Automotive outward FDI from the Visegrad countries and Austria: Do indigenous companies invest abroad?

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Abstract: Austria, Czechia, Hungary, Poland, and Slovakia have a relatively substantial outward FDI stock in the automotive industry. This may be a sign of increased competitiveness of indigenous automotive companies, but can be the result of other factors as well. Outward FDI data are analysed in the paper and compared with FATS data and company level data, taking into account their different content. Based on this comparative analysis, we conclude, that - opposed to the case of Austria and to some extent Poland and later on Czechia - the overwhelming majority of outward FDI realised from the other Visegrad countries in the automotive industry is actually realised by local subsidiaries of large foreign automakers, participating in global value chains, while indigenous firms hardly expand abroad through FDI. Developments over time are also highlighted, leading to changes in the position of Czechia in that respect. We highlight that the Visegrad countries are used to different extent as intermediary countries for outward investments of foreign multinationals. The reasons most likely include, besides the most often mentioned tax optimisation motivation, organisational reasons related to global value chains. Thus domestic firms represent none or a minor share of automotive outward FDI. That is why outward FDI is not a direct indicator of the international competitiveness of domestic firms in the Visegrad countries.

Keywords: automotive industry, outward foreign direct investments, Visegrad countries, Austria, tax optimisation, global value chains

JEL Classification codes: F21, F23, L62

INTRODUCTION

Czechia, Hungary, Poland and Slovakia – the Visegrad countries – are important players in the European automotive industry and by now they have become quite important outward investors in this industry. On one hand they represent around one sixth of European Union automotive production and around one fifth of European Union automotive employment, on the other hand, while these countries are still less important homes to outward FDI compared to their Western neighbors, automotive outward FDI is increasingly present, representing between 1.3 to 2.9 % of the total outward FDI stock and being one of the leading manufacturing sectors of outward FDI. Our main research question is whether there is a direct link between the increased importance of automotive production in these countries and their increased outward FDI in this industry, more specifically if domestically-owned or controlled automotive companies in the Visegrad countries have become so competitive over time that they are now able to successfully invest abroad and thus increase outward FDI in the industry. In our analysis, we point to the fact, that in certain countries, this increased outward FDI

activity is carried out partially or fully by locally operational, but foreign-owned companies, thus the domestically-owned or controlled firms carry out either no outward FDI or are responsible for just a part of outward FDI. In this paper, we analyze the Visegrad countries together with Austria, a developed economy, which is home to 'older' multinationals in and more integrated into the international networks of the analyzed industry and thus provides a good comparative case. We use a simple statistical comparison of data from various data sources, taking into account their different content and coverage and supplement this analysis with company-level information.

Our contribution to the literature is twofold: we show that increased outward FDI (balance of payments) is not necessarily reflecting increased international competitiveness of the firms in the analyzed countries. Second, we call the attention to the importance of the analysis of indirect outward FDI in general and in the automotive industry in particular.

Our paper is organized as follows. First we present the background to our study and a short review of the relevant literature. In the next section, the methodology is presented. The following section shows the results of the macro-level and then company-level analyses, followed by a short discussion. Lastly, conclusions, the limitations of our approach as well as potential avenues for further research are presented.

