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MIGRATION AS A RESPONSE TO LABOR SHORTAGES AND ITS IMPACT ON ECONOMIC GROWTH IN THE VISEGRAD COUNTRIES: A SUSTAINABLE SOLUTION OR TEMPORARY RELIEF?

Introduction

Nowadays, many European countries are facing labor shortages, impacting economic growth. Large-scale emigration from the Visegrad Group countries to Western Europe, along with unfavorable demographic processes, has further decreased the workforce potential of these countries. To address this issue, member states are implementing favorable policies and reducing the bureaucratic burden related to obtaining work permits in an effort to attract foreign workers. While foreign labor is crucial for sustaining economic growth, overdependence on low-skilled workers may not be enough to maintain the long-term momentum of economic growth.

The paper aims to assess whether the current migration strategies in the Visegrad countries provide a sustainable solution to ongoing labor shortages or merely serve as a temporary relief. In doing so, the paper aims to examine recent trends in the employment of third-country nationals and evaluate their importance for the economies of Poland, Czechia, Slovakia, and Hungary. Moreover, the discussion section suggests potential areas for policy improvements, particularly through better targeting and adaptation of strategies to attract high-skilled foreign workers.

1. Economies of the Visegrad Countries

The Visegrad Group was established in 1991, after the fall of communist regimes in Eastern Europe, during a meeting of the presidents and prime ministers of its member states in the Hungarian town of Visegrad. Initially, it consisted of 3 countries, i.e., Poland, Czechoslovakia, and Hungary, but after the separation of Czechoslovakia in 1993, two newly emerged countries became independent members of the V4 Group. The initial goal of the alliance was to foster economic, political, and cultural cooperation and to prepare for further integration into the European Union and North Atlantic Treaty Organization. Such cooperation between the countries in this region is nothing new, as extensive cooperation between the states dates back to 1335 when Central European rulers sought to foster trade and cultural ties through political agreements.

The fall of communism in 1989 and the transition to a market-orientated economy marked a significant economic upturn for all of the members of the alliance. It allowed the economies to develop at an astonishing pace and even exceed the GDP growth of the European economic powerhouse – Germany (see Figure 1).

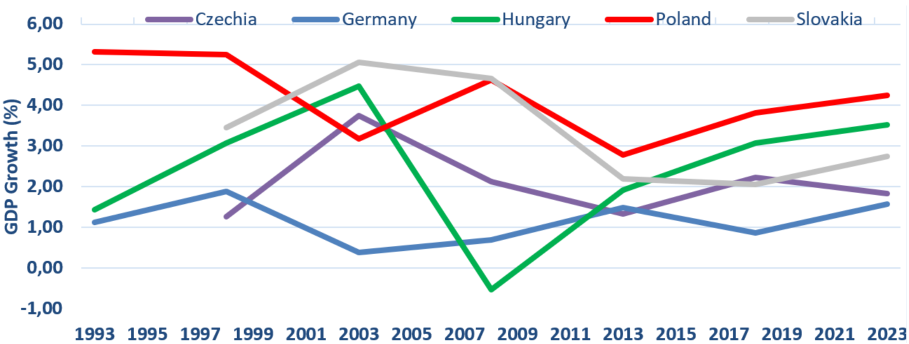

Figure 1. GDP Growth in Visegrad Countries and Germany (1993-2023)

Source: UNTAD, https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPGR, (access: 11.01.2025).

If the Visegrad Group countries were to merge, as of 2025, they would form the 5th biggest economy in Europe and the 12th biggest economy globally[1].

Nowadays, the Visegrad Group is an inseparable part of the European economy and accounts for nearly 9% of the European Union's gross domestic product[2]. What is more, as of 2024, all four member states rank among the top five intra-EU exporters, further demonstrating their strong and crucial position in the European market.

In terms of sectoral characteristics, all four economies are rather similar. The automotive industry, agriculture, and IT services mark a significant portion of the region's gross domestic product, with each sector benefiting from the region's skilled workforce, strategic location connecting Western and Eastern

1 Hungarian Ministry of Foreign Affairs, https://v4.mfa.gov.hu/page/v4-facts-infographics-tbc (access: 11.01.2025).

2 Z. Horbulak, *The Labour Market Situation In The Visegrad Countries*, "The EUrASEANs: Journal on Global Socio-Economic Dynamics", 2022, 6(37).

