SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2025
ORGANIZATION AND MANAGEMENT SERIES NO. 219

FOREIGN DIRECT INVESTMENT IN THE VISEGRAD GROUP IN THE CONTEXT OF THEIR INTERNATIONAL COMPETITIVENESS

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Purpose: The aim of the article is to identify foreign direct investments in the Visegrad Group countries against the background of selected rankings measuring the parameters of the competitiveness of economies.
Design/methodology/approach: For the study identifying foreign direct investments in the Visegrad Group in the context of its international competitiveness, a literature query was carried out using the Scopus database. Additionally, using the VOSwiewer programme, keyword links of articles related to the subject under consideration were presented. Next we based on information obtained from statistical sources published by institutions dealing with the identification of international capital flows, as well as international competitiveness: the United Nations Conference on Trade and Development, World Economic Forum, World Bank, Heritage Foundation, Legatum Institute. This study uses a variety of methods, such as statistical and economic analyses, comparisons, analogies, synthesis, the method of measuring and aggregating data, and the tabular method.
Findings: The results of this study indicated that the Czech Republic and Poland are the most competitive countries among the Visegrad Group. They also absorbed the highest capital in the form of FDI in the analysed period. It was due to their macroeconomic stability, high productivity of labour resources, innovation capability, and, in the case of Poland, market size.
Practical implications: The results of the study might have practical applications in decision-making processes regarding the choice of business location in the Visegrad Group countries.
Originality/value: Although the topic of foreign direct investment in the Visegrad Group countries has been discussed in the available literature, there is only a few studies conducted in the context of the international competitiveness of these countries.
Keywords: international competitiveness, foreign direct investment (FDI), Visegrad Group (V4).
Category of the paper: Research paper.

1. Introduction

The countries of the Visegrad Group (V4) are linked by a common history, geopolitical conditions, cultural and religious elements. Of great importance for their current economic situation was the event that took place after World War II. The analysed countries were incorporated into the Eastern Bloc under the control of the USSR, which decided their foreign policy and the fundamental directions of economic policy. For almost half a century, the economic system of the V4 countries was based on social ownership of production. Politically, these countries were united by their participation in the Warsaw Pact and the Council for Mutual Economic Assistance, which had a major impact on their economies and social structure. In the early 1990s, the V4 countries began a process of transformation, transforming their economies from centrally planned to market-based. It was a period of difficult economic reforms including privatisation of state-owned enterprises, trade liberalisation and tax reforms. Countries opened up to foreign direct investment, seeing it as an engine of development. Despite the implementation of common policies within the Visegrad Group, countries compete to attract foreign direct investment (FDI). Their efforts in this regard focus on improving competitiveness, as reflected in various rankings.

The aim of the article is to identify foreign direct investments in the Visegrad Group countries against the background of selected rankings that measure the parameters of the competitiveness of economies.

The rest of this paper is organised as follows. The following section provides a brief general overview of the literature related to national competitiveness of countries and FDI. The methodology used in the research is presented next. The research findings are then discussed. Finally, the general conclusions are stated.

2. Literature review

The competitiveness of countries is perceived mainly through productivity, as it is the primary determinant of growth, income levels, and long-term standard of living. Productivity is the value of the output produced by a unit of labour or capital. The productivity of labour resources determines employee wages and improves the welfare of the society, while the productivity with which the capital is engaged determines the rate of return for investors (Porter, 1990). Therefore, it is often emphasized that countries with higher productivity (more competitive) may offer more to both their society and investors who locate capital there.

The World Economic Forum (2016), which has been measuring competitiveness among countries, defines it as "the set of institutions, policies and factors that determine the level of productivity of a country". Countries' competitiveness is assessed in various areas, which mostly comprise the macroeconomic environment, innovation, infrastructure, market size, education, labour market efficiency, health of society and institutional factors. Those ingredients create a favorable environment for running business, increasing productivity and incomes. It is especially important in the context of international business, because foreign capital scours the world in search of best location. Therefore, individual countries compete with each other for foreign direct investors, and those that have the advantages they need, i.e. are attractive for investors, have a chance to raise capital.

