Currently, Ukraine finds itself in a zone of military conflict, which presents it, like any sovereign entity that once experienced a similar situation, with specific challenges. A military conflict or its escalation inevitably gives rise to a series of circumstances that lead to life threats and the safety of citizens, especially those residing in active combat zones. It includes infrastructure destruction, the dismantling of enterprises, and worsening economic conditions, alongside the destruction of medical facilities and other social infrastructure. In most cases, these challenges lead to a significant intensification of external migration processes, which vary in scale and, in several
instances, impact the overall aspects of the country's life and its citizens. The article aims to study the intricacies of migration processes in Ukraine, specifically their inherent aspects and developmental scenarios. The research results indicate the possibility of the development of several scenarios of migration processes in Ukraine. Some of these scenarios may lead to a long-term migration crisis, resulting in negative consequences. These consequences can complicate or prolong the post-war recovery processes. Among such scenarios are a mass panicked influx of refugees to neighboring countries; widespread resettlement of them to other regions; the formation of migration processes that will have a long-term and irreversible nature. Each of these scenarios can emerge individually or form a subsequent (more complex) version of the preceding scenario. The research confirms that the massive, panicked influx of refugees to neighboring countries and their widespread resettlement can have a temporary nature. However, the formation of migration processes with a long-term and irreversible nature can lead to a range of negative consequences, such as loss of workforce, demographic crisis, reduction in remittances, disruption of family ties, and deterioration of the demographic structure. Considering the obtained results, conducting research into internal factors intensifying migration processes in Ukraine is possible, such as economic circumstances, political changes, conflicts, and other social and cultural factors.

Наразі Україна знаходиться в зоні військового конфлікту, що створює для неї, як для будь-якого державного утворення, що раніше перебувало в схожому становищі, досить специфічні виклики. Зокрема, військовий конфлікт або його загострення неминуче призводять до ряду обставин, через які виникають загрози життю і безпеці громадян (особливо тих, хто проживає в зонах активних бойових дій), відбувається руйнування інфраструктури, знишення підприємств та погіршення економічної ситуації, а також знищення медичних закладів та інших соціальних інфраструктур. У більшості випадків ці виклики призводять до значного посилення процесів зовнішньої міграції, які мають різний масштаб, і в деяких випадках вони впливають на загальні аспекти життя країни та її громадян. Відповідно до вищевикладеного, метою цієї статті є вивчення особливостей міграційних процесів в Україні, зокрема їх характерних аспектів та можливих сценаріїв розвитку. Результати дослідження свідчать про можливість розвитку в Україні кількох сценаріїв міграційних процесів. Деякі з цих сценаріїв можуть викликати довгострокову міграційну кризу, що призводить до
Target setting. Currently, Ukraine finds itself within a military conflict zone, which presents it, like any other sovereign entity that has experienced a similar situation, with distinct challenges. Specifically, drawing from the experiences of armed conflicts such as the one between the armed forces of Azerbaijan and the self-proclaimed Nagorno-Karabakh Republic (Republic of Artsakh) and Armenia in Nagorno-Karabakh (Artsakh), as well as conflicts in Syria, Libya, and even Israel (where these processes have become commonplace), military conflicts or their escalation inevitably give rise to a set of circumstances that compel the population to seek safety, stability, and better opportunities abroad. It is due to the emergence of threats to the lives and security of citizens, especially those residing in active combat zones. Infrastructure destruction, enterprise devastation, worsening economic conditions, and the destruction of medical facilities and other social infrastructure
further amplify these challenges. Furthermore, a military conflict often severely restricts opportunities for education, career advancement, and personal growth, especially for the youth. Consequently, in most cases, these challenges lead to a significant intensification of external migration processes, which vary in scale and, in several instances, impact the overall aspects of the country's life and its citizens. It should be noted that since the onset of Russia's full-scale invasion of Ukraine, 15.3 million citizens have left its borders. More than half of them, 7.7 million, have returned, but 7.6 million Ukrainians are still residing abroad [5]. The outlined state of migration processes can result in various consequences that are unfavorable for the country.

Analysis of research and publications. The issue of intensified migration processes is relevant for all countries located within or adjacent to a military conflict zone. Foreign publications on this topic are actively explored by scholars such as M. Boyd, A. Giddens, V. Zelinsky, O. Stark, P. Stoker, and others. In Ukraine, researchers such as H. Rybak, O. Voronina, O. Kvasha, and others study this problem. Despite the significant contributions of scholars in examining the aspects of intensified migration, new dimensions and challenges constantly emerge, demanding a more detailed exploration of the issue.

The wording of the purposes of article (problem). The article aims to study the intricacies of migration processes in Ukraine, specifically their inherent aspects and developmental scenarios.