Europe, and strong integration into the EU's supply chains[3]. The most notable difference lies in the size of the economies, with Poland significantly surpassing the Hungarian, Slovak, and Czech economies, accounting for more than 50% of the V4's total gross domestic product (see Figure 2).

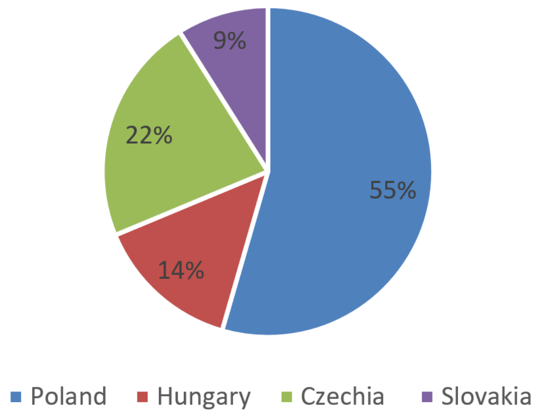

Figure 2. GDP Contribution of V4 Countries to the Visegrad Group Economy (2023).

Source: Own elaboration, based on data provided by UNTAD.

2. 2004 EU Accession: A Catalyst for Brain Drain

On May 1, 2004, the European Union underwent its fifth enlargement. On that day, ten new countries, including all members of the Visegrad Group, joined the European community, making it the largest enlargement in terms of countries, as well as population to this day.

Being part of the European Union gives economies an unprecedented opportunity for economic growth, especially for former members of the Eastern Bloc. Visegrad Group countries, despite not being a part of the Soviet Union, were under significant control of the Soviet government and its economic policies during the Cold War, leaving them far behind Western European countries. For comparison, in 1990, the economies of V4 countries were nearly half as productive as the economy of Portugal, and the GDP per capita of Germany was nearly twice as high as the combined GDP per capita of Hungary, Poland, Czechia, and Slovakia (see Table 1).

3 Z. Horbulak, *op. cit.*

Table 1. GDP per capita in Visegrad Group countries and selected European countries (1990, 2004) (USD)

Country	1990	2004
Sweden	30 550	42 758
United Kingdom	19 095	40 367
Germany	22 386	34 567
France	21 586	33 645
Spain	13 795	24 925
Portugal	7 885	18 064
Czechia	3 969	11 783
Slovakia	2 437	10 650
Hungary	3 313	10 302
Poland	1 731	6 712

Source: World Bank Data, https://data.worldbank.org/indicator/NY.GDP.PCAP.CD, (access: 18.01.2025).

The four main principles of the European Union, i.e., free movement of people, capital, goods, and services, allow member states to benefit from the single market and facilitate economic growth. Liberalization of trade by reducing tariffs and other trade barriers allows foreign entities to invest in new member states, bringing valuable capital, technology, and expertise, while also creating new workplaces. This influx further boosts the economies of the newly joined countries. The boost in long-term labor productivity in new EU member states can be observed in almost all countries, with the exception of Greece, where the growth rate of productivity decreased after joining the European Union in 1981 (then the European Economic Community)[4].

Nevertheless, countries with living conditions, real wages, and opportunities far behind those of other EU member states may face significant disadvantages from accessing the Common European Market. In such cases, many individuals from countries like Poland, Slovakia, or Hungary seek a better life and work opportunities abroad, leaving their home countries while contributing to labor shortages and demographic crisis. This phenomenon of well-educated professionals moving abroad is known as the brain drain and is often

4 N. F. Campos, F. Coricelli, L. Moretti, Economic Growth and Political Integration: Estimating the Benefits from Membership in the European Union Using the Synthetic Counterfactuals Method, "SSRN Electrionic Journal", 2021.

referred to as a "dark side" of freedom of movement guaranteed by the EU single market[5].

Table 2. Citizens of working age residing in another EU/EFTA countries (2014-2019) (thousands of persons)

Country	2014	2015	2016	2017	2018	2019
Poland	1 632	1 752	1 920	1 923	1 831	1 925
Hungary	256	312	329	340	347	376
Slovakia	198	214	210	235	223	260
Czechia	111	124	125	127	128	129

Source: Eurostat, https://ec.europa.eu/eurostat/databrowser/view/lfst_lmbpcita/default/table? lang=en, (access: 20.01.2025).