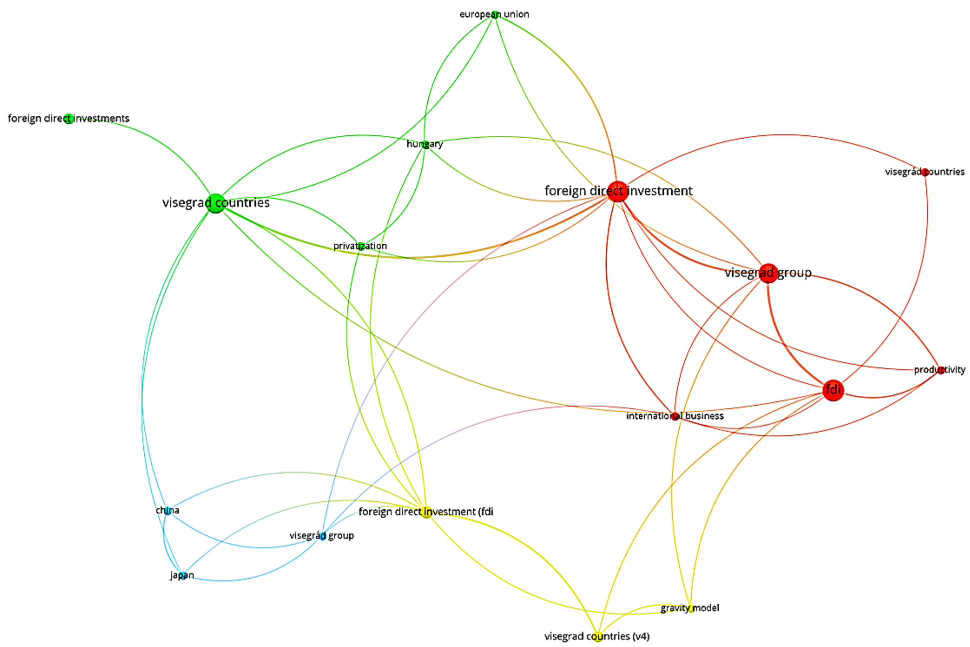
Countries located close to each other often have very similar locational advantages. In this case, competing for foreign capital is particularly difficult and requires creating more favourable conditions for investment than the others. Multinational enterprises regularly compare the relative location specific advantages (competitive advatages) of particular countries, when deciding where to invest. Therefore, it is especially important to constantly work on country's advantages development and to offer investors what they need (Dunning, Zhang, 2008).

In this regard, researches often assume that the more competitive (productive) a country is, the more likely it is to attract FDI. Therefore, the scale of inward FDI in a country it used to expresses its competitiveness as a business location. On the other hand, FDI is also perceived as a source of a country's competitiveness, because they improve the country's productivity through knowledge and technology transfer (Gabor, 2000; Stankov, Damnjanović, Roganović, 2018).

Despite the high importance of the issue of the relationship between foreign direct investment and the competitiveness/attractiveness of countries, it is not a research problem often explored in the context of Visegrad countries. Based on a review of articles indexed in the Scopus database using the keywords 'foreign direct investment' or 'FDI' and 'Visegrad Group' or 'Visegrad countries', it was possible to identify 39 papers, including only one on FDI and competitiveness (Novák, Darmo, Osusky, 2024). More articles deal with topics such as inflows or sectoral and geographic analysis of FDI (Chetverikova, 2022; Szunomár, 2021; Gubik et al., 2020; Vlčková, 2018; Kuzel, 2017; Klich, 2017); factors influencing FDI decision and role of macroeconomic and institutional variables in attracting FDI (Jedlička, 2023; Hassan, 2022; Singh, 2022; Salamaga, 2021; Klimek, 2020; Wojciechowski, Makieła, 2019; Su, 2018; Wach, Wojciechowski, 2016; Dorożyński, Kuna-Marszałek, 2016; Wojciechowski, 2013); FDI and trade relations (Lomachynska et al., 2020; Zysk, Smiech, 2014; Clarke, Slovik, 2007), the importance of FDI for economies or their selected economic areas (Leitão, 2023; Salamaga, 2023; Darfo-Oduro, 2022; Éltető et al., 2022; Kottková, 2022; Makiela et al., 2021; Hintošová et al., 2020; Capik, Drahokoupil, 2011; Dudas, Lukac, 2014; Vlachos, Kalimeris, 2010). Furthermore, among other non-replicated themes, one can point to FDI in the context of

EU integration (Cristani, 2021); profit reinvestment issues (Prochazka, Cerna, 2022) or the post-COVID-19 shift in FDI strategies (Kalotay, Sass, 2021). A visualisation of the keywords used in the 39 articles analysed is presented in the following diagram.