1 BACKGROUND AND REVIEW OF THE LITERATURE

Automotive activities are not new in Austria, nor in the Visegrad countries. In the planned economy period, one of the strategic aims was to establish and nurture a local automotive or rather vehicle industry. Czechoslovakia and Poland at that time had their own brands, while Hungary specialized in bus production (Havas, 2000). After the transition process started in 1989-90, with different timing in the four countries, foreign automotive investors acquired or established through greenfield investments their production plants. The main reasons for their interest was the availability of relatively skilled but cheap labor in an increasingly liberalized market economy environment with flexible labor regulations and industry traditions in a geographically close market, which has become increasingly integrated into the European Union and offered various and generous incentives to investors – and thus they could build these newly available locations into their corporate strategies and networks (Pavlínek et al., 2009; Pavlínek, 2019). While Austria belongs to the automotive semi-periphery of Europe, the Visegrad countries are rather part of the integrated periphery, with Czechia oscillating between the two categories (Pavlínek, 2022). The position of the analyzed countries had not changed substantially during the bleak years of the 2008-9 financial crisis: multinationals did not relocate their activity from Hungary to lower-wage countries (and the case was similar for the other analyzed economies), which can be explained mainly by the fact that they have realized additional investments, labor market regulation and government policy were increasingly beneficial for them, and there were too few alternative sites of relocation (Rugraff & Sass, 2016). Similarly, the COVID-crisis has not induced substantial relocations. Thus the industry remained dominant in the region, in spite of the depressing effects of the various crises. The Visegrad countries play an important role now in the automotive industry of the European Union and even of the world economy as the data presented in the Introduction indicate, and on the other hand, the automotive industry is dominant in their manufacturing industry in terms of production, employment and exports (Éltető et al., 2015; Gáspár et al., 2023). Many question marks arise in connection with the consequences of the transition to electric vehicles for these economies, which may be a slow process with considerable risks and potential job losses (Pavlínek, 2023), but may not change substantially the integrated periphery status of the analyzed Visegrad countries and the semi-periphery status of Austria.

Outward FDI in the Visegrad automotive industry and the activities of the investing firms are rarely analyzed in the literature. In the case of Poland, Domanski et al. (2008) showed the negligible outward FDI in the automotive industry from Poland at that time, dwarfed by incoming automotive FDI. Radlo (2012) noted the presence of a Polish emerging automotive multinational. In a detailed recent case study, Micek et al. (2021) found that the international expansion of domestic-owned Polish firms, including in the automotive industry is determined by three mechanisms: first, the development of Central-Eastern European economies, second, the evolution of the Western European core, and third, the trajectory of individual Polish firms. There is a dynamic interdependence between firm-specific capabilities and the changing characteristics of the countries. They note that the outward expansion of Polish automotive firms started in 2010, it first targeted mainly Eastern European countries with export-platform type FDI, and later on Western European (market-seeking) and non-European (follow-the client) markets. It was based on an organic growth of companies beginning as suppliers for foreign MNCs and/or leaders in the domestic market. They also mention the relatively small size of these firms and thus their limited impact on the Polish automotive industry. They name Wielton, Sanok and Groclin as leading outward investing Polish firms. In the case of Czechia, Zemplinerova (2012) noted the dominance of indirect outward FDI in the Czech automotive sector at that time, dominated mainly by the foreign investments of the German-owned Škoda company in faraway countries, including India. Škoda now has its own production operations in countries like India, Ukraine, Bosnia-Herzegovina and elsewhere (Gazo et al., 2021). In the case of Hungary, the lack of competitive domestic-owned automotive companies is noted. Sass & Vlčkova (2019) mention the case of Videoton, a domestic-owned electronics manufacturing service provider firms, which is an outward investing firm as well (Bulgaria and a joint venture in Ukraine, this latter closed down) and is an automotive supplier, but its main activity is in electronics. In another paper, Sass (2020) I noted for the Visegrad countries, that with the partial exception of Poland, their automotive outward FDI is realized by local subsidiaries of foreign multinationals. That was completely the case of Hungary, where there are no domestic firms among the foreign investors.

