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THE IMPACT OF MIGRATION PROCESSES ON THE ECONOMY OF UKRAINE: TRENDS, REASONS, CONSEQUENCES

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Abstract: Migration is one of the main factors of globalization and it is not likely that it can be stopped as it is objective and, in most cases, is linked to the ability of the workforce to respond quickly to the changes in the society and the economy. The paper is devoted to the research of the impact of migration on the economic and social development of Ukraine's population. The methods used in the preparation of the paper are: analytical, descriptive, comparative, statistical, graphic, and critical. The paper was written on the basis of the official domestic and international data and also on the results of sociological research in which the main intentions and motives of potential migrants are investigated. On the base of the conducted research, we can conclude that, at the current stage, migration growth in Ukraine is related to structural changes in the economy and the labor market, economic growth slowdown, low wages, and quality of life compared to the nearest neighbor countries, visa liberalization with EU countries, and access to education abroad. One of the aims of the paper was to calculate the hypothetical losses of GDP from human capital migration.

Keywords: migration; human capital; reasons of migration; GDP losses

Introduction

In modern conditions of globalization strengthening and open markets, the possibilities of exchange of commodities, resources, capital, and labor are almost unlimited. Migration is one of the globalization trends; it is objective and cannot be stopped. In most cases, migration is connected with the ability of the workforce to respond quickly to the changes in the society and the economy (Noja, Cristea, Yüksel, Pânzaru, & Drăcea, 2018). The probability that migration will increase in the future in most countries of the world and in Ukraine is very high, in particular, the activity, educational level and mobility of the population increase as a result of the emergence and

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development of the digital economy; the increasing role of multinational corporations, the migration of capital and, as a result, the location of production in countries or regions other than the main (parent) company; simplification of border crossing procedures; consolidation of cultures and religions; as well as the demographic processes that are observed in economically developed countries: the aging of the population as a whole and the workforce in particular (Podra, Kurii, Alkema, Levkiv, & Dorosh, 2020; Quak, 2019). It is logical that the relationship between the quality of life in countries of origin of potential migrants and the countries of destination, as well as the scale of forced migration resulting from hostilities and conflicts, environmental and man-made disasters, play a significant role in migration processes.

Ukrainian migration is caused by the influence of the abovementioned global migration trends. However, it should be noted that there are internal reasons in the country (crisis, socio-economic factors, and military conflicts), which force citizens to seek places of residence and employment abroad. The largest wave of emigration in Ukraine was observed in the early 1990s and was associated with the collapse of the USSR, economic and political instability. However, the massive outflow of highly skilled professionals, that is called intellectual migration, is a threat to the socio-economic and intellectual-innovative development of the country, requires the development and implementation of effective measures, the implementation of which would ensure the formation of highly qualified scientific personnel, the accumulation of intellectual capital, and as a result, enhancing the country's scientific and technological potential as one of the tools to ensure competitive advantage, economic and social progress in the context of the development and the expansion of the digital economy (Podra, Litvin, Zhyvko, Kopytko, & Kukharska, 2020).

The migration process is a current study that was researched in the works of Ukrainian scientists. Prominent domestic scientists (Libanova & Poznyak, 2010) have thoroughly investigated a wide range of problems related to the external labor migration of Ukrainian citizens. In particular, the subject of investigation were the socio-economic, demographic trends that influence the migration increase, the working conditions for migrant workers abroad, the volume of earnings of migrant workers and their impact on the welfare of households, the impact of external labor migration on the development of the labor market, etc. At the same time, the study does not reflect the volumes of educational migration and does not estimate the country's human capital losses caused by emigration. In her study, Malynovska (2015) analyzed the processes of internal migration related to the hostilities in the East of the country, as well as the volume of external migration to Russia, predicted the future trends of external migration increase of highly skilled personnel and youth, while, at the same time, there was no study of the impact of migration on the Ukrainian economy and demographic processes. Intellectual migration studies are covered in the scientific works of Ukrainian scientists. Thus, Nikolaevskyi and Omelchenko (2006) devoted their work to the study of the factors and challenges of intellectual migration, as well as to identifying the possible effects of brain drain as a threat to the country's social security. At the same time, the issues of growth of labor migration, migration attitudes among Ukrainian youth, the estimation of human capital losses due to migration remained unexplored.