In addition, a linkage analysis of the author's keywords included in the examined articles was performed using the VOSviewer programme. Due to the relatively small number of publications, the number of occurrences was used on level 2. Visualisation of these links is presented in figure 1. The visualisation shows 4 distinct clusters. The first cluster (red) contains the main keyword 'foreign direct investment' strongly linked to the terms 'visegrad group', 'international business' and 'productivity'. Second cluster (green) contains the main keyword 'visegrad countries', which is linked to the terms: 'foreign direct investment', 'privatization', 'european union' and 'hungary'. The third cluster with the main words 'china', 'japan' occurs in relation to the term 'visegrad group'. The last cluster (yellow) contains the main keyword 'foreign direct investment (fdi)' occurring in relation to 'visegrad countries (v4)' and 'gravity model'.



Note: Minimum number of occurrences of authors keywords: 2 of the 152 keywords, 17 meet the threshold.

Figure 1. Keyword map.

Source: own study based on Scopus and VOSviewer.

3. Methods

For the study identifying foreign direct investments in the Visegrad Group in the context of its international competitiveness, a literature query was carried out using the Scopus database. Additionally, using the VOSwiewer programme, keyword links of articles related to the subject under consideration were presented.

The study is based also on information obtained from statistical sources published by institutions dealing with the identification of international capital flows, as well as international competitiveness: the United Nations Conference on Trade and Development, World Economic Forum, World Bank, Heritage Foundation, Legatum Institute. The information includes the following: 1) The position of V4 countries in the world according to the Doing Business Index in the years 2010-2020 and Business Ready in 2024, 2) The position of V4 countries in the world according to the Legatum Prosperity Index in the years 2011-2023, 3) The position of V4 countries in the world according to the Index of Economic Freedom in the years 2010-2024, 4) The position of V4 countries in the world according to the Global Competitiveness Index in the years 2011-2023 and 5) FDI flows and stocks in V4 countries in the years 2010-2023. This study uses a variety of methods, such as statistical and economic analyses, comparisons, analogies, synthesis, as well as the method of measuring and aggregating data, and the tabular method. The choice of economic parameters presented below is based on the results of a preliminary query of the scientific literature on the subject, available statistical data, as well as the research experience of the authors and their own conclusions.

4. Results and Discussion

Numerous scientific research and consulting centres around the world share their research results and help companies make decisions on foreign direct investment. When choosing where to allocate capital (country of investment), the results of research on investment attractiveness or international competitiveness, included in various rankings, are important (Jaworek et al., 2022).

The World Bank reports published until 2020, assessing the ease of doing business through the Doing Business Index (DBI), were internationally recognised studies on an important area of international economic competitiveness, which is the issue of ease of doing business. The Doing Business Index covered 12 areas of business regulation. Ten of these areas – Starting a Business; Dealing with Construction Permits; Getting Electricity; Registering Property; Getting Credit; Protecting Minority Investors; Paying Taxes; Trading across Borders; Enforcing Contracts; Resolving Insolvency – were included in the ease of doing business score and ease of doing business ranking. *Doing Business* also measured regulation on employing workers and contracting with the government, which were not included in the ease of doing business score and ranking. A higher position in the Doing Business ranking meant better, usually simpler, regulations governing matters related to doing business and stronger protection of property by law. In 2021, the World Bank announced that it would stop developing and presenting the ranking. In 2024, it was replaced by a new ranking, i.e. Business Ready (B-Ready), which takes into account three pillars: I – Regulatory Framework; II – Public Services; and III – Operational Efficiency. The first pilot project involved 50 countries (unfortunately, excluding Poland and the Czech Republic).

The Visegrad Group countries have generally been in the upper part of the ranking, although outside the top 20. In recent years, Poland and the Czech Republic have achieved higher positions compared to Slovakia and Hungary, while in the initial years of the analysis they were ranked higher. However, the general trend shows that all of these countries have stable and relatively friendly business conditions, although detailed results may vary depending on the categories analyzed[1] (Table 1).