Some of the previous studies already noted that in the automotive industry, indirect outward FDI is present in the Visegrad countries. Indirect FDI is an investment abroad undertaken by an affiliate of a foreign multinational company that has been established in a different host country from that of the host country of the new investment. Direct outward FDI on the other hand is realized by indigenous (domestic-owned or controlled) firms. The importance of distinction between indirect and direct outward FDI is explained through showing that their motivations, impact on the home and host economies may differ (UNCTAD, 1998; Bellak, 1998; Kalotay, 2012), and of course, their ownership background can be completely different. Furthermore, the importance of this distinction is underlined by the fact that both direct and indirect FDI is included in the outward FDI statistics of a given country, presented in the balance of payments (Bellak, 1998). Thus outward FDI data in the balance of payments are not equal to outward investments realized by indigenous, domestically owned firms. It contains outward FDI by all locally operational (resident) firms, regardless of their ownership structure. According to the literature, at the aggregate level, in terms of the relative shares of domestically-owned or controlled companies and locally operational but foreign-owned subsidiaries in total outward FDI, countries vary. For example, Rugraff (2010) has highlighted that the outward direct versus indirect FDI composition of the Visegrad countries differs from each other. This is confirmed by other studies, which showed that in the case of Slovenia (Jaklič & Svetličič, 2009) and Poland (Kaliszuk & Wancio, 2013), it is mainly locally-owned firms that invest abroad. In contrast, in the case of Hungary (Antalóczy & Éltető, 2003, Szalavetz, 2010), foreign-owned subsidiaries may dominate, while in Czechia, the nature of this composition is rather ambiguous (Zemplinerova, 2012; Sass & Vlčkova, 2019). These latter papers address the topic of indirect outward FDI at the macro level, we could not come across studies on the automotive industry.

2 METHODOLOGY

We have extended and updated the analysis presented in Sass (2020). Thus first, we rely on a simple comparison of statistical data, taking into account their different content and drawing conclusion from differences between them. We compare the set on host countries of outward FDI in the balance of payments FDI data and in the FATS data (foreign affiliate statistics), as detailed below. Second, we supplement our analysis with company cases from the five analyzed countries. We define automotive industry as NACE C29, concentrating on the carmakers, and exclude components makers and those producing commercial vehicles. This is with the aim of simplifying the analysis.

Furthermore, we rely on the above mentioned concept of indirect outward FDI (Kalotay, 2012). Indirect FDI is an investment abroad undertaken by a subsidiary of a foreign multinational company that has been established in a different host country from that of the host country of the new investment. Due to the principles of the balance payments (recording transactions between residents and nonresidents), both direct and indirect FDI is included in the outward FDI statistics of a given country under one heading. Thus, in our case, foreign investment projects undertaken both by indigenous Visegrad/Austrian multinationals and by local subsidiaries of foreign multinationals are included in the data. In the macro analysis, we rely on data on outward FDI presented in the balance of payments at the same industry classification (NACE C29). As this data contains the amount of both direct and indirect outward FDI, i.e. all resident domestically-owned or controlled firms and those of local subsidiaries of foreign multinationals, we supplement and compare this data with other datasets. First, the most important Visegrad home countries of automotive outward FDI are identified on the basis of the Eurostat data on outward FDI at the industry level. Second, FATS data are used to present the host countries of ultimately Visegrad/Austrian-owned subsidiaries and compared with the host countries of the balance of payments FDI data with the aim of underlining the differences. Third, a few important outward investing firms are identified and analyzed based on available sources (company websites, balance sheets, case studies, articles in specialized journals). Information from these different sources is then compared and analyzed and conclusions are drawn.

