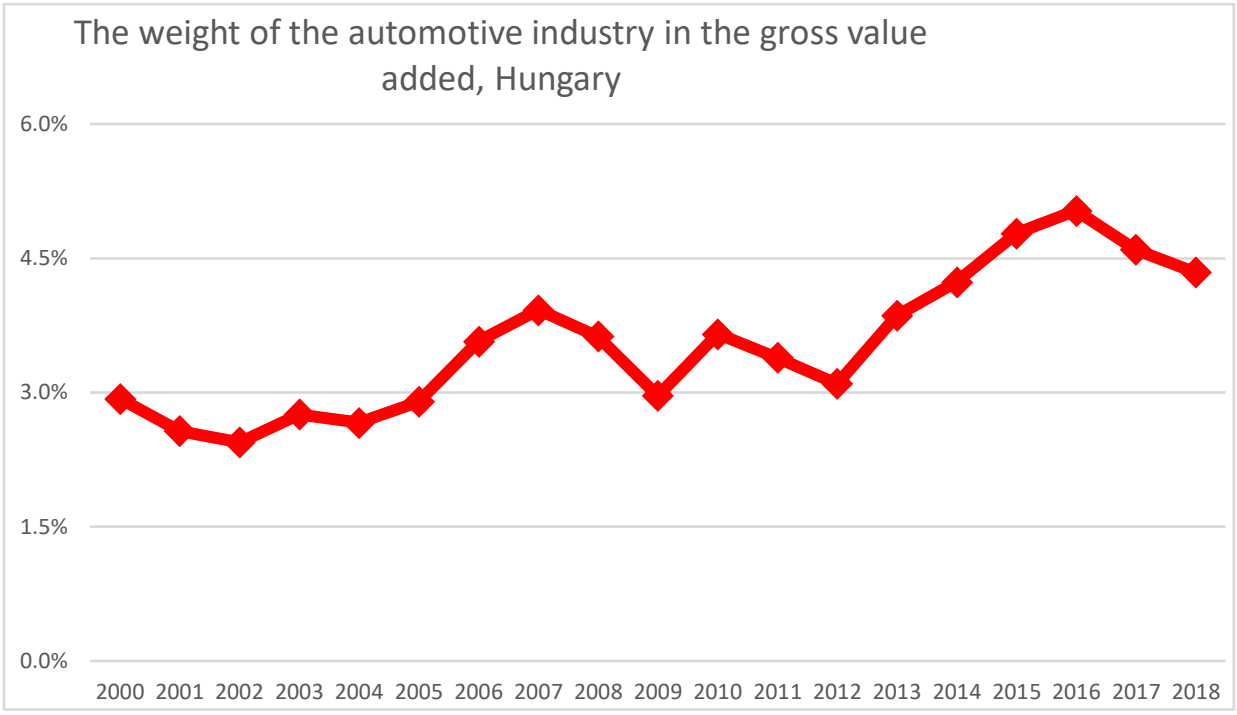
Wallerstein, Immanuel. *The Politics of the World Economy*. Cambridge: Cambridge University Press, 1984.

Wallerstein, Immanuel. *World System Analysis: An Introduction*. Durham: Duke University Press, 2004.

Weissenbacher, Rudy. "Peripheral integration and disintegration in Europe: The 'European dependency school' revisited." *Journal of Contemporary European Studies* 26, no. 1 (2018): 81-98.

Záborszky, Ede. "Az Audi szerint nincs elbocsáltás, mégis kevesebb ember fog a cégnek dolgozni." *Index* (31st October 2019) Available: https://index.hu/gazdasag/2019/10/31/az_audi_szerint_nincs_elbocsatas_megis_kevesebb_ember_fog_a_cegnel_dolgozni/, Accessed on 10th December 2019.