In 2019, more than 2,500,000 V4 countries' citizens lived and worked in other EU/EFTA member states. This converts to nearly 4,5% of the total population, which could have contributed to the local economies.

What is more, all of the V4 member states are facing a continuously declining fertility rate ranging from 1.1 in Poland to 1.5 in Slovakia, far below the so-called replacement rate of 2.1. All the factors combined pose a significant threat to the labor market, resulting in severe labor shortages in crucial sectors of the economy.

3. Labor Shortages and Employment Trends in Visegrad Group Countries

Labor shortages in Visegrad Group countries can be observed in almost the same sectors. According to the Slovak authorities, in 2024, the Slovak economy was in a shortage of more than 10,000 professional truck drivers – an occupation necessary for maintaining good and efficient supply chains supporting international trade[6].

On the contrary, despite hiring more than 13,000 foreign workers per year, Czechia faces a significant shortage of labor in the healthcare industry. The Czech Ministry of Industry and Trade reports the lack of approximately 2,000 nurses, while 10,000 already employed nurses are expected to retire within the

5 Eranet Plus, https://euranetplus-inside.eu/eu-seeks-to-stem-brain-drain/, (access: 11.01.2025).

6 European Commission, https://migrant-integration.ec.europa.eu/news/slovakia-further-facilitation-tcn-labour marketaccess_en, (access: 21.01.2025).

next decade, further contributing to the shortage in this sector[7]. What is more, the country lacks construction workers, slowing down housing and industrial projects and negatively affecting economic development.

Similarly, Hungary faces significant labor shortages in sectors such as manufacturing, industrial, and education, with 27,000, 13,600, and 6,700 job vacancies, respectively. In total, the Hungarian labor market faces more than 70,000 open job vacancies[8].

The Polish Ministry of Family, Labor, and Social Policy reports that despite the significant inflow of Ukrainian refugees, 23 sectors are facing significant shortages in 2025. This marks a slight decrease from the previous year when 29 sectors were struggling to find workers. Nevertheless, six professions are in a constant deficit, including construction workers, bus and truck drivers, nurses, accountants, and welders. The report indicates that 45% of all the shortages are due to demographic issues, as the population is aging, and the number of people of working age decreases[9].

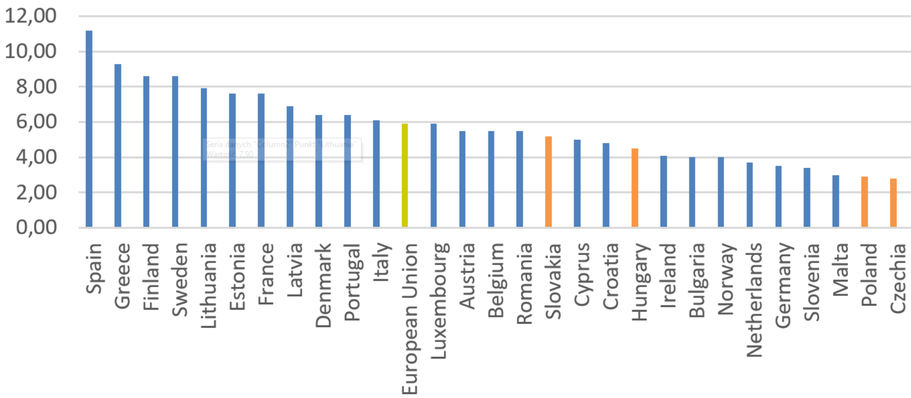

Figure 3. Unemployment rate in the European Union (as of September 2024)

Source: Eurostat, https://ec.europa.eu/eurostat/databrowser/view/, (access: 21.01.2025).

The unemployment rates in Visegrad Group countries are among the lowest in the European Union and are far below the EU average of 5.9%. Czechia and

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7 Czech Radio, https://english.radio.cz/czech-government-moves-address-shortage-labour-8797927, (access: 21.01.2025).

8 Hungarian Central Statistical Office, https://www.ksh.hu/stadat_files/mun/en/mun0159.html, (access 21.01.2025).

9 Cracow Labor Office, https://barometrzawodow.pl/ /2025/, (access: 22.01.2025).

Poland, in fact, have the lowest rates at 2.8% and 2.9%, respectively, suggesting that most people of working age are already employed. This low unemployment rate significantly contributes to labor shortages, as the pool of available workers is extremely limited, making it difficult for employers to fill open positions.