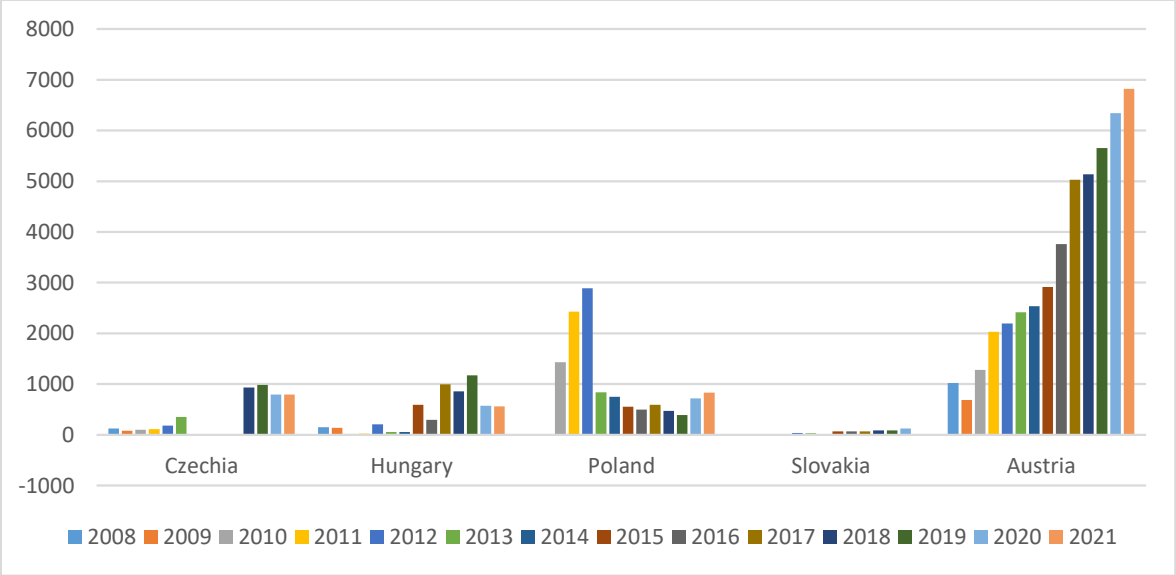
3 ANALYSIS AND RESULTS

Our methodology is based on the comparison of statistical data taking into account their various content and coverage and in a supplementary manner, we add some company level information. First, various macro-level data on the stock of FDI and on host countries are presented, analyzed and compared concerning the outward FDI in the automotive industry from the four Visegrad countries and Austria. Then, to get a fuller picture, we go down to the company level and identify companies carrying out direct outward FDI (realized by domestically owned firms) and indirect outward FDI (realized by local subsidiaries of foreign multinational companies) in the analyzed countries.

In total outward FDI, and within that in manufacturing outward FDI, the automotive industry plays a relatively important role in the four countries (Fig. 1). According to OECD data, in 2021 it represented 1.5 % of total in Czechia; 1.3 % in Hungary, 2.9 % (2018) in Poland, 2.5 % in Austria and 2.3% (2020) in Slovakia. (For Poland and Slovakia, the latest available data are presented.) At the end of the period, Austria had the highest stock, followed by Poland, Czechia and Hungary. An interesting feature of Figure 1 is that – with the exception of Austria and to some extent Slovakia, which has the smallest investment among the five countries - outward stock data behave in a "chaotic" way, they fluctuate extensively from year to year. This may

reflect, that other than the traditional outward FDI shaping (level of development, competitiveness of local firms etc.) factors are at play and affect outward FDI and also the ongoing and intense consolidation process in the industry.

Fig. 1 Outward FDI positions in the automotive industry, selected economies, 2008-2021 (million USD)



Source: FDI positions by industry BMD 4, OECD inward and outward FDI by industry https://stats.oecd.org/Index.aspx?QueryId=64238#

In order to have an idea about the differences between direct and indirect outward automotive FDI, we compare their host countries. On one hand those host countries, which are listed in the balance of payments related FDI statistics, containing both direct and indirect outward FDI's host economies (outward direct investment by resident entities) with more than 10 % ownership shares, and on the other hand, host economies according to FATS data, which are put together according to the ultimate owners' nationality principle. Thus, they present data on the host economies of those automotive FDI, of which the ultimate controlling owner is located in the analyzed countries, i.e. just direct outward FDI (plus outward FDI, ultimately owned by the companies of the country in question, but getting to the host country via an intermediary country) (Table 1). Controlling owner refers to above 50 % ownership share.