Foreign scientists devote their research works to the studying of the positive and negative effects of migration on the economic development of the recipient countries (Manole, Pănoiu, & Păunescu, 2017; Quak, 2019). Noteworthy is the study devoted to the assessment of the net contribution that all migrants make to the UK's public finances (Vargas-Silva & Sumption, 2019).

The international migration and its influence on the economic development is a current scientific problem that draws attention of foreign and domestic scientists. The attention of Ukrainian

scientists to the study of migration processes in Ukraine is clear and justified, as the country is one of the most powerful labor donors in Europe. This situation may be explained by the instability of the economic development of the country, low wages, compared to European standards, limited employment opportunities with good conditions and wages. These factors are responsible for the growth of labor migration—departure of a part of the population of Ukraine for the purpose of employment and obtaining competitive wages.

Methodology

Our study is devoted to the research of the impact of migration on the economic and social development of Ukraine's population and is based on two main approaches. First, there is a need for a thorough analysis of the population and the factors that affect its decline. Thus, the projection of population dynamics in Ukraine is a relevant topic of research of both domestic and international scientists (Dickinson, 2018; Ptoukha Institute for Demography and Social Studies of the NAS of Ukraine, 2014; Pyrozhkov, Libanova, & Novikova, 2018), and migration is considered to be one of the reasons for the rapid population decline. Based on the analysis of EU analytical data (Eurostat, 2018a), it was found that in 2018, Ukraine was the leader among the countries that received the largest number of residence permits in the EU-28, and the main factors and reasons of this situation were identified. Secondly, it is necessary to identify the reasons that provoke a further migration increase based on a study of migrant workers' motives. For this reason, the results of sociological research that highlight the main intentions and motives of potential migrants should be used. The study found a threatening trend of the increasing migration among young people, including the migration through the increased educational mobility, which provides the opportunity to find a job at the EU labor market. Thus, the results of a sociological survey indicate that 2/3 of the respondents have a desire to study and work abroad (Klyuchkovska, Pyatkovska, Marusyk, & Hoisan, 2017).

A hypothetical calculation of the cost of human capital of the country, which is 10 times greater, according to the scientific approach of Savchenko (2019), than its GDP in purchasing power parity, is included in the study. Hypothetical losses of the Ukrainian economy from the emigration of citizens to Poland have been calculated on the basis of official statistics on the number of citizens who have obtained a residence permit.

Results and discussion

According to the international experts, depopulation is at a record pace in Ukraine (Pyshchulina, Yurochko, Mishchenko, & Zhalilo, 2018). Experts from the Department of Economic and Social Affairs of the United Nations have released a projection of the dynamics of population decline in Ukraine and former socialist countries, in particular: Bulgaria, Romania, Serbia, Croatia, Hungary, Lithuania, Latvia, Moldova, and Poland (Dickinson, 2018). Experts have predicted a 15% reduction in population in these countries by 2050. For Ukraine, two scenarios were developed: optimistic and pessimistic. According to the first one, by 2050 the population is expected to be reduced to 36 million people (taking into account the Crimea and the Donbass), and according to the second one, a rapid reduction of the population to 31 million is expected. The results of the international experts correlate with the results of the domestic scientists. Thus, the specialists of the Ptoukha Institute for Demography and Social Studies of the NAS of Ukraine (2014) forecasted a decrease in the population of Ukraine to 38 million people in 2050, under condition of medium fertility, medium life

expectancy, and medium net migration (optimal forecast); and up to 36 million people in 2060 under the same conditions (Figure 1).

In the case of a pessimistic scenario realization under condition of low birth rates, low life expectancy, low net migration, experts forecasted a possible population decline up to 32 million in 2050 and up to 28 million in 2060. Labor migration, which has become a major threat to national security, economic development, and human capital development, is considered to be the main cause of today's rapid population decline.