The paper main body with full reasoning of academic results. For any country that has experienced military conflict or other crises, the issues related to intensified migration processes have been pertinent. These processes need to be systematically studied and forecasted at the national level, as they can evolve through different scenarios depending on the nature of the conflict, political conditions, international reactions, and other factors. Specifically, according to the author, there are several potential scenarios for the development of migration processes in Ukraine, including those that could trigger a long-term migration crisis, leading to adverse consequences that complicate or prolong post-conflict recovery processes. Among these scenarios (Figure 1): are the mass influx of refugees into neighboring countries; the large-scale
resettlement of refugees to other regions; the emergence of migration processes with long-term and irreversible characteristics. Each scenario can arise independently or evolve as a subsequent (more complex) version of the preceding scenario.

**Figure 1. The potential scenarios for the development of migration processes in Ukraine**

*Source: formed based on: [2; 4]*

The first scenario involves a panic-driven mass influx of refugees into neighboring countries. This scenario has already been realized, in the initial days of the conflict in Ukraine, when long queues formed at border crossing points to European Union countries, primarily to Poland. During this period, up to 150,000 people crossed the border daily (87% of whom were women with children, and 65% of women were of working age, from 18 to 59 years old) [5]. Specifically, according to the data from border checkpoints, from February 24 to March 22, 2022, a total of 857,427 individuals left for countries neighboring Ukraine due to panic [5]. The distribution diagram of the number of people who left due to panic sentiments to neighboring countries is presented in Figure 2. Of course, from this data, it is difficult to accurately determine how many citizens left Ukraine end masse, given the challenges in recording mass departures to
neighboring countries in the first three weeks since the onset of Russia's full-scale invasion.

![Pie chart showing the distribution of people who left Ukraine to neighboring countries from February 24 to March 22, 2022](image)

**Figure 2. Distribution diagram of the number of people who left for countries neighboring Ukraine from February 24 to March 22, 2022**

Note:
* This number also includes those who initially left for Moldova and then from Moldova to Romania.
** This is the highest figure for the number of refugees from Ukraine per capita. However, media reports indicate that only over 100,000 of them remain in the country.
*** According to the Russian government's data, which may be inaccurate; it is possible that they might include individuals forcibly transported from temporarily occupied territories of Ukraine. According to the Cabinet of Ministers of Ukraine's decree dated February 26, 2022, No. 188-r, all border crossing points along the Ukrainian-Russian border have been closed since February 28th.
**** According to the authorities in Belarus; these data might include individuals forcibly transported from temporarily occupied regions of Ukraine; like the situation with Russia, all border crossing points along the Ukrainian-Belarusian border have been closed since February 28th.

Source: formed based on: [1]

However, indicators of such a scenario include: an increased influx of refugees; overcrowded border checkpoints with refugees; heightened pressure on neighboring countries; risks of a humanitarian crisis; a short-term nature of resettlement (assuming a swift normalization of the situation).

The second scenario involves the large-scale resettlement of refugees to other regions. The scenario has already been realized as the military conflict in Ukraine extended into a protracted phase. For a portion of the country's population residing in neighboring countries, which have become transit points, they were compelled to travel to other EU countries, including Germany, Austria, Czech Republic, Italy, France, Spain, Portugal, the Baltic States, and others. The external aspects of such migration
were created by a legislative initiative of the EU Council, which activated the Temporary Protection Directive 2001/55/EC on March 4, 2022. This directive allows individuals who left Ukraine on or after February 24, 2022, to stay in EU countries, except Denmark, for up to 1 year, with the possibility of an extension of up to three years. Individuals, with such status have been granted the right to work, and full access to healthcare, education, and social assistance systems. Additionally, authorities in several European countries are encouraging their populations to provide housing for refugees from Ukraine and are implementing initiatives to cover part of the costs. Since there is no mandatory border control within the EU, estimates of the number of forced migrants from Ukraine in EU countries that do not share a border with Ukraine can be based on the following factors:

1. The number of free transportation tickets issued to refugees from Ukraine for travel within the country.
2. The number of individuals who used buses organized by national authorities, municipalities, or community organizations to travel to these countries from Poland, Slovakia, Romania, or Hungary.
3. Data on registration with various authorities, primarily for obtaining temporary protection, social assistance, and places of temporary accommodation for those in need.

According to estimates by the German Ministry of the Interior, as of March 22, 2022, there were up to 232,000 refugees from Ukraine in the country [3]. Meanwhile, the social infrastructure of Berlin, one of the key cities through which Ukrainians entered Germany, became overwhelmed. As a result, local authorities redirected refugees to other federal states. As of March 22, 2022, the Ministry of the Interior of Austria estimated the number of refugees at 117,000 individuals, noting that approximately 75% of them might eventually travel to other countries [1].