Table 1.
The position of the Visegrad Group countries in the world according to the DBI in the years 2010-2020 and Business Ready in 2024

Country	Doing Business										B-Ready		
											PI	PII	PIII
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2024		
Czech Republic	63	64	65	75	44	36	27	30	35	41	-	-	-
Poland	70	62	55	45	32	25	24	27	33	40	-	-	-
Slovak Republic	41	48	46	49	37	29	33	39	42	45	4	7	12
Hungary	46	51	54	54	54	42	41	48	53	52	1	5	14

Note: Poland and the Czech Republic are not included in the new Business Ready programme prepared by the World Bank, because at the current stage of the pilot implementation of the report, the World Bank decided to include a smaller group of countries; colors: ● 1st place among V4, ● 2nd place, ● 3th place, ● 4th place.

Source: own study based on World Bank Group from 2011-2020.

The Legatum Prosperity Index (LPI) is an annual report prepared by the Legatum Institute. The index allows each country to compare itself to others under various pillars and indicate which aspects of prosperity are more or less developed. In 2011 – 2014, the Legatum Prosperity Index consisted of nine pillars: Country, Economy, Entrepreneurship and Opportunity, Governance, Education, Health, Safety and Security, Personal Freedom, Social Capital. In 2015, there was a slight change in the index, which built 9 pillars: Economic Quality, Business Environment, Governance, Personal Freedom, Social Capital, Safety and Security, Education; Health, Natural Environment. As of 2019 the index consisted of 12 pillars: Safety and Security; Personal Freedom; Governance; Social Capital; Investment Environment; Enterprise Conditions; Infrastructure and Market Access; Economic Quality; Living Conditions; Health; Education; Natural Environment.

Throughout the analysis period, the Czech Republic placed among the high-ranking countries, while Poland, Slovakia, and Hungary placed among the upper middle-ranking countries. Until 2017 Poland was ahead of Slovakia and as of 2018 it ranked slightly lower. Hungary was ranked the lowest. In the ranking for 2023. The Czech Republic was in the first quartile (Q1) of countries with the highest prosperity (Table 2).

Table 2.
The position of the Visegrad Group countries in the world according to the LPI in the years 2011-2023

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Czech Republic	26	28	29	29	26	27	26	27	28	29	27	27	25
Poland	28	32	34	31	29	34	32	33	36	36	36	36	37
Slovakia	32	36	38	35	35	36	35	32	32	35	35	35	35
Hungary	36	39	41	39	45	47	45	42	46	46	44	43	42

Note: ● High ranking countries (30), ● Upper middle ranking countries (31-71).

Source: own study based on Legatum Institute from 2011-2020.

The Index of Economic Freedom (IEF), compiled by the US-based Heritage Foundation, has a special place in assessments of the economic freedom of countries around the world. The index reflects the restrictiveness of the law and the extent of coercion in the economic sphere by the apparatus of power in the countries of the world under evaluation. The Index of Economic Freedom considers 12 elements of economic freedom in 4 areas: Rule of Law; Size of Government; Effectiveness of Regulation; Open Markets.

Between 2011 and 2024, the Visegrad Group countries occupied different positions in the economic freedom ranking. Throughout this period, the Czech Republic held the highest position in the group, achieving its best result in 2022 (20th place). Although they dropped to 24th place in 2024, they still remain the leader among V4 countries. Poland ranked 68th in 2011, but improved its position, reaching 38th in 2022. Slovakia showed fluctuations in the ranking, with the best result in 2023 (33rd place) and the worst in 2019 (64th place), achieving stability in recent years. Hungary's competitive position decreased during the review period, reaching 72nd place in 2024 (Table 3).

Table 3.
The position of the Visegrad Group countries in the world according to the IEF in the years 2010-2024

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Czech Republic	29	32	29	26	24	21	28	25	23	23	27	20	21	24
Poland	68	64	57	51	43	39	45	45	45	47	42	38	40	42
Slovakia	37	50	42	57	50	56	57	59	64	60	60	36	33	34
Hungary	51	49	48	52	54	58	56	55	65	62	55	48	54	72

Note: ● 1st place among V4, ● 2nd place, ● 3th place, ● 4th place.

Source: own study based on Heritage.org, 10.11.2024.