4. Role of foreign workers in the V4 economies

To mitigate the issue of labor shortages in Visegrad countries, the authorities are trying to attract foreign workers from within the European Union as well as third-country nationals. Between 2016 and 2023, the number of foreign-born workers increased dramatically from approximately 866,370 to 2,432,336. The most notable increase could be observed in Czechia and Poland. This converts to 18.6% and 7% of the total workforce in these two countries, respectively[10][11].

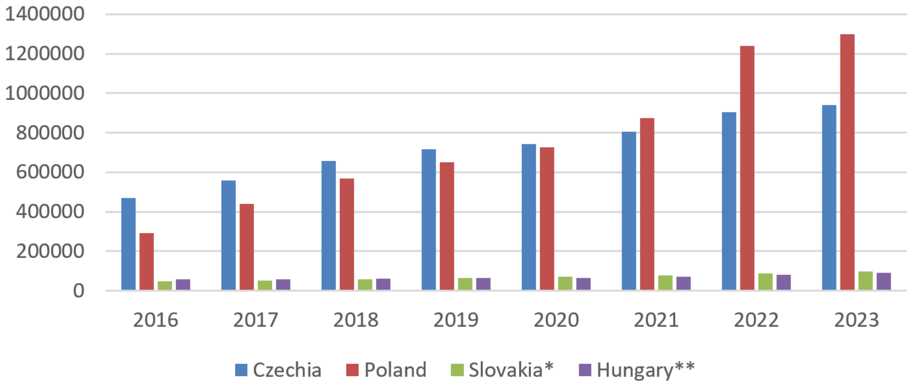

Figure 4. Number of foreign workers in Visegrad Group countries (2016-2023)

Source: Own elaboration. * Estimate, ** 2016 – 2018 estimate

As of 2023, most of the foreign workers in all of the V4 member states come from Ukraine. This is largely due to the massive migration caused by the escalation of Russian aggression in early 2022. Nevertheless, Ukrainians have historically represented a significant share of foreign workers in Central and Eastern European countries, driven by geographic proximity and strong

10 Czech Statistical Office, https://csu.gov.cz/economic-activity-status-of-foreigners (access: 24.01.2025).

11 European Commission, https://migrant-integration.ec.europa.eu/news/slovakia-continued-growth-employment-and-economic-activity-migrants_en, (access: 11.01.2025).

economic ties. Many foreign workers also come from neighboring European countries such as Belarus, Serbia, Romania, and Slovakia, which provide a steady stream of labor to fill shortages in industries like construction and manufacturing. However, Hungary stands out for its notable reliance on Asian workers, with a significant share coming from the Philippines and Vietnam.

Table 3. Most common origin of foreign workers

Country	Origin		
Poland	Ukraine	Belarus	Georgia
Czechia	Ukraine	Slovakia	Vietnam
Slovakia	Ukraine	Serbia	Romania
Hungary	Ukraine	Philippines	Vietnam

Source: Own elaboration.

Foreign workers tend to be employed in low-skilled occupations where significant education or language proficiency is not necessarily essential. In Hungary, nearly 60% of all the third-country nationals are employed in occupations classified as ISCO-08 category 8 and 9, i.e., operators and elementary. Despite making up only 2.1% of the total workforce in Hungary, they are predominantly concentrated in industries like manufacturing[12]. In Poland, approximately 30% of foreigners are employed in transport, industry, or logistics. The wholesale and retail experienced a significant rise in foreign employment, and as of 2024, 1 in 10 foreign-born workers in Poland are employed in these two sectors[13]. In Czechia and Slovakia, the situation of foreigners in the labor market is very similar, as it is dominated by low-skilled migrants employed most often in the manufacturing industry[14][15].

These migrant workers are essential for V4 economies, helping to fill gaps caused by labor shortages. Despite occupying mostly lower-paying jobs, they play a crucial role in sustaining economic development, while contributing

12 K. Bodor, *Foreign workers in Hungary, key facts and labor market challenges*, https://library.fes.de/pdf-files/bueros/budapest/21810.pdf, 2024, (access: 24.01.2025).