Appendix



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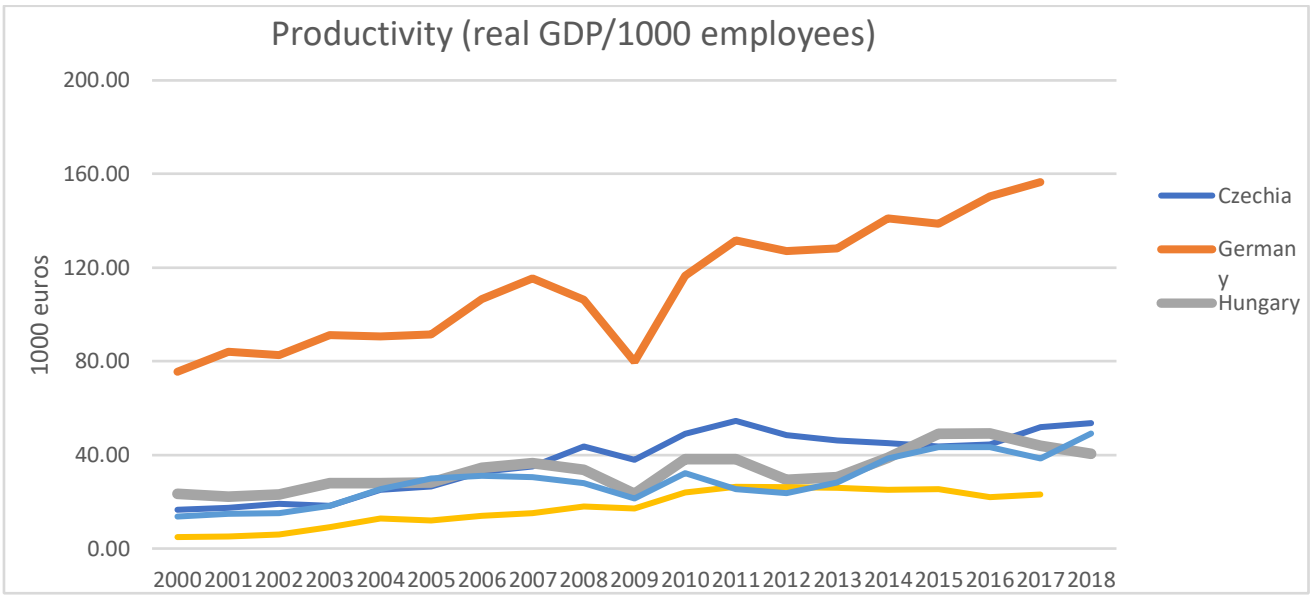

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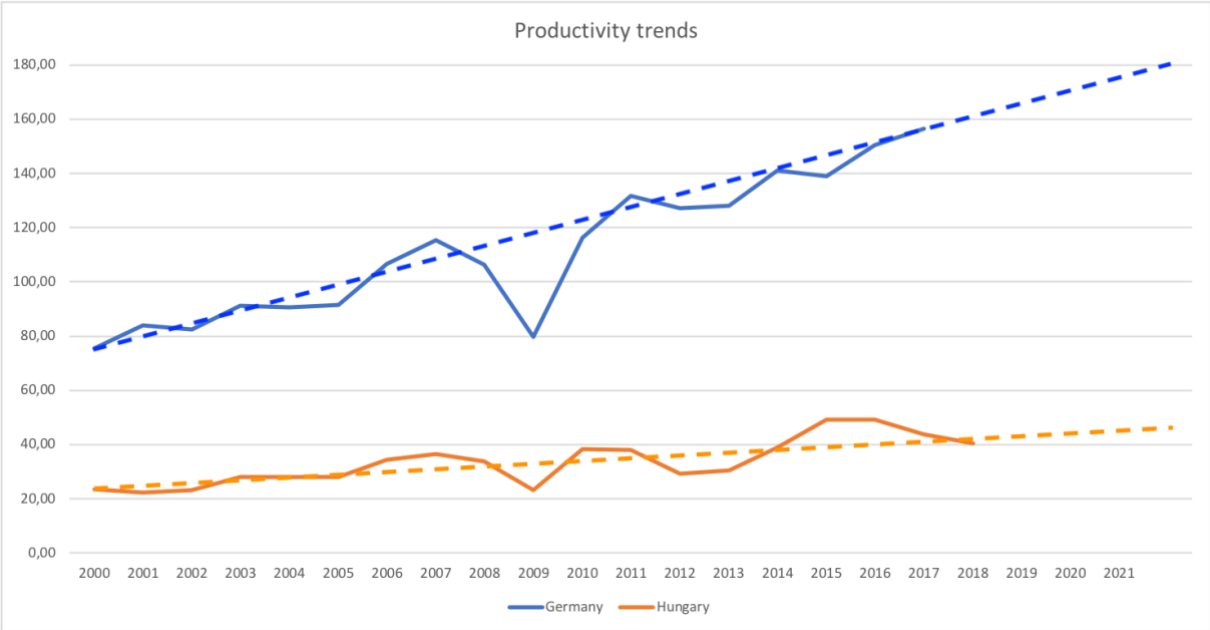