The Global Competitiveness Index (GCI) was regularly compiled by the World Economic Forum until 2019. The index consisted of more than 110 variables, two-thirds of which came from the Executive Opinion Survey and one-third from publicly available sources such as the United Nations. The variables formed 12 pillars, each representing an area that determines competitiveness. In 2020 WEF announced that it would discontinue publication of the classic Global Competitiveness Report due to the impact of the COVID-19 pandemic, focussing instead on reports tailored to new realities, such as assessing the readiness of economies to recover from a pandemic. The WEF has changed its approach to assessing economies, placing greater emphasis on areas such as sustainability, digitisation and resilience to crises.

Throughout the period analysed, the Czech Republic maintained the first place among the Visegrad Group countries. The second place was held by Poland. Slightly further down the ranking were Hungary and Slovakia. At the end of the review period, all countries increased their competitiveness compared to 2011. In 2019, only the Czech Republic was in the first quartile (Q1) of the world's most competitive countries out of 141 assessed (Table 4).

Table 4.
The position of the Visegrad Group countries in the world according to the GCI in the years 2011-2023

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019
Czech Republic	38	39	46	37	31	31	31	29	32
Poland	41	41	42	43	41	38	39	37	37
Slovakia	69	60	78	75	67	65	59	41	42
Hungary	48	71	63	60	63	69	60	48	47

Note: 1st place among V4, 2nd place, 3th place, 4th place.

Source: own study based on: World Economic Forum 2011-2029.

Analysing all the rankings of international competitiveness presented above, it should first be pointed out that the Visegrad Group countries occupied similar positions in them. In the three indexes, i.e., the Legatum Prosperity Index, the Index of Economic Freedom and the Global Competitiveness Index, the Czech Republic was the leader, while the highest position in the Doing Business Index was achieved by Poland. Throughout the analysed period, only in the Global Competitiveness Index increased the positions of all Visegrad countries. An increase in the Index of Economic Freedom was recorded by the Czech Republic, Poland, and Slovakia. It is worth noting that in the last mentioned country the increase in recent years has been significant – from the 60th place in 2021 to the 34th in 2024. In the Doing Business Index, Poland and the Czech Republic improved their positions. On the other hand, only the Czech Republic recorded an increase in the Index of Economic Freedom. In this ranking, Poland recorded the largest decrease – from 28th place in 2011 to 37th in 2023. In all four presented rankings, among the V4 countries, Hungary occupied the last place.

Focusing on the level of FDI inflows to the Visegrad Group countries, in the years 2010-2023 Poland had the largest average annual FDI inflow of USD 16.7 billion, ranking it eighth among EU countries. The Czech Republic took the second place among the V4 group and the 13th in the EU at the same time, with an average annual FDI inflow of USD 7.3 billion. It was followed by Hungary (USD 4.2 billion, 18th place among EU) and Slovakia (USD 1.3 billion, 23th place among EU). Among the countries analysed, Poland and Hungary had the highest volatility of FDI inflows. Between 2021 and 2023, Poland registered the highest value of FDI inflows in history, reaching approximately USD 30 billion per year, placing it among the top countries in the world in terms of FDI inflows (13th place in 2021, and 14th in 2022 and 2023) (UNCTAD, 2023, 2024). Hungary, on the other hand, recorded minus FDI inflows in 2015-2016 of USD -14.5 billion and USD -5.4 billion, respectively.