Table 1 Host countries of automotive outward FDI from the selected economies according to BOP outward FDI statistics and FATS (2020)

	BOP OFDI, host countries	FATS host countries
Czechia	Germany, France, Italy, Hungary, Slovakia, Finland, Russia, Hong Kong, India	US, China
Hungary	Germany, Spain, Italy, Poland	-
Poland	Belgium, Czechia, Germany, Greece, France, Italy, Latvia, Lithuania, Netherlands, Portugal, Slovakia, Finland, Sweden, Norway, Switzerland, Turkey, Russia, Morocco, Canada, US,	EU (Czechia, Germany, Spain, France, Italy, Netherlands), Russia, China, Brazil, India

	Mexico, Brazil, China, Hong Kong, India	
Slovakia	Czechia	©
Austria	confidential	EU (Belgium, Bulgaria, Czechia, Denmark, Germany, Spain, France, Croatia, Italy, Hungary, Netherlands, Poland, Portugal, Romania, Slovenia, Sweden), Norway, Switzerland, Russia, Canada, Brazil, China, US, Japan

Source: Eurostat

According to BOP data, with the exception of Slovakia, all countries had quite geographically diverse country-targets of outward automotive FDI. Though the main target countries are in Europe, we can find certain Asian and African countries on these lists in the case of Czechia and Poland. The fact that data for Austria are confidential shows that there can be just a few destination countries of outward automotive FDI from this country. However, FATS data, based on the nationality of the ultimate controlling owners of automotive projects, show a completely different pattern. Hungary had no ultimately controlled outward FDI in the analyzed industry according to FATS, this indicates that in this economy, it is only indirect FDI, which had been realized by locally operational subsidiaries of foreign-owned multinational companies up till 2020. Thus domestically owned or controlled firms have not invested abroad. On the other hand, in Poland and Austria, outward investments in the analyzed industry are substantial by domestically owned or controlled firms (direct outward FDI) and are spread over a relatively large set of countries, again, mainly in Europe, but a few countries in other continents are also included in these lists. Furthermore, Czechia and Slovakia are somewhere in-between these two extremes. There are some outward investment projects from Czechia by ultimately Czech-owned firms, outside Europe. In the case of Slovakia, we can assume that data are confidential, because there is only one target country (and maybe one relevant project).

We already mentioned the fluctuation and changes over time in connection with BOP data (Figure 1). This is reinforced by the data presented in Table 2, which is based on FATS data and thus contains the number of ultimately Visegrad and Austria-owned and controlled subsidiaries in foreign countries in the automotive industry. For Hungary, data denote the same: no outward automotive FDI by domestic-owned firms. The high number of domestic-owned firms investing abroad is present in Poland and especially in Austria. The number of domestic-owned firms is low and in one year even zero in the case of Czechia and confidentially low (1 or 2 firms up till 2019) in Slovakia. This shows the same pattern, with domestic firms active in outward expansion in Poland and Austria, no outward expansion in Hungary and in-between cases of Czechia and Slovakia. For the two latter countries this may indicate that domestic-owned firms in these countries started their foreign expansion through FDI just recently – as it can be denoted based on data for earlier years in Sass (2020).

Table 2 Number of ultimately domestic-owned automotive firms with foreign controlled assets (2017-2020)

	2017	2018	2019	2020
Austria	107	111	97	187
Czechia	3	c	0	5
Hungary	0	0	0	0
Poland	28	14	13	16
Slovakia	c	c	c	4