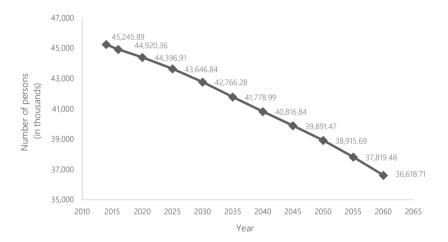


Figure 1. Population projection for Ukraine under condition of medium fertility, medium life expectancy, and medium net migration (in thousands of persons). Adapted from "Demographic forecasts" (2014), Ptoukha Institute for Demography and Social Studies of the NAS of Ukraine.

Retrieved from https://idss.org.ua/forecasts/nation_pop_proj_en.

Unfortunately, there is no accurate data on the volume, structure, and directions of migration in Ukraine. Real data cannot be obtained due to the lack of reliable information on population as a result of delaying the census of the population of Ukraine. Another reason that does not allow to establish the real data on migration volumes and to determine the number of Ukrainian citizens working abroad is illegal migration.

Therefore, some experts estimate the volume of labor migration in 5–7% of the working population. Based on an overview of available sources of labor migration, the following data are available:

- according to the Migration Report of the UN Special Commission for 2017, the number of migrant workers is 5.9 million (United Nations' Department of Economic and Social Affairs, 2017);
- according to the Center for Economic Strategy's research in 2018, 6.3 million people left and did not return to Ukraine in the period 2002–2017 (Center for Economic Strategy, 2018);
- according to the Pew Global Research Center, the number of Ukrainians living abroad is 5.94 million at the end of 2017 ("Origins and Destinations", 2018);
- according to Expat Insider studies, the number of Ukrainian migrants abroad is about 8 million, the largest number of them are in Russia—4.04 million, Canada and Poland—1.2 million, the

United States—940 thousand, Germany—230 thousand persons, and other countries (Expat Insider, 2017).

Eurostat official data show that in 2018 Ukraine became the leader among other countries of the world by the number of persons who have received a residence permit in the EU-28 countries (527,000 applicants, or 16% of all the applicants for a residence permit in the EU-28), ahead of China (6.4%), India (6.1%), Syria (5.4%), Belarus (4.3%), Morocco (3.9%). Poland is the absolute leader among EU-28 countries in the number of residence permits issued to Ukrainians—78.5% of the total number of permits (Eurostat, 2018b). The Czech Republic was the second country by the residence permits issued to Ukrainians—26,979 persons, the third was Hungary—21,793 persons.

The detailed analysis of migration to EU countries has shown that 2/3 (64.7% or 341,000) of Ukrainians who received first residence permits received them for employment reasons, with 80.4% of employment contracts issued in Poland (Eurostat, 2018a). Among the top 10 countries whose citizens received first residence permits in the EU-28, by the reason in 2018, employment was the main reason for Ukrainians (64.7%) (Table 1). The main reason of such situation can be explained by social and economic environment instability, the decline in the level of welfare and the quality of life of the population.

Table 1
Top 10 countries whose citizens received first residence permits in the EU-28, by the reason in 2018

Country	Family	Education	Employment	Other
Ukraine	6.6	11.9	64.7	16.8
China	15.6	67.0	11.1	6.3
India	33.7	23.7	30.6	6.6
Syria	30.1	1.1	0.6	68.3
Belarus	2.7	4.3	19.5	73.5
Morocco	60.9	12.1	19.3	7.6
USA	19.1	33.1	37.0	10.8
Brazil	38.8	28.1	23.5	9.6
Turkey	37.7	29.4	13.8	19.0
Russia	35.1	18.7	20.4	25.8

Note. Adapted from Eurostat. (2018a). Top 10 countries whose citizens received first residence permits in the EU-28, by reason, 2018 (%) [Data file]. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Top_10_countries_whose_citizens_received_first_residence_permits_in_the_EU-28,_by_reason,_2018_(%25) .png&oldid=456569.