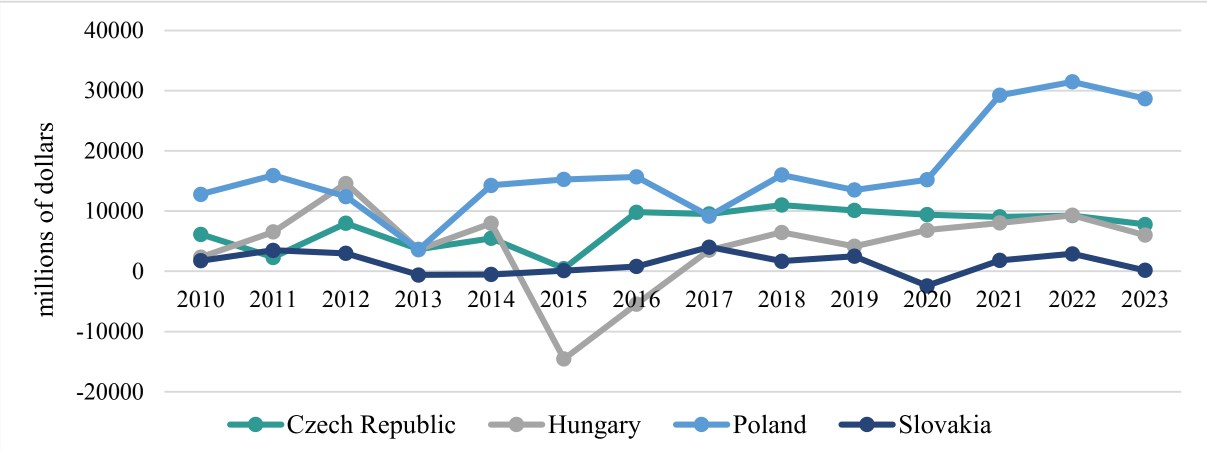


Figure 2. FDI inflows to the Visegrad Group countries in the years 2010-2023 (millions of dollars).
Source: UNCTAD, 2024.

At the end of 2023, the total value of FDI instocks in the Visegrad Group countries reached nearly USD 731.7 billion. The highest value of capital in this form was received by Poland – USD 335.5 billion (45.9% of total FDI instocks in the V4 countries). The Czech Republic came second, with an investment in FDI of USD 216.6 billion (29.6%). Hungary ranked third, with nearly USD 119.0 billion (16.3%), and the last place belongs to Slovakia, which at the end of 2023 received USD 60.5 billion in FDI stock (8.3%) (Figure 2). However, when considering the FDI instock per capita, the Czech Republic takes the leading position, followed by Hungary, Slovakia, and in the last place Poland.

In 2010-2023, the average annual growth rate of FDI instock in the V4 group amounted to 4.1%, which was lower than for all EU countries (6.4%). Again, Poland was the leader in this regard (5.4%), followed by the Czech Republic (4.5%), Hungary (2.5%) and Slovakia (1.8%). Over the whole analysed period, the value of FDI stocks in Visegrad Group countries increased by nearly 60.0% (in Poland 78.9%, Czech Republic 68.6%, Hungary 30.7%, and Slovakia – 20.3%). For all EU countries, this increase was double in this period.