Source: Eurostat

In order to have a fuller picture, we identified certain important foreign investor firms in the analyzed countries (Table 3). We could not identify any of the 5 foreign investor automotive firms in Slovakia. In the other countries, the collected information is in line with the respective data of Table 1. We could identify foreign-owned firms in Czechia and Hungary, which are important foreign investors (indirect outward FDI). However, we could not identify the 3 domestic-owned foreign investing firms in Czechia. In the case of Austria and Poland, we identified important domestically-owned foreign investing firms. We can find correspondence between the foreign investment locations as well between Table 1 and Table 3 for Austria and Poland. In the Polish case, the selected company is also mentioned by Micek et al. (2021) as one of the leading automotive outward investors. Inconsistencies between tables may be the result of the fact, that companies report even minority-owned affiliates, while these are not included in the FATS statistics (there the threshold level is 50 % ownership share). Another reason can be, that outward investments can be indirect, i.e. going through other countries before reaching their final host country. Based on the findings of Sass and Vlcková (2019) that may be the reason why we could not find Czech-owned foreign investing firms as they may go abroad through their foreign holding companies for tax optimization and institutional reasons. A noteworthy observation is that both foreign-owned and domestically-owned foreign investing companies tend to invest in other Visegrad locations too, which signals the presence and importance of regional value chains in Central Europe. However, Polish and Austrian (and more recently Czech) foreign investing firms venture further away from the region.

Table 3 Company cases from the analyzed countries

Company name	Activity	Country	Ultimate owner's nationality	Foreign investment locations (of the Visegrad parent or subsidiary)
Hirschmann Automotive	car parts production	Austria	Austrian	Czechia, Romania, Morocco, Germany, Mexico, China
MIBA AG	car parts production	Austria	Austrian	Slovakia, USA, China, Brazil, India, Germany, Czechia, Slovenia
Škoda	car production	Czechia	German	Slovakia, India
Lear Corporation	car parts production	Hungary	United States	Poland
Wielton SA	semi-trailers, trailers and car bodies manufacturer	Poland	Polish	France, Germany, United Kingdom, Spain, Italy, Russia; Ivory Coast

Source: company websites, annual reports and balance sheet data

All companies are operational in the automotive industry (Table 3), highly integrated in mainly European automotive value chains, but also – according to the list of the foreign locations –

they expand to other continents. In line with Micek et al. (2021), this can be motivated by establishing export-platform type of operations. In the case of the Austrian and Polish carmakers, they go abroad in order to expand their own value chains – or, besides that, in the case of the Austrian company, to provide the parts locally to their partners. Thus the efficiency-seeking and follow-client motives can also be present and there can be links to the operations of global value chains in the industry, which must be explored further.

4 DISCUSSION

The presence of indirect outward FDI in the Visegrad countries has been highlighted by macro-level studies (among others Rugraff, 2010; Zemplinerova, 2012; Sass & Vlčkova, 2019). Various studies also highlighted the different composition in terms of direct versus indirect outward FDI in the analyzed economies (Rugraff, 2010). We could reinforce both the presence of indirect outward FDI and the different direct-indirect outward FDI composition in the Visegrad economies at the industry level, in the automotive industry. We found that there can be a few indigenous, domestic-owned firms, which invest abroad in the automotive industry, in line with the findings of Micek et al. (2021) for Poland. Thus we can state that increased outward FDI is not necessarily a sign of increased competitiveness of indigenous firms, due to the (strong) presence of indirect outward FDI, when locally operational foreign–owned subsidiaries invest abroad. Furthermore, similarly to the Polish case (shown in Micek et al., 2021), in the other three Visegrad countries it is also true that increased competitiveness of domestic-owned firms translates itself very slowly in increased outward FDI. For this latter we show that in Czechia and Slovakia, it is only quite recently that a low number of domestic-owned firms invest abroad. In Hungary, on the other hand, this increased competitiveness in the industry has not nurtured yet any domestic-owned multinational company. Thus the Visegrad countries belong to different groups: in Poland, a relatively high number of domestic-owned automotive firms invested abroad, in Czechia and Slovakia a very low number started that process recently, while in Hungary there are none. Thus the indirect-direct automotive outward composition really differs: in Poland the share of direct in total is estimated to be the highest one among the 4 countires (similarly to Austria), Czechia and Slovakia have a minor direct share, whereas Hungary has no direct just indirect automotive outward FDI. The reasons for the different composition can be various. Micek et al. (2021) document how the increase in competitiveness of Polish firms was helped by inward FDI (through local firms becoming suppliers to foreign multinationals' subsidiaries) and by government programmes. The actual mechanisms need further investigation.