The main reasons of the economic migration growth are the opportunities to earn more and better opportunities to realize one's potential. As a result, the migration movement is directed to countries with higher levels of development and quality of life, as well as to the countries with fewer linguistic and cultural barriers, in particular to the EU countries, the USA, Canada, and Russia.

To confirm the made conclusions, we need to analyze the dynamics of the average monthly wage in Ukraine and neighboring European countries. Thus, the average monthly wage in Ukraine is lower than in the closest European neighbors, in particular, twice lower than in Serbia and three times lower than in Poland, Hungary, or the Czech Republic. At the same time, if we compare the statutory minimum wage in Ukraine and the EU countries, we can conclude that it is also almost three times lower.

Thus, in Ukraine, the minimum wage was 4723 UAH or about 171 EUR in January 2020. Minimum wages have also been formally established in 21 EU countries. Nine EU states in the east have a minimum wage between 400–600 Euros per month: Lithuania (607), Romania (466), Latvia (430)

euros), Hungary (487), Croatia (546), Czech Republic (574), Slovakia (580), Estonia (584), and Poland (610). The highest minimum wages are in Luxembourg (2,141), the Netherlands (1,635), Belgium (1,593), Germany (1,584), and France (1,539) (Eurostat, 2020).

Such differentiation in wages becomes a key factor affecting migration volumes in Ukraine. In addition, hostilities in the East of the country have increased domestic displacement, which in turn has intensified the labor market as a result of the increased labor supply. The external migration increase has been connected with a significant decline in household incomes since 2015, a sharp increase in poverty through the economic recession and high inflation. According to the World Bank data, moderate poverty rose to 22% in 2015 (Pyshchulina et al., 2018).

However, despite some economic recovery, it should be noted that the volume of external migration is not decreasing and that in the near future the flow of migrants from Ukraine will only increase. This is also connected with a change in the motivation of migrant workers. According to a sociological study that was conducted by the Kiev International Institute of Sociology in 2018, the tendency "to leave, earn and return" grows into a tendency "to leave, settle and stay" (Mostova & Rachmanin, 2018). The results of the survey show that 30% of the respondents intend to leave Ukraine. The highest percentage of those who intend to leave Ukraine is 55%—young people aged 18-29 years, 44%—people aged 30-39 years, and 33% of people aged 40-50 years. Such results are extremely worrying as they point to the potential threat of losing Ukraine's most promising and able-bodied human capital, which is capable to create significant GDP growth and socio-innovative progress. At the same time, the results of the study also take into account the educational level of potential migrants. So, among those who are ready to go abroad 40% of respondents have higher education, 27.6% have secondary specialized education, 23.2% have secondary education, and 17.8% are with incomplete secondary education. Such results indicate that a large part of public and private investment in education may not be returned as a result of migration processes, and therefore, the state will not receive the expected investment effects. There is also a threat of human capital being transformed into a "zero asset", which means depreciation as a result of the impossibility of realization at the labor market by profession. In modern conditions, education is a product of the knowledge economy, but if it is not used productively in the production sphere or services, but it is transformed into additional factor that makes young people to leave the national economy (Podra et al., 2020).

Scientists state that today's Ukraine is facing the fifth wave of Ukrainian migration, which began in the 2010s and has primarily involved highly educated youth. Such migration is a response to numerous global and national challenges for socio-economic development (Markov, 2015).

Many studies have been conducted in Ukraine to identify the positive and negative effects of migration. Positive effects include migrants' foreign money transfers, which were estimated by the National Bank of Ukraine at approximately \$11 billion or 10% of the country's GDP in 2018. At the same time, it must be understood that the outflow of labor resources abroad can lead to higher inflation and economic growth slowdown. Ukrainian entrepreneurs already complain that they lack skilled workers. The main reason of this situation is connected with migration of Ukrainians to Poland and other countries, especially in the field of construction, industry, agriculture, transport, and this situation is fully confirmed by the results of the above mentioned sociological research. In the long-term period, migration increase will aggravate the demographic problem. According to some estimation, by 2030 there will be two pensioners per one worker, and if migrant workers pay taxes abroad, the state simply will not be able to fulfill its social obligations.