13 European Commission, https://migrant-integration.ec.europa.eu/news/poland-almost-13-million-foreigners-work-legally-poland_en, (access: 23.01.2025).

14 Czech Statistical Office, https://csu.gov.cz/economic-activity-status-of-foreigners, (access: 24.01.2025).

15 I. Lichner, T. Miklosovic, M. Radvansky, M. Stefanik, *From high unemployment to dependency on foreign workers-mid-term prediction of skills shortage in the Slovak labour market*, "Institute of Economic Research Slovak Academy of Sciences", 2019.

significantly to the well-being of society. The COVID-19 global pandemic serves as a real-life example of how labor shortages in sectors such as healthcare and logistics can paralyze the economy. Nevertheless, according to a survey in 2023 conducted by Statista, public opinion on immigration in Visegrad countries remains rather negative, as 51% of the population is against immigration.

5. Efforts to attract labor migrants

To attract labor migrants to fill labor shortages, Visegrad Group countries are trying to simplify the procedures and lower thresholds necessary to be eligible for working permits, and residency status.

In 2023, the Hungarian government implemented a new legislation, often referred to as the Guest Worker Law. It introduced a new concept of guest workers and residency permits, which can be obtained by third-country nationals from outside the EU and from non-neighboring countries[16]. This legislation was supposed to serve as a remedy for the Hungarian labor market and a solution to labor shortages. However, in 2025, the Hungarian Ministry of National Economy capped the number of these permits to 35,000, nearly a 50% cut from the previous quota of 65,000. He explained his decision, saying that Hungary belongs to the Hungarians and migrants pose a threat to local families[17].

The Czech government initiated a program to address labor shortages by exempting certain countries from obtaining work permits for employment over 90 days. The list of countries includes Australia, Canada, Israel, Japan, New Zealand, Singapore, South Korea, the United Kingdom, and the United States. What is more, the authorities showed an interest in expanding the list of exempted countries, should the program be successful[18].

On the contrary, Poland has simplified work permit and visa procedures. Historically, this process has been known to be time-consuming and required cooperation between the employer and employee as the employer is initiating the application[19].

In Slovakia, since January 2023, the amendment of the new legislation also simplified conditions for obtaining work permits for third-country nationals

16 European Commission, https://migrant-integration.ec.europa.eu/country-governance/governance-migrant-integration-hungary_en, (access: 24.01.2025).

17 Schengen News, https://schengen.news/hungary-to-reduce-number-of-guest-workers-to-35000-for-2025/, (access: 24.01.2025).

18 Newland Chase, https://newlandchase.com/czech-republic-facilitated-access-labour-market-foreign-workers/, (access: 24.01.2025).

19 Dynamic Staffing Solutions, https://www.dss-hr.com/blog/2024-and-beyond-is-poland-opening-its-doors-to-foreign-workers, (access: 24.01.2025).

and reduced the bureaucratic burden, aiming to make the Slovak labor market more appealing[20].

The European Union also takes significant actions towards attracting more high-skilled foreign workers. The European Union Blue Card is an answer to the US Green Card and grants a residence and work permit to TCNs who meet criteria regarding job experience and qualifications. Nevertheless, the effectiveness of this program is questionable. As of 2023, out of the 10 most popular migration destinations for global talents, only 3 are member states of the European Union. The top 3 destinations were Australia, the USA, and Canada, followed by Germany in 5th place, France in 9th place, and Spain in 10th place[21].

6. Discussion and Conclusions

The importance of foreign workers to V4 countries remains unquestionable. To sustain GDP growth and social welfare, labor shortages in essential sectors must be addressed. However, simply solving the worker shortage will not guarantee the continuation of the current rate of economic growth in V4 countries.

The unprecedented economic development of former members of the Eastern Bloc was driven by the significant economic disparity between the V4 and Western countries, a result of the so-called 'catching-up' process. Such GDP growth cannot be sustained by low-skilled workers, as the production function theory states that output is nonlinear in relation to input.

In addition to efforts made by the authorities to attract labor workers, greater emphasis should be placed on attracting high-skilled workers who can drive innovative technology and improve the overall efficiency of the labor market in the long term. Creating a desirable environment and working conditions for these individuals would not only reduce brain drain but also mitigate the demographic crisis and reduce further labor shortages.