Another interesting takeaway is how fragile the position of these outward investing firms is: the annual fluctuation of the number of domestic-owned outward investing firms is high, even in the case of the country with the longest outward investing history: Austria. This may be explained by the ongoing consolidation, mergers and acquisitions in the industry, which faces many challenges from regulations (ecars) and technology changes. Another area which needs further investigations.

Another main point concerns the data. Outward FDI data may be shaped and influenced by various factors, not only by the competitiveness of domestic-owned firms. One reason for that is that BOP FDI data contain outward direct investments realized by resident firms, i.e. domestic-owned as well as foreign-owned firms, operating in the country in question. According to our data, indirect outward FDI (i.e. those by locally operational, foreign-owned subsidiaries) dominate automotive outward FDI in the Visegrad countries, with a possible exception of Poland. The company cases of Škoda, dominating Czech outward FDI and Lear Corporation, representing around one-third of Hungarian automotive outward FDI stock, are two outstanding cases. In these companies, for Škoda, the relative independence of the company with own model and GVC (Gazo et al., 2021) may be an explanatory factor, for Lear,

tax optimization (given the favorable tax environment offered by Hungary) may explain that. Thus we could identify two other factors, which may influence outward FDI in the automotive industry besides the level of international competitiveness of domestic-owned firms: GVC-related organizational aspects and tax optimization reasons. It is important to note, that outward FDI data from the BOP can even be lower, than the value of foreign FDI projects ultimately controlled by the firms of the given country. At the macro level we can assume that for Czechia, whereby outward investments are realized by foreign holding companies and not from Czechia (Sass and Vlcková, 2019). This may be the case in the automotive industry as well, as we could not identify those five Czech automotive firms, which have controlled foreign investments. Similar can be the case for Slovakia.

CONCLUSION

The Visegrad countries and Austria are relatively important outward investors in the automotive industry according to the balance of payments data, which may reflect the increased international competitiveness of domestic firms. Through a closer look at the outward FDI data, we have found, that automotive outward FDI is actually realized by local subsidiaries of large foreign automakers, while indigenous firms expand abroad through FDI to a more limited extent. The five analyzed countries differ in that respect: in the case of Hungary, we cannot find domestic carmakers, which would invest abroad. That was the case for Czechia and Slovakia, but by 2020, we can find a few outward investing domestic firms in these countries. On the other hand, in Austria and Poland, it is partly domestically-owned firms, which invest abroad. A selected number of company case studies reinforced our findings. Thus, at least up till 2020 until when the relevant data are available, the relatively large outward FDI stock in the automotive industry is a result of increased international competitiveness of indigenous firms just to a limited extent in the Visegrad countries, but it is rather indirect outward FDI realized by local subsidiaries of large automotive multinationals, due to various reasons, for example tax optimization or organizational reasons related to global value chains. Consequently, outward FDI is not necessarily a good measure to show outward FDI realized by domestically-owned firms and therefore the evolution of international competitiveness of domestically-owned firms. Another interesting point is the volatility of the number of outward investing, domestically controlled firms. This may refer to the fragility of factors of international competitiveness at the firm level as well as to the ongoing and constant consolidation in the industry.

Our analysis is limited due to the low number of company cases as well as due to the fact that FATS data are available with a considerable time lag, which meant that we had to rely on 2020 data. Changes since then may have led to more substantial outward FDI by indigenous firms in the three countries as well – as changes between 2017 and 2020 in Czechia and Slovakia indicated.

There are many possible avenues for further research, some of them already mentioned in the Discussion section. The dynamics of the changes could be further investigated. An important further analysis can be obtained by deeper examination of company cases may give us ideas about the main factors of competitiveness of domestic firms and the main reasons why foreign-owned firms chose indirect outward FDI.

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