It is noteworthy to mention Savchenko's research (2019) on the estimation of the country's human capital and its losses due to migration. The scientist claims that the human capital of the country is 10 times greater than the country's GDP according to purchasing power parity (PPP). According to estimates in 2019, GDP per capita according to PPP was about \$8,000 in Ukraine; according to the hypothesis, it can be stated that the average cost of one Ukrainian who is an owner of human capital is \$80 thousand, whereas, for example, in the USA it is \$700 thousand (Savchenko, 2019). It is interesting that the average cost of human capital of young Ukrainians aged 15–24 is about twice higher—\$160,000.

One working Ukrainian contributes \$8,000 to the GDP; if they emigrate, then it is logical that the country loses that amount. If in 2018 the number of persons who received residence permits in the EU-28 countries had been 527,000 then the potential current losses of GDP from their emigration for the year could have hypothetically amount to \$4.2 billion or more than 4% of the country's GDP. At the same time, for example, the profit of Poland that issued 431,449 residence permits to the Ukrainians in 2018 could hypothetically amount to almost \$7 billion because human capital in Poland is twice as expensive. That is why it is very useful to know the cost of human capital that Ukraine is losing as a result of migration, and how much recipient countries receive from the Ukrainian labor force. According to the latest research studies, we may include Poland, Russia, the Czech Republic, Hungary, and soon, Germany to the recipient countries.

Conclusion

The conducted research gives us the opportunity to conclude that migration processes in Ukraine are characterized by ambiguous trends and the lack of reliable data on the migration size and volume. At the same time, the analysis of domestic scientific sources devoted to the research of migration processes shows that there is a lack of research of current factors and tendencies of external migration, as well as the estimation of losses of human capital and the GDP of the donor country. In the most domestic works, the socio-economic, demographic, military-political problems that provoke an increase of external migration of the Ukrainians are investigated; the labor conditions of migrant workers abroad, their earnings and the impact on household well-being are researched; the impact of external labor migration on the development of the labor market is analyzed; the growth of external migration of highly skilled personnel and youth has been investigated; features of intellectual migration have been investigated; proposals on migration policy formulation and improvement of labor migration statistics have been developed.

However, despite the existing thorough research, the problems of the estimation of the impact of migration on human capital losses and GDP, the identification of current migration trends among young people related to changes in visa liberalization, education and informational mobility have remained poorly investigated and, therefore, require detailed research. On the base of conducted research, we can conclude that, at the current stage, the growth of migration in Ukraine is related to the structural changes in the economy and at the labor market, economic growth slowdown, low wages and quality of life when compared to the nearest neighbor countries, visa liberalization with EU countries, and access to education abroad.

Most of the active, competitive, and mobile population associate one's own well-being and professional development with external migration. This tendency may impose significant threats to the national economy and human capital development, as in the near future the country may encounter the lack not only of the working specialties that it is already facing, but also the lack of young highly educated specialists as a result of the moving of young people into more developed

countries for education and employment. The calculation of the hypothetical losses caused by human capital migration shows that they have a much greater impact than migrants' foreign money transfers, and that if migration turns into emigration, Ukraine will lose the most valuable thing—people—national human capital, whose education the state has invested a lot into, such investments turned into ordinary expenses, and the added value will be received by the recipient countries which are able to offer better conditions for self-realization, material support and development.

Under such conditions it is necessary to implement a clear and effective migration policy based on accurate and reliable information on migration volumes, scientific approaches; and take into account the current trends in migration flows. Such policies should take into consideration the demographic trends that are characterized by depopulation tendencies in Ukraine, including the negative projections of population decline, partly caused by migration; create favorable conditions for the return of migrants who left earlier; encourage immigration from abroad, etc. Migration policy should not only be a tool that can overcome labor market deficits, but also an instrument capable to provide global development.

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