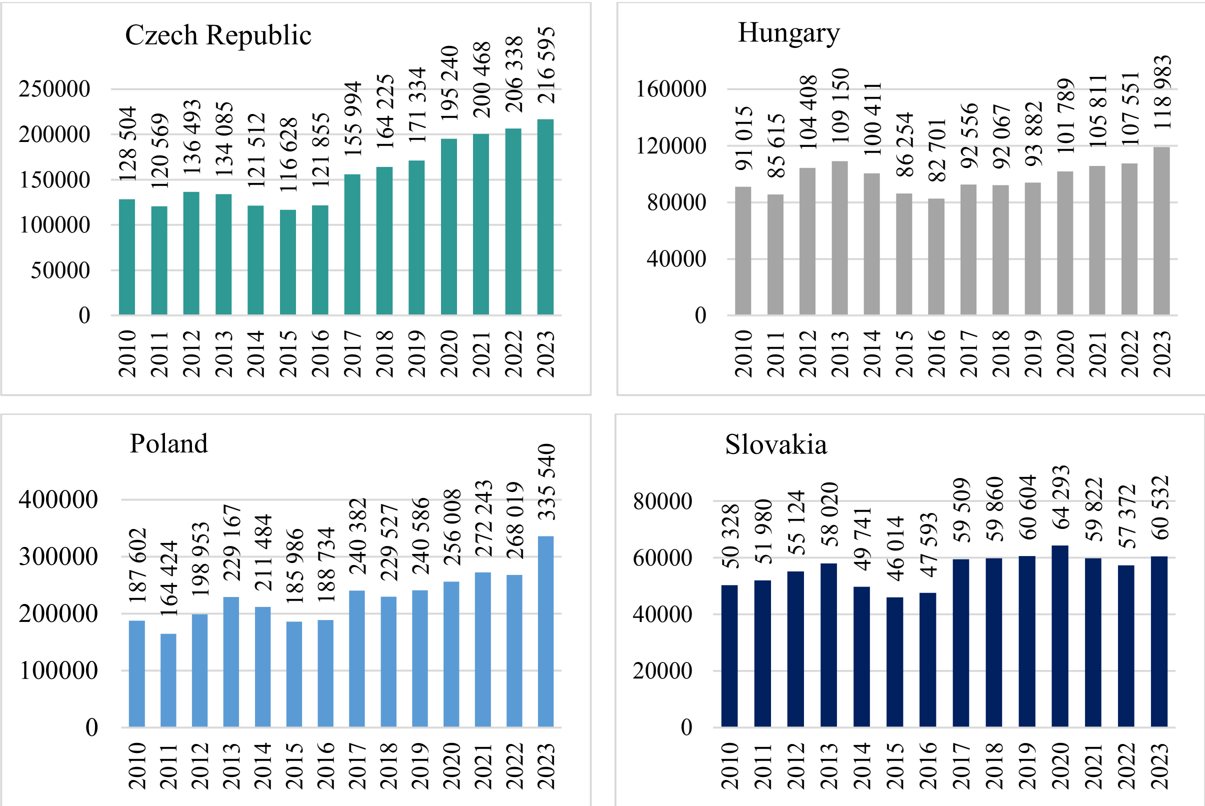


Figure 3. FDI instocks in the Visegrad Group countries in the years 2010-2023 (as at the end of the year, millions of dollars)

Source: UNCTAD, 2024.

The data presented allows us to conclude that in the Visegrad Group there may be some relationship between a country's competitiveness and the scale of FDI inflows. The countries that attracted the most capital in the form of FDI – the Czech Republic and Poland – tended to occupy leading positions in the international competitiveness rankings presented above. However, these relationships require a more in-depth analysis.

Studies on this issue usually focus on whether FDI inflow affects the country's competitiveness. Novák, Darmo, and Osusky (2024) carried out the regression analysis found that FDI inflow is a significant variable that affects the competitiveness of V4 countries, but this relationship was negative. Therefore, the authors suggest that the V4 countries need to support mainly the FDI with high value added and advanced technology.

Interesting results were also achieved by Rusu and Roman (2018), who studied the main economic factors that influence the competitiveness of Central and Eastern European countries. They used the classification of particular economies by their stage of development, dividing countries according to the Global Competitiveness Report into three groups: efficiency-driven, innovation-driven, and those that are transforming from efficiency-driven to innovation-driven. The Czech Republic was among the innovation-driven economies, while Poland, Hungary, and Slovakia were included in the transition stage of their development. The results they obtained indicated that only for innovation-driven countries (so from the V4 Group only for the Czech Republic), FDI are an important determinant of competitiveness.

5. Summary

The scale of FDI inflows to individual countries depends on a variety of factors, including, among others, market size, labour resources (their availability and skills), innovation capacity, and institutional environment. These factors determine the international competitiveness of countries and are taken into account by foreign investors when deciding where to locate their capital.

Among the Visegrad Group countries, Poland and the Czech Republic are the largest receivers of FDI, and also took the lead among V4 countries in the competitiveness rankings presented. Taking into account the pillars that comprise the various country competitiveness indexes indicated in the article, Poland compared to the other V4 countries has a large market size (according to the WEF, in 2019 it ranked 22nd in the world in this term). The results of numerous studies on the determinants of FDI demonstrate that market-related factors are among the most important to investors. Poland's locational advantages are also high productivity of labour resources, their qualifications, and macroeconomic stability.

The Czech Republic, as well as Poland and Slovakia, is a country with high macroeconomic stability, and among the V4 countries it has the highest productivity of labour resources, well- skilled employees (including digital skills), and the highest innovation capability. For both countries, an important advantage is their geographic location; in the case of Poland, it is access to Baltic ports and a central location in Europe; for the Czech Republic, it is proximity to Germany, the largest economy in EU.

There is less foreign investor interest in Hungary and Slovakia, which in turn is due to their smaller markets and, in the case of Slovakia, also a small and undiversified labour market. Hungary, on the other hand, has the lowest level of labour productivity in the region and the lowest macroeconomic stability. This country ranked last among the V4 countries in all the competitiveness rankings presented.

Acknowledgements

Author contributions: authors have given an approval to the final version of the article. Authors contributed to this work equally.

Funding: this research was funded by the Nicolaus Copernicus University in Toruń, Faculty of Economic Sciences and Management, Department of Investment and Real Estate statutory sources.

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