According to mobile operators' data, as of March 22, 2022, over 270,000 refugees from Ukraine arrived in the Czech Republic. Among them, 205,000 individuals received special long-term visas upon arrival to stay in the country; starting from March 22, these visas will be replaced by identity cards for individuals who have received temporary
protection. However, the country's capacities for receiving refugees are becoming exhausted [1].

According to the State Department of Statistics of Lithuania, as of March 24, 2022, over 30,000 individuals arrived in the country [1].

In Portugal, as of March 22, 2022, more than 18,500 refugees from Ukraine have registered for temporary protection [1].

According to estimates from the Ministry of the Interior of Italy, as of March 22, 2022, over 61,000 refugees from Ukraine have arrived in the country [1].

The Ministry of the Interior of France estimates the number of refugees at 26,000, with 10,000 of them already having obtained the status of persons under temporary protection.

According to data from the Border Guard Service of Estonia, as of March 18, 2022, there are over 25,000 refugees from Ukraine in the country, although approximately 5,000 of them will be heading to other countries [1].

The indicators of such a scenario include:
- a flow of refugees outside the country's border checkpoints in the conflict zone;
- intensified efforts in helping (international organizations, NGOs, and states ramp up their efforts to provide humanitarian aid to refugees and contribute to crisis resolution);
- an unclear picture of refugee resettlement; uncertainty about the nature of resettlement (the population remains undecided about returning to their home country).

It should be noted that currently, this scenario is being realized in Ukraine, as the registration of refugees has only begun in many countries, and the procedure and its duration vary in different nations. Therefore, establishing an accurate picture of the resettlement of refugees from Ukraine to other regions is difficult now; a significant number of individuals in various countries may be awaiting the status of temporary protection.

The third scenario involves the migration processes formation that will have a long-term and irreversible nature. It is because the longer the war persists, the more
reasons there are for a significant portion of Ukrainian refugees to choose to stay abroad (employment opportunities, starting businesses, prospects for accessing the European labor market with European education, etc.).

According to the survey results from the Ukrainian Institute for the Future, 23% of those who have left no longer plan to return to Ukraine after the war, and an additional 31% are willing to return if they have job opportunities [6]. Only 36% of Ukrainians say that their relatives have a definite intention to return home [6]. Therefore, after the war, more than a third of those who left due to the conflict abroad may return to Ukraine, while the rest may choose to stay in countries of temporary refuge. Currently, there is a significant risk of Ukraine transitioning to the outlined scenario of migration processes, as evident from the request of the Civil Network OPORA to the Ministry of Foreign Affairs. These processes are ongoing, and as of June 21, 2023, a total of 8,177,000 Ukrainians were already abroad. Compared to the data from February 1, 2023, which is less than 5 months ago, this number has grown by nearly 188,000 individuals (Table 1). Currently, a significant number of Ukrainians are in countries such as Poland – 22%, Germany – 14.6%, and the USA – 11%. Many Ukrainian citizens have also found refuge in the Czech Republic – 7.9%, Italy – 5%, Canada – 4.9%, Spain – 3.4%, and Israel – 2.75%. It's worth noting that only 1 out of 16 Ukrainians abroad is registered with consular services. As of June 21, 2023, there are slightly more than 493,000 such citizens, and 88% of them are adults. Therefore, the exact picture regarding the nature of migration processes is currently unclear.

Table 1. Data on Ukrainians abroad in 2023.

<table>
<thead>
<tr>
<th>The number of Ukrainians abroad.</th>
<th>The date.</th>
<th>The number of refugees who do not plan to return to Ukraine.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.02.2023</td>
<td>7 989 027</td>
<td>20</td>
</tr>
<tr>
<td>29.03.2023</td>
<td>8 054 849</td>
<td><strong>22.3%</strong></td>
</tr>
<tr>
<td>21.06.2023</td>
<td>8 177 638</td>
<td><strong>23%</strong></td>
</tr>
</tbody>
</table>

Source: formed based on data from the Civil Network OPORA of the Ministry of Foreign Affairs, which made inquiries to the State Border Guard Service (DPS) and obtained statistics on border crossings.
The indicators of such a scenario include: a constant flow of refugees from a country within the conflict zone; persistent queues at border crossing points (currently, the State Border Guard Service of Ukraine also notes increased activity at border crossings); intensified efforts towards the adaptation of refugees in host countries; a prolonged nature of migration (a significant portion of refugees do not intend to return to their home country).