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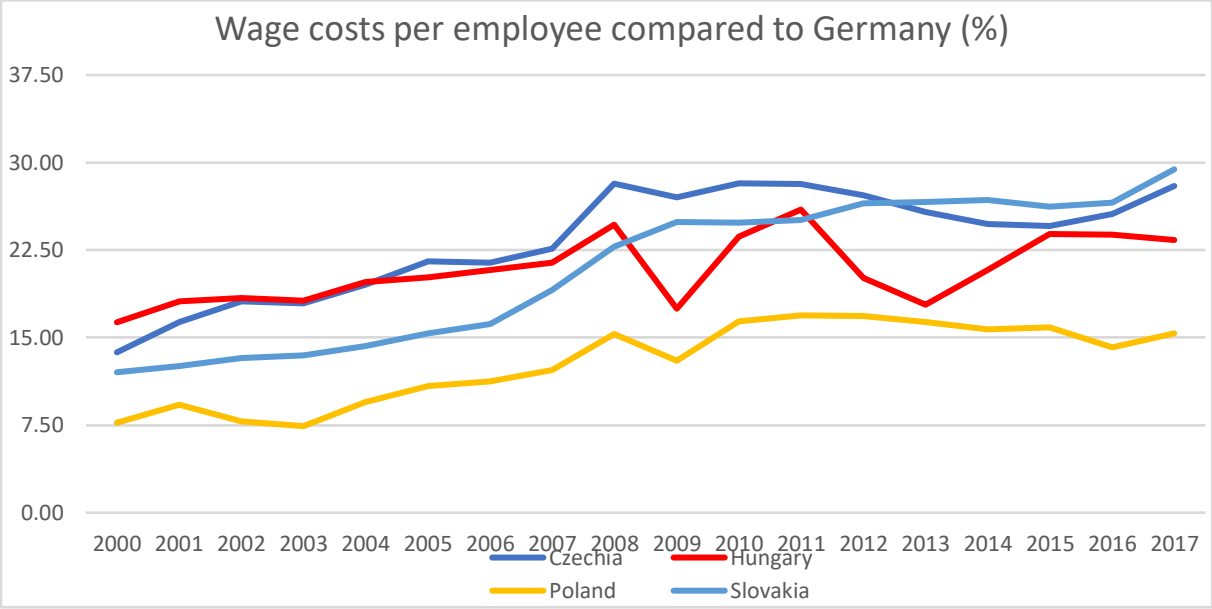

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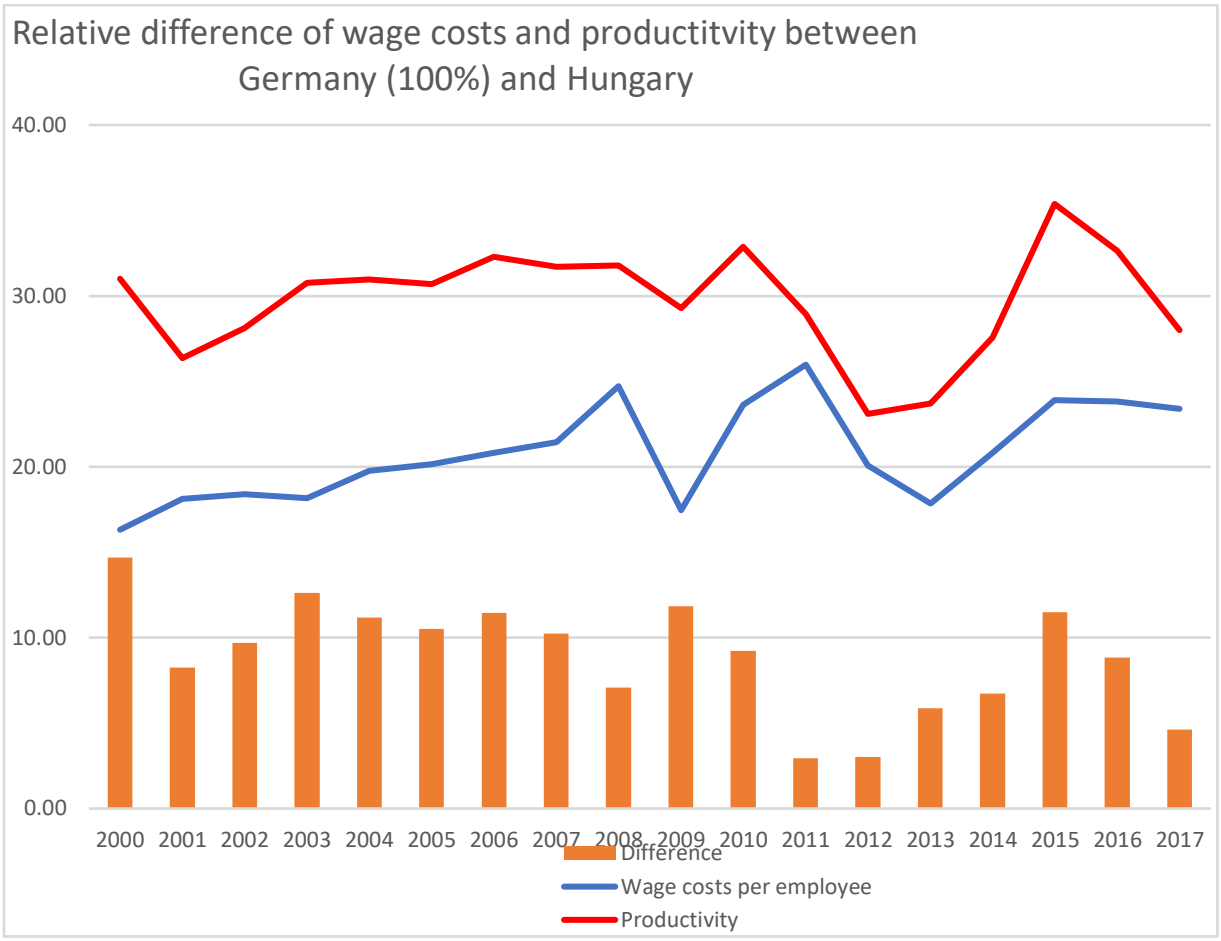

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Table 5 (Source: Eurostat)