This problem concerns not only the Visegrad Group but also the European Union as a whole. Currently, less than 30% of high-skilled migrants chose the European Union as their destination. Should this trend continue, the gap between the EU and other global powers will increase, in an unfavorable for the EU direction. Between 2008 and 2022, the size of the European Union economy

20 European Commission, https://migrant-integration.ec.europa.eu/news/poland-almost-13-million-foreigners-work-legally-poland_en, (access: 23.01.2025).

21 S. Gritzka, *Decoding Global Talent 2024: a whitepaper on how global labor shortages could be countered by global talent mobility*, "The Stepstone", 2024, (access: 24.01.2025).

has grown by only 22%, while the US and China have experienced growth of 72% and nearly 300%, respectively[22].

The solution to this problem would require in-depth and complex reforms starting from the education systems, migration strategies, and innovation incentives. Without such reforms, the EU risks falling further behind in terms of competitiveness, and Visegrad Group countries will not be able to sustain their economic growth.

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22 Politica Exterior, https://www.politicaexterior.com/articulo/una-europa-vasalla-de-eeuu/, (access: 26.01.2025).

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Summary

The demographic crisis, caused by the low fertility rate, emigration from the Visegrad Group countries, or the so-called brain drain, significantly contributes to labor shortages in Poland, Czechia, Hungary, and Slovakia, negatively affecting economic growth. To address this issue, governments are implementing favorable policies, hoping to create a desirable environment for working migrants and mitigate labor shortages. Nevertheless, most of the migrants occupy elementary positions, and according to the basic theory of production, the output of the economy is non-linear in relation to the input of the factors of production such as labor. This raises the question of whether the current labor migration approach is a sustainable solution and whether it can ensure a continuation of the unprecedented economic growth that could have been observed in these countries in previous decades. The paper emphasizes the importance of the high-skilled migrants, who can drive innovation and technological development, ensuring the continuation of this momentum. Yet, the feasibility of the initiatives implemented by the European Union, such as the European Blue Card, remains rather questionable, as only approximately 30% of all the high-skilled migrants are choosing the European Union as their migration destination.

Keywords: labor migration, Visegrad Group, labor shortages

MIGRACJA JAKO ODPOWIEDŹ NA NIEDOBORY SIŁY ROBOCZEJ I JEJ WPŁYW NA WZROST GOSPODARCZY W KRAJACH GRUPY WYSZEHRADZKIEJ: ZRÓWNOWAŻONE ROZWIĄZANIE, CZY TYMCZASOWA ULGA?

Streszczenie

Kryzys demograficzny, spowodowany niskim wskaźnikiem dzietności, emigracją z krajów Grupy Wyszehradzkiej oraz tak zwanym drenażem mózgów, znacząco przyczynia się do niedoboru siły roboczej w Polsce, Czechach, na Węgrzech i Słowacji, negatywnie wpływając na wzrost gospodarczy. Aby zaradzić temu problemowi, rządy wprowadzają korzystne przepisy, mając na celu stworzenie atrakcyjnego środowiska dla migrantów zarobkowych i złagodzenie niedoborów siły roboczej. Niemniej jednak większość migrantów zajmuje podstawowe stanowiska, a zgodnie z podstawową teorią produkcji, produkcja gospodarki nie jest liniowo proporcjonalna do nakładu czynników produkcji, takich jak praca. Rodzi to pytanie, czy obecne podejście do migracji zarobkowej jest rozwiązaniem zrównoważonym i czy może zapewnić kontynuację dotychczasowego wzrostu gospodarczego, jaki można było zaobserwować w tych krajach w poprzednich dekadach. W artykule podkreślone zostało znaczenie wysoko wykwalifikowanych migrantów, którzy mogą napędzać innowacje i rozwój technologiczny, zapewniając kontynuację dotychczasowego poziomu wzrostu gospodarczego. Jednak skuteczność inicjatyw wdrażanych przez Unię Europejską, takich jak Europejska Niebieska Karta, pozostaje wątpliwa, ponieważ jedynie około 30% wszystkich wysoko wykwalifikowanych migrantów wybiera Unię Europejską jako miejsce docelowej migracji.

Słowa kluczowe: migracja zarobkowa, Grupa Wyszehradzka, niedobory siły roboczej