Thus, while the massive, panicked influx of refugees to neighboring countries and large-scale resettlement of refugees to other regions might have a temporary nature, the formation of migration processes with long-term and irreversible characteristics leads to the emergence of numerous negative consequences, including labor force depletion; demographic crisis; loss of remittances; disruption of family ties; deterioration of the demographic structure. Therefore, the main challenges and risks that the long-term establishment and irreversible migration processes in Ukraine can create, are illustrated in Figure 3. Let's examine in detail the challenges and risks outlined by us that the establishment of long-term and irreversible migration processes in Ukraine can bring:

**Figure 3. The main challenges and risks that the establishment of long-term and irreversible migration processes in Ukraine**

*Source: formed based on: [2; 4]*

Loss of Workforce. Mass emigration of talented and skilled workers can lead to a decrease in the economic productivity and innovation country's potential.
Demographic Crisis. Mass migration can lead to a decrease in the population, especially in the reproductive age. It can result in a demographic imbalance that negatively impacts the economy and social programs.

Remittance Loss. The departure of families to destination countries of breadwinners can lead to a reduction in the number of individuals sending remittances back to their home country, potentially affecting household incomes and consumer demand, as well as economic growth.

Disruption of Family Bonds. Migration can disrupt family ties and lead to social disintegration, especially when one part of the family stays at home while another part emigrates.

Deterioration of Demographic Structure. In the case of Ukraine, there is a high risk of a decrease in the number of young population and women. About 50% of those who left their homes due to the conflict are women, and over 30% are minors [3]. The percentage of children among Ukrainian refugees abroad is higher than among internally displaced persons within Ukraine. This situation can lead to an increase in the elderly population, posing challenges to pension and healthcare systems.

According to the author's research, it has been found that any migration scenario poses a significant threat primarily to Ukraine itself, which consequently falls under the influence of numerous negative consequences. Interestingly, the impact of the wave of refugees from Ukraine on the economies of host countries has been positive. It is because 70% of the migrants had higher education, enabling them to adapt to new conditions, find employment, and contribute through tax payments until 2023. As a result, considerable fiscal pressure on the budgets of the countries hosting our migrants persists.

IMF experts estimated its short-term impact on EU countries at 30-37 billion euros or 0.19-0.23% of EU GDP [3]. If two-thirds of registered Ukrainians in the EU continue to require support, the total expenditure for these purposes could range from 26.4 billion to 73.3 billion euros annually. However, overall, a positive scenario is anticipated in this context. In particular, the European Central Bank estimates that in the medium term, the labor force participation rate of Ukrainian migrants in the Eurozone will range from
25% to 55%. The labor force in the Eurozone will increase due to the participation of Ukrainians by 0.2-0.8%, equivalent to an absolute increase of 0.3-1.3 million people [3]. It is supported by the Poland experience. According to the Center for Migration Studies at the University of Warsaw, since the beginning of the full-scale war, Ukrainians in Poland have paid 10 billion zlotys (approximately $2.4 billion) in taxes, exceeding the amount of social assistance provided to Ukrainian migrants [3]

Conclusions from this study and prospects for further exploration in this area. The research results have demonstrated that there is currently an intensification of migration processes in Ukraine, which need to be systematically studied and forecasted at the national level. The following conclusions have been drawn:

1. Ukraine could experience several potential scenarios of migration development, including those that could trigger a long-term migration crisis with adverse consequences, complicating or prolonging post-conflict recovery processes. Among such scenarios are a massive influx of refugees into neighboring countries; widespread resettlement of refugees to other regions; and the formation of migration processes with a long-term and irreversible character. Each of these scenarios can emerge independently or develop as a more complex version of the preceding scenario.

2. The first scenario - a panicked mass influx of refugees into neighboring countries - has already been realized during the initial days of the conflict in Ukraine. Long queues formed at border crossing points to European Union countries, primarily Poland. Signs of this scenario include: an increased flow of refugees; overcrowded border points with refugees; heightened pressure on neighboring countries; risks of a humanitarian crisis; a short-term nature of resettlement. The second scenario - a large-scale resettlement of refugees to other regions - is currently being realized in Ukraine, as the registration of refugees in many countries has only just begun, and the procedures and durations vary across different nations. Indicators of this scenario include: a flow of refugees outside the border points of the conflict-affected country; intensified efforts to help; uncertainty about the pattern of refugee resettlement; uncertainty about the nature of resettlement. The third scenario involves the formation of migration processes that will have a long-term and irreversible nature, characterized by the following signs: a
continuous flow of refugees from the conflict-affected country; persistent queues at border crossing points; intensified efforts to adapt refugees in host countries; a prolonged nature of resettlement.

3. It has been demonstrated that Ukraine's transition to the scenario of implementing migration processes with a long-term and irreversible nature will lead to the formation of numerous negative consequences, including loss of workforce; demographic crisis; loss of remittances; disruption of family ties; deterioration of the demographic structure.

Research on migration processes in Ukraine holds significant importance for the development of a national strategy for managing migration flows and ensuring sustainable socio-economic development of the country. The generated results provide opportunities to investigate internal factors that contribute to the intensification of migration processes in Ukraine, such as economic conditions, political changes, conflicts, and other social and cultural factors. This will help identify the key incentives and trends of migration.

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